EGRO

SWISS COFFEE TECHNOLOGY

NEXT

Technical Manual

ENGLISH

Content

Document history

Date	Author	Revision	Changes
27.08.2018	Veith	--	First release
20.09.2019	Veith	AA	Complete rework – all chapters approved

1. Introduction

This manual gives additional information for the Egro NEXT.
It contains topics, which are not in the installation manual delivered with the machine or in the user manual. This manual will be updated on a regularly base.
Please check yourself on www.ranciliogroup.com/Support

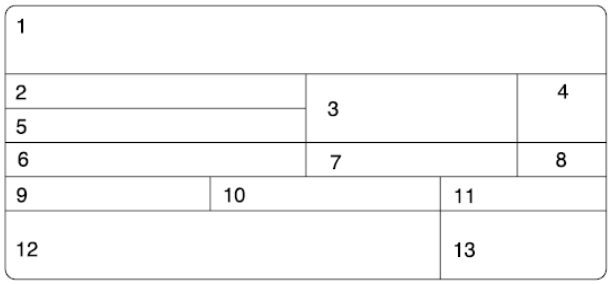
The manuals of Egro NEXT are available on the display and for download on our homepage www.ranciliogroup.com

Further documentation, like document set (electric and hydraulic diagrams), software tree et al. can be found in the restricted area of our download area.

2. Technical data

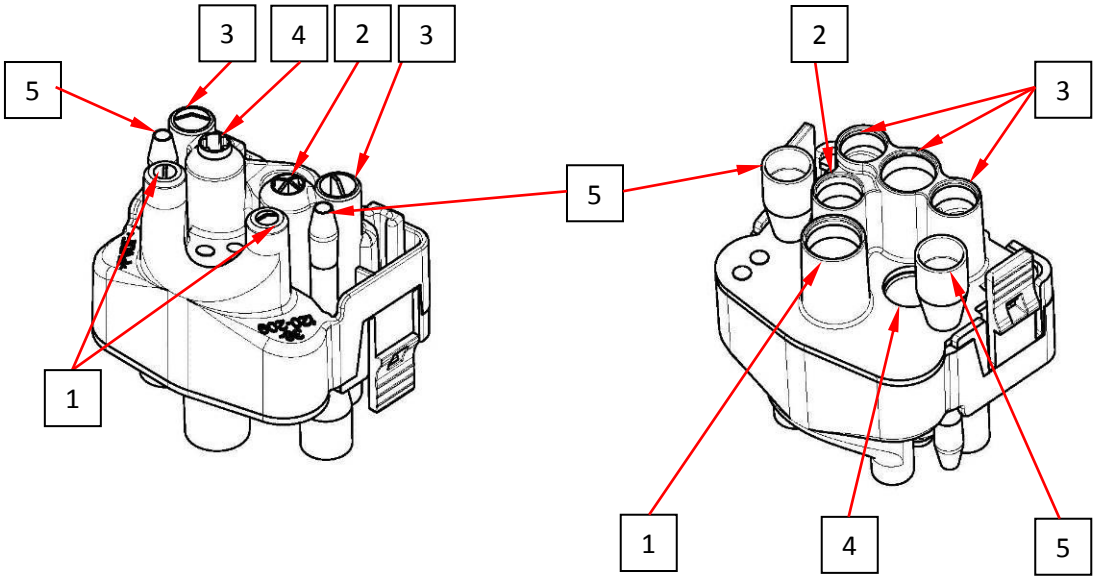
2.1. Type label

The type label is in the machine. Take out the ground drawer and it is visible on the left sidewall.



1	Manufacturer	6	Pin	11	Frequenc
2	Model and version	7	Total absorption	12	Conformity marks
3	Voltage	8	Motor power	13	Date of manufacture
4	EC Conformity mark	9	Max. boiler/static pressure		
5	Serial number	10	Heating element power		

2.2. Outlet



1	Coffee
2	Hot Water
3	Milk/Milk foam
4	Powder product
5	Cold Milk Foam (CMF)

3. Installation

3.1. Electrical connections

The machines are delivered according to the information on the type label, but they offer different electrical connections.

