Ambiente 2

User manual

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User Manual for Coffee Machines

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0. *SAFETY INSTRUCTIONS AND WARNINGS*

△ **Read the information in the user manual carefully before using the machine for the first time. It contains important information on safety, use and service of the machine.**

0.1. *Safety*

This chapter contains important safety information and liability provisions on how to avoid damaging the machine, outlined in this instruction manual. You will also find instructions for conventional use.
This chapter warns you about possible dangers by conventional use of the machine. The information on how to recognize danger enables a safe and correct operation.

It is absolutely crucial to read and understand this chapter before using the machine.

0.2. *For your safety*

Please keep this operating manual in the vicinity of the machine.
The machine will be handed over by the authorized after sales service organization. Please familiarize yourself with the operating manual before you use the machine for the first time. It is crucial that you read the safety notes. Especially important points are marked with a symbol.

Dangers by maloperation or misuse,

- for the operators body and life and for third persons and animals that are in the vicinity of the machine.
- for the machine and other valuables belonging to the operator and third persons.
- that the machine will not run smoothly.

0.2.1. *Safety symbols used in these instructions*

The following symbols occur in conjunction with all important notes on safety in these operating instructions. Follow the instructions to the letter and proceed with particular care in such cases.

- Identification of notes on safety:

Danger!
This note indicates a risk of severe and/or fatal injury if specific procedural rules are violated.
Please take all necessary safety precautions if you see this symbol in the operating instructions.

Danger!
Danger of electric shock!

Attention!
This note warns you of damage to property as well as of financial and statutory penalties (e.g. loss of rights to claim under guarantee, liability suits, etc.).

Environmental protection!
Check the equipment you are using is environmentally friendly.
Comply with the disposal regulations of the country you are in and take advantage of the local opportunities provided for correct waste disposal.
Bear in mind that environmental protection is to everyone's benefit.

Note:
This provides important notes and information.

0.3.   _Liability_

Claims under guarantee and liability claims in the event of injury to people and damage to property cannot be entertained if they are due to one or more of the following causes:

– Unconventional use of the machine
– Improper assembling, start-up, operation and service of the machine
– Operating the machine with defect safety devices or when safety devices are not in place or functioning properly
– Failure to comply with the information in the operating manual regarding storage, assembly, start-up, use and service of the machine
– Inadequate monitoring of worn parts
– Incorrectly undertaken repairs
– Catastrophic damage due to the influence of foreign bodies, accidents, vandalism and *force majeure*

Attention!
The machine must be serviced by an after sales service organization authorized by the manufacturer. The service interval is every **12 months** or after **45,000 servings of coffee**.

The manufacturer accepts claims on the guarantee and/or any liability only and exclusively providing the specified service intervals have been observed. The guarantee only applies if any spare parts used have been ordered from the manufacturer or from a supplier authorized by the manufacturer.

Safety-relevant parts, such as safety valves, boiler, etc., must be replaced and are not allowed to be repaired.

For safety reasons the safety valve must be replaced every 12 months. The steam generator and instant heater must be replaced every 36 months for safety reasons.

0.4. Accident prevention regulations

0.4.1. General

Note:
This chapter describes the safety instructions and accident prevention regulations, which you must adhere to for your own safety and the safety of others.

Before each start-up of the machine:

- Check its operational safety! Carefully perform the checks as described in the individual chapters.
- Abide by the instructions, the safety and accident prevention regulations in this user manual as well as your local legal technical safety and hygiene regulations.
- Immediately rectify any malfunctions, which impair safety.

0.4.2. Unauthorized users

Danger!
Persons who are unfamiliar with the operating manual, children as well as persons under the influence of drugs or medication must not operate the cold milk solution machine unless supervised. In a self-serve establishment, the operator must mark the machines in the beverage and heat retaining plate area in such a way that the customers easily can see it's a danger zone.

0.4.3. Malfunctions

Attention!
Be sure that only authorized and trained personnel work on the machine!

The provisions of the local employers' liability insurance association or other responsible supervisory bodies must be adhered to in all cases!

If malfunctions occur, they must only ever be rectified by trained and authorized specialists!

0.4.4. Electrical energy

Danger!
Work on electrical systems is only allowed to be undertaken by an electrician or by trained personnel under the supervision of an electrician and in accordance with the rules governing electrical engineering work. The appropriate EU directives on low voltage and/or the country's or local safety rules and regulations are in effect.

Danger!
Never touch live parts! Connect only the machine to AC. The voltage must correspond to the value given on the rating plate of the machine. It is strictly forbidden to insert any object into the machine or to open up the housing!
Before servicing, always turn off the main switch to the machine or take the mains plug out of the socket.
Otherwise there is a danger of electric shock!

0.4.5. _Equipment_

Attention!
If any parts of the unit are leaking or if any cables, hoses, screw connections, flanges, valves, seals, etc. have external signs of damage then this must immediately be reported to the authorized specialist staff and rectified by them!

0.4.6. _Environmental protection regulations_

Environmental protection!
When selecting cleaning agents, make sure that they are environmentally safe, bear no health risks, and comply with the local disposal regulations. Use the cleaning agents recommended by the manufacturer.

0.4.7. _Designated use_

The designated use of the coffee machine and the options connected with it are subject only to the contractually agreed mode of use and any existing supplementary agreements, the "general business conditions" of M. Schaerer AG and this user manual.. Any use other than within the limits specified here shall be regarded as not in accordance with the designated use. The manufacturer shall not be liable for any damage resulting from this.

Adherence to the servicing and maintenance intervals stipulated by the manufacturer.

0.4.8. _Technical condition_

The machine must only be operated as designated, if technically safe and if you are fully aware of the safety and danger and follow the appropriate regulations.
If any malfunctions are detected, particularly such which could impair safety, they must immediately be rectified by the appropriate personnel.

0.4.9. _Cleaning agent_

When using a cleaning agent, please refer to the notes and specifications on the cleaning container's label and the specifications and safety data sheet mentioned in chapter 5 "Cleaning" and chapter 9 "Appendix".

0.5.   *Safety notes and rating plates*

Attention!
True safety means being familiar with all the notes on safety. This relates to the nature and location of the hazard and in particular to the safety measures taken to counteract it. Always remain on the alert and be aware of the danger(s).

The machine is supplied with rating plates. Please keep these in readable condition.

CONTENTS

1. *General*

1.1. *Welcome*

Congratulations on purchasing your coffee machine. This ergonomically and cleverly designed machine has a generously sized workspace. Its modern design and the choice of colors available enable it to blend in with any decor. It combines outstanding quality with revolutionary technology and unparalleled ease-of-use.

1.2. *Purpose and structure of this instruction manual*

This user manual will familiarize you with your machines exceptional features. It contains instructions for correct maintenance, a description of its features and technical information.

It is crucial to take note of this information to benefit fully from your coffee machine and to ensure that it functions correctly. Please read through the instruction manual and keep it close to the machine so that you can refer to it if need be (programming, cleaning, troubleshooting, etc.)

1.3. *Key*

Action   This pictogram indicates an "option" that your machine may not have.

Optional feature   ■   This pictogram indicates an "option" that your machine may not have.

Notes   ◆   This pictogram stands for "information". The text is designed as an aid to comprehension and complements the function descriptions.

Italics   Special attention should be paid to texts indicated by a pictogram and written in italics.

PTO   Turn over, more information on this subject on the next page.
This sign appears on the bottom right-hand side of pages.

Display messages

Select product	
12:00	15.10.2001
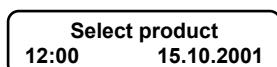
Successive messages, e.g. generated by pressing a button, are shown immediately after or next to the respective instructions.

Chip cards

The card name (e.g. CHEF, SAVE DATA, etc.) is written in capital letters. You will also find an illustration of the chip cards to the left of the respective texts.
The chip card should be correctly inserted into the machine.

2. *Contents*

2. __DESCRIPTION__

2.1. _Coffee machine data_

2.1.1. _Overview of the coffee machine_
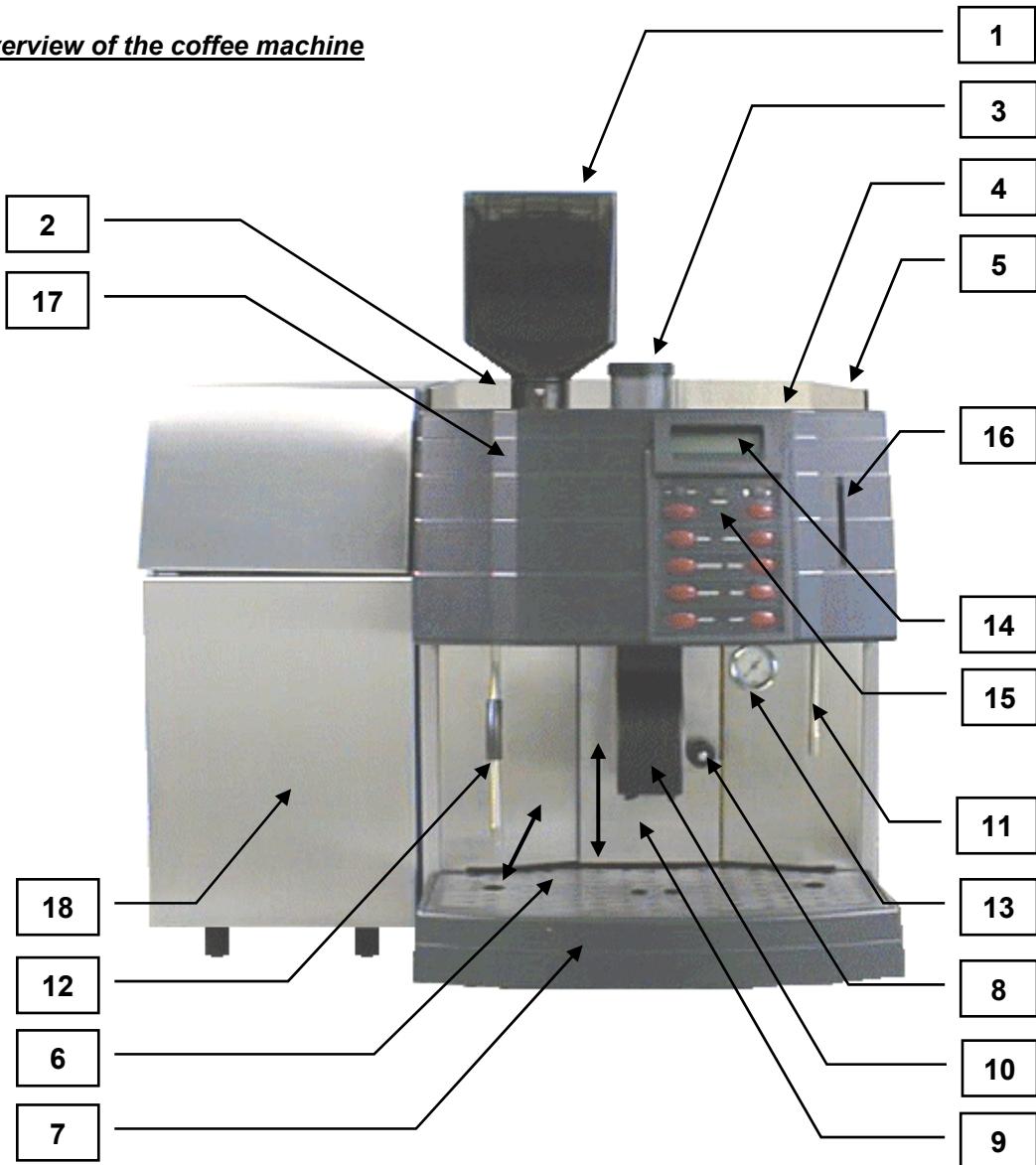
1. Mill 1 coffee bean container (standard coffee mill)
2. Sliding hatch for bean container
3. Opening for decaffeinated coffee powder and cleaning tablets
4. Cup hotplate
5. Surround
6. Drainer
7. Drip tray with/without outlet
8. Height blocking button
9. Drawer for coffee grouts (push outlet up to top)
10. Adjustable coffee outlet ➔ min. ⇩ 80 mm, max. ⇧ 180 mm (dispenser unit)
11. Steam outlet (only with refrigerator option)
12. Hot water outlet
13. Infusion pressure indicator
14. 2-line illuminated display
15. User panel
16. Chip card slot
17. Service door
18. ■ Refrigerator for milk (optional feature)
X ■ Right-hand coffee bean container/mill (optional feature)

2.1.2. Installation chart of the coffee machine

Folgende Installationen müssen vorhanden sein:

1 Hauptschalter (allpolig vom Netz getrennt mit min.3mm Kontaktöffnung)
2 Anschluss G1/2"(Innengewinde)
3 Rückschlagventil SVGW geprüft
4 Filter
5 Druckreduzierung auf 3 bar eingestellt
6 Absperrventil G1/2"
7 Wasseranschluss G1/2"
8 Standrohr ø50 mm,200 mm lang
9 Bundbüchse ø48 mm
10 Siphon
11 Ablauf (Kunststoff) ø56 mm
12 Oeffnung für Zu- und Ableitungen ø80 - ø100 mm
   Idealhärte des Wassers:12 f° 6-8 °d
   Im übrigen verweisen wir auf die örtlichen Vorschriften.

Modelle	Anschlusswert	
15 SD-II	9.2kW/16A	400VAC/50/60Hz (3PNE)
1 SD-II Dampf	6.2kW/16A	400VAC/50/60Hz (3PNE)

Baukonstruktionsänderungen vorbehalten!

Bauseitige Installation

15 SD-II & Frigo

scharer CAD   3.8.6136

Achtung: CAD-Zeichnung! Änderungen nur auf CAD-System vornehmen

Strom
Abwasser
Frischwasser 6-8°d deutsche Härte
Buffetinstallation

2.1.3. *Purpose of the coffee machine*

The coffee machine will supply the following beverages:

- Coffee
- Ristretto
- Espresso coffee
- Decaffeinated coffee
- Pot of coffee
- Macchiato
- Steam for frothing milk
- Hot water for tea
- Cappuccino
- ■ Milk coffee
- ■ Latté
- ■ Hot milk
- ■ Milk foam

2.1.4. *Serial data of the coffee machine*

For warranty purposes or in the event of problems, please fill in the data on the machines serial plate in the box provided below. The serial plate is inside the machine above the coffee grouts drawer.

Serial plate

schaerer

Instr. Nr.	4.6.9550
Typ	15 SO 2
Serie Nr.	500000
NENNDRUCK	12 bar
LEISTUNG	9200 W
SPANNUNG	400VAC50/60Hz

Pull out coffee grouts drawer
(sideways, on inside)

Inst. no   ....
Type: ....
Serial number: ....
Nominal pressure: ....bar
Capacity: ………………...............Watt
Voltage: ....VAC ....Hz

2.2. *Operating data of the coffee machine*

2.2.1. *Characteristics of the coffee machine*

The coffee machine is capable of supplying 100-120 cups of coffee or tea per hour.

2.2.2. *Dimensions of the coffee machine*

Width	420 mm	
Height	755 mm	
Depth	510 mm	
Outlet height	80-180 mm	
Net weight	45 kg	(15 SO-2)

Subject to modification!

2.2.3. *Power supply*

Model	*Connected load*			
1 SO-2 steam	6.2 kW / 16 A	400 V AC (3 PNE)	50/60 Hz
1 SO-2 tea	6.2 kW / 16 A	400 V AC (3 PNE)	50/60 Hz
15 SO-2	9.2 kW / 16 A	400 V AC (3 PNE)	50/60 Hz

For special voltages ask the manufacturer or one of your authorized after sales service people.

Danger!

- **An authorized specialist must install or inspect the installation!**

- **The phase must be fuse-protected with 16A.**

- Never use a machine with a defect mains cable. Let an authorized specialist replace a defect mains cable or plug immediately.
- Use only an extension cord when you are sure that it is in perfect condition. The extension cord must have a minimum cross section of 1.5 mm² for each core and a **permitted** 5 pole plug (PNE) for **16 A**.
- Mains cable and/or extension cords must be placed so that no one can fall over them. Don't crush or pull the cords around corners and sharp edges and don't let them hang exposed in the room. Don't place the cords on warm surfaces and protect them from oil and harsh cleaning agents.
- Never lift or pull the machine by the mains cable. Never pull the plug by the mains cable or extension cord out of the socket. Never touch cord and plug with wet hands. Never insert a wet plug in the socket.

Attention!
Mains connection according to local regulations. The voltage on the rating plate must correspond to the local mains voltage.

2.2.4. *Water connection/outlet*

If the coffee machine is to be connected to a newly installed water supply, the pipe and intake hose should be rinsed thoroughly to prevent any dirt particles from entering the machine.
The machine must be connected to a safe water supply with supply valve. Connect the pressure hose to the pressure reducer (set to 3 bar) on the tap using the G ½" screw fitting.
If the machine is connected to a water outlet, the supplied fixed-temperature outlet hose should be connected to the drainer and siphon.

Note:
The ideal water hardness is **6-8°dWH** (standard German hardness) or **8-12°fWH** (standard French hardness). Chlorine content should not exceed **100 mg per liter**. The ideal **pH value is 7.** For all other values, local regulations apply.

2.3. *Equipment and accessories of the coffee machine*

2.3.1. *Models of the coffee machine*

This coffee machine exists in three models:

1 SO-2	= Coffee
1 SO-2 steam	= Coffee and steam
1 SO-2 tea	= Coffee and hot water
15 SO-2	= Coffee, hot water and steam

2.3.2. *Standard accessories of the coffee machine (standard delivery package)*

Article	Ref. no.		
- 1 "CHEF" chip card	063930		
- 1 "SAVE DATA Plus"chip card	063929	from Version	1.05
- 1 "SAVE DATA A" chip card	063933	to Version	1.04
- 1 "SAVE DATA B" chip card	063920	to Version	1.04
- 1 spoon	067111		
- 1 pack cleaning tablets	065221		
- 1 instruction manual	-		
- 2 joints	064249		
- 1 nipple (G1/2")	068179		
- 1 brush	067409-A		
- 1 reinforced hose	067766		
- 1 wallet for 2 chip cards	065278		
- 1 outlet hose without optional refrigerator	063353		
- 1 outlet hose with optional refrigerator	063345		

2.3.3. *Special accessories of the coffee machine (not in standard delivery package)*

Article	Ref. no.

- Supplementary chip cards:

"PROGRAM"	063941
"KEY BLOCK"	063931
"COFFEE TEST"	063932
"MANAGER"	063940
"LOAD"	063937
"MASTER"	063934
"WAITER"	063936
"COPY WAITER"	063942
"PRINT"	063943
"MONEY A-J"	063921-063929
"Cup"	063939
"Credit-Look"	063946
"Clean" (for cleaning card reader)	063945

2.3.4. *Optional features for the coffee machine*

Note:
For further details of the optional features described below, refer to chapter 7 (Optional Features) or ask your licensed dealer.

- Refrigerator for keeping milk cool

- Waiter Account and MONEY payment systems

- Payment systems such as coffee-bar systems (CSI = Coffee Standard Interface), cash payment systems (CCI = Coffee Credit Interface, e.g. coin and token slots)

- Chip card loader

- Alarm functions

- CPT cappuccino unit

- Special steam

- 2nd mill (DUO mill)

- Water softener (Filados / Brita)

- Quick cup warmer

- Cup warmer

- Water tank for trolley version (operates without running water supply)

2.4. *Special settings*

Note:
The settings described in this section can only be programmed by the service engineer.

2.4.1. *Time settings*

Service reminder
After a certain period or a certain number of beverages, a reminder is displayed that it is time to have the machine serviced.

24-hour display
The time can be shown either in 24-hour or 12-hour format.
(00:00-24:00 or 00:00am-12:00am / 00:01pm-12:00pm)

Timer
This enables the coffee machine to be programmed to come on on the days it is used. In this case, it switches itself on automatically.

2.4.2. *Cleaning settings*

Cleaning reminder
If the cleaning reminder is activated, drinks will be dispensed for one hour after the message appears. If the coffee machine is not cleaned during this time, the coffee machine blocks. Specify the number of products that may be dispensed and the time. The cleaning reminder is suppressed in case a cleaning takes place less than two hours previously.

Obligatory cleaning
With this function, up to 50 beverages can be dispensed once the message is displayed. After this, the coffee machine blocks.

Manual cleaning
This enables the cleaning procedure to be shortened (no need for manual cleaning, except for emptying the grouts drawer.

Sample coffee
A sample coffee is automatically served and the rinsing program run when the coffee machine is switched on if the coffee machine was cleaned before it was turned off.

