

Operating instructions

Swiss Egro 70 Series



SWISS COFFEE SYSTEMS

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1 Introduction

Welcome among people requiring more from their coffee machines than JUST ability to make good coffee. Congratulations! You have selected a machine that combines efficiency, saving of energy and the worldwide acknowledged Egro quality. We wish you good speed.

1.1 Copyright protection

The company Egro AG reserves the right to make any technical changes to products described in these instructions without a prior notice in order to continuously develop and improve the machine.

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1.2 Purpose of operating instructions

These instructions are specially drawn up for employees operating, servicing, maintaining and repairing the machine. The instructions describe the functions and operation of your machine.

All operating persons must carefully read and understand these instructions before starting their work at the machine. Operating instructions should be stored near the machine.

A failure-free functioning of the machine is guaranteed provided that all these instructions are followed. In the event of disregard, especially concerning the chapter Important Safety Regulations, the device may present a hazard for operating and servicing personnel. Additionally, damages to the device or surrounding devices may arise.

No liability will be accepted for any damage or break down of service caused by disregarding the operating manual.

1.3 Warranty

Warranty and ex-gratia payments offered by the company Egro AG should be valid provided that your coffee machine is installed and maintained on a regular basis by an Egro contract partner. Any changes or installation of components not approved by the producer will terminate the warranty.

1.4 Symbols

Different symbols are used in these operating instructions. Meaning of symbols is described below:



Danger

This symbol is placed at safety instructions of special importance. Following of these instructions is essential. Disregard of instructions may result in injuries to user.
It concerns your own safety!



Attention

This warning symbol is placed at safety instructions of special importance. It means that the relevant instructions should be strictly followed in order to prevent damages to the machine.



Note

This symbol is placed to important product notes. It means that they give relevant notes or additional information about the system.

1.5 Quality assurance

Egro Coffee Systems AG applies the QA-system based on EN 29001/ISO 9001.

1.6 Sources of danger (examples)



Danger

Product temperature at dispenser nozzle is about 82°C for coffee, 98°C for hot water and 120°C for steam.
Danger of scalding!



Danger

Do not open the machine or remove its side panels! Danger of life through electric shock and danger of burn injuries!
There are no components adjustable by the user inside of the machine.
Please contact your Egro Customer Support in case of problems.

1.7 Important safety instructions (examples)



Attention

Do not dry towels on the machine. Louvers must not be covered. It may hinder the internal air circulation and lead to damages through overheating..



Attention

Always place the machine on a level, stable base.
Do not remove the power plug by pulling from power supply. The room temperature must not be lower than the freezing point (e.g. holidays, seasonal pause).

1.8 Conventional use

The Swiss Egro 70 Series is a full automatic coffee machine. Coffee drinks are made of fresh coffee beans and fresh water heated in the machine.

The machine is designed for use in professional gastronomy environment. A precondition for faultless functioning of the machine is professional connection to water and power supply and sewage system.



Note

These operating instructions must be read prior to commissioning the coffee machine together with additional devices!

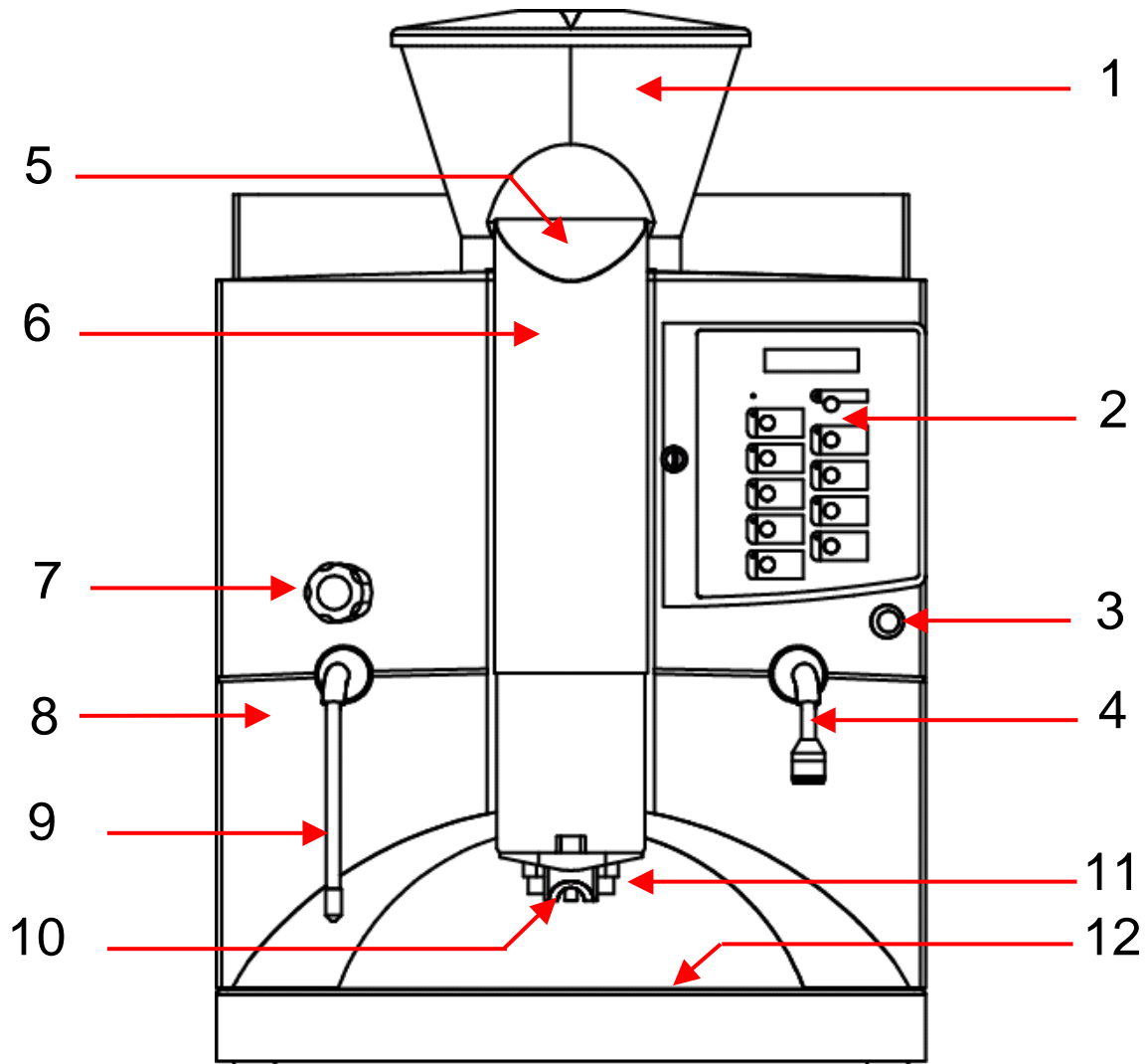
1.9 User

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

2 Control elements

2.1 Overall view



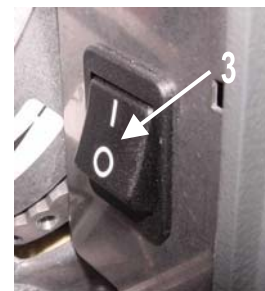
Pos.	Element	Pos.	Element
1	Bean hopper 2 x 1,25 kg	7	Steam adjustment valve (option)
2	Keypad	8	Waste container
3	Mode lock	9	Steam dispenser (option)
4	Tea dispenser	10	Coffee dispenser
5	Manual dosage (instant coffee / cleaning tablets)	11	Milk dispenser
6	Front cover	12	Drip grid

2.2 Main switch

The main switch is located behind the lockable front cover.