Power supply	Power rating	Identification	“Reduced Power”
220-240V 3~, 50/60Hz	5.5 kW	2P	OFF
220-240V 3~, 50/60Hz	6.0 kW	2P	OFF
380-415V 2N~, 50/60Hz	5.5 kW	2P	OFF
380-415V 2N~, 50/60Hz	6.0 kW	2P	OFF
220-240V 1N~ 50/60Hz	5.5 kW	1P	OFF
220-240V 1N~ 50/60Hz	6.0 kW	1P	OFF
220-240V 1N~ 50/60Hz	3.1 kW	LP	ON
220-240V 1N~ 50/60Hz	3.6 kW	LP	ON
208/240 V2ph~, 60Hz	5/6 kW	-	OFF

3.1.1. *Change power settings*

The power settings can be changed depending on the available power supply. The electrical diagram and the installation manual show the different ways to connect the machine.
When connecting the machine to 220-240V 1N~ 50/60Hz with 16A fuse the parameter “Machine setup/Boiler/Reduced Power” in the **EgroTech** App has to be set to “ON”.

4. Service

4.1. Service Document

The service document for information of maintenance done, will be delivered with every machine. It has space for breakdowns, which should be noted down by the service technician.

4.2. Preventive Maintenance

Preventive maintenance ensures a continuous quality of products and reduces unscheduled breakdowns.
During preventive maintenance service will be done and necessary spare parts will be exchanged.
The base for preventing maintenance are “Service kits” with all necessary parts.
The preventive maintenance is driven by the number of brewing cycles and/or the predefined time.
Reaching the number of cycles or the time, the coffee machine indicates the message "Perform the preventive maintenance".
We recommend adjusting the maximum brewing cycles to 40’000 cycles and the time to 1 year.
The brewing cycles depend on various criteria as regularity of brewing and cleanings, composition of water, cleaning product, climatic conditions, etc.
In case of unfavorable conditions adjust the number of brewing cycles.

4.2.1. *Service interval*

Cycles	40'000	80'000	120'000	160'000	200'000
Time	1 Year	2 Years	3 Years	4 Years	5 Years
	Service kit	Service kit & Service kit iSteam	Service kit	Service kit & Service kit iSteam	Service kit

4.2.2. *Maintenance*

Tables with maintenance tasks for each machine model are available in our download area. They list the tasks and the parts and are given with the necessary drawings.

4.2.3. *Lubricants*

The lubricant table informs which lubricant has to be used according the application. The use of not specified lubricants can shorten the lifetime extremely.

Description	Type	ID	Thermal Range	Area of Application
High performance lubricant	Berulub FG-H 2 SL	059246	-45 - +160°C	All connections: Boiler fittings, tea- and steam wand, piston motors Used for connections and mechanical moving parts
High performance lubricant	Berulub SIHAF 2	059247	-45 -+160°C	For all rubber seals like: NBR, EPDM, Viton Not applicable for Silicon O-Ring!
Synth. Assembly Grease	Klübersynth UH1 64-2403	054567	-30 - +140°C	Piston O-Rings Do not use with EPDM rubbers!

4.2.4. *Service kits*

The service kits are listed below with their ID-number. As the content can change based on technical improvements, we do not list the content. The parts of the sets can be seen in our WEB-shop.

Description	***ID-Number***
Service kit ONE/NEXT Pure Coffee	*10701515*
Service kit ONE/NEXT Milk	*10701514*

4.3. Grinder

4.3.1. *Change Grinder burrs*

A counter for the ground coffee is integrated in the software. We recommend to set to the counter in the **EgroTech App** <Counter/Grinder/Ma. Value left> and <…/Max. Value right> to 1000 kg. As soon as the amount is reached, a message will inform to replace the burrs.

- Close the bean hopper and grind the beans still in the grinder
- Switch off the machine
- Remove the bean hopper and the top plate
- Empty the grinder completely with a vacuum cleaner
- Remove the grinder adjustment from the grinder
- Turn the upper burr-holder counter-clockwise until the head emerges completely;
- Unscrew the screws and remove the burrs from the burr-holder:
- Carefully clean the burr supports, the burr-holder thread and its housing;
- Position the new burrs in their holders and block them firmly in place;
- Reassemble the machine, performing the previous steps in reverse.
- Switch on the machine
- Calibrate the new burrs.

If the grinding process takes an unusually long time, the grinder should be recalibrated. If the grinder during the calibration takes more than 5 seconds to grind 10 grams of coffee, the burrs must be replaced.
If the grinding result is irregular, the burrs must also be checked and replaced if necessary.