24H sample coffee
A sample coffee is automatically served immediately after the coffee machine is cleaned.

Rinse before switch-off
The rinsing program is run before the coffee machine is switched off.

2.4.3. *Miscellaneous*

Product mix
Several different products can be pre-selected.

Lock/unlock CHEF card
The coffee machine can only be switched on and off with the CHEF card.

DECAF key manual dosing
The DECAF key can be programmed to dispense decaffeinated coffee powder.

Automatic piston rinse
The piston is rinsed at the end of the specified period. When a product is selected, the "automatic piston rinse" time is reset.

2.5.   *User panel of the coffee machine*

Two-line illuminated LCD display

Cleaning and Plus key with LED

Shift key with LED

On/off LED

Standby key on / off

Minus and STOP key with LED

DECAF key with LED

Random product selection keys with LED and product symbol

Chip card slot recognizes the function of the respective chip cards
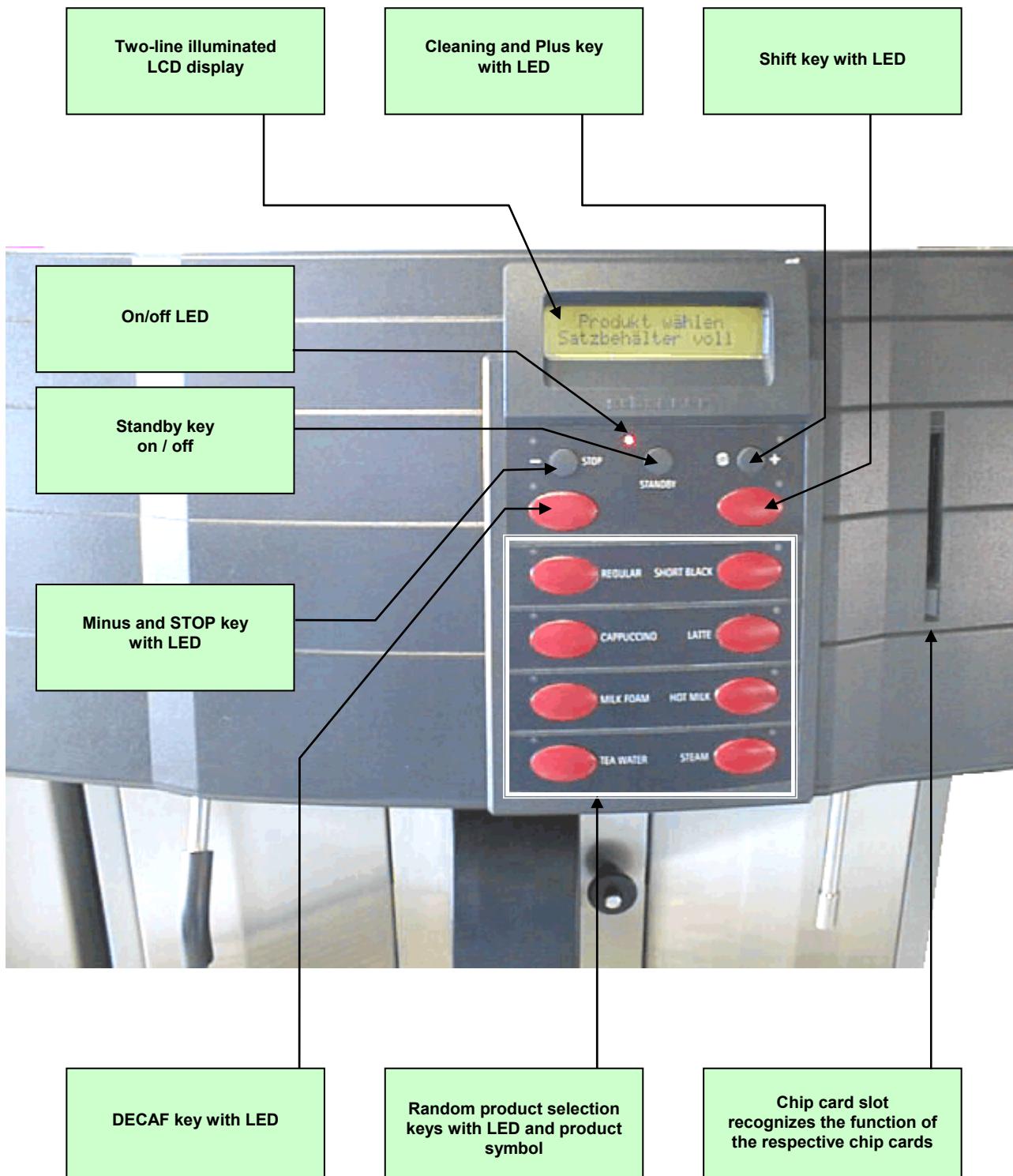
2.6. *Chip card functions*

Attention!

Chip cards should be handled with the same care as bank cards (do not bend, do not use as "door openers", etc.)

This coffee machine features the latest control technology. To facilitate programming, various program groups have been created which can be programmed directly with the aid of the respective chip cards. Using these chip cards protects the program groups from misuse. The service engineer can provide extra protection for the most important chip cards, such as the CHEF, PROGRAM, LOAD and MANAGER cards for example, by programming various security levels.

The four available programmable security levels:

Security level 0 **Customer ref.**
The control system automatically checks whether the card bears the correct customer reference number.

Security level 1 **Customer ref. / PIN code**
Verifies the customer reference and inputs a PIN code before the card is read.

Security level 2 **Customer ref. / Card ref.**
Verifies the customer reference number.
The *card reference number is also entered in the internal chip card table. This makes it impossible to use any other card, as the system authorizes one card only per program group.

Security level 3 **Customer ref. / Card ref. / PIN code**
The highest security level, combining levels 1 and 2.

* Every chip card bears a manufacturer-supplied incremental card reference number.

If a NEW chip card is inserted into the card reader with security level 1 or 3, any number, including 000, may be entered as the PIN code. This value is then transferred to the card and considered as the current code.

2.6.1. *Standard chip cards*

The CHEF card enables the principal settings or modifications to be undertaken for routine operation:
- Reads the daily counter for the total number of coffees and teas and the total per key.
- Resets counter
- Change quantity of coffee dispensed
- Change quantity of coffee ground
- Change switch-on and off times
- Change time
- Change date
- Change PIN code (Personal Identification Number)
- Lock/unlock function - the service engineer can program the coffee machine so that it can only be switched on and off with the CHEF card.
- The CHEF card can be used to eliminate the "service wanted" message
  (If released by the service technician.)

The SAVE DATA card enables the machine settings to be saved or data from the card to be transferred to the machine.
The following save cards are needed for the coffee machine:
- The "SAVE DATA A"   card saves level 1 data   to Version   1.04
- The "SAVE DATA B"   card saves level 2 data   to Version   1.04
- The "SAVE DATA Plus" card saves all data (levels 1 + 2) from Version 1.05

2.6.2. Chip card options for normal operating mode

In normal operating mode, the PROGRAM card is used for statistical purposes. If a payment system is installed, the requisite settings are made using the PROGRAM card:
- Switch payment system ON/OFF
- Switch price levels 1 + 2 (automatic coffee machines on, off and switchover time)
- Change product price and article number
- Display MONEY sales
- Reset MONEY sales
- Display Master sales
- Reset Master sales
- Log on MASTER card
- Delete MASTER card table
- Change PROGRAM card PIN code

The KEY BLOCK card is used to disable either individual or all product keys simultaneously for all uses, or to enable them.

The COFFEE TEST card is used to check the ground coffee (quantity dispensed and fineness) and to change the quantity ground.

2.6.3. Chip cards for payment mode

MONEY cards, from A-J, enable a scale of prices to be used in conjunction with the MONEY chip card system. The amount of coffee ground and dispensed can be individually programmed on each MONEY card for all coffee products.

The CUP card queries and adds up the counter levels for each individual product without resetting them.

The CREDIT LOCK card switches between normal operating mode and payment mode.

3. INSTALLATION

3.1. First-time installation

The coffee machine must be installed and initialized by a licensed after sales service agent.

Note:
Once the coffee machine is installed and after subsequent changes, it is important to save the new data on the SAVE DATA card provided. The SAVE DATA cards should be on hand at all times, including for the service engineer.

3.2. Location

Danger!
Set up the apparatus on a stable base so no one can tip the machine over or injure themselves on it. Do not place the machine on hot surfaces or near to an oven.

Not suitable for outdoor use. Never expose the machine to outside weather, e.g. rain, snow, frost etc.

Danger!
Do not operate the machine in large catering kitchens without the express written approval of the after sales service authorized by the manufacturer.

Attention!
The ambient temperature must remain between 10 °C and 40 °C.
Protect the machine from frost. If the machine has been exposed to minus temperatures, contact an after sales service organization, authorized by the manufacturer, before using it.

3.3. Prerequisites for installing the coffee machine

Note:
The power and water supplies must be brought to within one meter of the place where the coffee machine is to be installed.

Pay attention to the technical data when installing/connecting up the machine.

Install the machine on a smooth, solid base away from heat, damp and steam.

Leave a space (above and at the side) for servicing.
(Ideally leave about 35 cm free on one side.)

Install the machine at least 1 cm away from the wall (for ventilation).
(Ideally leave 10 cm.)

Local regulations relating to kitchens must be complied with.

■   **Additional hole required for "Container ejection" optional feature**

Buffet and counter version

■ **Refrigerator (optional feature)**

4. *__Contents__*

4. __USER INSTRUCTIONS__

_4.1._   _Introduction_

This chapter describes the basic functions of the coffee machine. Read them attentively to ensure easy and problem-free routine operation.

Note:
As a prerequisite for a smooth operation of the milk solution machine, it must be installed and programmed by an after sales service organization, authorized by the manufacturer.

Danger!
The machine must only be operated by qualified personnel!

Danger of scalding and burns!
- **Never work underneath the beverage outlet area while the products are being served. The liquids coming from the machine are hot! To protect yourself from burns, once you have used the outlet buttons, keep your hands and other parts of your body away from the beverage outlet area**
- **Don't touch any hot surfaces, such as the heat retaining plate. Always use the appropriate handles and buttons (danger of burns)!**
- **When an outlet button has been pressed, the machine will not stop after the cup is removed from the beverage outlet area. The brewing process that has already started (also for selected products) will continue until it's finished.**
- **The machine does not stop if the coffee pot or cup is removed from the dispensing area after you have pressed a dispense button. While coffee is being made, never put fingers into the brewing unit!**

Danger!
Switch off the coffee machine if you accidentally pour liquid over the cup hotplate (risk of short-circuit)!
🗇 **Inform the after sales service!**

Attention!
Never put anything other than roast coffee beans into the coffee bean container.

Noise emissions!
Noise emission levels can be up to 70 dB (A), particular when you are heating up beverages.

4.2.   *Operating modes of the coffee machine*

The coffee machine has three different operating modes:

select product
12:00   15.10.2001
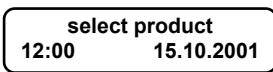
If this message is displayed when the coffee machine is ready for operation, it is in normal operating mode, i.e. the corresponding product will be freshly prepared when the key is pressed.

credit operation
12:00   15.10.2001

This message is displayed if the coffee machine has an internal or external payment system installed.

<< Standby >>
12:00   15.10.2001

The coffee machine is switched off but is still connected to the mains supply

Note:
When it is switched on again, it needs a short time to reach the programmed operating temperature.

4.3.   *Messages displayed when coffee machine is ready for operation*

Note:
These messages only appear when the coffee machine is idle, i.e. when no beverages are being served. They do not block the dispensing process.

...
container full

Empty the grouts container. Up to five more coffees can be made; after that, the coffee machine blocks.

...
heating up

The temperature of the instantaneous water heater has fallen to more than 10°C below the programmed value. Please wait until the machine has warmed up again before ordering the next product.

...
clean machine

Launch the cleaning program 🗐 see chapter 5.3.

credit ####.##
too little credit

Insufficient credit.

select product
milk empty
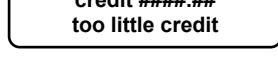
The milk container is empty (optional feature).

4.4. Routine operation

4.4.1. Making the coffee machine ready for operation

1. Check the following points before switching on the coffee machine:
   - That it is connected to the mains power supply
   - That the water supply is turned on
   - The coffee bean container is full

Danger!
DO NOT reach into the mill when refilling the coffee container(s) and DO NOT press any of the product buttons when refilling!

   - The grouts container is empty
   - The (unlit) display shows the following message is displayed:

   ```
   <<Standby>>
   12:00     15.10.2001
   ```

2. Press **[⊙]** key ➔ All of the buttons light up briefly.
   The following messages are displayed:

   ```
   selection locked
   heating up
   ```
   Once the operating temperature has been attained:
   ```
   select product
   12:00          15.10.2001
   ```

   ◆ For coffee machines with a fresh water tank, see chapter 5.5.
   ◆ Depending on how the coffee machine is programmed, another message may be displayed when the coffee machine is ready for operation, especially if payment mode is activated.

Note:
If the cleaning program was run before the coffee machine was switched off, a rinse cycle is automatically run when the coffee machine is re-initialized and, if programmed to do so, a sample coffee is served. (Place a cup under the coffee outlet.)

   ◆ If the lock/unlock function is activated, the CHEF card must be inserted into the card reader in order to switch the coffee machine on and off.

4.4.2. Prepare coffee product

   ◆ If your coffee machine has a payment system installed and enabled, please read the instructions in chapter 6.0.
   ◆ Coffee and hot water are available simultaneously.
   ◆ Pressing the **[⊙]** key deselects the pre-selected product (only if payment is disabled).
   ◆ Holding down the **[⊙]** key for more than two seconds interrupts all of the currently active products (coffee products only during the infusion phase).

1. Place cup under the coffee outlet (the height of the outlet can be adjusted to the cup).

Danger!
Do not adjust the height of the outlet when the coffee outlet is dispensing (danger of scalding)!

2. Press the desired product key
3. The LED of the selected key lights up red and the following message is displayed:

   ```
   select product
   choice  1   supply   1
   ```

4. The coffee is freshly prepared and served automatically.

◆ Depending on the programming:
   - The keys can be pre-selected in any order as many times as required.
   - Other messages may appear (error messages).
◆ The **[⊖]** key cancels pre-selected products. Cancellation of pre-selected products is not possible in payment mode.

4.4.2.1. *Prepare coffee products using second level*

◆ If your coffee machine has a second level installed and enabled, the product keys can be used to pre-select two different products.
   Level 1: Normal use
   Level 2: See below

1. Place cup under the coffee outlet (the height of the outlet can be adjusted to the cup).

Danger!
Do not adjust the height of the outlet when the coffee outlet is dispensing (danger of scalding)!

2. Press **[2*]** = shift key.
3. Press the desired product key.
4. The LED of the selected key lights up red and the following message is displayed:

```
select product
choice 1   supply 1
```

5. The coffee is freshly prepared and served automatically.

◆ Depending on the programming:
   - The keys can be pre-selected in any order as many times as required.
   - Other messages may appear (error messages).
◆ Coffee and hot water are available simultaneously.
◆ Pressing the **[stop]** key deselects the pre-selected product (only if payment is disabled).
◆ Holding down the **[stop]** key for more than two seconds interrupts all of the currently active products (coffee products only during the infusion phase).

4.4.3. *Decaffeinated coffee*

4.4.3.1. *Prepare decaffeinated coffee manually*

◆ The coffee machine is either programmed to serve decaffeinated coffee ex factory, or this feature may be enabled by the service engineer.

Attention!
Use ground coffee only.

1. Place cup under the coffee outlet (the height of the outlet can be adjusted to the cup).
2. Press **[DECAF]** key.
3. Press the corresponding coffee product key.
   The following message is displayed:

```
select product
coffee powder
```

4. Place coffee powder in funnel.
5. Press the flashing red **[⊖]** key.
6. The coffee is prepared and served.

4.4.3.2. Prepare decaffeinated coffee using the coffee mill and DECAF key

◆ The coffee machine is either programmed to prepare decaffeinated coffee via a coffee mill ex factory, or this feature may be enabled by the service engineer.

1. Place cup under the coffee outlet (the height of the outlet can be adjusted to the cup)
2. Press **[DECAF]** key.
3. Press the corresponding coffee product key.
   The following message is displayed:

> **select product**
> **coffee powder**

4. Place powder in funnel.
5. Press **[⊖]** key (LED blinks).

Note:
Pressing the **[DECAF]** key causes the decaffeinated coffee to be taken out of the *right-hand* or *left-hand coffee mill* and ground. The same keys are thus used to make both decaffeinated and non-decaffeinated coffee, but two different mills come into play.

4.4.3.3. Prepare decaffeinated coffee using the coffee mill without the DECAF key

1. Place cup under the coffee outlet (the height of the outlet can be adjusted to the cup)
2. Press the corresponding coffee product key.
   The following message is displayed

> **select product**
> **choice 1   supply   1**

Note:
The caffeine-free bean coffee is automatically drawn in by the programmed coffee grinder and ground.
With this program procedure, separate keys must be set for decaffeinated products.

4.4.4. Prepare tea

1. Place tea glass under the hot water outlet.

Danger!
Do not grip the hot water outlet (danger of scalding)!

2. Press the **[▧]** key. The following message is displayed:

> **select product**
> **12:00   15.10.2001**

3. The hot water is served. If the programmed temperature has not been reached, the following message is displayed:

> **select product**
> **heating tea**

Coffee and tea (as well as steam if fitted) are available simultaneously.

◆ Pressing the **[▧]** key stops the hot water prematurely.
◆ Hot water cannot be pre-selected.
◆ Once the coffee machine has been switched off, no hot water is available until the system has warmed up.

4.4.5. _Heat beverage_

⚠ **Danger!**
Point the steam pipe towards the drip tray!

1. Briefly press the **[⚲]** key twice in rapid succession to remove condensation from the pipe (only possible in start/stop mode).
2. Immerse the steam pipe into the beverage until it touches the bottom of the recipient.
3. Press the **[⚲]** key again:

```
     select product
12:00        15.10.2001
```
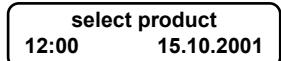
Steam is produced.

4. Heat up contents by raising and lowering the recipient (the deeper the sound, the higher the temperature). The steam is automatically switched off once the preset time runs out.
5. Repeat steps 3 and 4 until the required temperature is attained.
6. Put recipient to one side.

⚠ **Danger!**
Only use the rubber handle to move the steam pipe. Take care the cleaning cloth does not slip out of your hand. Point the steam pipe towards the drip tray!

7. Clean the steam pipe with a damp cloth.
8. Press the **[⚲]** key twice in rapid succession again (=clean steam pipe).

◆ Pressing the **[⚲]** key again prematurely terminates steam output if the coffee machine is in start/stop mode.
◆ The steam pipe must be kept immersed while steam is emitted.
◆ The beverage may spit when it reaches boiling point.
◆ If steam is drawn off in payment mode, pressing the cleaning key immediately after heating will trigger a jet of steam to clean the pipe.
◆ Steam cannot be pre-selected.
◆ When the coffee machine is switched on, no steam can be drawn off until the system has warmed up

■ *Optional feature:*

■ Option of automatic steam cut-out by programmed temperature (automatic steam cut-out).
(See chapter 7.7.)

4.4.6. _Prepare hot milk (only with optional refrigerator)_

⚠ **Attention!**
Do not use unpasteurized milk! Only use pasteurized or UHT milk!
Perform a rinsing operation every time you serve milk, unless automatic rinsing has been preprogrammed!

■ *Optional feature:*

1. Place an empty cup under the outlet.
2. Select milk key.

```
     select product
12:00        15.10.2001
```
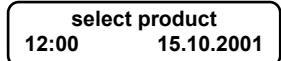
3. Product is served.

◆ Pressing the key again turns milk off prematurely if the coffee machine is in start/stop mode.
◆ **Hot milk _cannot_ be pre-selected.**

Note:
The milk in the refrigerator **must** have a temperature of 3°C-5°C in order for perfect product quality to be guaranteed. Do not refill with milk, which temperature exceeds 6°C!

4.4.7. *Prepare milk foam (only with optional refrigerator)*

Attention!
Do not use unpasteurized milk! Only use pasteurized or UHT milk!
Perform a rinsing operation every time you serve milk, unless automatic rinsing has been pre-programmed!