1. Lock
2. Front cover
3. Main switch

Positions: I = ON
 O = OFF

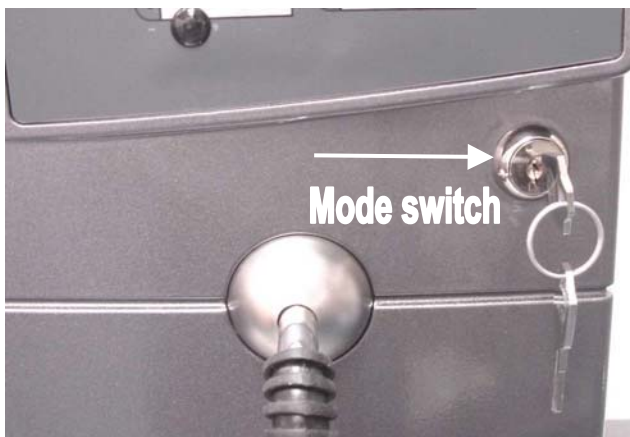


2.3 Main water tap

Positions: Horizontal = closed
 Vertical = open



2.4 Mode switch

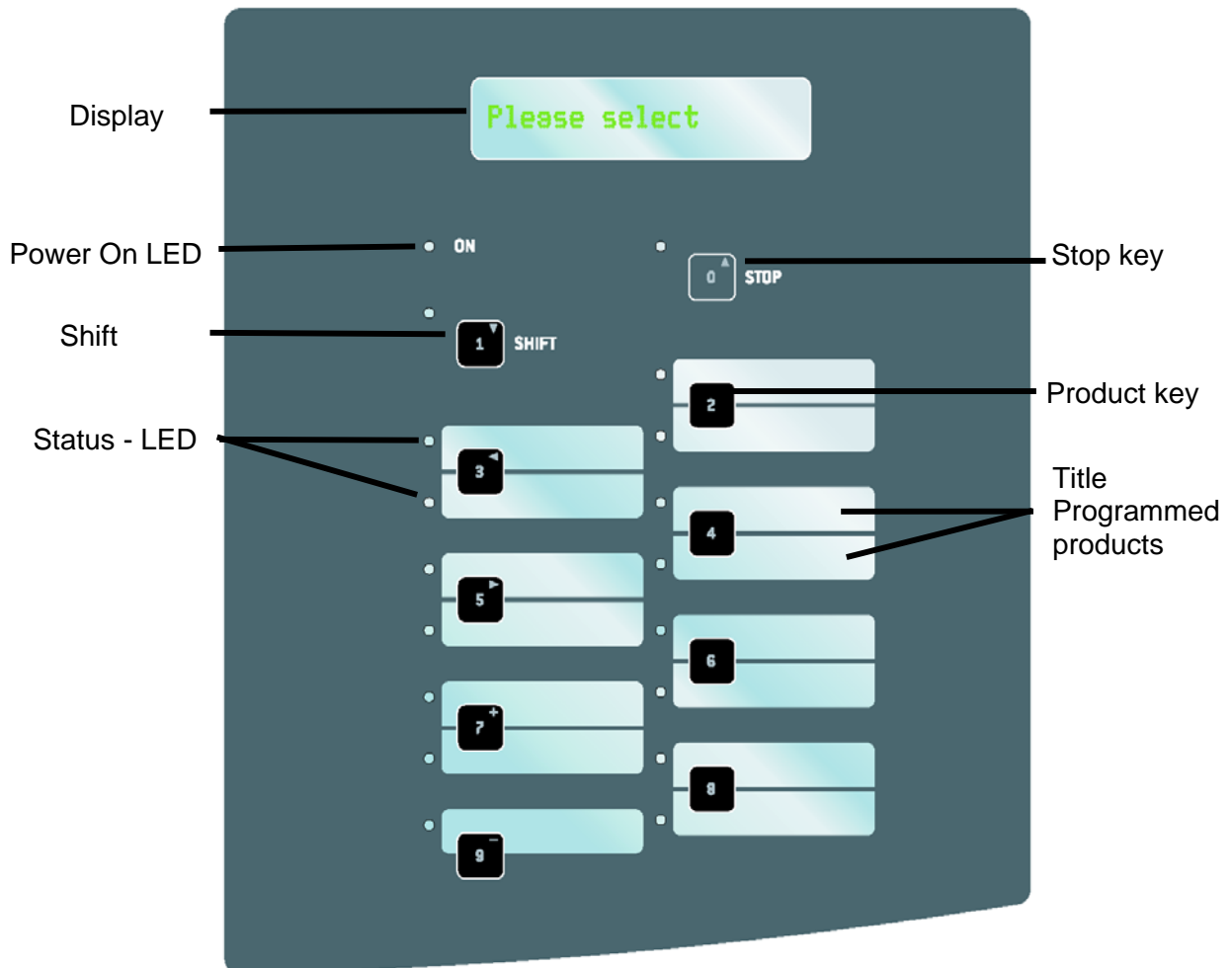


The key switch for changing the mode of the machine is located underneath the keypad.

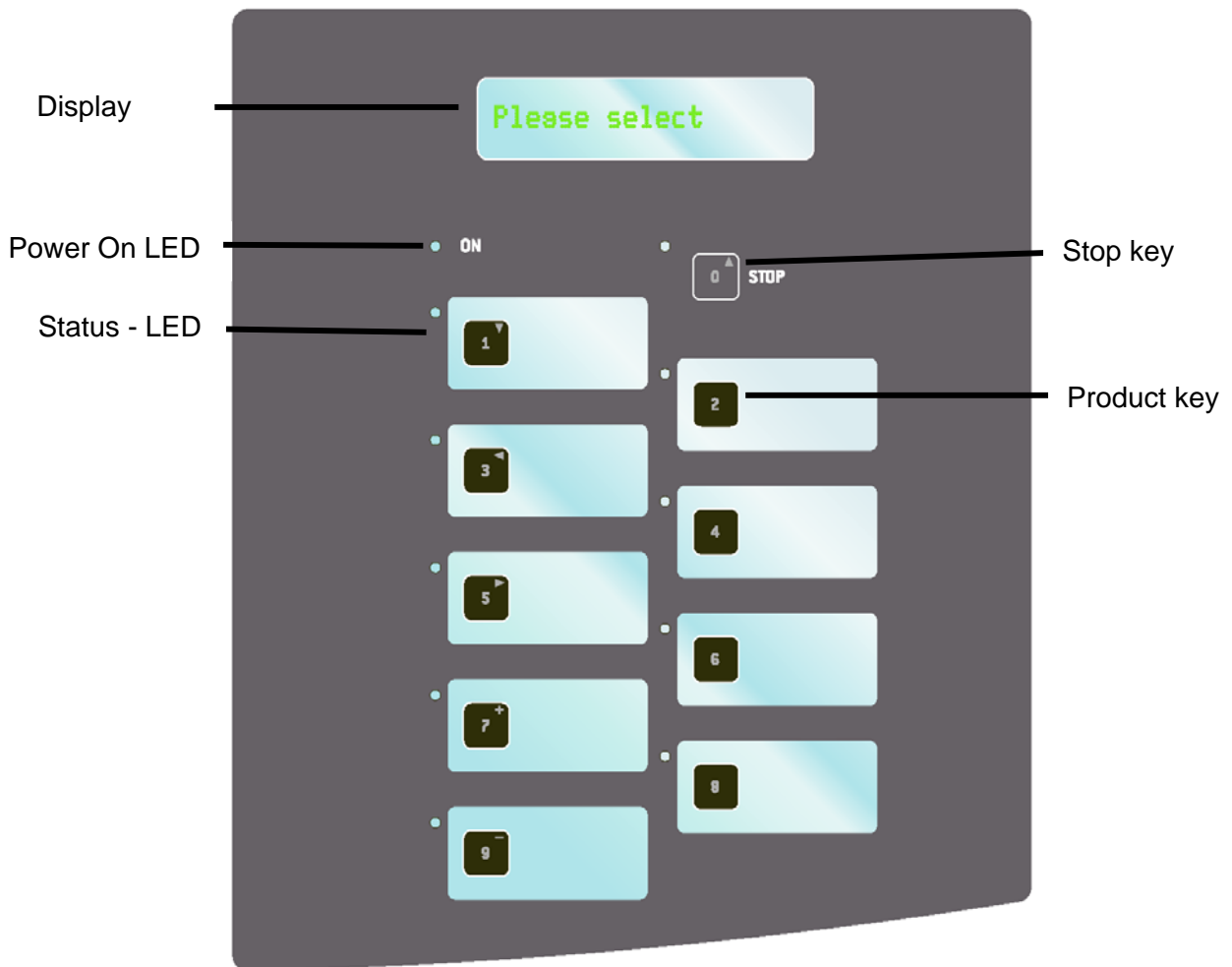
The key can be inserted and removed in vertical position only.

2.5 Keypad

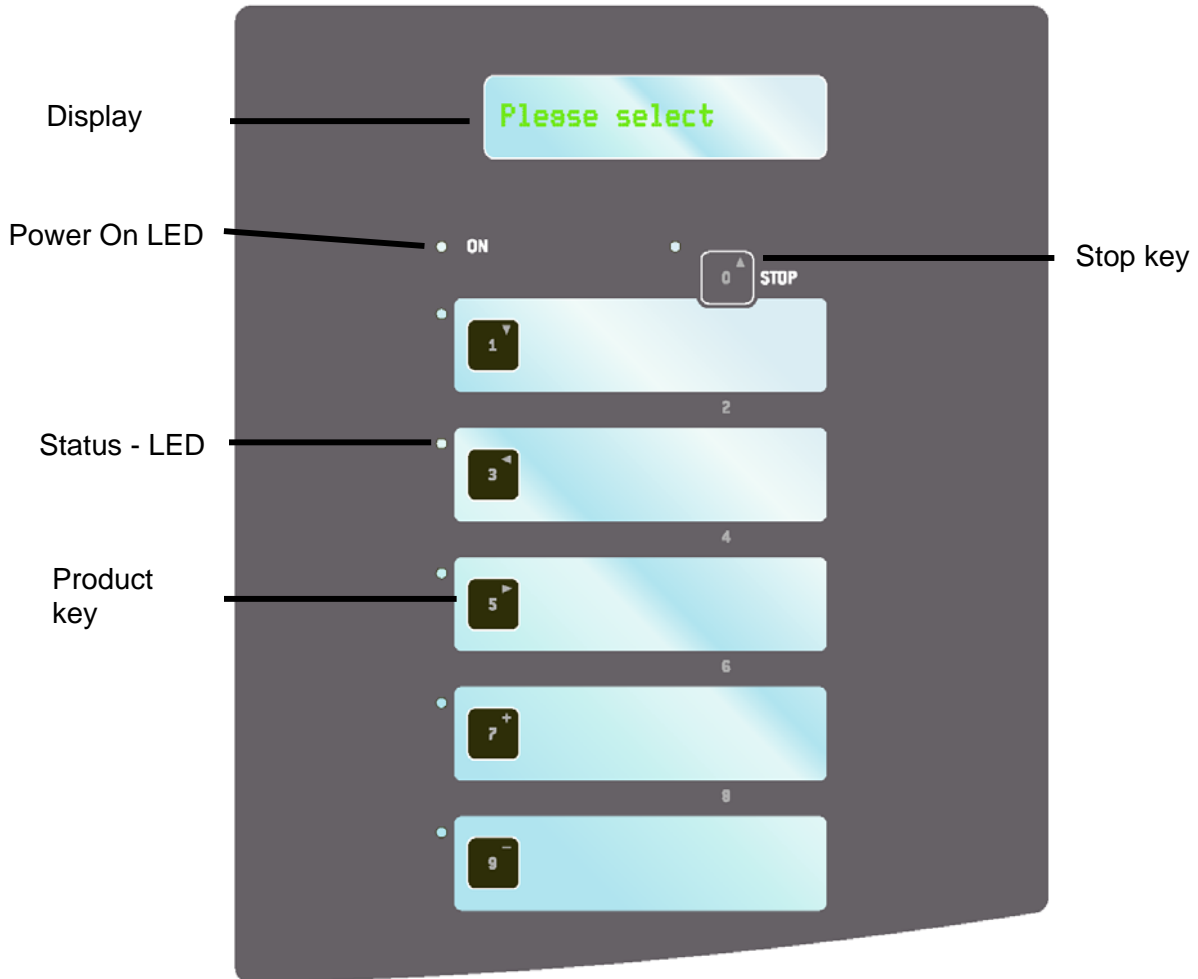
2.5.1 Models (7021, 7025P, 7027P)



2.5.2 Series 70



2.5.3 Models (7011, 7031P)



2.6 Keypad elements

2.6.1 Display

The display is the LCD-window on the right above the keypad. During operation texts and notes are displayed explaining the process flow. Also failures can be identified with the help of relevant messages.

Display texts and messages are displayed e.g. as follows

Example: **12:34 o'clock Machine is ready for operation**

2.6.2 Power On LED

Above key 1.