4.3.2. *SAG – Self adjusting Grinder*

The grinder setting will be managed according the brewing time of the coffee. This is done with a motor with worm gear mounted to the grinder.
All machines of Egro NEXT have SAG by default

SAG is working with a reference product for each grinder. Most time it is Espresso for the left grinder and coffee for the right one. The parameters which have to be considered for the reference product are:

- grams
- pulses
- pre-infusion
- pressure

If for the left grinder the product “Espresso” is selected, not only this product will be taken in account, but all products, which have the same values for the above mentioned parameters, e.g. “Cappuccino”.

4.4. Brewing unit

4.4.1. *Remove the brewing unit*

Unlock the frame, remove left sheet metal, and disconnect the tubes from the pistons and the cables from the control board. Unscrew fastening screws and disassemble brewing unit.

4.4.2. *Remove the spindle motor*

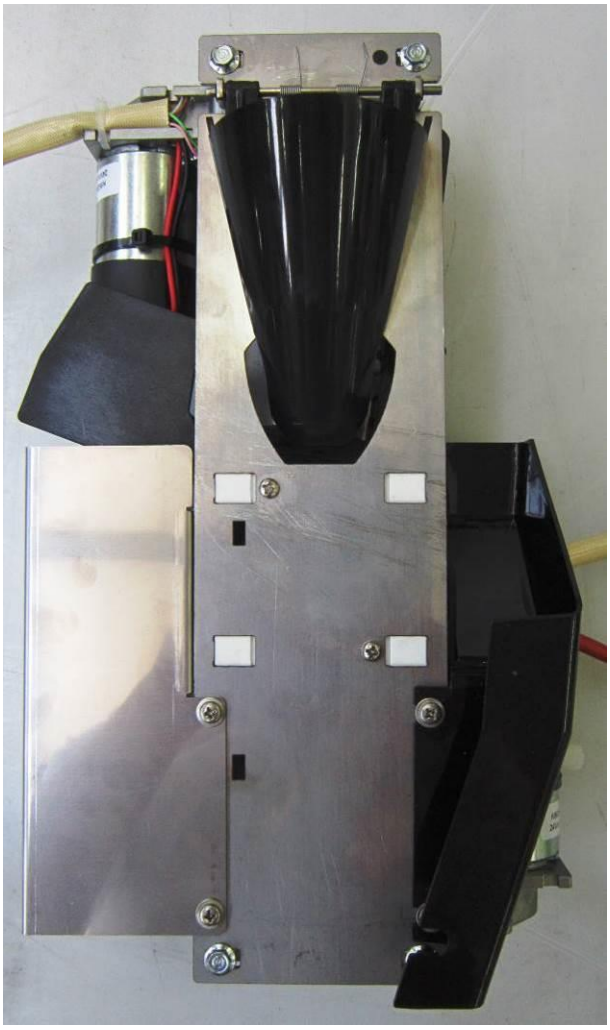
To remove the spindle motors, the screws at the top or at the bottom must be removed. Subsequently, the motor with the piston are pulled out up or down and can be taken apart.

4.4.3. *Brewing units*

Egro NEXT can be equipped with two different brewing chambers – BC18 or BC22.
BC18 is the default brewing unit. It has the smaller diameter of the brewing chamber and can work with up to 18 gram of grind coffee.

4.4.4. *Calibrating the brewing unit*

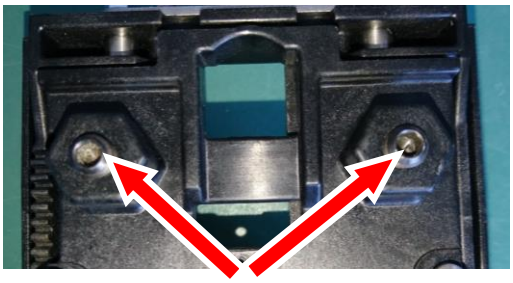
When replacing the brewing unit or after the exchange of spindle motors, the brewing unit must be recalibrated.
The auto calibration can be found in <Machine setup> under <Factory settings> of the EgroTech App. The password can be found in the menu of **EgroTech App**.



BC18

4.5. Outlet

4.5.1. *Manual outlet*



This force, which is needed to adjust the outlet, is controlled by a spring. To adjust the spring use an allen key on the two screws on the backside of the outlet.
Move clockwise for stronger movement and to the opposite direction for easier movement.