■ *Optional feature:*

1. Place the coffee or other recipient under the outlet.
2. Select milk foam key.

> **select product**
> **12:00   15.10.2001**

3. Product is served.

◆ Pressing the key again turns milk foam off prematurely if the coffee machine is in start/stop mode.
◆ **Milk foam cannot be pre-selected.**

Note:
The milk in the refrigerator **must** have a temperature of 3°C-5°C in order for perfect product quality to be guaranteed.

4.4.8. *Prepare Cappuccino Magic, milk coffee, Latté or Macchiato automatically (with optio. refrigera.)*

■ *Optional feature:*

◆ If your coffee machine has a payment system installed and enabled, please read the instructions in chapter 6.0.
◆ Coffee and hot water are available simultaneously.
◆ Pressing the **[⊙]** key deselects the pre-selected product (only if payment is disabled).
◆ Holding down the **[⊙]** key for more than two seconds interrupts all of the currently active products (coffee products only during the infusion phase).

1. Place cup under the coffee outlet (the height of the outlet can be adjusted to the cup).
2. Press the desired product key
3. The LED of the selected key lights up red and the following message is displayed:

> **select product**
> **choice 1   supply   1**

4. The coffee is freshly prepared and served automatically.

◆ Depending on the programming:
   - The keys can be pre-selected in any order as often as wished.
   - Other messages may appear (error messages).
◆ The **[⊙]** key cancels pre-selected products..
◆ Cancellation of pre-selected products is not possible in payment mode.
◆ The milk in the refrigerator must have a temperature of 3°C-5°C in order for perfect quality to be guaranteed.

4.4.9. *Terminating operation / Switching the coffee machine off*

If the coffee machine is not used for longer periods, e.g. nights, it can be switched to stand-by. In this mode the boilers are not kept at temperature and the dispensing of beverages is not possible. But the refrigerator keeps cooling.

1. Do the daily cleaning:
   ☐ Chapter 5, "Cleaning"
2. Switch the coffee machine to stand-by by keeping the [⊙] key pressed down for about three seconds until the display light goes out. Then release the key ➔ the display shows:

```
        <<Standby>>
12:00           15.10.2001
```

4.4.10. *Longer idle time:*

If the coffee machine is not used for several weeks or months (e.g. at the end of the season), the coffee machine and probably also the refrigerator should be switched off.

Several weeks (e.g. business vacation):

1. Do the weekly cleaning.
   ☐ Chapter 5, "Cleaning"
   If the refrigerator option is installed, defrost the refrigerator.
   ☐ Chapter 5.5, "Defrosting the Refrigerator"
2. Close the fresh water supply tap.
3. Pull the mains plug from the socket, respectively cut off the power supply with the master switch.
   If the refrigerator option is installed turn the thermostat regulator anti-clockwise until the end. To avoid mould growth and unpleasant smells in the refrigerator, empty it completely, clean the interior space and the door insulation and leave the door open a little. If necessary, place something to prevent the door closing.
   ☐ Chapter 7.1.5.2, "Set temperature at the refrigerator", page 7-7

The picture shows the refrigerator with door open.

Several months (e.g. end of season)

1. Do steps 1 to 3 as described above for "Several weeks."
2. Remove the coffee beans from the bean container (vacuum cleaner)..
3. On premises where the temperature can drop below zero, the boilers have to be emptied. For this you should call in a service technician authorized by the manufacturer..

Attention!
Be sure when operation restarts the first thing is to reopen the fresh water supply, and only then should the power supply be restored.

4.4.11.   Disassembly

4.4.11.1.   Disassembly of the coffee machine

Please contact an after sales service organization, authorized by the manufacturer.

4.4.11.2.   Disassembly of the refrigerator

Please contact an after sales service organization, authorized by the manufacturer.

4.5. Programming using standard chip cards

The CHEF and SAVE DATA cards are part of the standard delivery package. They provide a simple means of changing settings or retrieving information from the coffee machine.

◆ For all the functions described in this chapter, it is assumed that the coffee machine is ready for routine operation in normal operating mode.
◆ Keep the chip cards in a safe place where only authorized persons have access to them.
◆ When a chip card is in the card reader, no products can be selected.

4.5.1. CHEF card

The CHEF card enables the principal settings or modifications to be undertaken for routine operation.

4.5.1.1. Menu

- Read daily counter for coffees and teas per key.
- Reset product counter
- Read monthly counter
- Change quantity of product dispensed
- Change quantity of coffee ground
- Change on/off timer
- Change time
- Change date
- Change PIN code
- Delete the "service wanted" message

◆ At the end of every menu:
Press [⊕] or [⊖] key to reach the next menu or remove CHEF card ➜ coffee machine
ready in normal operating mode.

4.5.1.2. Read product counter for coffees and teas per key

1. Insert CHEF card into the card reader.
2. Press [⊕] or [⊖] until the following menu is displayed:

    | total prod. counter |
    | K: xxx T:xxx |

    = Displayed value is the total of all coffee and tea products.

3. Individual product totals can be read successively by pressing the respective product keys.

    | total prod. counter |
    | quantity   #### |

    = Displayed value is the total of the selected product key.

4. Press [DECAF] key to return to message displayed in no. 2.

   Press [⊕] or [⊖] key to reach next menu,

   or remove CHEF card ➜ coffee machine ready in normal operating mode.

4.5.1.3. *Reset counter*

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

   delete counter
   execute ` Decaf `

3. Press **[DECAF]** key:

   delete counter
   delete ? ` Decaf `

4. Press **[DECAF]** key:

   delete counter
   .. Done ..

   total prod. counter
   K: xxx   T: xxx

5. Press **[⊕]** or **[⊖]** key to reach next menu, remove CHEF card ➔ coffee machine ready in normal operating mode.

4.5.1.4. *Change quantity of coffee ground (coffee powder)*

This function determines the amount of coffee powder that is dispensed for each individual coffee product.

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

   change grind quantity
   select product

3. Press the key for the relevant product.

   change grind quanti.
   grind quantity   +0%

4. Press the **[⊕]** or **[⊖]** to raise or lower the amount of coffee powder dispensed by +/- percent.
5. Press **[DECAF]** key to confirm the setting or modification.
6. The new setting is now activated.
7. Repeat steps 3 to 6 if the quantity is incorrect or if other product quantities need to be modified.
   Press the **[⊕]** or **[⊖]** key to reach next menu or remove CHEF card ➔ coffee machine ready in normal operating mode.

4.5.1.5. *Change quantity ➔ water and/or milk for coffee products*

This function determines the amount of water and/or milk dispensed for each individual product (all coffee products and milk).

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

   change fill quantity
   select product

3. Press the key for the relevant product.

   change fill quantity
   water quantity   +0%

4. Press the **[⊕]** or **[⊖]** to raise or lower the amount of water dispensed by +/- percent.
5. Press the **[DECAF]** key to confirm the setting or modification.

6. The new water setting is now activated. Repeat steps 7 to 8 for products with milk (only with optional refrigerator).For products without milk, go to step 9.

> **change fill quantity**
> **milk quantity   +0%**

7. Press the **[⊕]** or **[⊖]** to raise or lower the amount of milk dispensed by +/- percent.
8. Press **[DECAF]** key to confirm the setting or modification.
   The new setting is now activated.
9. Repeat steps 3 to 6 for water and steps 3 to 9 for milk if the quantity is incorrect or if other product quantities need to be modified.
   Press **[⊕]** or **[⊖]** key to reach next menu or remove CHEF card ➜ coffee machine ready in normal operating mode.

4.5.1.6. *Change dosing time ➜ steam, hot milk and/or milk foam*

This function determines the length of time during which milk and/or milk foam are dispensed for each individual product.

◆ Start/stop function is enabled:
   The dosing time cannot be set. The length of time is determined by a fixed timeout facility and can only be changed by a service engineer.

◆ Start/stop function is disabled:
   Set the dosing time as follows

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

> **change fill quantity**
> **select product**

3. Press the key for the relevant product:

> **change fill quantity**
> **doser time   +0%**

4. Press the **[⊕]** or **[⊖]** to raise or lower the length of time/amount dispensed by +/- percent.
5. Press **[DECAF]** key to confirm the setting or modification.
6. The new dosing time/quantity setting is now activated.
7. Repeat steps 3 to 6 if the dispensing time/quantity is incorrect or if it needs changing for other products as well.
   Press **[⊕]** or **[⊖]** key to reach next menu
   or remove CHEF card ➜ coffee machine ready in normal operating mode.

4.5.1.7. *Change on/off time*

The appliance can be programmed to switch itself on and off automatically, e.g. to save electricity.
(This feature must be enabled by the service engineer if it is not available).

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

> **on / off time**
> **execute   `Decaf`**

3. Press **[DECAF]** key.

> **switch on   00:00**

4. Set the hour at which the coffee machine is to come on using the **[⊕]** or **[⊖]** keys.

```
switch on   23:00
```

5. Press **[DECAF]** key.

6. Set the minutes at which the coffee machine is to come on using the **[⊕]** or **[⊖]** keys.

```
switch on   23:30
```

7. Press **[DECAF]** key.

```
switch on      23:30
switch off     00:00
```

8. Set the hour at which the coffee machine is to turn off using the **[⊕]** or **[⊖]** keys.

```
switch on      23:30
switch off     06:00
```

9. Press **[DECAF]** key.
10. Set the minutes at which the coffee machine is to turn off using the **[⊕]** or **[⊖]** keys.

```
switch on      23:30
switch off     06:15
```

11. Press **[DECAF]** key.
12. Press **[⊕]** or **[⊖]** key to reach next menu, remove CHEF card ➔ coffee machine ready in normal operating mode.

◆ If the coffee machine switches itself off automatically, it can be switched on again at any time by pressing the **[Stand by]** key. In this event, the automatic on/off facility is interrupted for the duration of the cycle. (During the minute at which the coffee machine is programmed to switch itself off, it cannot be switched on. Wait until the next minute).

◆ The service engineer can activate separate automatic on/off times for each workday. For example, the coffee machine can be switched on automatically from Mondays to Fridays, remains off during the weekend but can be switched on again manually at any time.

◆ If all on/off values are set to zero, the timer is deactivated.

4.5.1.8.   *Change time*

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

```
change time
execute ` Decaf `
```

3. Press **[DECAF]** key.

```
change time
12:00:00
```

4. Set the hour using the **[⊕]** or **[⊖]** key.
5. Confirm by pressing the **[DECAF]** key.
6. Repeat steps 4 and 5 to set the minutes and seconds.
7. Press **[⊕]** or **[⊖]** key to reach next menu,
   remove CHEF card ➔ coffee machine ready in normal operating mode.

### 4.5.1.9.   *Change date*

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

> **change date**
> **execute   ` Decaf `**

3. Press **[DECAF]** key.

> **change date**
> **15.10.2001**

4. Set the date using the **[⊕]** or **[⊖]** key.
5. Confirm by pressing the **[DECAF]** key.
6. Repeat steps 4 and 5 to set the month and the year.
7. Press **[⊕]** or **[⊖]** key to reach next menu, remove CHEF card ➜ coffee machine ready in normal operating mode.

4.5.1.10.   **Change PIN code**

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

> **change PIN-code**
> **execute   ` Decaf `**

3. Press DECAF key.

> **PIN-Code   0000**
> **` +/- `   ` Decaf `➜**

4. Set the first digit of the new PIN code using the **[⊕]** and **[⊖]** keys.
5. Confirm by pressing the **[DECAF]** key.
6. Repeat steps 4 and 5 for each successive digit until the full PIN code is entered.
7. Press **[⊕]** or **[⊖]** key to reach next menu, remove CHEF card ➜ coffee machine ready in normal operating mode.

◆ Pressing the **[DECAF]** key accepts existing settings.
◆ The PIN code is only activated if so programmed.
◆ The current PIN code is not displayed.

4.5.1.11.   *Service reminder*
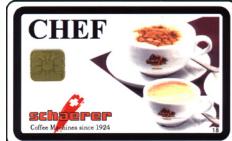
◆ The following optional message is only displayed if programmed:

> **select product**
> **service wanted**

◆ If this message was enabled by the installer for the CHEF card, it can be suppressed.

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following selection is displayed:

> **service wanted**
> **service counter   45011**

(Number is only an example)

3.   Press **[⊙ᴱᶜᴬᶠ]** key.

> **service wanted**
> **delete?   'Decaf'**

4.   Press **[⊙ᴱᶜᴬᶠ]** key. (The message is suppressed).

◆   If the "service wanted" reminder is programmed but cannot be suppressed using the CHEF card, the total number of coffees served and the total of all products may be queried from step 3 by holding the Decaf key pressed down. The service reminder message will continue to be displayed.

4.5.2.   SAVE DATA card

The SAVE DATA card is a backup card to which all the coffee machine data can be saved.

◆   Whenever settings are changed by the service engineer, the coffee machine requests the programmer to save the new settings on the SAVE DATA card.
◆   The SAVE DATA cards should be stored in a safe place where they can be found easily.
◆   Only replace SAVE DATA cards after prior agreement with the licensed after sales service.

SAVE DATA A	**= Level A**	**to**	**Version 1.04**
SAVE DATA B	**= Level B**	**to**	**Version 1.04**
SAVE DATA Plus	**= All**	**from**	**Version 1.05**

4.5.2.1.   Menu
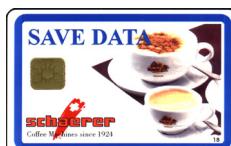
-   Machine ➔ card
-   Card ➔ machine

◆   At the end of every menu:
   Remove SAVE DATA card ➔ coffee machine ready in normal operating mode.

4.5.2.2.   Save coffee machine data to card

1.   Insert SAVE DATA card into the card reader.
2.   Press **[⊕]** or **[⊖]** until the following menu is displayed:

> **SAVE DATA**
> **machine ➔ card**

3.   Press **[⊙ᴱᶜᴬᶠ]** key to save the data from the coffee machine to the card:

> **.. Save ..**

4.   A signal indicates that the data have been saved. The coffee machine returns to normal operating mode.

> **select product**
> **12:00   15.10.2001**

5.   Remove SAVE DATA card from the card reader.

4.5.2.3. Load machine data from card to coffee machine

1. Insert SAVE DATA card into the card reader.
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

> **SAVE DATA**
> **card → machine**

3. Press **[DECAF]** key to save the data from the card to the coffee machine:

> **.. Load ..**

4. A signal indicates that the data have been transferred. The date of the previous backup is displayed:

> **last backup**
> **12:00   15.10.2001**

5. Remove SAVE DATA card from the card reader:

> **select product**
> **12:00   15.10.2001**

The coffee machine returns to normal operating mode.

4.6. Programming using optional chip cards

The chip cards described in this chapter are available as optional features and are not included in the standard delivery package. You will find a list and a brief description of the available chip cards in chapter 2.6.2.

Note:
For all the functions described in this list, it is assumed that the coffee machine is ready for routine operation in normal operating mode.
When a chip card is in the card reader, no products can be selected.

4.6.1. PROGRAM card

In normal operating mode, the PROGRAM card is used for statistical purposes. If a payment system is installed, the requisite settings for payment mode are made using this card.

4.6.1.1. Menu

- Enable/disable payment mode
- Switch prices
- MONEY card price levels 1+2
- Change token price with or without MONEY cards price levels 1+2.
- Change product prices and article numbers   (Only for external payment mode)
- Display MONEY sales
- Reset MONEY sales
- Display MASTER sales
- Reset MASTER sales
- Log on MASTER card
- Delete MASTER card table
- Enable/disable timer
- Change PIN code

◆ At the end of every menu:
Remove PROGRAM card ➔ coffee machine ready in normal operating mode.
Press [⊕] or [⊖] key to reach the next menu.

4.6.1.2. *Programmable security level*

If the service engineer has programmed security levels 1 or 3 for the PROGRAM card, the PIN code must be entered each time the coffee machine is used.

1. Insert PROGRAM card into the card reader:

```
    PIN-Code    0000
    ` +/- `       ` Decaf ➔`
```

2. Set the first digit of the PIN code using the [⊕] and [⊖] keys.
3. Confirm by pressing the [DECAF] key.
4. Repeat steps 4 and 5 for each successive digit until the full PIN code is entered.
5. Press [⊕] or [⊖] key to reach next menu, remove PROGRAM card ➔ coffee machine ready in normal operating mode.

◆ Pressing the [DECAF] key accepts existing settings.
◆ The PIN code is only activated if so programmed.
◆ The current PIN code is not displayed.

4.6.1.3. *Enable/disable payment mode*

The licensed after sales service agent uses this function to enable or disable the programmed payment mode. It applies only to coffee machines connected to a payment system.

1. Insert PROGRAM card into the card reader:
2. Press [⊕] or [⊖] until the following menu is displayed:

```
    accounting mode
        ........
```

3. Toggle enable and disable by pressing the [DECAF] key.
4. Press the [⊕] or [⊖] key to reach next menu, remove PROGRAM card ➔ coffee machine ready in normal operating mode.

4.6.1.4. *Switch prices*

◆ *If all values are set to zero, the switch price function is automatically disabled and price level 1 activated.*

1. Insert PROGRAM card into the card reader.
2. Press [⊕] or [⊖] until the following menu is displayed

```
    change price level
    execute ` Decaf `
```

3. Press [DECAF] key.

```
    price – 1   00:00
```

4. Enter the number before the decimal point by pressing the [⊕] and [⊖] keys (price 1 0-99).

5. Confirm by pressing the [DECAF] key.

> **price – 1   xx:00**

6. Enter the numbers after the decimal point by pressing the [⊕] and [⊖] keys (price 1 0-99).
7. Confirm by pressing the [DECAF] key.

> **price – 1   xx:xx**
> **price – 2   00:00**

8. Enter the numbers before the decimal point by pressing the [⊕] and [⊖] keys (Price 2 0-99).
9. Confirm by pressing the [DECAF] key.

> **price – 1   xx:xx**
> **price – 2   xx:00**

10. Enter the numbers after the decimal point by pressing the [⊕] and [⊖] keys (Price 2 0-99).
11. Confirm by pressing [DECAF] key.
12. Press [⊕] or [⊖] to reach next menu item, remove PROGRAM card.

> **insert card**
> **SAVE DATA / Key..**

13. If changed *data* are to be *saved* to the DATA SAVE card, insert the DATA SAVE card.

> **... Save …**

14. Wait for the signal.

> **credit operation**
> **12:00   15.10.2001**

15. If changed *data* are *not to be saved* to the DATA SAVE card, press [DECAF] key.

4.6.1.5.   *Change MONEY card price levels 1 + 2*
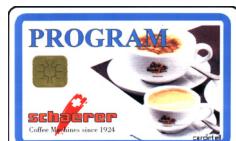
1. Insert PROGRAM card into the card reader:
2. Press [⊕] or [⊖] until the following menu is displayed:

> **change price**
> **select product**

3. Press required product key.

> **price level   -1**
> **product price   0:00**

4. Enter the first product price by pressing keys [⊕] and [⊖] (0-99.99).
5. Confirm by pressing the [DECAF] key.

> **price level   -2**
> **product price   0:00**

6. Enter the second product price by pressing keys [⊕] and [⊖] (0-99.99).
7. Confirm by pressing the [DECAF] key.
8. Repeat steps 3 and 7 for each successive product price change.
9. Press [⊕] or [⊖] to reach next menu, remove PROGRAM card ➔

> **insert card**
> **SAVE DATA / Key..**

10. If the changed data are to be saved on the DATA SAVE card, insert this card.

> **... Save …**

11. Wait for the acoustic signal.

> **credit operation**
> **12:00   15.10.2001**

12. If changed *data* are *not to be saved* to the DATA SAVE card, press **[⊕]** key

4.6.1.6. *Change token price with or without MONEY card price levels 1 + 2*

1. Insert PROGRAM card into the card reader:
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

> **change price**
> **select product**

3. Press required product key.

> **price level 1**
> **Price ##.##**

4. Enter the first product price by pressing keys **[⊕]** and **[⊖]** (0-99.99).
   Enter 0.00 if MONEY card mode is not enabled.
5. Confirm by pressing the **[DECAF]** key.

> **price level 2**
> **Price ##.##**

6. Enter the second product price by pressing keys **[⊕]** and **[⊖]** (0-99.99).
   Enter 0.00 if MONEY card feature is not enabled.
7. Confirm by pressing the **[DECAF]** key.