Off: The machine has been switched off from the main switch or the power plug has been removed

On: The machine has been switched on (Display: **12:34 o'clock**) or it has been switched off from the key switch (Display: **Standby**)

2.6.3 Stop key

Also called 0 key. The stop key is used for following functions

- Cancelling of a product being dispensed
- Deleting of a pre-selection or quitting the shift function
- Programming
- Starting of various cleaning programs

2.6.4 Product keys



Note

Every product key can be programmed individually. During installation the EGRO technician assigns every key a specific product according to your requirements and wishes.

- Keys 1 to 9 and 10 - 16: Coffee drinks or hot water (tea) and shift



Note

The symbols on the left of product keys 0, 1, 3, 5, 7 and 9 refer to use of these keys in **mode 3** (programming). Please refer to section 7 "Programming".

2.6.5 Status LED

In normal mode the LEDs burn. After pressing the key 1 (shift), the second LEDs (second product level active) burn and shift is displayed.

(LED = Light emitting diode)

- **On:** Product can be selected
- **Off:** Product cannot be selected
- **Blinking:** Product is dispensed

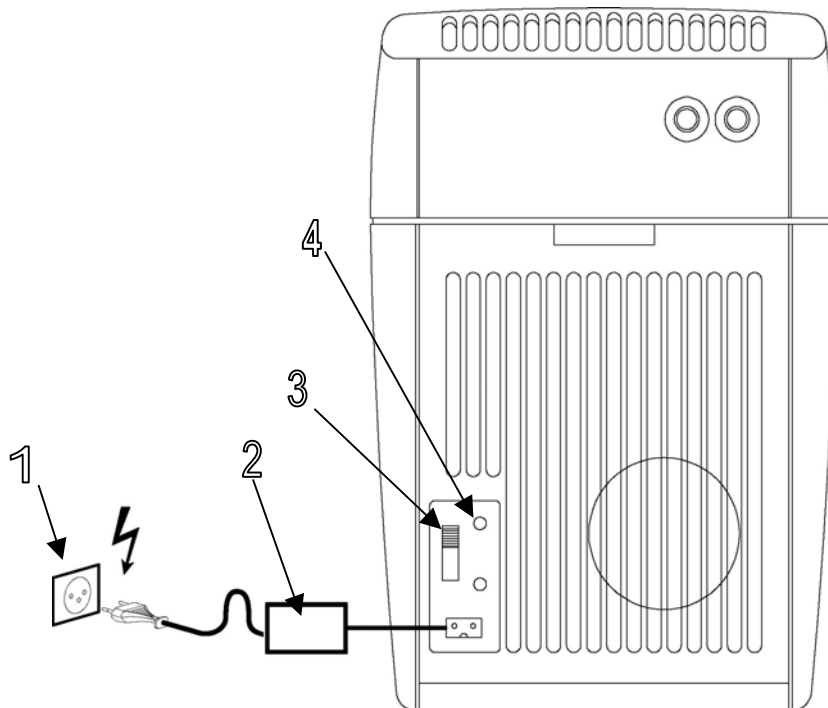
Availability of products is determined by programming and adjusted by the service technician.

2.6.6 Key 1 (shift only by models 7021, 7025P, 7027P)

When pressing key 1 (shift) the second product level is reached that is indicated by LEDs. With the stop or shift key the first product level can be reached again.

3 Operation cooling units

3.1 Cooling box KB 3



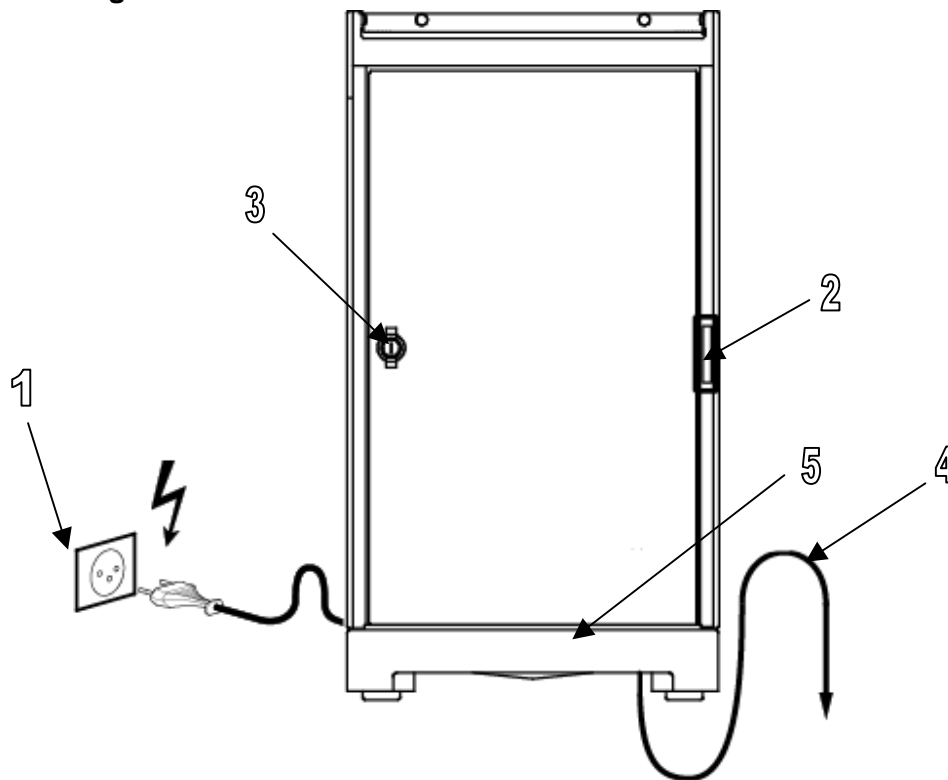
- 1 Cooling box On / Off through power plug
- 2 Rectifier 230 V → 12 V
- 3 Switch for cooling is arrested!
- 4 Green LED burns during normal operation



Note

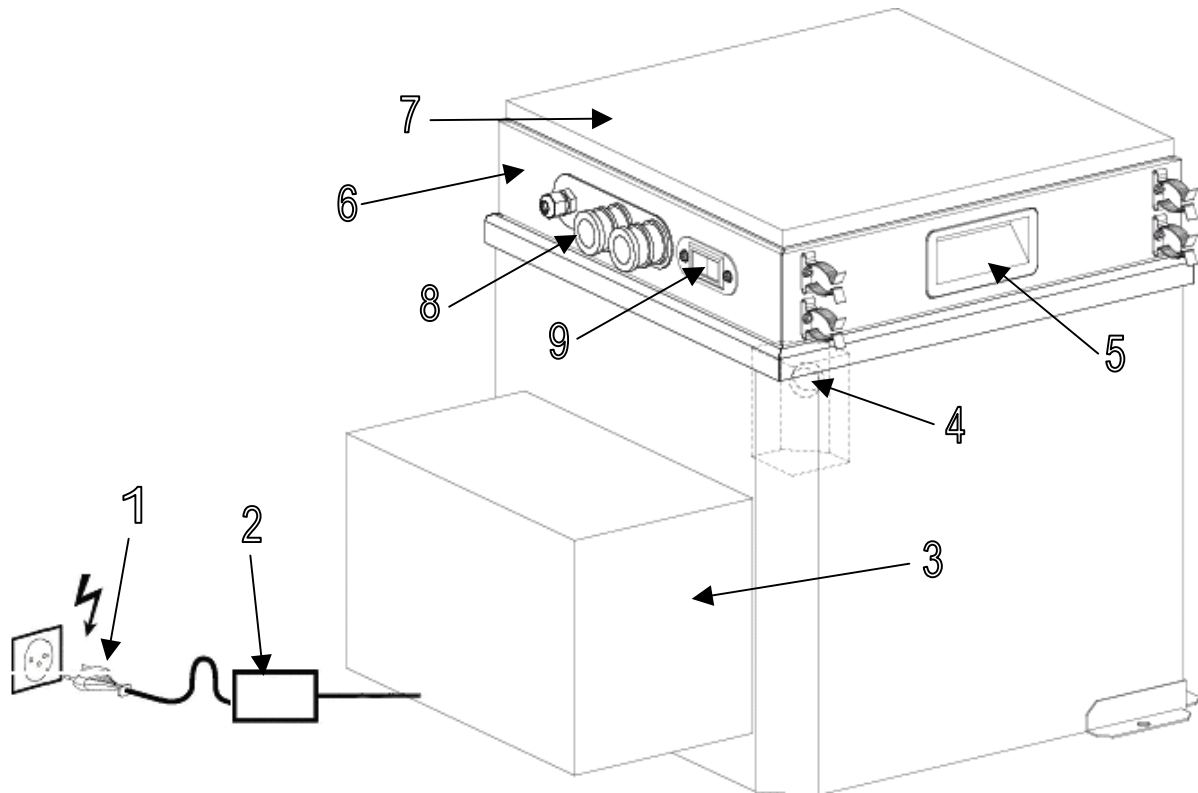
In order to switch off the cooling box the power plug has to be removed from power supply (or from refrigerator).

3.2 Refrigerator KS 6



- 1 Power supply plug for refrigerator. Cup heater as far as provided.
- 2 Switch for refrigerator and cup heater as far as provided
Positions: I = On (lit up)
 0 = Off (off)
- 3 Refrigerator door latch
- 4 Outlet
- 5 Drip tray

3.3 Under counter refrigerator KS 12



- 1 Refrigerator On / Off only inserting / removing the electrical plug.
- 2 Rectifier 230 V → 12 V
- 3 Cooling unit
- 4 Temperature regulator
- 5 Recessed grip
- 6 Raising block with milk pumps
- 7 Cover
- 8 Hose protecting sleeve
- 9 Temperature indication of the refrigerating chamber



Note

To switch the cooling box off, the plug must be pulled out of the wall socket.

4 Operation coffee machine

4.1 Preparations

- Open the local water stop valve and the one of the machine
- Switch on power supply
- Check the content of bean container

4.2 Filling the bean container



- Open locking
- Remove cover
- Fill up
- Close cover

4.3 Switching on

- Unlock and open the front cover
- Bring main switch in pos. I: Power on LED burns.
- Close and lock the front cover.
- The coffee machine starts the switch-on program during which the system is heated up. **Heating/Flushing** is displayed. Heating up takes about 5 minutes.
- As soon as the system has reached the necessary temperature the actual clock time (e.g. **12:34**) is displayed. The LEDs 1-9 (product keys) burn provided that relevant products are available.
- The coffee machine is now ready for operation.