4.5.2. *Automatic spout AS*

The Automatic Spout (AS) is driven by a motor and offer the possibility to define five different cup heights in the **EgroTech app**, which will be assigned to the products in the **Egro UI**.
The parameter cup height is also used for hot water products if the machine has a central outlet and should be set up according to the cup used.
If the machine has the hot water outlet on the side, the cup height **must** be defined to “top” so that no movement of the outlet takes place.

Machines with AS have no handle on the outlet. Anyhow it is possible, when needed, to move the outlet slowly by hand.
This should only be done, if the outlet does not move anymore with the motor.

4.6. Milk system

4.6.1. *Default values*

The default values are considered as recommendations. As not all systems work the same, they might be adjusted. The values are set for a milk temperature of 5°C.
The temperature setting “Medium” is to be used for foam products.
The higher the value of the milk temperature (low/medium/high) the more milk will be delivered. As the steam delivery is constant the milk product will be cooler.
The higher the value of the foam structure (fine/medium/big) the more air will be pumped. By adding air, the temperature of the milk products will increase.

4.6.2. *Milk temperature*

First, the milk temperature has to be adjusted. This is done in percentage of the power of the milk pump on the Egro NEXT TopMilk and with restrictors on the Egro NEXT QuickMilk.
Please take care, that foam products always have a higher temperature than milk products with the same settings.

TopMilk	
Milk temperature	
High speed (Low milk temp.)	95
Medium speed (Medium milk temp.)	70
Low speed (High milk temp.)	57

4.6.3. *Foam structure*

We recommend using only one temperature setting for foam products. This simplifies the setting of the foam structure (in %). When changing the temperature setting the foam structure has to be adjusted.

TopMilk & QuickMilk	
Foam structure	
Fine	33
Medium	38
Big	42

4.6.4. *Correction time*

The correction time enlarges the milk delivery time for the the first product after the rinsing. This is necessary as the milk pipes are empty. It should be adjusted in a way that the milk reaches the frother head when the steam will be switched on. This can be seen by a seriously increase of steam or by the switching of the steam valves.
If the correction time is too short, it could happen that after a rinsing no milk will be charged.

	Next to machine	Under counter
Correction time	1.0 s	2.0 s
Rinsing time	0.0 s	0.5 s
Blowout time	0.0 s	1.5 s

The adjustement of these values is particulary necessary, when the refrigerator is placed under the counter.

4.6.5. *Change to pressure sensor*

All TopMilk configurations of the milk system can work with a level measurement based on a pressure sensor.
For a retrofit the the pressure sensor level measurement, select in the Web Shop according to the single or double milk configuration of your system and follow the instruction given here for each sensor.
For the sensor(s), an auto calibration is available and the technician can adjust it for the milk container in use at the customer.

- Remove the milk pump unit from the fridge
- Remove the tube from the white plastic part and take out the milk tube
- Remove the circlip and move the plastic part through the opening
- Insert the new plastic part with the mounted pressure sensor. The sensor with the red point on it is the standard /left sensor, the blue point shows the right one, which is only used with two kind of milk.
  Attention: Take care not to damage the cables and the sensor
- Secure the plastic part with the circlip and install the pump unit in the right place
- Plug in the milk tubes
- Connect the wires of each sensor together with the other sensor.
- Connect them to the mainboard of the coffee machine (connector J3)
- Perform the auto calibration for each sensor.

When ordering the machine with KS9, the cable is in the fridge and has to be connected to J4 on the extension board.
When ordering the machine for FUM (Fridge Under Machine) or SMPU (Standanlone Milk Pump Unit) the cable in the coffee machine is already mounted.

4.6.6. *Milk level calibration*

ATTENTION! Set <Product Setup/Milk/Module Type> first to “TopMilk” or “TopMilk CMF”.
The menu for the level measurement is in the software under <Product Setup/Milk>.