> **token tester**
> **number token #**

8. Enter the number of tokens that corresponds to the product price.
9. Confirm by pressing the **[DECAF]** key.
10. Repeat steps 3 and 9 for each successive product price change.
11. Press **[⊕]** or **[⊖]** to reach next menu item,
    Remove PROGRAM card ➔

> **insert card**
> **SAVE DATA / Key..**

12. If the changed data are to be saved on the DATA SAVE card, insert this card.

> **... Save …**

13. Wait for the acoustic signal.

> **credit operation**
> **12:00   15.10.2001**

14. If the changed data are NOT to be saved on the DATA SAVE card, press the **[⊕]** key.

4.6.1.7. _Change product price and article number (for external CCI / CSI payment systems)_

1. Insert PROGRAM card into the card reader:
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

> **change price**
> **select product**

3. Press required product key.

> **price level 1**
> **Price ##.##**

4. Enter the first product price by pressing keys **[⊕]** and **[⊖]** (0-99.99). Confirm by pressing the **[DECAF]** key.

> **price level 2**
> **Price ##.##**

5. Enter the second product price by pressing keys **[⊕]** and **[⊖]** (0-99.99).
6. Confirm by pressing the **[DECAF]** key.

> **single product**
> **article no. 0**

7. Enter the product article number by pressing keys **[⊕]** and **[⊖]** (0-99).
8. Confirm by pressing the **[DECAF]** key.

> **double product**
> **article no. 0**

9. Enter the product article number by pressing keys **[⊕]** and **[⊖]** (0-99).
10. Confirm by pressing the **[DECAF]** key.
11. Repeat steps 3 and 10 for each successive product price and/or article number change.
12. Press **[⊕]** or **[⊖]** to reach next menu item, remove PROGRAM card ➔

> **insert card**
> **SAVE DATA / Key..**

13. If the changed data are to be saved on the DATA SAVE card, insert this card.

> **... Save …**

14. Wait for the acoustic signal.

> **credit operation**
> **12:00   15.10.2001**

15. If the changed data are NOT to be saved on the DATA SAVE card, press the **[⊕]** key.

4.6.1.8. _Display MONEY sales_

1. Insert PROGRAM card into the card reader:
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

> **sale amount   MONEY**
> **amount   0.00**

3. Press **[⊕]** or **[⊖]** to reach next menu, remove PROGRAM card ➔ coffee machine is ready in normal operating mode.

4.6.1.9. Reset MONEY sales

1. Insert PROGRAM card into the card reader:
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

```
sale amount   MONEY
   amount        0.00
```

3. Press **[DECAF]** key.

```
sale amount   MONEY
   delete  ?  ` Decaf `
```

4. Press **[DECAF]** key.

```
   ... Done …
```

5. Press **[⊕]** or **[⊖]** to reach next menu, remove PROGRAM card ➔ coffee machine is ready in normal operating mode.

4.6.1.10. Display MASTER card

1. Insert PROGRAM card into the card reader:
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

```
sale amount   MASTER
   amount         0.00
```

3. Press **[⊕]** or **[⊖]** to reach next menu, remove PROGRAM card ➔ coffee machine is ready in normal operating mode.

4.6.1.11. Reset MASTER card

1. Insert PROGRAM card into the card reader:
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

```
sale amount   MASTER
   amount         0.00
```

3. Press **[DECAF]** key.

```
sale amount   MASTER
   delete  ?  ` Decaf `
```

4. Press **[DECAF]** key.

```
   ... Done …
```

5. Press **[⊕]** or **[⊖]** key to reach next menu, remove PROGRAM card ➔ coffee machine is ready in normal operating mode.

4.6.1.12. Log on MASTER card

1. Insert PROGRAM card into the card reader:

2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

```
log on    MASTER
   execute   ` Decaf `
```

3. Press **[DECAF]** key.
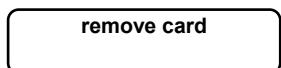
> **remove card**

4. Remove PROGRAM card:

> **insert card
> MASTER/PROGRAM**

5. Insert MASTER card.
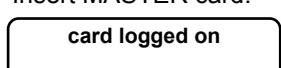
> **card logged on**

> **remove card**

6. Remove MASTER card.
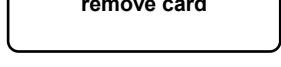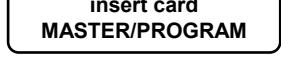
> **insert card
> MASTER/PROGRAM**

If other MASTER cards are to be logged on, repeat steps 5 and 6 several times.

7. Press **[⊕]** or **[⊖]** to reach next menu, remove PROGRAM card ➔ coffee machine is ready in normal operating mode.

◆ *Up to 20 cards can be programmed.*

4.6.1.13. *Delete MASTER table*

1. Insert PROGRAM card into the card reader.
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:
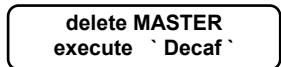
> **delete MASTER
> execute `Decaf`**
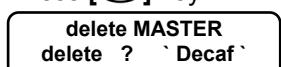
3. Press **[DECAF]** key.

> **delete MASTER
> delete ?   `Decaf`**

4. Press **[DECAF]** key.
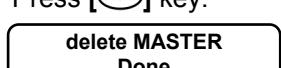
> **delete MASTER
> .. Done ..**

◆ *If you do not wish to delete the table,* Press **[⊕]** or **[⊖]** to reach next menu, re-move PROGRAM card ➔ coffee machine is ready in normal operating mode.

4.6.1.14. *Change PIN code*
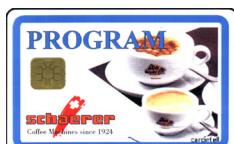
1. Insert PROGRAM card into the card reader:
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:
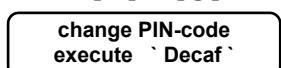
> **change PIN-code
> execute `Decaf`**

3. Press **[DECAF]** key.

> **change PIN-code
> execute `Decaf`**

4. Press **[⊙ᴇᴄᴀꜰ]** key.

```
PIN-Code    0000
` +/- `      ` Decaf `
```

5. Set the first digit of the new PIN code using keys **[⊕]** and **[⊖]**
6. Confirm by pressing the **[⊙ᴇᴄᴀꜰ]** key.
7. Repeat steps 5 and 6 for each successive digit until the full PIN code is entered.
8. Press **[⊕]** or **[⊖]** to reach next menu, remove PROGRAM card ➔ coffee machine ready in normal operating mode..

◆ Pressing the **[⊙ᴇᴄᴀꜰ]** key accepts existing settings.
◆ The PIN code is only activated if so programmed.
◆ The current PIN code is not displayed.
◆ In the event of an incorrect entry, repeat steps 3 to 7.

4.6.2. *KEY BLOCK card*
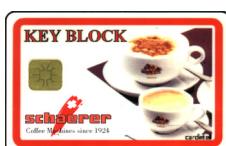
The KEY BLOCK card enables you to enable and disable product keys.

4.6.2.1. *Menu*

-   Disable
-   Enable

4.6.2.2. *Disable keys*

1. Insert KEY BLOCK card into the card reader.
2. All of the enabled product keys light up red:

```
lock buttons
select product
```

3. Press the product key you wish to disable. The light in the relevant key goes out.
4. Remove KEY BLOCK card. The product key is now disabled.

◆ Disable all product keys ➔ Press **[⊙ᴛᴏᴘ]** key (display LED lights up).
◆ Several keys can be disabled simultaneously.
◆ Non-programmed product keys do not light up when the KEY BLOCK card is inserted and cannot be disabled/enabled.

4.6.2.3. *Enable keys*
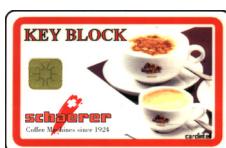
1. Insert KEY BLOCK card into the card reader.
2. All of the product keys which do not light up red are disabled:

```
lock buttons
select product
```

3. Press the product key you wish to enable. The key lights up red.
4. Remove the KEY BLOCK card.

◆ If all the product keys had previously been disabled using the **[⊙]** key, this action can be cancelled: ➔ Press **[⊙]** key: the disabled product keys are enabled again.
◆ Several keys can be enabled simultaneously.
◆ Non-programmed product keys do not light up when the KEY BLOCK card is inserted and cannot be disabled/enabled.

4.6.3. COFFEE TEST card

The COFFEE TEST card enables you to test the amount of coffee ground and the grinding time per coffee product.

This function offered by the COFFEE TEST card will also be appreciated by the coffee supplier when adapting a new blend to the coffee machine.

4.6.3.1. Menu

◆ Coffee test. At the end of every menu:
Remove COFFEE TEST card ➔ coffee machine is ready in normal operating mode.

4.6.3.2. Ground coffee test program

1. Insert COFFEE TEST card into the card reader:

> **grinder test**
> **remove container**

2. Remove grouts container ➔ Coffee machine enters infusion phase:

> **grinder test**
> **select product**

3. Place flat container in the container shaft underneath the coffee machine.
4. Press the key of the coffee product to be tested ➔ the ground coffee falls into the container.

> **grinder test**
> **grind quantity   + 0 %**

5. Check the amount of ground coffee.
Raise the % amount by pressing **[⊕]**.
Lower the % amount by pressing **[⊖]**.
The new setting is automatically considered as 100% once the procedure is terminated.
6. Confirm by pressing the **[DECAF]** key.

> **grinder test**
> **select product**

Repeat steps 3 to 6 to test other products.
7. Put grouts container back.
8. Remove COFFEE TEST card ➔ coffee machine returns to normal operating mode:

> **select product**
> **12:00   15.10.2001**

5. *<u>Contents</u>*

5 CLEANING

5.1 *Important general notes on cleaning*

Danger of burns!
Never reach inside the machine during the automatic cleaning and do not work underneath the beverage outlet.
Watch for sharp edges when you clean.

Danger!
Never clean the machine with a hose, a high pressure cleaner or steam cleaner.
Never immerse the machine in water!

Attention!
Please follow the generally valid hygiene HACCP regulations!
- Always wash and disinfect your hands carefully before you clean the machine!
- Never refill milk.
- Always remove leftovers from the milk container.
- Always clean the milk container thoroughly before filling it with fresh milk.
- Only use milk that is no warmer than 3°C - 5°C.
- Clean the milk container every day.
- Replace the milk in the milk container with fresh milk once a day.
- Don't use raw milk. Use only pasteurized or ultrahigh temperature treated (UHT) milk.
- Empty the milk container if the machine will not be used for more than 24 hours. Fill the milk container with fresh milk only just before use.
- Fill the milk container with fresh milk only.
- Make sure that the fridge door is closed during cleaning!
- Never use the milk container for cleaning and the cleaning container for milk!
- Use only clean, cold water for automatic self-cleaning and follow the measuring instructions for the cleaning agent as well as the cleaning safety regulations on the detergent package!
- Never use abrasives, scrubbers or cleaning tools made of metal!
- Use only cleaning agents that have been recommended by the manufacturer.
- Read the information on cleaning agents in Chapter 10.2 "Appendix" and/or the enclosed safety data sheets carefully.
- Ask the manufacturer or an after sales service organization, authorized by the manufacturer, for advice on the cleaning tools you should use.

Note:
- Please note that some of the parts may differ from the ones in the pictures.
- All the machine's product outlets will be blocked during the cleaning cycle.

- The machine cleaning program consists of an automatic self-cleaning cycle and a manual cycle. Together they form an operation cycle.
- In order that all dispensed beverages obtain the best possible quality, it is absolutely necessary to clean the machine and the existing options thoroughly on a daily and weekly basis.
- You can use a commercial dish detergent and cold, clean water to clean the milk container during the rinsing cycle.
- Measure the milk temperature every day with a clean thermometer (maximum 5 ° C) and make a note of the range in a chart.
- If the milk's temperature is too high:
  - Check that the fridge door is tightly closed.
  - Check the temperature control setting. Chapter 7.1.5.2 "Regulating the fridge's temperature", page 7-7.
  - Check the machine's power supply (mains plug, fuse).

5.2 *Rinsing in between:*

5.2.1 *Rinsing the coffee pipes*

In between rinsing is available in normal and payment mode.

You can rinse in between as required.
Hold the **[/ ⊕]** button down for 5 seconds (cleaning button).
◆ Display message:

```
        Cleaning
 Container entfernen
```

Press briefly on the **[/ ⊕]** button (approx. 1 cup of water).

```
        Rinsing
   Selection locked
```

```
              Rinsing
  12:00      15.10.2001
```

The machine is now ready for use.

Note:
A service technician can program an **automatic rinsing cycle** so that the automatic rinsing is triggered at regular intervals (0-300 min) without the products being dispersed. You will hear six short continuous beeps, just before the automatic rinsing is activated, to alert you that the automatic rinsing is in use.

5.2.2 *Rinsing the milk pipes (fridge option)*

Attention!
It is absolutely necessary to rinse the milk pipes each time a milk product has been used to provide and maintain a bacteria-free and healthy environment.

Note:
There are two variants available that can be adjusted by an after sales service organization, authorized by the manufacturer.

Danger of burns!
Do not reach underneath the beverage outlet during the automatic rinsing!

1. The milk pipes are rinsed automatically:
Rinsing is registered after each milk product serving and is automatically activated after all pre-selected products have been served. A time delay (standard time 30 seconds) is programmed between the last product serving and the automatic rinsing. If a new product is chosen in this time period, the product will be served immediately, and the time delay reset at zero. When the rinsing is activated, the product choice will be blocked for 12 seconds (standard time).

◆ The [🍵 / ⊕] button (= cleaning button) is blinking
◆ Display message:

> **Rinsing**
> **Selection locked**

2. The milk pipes are rinsed manually:
Rinsing is registered after each milk product serving.
◆ Display message:

> **select product**
> **Please rinse cappuc.**

This message will be displayed until the rinsing has started.
It is still possible to serve products.
[🍵 / ⊕] Press the [⊕] button to start the rinsing. When the rinsing is activated, the product choice will be blocked for 12 seconds (standard time).
◆ Display message:

> **Rinsing**
> **Selection locked**

5.2.3 _Steam cleaning the milk pipes (fridge option)_

Danger of burns!
Do not reach underneath the beverage outlet during the steam cleaning process!

Steam cleaning is a quick milk pipe cleaning. If the rinsing (Chapter 5.2.2 "Rinsing the milk pipes", page 5-3) did not activate, then there is still milk left in the pipes that could impair the quality of the next product.
Steam cleaning will prevent this from happening, because two short bursts of steam are released five seconds after the milk product is served. This guarantees that each product is served with the right color and taste.

Note:
You can ask an after sales service organization, authorized by the manufacturer, to have the steam cleaning activated or deactivated after products have been served. However, the steam cleaning cannot be deactivated during cleaning and rinsing.

5.3 *Daily cleaning without milk*

⚠️ Read the User manual thoroughly. It contains important information regarding safety, hygiene, machine usage and machine maintenance.

⚠️ **Never reach into the machine during the automatic cleaning and keep away from the beverage outlets!**

| 1	2	3
► Slide the beverage outlet into the highest position.	► Press the cleaning button 🖐 for ± 6 seconds. The display shows: Cleaningremove container	► Pull out the coffee grounds container within 6 seconds.

4	5	6
► Clean the brewer and the area around with the brush. ► Clean the coffee grounds container and place it back in. Wait until the display shows: Cleaning insert tablet	► Drop the cleaning tablet into the funnel.	► Press the cleaning button 🖐. The display shows: Cleaning selection blocked ⏱ **Cleaning programme is running! (duration: ± 5 minutes)** Wait until the display shows: Select product 12:00 06.11.2007

► Clean the drip grid.
► Clean the drip tray and rinse it with warm water.
► Clean the outside of the coffee machine with a damp paper tissue.

⚠ **Do not use any abrasives!**

5.4 Daily cleaning milksystem beside machine

⚠️ Read the information given in the user manual carefully. It contains important information about safety, hygiene, machine usage and machine maintenance.

⚠️ **Never reach into the machine or under the beverage outlets during the automatic cleaning!**

ℹ️ **The milk system cleaning only starts if a milk product was dispensed since the last cleaning!**

1

► Take the milk container out of the refrigerator.
► Empty and clean the milk container.

2

► Use the daily cleaning agent.

Dosage:
Daypure: 100 ml
Water: *

* *Water will be added by the machine!*

3

► Place the cleaning container into the refrigerator and leave the door open.

4

► Slide the beverage outlet into the highest position.
► Press the cleaning button 🌀 for ± 6 seconds.
The display shows:

> cleaning
> remove container

► Pull out the coffee grounds container within 6 seconds.

5

► Clean the brewing unit and the area around the brew unit with the brush.
► Clean the coffee grounds container and place it back.
Wait until the display shows:

> cleaning
> insert tablet

6

► Drop the cleaning tablet into the funnel.
► Press the cleaning button 🌀.
The display shows:

> cleaning
> cleaning agent

► Press the cleaning button 🌀.
The display shows:

> cleaning
> selection locked

⏱️ **Cleaning programme is running! (duration: ± 5 min.)**

7

► The LED (red) beside the cleaning button 🌀 flashes.
The display shows:

> cleaning
> rinse cleaning cont.

► Clean the cleaning container, place the empty container back in the refrigerator and leave the door open.
► Press the cleaning button 🌀.

🕐 **Rinsing is running!**
**(duration: ± 12 min.)**

Wait until the display shows:

> activate milk system
> no: ' - '   yes: ' + '

8

Block milk system:
Press ⊖ button = Milk products will be blocked.

Release milk system:
Press ⊕ button = Milk products will be released.

Wait until the display shows:

> select product
> 12:00   09.04.2008

► Remove the cleaning container from the refrigerator.
► Clean and dry the cooling compartment, then close the door.

9

► Clean the drip grid.
► Clean the drip tray and rinse it with warm water afterwards.
► Clean the outside of the coffee machine with a damp paper tissue.

⚠️ **Do not use any abrasives!**

ℹ️ If the milk system is blocked the message to release or block the milk system will appear when turning the maschine on.

10

Weekpure

Weekly cleaning:

► Carry out steps **1** to **9** with the weekly cleaning agent.

Dosage:
Weekpure: 100 ml
Water: *

* *Water will be added by the machine!*

11

► Open the panel.
► Swing the outlet cover upwards.
► Dismantle the foamer head and expander.

⚠️ **Attention hot!**

12

► Clean all components under warm running water.
► Clean the expander with the cleaning tool.
► Reassemble and replace all parts.
► Close the panel.

⚠️ **Follow hygiene regulations according to HACCP!**
Extract from HACCP:

► **Never refill the milk container. Always throw leftovers away.**
► **Always clean the milk container before filling it with fresh milk.**
► **Fill up with fresh milk, chilled to 3 °C - 5 °C, just before restarting the machine.**
► **Use pasteurized or ultra high temperature treated (UHT) milk! Do not use raw milk! The milk must be homogonised!**
► **If equipped, the refrigerator / cooling unit (optional) must be cleaned at least once a week!**

5.5 *Daily cleaning milksystem under counter*

⚠️ Read the information given in the user manual carefully. It contains important information about safety, hygiene, machine usage and machine maintenance.

⚠️ **Never reach into the machine or under the beverage outlets during the automatic cleaning!**

ℹ️ **The milk system cleaning only starts if a milk product was dispensed since the last cleaning!**

1	2	3

1
► Take the milk container out of the refrigerator.
► Empty and clean the milk container.

2
► Use the daily cleaning agent.

Dosage:
Daypure: 100 ml
Water: *

* *Water will be added by the machine!*

3
► Place the cleaning container into the refrigerator and leave the door open.

4	5	6

4
► Slide the beverage outlet into the highest position.
► Press the cleaning button ⚙ for ± 6 seconds.
The display shows:

> cleaning
> remove container

► Pull out the coffee grounds container within 6 seconds.

5
► Clean the brewing unit and the area around the brew unit with the brush.
► Clean the coffee grounds container and place it back.
Wait until the display shows:

> cleaning
> insert tablet

6
► Drop the cleaning tablet into the funnel.
► Press the cleaning button ⚙.
The display shows:

> cleaning
> cleaning agent

► Press the cleaning button ⚙.
The display shows:

> cleaning
> selection locked

🕐 **Cleaning programme is running! (duration: ± 5 min.)**

7

► The LED (red) beside the cleaning button 🍃 flashes.
The display shows:

> cleaning
> rinse cleaning cont.

► Clean the cleaning container, place the empty container back in the refrigerator and leave the door open.
► Press the cleaning button 🍃.

> 🕐 **Rinsing is running!**
> **(duration: ± 12 min.)**

Wait until the display shows:

> activate milk system
> no: ' - '   yes: ' + '

8

Block milk system:
Press ➖ button **=** Milk products will be blocked.

Release milk system:
Press ➕ button **=** Milk products will be released.

Wait until the display shows:

> select product
> 12:00   09.04.2008

► Remove the cleaning container from the refrigerator.
► Clean and dry the cooling compartment, then close the door.