The service technician has adjusted the products available in mode 1 or mode 2.



After switching on hot water is dispensed from coffee or hot water dispenser nozzles.
Danger of scalding!

4.4 Product delivery



Machine is ready for operation when **clock time** is displayed.

In order to obtain a drink (coffee, milk drink or tea) shortly press a relevant product key

4.4.1 Bean coffee

- Place a cup(s) under the dispenser nozzle
- Shortly press the desired product key
- The relevant LED blinks, **Your selection / „Espresso“** (product title) is displayed
- The beans are grinded, the coffee is brewed
- Product dispensing

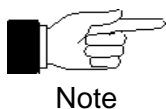
1 cup of coffee



2 cups of coffee



1 jug of coffee



Grinding and brewing times vary from product to product. Place cup(s) early under the dispenser nozzle!

4.4.2 Grinded coffee (manual dosage)

Alternatively the product keys may be programmed for use with grinded coffee (e.g. caffeine free). Such drinks can be obtained semi-automatically as follows:

- Press product key; the relevant LED blinks
- **Coffee dosage** is displayed
- Red LED (near STOP key) burns
- Open the flap; fill in grinded coffee
- Press the STOP key
- Coffee is brewed
- Product dispensing



4.4.3 Milk products

The machine enables to obtain various milk-coffee products. A precondition is a machine with relevant equipment.

We differ following products:

- Cold milk (available only by machines with refrigerator or IMS cooling box)
- Hot milk with and without coffee
- Milk foam with and without coffee
- Dispensing of milk foam by keystroke (manual)



Note

Use only milk (UHT or pasteurised milk) with a fat content of 1,5% to 3,5%.

4.4.3.1 Milk dispensing

- Place a cup(s) or glasses under the milk dispensing nozzles
- Shortly press the desired product key, the relevant LED blinks
- Dispensing of cold or hot milk follows as required

4.4.3.2 Dispensing of milk products

- Place a cup(s) or glasses under the milk dispensing nozzles
- Shortly press the desired product key, LED blinks
- The beans are grinded, the coffee is brewed
- The order of dispensing of milk and coffee can be programmed variously

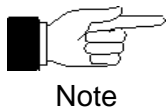
1 cup of cappuccino



4.4.4 Tea (hot water)



- Place a tea cup under the hot water dispensing nozzle
- Press the relevant key, LED blinks
- **Your selection / Tea** is displayed
- Dispensing of tea (hot water)



If tea or steam has been obtained several times it may occur that the coffee machine has to warm up again. The LEDs of relevant keys are not burning. When pressing such product key **Warming up** is displayed. After warming up is finished the LEDs burn again and the product can be obtained.

4.4.5 Steam (if applicable)

- Immerse the steam nozzle in the container
- Obtaining: Turn the steam adjustment valve in anticlockwise direction (¼ rotation)
- Stopping: Turn the steam adjustment valve in clockwise direction

When heating up a liquid with steam make sure that the steam-dispensing nozzle is fully immersed in the liquid.

Danger of scalding through spouting of hot liquids!

Correct
Nozzle fully immersed



Wrong
Nozzle not immersed



Danger

5 Special functions

5.1 Pre-selection

During dispensing of a coffee drink other coffee products can be pre-selected on the selected level. The LED of a pre-selected product burns.

Pre-selection 1 / Coffee (first / second line) is displayed.

Pre-selection can be adjusted between 1 and 16 in the product menu, thereby pre-selection = 1 means that only one coffee per keystroke can be selected.

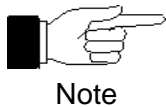
For self-service as well as for advance payment (e.g. coins) the pre-selection is set on 1.

5.2 Cancelling of a task

Product dispensing can be cancelled anytime through activation of the stop key.

When a coffee has been pre-selected the pre-selection is cancelled first and then after pressing the stop key one more time, the product being dispensed is deleted.

5.3 Switching off



It is recommended to switch off the machine for longer operation pauses (nights, weekends etc.).

5.3.1 Switching off the machine through main switch

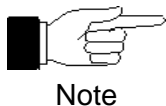
- Set the main switch on "O".

5.3.2 Switching off through keypad

- Insert key
- Turn the key in clockwise direction by $\frac{1}{4}$ rotation
- Press key 0
- Turn the key back in anticlockwise direction by $\frac{1}{4}$ rotation, **Standby** is displayed

5.4 Cleaning system for milk supply line (MSL)

An **automatic built-in cleaning system for milk supply line** flushes automatically the milk supply lines at a predefined interval after last dispensing of a milk product.



The cleaning system for milk supply line does not replace daily cleaning of the machine!

6 Operation modes

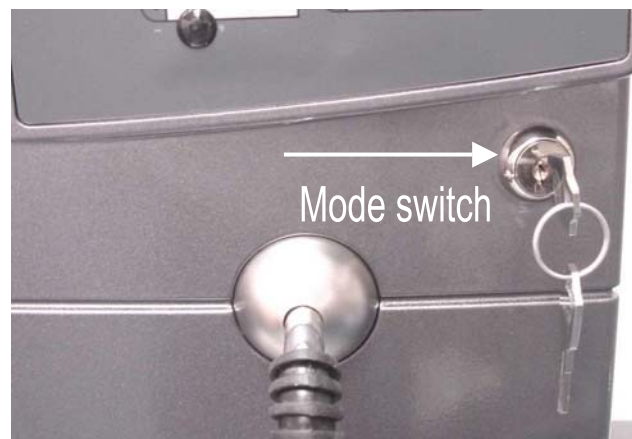
Mode is an operation mode of the machine. The machine behaves differently in every mode or has different functions.

The machine has 6 different modes; the modes 4 and 5 are available for the service technician only and protected by a PIN-code:

The actual mode is displayed when the key in mode switch is inserted and turned by $\frac{1}{4}$ rotation in clockwise direction.

Mode	Meaning
0	Switched off / Standby
1	Normal operation
2	Registering / Slot operation
3	Programming
4	Reserved for Egro technician
5	

6.1 Change mode



- Insert the key (vertically)
- Turn the key in clockwise direction by $\frac{1}{4}$ rotation
- Press a relevant key (0, 1, 2, 3)
- Turn back the key in anticlockwise direction by $\frac{1}{4}$ rotation

6.2 Modes 0 to 3

Boiler heating and display light is switched off. The machine is in standby mode			
Mode	Operation	What to do	Display messages
0	Switched off / Standby	Key in horizontal position	Mode ... (up-to-date mode)
		Press key 0:	M_0: Standby
		Key in vertical position	Standby

The machine is in normal operation mode.			
Mode	Operation	What to do	Display messages
1	Normal operation	Key in horizontal position	Mode ... (up-to-date mode)
		Press key 1:	M_1: Normal
		Key in vertical position	12:34 (up-to-date clock time)

The machine is in pay – registering mode.			
Mode	Operation	What to do	Display message
2	Registering- / coin mode	Key in horizontal position	Mode ... (up-to-date mode)
		Press key 2:	M_2: (depending on the registering / coin device)
		Key in vertical position	(depending on the registering / coin device)

Programming mode: here the parameters can be changed or the counters read off.			
Mode	Operation	What to do	Display messages
3	Adjustments / Read off counters	Key in horizontal position	Mode ... (up-to-date mode)
		Press key 3:	Products Total...
		Key in vertical position	12:34 (up-to-date clock time)



Note

Turn back the key after finished adjustment or reading off!

Please refer to more precise notes on programming in chapter7 Programming.

7 Programming

In mode 3 (Programming) the following functions are available for the operator:

- Counter:
- Reading off the daily total data (pieces and amount)
 - Deleting daily total data
 - Reading off overall total (pieces and amount)



Note

Deleting of counters cannot be undone!

- Adjustments:
- Switching between coffee - tea
 - Product price
 - Water volume (cup filling amount)
 - Grinded coffee amount
 - Milk or milk foam volume (applicable only provided that „Option“ Cappuccino is available)
 - Date and time.
 - Waiter pen assignment

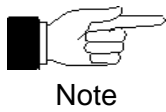
7.1 Use of product keys for programming

In mode 3 (Programming) the key 0 (STOP as well as product keys 1, 3, 5, 7 and 9 are used for moving in menu tree and insertion of adjustments.

On the left of keys the symbols are located that refer to the functions of relevant keys in programming mode.

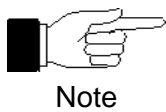
		Meaning of product keys in programming mode		
		Key	Symbol	Function
0	ON STOP	0	↑	STOP: Cancelling, annulling, back to the next higher menu level
1	SHIFT	1	↓	ENTER: Confirmation of displayed value or access to the next lower menu level
3	3 11	3	←	Back to the previous parameter
5	5 13	5	→	To the next parameter
7	7 15	7	+	Raising the blinking value by one unit
9	9 16	9	-	Lowering the value of blinking value by one unit

7.2 Adjustments



All procedures require selection of mode 3:
Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total...** is displayed

- The following values (parameters) can be adjusted separately for every product. The product can be identified through product number that equals the key number. Products 1 to 9 are coffee, hot water, milk or milk products without shift (p.12). With shift 2 –16.
- In following examples the product number 4 is mentioned.
- Some parameters require different values for coffee and hot water. Such cases are referred to explicitly.



Changes in mode 3 will take effect only when the machine is in mode 1 (normal operation) or mode 2 (pay mode) (key in vertical position).

7.2.1 Menu key programming coffee or tea

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total...** is displayed

- **Menu:** Internal products
- **Parameter:** l. 1 type (coffee or tea)
- **Function:** Here coffee or tea is programmed

Key		Display (example values)	Notes
→	Press until	Internal products	Menu "Internal products" is reached
↓	Press	<u>L1</u> type Coffee	Parameter (<u>L1</u> type) is for product 1: Product number blinks
+	Press 3 x	<u>L4</u> type Coffee	"Type" for product 4
↓	Press	l. 4 type <u>Coffee</u>	Product type blinks and can be changed now, cursor moves from front to the back.
+/-	Press until	l. 4 type <u>Tea</u>	Desired product is reached
↓	Press	<u>L4</u> type Tea	Desired product is saved
Stop	Press until	Daily total...	Leaving: Turn back the key by ¼ rotation to return to normal operation.