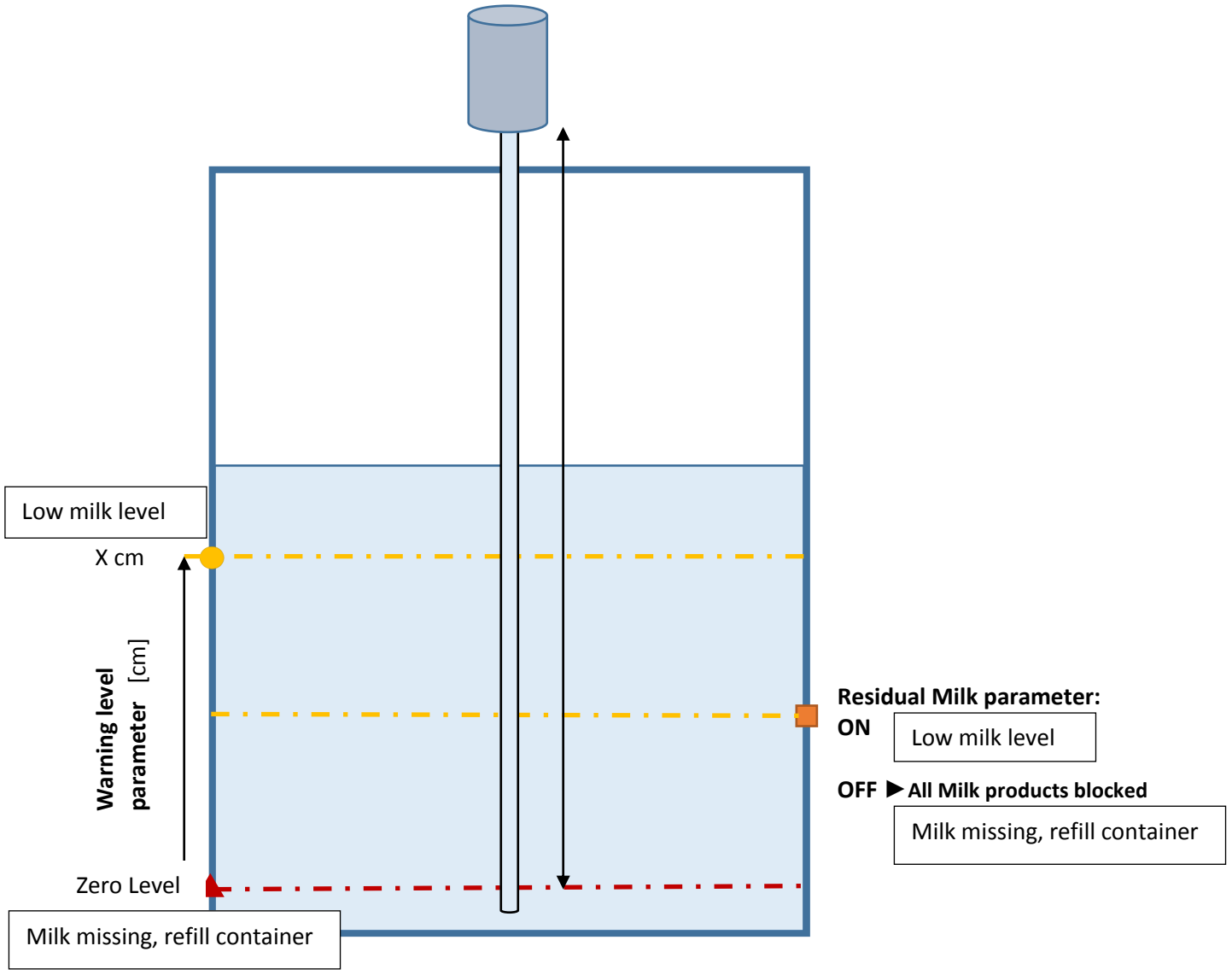
The system with the pressure sensor must be correctly configured in order to be able to calculate the available milk in the fridge.

The machine has an automatic calibration, which allows the technician to adjust the system to the milk container in use.

The calibration should be done, when the machine is correctly positioned on a stable, leveled surface.
The auto calibration for the milk level guides with a sequence of steps through the procedure. It takes some minutes depending on the capacity of the milk container. When the “Fill”-button appears, press it at least up to the point that the metallic restrictor holder is completely in the water.
Attention, water is coming out of the outlet of the coffee machine!
As preparation take care that the milk tube is hanging free in the container and almost touch the bottom of it.

When having two machines, which take the milk out of the same container(s), take care to set the Zero level a little bit higher to avoid that the products cannot be finished as both machine can take out milk at the same time.
Perform the auto calibration for both machines independently (not together).

Milk level Alarm concept



Level= X cm (Warning level parameter)

At least one milk product is not possible.
Milk qty. Product > Milk qty. in container
Products with a higher milk quantity than in the container are disabled.