9

► Clean the drip grid.
► Clean the drip tray and rinse it with warm water afterwards.
► Clean the outside of the coffee machine with a damp paper tissue.

> ⚠️ **Do not use any abrasives!**

> ℹ️ If the milk system is blocked the message to release or block the milk system will appear when turning the maschine on.

10

Weekly cleaning:

► Carry out steps **1** to **9** with the weekly cleaning agent.

Dosage:
Weekpure: 100 ml
Water: *

*   *Water will be added by the machine!*

11

► Open the panel.
► Swing the outlet cover upwards.
► Dismantle the foamer head and expander.

> ♨️ **Attention hot!**

12

► Clean all components under warm running water.
► Clean the expander with the cleaning tool.
► Reassemble and replace all parts.
► Close the panel.

⚠️ **Follow hygiene regulations according to HACCP!**
Extract from HACCP:

► **Never refill the milk container. Always throw leftovers away.**
► **Always clean the milk container before filling it with fresh milk.**
► **Fill up with fresh milk, chilled to 3 °C - 5 °C, just before restarting the machine.**
► **Use pasteurized or ultra high temperature treated (UHT) milk! Do not use raw milk! The milk must be homogonised!**
► **If equipped, the refrigerator / cooling unit (optional) must be cleaned at least once a week!**

6. *<u>Contents</u>*

6. **PROBLEMS**

6.1. *Problems and error messages*

6.1.1. *Coffee machine is blocked, no products can be served*

Danger!
Inform the authorized after sales service immediately if you cannot rectify a fault message!
Never open up the machine!

Note:
Your machine cannot dispense products if the following messages appear on its display.

| selection locked |
| heating up |

When the coffee machine is switched on, no products can be served until the system warms up (approx. 5 min.).

| selection locked |
| cup missing |

No products can be served because the cup sensor has failed to detect a cup. Place a cup under the outlet.
◆ See also section 6.2.1

| selection locked |
| container n. i. place |

Insert the grouts container. If the message is still displayed, the switch is defective:

        Contact After Sales Service!

| <<button?>> |
| selection locked |

The product key is stuck or dirty. This problem can be solved by cleaning or pressing the key several times. If not:

        Contact After Sales Service!

| selection locked |
| clean machine |

All product selection is blocked.
Execute the cleaning program as described in chapter 5.3.

| selection locked |
| watertank empty |

Fill up the fresh water tank with drinking water and press the **[⊝]** key (only applies to coffee machines without a fixed water supply).

| selection locked |
| waste watertank full |

Empty the wastewater tank and press the **[⊝]** key (only applies to coffee machines without a wastewater outlet).

| selection locked |
| 12:00   15.10.2001 |

All products have been blocked using the KEY BLOCK card.

| selection locked |
| heating timeout |

Grouts container is missing or is not pushed in far enough.
➔Heater problem.
        Contact After Sales Service!

| selection locked |
| comms. interrupted |

Communication with an external device has been interrupted. Check that the external devices are properly connected to the mains and to the coffee machine. If so, and the message still appears:
        Contact After Sales Service!

selection locked **** LAN-Timeout ****	Communication with an external device has been interrupted. Check that the external devices are properly connected to the mains and to the coffee machine. If so, and the message still appears:

    🗇   **Contact After Sales Service!**

selection locked **error account system**	Communication with an external device has been interrupted. Check that the external devices are properly connected to the mains and to the coffee machine. If so, and the message still appears:

    🗇   **Contact After Sales Service!**

selection locked **door open**	The service door (panel) is not shut properly. Check it and if necessary, shut it.

    🗇   **Contact After Sales Service!**

selection locked **milk door open**	Product selection remains blocked until the milk panel is properly closed.

    🗇   **Contact After Sales Service!**

selection locked **outlet missing**	Outlet is incorrectly placed (or is missing). If this message is still displayed after verification:

    🗇   **Contact After Sales Service!**

battery flat	The internal control unit battery needs replacing.

    🗇   **Contact After Sales Service!**

** EEPROM error!	Serial EEPROM is defective.

    🗇   **Contact After Sales Service!**

motor current	Switch off coffee machine, wait for 10-30 seconds and then switch back on. If the problem persists, switch off the coffee machine.

    🗇   **Contact After Sales Service!**

motor driver error	Switch off the coffee machine.

    🗇   **Contact After Sales Service!**

6.1.2. *Coffee products cannot be served*

When the following messages are displayed on the lower display line, no tea or coffee products can be served.

selection locked **clean machine**	No products at all can be selected when this message is displayed. Execute the cleaning program as described in chapter 5.3.

select product **grinder right empty**	The right-hand coffee mill is out of coffee beans. Fill the bean container.

select product **grinder left empty**	The left-hand coffee mill is out of coffee beans. Fill the bean container.

selection locked **empty container!**	Empty grouts container and put it back in place.

select product **grinder left blocked**	Press **[⊖]** key. If the problem persists, open the bean container hatch and remove the bean container. Remove the remaining coffee beans (e.g. using a vacuum cleaner) and make sure that nothing (e.g. a piece of gravel) is stuck in the mill. If not and the problem persists:
select product **grinder right block.**	

    🗇   **Contact After Sales Service!**

temp. sensor coffee	The temperature sensor in the instantaneous coffee heater is defective. 🗇 **Contact After Sales Service!**
heating up coffee	Wait for approx. 5 minutes (too much coffee water may have been served). If the message does not disappear: 🗇 **Contact After Sales Service!**
rinsing selection locked	The coffee machine is being automatically rinsed. If it is programmed to do so: ➔ no error.
piston motor timeout	The hoist motor is defective. 🗇 **Contact After Sales Service!**

6.1.3. No steam products are served

When the following messages are displayed on the lower display line, no steam products can be served.

selection locked clean machine	No products at all can be selected when this message is displayed. Execute the cleaning program as described in chapter 5.3.
temp. sensor steam	The temperature sensor in the steam generator is defective ➔ Steam emission is blocked: 🗇 **Contact After Sales Service!**
level probe steam	The level sensor in the steam generator is defective ➔ steam emission is blocked. For the first 2 minutes after the display lights up, or when the coffee machine has been switched off, no tea or coffee can be served either. Make sure that the water tap is turned on. If the problem persists: switch the machine off, wait for 10-30 seconds and switch it on again. If the problem persists: ☞ **Contact After Sales Service!**
Timeout heat. steam	If the system does not reach the programmed temperature after 8 minutes, the following message is displayed: "Timeout heat. steam" 🗇 **Contact After Sales Service!**
heating steam	Wait for approx. 5 minutes (too much steam may have been drawn off). If the message does not disappear, the message "heating steam" is displayed. 🗇 **Contact After Sales Service!**

6.1.4. No tea products can be served

selection locked clean machine	No products at all can be selected when this message is displayed. Execute the cleaning program as described in chapter 5.3.
timeout heat. tea	If the system does not reach the programmed temperature after 8 minutes, the following message is displayed: "Timeout heat.tea" 🗇 **Contact After Sales Service!**
temp. sensor tea	The temperature sensor in the instantaneous water heater is defective: ➔ No hot water can be served for tea: 🗇 **Contact After Sales Service!**
heating tea	Wait for approx. 2 minutes (too much hot water may have been drawn off). If the message does not disappear, the message "heating steam" appears*:* 🗇 **Contact After Sales Service!**

6.1.5. *Products can still be served*

The following error messages do not cause the coffee machine to block. However, the problems should be eliminated as quickly as possible.

selection locked **container full !**	Empty grouts container and put it back. Five further coffee products can be served after this message is displayed, after which the coffee machine blocks ➜ Empty grouts container.
select product **clean machine**	Clean the coffee machine. Products can still be served. If the coffee machine is so programmed, up to 50 coffees can be served, or coffees can be served for up to one hour, after which the coffee machine blocks and must be cleaned (obligatory cleaning).
select product **button locked**	Product key is disabled. (KEY BLOCK or key not programmed)
credit operation **button locked**	Product key is disabled
select product **temp. sensor outside**	Optional automatic steam cut-off is enabled, but steam can be drawn off after timeout. **Contact After Sales Service!**
select product **flowmeter defect**	The coffee water flow meter is defective. Water dosing is time-controlled and products can still be served (this message can only be deleted by the service engineer). **Contact After Sales Service!**
system-data error!	An error has occurred in the product key programming or the general system data. If a product key also lights up, it may be unusable. Press the [⊙] key to proceed: **Contact After Sales Service!**
select product **replace water filter**	The installed water filter needs cleaning, filling or replacing. **Contact After Sales Service!**
select product **milk empty**	This message is displayed if the optional milk sensor is mounted and enabled. Products can be served if enabled. Products cannot be served if disabled.

◆ **See also chapters 6.2 (Problems without messages) and 7.5.1 (Optional features – alarm functions).**

select product **service wanted**	Reminder that service by a licensed after sales agent is required. Products can still be served. Nevertheless, your after sales service should be informed rapidly.

◆ **This message can be suppressed using the CHEF card, see section 4.5.1.11.**

select product **please rinse cappuc.**	After a cappuccino is served, the coffee machine requests manual rinsing of the cappuccino unit if programmed to do so.

6.1.6. Chip card error messages

The following messages indicate handling errors relating to the chip cards.

| * read error
remove card | The card in the card reader is incorrectly inserted (note direction of arrow) or defective. |

| * wrong card
remove card | The coffee machine is requesting another card type.
A MONEY card has been inserted for the first time or credit is zero. The MONEY card has not been logged on. ➜ Load credit onto the MONEY card using the LOAD card and/or log it on. No payment system is installed. |

| * mistake
remove card | An error occurred during data transfer to the ➜ SAVE card. The card was withdrawn from the card reader too early. Data transfer was incomplete or data are corrupted ➜ save data again. |

| product - * 5 Error!
Press any key... | An error occurred during data transfer from the SAVE card ➜ coffee machine. The card was withdrawn from the card reader too early. Data transfer was incomplete or data are corrupted ➜
Press **[⊖]** key, wait for five seconds, then save data again |

| * data error
remove card | The data structure on the card has been damaged because the card was withdrawn from the card reader during data transfer, or the card is new and needs logging on, enabling or loading. |

| *wrong PIN-code
remove card | The wrong PIN code (Personal Identification Number) was entered.
Repeat procedure. |

| no accounting | No payment system is installed. |

6.2. Problems without messages (display-messages)

Note:
The following problems may occur without causing the coffee machine to display an error message.

6.2.1. Cup sensor

If a product is served even though no cup is under the outlet, wipe the lens of the cup sensor with a soft damp cloth.
If the problem persists:

Contact After Sales Service!

If products cannot be served although a cup has been placed under the outlet, first clean the lens as described above.
If the problem persists:

Contact After Sales Service!

7. *Contents*

7. OPTIONAL FEATURES

⚠ **Attention!**
Follow the safety instructions given in these operating instructions when using all optional components!

7.1 Refrigerator

7.1.1 Description

7.1.1.1 Refrigerator overview

1. Refrigerator door

2. Milk container

3. Hoses for milk and milk foam

4. Refrigerator service door
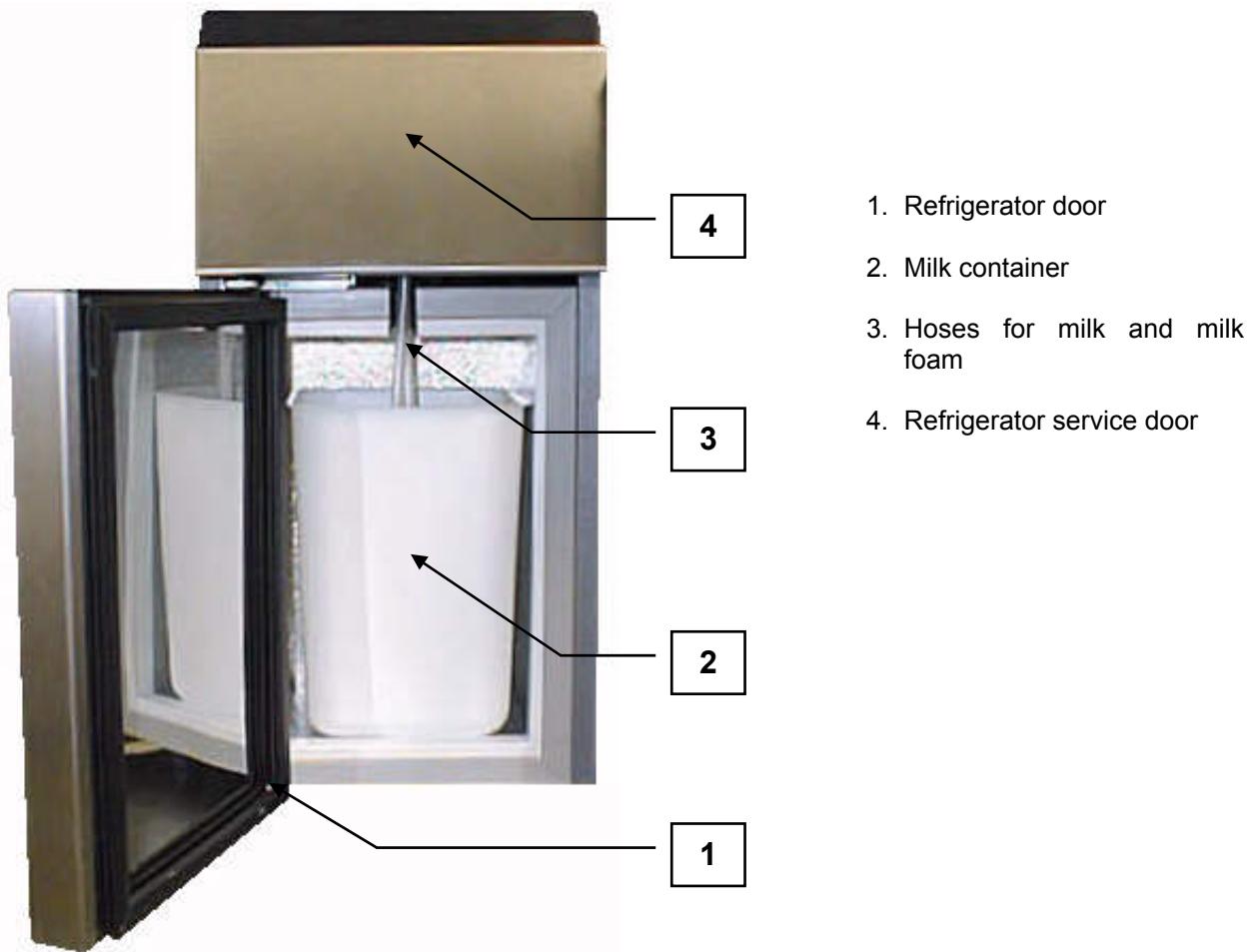
7.1.1.2 Refrigerator installation chart

◆ **See chapter 2.1.2.**

7.1.1.3 Purpose

When the refrigerator is connected to a coffee machine you can additionally prepare the following drinks:

-     Cappuccino
-     Milk coffee
-     Macchiato
-     Latté
-     Hot milk
-     Milk foam

7.1.1.4 Refrigerator serial data

For warranty purposes, and in case of failure, please transfer the refrigerator's rating plate to the following area!

Serial plate


```
VITRIFRIGO
Montecchio – Ps – Made in Italy
ARTICOLO        SCHAERE
Codice          520E002480
Volume          1t 8
Classe          N
Compressore     ASPERA BP1046Z
Alimentazione   220/240V 50/60Hz
Potenza         70W
Assorbimento    0,49A
Refrigerante    R134a          C E
Quantità        0,050Kg
MATRICOLA       8090143
```

Pull out milk container
(sideways on inside)

Inst. no	....
Type:	....
Serial number:	....
Nominal pressure:	................................bar
Capacity:	................................Watt
Voltage: ....VAC	................................Hz

7.1.2 Product data

7.1.2.1 Characteristics

The milk container has a maximum volume capacity of 4 liters.

7.1.2.2 Dimensions

Breadth	260	mm
Height	330	mm
Depth	360	mm
Door clearance	260	mm
Net weight	26.0	kg

Subject to alteration!

7.1.2.3 *Power supply of the refrigerator*

Model	Connected load
VITRIFRIGO	70 W / 0.49 A 220/240 V AC (PNE) 50/60 Hz

For special voltages, contact the manufacturer or the licensed after sales service agent.

This appliance complies with EC standard 89/336 in relation to radio interference (EMC).

7.1.2.4 *Standard refrigerator accessories*

Item	Ref. no.
- 1 milk container	063243
- 1 cleaning container	063243
- 1 "clean-up" measuring beaker	061020
- 1 set of O-ring joints for the foam head	050415
- 2.5 m Teflon hose	061445
- 1 outlet hose	063345
- 1 Ø 20 mm, clamp for the outlet hose	063119
- 1 1.2-mm facing piece	063446

- Cleaning agent: Ask at your point of sale, authorized by the manufacturer.

7.1.3 *Problems and troubleshooting*

7.1.3.1 *The refrigerator does not work*

Attention!
Have the link between refrigerator and coffee machine checked only by a service technician!

Check whether

- The temperature is set to zero;
- ⊓ Capture 7.1.5.2 Set temperature, page.
- The power supply has been cut off;
- The safety switch (FI) in the electrical system is off;

If the refrigerator is not connected to the power supply via the coffee machine, check whether:

- The mains plug is damaged or not plugged in properly.

Danger!
Do not repair the mains plug!
Inform a service technician or electrician immediately!

7.1.3.2 *The refrigerator functions noisily*

Check whether
- the refrigerator in particular the chiller is standing flatly;
- the refrigerator is in contact with the surrounding furniture and transfers the vibrations;

Attention!
- Never open the device!
- Have only a service technician check the cooling pipes at the back of the device for flushness and vibrations;

7.1.3.3 *Refrigerator is not cold enough*

Check whether

- The door is properly shut;
- the door seal is intact.
- the inside of the refrigerator is coated with ice. The layer of ice must not be more than 3 mm thick.
- The refrigerator is near a source of heat;
- The refrigerator or separate refrigerating unit are sufficiently ventilated;
- The evaporator is iced up.

⊓ **Contact your after sales service**

Attention!
Check for dust contamination on condensers or rotating fans (in models with forced cooling). Only have this check performed by a service engineer!

7.1.4   Refrigerator parts

Ventilator valve

1. <u>Ventilator valve</u>
2. **Milk foam hose (white)**
3. **Milk hose (blue)**
4. **Hoses in milk container**
5. **Automatic rinse pipes**
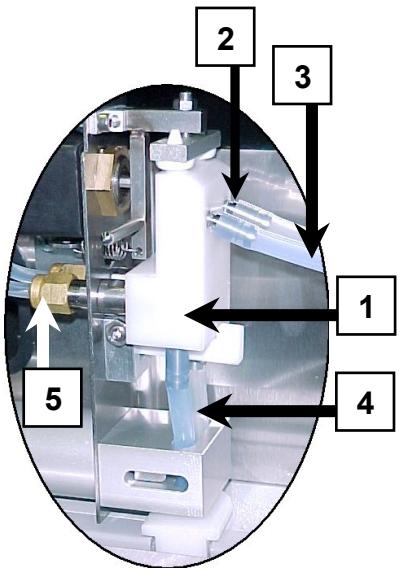
Thermostat

Minus –
Turn in an anti-clockwise direction (-) to raise the temperature. To turn the refrigerator off, turn the thermostat as far as it will go.

Plus +
Turn in a clockwise direction to lower the temperature.
(See section 7.1.5.2)
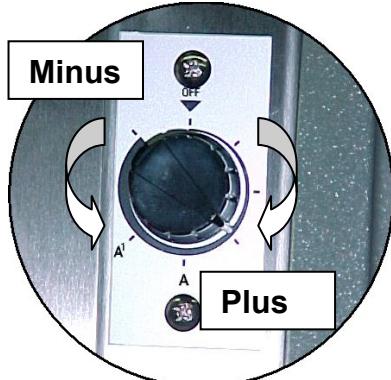
Air supply system

Assembling information for the expander
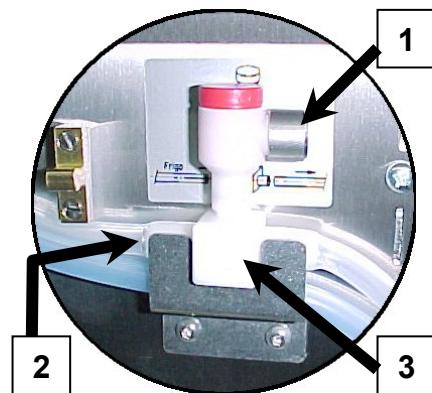
Legend

1. Air baffle
2. Milk baffle
3. T block

Assemble the expander so the milk baffle is on the left side.
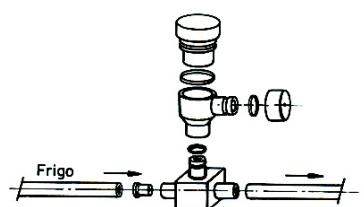
Note:
The mounting instruction sticker must be kept clean. If it is very dirty or no longer legible, a new one must be requested from the manufacturer and the old one replaced.