7.2.2 Menu product price change

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total...** is displayed

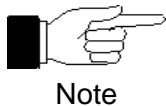
- **Menu:** Internal products
- **Parameter:** I. 1 Price
- **Function:** Here the product price can be changed
- **Possible values:** 0,00 to 99,99

Key		Display (example values)	Notes
→	Press until	Internal products	Menu "Internal products" is reached
↓	Press	<u>L1</u> type Coffee	Parameter "Type" for product 1: product number blinks
→	Press until	<u>L1</u> price 3.20	Parameter "Price" for product 1: product number blinks
+	Press 3 x	<u>L4</u> price 3.20	"Price" for product 4
↓	Press	I. 4 price <u>3.20</u>	Product price blinks and can be changed now
+/-	Press until	I. 4 price <u>3.60</u>	Desired price is reached
↓	Press	<u>L4</u> price 3.60	New price is saved
Stop	Press until	Daily total...	Leaving: turn back the key by ¼ rotation to return to normal operation.

7.2.3 Menu water volume change

Turn the key by ¼ rotation in clockwise direction, **Daily total...** is displayed.

- **Menu:** Internal products
- **Parameter:** FM-Imp.
- **Function:** Water volume (cup filling amount) can be changed here. The values are given in flow meter impulses. 100 FM pulses = ca 0,5 dl
- **Possible values:** 0 to 9999



The cup filling volume can be changed only slightly. It is recommended to write down the original value before making any changes.

Key		Display (example values)	Notes
→	Press until	Internal products	Menu "Internal products" is reached
↓	Press	<u>L.1</u> type Coffee	Parameter "Type" for product 1: product number blinks
→	Press until	<u>L.1</u> FM-Imp 200	Submenu "FM-Impulse", Parameter for product 1. Product number blinks.
+	Press until	<u>L.4</u> FM-Imp 200	"FM-Impulse" for product 4
↓	Press	I. 4 FM-Imp <u>200</u>	Number of impulses blinks and can be changed now
+/-	Press until	I. 4 FM-Imp <u>300</u>	The desired number of impulses is reached
↓	Press	<u>L.4</u> FM-Imp 300	The new volume is saved
Stop	Press until	Daily total...	Leaving: Turn back the key by ¼ rotation to return to normal operation.

7.2.4 Menu grinded coffee amount adjustment

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total...** is displayed

Recommendation:

- One cup coffee or espresso = 8 to 10 grams
- Two cups of coffee or espresso = 14 to 16 grams



Note

The amount of grinded coffee can be changed only slightly. It is recommended to write down the original value before making any changes.

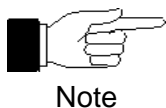
- **Menu:** Internal products
- **Parameter:** Gram
- **Function:** Amount of grinded coffee can be changed for every product separately. The values are presented in grams.
- **Possible values:** 0,1 – 16,0 g

Key		Display (example values)	Notes
→	Press until	Internal products	Menu „Internal products" is reached
↓	Press	<u>L1</u> type Coffee	Parameter "Type" for product 1: product number blinks
→	Press until	I. <u>1</u> gram 8.0	Submenu "Gram", parameter for product 1. Product number blinks.
+	Press until	I. <u>4</u> gram 8.0	"Gram" for product 4
↓	Press	I. 4 gram <u>8.0</u>	The number gram blinks and can be changed now
+/-	Press until	I. 4 gram <u>8.5</u>	The desired number gram is reached
↓	Press	I. <u>4</u> gram 8.5	The new amount of grinded coffee is saved
Stop	Press until	Daily total...	Leaving: turn back the key by ¼ rotation to return to normal operation.

7.2.5 Menu milk or milk foam volume adjustment

(Applicable only when option „Cappuccino“ is available.)

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total ...** is displayed



Milk or milk foam volume can be changed only slightly. It is recommended to write down the original value before making any changes.

- **Menu:** Internal products
- **Parameter:** Cap. Time
- **Function:** Milk or milk foam volume can be changed here.
- **Possible values:** 0.0 – 99.9 seconds
 0.0 by this value no milk foam is dispensed.
 0.1 pulse operation: Milk foam is dispensed as long as the relevant button is pressed.

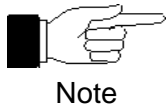
Key		Display (Example values)	Notes
➔	Press until	Internal products	Menu " Internal products" is reached
⬇	Press	<u>L</u>1 type Coffee	Parameter "Type" for product 1: product number blinks
➔	Press until	I. <u>1</u> Cap. Time 6.0	Submenu "Cap. Time", parameter for product 1. Product number blinks.
+	Press until	I. <u>4</u> Cap. Time 6.0	"Cap. Time" for product 4
⬇	Press	I. 4 Cap. Time <u>6.0</u>	The number of seconds blinks and can be changed now
+/-	Press until	I. 4 Cap. Time <u>7.5</u>	The desired number of seconds is reached
⬇	Press	I. <u>4</u> Cap. Time 7.5	The new time is saved
Stop	Press until	Daily total ...	Leaving: turn back the key by ¼ rotation to return to normal operation.

7.2.6 Date and time adjustment

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total ...** is displayed

- **Menu:** Config 1
- **Parameter:** Time
- **Function:** Here the internal clock of the machine can be adjusted (year, date and time).
- **Possible values:** Date, time, hours and minutes

Key		Display (Example values)	Notes
→	Press until	Config 1	Menu Config 1 is reached
↓	Press	Time	1. Submenu „Time“
↓	Press	Year: 2003	2. Submenu „Year“ is reached.
↓	Press until	Year: 2003	Year number blinks.
+/-	Press until	Year: 2004	Until the desired year number is reached
↓	Press	Year: 2004	Until the desired year number is saved.
→	Press until	Month: 04	Parameter „Month“ is reached
Change: same procedure as by year, start with ↓			
→	Press until	Day: 09	Parameter „Day“ is reached
Change: same procedure as by „Month“, start with ↓			
→	Press until	Hour: 11	Parameter „Hour“ is reached
Change: same procedure as by „Day“, start with ↓			
→	Press until	Min.: 05	Parameter „Minute“ is reached
Change: same procedure as by „Hour“, start with ↓			
Stop	Press until	Daily total...	Leaving: turn back the key by ¼ rotation to return to normal operation.

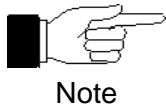
7.2.6.1 Switching winter time – summer time example


This function is carried out for switching between summertime – wintertime.

Turn the key by ¼ rotation to the right, press key 3, **Daily total** is displayed

Key		Display (Example values)	Notes
→	Press until	Config 1	Menu Config 1 is reached
↓	Press	Time	1. Submenu „Time“
↓	Press	Year: 2003	2. Submenu „Year“ is reached.
→	Press until	Hour: 11	Parameter „Hour“ is reached
↓	Press until	Hour: <u>11</u>	Parameter „Hour“ blinks.
+/-	Adjust time with + or –	Hour: <u>10</u>	The desired time is adjusted
↓	Press	<u>Hour:</u> 10	The desired time is saved.
Stop	Press until	Daily total ...	Leaving: turn back the key by ¼ rotation to return to normal operation.

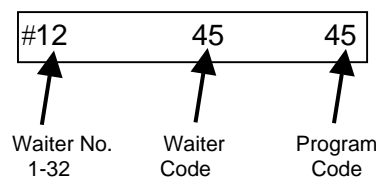
7.2.7 Programming waiter pens



This function is needed when using or making amendments waiter pens.

Turn the key by ¼ rotation to the right, press key 3, **Daily total** is displayed

- **Menu:** Config 1
- **Parameter:** # 1
- **Function:** Here the waiter number (the number on the waiter pen) and the code of waiter pen can be inserted or amended. Programming is made for every single pen.
- **Possible values:**



Key		Display (Example values)	Notes
➔	Press until	Config 1	Menu Config 1 is reached
⬇	Press	Time	1. Submenu „Time“
➔	Press	# 1 0 0	2. Submenu „Waiter pen“ is reached. Insert the waiter pen in the lock!
+/-	Press until	# 5 0 0	On the left side the relevant waiter number is reached.
⬇	Press	# 5 5 0	The number of program code blinks.
+/-	Press until	# 5 5 5	Until the middle number of the waiter pen is reached.
⬇	Press	# 5 5 5	The desired program code is saved.
Repeat the above procedure with every single waiter pen			
Stop	Press until	Daily total...	Leaving: Turn back the key by ¼ rotation to return to normal operation.

7.3 Counters

- There are two integrated software counters in the machine. Both of them save number of items and total sum for every single product.
- The **daily counter** saves the number of items and the total sum for every day separately provided that it is reset after reading out. Operator can do this anytime: at the end of a day, once per week or at irregular intervals.
- The **total counter** is a permanent counter that can be reset (deleted) by a service technician only. Reading out the data of the total counter is possible anytime.
- When using **waiter pen** (when this option is available) the total sums of every single waiter pen are saved. These can be read out separately.

7.3.1 Menu reading out daily counter

Turn the key in clockwise direction by ¼ rotation, press key 3, **Daily total ...** is displayed

- **Menu:** Read out daily total
- **Parameter:** Daily total
- **Function:** Reading out daily total for every single product and in total is possible. The accumulated values (numbers of items and total sums) since last reset are displayed.

Key		Display (Example values)	Notes
		DAILY TOTAL...	Menu „ Daily total “ is displayed
↓	Press	TTS K. 184	Total number of items coffee
→	Press	TTS T. 56	Total number of items tea
→	Press	TTS I. * 240	Total number of pieces all products
+	Press until	TTS I.7 8	Desired product number (e.g. product 7) is displayed. Number of items of product 7 is displayed.
Repeat the described procedure for every single product.			
→	Press	TTB K. 662.40	Total sum coffee
→	Press	TTB T. 163.40	Total sum tea
→	Press	TTB I. * 825.80	Total sum all products
+	Press until	TTB I.7 25.80	Desired product number (e.g. product No 7) is displayed. Total sum of product 7 is displayed.
Repeat the described procedure for every single product.			
Stop	Press until	Daily total...	Leaving: turn back the key by ¼ rotation to return to normal operation.

7.3.1.1 Reading out and deleting daily sums of waiter pens

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total ...** is displayed

Key		Display (Example values)	Notes
		DAILY TOTAL...	Menu „ Daily total... “ is displayed
↓	Press	TTS K. 184	Total number of items coffee
→	Press until	# 1 TOT 5 0.00	Displayed sum waiter No 1
+ / -	Press until	# 5 TOT 5 0.00	Desired waiter No (e.g. No 5) is displayed
Repeat the described procedure for every single waiter pen. After that delete the sums of waiter pens in order to be able to read out actual daily sums.			
→	Press	Waiter.T.delete?	Confirm
↓	Press	Waiter.T.delete?	Daily counters are deleted.
Stop	Press until	Daily total...	Leaving: turn back the key by ¼ rotation to return to normal operation.

7.3.2 Menu deleting daily counters

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total ...** is displayed

- **Menu:** Daily total
- **Parameter:** Delete product total
- **Function:** Resetting product total. A new period is started.

Key		Display (Example values)	Notes
		Daily total ...	Menu „ Daily total... “ is reached
↓	Press	TTS K. 184	Submenu "Read out daily total"
→	Press until	TT delete ...	Submenu "Delete daily total" is reached
↓	Press	TT delete?	Confirm
↓	Press	TT deleted	Daily counters are deleted.
Stop	Press until	Daily total...	Leaving: turn back the key by ¼ rotation to return to normal operation.

7.3.3 Menu reading out total counter

Turn the key by ¼ rotation in clockwise direction, press key 3, **Daily total ...** is displayed

- **Menu:** Read out daily total
- **Parameter:** Overall total
- **Function:** Reading out overall total for every single product and all together. The accumulated values (number of items and sums) are displayed.

Key		Display (Example values)	Notes
		Daily total ...	Menu „Daily total...“ is reached
➔	Press	Overall total	Menu „Overall total“ is reached
⬇	Press	GTS K. 3520	Total number of items coffee
➔	Press	GTS T. 489	Total number of items tea
➔	Press until	GTS I. * 4009	Total number of pieces all products
+	Press until	GTS I.7 259	Desired product number (e.g. product No 7) is displayed. Number of items of displayed product No 7 is displayed.
Repeat the described procedure for every single product.			
➔	Press	GTB K. 13595.20	Total sum coffee
➔	Press	GTB T. 1418.10	Total sum tea
➔	Press	GTB I. * 15013.30	Total sum all product
+	Press until	GTB I.7 2789.10	The desired product number (e.g. product No7) is displayed. Total sum for product No 7 is displayed.
Repeat the described procedure for every single product.			
Stop	Press until	Daily total ...	Leaving: turn back the key by ¼ rotation to return to normal operation.

8 Maintenance

In order to meet the hygiene requirements of the coffee machine as well as the food regulation the Swiss Egro 70 Series must be cleaned in accordance with the following instruction.

8.1 Daily cleaning

The daily cleaning comprises following items:

- Coffee cleaning
- Milk cleaning
- Cleaning of cappuccino nozzles
- Bean container
- Waste container
- Drip grid
- Drip tray
- Housing
- Cooling device

8.2 Cleaning demand

The coffee machine Swiss Egro 70 Series requires from its operator daily cleaning provided that the automatic cleaning demand is active. This demand occurs every 24 h if a coffee or milk product has been obtained. You can determine the time after consultation with an Egro service technician. One hour prior to the adjusted time the request **Coffee + Milk Cleaning** is displayed. Now you have one hour to carry out this procedure. After expiry of this time limit the products will be disabled and can be obtained again after cleaning. This cleaning request can be supported by an acoustic message.

Recommendation:

We recommend to set the cleaning time to 30 minutes prior to end of operation.

E.g. End of operation 24.00 o'clock, cleaning time 23.30 o'clock

The cleaning request will be made at 23.30 o'clock. Now you have time, without cancelling operation, to carry out cleaning directly before the end of operation.

If cleaning is not carried out due to lack of time it should be made in the morning, otherwise no products will be dispensed.

8.3 Automatic cleaning program:

Swiss Egro 70 Series has following cleaning programs:

- 0: Cleaning stop stops the cleaning menu
- 1: Milk cleaning starts milk cleaning
- 2: Coffee cleaning starts coffee cleaning
- 3: Autom. Flushing starts automatic flushing of milk supply lines
- 4: Milk & Coffee starts milk and coffee cleaning simultaneously

The menu items are displayed one after the other. Selection can be made with a relevant key, e.g. the key 4 starts simultaneous milk and coffee cleaning.



Note

If a cleaning process is cancelled by switching off the machine or by stop key the cleaning process will be repeated after restart. This guarantees that there will remain no cleaning agents in the machine that could degrade the quality of products.

8.3.1 Automatic coffee cleaning program Swiss Egro 70 Series

For cleaning the inside of coffee machine (brewing chamber, sieves, hoses) an automatic cleaning program is used. The cleaning tablet is inserted in the manual dosage flap.



Note

The automatic coffee cleaning program must be activated once a day at the minimum. For cleaning Egro cleaning tablets can be used only (Order No KH-205-1).

Procedure:

The cleaning program is activated through the stop key. Depending on the model the procedure differs slightly. For machines with only one brewing chamber one cleaning tablet is needed. Demand for another cleaning tablet becomes inapplicable.

	Key		Display	Notes
1	Stop	Press for 5 sec	Cleaning 0: Stop 1: Milk cleaning 2: Coffee cleaning 3: Autom. Flushing 4: Milk & Coffee	Selection through relevant key: Key 1 = Milk cleaning program Key 2 = Coffee cleaning program Key 3 = Automatic flushing of milk supply lines (MSL) Key 4 = Milk & Coffee cleaning program-
2	2	Press	Insert 1 cl. tab.	Request to insert the first cleaning tablet.
3	Stop	Press	Insert 2 cl. tab.	Request to insert the second cleaning tablet.
4	Stop	Press	Cleaning	The automatic cleaning program is active. Duration: approx. 5 minutes.
5			12:34	Cleaning completed. The time is displayed; the machine is ready for operation.

8.3.2 Automatic milk cleaning

Components in contact with milk must be cleaned once a day at the minimum. During the flushing program **no other functions of the machine can be activated**. The cleaning program with cleaning agent cleans the milk supply lines such as pumps and hoses.

8.3.3 Procedure

The cleaning program is activated through the stop key.

	Key		Display	Notes
1	Stop	Press for 5 sec	Cleaning 0: Stop 1: Milk cleaning 2: Coffee cleaning 3: Autom. Flushing 4: Milk & Coffee	Selection through relevant key: Key 1 = Milk cleaning program Key 2 = Coffee cleaning program Key 3 = Autom. Milk cleaning system (MSL) Key 4 = Milk & Coffee cleaning program-
2	1	Press	Cleaning agent	Immerse the milk hose in the container filled with cleaning agent.
3	Stop	Press	Cleaning 99	Cleaning is active until the displayed value is zero.
4			Fresh water	Fill in fresh water in the container and immerse the milk hose in it.
5	Stop	Press	Flushing 99	Flushing is active until the displayed value is zero.
6			12:34	Cleaning and flushing is stopped. Time is displayed. Machine is ready for operation.

Depending on the model the procedure differs slightly. For machines with only one brewing chamber one cleaning tablet is needed. Demand for another cleaning tablet becomes inapplicable.

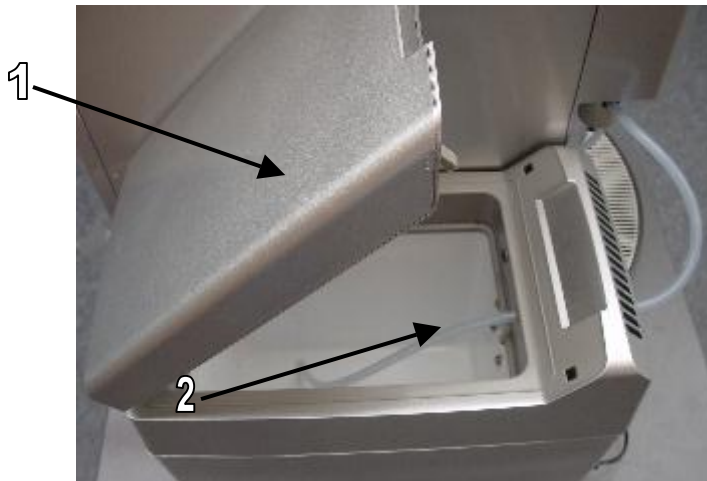
8.3.3.1 Cooling box KB 3

1. Prepare the cleaning agent as directed in instructions on the package.
2. Open the cooling box cover (1)
3. Remove the suction hoses (2) from the milk container. Beware of milk splashes!
4. Clean the milk container with cleaning agent and rinse thoroughly with warm water.
5. Place the container with the prepared cleaning agent in the cooling box.
6. Immerse the milk suction hose in the container with the cleaning agent.
7. Close the cooling box. The suction hose must not be folded.
8. Use the keyboard on the coffee machine to start the cleaning program.



Note

No fluids must be poured directly into the cooling box.



8.3.3.2 Refrigerator KS 6

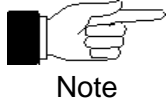
1. Prepare the cleaning agent as directed in instructions on the package.
2. Open the door of the refrigerator (1)
3. Remove the milk container (3). Beware of milk splashes!
4. Clean the milk container with cleaning agent and rinse thoroughly with warm water.
5. Place the container with the prepared cleaning agent in the refrigerator.
6. Immerse all milk suction hoses in the container with the cleaning agent.
7. Close the doors of the refrigerator.
8. Use the keyboard on the coffee machine to start the cleaning program.



8.3.3.2.1 Undercounter refrigerator KS 12

8.3.3.2.2 Daily cleaning

1. Prepare the cleaning agent as directed in instructions on the package.



Double the cleaning agent amount if there are two coffee machines connected!

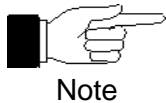
8.3.3.2.3 Open the refrigerator, remove the cover and lay it aside.



Attention

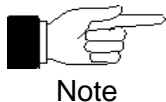
The cover is not dishwasher proof!

2. Remove the suction hoses from the milk container. Beware of milk splashes!
3. Clean the milk container with cleaning agent and rinse thoroughly with warm water.
4. Attach the container and the prepared cleaning agent with the support to the refrigerator. (Fig. 1)



No fluids must be poured directly into the cooling box.

5. Immerse all milk suction hoses in the container with the cleaning agent.



The hoses must not be exposed to vibrations of the container.

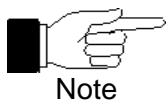
6. Use the keyboard on the coffee machine to start the cleaning program.