7.1.5 Installing the refrigerator

7.1.5.1 First-time installation

Note:
The refrigerator must be installed and initialized by a licensed after sales service agent

◆ **See also chapter 3.**

7.1.5.2 Set temperature

You can regulate the refrigerator's temperature with the built-in temperature control. You will find the temperature control when you lift the refrigerator's panel. Please see the pictures on the previous page.

Rotary knob on the temperature control

Normal position
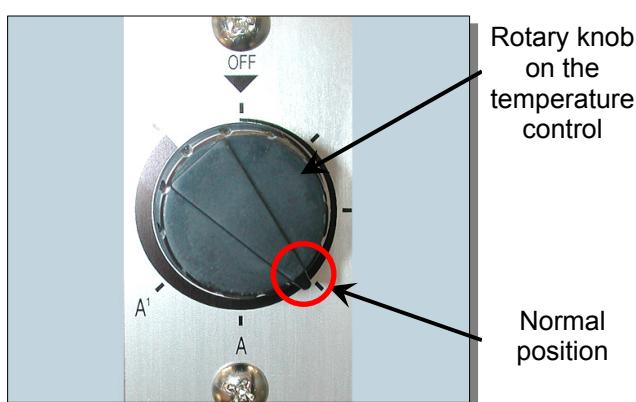
Picture of temperature control

1. **To move the rotary knob on the temperature control lift the panel until it stops.**

2.1 **Warmer temperature:**
   Turn the rotary knob anti-clockwise.

2.2 **Colder temperature:**
   Turn the rotary knob clockwise.

2.3 **Placing the temperature control in the normal position:**
   Turn the rotary knob anti-clockwise until it stops and then clockwise until it reaches the scale mark "A".

Attention!
The refrigerator's normal temperature setting depends on the ambient temperature and will have to be adjusted either up or down.

2.4 **Temperature "OFF"**
   Turn the rotary knob on the temperature control anti-clockwise until it stops

3. **Lower the panel.**

Note:
- The refrigerator should be turned on at least one hour before use, so that the cooling circuit (3 -5 °C) is ready for operation.
- Never put warm milk in the refrigerator, as it would take too long to reach the 3 - 5 ° C temperature.
- Never put warm milk in the refrigerator. Coated with ice due to condensed water! (Regular defrosting necessary.)

7.1.5.3 *Milk container level/Milk empty (optional feature)*

■ **Option:** At given time intervals, a built-in ultrasonic temperature sensor in the refrigerator will measure the milk level (the milk's surface) in the milk container. If the milk level drops to a programmable "alarm level" the following message will be displayed on the coffee machine:

```
 select product
   milk  empty
```

- Beverage outlets with milk are blocked. It is released only after milk is filled in.
- It is still possible to serve beverages with milk. Since the remaining milk in the milk container can be used up completely without further warning, it is advisable to set the alarm level so that there is always enough time to fill up with milk.

Attention:

- Never top up with milk. Always remove milk residues.
- Always thoroughly clean the milk container before filling it with fresh milk.
- Fill up with fresh milk only before resumption of operation.
- Only fill in milk that does not exceed 3°C - 5°C.
- Use only milk that has been pasteurized or heated with a UHT process (do not use raw milk).

Note:
The milk container's maximum capacity is 4 liters.
The milk level can be custom-programmed by an after sales service organization, authorized by the manufacturer.

When the milk container is full and back in the refrigerator the coffee machine's display shows the following:

```
 select product
12:00       01.08.2001
```

All products are available again.

7.1.5.4 *Recalibrate milk level sensor*

Note:
Possible only up to Software 1.04!!! From 1.05 only by service technician.

◆ The milk level setting (calibration) can be accidentally changed if the wrong keys are pressed while the cleaning program is running.
◆ The following section tells you how to reset the sensor to the correct minimum level.

```
 select product
12:00       15.10.2001
```

Hold down **[⊖]** key for approx. 5 seconds.
The following message is displayed:

```
 milk level    XXX
 calibrate ?  'Decaf'
```

Fill container to the required minimum level (milk or water).

◆ The ex-factory setting is 1 liter.
◆ The sensor is calibrated to the minimum level in the milk container. When this minimum is attained, the following message is displayed:

```
 select product
   milk empty
```

```
 milk level    XXX
 calibrate   Decaf?
```

Press the [ᴅᴇᴄᴀꜰ] key to save the calibrated value. The following message is displayed:

> **…Save…**

> **select product**
> **milk empty**

The milk container can now be filled.
Once the filled milk container has been replaced in the refrigerator, the following message is displayed:

> **select product**
> **12:00   15.10.2001**

All products are now available again.

7.1.5.5 *Cup sensor (optional extra)*

■ **Option:**   **Description section 7.10 (Cup sensor).**

7.1.5.6 *Milk temperature monitor (optional extra)*

■ **Option:**   The temperature sensor of the automatic steam cut-off facility continuously checks the temperature of the milk as it is heated.

◆ **See also section 7.7 (Special Steam).**

7.2 *Payment systems*

■ **Option:**   Your coffee machine can be connected e.g. to your cash register by means of a payment system, for example. This facilitates daily, weekly and monthly accounting.

◆ **See also chapter 8 (Payment Systems).**
◆ For further information, contact your licensed dealer.

7.3 *Chip cards*

■ **Option:**   A series of chip cards allows you to simplify processes, assign products to keys and program a variety other useful functions.

◆ **See also chapter 2.6 (Chip card functions).**
◆ For further information, contact your licensed dealer.

7.4 *Chip card loader*

■ **Option:**   Additional load device for MONEY chip cards (load credit; device for loading credit onto MONEY card)

◆ **The cards can also be loaded on the coffee machine as described in chapter 8.2 (MONEY chip card system) (standard).**
◆ For further information, contact your licensed dealer.

7.5 *Alarm functions*

◆ The purpose of the alarm functions is to attract your attention.
◆ If an optional acoustic and/or visual alarm is installed and one of the following informa-tion texts or error messages is activated, a corresponding warning signal is emitted in addition to the message on the display.
◆ Most of the alarm functions are accompanied by the blocking of the coin or token slot if this optional feature is installed.

7.5.1 *Alarm group 1 (Info)*

◆ The alarm levels must be programmed by a service engineer and enabled.
◆ If one of these information texts or error messages is activated with the alarm function enabled, they trigger the optionally installed alarm system.

container full	Coffee grouts container is full.
	🗂 **See also chapter 6.1.5.**

empty container!	Coffee grouts container is full. (Coffee machine blocked.)
	🗂 **See also chapter 6.1.2.**

clean machine	Cleaning reminder.
	🗂 **See also chapter 6.1.2.**

grinder left empty	The left-hand coffee mill is empty and needs refilling.
	🗂 **See also chapter 6.1.2.**

grinder right empty	The right-hand coffee mill is empty and needs refilling.
	🗂 **See also chapter 6.1.2.**

milk empty	The milk container is empty and needs refilling.
	🗂 **See also chapter 6.1.5.**

service wanted	Servicing by a licensed after sales service agent is required. Annual capacity has been attained.
	🗂 **See also chapter 6.1.5.**

7.5.2 *Alarm group 2 (Errors)*

◆ The alarm levels must be programmed by a service engineer and enabled.
◆ If one of these information texts or error messages is activated with the alarm function enabled, they trigger the optionally installed alarm system.
◆ These problems can be eliminated by authorized persons only.

water filter	Given the number of hectoliters, which have passed through the filter, it is likely that the filter needs replacing or cleaning
	🗂 **See also chapter 6.1.5.**

battery flat	The battery needs changing. 📑 **See also chapter 6.1.1.**
**EEPROM error!	Serial EEPROM is defective. 📑 **See also chapter 6.1.1.**
flowmeter defect	The flow meter is defective. 📑 **See also chapter 6.1.5.**
temp. sensor coffee	The coffee water temperature sensor is defective. 📑 **See also chapter 6.1.2.**
temp. sensor tea	The tea water temperature sensor is defective. 📑 **See also chapter 6.1.4.**
Timeout heat. tea	Tea water temperature not attained. No tea can be served. 📑 **See also chapter 6.1.4.**
temp. sensor steam	The steam temperature sensor is defective. 📑 **See also chapter 6.1.3.**
Timeout heat. steam	Steam temperature not attained. No steam can be drawn off. 📑 **See also chapter 6.1.3.**
level probe steam	Level sensor defective. 📑 **See also chapter 6.1.3.**
temp. sensor outside	External temperature sensor defective. 📑 **See also chapter 6.1.5.**
motor current	Motor defective. 📑 **See also chapter 6.1.1.**
piston motor timeout	Hoist motor control unit defective. 📑 **See also chapter 6.1.2.**
grinder left blocked	Left-hand mill is blocked or defective 📑 **See also chapter 6.1.2.**
grinder right blocked	Right-hand mill is blocked or defective. 📑 **See also chapter 6.1.2.**
error account system	Communication with an external payment system is interrupted. 📑 **See also chapter 6.1.1.**

comms. interrupted	Communication with an external payment system is interrupted.

> **See also chapter 6.1.1.**

EE LAN-Timeout	Communication with an external payment system is interrupted.

> **See also chapter 6.1.1.**

7.5.3 *Disable driver*

◆ The same driver level causes the machine to block. The driver is disabled because for some reason, the machine is no longer functioning correctly.
◆ These functions are programmed as standard and cannot be changed.
◆ The "Alarm functions" optional feature cannot be installed for these error messages (no signal is emitted by the optionally installed alarm system).

selection locked outlet missing	The outlet is missing or has not been detected.

> **See also chapter 6.1.1.**

selection locked container n.i. place	The coffee grouts container is missing or has not been detected.

> **See also chapter 6.1.1.**

selection locked motor driver error	Switch off coffee machine.

> **See also chapter 6.1.1.**

selection locked milk door open	The milk service door is open or the sensor is defective.

> **See also chapter 6.1.1.**

selection locked door open	The panel appears to be open.

> **See also chapter 6.1.1.**

selection locked heating timeout	The tea boiler heating system is defective.

> **See also chapter 6.1.1.**

7.6   CPT cappuccino unit

■ **Option:**

The following products can be prepared using the CPT:
- Cappuccino, manual preparation
- Hot milk, manual preparation

◆ For further information, contact your licensed dealer.

⚠️ **Danger!**
Once you have pressed the dispense buttons, keep your hands and other parts of your body away from the beverage dispensing area in order to protect yourself against scalding!

7.6.1   How to make cappuccino using the CPT cappuccino unit

Description
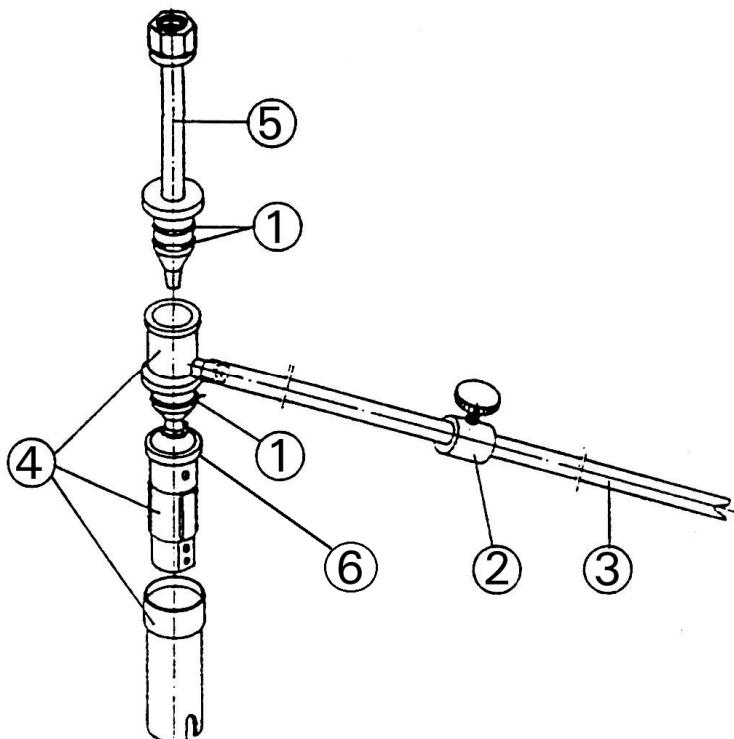
Parts

1. O-ring joints **(063111)**
2. Regulator screw
3. Suction hose
4. Individual CPT units
5. Steam nozzle (CPT connector)
6. O-ring joint **(063112)**

Immerse suction hose (3) in the milk container. Screw the temperature regulator (2) in as far as it will go and then give a single turn in the unscrew direction. Open the valve above the key. If the cappuccino is too hot, turn the regulator screw slightly anticlockwise.

When a sufficient quantity of cappuccino has been served, close the valve by pressing the key.

ℹ️ **Note:**
There must be at least 40 cm clearance between the milk pack and the CPT. Previously heated milk or milk that has passed the "best before" date will not foam.

7.6.2 *How to prepare Cappuccino Magic and hot milk manually using a CPT (optional extra)*

⚠️ **Danger!**
Never point the steam jet towards parts of your body!

■ **Option:**

1. Press the **[⚇]** key twice in rapid succession to remove any condensation from the pipe (only possible in start/stop mode).
2. Immerse the suction hose in the milk container.
3. Put a cup under the Cappuccino Magic outlet.
4. Press the **[⚇]** key again:

> **select product**
> **12.00   15.10.2001**

The milk is served.

◆ Pressing the **[⚇]** key again prematurely terminates milk output (only in start/stop mode).
◆ The nature of the milk foam can be regulated using the air intake screw (unscrewing it causes a greater quantity of firmer milk foam to be served, screwing it in a smaller quantity of less firm milk foam).
◆ There must be at least 40 cm clearance between the milk container and the cup.
◆ The milk must be at room temperature. Previously heated milk or milk that has passed the "best before" date will not foam.
◆ It makes no difference whether the coffee or milk foam is served first. The only difference will be in the color of the foam.
◆ If a Cappuccino Magic is paid for by card, pressing the cleaning key immediately after serving triggers a jet of steam to clean the outlet.
◆ Cappuccino Magic can be programmed so that coffee and milk can be served simultaneously.

7.7 *Special steam*

7.7.1 *Special steam with automatic steam cut-off*

⚠️ **Danger!**
Never point the steam jet towards parts of your body!

■ **Option:**

This special steam outlet measures the temperature of the product to be heated. The steam output automatically cuts off when the fixed temperature setting programmed by the service engineer is reached. A timer operates in parallel to the temperature measurement. Repeat the procedure if the required temperature is not attained under exceptional circumstances and the steam outlet cuts off nevertheless.

Two variants of this design are available.

1st variant:

Press the **[⬚]** key briefly to heat up a full cup.
Press the **[⬚]** key and hold it for about 2 seconds to heat up a full pot.
(The steam output can be cancelled prematurely by pressing the steam button again.)

2nd variant:

Automatically controlled steam output. Pressing the **[⬚]** key briefly causes steam to be output. The steam output is automatically increased to full capacity after 3 seconds.
This variant is only suitable for larger containers such as coffee pots with a capacity of min. 500 ml.
Pressing the steam key again cancels the steam output prematurely (providing start/stop mode is enabled).

Preparing a beverage:

1. Immerse the steam pipe into the beverage to be heated until it reaches the bottom of the container.
2. Press the **[⬚]** key as described above:

```
  select product
12:00        15.10.2001
```

3. The steam output is switched off automatically when the pre-programmed temperature is reached or by pressing the steam key again. (The deeper the note, the higher the temperature.)
4. Place the container to the side.
5. Clean the steam pipe with a damp cloth.

◆ Pressing the **[⬚]** key again cancels the steam output prematurely, providing start/stop mode is enabled.
◆ The steam pipe must remain immersed for as long as steam is being output.
◆ The beverage may start to bubble when the boiling point is reached.
◆ Steam cannot be pre-selected.
◆ Steam output is prevented during the coffee machine's heating up phase after the system has been switched on.

7.8   *2^(nd) mill (duo mill)*

■ **Option:**   Installing a second coffee mill enables normal and decaffeinated coffee to be freshly ground.

◆ Can be retrofitted.
◆ For further information, contact your licensed dealer.

7.9   *Water softener (Filados/Brita)*

■ **Option:**   Using a water softener improves the quality of the water or softens it to the hardness recommended for the coffee machine.

◆ **See also chapter 2.2.4 (Water connection/outlet).**
◆ For further information, contact your licensed dealer.

7.10   *Cup sensor*

■ **Option:**   The cup sensor recognizes the cup under the beverage outlet of the machine and releases the product dispensing. Without a cup in place product dispensing is blocked. The automatic rinsing process will also be blocked, after the milk is served, until the cup is removed from the beverage outlet.

7.11   *Quick cup warmer*

■ **Option:**   The cup is (manually) pre-warmed before the product is served.

◆ For further information, contact your licensed dealer.
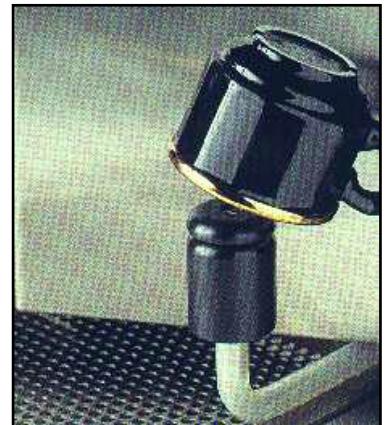
7.12   *Cup warmer*

■ **Optional feature:** The cup warmer consists of an additional unit (enables large numbers of cups to be pre-warmed).

◆ For further information, contact your licensed dealer.
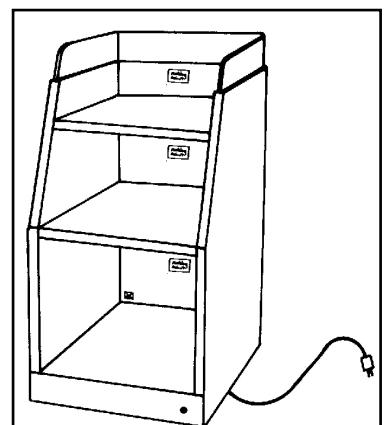
7.13   _User instructions for special machines (water tank)_

The following information only applies to machines with fresh and wastewater tanks.

7.13.1   _Refill fresh water tank_

When the level in fresh water tank is too low, the **[⊖]** key flashes. The following message is displayed:

> **selection locked**
> **watertank empty**

1. Take out the fresh water tank.
2. Fill up with fresh water.
3. Put the water tank back in place.
4. Quit by pressing the flashing red **[⊖]** key.

◆ To prevent the water pump from functioning without water, no products can be served if the water level is too low. The current product is served.
◆ Always check the water level before running the cleaning program.

7.13.2   _Empty wastewater tank_

When the wastewater tank is full, the **[⊖]** key flashes. The following message is displayed:

> **selection locked**
> **waste watertank full**

1. Remove the wastewater tank.
2. Empty and, if necessary, rinse.
3. Put the wastewater tank back in place.
4. Quit by pressing the flashing red **[⊖]** key.

◆ To prevent the wastewater tank from overflowing, no products can be served. If the message is displayed while a product is being served, service continues.
◆ Always empty the wastewater tank before running the cleaning program.

7.13.3   _User instructions for machines with fresh and wastewater tanks (trolley-mounted)_

◆ Capacities are as follows:
    Fresh water tank: 16 liters.
    Wastewater tank: 11 liters

◆ The fresh water tank must be filled daily with fresh, clean drinking water.

◆ If the machine is out of use for lengthy periods, both tanks must be emptied and cleaned.

◆ Always keep the inside of the trolley dry.

◆ Only place the tanks in the space provided (level monitoring).

◆ The trolley must be pulled, not pushed, during transport (safety measure).

◆ The trolley is not intended for transportation of merchandise. The manufacturer accepts no liability for damage caused by misuse of the trolley or failure to respect the user instructions.