Image 1

8.3.3.2.4 Monthly defrosting

Air moisture condenses in the interior of the cooling unit as frost – this in its turn reduces cooling capacity. Too heavy frosting may lead to irreparable damages!



Never remove the ice layer with hard or sharp objects!
Always defrost the device in proper time!



The cooling box must be defrosted by a competent person at least once a month.

1. Open and remove the cover of the cooling box.
2. Remove the suction hoses from the milk container. Beware of milk splashes!
3. Place the milk container in another cooling unit, so that the milk stays cool and can be used later.
Bring the switch of the cooling box into position „0“. (Fig. 1)
4. Remove the complete aluminium frame with all built-in components from the cooling unit and wait until the defrosting completes. (Fig. 2)
5. After a successful defrosting process dry the defrosting water from the collection bowl and then wipe the whole interior with a dry, clean cloth.
6. Clean the rest of the built-in components.
7. Remount the milk container and the suction hoses.
8. Remount the complete alu frame into the cooling unit.
9. Carry out a functional inspection and put the cooling unit into service again.



Pay attention to correct installation of milk hoses and electric cables!

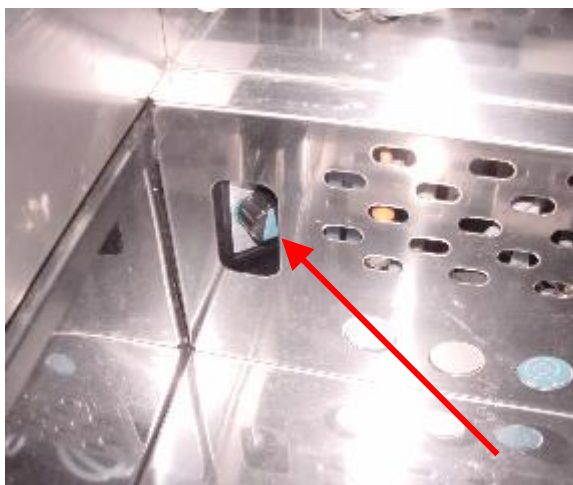


Image 1



Image 2

8.4 Cleaning which can be accomplished manually

8.4.1 Manual cleaning of cappuccino heads

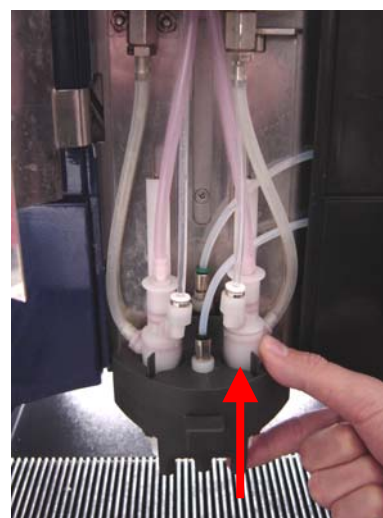
1. Turn the key
2. Open the front cover



3. Pull the bottom front cover forward and then upward to remove it.



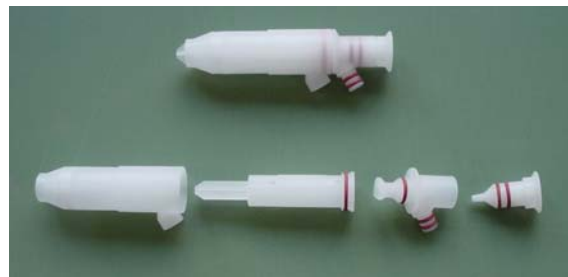
4. Push the foam heads from beneath up through the coffee delivery spouts and free them from the delivery assembly



5. Remove the flexible tubing and take apart the foam heads

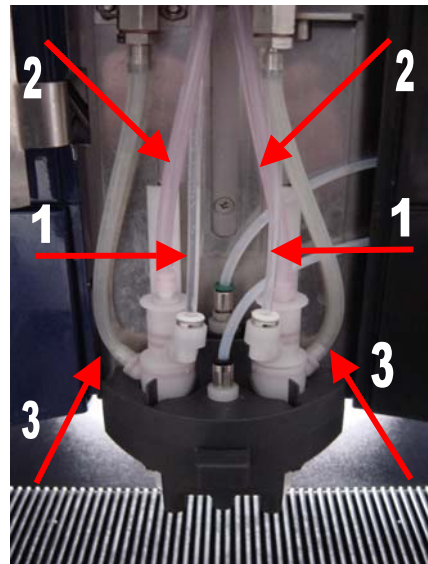


6. Take the foam heads apart as shown and put them into the cleaning detergent, wash them and rinse them thoroughly with hot water (all parts are dish washer resistant)



7. Place back the milk dispensing nozzles in the dispensing holder and connect the milk and steam hoses as shown in the picture

8. 1. Steam hose
2. Milk hose
3. Air hose



8.4.2 Manual cleaning of milk suction hoses and cooling units

External panels, drip grid and drip tray as well as the cooling box with container can be cleaned with regular cleaning agents.



Note

Storage and dispensing of milk sets highest requirements to hygiene. A first-class quality of drinks can only be achieved when strict cleanliness is kept.

The device must be cleaned on a daily basis!



Attention

The device must never be immersed in water! Do not clean by a water hose, pressure air or steam!

Damages to the machine, danger of electric shock or short circuit is possible when installing the machine.

8.4.3 Cleaning of bean container

Due to hygiene requirements the bean container and the cover must be cleaned with a regular cleaning agent inside and outside on a daily basis.



Note

No solvents, acidic or scraping agents must be used!

8.4.4 Cleaning of waste container, drip grid and drip tray

Due to hygiene requirements the waste container, drip grid and drip tray must be thoroughly cleaned several times a day with a regular cleaning agent.

First of all the milk residues should be fully removed from drip grid and drip tray.



Note

No solvents, acidic or scraping agents must be used!

8.4.5 Cleaning of housing

Due to hygiene requirements the housing must be cleaned once a day with a regular cleaning agent.



Note

No solvents, acidic or scraping agents must be used!

9 Service-messages

The following display messages refer to maintenance activities.

9.1 Display message waste container full

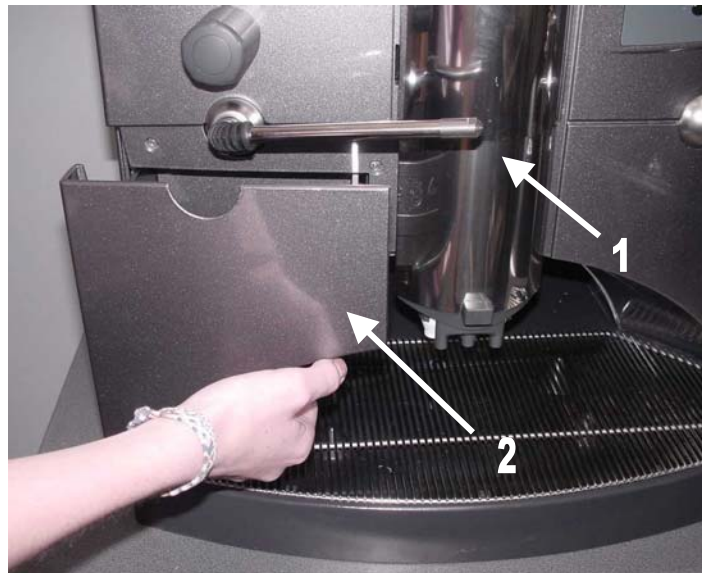
The waste container is full. Therefore, all coffee functions are disabled temporarily. Empty and clean the waste container. When pulling out the waste container **Container 5** is displayed. The number is counted backwards by seconds. After successful counting the message **Container full** is reset. The message **No container** is displayed.

The waste container can be inserted only if emptied (danger of congestion).

After the waste container is put back the message is deleted. The coffee functions are enabled again.

This message does not apply for machines with an integrated waste removal.

9.1.1 Removal of waste container



1. Turn the steam dispenser by 90° ↶ to the left or to the right (steam dispensing is disabled)
2. Pull out the waste container and empty, clean and put back the container.



Danger

The steam dispenser may be hot if steam has been dispensed previously.

Danger of scalding!

9.2 Display message water service

Possibly the Egro service technician has programmed the maximum water volume that is in accordance with the usage time of softening device. If it is so the message **Water service** is displayed when switching on the coffee machine and until obtaining the first drink. Please inform your Egro service centre.

This message has no impact to the functions of the machine and will be displayed until the service technician resets it.

9.3 Display message Coffee service

Possibly the Egro service technician has programmed a maximum number of brewing cycles that is in accordance with the intervals for maintenance of brewing chambers. If it is so the message **Coffee service** is displayed when switching on the machine and until obtaining the first drink. Please inform your Egro service centre.

This message has no impact to the functions of the machine and will be displayed until the service technician resets it.

10 What to do when...

Often malfunction is connected external reasons. Check your machine on the basis of the list below before contacting the Egro customer service.

When..	Check whether..
<ul style="list-style-type: none"> nothing is functioning anymore 	<ul style="list-style-type: none"> ⇒ the power supply is functioning ⇒ the fuses are in order ⇒ the power plug is inserted correctly ⇒ the main switch is switched on
<ul style="list-style-type: none"> instead of coffee hot water is dispensed only no coffee products are functioning 	<ul style="list-style-type: none"> ⇒ the bean containers are filled ⇒ the sliders of bean container are open
<ul style="list-style-type: none"> instead of milk foam only steam is dispensed 	<ul style="list-style-type: none"> ⇒ the milk container is not empty ⇒ the milk hose is fully immersed in the milk container ⇒ the milk foam nozzle is not dirty d (cleaning according to the instruction on page 43 / 44)
<ul style="list-style-type: none"> the message Water check is displayed for a short time 	<ul style="list-style-type: none"> ⇒ the stopcock of water supply is open ⇒ there is no obstacle in the water supply of the house ⇒ the malfunction message is still displayed when you switch off and on the machine from the main switch
<ul style="list-style-type: none"> the green LED next to the stop key blinks and the following message is displayed Error ** (*a number) 	<ul style="list-style-type: none"> ⇒ The stopcock of water supply is open ⇒ there is no obstacle in the water supply of the house ⇒ the malfunction message is still displayed when you switch off and on the machine from the main switch

If the malfunction cannot be removed write down the **Error**** number and contact the Egro customer service.