8. *<u>Contents</u>*

■ **Optional features:**

This chapter addresses users who have a payment system installed on their coffee machine.

<u>Available payment systems</u>

The coffee machine can be used with or without payment. Various systems and possibilities exist for payment mode.

8.   Payment systems

8.1.   Cards compatible with all payment systems

8.1.1.   MASTER card

The MASTER card is a chip payment card that is compatible with all payment systems, both external and internal. It entitles the bearer to obtain beverages from the machine free of charge, without these being booked to the payment system.

Beverages obtained using the MASTER card are simply added to the total on the machine and daily counters.

◆ The MASTER chip card must be enabled by the service engineer or by means of the PROGRAM card (optional feature) on the machine (see chapter 4.6.1.12). If the MASTER card is to be valid for several machines, it must be enabled separately on each machine (security measure).

■ *The MASTER card is an optional feature and is not included in the standard delivery package.*

8.1.1.1.   How to obtain beverages using the MASTER card

To obtain a beverage free of charge, insert the MASTER card in the card reader. Press the desired product key and remove the card from the card reader.

1.   Insert MASTER card in the card reader:

> **free product**
> **12:00   15.10.2001**

2.   Press product key:
     The selected product is served.
3.   Remove MASTER card.

8.2.   Payment with internal systems

8.2.1.   MONEY chip card system

Requisite chip cards
-   MONEY   - A - card(s)
■   -   MONEY   - B - card(s)
■   -   MONEY   - C - card(s)
■   -   MONEY   - D - card(s)
■   -   MONEY   - E - card(s)
■   -   MONEY   - F - card(s)
■   -   MONEY   - G - card(s)
■   -   MONEY   - H - card(s)
■   -   MONEY   - I - card(s)
■   -   MONEY   - J - card(s)
■   -   LOAD   - card (see chapter 8.2.2)
■   -   PROGRAM   - card (see chapter 8.2.3)
■   -   MASTER   - card (see chapter 8.1)
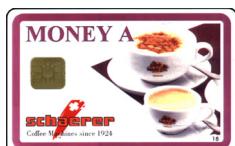
For all the functions described in this chapter, it is assumed that the coffee machine is ready for routine operation in payment mode.

8.2.1.1. *MONEY card*

The MONEY card is a credit card, which is inserted into the card reader to obtain a beverage. Payment is debited from the card and the remaining credit displayed.

The various MONEY cards (MONEY A-J) have different price levels (0%-255% of the programmed product price). These price levels can be programmed individually, as required, by the service engineer.

A single MONEY card may be enabled for several coffee machines on condition that the machines have the same ID number (set by the service engineer).

8.2.1.1.1. *How to obtain beverages using the MONEY card*

Coffee products

```
credit operation
12:00        15.10.2001
```

1. Insert MONEY card into the card reader.

```
credit      xx.xx
select product
```

2. Press product key.

```
credit      xx.xx
choice  x   supply  x
```

3. The beverage is served
4. Order further beverages or remove the MONEY card from the card reader.

Tea/steam

```
credit operation
12:00        15.10.2001
```

1.   Insert MONEY card into the card reader.

```
credit      xx.xx
select product
```

2. Press tea or steam key.

```
credit      xx.xx
12:00        15.10.2001
```

3. The beverage is served.
◆ Pressing the same key again prematurely ends water or steam output.
◆ **Several water and steam products cannot be obtained in succession.**
◆ When the product key is pressed, payment is debited from the MONEY card and the remaining credit displayed.
◆ Several coffee products can be obtained in succession.
◆
```
please wait
remove card
```
Pre-selection using several MONEY cards is not possible. All of the beverages ordered with the first MONEY card are served before products can be ordered using the next MONEY card.
◆ If the MONEY card remains in the card reader for more than 5 seconds (can be set by the service engineer to any value from 0-99), a signal sounds to remind the user that the card is still in the card reader (signal can be deactivated by the service engineer).
◆
```
credit      xx.xx
too little credit
```
This message appears if the price of the product exceeds the amount of credit left on the MONEY card.

8.2.1.1.2. *Program the amount of water/coffee powder dispensed for individual coffee products*

```
  credit operation
12:00        15.10.2001
```

1. Insert MONEY card into the card reader:

```
  credit    xx.xx
  select product
```

2. Hold **[⊖]** key down for approximately 4 seconds.

```
  select product
  store ? `Decaf`
```

3. Select the required product key.

```
  water quantity  + 0%
change `-/+` `Decaf` -->
```

4. Change the amount of water using the **[⊕]** and **[⊖]** keys (max. 30% more or less).
5. Press **[DECAF]** key to confirm the new amount of water.

```
  grind quantity    + 0%
change `-/+` `Decaf` -
```

6. Change the amount of coffee powder using the **[⊕]** and **[⊖]** keys (max. 20% more or less)
7. Press **[DECAF]** key to confirm the new amount of coffee powder.

```
  select product
  store ? `Decaf`
```

8. Repeat steps 3 to 7 for each successive product.
9. Press **[DECAF]** key to save the changed data to the card.

```
  ... Busy ...
```

```
  credit    xx.xx
  select product
```

◆ Signal sounds after set time interval.
10. Remove MONEY card from the card reader.
11. Products are now served with the newly programmed amounts of water and coffee.

◆ *If the MONEY card is removed before the data are saved (9) a brief signal sounds. The values have not been saved to the card.*

8.2.1.1.3. *Reset amounts of water/coffee powder for individual coffee products*

```
  credit operation
```

1. Insert MONEY card into the card reader:

```
  credit    xx.xx
  select product
```

2. Hold **[⊕]** key down for approximately 4 seconds until a signal sounds. The following message is displayed:

```
individual measuring
delete ? `Decaf` «
```

3. Press **[DECAF]** key.
◆ Signal sounds after set time interval.
4. Remove MONEY card from the card reader.

```
  credit    xx.xx
  select product
```

◆ When values are reset, the manufacturer defaults are written to the card.

8.2.1.2. *LOAD card*

The LOAD card is used to load or delete credit onto/from MONEY cards.

◆ If you have no LOAD card, MONEY cards can be reloaded by your licensed after sales service.
◆ *The LOAD card is an optional feature and is not included in the standard delivery package.*

8.2.1.2.1. *Menu*

- Load credit onto MONEY cards
- Delete credit to MONEY cards
- Display total credit loaded on MONEY cards
- Info MONEY cards
- Enable MONEY cards
- Disable MONEY cards
- MONEY cards history
- Change PIN code

◆ *At the end of every menu:*
Press **[⊕]** or **[⊖]** key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

8.2.1.2.2. *Programmable security levels*

If the service engineer has programmed security levels 1 or 3 for the LOAD card, the PIN code must be entered each time the card is used.

1. Insert LOAD card into the card reader:

```
PIN-Code    0000
` +/-`        ` Decaf ➔`
```

2. Set the first digit of the PIN code using the **[⊕]** and **[⊖]** keys.
3. Confirm with the **[DECAF]** key.
4. Repeat steps 2 and 3 until the complete PIN code has been entered.
5. Press **[⊕]** or **[⊖]** key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

◆ Pressing the **[DECAF]** key accepts existing values
◆ The PIN code is only activated if so programmed.
◆ The current PIN code is not displayed.

8.2.1.2.3. *Load credit onto MONEY card*

1. Insert LOAD card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

```
load MONEY-card
execute ' Decaf '
```

3. Press **[DECAF]** key.

```
remove card
```

4. Remove LOAD card.

> **insert card**
> **MONEY / LOAD ->**
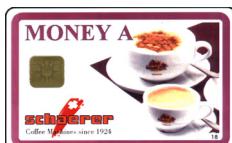
5. Insert MONEY card into the card reader.

> **amount   xx.xx**
> **entry   x.xx**

Amount = Credit balance
Enter = Credit to be loaded

6. Using the **[⊕]** and **[⊖]**, enter the amount of credit to be loaded. Pressing the **[⊕]** or **[⊖]** key adds or subtracts credit by the factor programmed by the service engineer.

7. Press **[DECAF]** key.

> **amount   xx.xx**
> **... Save ...**

> **remove card**

8. Remove MONEY card

> **insert card**
> **MONEY / LOAD ->**

9. Load another MONEY card ➜ Repeat steps 5-8. Back to menu➜ Insert LOAD card into the card reader.

> **load MONEY-card**
> **execute ' Decaf '**
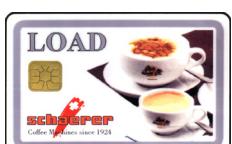
10. Press **[⊕]** or **[⊖]** key to reach the next menu, remove LOAD card ➜ coffee machine ready in payment mode.

8.2.1.2.4. Delete credit from MONEY card
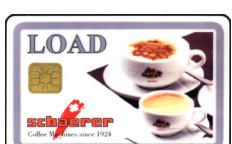
1. Insert LOAD card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

> **delete MONEY-card**
> **execute ' Decaf '**

3. Press **[DECAF]** key.

> **remove card**

4. Remove LOAD card:

> **delete MONEY-card**
> **execute   ' Decaf '**

5. Insert MONEY card into the card reader:

> **MONEY card**
> **delete ? ` Decaf `**

6. Press **[DECAF]** key.

> **MONEY-card**
> **... Busy ...**

> **remove card**

7. Remove MONEY card.

> **insert card**
> **MONEY / LOAD ->**
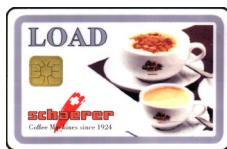
8. Delete another MONEY card ➔ Repeat steps 5-7. Back to menu➔ Insert LOAD card into the card reader.

> **delete MONEY-card**
> **execute   ' Decaf '**

9. Press [⊕] or [⊖] key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

8.2.1.2.5. *Display total amount of credit loaded and reset (MONEY card)*

1. Insert LOAD card into the card reader.
2. Press [⊕] or [⊖] key until the following menu is displayed:

> **load MONEY-card**
> **sales   0.00**

=Total amount of credit loaded on all MONEY cards since the last reset.

3. Press [(DECAF)] key.

> **load MONEY-card**
> **delete ? `Decaf`**

4. Press [(DECAF)] key.

> **loead MONEY-card**
> **... Done ...**

> **loead MONEY-card**
> **sales   0.00**

5. Press [⊕] or [⊖] key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

8.2.1.2.6. *Chip card info*
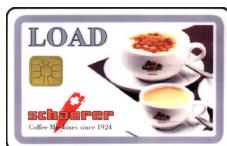
It is possible to query card numbers (incremental and assigned by the manufacturer). E.g. if a MONEY card is found, the card number enables the bearer to be identified, on condition that the cards are registered when allocated.

1. Insert LOAD card into the card reader.
2. Press [⊕] or [⊖] key until the following menu is displayed:

> **info MONEY-card**
> **display   `Decaf`**

3. Press [(DECAF)] key.

> **remove card**

4. Remove LOAD card.

> **insert card**
> **MONEY / LOAD ➔**

5. Insert MONEY card into the card reader.

> **MONEY-A   YY**
> **Card-Nr.   xxxx**

MONEY-A   = Price group
   YY   = Transaction counter (no. of products served)
Card no.   = Card no.

6. Remove MONEY card.

> **insert card**
> **MONEY / LOAD -➔**

7. Load another MONEY card ➔ Insert next MONEY card. Back to menu➔ Insert LOAD card into the card reader.
8. Press [⊕] or [⊖] key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

8.2.1.2.7. *Enable MONEY card*

1. Insert LOAD card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

   > **release MONEY-card**
   > **execute   ` Decaf `**

3. Press **[DECAF]** key.

   > **remove card**

4. Remove LOAD card:

   > **insert card**
   > **MONEY / LOAD →**

5. Insert MONEY card into the card reader:

   > **MONEY card**
   > **released**

   > **remove card**

6. Remove MONEY card.

   > **insert card**
   > **MONEY / LOAD →**

7. Enable another MONEY card ➔ Insert the next MONEY card. Back to menu➔ Insert LOAD card into the card reader.
8. Press **[⊕]** or **[⊖]** key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

8.2.1.2.8. *Disable MONEY card*
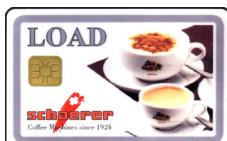
1. Insert LOAD card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

   > **lock MONEY-card**
   > **execute   ` Decaf `**

3. Press **[DECAF]** key.

   > **remove card**

4. Remove LOAD card:

   > **insert card**
   > **MONEY / LOAD →**

5. Insert MONEY card into the card reader.

   > **MONEY card**
   > **locked**

   > **remove card**

6. Remove MONEY card.

   > **insert card**
   > **MONEY / LOAD -->**

7. Disable another MONEY card ➔ Insert next MONEY card. Back to menu➔ Insert LOAD card into the card reader.
8. Press **[⊕]** or **[⊖]** key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

8.2.1.2.9. _MONEY card history_

1. Insert LOAD card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

> **MONEY history**
> **display ` Decaf `**

3. Press **[DECAF]** key.

> **Nr. xx   xxxxx**
> **12:00   15.10.2001**

The card and registration numbers and the time and date the card was last written to are displayed.

4. Pressing **[⊕]** or **[⊖]** browses the entries on the MONEY cards (1–20).
5. Remove LOAD card ➔ coffee machine is ready in payment mode.

◆ It is possible to query card numbers (incremental and assigned by the manufacturer). E.g. if a MONEY card is found, the card number enables the bearer to be identified, on condition that the cards are registered when allocated.

8.2.1.2.10. _Change PIN code_

1. Insert LOAD card into the card reader.
2. Press **[⊕]** or **[⊖]** key until the following menu is displayed:

> **change PIN-code**
> **execute ` Decaf `**

3. Press **[DECAF]** key.

> **PIN-Code   0000**
> **`+/-`   ` Decaf `➔**

4. Set the first digit of the PIN code using the **[⊕]** and **[⊖]** keys.
5. Confirm with the **[DECAF]** key.
6. Repeat steps 4 and 5 until the complete PIN code has been entered.
7. Press **[⊕]** or **[⊖]** key to reach the next menu, remove LOAD card ➔ coffee machine ready in payment mode.

◆ Pressing the **[DECAF]** key accepts existing values.
◆ The PIN code is only activated if so programmed.
◆ The current PIN code is not displayed.

8.2.1.3.   PROGRAM card

In payment mode using MONEY cards, the PROGRAM card is used for statistical purposes and for setting user-relevant data.

◆   *The PROGRAM card is an optional feature and is not included in the standard delivery package.*

8.2.1.3.1.   Menu

- Enable/disable payment mode
- Switch prices
- MONEY card price levels 1+2
- Change token price with or without MONEY cards price levels 1+2.
- Change product prices and article numbers   (Only for external payment mode)
- Display MONEY sales
- Reset MONEY sales
- Display MASTER sales
- Reset MASTER sales
- Log on MASTER card
- Delete MASTER card table
- Enable/disable timer
- Change PIN code

◆   At the end of every menu:
Remove PROGRAM card ➔ coffee machine ready in payment mode.
Press **[⊕]** or **[⊖]** key to reach the next menu.

◆   *You will find a detailed description of how to use and program the coffee machine using the PROGRAM chip card in chapter 4.6.1.*

8.3. *Payment with self-service systems*

8.3.1. *Token slot and related systems*

Chip cards required   - None

- ■ - MASTER card (see chapter 8.1).

   For all the functions described in this chapter, it is assumed that the machine is ready for routine operation in payment mode.

- ◆ The coffee machine will accept tokens at the same time as MONEY cards if programmed to do so by the service engineer.

8.3.1.1. *Prepare beverages*

1. If the machine is ready in payment mode, the following message is displayed:

```
   credit operation
12:00        15.10.2001
```

2. Insert token into the token slot.

```
   token credit   1
   select product
```

3. Press product key. Product is served.

- ◆ Several tokens may be inserted. When a product is selected, the number of tokens set by the service engineer for the selected key is debited from the displayed credit.
- ◆ It may be necessary to insert several tokens (max. 5) in order to obtain a beverage.
- ◆ For the token slot to be able to accept tokens the machine must be switched on and payment mode enabled with the PROGRAM card (see chapter 4.6.1.3).
- ◆ If too many tokens are inserted, they remain as credit but cannot be reclaimed. No coins/tokens are returned.
- ◆ **Attention:** Credit is lost when the machine is switched off.

8.3.2. *NRIG 13 EMP no-change coin slot and related systems (standard type)*

Chip cards required   - None

- ■ - MASTER card (see chapter 8.1)
- ■ - PROGRAM card to change prices, enable, disable and for payment mode.

   For all the functions described in this chapter, it is assumed that the coffee machine is ready for routine operation in payment mode. If the coin slot is programmed for tokens, it can be fed both coins and tokens.
   Each product has a coin price and a token price.
   The slot can also be used solely for tokens if disabled for coins.

8.3.2.1. *Prepare beverages*

1. When the coffee machine is ready, the following message is displayed:

```
        insert money
12:00          15.10.2001
```

2. Insert the required amount into the coin slot. **Warning**: Only use the coins intended for the coin slot.

When a token is inserted:

```
     price level  -1
     select product
```

When coins are inserted:

```
      credit  1,50
     select product
```

3. Press product key. The product is served.

This message is displayed if not enough money has been inserted:

```
        insert money
price   1,50      1  token
```

◆ **For multiple-price coin slot systems, contact the licensed after sales service.**
◆ **For the coin slot to be able to accept coins the machine must be switched on and payment mode enabled using the PROGRAM card.**
  (See also chapter 4.6.1.3.)
◆ **If too much money is inserted, it remains as credit but cannot be reclaimed. No coins are returned.**
◆ **WARNING: Credit is lost when the machine is switched off.**

8.3.3. *CF350 Totalisator dual-price coin slot*

◆ **The coin slots are programmed by the service engineer or ex-factory for two price levels.**
◆ **Insert the coins or tokens. If the first price level is attained, the corresponding product can be obtained. If a second price-level product is ordered, the following message is displayed: "enough credit"**
◆ **If the second price level is attained, all products can be obtained.**
◆ **When a product is served, excess cash or tokens are deleted. No coins/tokens are returned.**

8.3.4. *CSI (Coffee Standard Interface) external payment – Connection to coffee-bar system*

Chip cards required   - None

■ - MASTER card (see chapter 8.1).

The coffee machine is connected to an external payment system and indirectly linked to the cash register via a coffee-bar system.

The waiter is identified by the external system. When the waiter ID is authenticated, an enable signal is sent from the payment system to the machine. When the product is served, the article reference and the number of products are transmitted to the cash register and booked to the respective waiter.

For all the functions described in this chapter, it is assumed that the machine is ready for routine operation in payment mode.

8.3.4.1. _Prepare beverages_

1. When the coffee machine is ready, the following message is displayed:

> **waiter release**
> **12:00   15.10.2001**

2. Plug waiter jack into coffee-bar system.

> **select product**
> **12:00   15.10.2001**

3. Press product key. Product is served.

◆ **To ensure that payment mode functions correctly, the machine must be switched on and payment mode enabled using the PROGRAM card (see chapter 4.6.1.3).**

8.4. _Payment using Waiter Account_

8.4.1. _Waiter Account chip card system_

For all the functions described in this chapter, it is assumed that the coffee machine is ready for routine operation in payment mode.

Chip cards required:

- ■ - WAITER card(s)
- ■ - MANAGER card
- ■ - PROGRAM card
- ■ - COPY WAITER card
- ■ - MASTER card (see chapter 8.1)

8.4.1.1. _WAITER card_

In order to obtain a beverage, the WAITER chip card must be inserted into the card reader. Each waiter has his own personal card which has been enabled using the coffee machine's PROGRAM card and given an ID number.

Beverages served are totaled on the WAITER chip card.

◆ **Up to 128 WAITER chip cards can be enabled for the machine.**

8.4.1.1.1. _Preparing beverages with the WAITER card_

```
      waiter release
12:00        15.10.2001
```

1. Insert the WAITER card into the card reader:

```
      waiter  1
sales      0.000
```

2. Press product key:

```
      waiter  1
choice  1    supply  1
```

3. The beverage is served:

```
      waiter  1
sales      3.000
```

4. Order further products or remove the WAITER card from the card reader.

◆ **When the product key is pressed, the product price is added to the total sales on the WAITER card and displayed if programmed to do so.**

◆ **ATTENTION: If the WAITER card is removed from the card reader too early (up to 1 second after the product has been served) the following message is displayed:**

```
    waiter release
    *write error
```
The product will not be served but the price will be debited.

8.4.1.2.   MANAGER card

The MANAGER-chip card is used to program data relevant to routine Waiter Account payment mode.