Danger

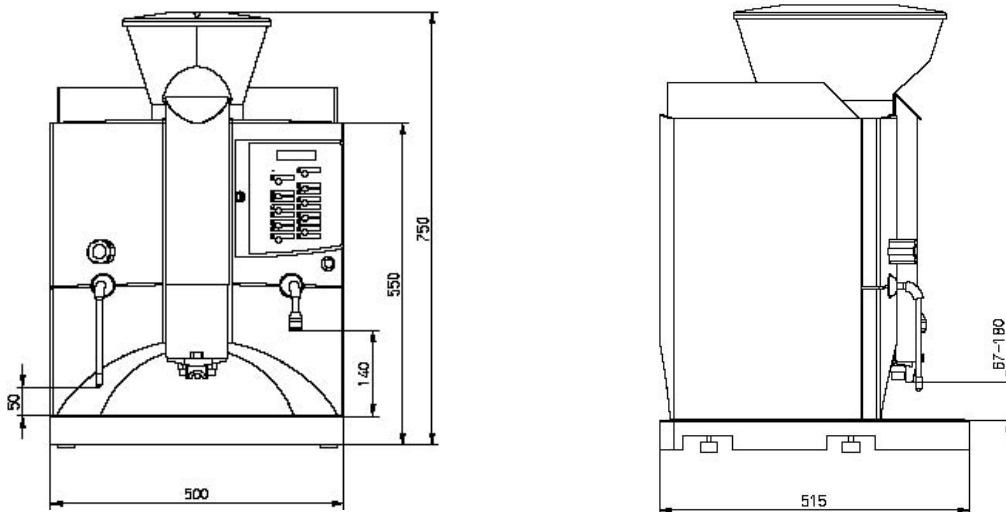
Do not open the machine! There are no components inside the machine that can be adjusted by the user.

Danger of life through electric shock, scalding and squeezing danger!

11 Technical data

Technical changes reserved

11.1 Dimensions



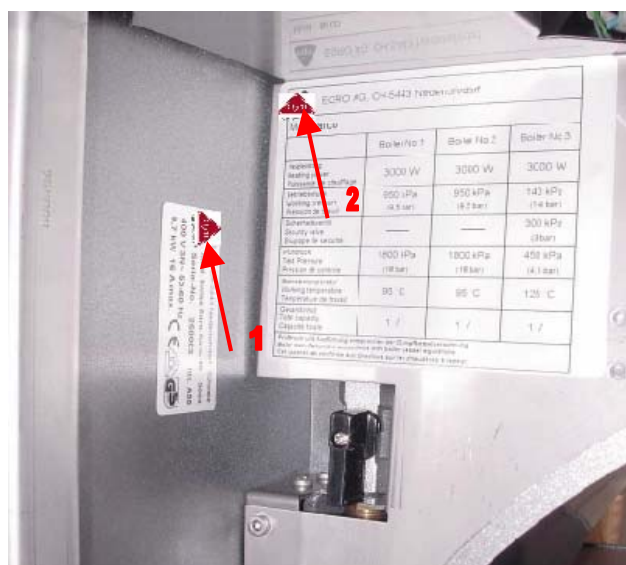
11.2 Weight and working temperature

Swiss Egro Series 70	70	70P	Refrigerator	Cup heater
Weight (empty)	57 kg	57 kg	25 kg	13 kg
Ambient temperature during operation		+5 bis +35°C		

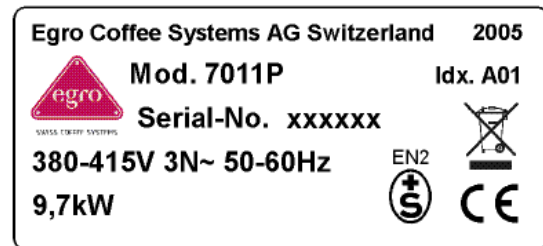
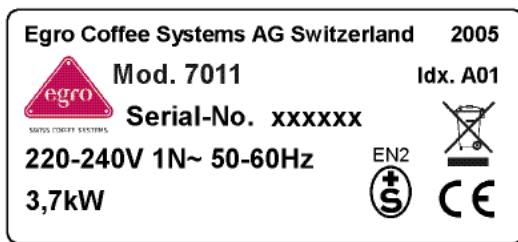
11.3 Noise level of the appliance

The A-weighted sound pressure level is below 70 dB (A)


11.4 Type plates




11.4.1 Type plate (1)



11.4.2 Boiler data label (2)

	Egro Coffee Systems AG Switzerland		Made in Switzerland
Mod.: Swiss Egro Serie 70			
	Boiler No.1	Boiler No.2	
Heizleistung Heating power Puissance de chauffage	3000 W	3000 W	
Betriebsdruck Working pressure Pression de travail	950 kPa (9,5 bar)	140 kPa (1,4 bar)	
Sicherheitsventil Security valve Soupape de sécurité	1100 kPa (11 bar)	300 kPa (3 bar)	
Prüfdruck Test Pressure Pression de controle	2400 kPa (24 bar)	2400 kPa (24 bar)	
Betriebstemperatur Working temperature Température de travail	95 °C	125 °C	
Gesamtinhalt Liter Total capacity liters Capacité totale litres	1 l	1 l	
Prüfdruck und Ausführung entsprechen der Dampfkesselverordnung Boiler manufactured in accordance with boiler vessel regulations Cet appareil est conforme aux directives sur les chaudières à vapeur			100061.507

 Egrot Coffee Systems AG Switzerland		Made in Switzerland	
Mod.: Swiss Egrot Serie 70P			
	Boiler No.1	Boiler No.2	Boiler No.3
Heizleistung Heating power Puissance de chauffage	3000 W	3000 W	3000 W
Betriebsdruck Working pressure Pression de travail	950 kPa (9,5 bar)	950 kPa (9,5 bar)	140 kPa (1,4 bar)
Sicherheitsventil Security valve Soupape de securité	1100 kPa (11 bar)	1100 kPa (11 bar)	300 kPa (3 bar)
Prüfdruck Test Pressure Pression de controle	2400 kPa (24 bar)	2400 kPa (24 bar)	2400 kPa (24 bar)
Betriebstemperatur Working temperature Température de travail	95 °C	95 °C	125 °C
Gesamthalt Liter Total capacity liters Capacité totale litres	1 l	1 l	1 l
Prüfdruck und Ausführung entsprechen der Dampfkesselverordnung Boiler manufactured in accordance with boiler vessel regulations Cet appareil est conforme aux directives sur les chaudières à vapeur			100061.508

11.5 Connection values

Swiss Egrot Series 70	70	70P	Refrigerator	Cup heater
Power supply	230V~ 50 – 60 Hz	400V 3N~ 50 – 60 Hz	230V~ 50 – 60 Hz	230V~ 50 – 60 Hz
Fuse protection	16 A	16 A	10 A	10 A
Nominal power	3,7 kW	9,7 kW	0,1 kW	0,45 kW

11.6 Performance data

Swiss Egrot Series 70	70	70P
Content bean glass	2 x 1.25 kg	2 x 1.25 kg
Capacity coffee (100 ml)	210 c/h	210 c/h
Capacity espresso (40 ml)	300c/h	300 c/h
Hot water	30 l/h	55 l/h
Coffee-milk drinks (100 ml)	160 c/h	270 c/h
Latte Macchiato (300 ml)	70 c/h	120 c/h

11.7 Water connection

Min. pressure of flow	1 bar (15 PSI)
Max. static pressure	4 bar (58 PSI)
Min. flow rate	5 l/min

Technical changes reserved

12 Installation and commissioning



Danger

Installation and commissioning must be carried out by an Egro service technician or trained Egro representative in consideration of all local installation regulations.

12.1 Installation

- The Swiss Egro Series 70 must not be installed rooms where water hose or high pressure cleaning equipment is used!
- The distance from rear panel of Swiss Egro Series 70 to the wall must be at least 4 cm (air circulation). Leave enough space on the top to be able to fill in coffee beans.
- Do not install near heat sources, keep enough distance (heat distortion from coverings of devices).
- Do not close louvers!
- Place the Swiss Egro Series 70 on a stable basis! Screw feet can adjust unevenness.
- Make water supply connections
- Before the water supply hose water tap and a backflow prevented (by the customer) must be installed in an accessible manner.
- When lengthening the supply hose a taste neutral cloth covered hose should be used. The diameter should not be less than the one of the delivered supply hose.
- Prior to connection the water supply line and hose must be flushed so that no filth particles reach the Swiss Egro Series 70.
- Test all connections for leaks.

12.2 Water preparation



Note

By water hardness of more 5°dKH or. 9°fKH (German or French carbonate hardness degree) water softener must be used. After water softener the residual hardness of water should be approx 5° dKH or 9°fKH.



Note

Water softeners regenerated by cooking salt are not suitable for coffee machines with steam boiler! Especially connection of such machines to house water softening device should be avoided.



Attention

No warranty will be assumed for water leading components if these instructions are not followed.

12.3 Connection of water drain

- The drain hose should slope towards drain.

- The supply and drain hoses must not be deviated or squeezed.

12.4 Electrical connection

- Electrical connections must be made by an authorized electrician only
- An electrical switch (power switch) and/or a power socket must be installed in an easily accessible place in upstream direction.
- The switch must effectively separate the Swiss Egro Series 70 and all poles from power supply. Thereby the contact opening must be at least 3mm.
- Follow the data on the type plate when making electrical connections!
- Should the connecting line of the device be damaged it must be replaced by producer or its customer service or a person with a similar qualification to avoid hazards

13 Consumable supplies



Note

Spare parts and reparation works are delivered and carried out by your Egro technician only. Consumable supplies can be directly ordered on the basis of the list below. Always indicate the order number!

Article	Order No.
Coffee cleaning tablets (box à 100 pcs)	005990
Milk cleaning tablets (box à 50 pcs)	042551
Cleaning Liquid (Milkclean)	055452
Milk foam head	100064.001
Bean container	039325
Cover for bean container	039083
Dosage spoon 8g	004775



Attention

Egro Coffee Systems AG original spare parts must be used only.

We wish you every success with your newly purchased Swiss Egro 70 Series coffee machine. Should you have any questions or should anything not be clear, please feel free to contact us.

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The information contained in this user manual is correct as of printing. Egro Coffee Systems AG reserves the right to make amendments in technical data without advance notice. Some functions described in this manual may not correspond to your coffee machine. It depends on the software installed, the options and/or your local conditions.

These operating instructions can be obtained under indication of the number 066841.