- The MANAGER card is an optional feature and is not included in the standard delivery package

8.4.1.2.1.   Menu

- Waiter payment
- Data backup
- Display waiter
- Log on waiter
- Log off waiter
- Change PIN code

◆ **At the end of every menu:**
Remove MANAGER card ➔ Coffee machine ready in payment mode.
Press **[⊕]** key to reach the next menu.

8.4.1.2.2. Programmable security levels

If the service engineer has programmed security levels 1 or 3 for the MANAGER card, the PIN code must be entered each time the card is used

```
     waiter release
12:00          15.10.2001
```

1. Insert MANAGER card into the card reader:

```
  PIN-Code    xxxx
```

2. Enter the PIN code using the **[⊕]** and **[⊖]** keys. Confirm individual digits with the **[DECAF]** key.

8.4.1.2.3. Waiter payment

8.4.1.2.3.1. WAITER card sales

This function enables you to query waiter sales. The logged on WAITER cards are required in order to do so.

1. Insert the MANAGER card into the card reader.
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

```
  waiter accounting
  execute    ' Decaf '
```

3. Press **[DECAF]** key:

```
    remove card
```

4. Remove MANAGER card:

```
    insert card
KELLNER/MANAGER->
```

5. Insert the WAITER card whose sales you wish to display or reset:

```
    waiter  1
  sales    0.000
```
➔ *Waiter number*
➔ *and total sales are displayed.*
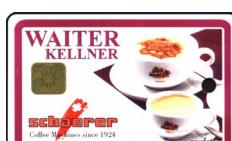
Remove the WAITER card from the card reader. Insert another WAITER card or the MANAGER card ➔ Coffee machine ready in payment mode.

8.4.1.2.3.2. *Reset WAITER card*

This function enables you to reset waiter sales. The logged on WAITER cards are required in order to do so.

1. Insert MANAGER card in to the card reader.
2. Press [⊕] or [⊖] until the following menu is displayed:

> **waiter accounting**
> **execute ' Decaf '**

3. Press [⒟ᴇᴄᴀꜰ] key:

> **remove card**

4. Remove MANAGER card:

> **insert card**
> **WAITER/MANAGER-->**

5. Insert the WAITER card whose sales you wish to display or reset:

> **waiter   1**
> **sales   22.222**

➔ *Waiter number*
➔ *and total sales are displayed.*

6. Press [⒟ᴇᴄᴀꜰ] key:

> **WAITER card**
> **delete   ? ' Decaf '**

7. Press [⒟ᴇᴄᴀꜰ] key:

> **waiter   1**
> **sales   0.000**

Remove the WAITER card from the card reader. Insert another WAITER card or the MANAGER card ➔ Coffee machine ready in payment mode.

8.4.1.2.4. *Log on waiter*

This function enables you to log on a waiter. The logged on WAITER cards are required in order to do so.

1. Insert MANAGER card into the card reader.
2. Press [⊕] or [⊖] until the following menu is displayed:

> **log on waiter**
> **execute   ' Decaf '**

3. Press [⒟ᴇᴄᴀꜰ] key:

> **remove card**

4. Remove MANAGER card:

> **insert card**
> **WAITER/MANAGER -->**

5. Insert WAITER card:

> **waiter   xx**

6. Enter a WAITER number. (0-999)

> **waiter 1**

If 0 is entered, the following message is displayed:

> **waiter 0**
> **no. invalid**

If a number is entered which already exists, the following message is displayed:

> **waiter 1**
> **no. exists**

In both cases, remove the WAITER card, re-insert it and enter a new number

7. Press **[⊙ECAF]** key.

> **... Busy ...**

> **remove card**

8. Remove WAITER card:

> **insert card**

9. To log on further WAITER cards, insert the next WAITER card and repeat steps 4 and 5.
    Remove MANAGER card ➔ Coffee machine ready in payment mode.

◆ **If several machines are in use, the card is now enabled for all of them. How-ever, in order to be able to obtain products, the WAITER card must also be logged onto the other machines as well.**

8.4.1.2.5. *Log off waiter*

This function enables you to log off a waiter. The logged on WAITER cards are **not** required in order to do so.

1. Insert MANAGER card into the card reader.
2. Press **[⊕]** or **[⊖]** until the following menu is displayed:

> **log off waiter**
> **execute ' Decaf '**

3. Press **[⊙ECAF]** key:

> **waiter 0**

4. Press **[⊕]** or **[⊖]** key until the desired WAITER number is displayed.

> **waiter 1**

5. Press **[⊙ECAF]** key:

> **waiter 1**
> **card logged off**

> **waiter 0**

If a WAITER number is entered which does not figure in the waiter table, the follow-ing message is displayed:

> **waiter 2**
> **does not exist**

> **waiter 0**

6. Repeat steps 4 and 5 to log off further WAITER cards. Remove MANAGER card ➔ Coffee machine ready in payment mode.

8.4.1.2.6. *Display waiter numbers*

This function enables you to disable waiter sales. The logged-on WAITER cards are **not** required in order to do so.

1. Insert MANAGER card into the card reader.
2. Press [⊕] or [⊖] until the following menu is displayed:
3. Press [DECAF] key:

waiter 1

All of the waiter numbers in the waiter table are briefly displayed in order.

waiter 2

waiter 3

... and so on.

8.4.1.2.7. *Data backup*

If a WAITER card is lost or is defective, this function enables you to query the total sales of the 32 most recently used WAITER cards.

1. Insert MANAGER card into the card reader.
2. Press [⊕] or [⊖] until the following menu is displayed:

save data display ' Decaf '

3. Press [DECAF] key:

waiter 3 sales   22.222

4. Pressing the [DECAF] key enables you to query the total sales in order starting with the highest waiter number

save data sales   0.000

8.4.1.2.8. *Change PIN code*

1. Insert MANAGER card into the card reader.
2. Press [⊕] or [⊖] until the following menu is displayed:

change PIN-code execute ' Decaf '

3. Press [DECAF] key:

PIN-Code 0000 ' -/+ ' ' Decaf ' -->

4. Set the first digit using the [⊕] and [⊖] keys.
5. Confirm with the [DECAF] key.
6. Repeat steps 4 and 5 until the complete PIN code has been entered.

◆ **When the final digit is confirmed, the new PIN code is briefly confirmed.**

PIN-Code 0000 ... Down ...

◆ **Pressing the [DECAF] key accepts existing values.**
◆ **The PIN code is only activated if so programmed.**
◆ **The current PIN code is not displayed.**

8.4.1.3. COPY WAITER card

The COPY WAITER chip card enables you to transfer the table of logged-on WAITER cards to another machine.

◆ **The COPY WAITER card is an optional feature and is not included in the standard delivery package**.

8.4.1.3.1. Menu

- Card ➔ Coffee machine
- Coffee machine ➔ Card

8.4.1.3.2. Copy waiter table "Card ➔ Coffee machine"

1. Insert COPY WAITER card into the card reader:

   > **copy WAITER**
   > **card --> machine**

2. Press [DECAF] key:

   > **... Load ...**

   The waiter table is copied to the machine.

   > **last backup**
   > **12:00   15.10.2001**

   The date of the last waiter table backup to the card is displayed.

3. Remove COPY WAITER card.

◆ **Never remove the COPY WAITER card from the card reader during data transfer!**

8.4.1.3.3. Copy waiter table "Coffee machine ➔ Card"

1. Insert COPY WAITER card into the card reader:

   > **copy WAITER**
   > **card -> machine**

2. Press [⊕] key until the following menu is displayed:

   > **copy WAITER**
   > **machine --> card**

3. Press [DECAF] key:

   > **... Save ...**

   The waiter table is copied to the chip card.

   > **waiter release**
   > **12:00   15.10.2001**

4. Remove COPY WAITER card.

◆ **Never remove the COPY WAITER card from the card reader during data transfer!**

8.4.1.4.   PROGRAM *card*

In Waiter Account payment mode, the PROGRAM card is used for statistical purposes and for setting user-relevant data.

◆   **The PROGRAM card is an optional feature and is not included in the standard delivery package.**
(For description, see chapter 4.6.1/article ref. nos. in chapter 2.3.3)

8.4.1.4.1. *Menu*

- Enable/disable payment mode
- Switch prices
- MONEY card price levels 1+2
- Change token price with or without MONEY cards price levels 1+2.
- Change product prices and article numbers   (Only for external payment mode)
- Display MONEY sales
- Reset MONEY sales
- Display MASTER sales
- Reset MASTER sales
- Log on MASTER card
- Delete MASTER card table
- Enable/disable timer
- Change PIN code

◆   *You will find a detailed description of how to use and program the machine using the PROGRAM-chip card in chapter 4.6.1.*

9. *<u>Contents</u>*

Chap.	**Text**	**Page**

9.1. Standard Settings (Software NT 2000 V 5)

Products	Counted products	Hoists per cup	Product pre-selection	Dual product	Coffee mill – Choice (left or right)	Grinding time	Dual product Extra amount ground	Initial pressure	Outlet switching	Prelim. infusion (no. of impulses)	Infusion Delay (sec.)	Open infusion chamber Opening time (ms)	Product amount (impulses)	Extra water 0 = disabled (sec.)	Secondary pressure	Secondary pressure (sec.)	Proportion of milk	Amount of milk (0-30 sec.)	Dispense variants: Milk before coffee / Milk with coffee / Milk after coffee	Delay
Ristretto	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	5	0.0	00	60	0.0	150	2.0	-	-	-	-
Espresso	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	0	-	00	80	0.0	150	2.0	-	-	-	-
Coffee	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	0	-	00	140	0.0	150	2.0	-	-	-	-
2 Ristrettos	2	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	600	45 %	160	enabled / disabled (disabled)	5	-	00	150	0.0	150	2.0	-	-	-	-
2 espressos	2	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	600	45 %	160	enabled / disabled (disabled)	0	-	00	150	3.0	150	2.0	-	-	-	-
2 coffees	1	2	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	0	-	10	280	6.0	150	2.0	-	-	-	-
Macchiato	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	0	-	00	60	0.0	150	2.0	50 %	10.0	Milk bef. / Milk with / Milk aft. (Milk bef.)	enabled / disabled
Cappuccino	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	0	-	00	60	0.0	150	2.0	0 %	10.0	Milk bef. / Milk with / Milk aft. (Milk with)	enabled / disabled
Milk coffee	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	0	-	00	60	0.0	150	2.0	100 %	10.0	Milk bef. / Milk with / Milk aft. (Milk bef.)	enabled / disabled
Latté	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	45 %	160	enabled / disabled (disabled)	0	-	00	60	0.0	150	2.0	50 %	10.0	Milk bef. / Milk with / Milk aft. (Milk bef.)	enabled / disabled
Coffee pot	1	1	enabled / disabled (enabled)	enabled / disabled (disabled)	Links	450	-	160	enabled / disabled (disabled)	0	-	00	200	0.0	150	2.0	-	-	-	-
By-pass coffee for spirits	1	1	enabled / disabled (enabled)	-	Links	200	-	160	enabled / disabled (disabled)	0	-	00	140	60 % *	150	2.0	-	-	-	-

Product program

*NB Extra water is served after the coffee and not with the coffee

Standard Settings   (Software NT 2000 V 5)

Milk	*Start / Stop* *enabled / disabled*	*Milk timeout 0-150 sec* *Standard 10.0 sec*	*Milk 0-99.0 sec* *Standard 10.0 sec*	-
Milk foam	*Start / Stop* *enabled / disabled*	*Milk foam timeout 0-150 sec* *Standard 10.0 sec*	*Milk foam 0-99.0 sec* *Standard 10.0 sec*	-
Tea	*Start / Stop* *enabled / disabled*	*Tea timeout after 0-150 sec* *Standard 10.0 sec*	*Tea dosing time 0-99.0 sec* *Standard 10.0 sec*	-
Steam	*Start / Stop* *enabled / disabled*	*Steam timeout after 0-150 sec* *Standard 10.0 sec*	*Steam dosing time 0-99.0 sec* *Standard 10.0 sec*	-
Special steam	*Start / Stop* *enabled / disabled*	*Special steam timeout after 0-150 sec* *Standard 90.0 sec*	*Automatic steam level* *enabled / disabled*	*Milk temperature 0°C - 90°C* *Standard 70°C*
Chocolate	*Output pulse 500ms*	-	-	-
Gen. parameters	Temperature Infusion water = 86°C	Infusion water Excess temperature-1 = 16°C	Infusion water Excess temperature -2 = 7°C	Temperature Hot water = 95°C
Gen. parameters	Temperature Steam = 120°C / with KML = 130°C	Grouts container capacity = 45 prods.	Mill empty message = 50	Cleaning reminder = 450
Gen. parameters	Temp. of milk in refrigerator = 3°C-5°C	-	-	-

10. *Contents*

10 APPENDIX

10.1 *CE Declaration of conformity*

These products meet the demands of the EU guidelines.

73/23/EEC   Electrical Equipment for Use within Stipulated Voltage Limits.

89/336/EEC   Electromagnetic Compatibility.

The declaration of conformity can be obtained from the following addresses:

M. Schaerer AG
Gewerbestrasse 15
CH - 3302 Moosseedorf / Switzerland
Phone: ++41 031 85 85 111
FAX: ++41 031 85 85 140
E-Mail: info@schaerer.com
Internet: http://www.schaerer.com

10.2 *Cleaning agents*

10.2.1 *Cleaning agent "Daily cleaning agent"*

Attention!
Before you use the cleaning agent read the label attached to the cleaning agent container and the "HEALTH & SAFETY DATA SHEET." Should you not be in possession of the safety sheet, please order it from the distributing firm.

Purpose: Daily cleaning of the milk pipe system.

Form / smell: See "HEALTH & SAFETY DATA SHEET."

Use:

- Keep away from children and unauthorized persons.
- Do not swallow.
- Never mix the "daily cleaning agent" with the "weekly cleaning agent" or acids!
- When diluting with water carefully admix first the water (not hotter than 20° C) then the "daily cleaning agent."
- Use the enclosed cleaning container for the cleaning..
- While working with cleaning agents ensure good ventilation.

Emergency information: Ask the distributing company or a customer service authorized by the distributor for the telephone number of the emergency information center (toxicological information center) in your country.
If your country has no such or similar institution, call the following number in Switzerland for information in emergencies

++41 01 251 51 51 (Toxicological Information Center)

FIRST AID: SEE "HEALTH & SAFETY DATA SHEET."

Note:
Important for the doctor:
If possible show the doctor the cleaning agent label or the "HEALTH & SAFETY DATA SHEET."

Storage of the "daily cleaning agent:"
- Keep out of the reach of children and unauthorized persons
- Protect from heat.
- Protect from light.
- Do not mix cleaning agents.
- Store only in original container/packaging.
- Do not store together with food, beverages or other items of human consumption.
- Obey regulations for storage of cleaning agents.

10.1.1 *Cleaning agents "Weekly cleaning agents"*

Attention
Before you use the cleaning agent read the label attached to the cleaning agent container and the "HEALTH & SAFETY DATA SHEET." Should you not be in possession of this safety sheet, please order it from the distributing firm.

Purpose: For the weekly cleaning of the milk pipe system.

Form / smell: See "HEALTH & SAFETY DATA SHEET."

Use:

- Keep cleaning agent away from children and unauthorized persons.
- Do not swallow!
- Never mix the "weekly cleaning agent" with the "daily cleaning agent" or acids!
- When diluting with water carefully admix first the water (not hotter than 20° C) then the "weekly cleaning agent."
- Use the enclosed container for the cleaning..
- While working with the cleaning agents ensure good ventilation.

Emergency information: Ask the distributing company or a customer service authorized by the distributor for the telephone number of the emergency information center (toxicological information center) in your country.
If your country has no such or similar institution, call the following number in Switzerland for information in emergencies:

++41 01 251 51 51 (Toxicological Information Center)

First aid: See "HEALTH & SAFETY DATA SHEET."

Note:
Important for the doctor:
If possible show the doctor the cleaning agent label or the "HEALTH & SAFETY DATA SHEET."

Storage of the "weekly cleaning agent":
- Keep out of the reach of children and unauthorized persons.
- Protect from heat.
- Protect from light.
- Do not mix cleaning agents
- Store only in original container/packaging.
- Do not store together with food, beverages and other items of human consumption.
- Obey regulations for storage of cleaning agents.

10.1.2 *Cleaning tablet for the coffee machine*

Attention!
Before you use the cleaning agent read the label attached to the cleaning agent container and the "HEALTH AND SAFETY DATA SHEET." Should you not be in possession of this safety sheet, please order it from the distributing firm.

Purpose: For the daily cleaning of the coffee system of the coffee machine.

Form / smell: **See "HEALTH AND SAFETY DATA SHEET."**

Use:

- Keep the cleaning tablet away from children and unauthorized persons.
- Do not swallow!
- Do not eat or drink while using the cleaning tablet.
- Wash hands and face immediately before breaks and after using the cleaning tablet.
- Never mix the cleaning tablet with liquid or pulverized cleaning agents or with acids.

Emergency information: Ask the distributing company or a customer service authorized by the distributor for the telephone number of the emergency information center (toxicological information center) in your country.
If your country has no such or similar institution, call the following number in Switzerland for information in emergencies:

++41 01 251 51 51 (Toxicological Information Center)

First aid: See "HEALTH & SAFETY DATA SHEET."

Note:
Important for the doctor:
If possible show the doctor the cleaning agent label or the "HEALTH & SAFETY DATA SHEET."

Storage of the cleaning tablet:
- Keep out of the reach of children and unauthorized persons.
- Protect from heat.
- Protect from light.
- Protect from moisture
- Do not mix cleaning agents.
- Store only in original container/packaging.
- Do not store together with food, beverages and other items of human consumption
- Obey regulations for storage of cleaning agents.

10.2 *Performance plate of the steam generator and the instant heater*

10.2.1 *Coffee machine*

Key		10.3.1.1.	10.3.1.2.	10.3.1.3.
Type		DA	HW	HW
Excess operating pressure		2.5 bar	4.0 bar	2.5 bar
Maximum excess op. pressure	pmax	12 bar	12 bar	12 bar
Test excess pressure		18 bar	18 bar	18 bar
Maximum op. temperature	Tmax	192°C	192°C	192°C
Minimum op. temperature	Tmin	10°C	10°C	10°C
Operating temperature		140°C	152°C	95°C
Water capacity	Vol.	0.8 l	0.8 l	0.8 l
Year of construction		20..	20..	20...
Manufacture number		DA.....	HW.....	HW.....

10.2.1.1 *Steam generator (Type - DA 61156)*

```
M. Schaerer AG, CH-3302 Moosseedorf

Typ    :      SE    F-Nr.  :    DA.......   Constr. year:    20..
pmax   :   12 bar   Tmax   :     192°C      Vol.   :       0.8 l
U      :  230 VAC   Tmin   :      10°C      P      :      3000 W
f      :  50/60 Hz     Exec. and. control n. SVTI und TÜV Regulations
```

10.2.1.2 *Instant heater (Type - HW Tea 61164)*

```
M. Schaerer AG, CH-3302 Moosseedorf

Typ    :      SE    F-Nr.  :    HW.......   Constr. year       :     20..
pmax   :   12 bar   Tmax   :     192°C      Vol.   :       0.8 l
U      :  230 VAC   Tmin   :      10°C      P      :  2x3000 W
f      :  50/60 Hz     Exec. and. control n. SVTI und TÜV Regulations
```

10.2.1.3 *Instant heater (Type - HW Brewing 65111)*

```
M. Schaerer AG, CH-3302 Moosseedorf

Typ    :      SE    F-Nr.  :    HW.......   Constr. year:    20..
pmax   :   12 bar   Tmax   :     192°C      Vol.   :       0.8 l
U      :  230 VAC   Tmin   :      10°C      P      :      3000 W
f      :  50/60 Hz     Exec. and. control n. SVTI und TÜV Regulations
```

10.3 *Environmental aspects*

Packaging   The machines are shipped in reusable cartons and palettes.

Spare parts   Parts exchanged during a service are reconditioned as far as possible and used again.

Coffee grouts The grouts in the grouts container can put in the garden or added to the compost.

Cleaning agent **Environmental protection!**
If no re-use is possible, cleaning agents and their packaging must be disposed of in line with local laws and regulations in accordance with the "HEALTH AND SAFETY DATA SHEET."

Energy consumption The energy consumption corresponds to the technical state of the art at the time the machine was developed.

Disposal: **Environmental protection!**
The machines must be disposed off correctly and in line with local laws and regulations.

11. *Index*

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