Zero Level

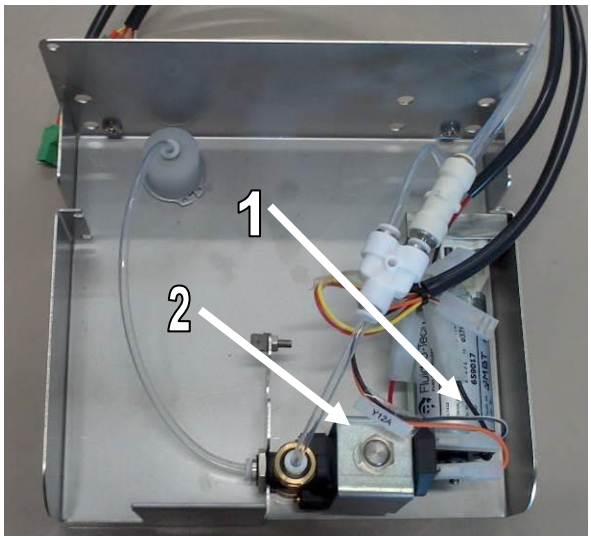
Message

▶ Action

4.6.7. *Configurations Milk system*

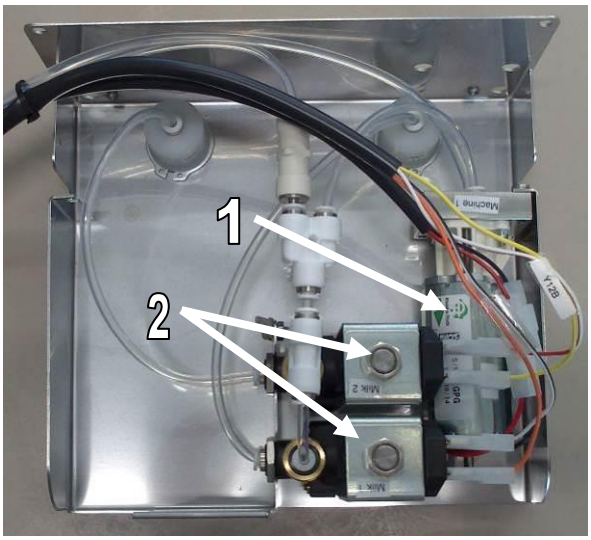
The configurations shown below are available for the fridge KS9 or as standalone milk pump unit (SMPU).

1L – 1M



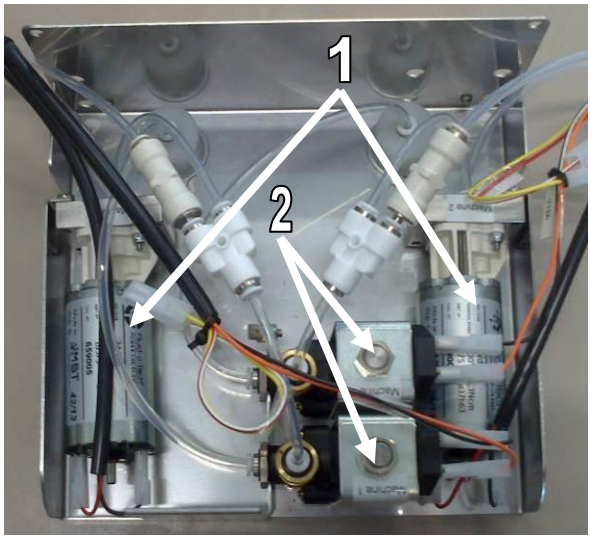
1 milk – 1 machine

2L – 1M



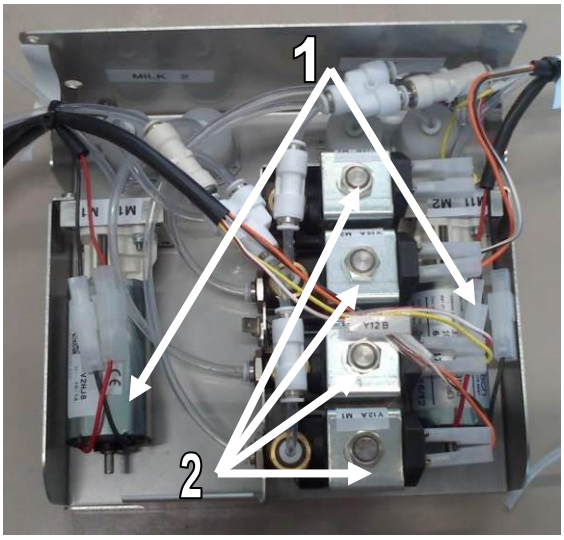
2 milk – 1 machine

1L – 2M



1 milk – 2 machines

2L – 2M



2 milk – 2 machines

Milk pump unit:

1 Milk pumps

2 Milk valves

4.6.8. *Cold Milk Foam CMF*

Cold Milk Foam (CMF) is an option of the milk system, which should be ordered with the machine/fridge. CMF is **only** available for Egro NEXT TopMilk with one milk and one machine! All other versions cannot be equipped with it.

Special maintenance work is not necessary for the CMF-module. For the rinsing and cleaning of the milk system the way through the CMF-module will be considered automatically, when a CMF-product was delivered before.

Cold milk foam can have different stiffness. We integrated three levels with the following parameters:

	Liquid	Creamy	Stiff
Milk pump	46%	44%	42%
Air pump	50%	50%	50%
Mixer	100%	100%	100%

The stiffness will be done mainly with the milk pump. Mixer and air-pump should not be adjusted. The values listed above are considered as guiding value and have to be adjusted, if necessary

4.7. Fridge NEXT

The temperature controller is on the left side inside the housing of the fridge. After removing the left side panel, adjustment, unit change and calibration of the temperature can be done.

4.7.1. *Temperature adjustment*

Press set twice.

Modify the temperature with the buttons.

Confirm the new value with set.

The temperature must be set to the highest temperature in the fridge. We recommend to set it to 5 °C/41°F

4.7.2. *Temperature offset*

- Press set until **<PA1>** appears on the display, approx. 5 sec.
- Press set and **<0>** will appears on the display
- Press until **<15>** appears on the display
- Press set once; **<dF1>** appears on the display
- Press until **<CA1>** appears on the display
- Press set once; the shown temperature is the offset-temperature, which mean the correction between the measured and the displayed temperature.
- Measure the milk temperature in the fridge. The milk should be cold and for at least three hours there was no refill.
- Adjust temperature with until the value in the display corresponds with the measured value
- Press set once and then to leave programming

4.7.3. *Change temperature unit*

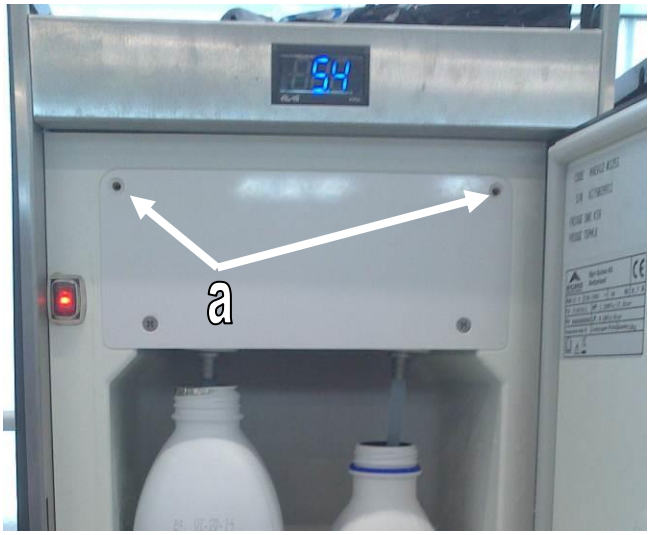
- Press set until **<PA1>** appears on the display, approx. 5 sec.
- Press once; **<PA2>** appears on the display
- Press set and **<0>** will appear on the display
- Press until display shows **<15>**
- Press set once; **<CP>** appears on the display
- Press set once and on the display appears **<dF1>**
- Press once; **<CP>** appears again on the display
- Press until display shows **<di 5>**
- Press set once and on the display appears **<LOC>**

- Press  until display shows **<dro>**
- Press  once and select the temperature unit with the  button:
  - **<0>** = °C **<1>** =°F

- Press  twice, to leave programming

4.7.4. *Remove milk pumps*

Switch off the fridge!
Remove the two screws (a) on the front of the plastic cover inside the fridge!
Take out milk pump unit.



4.8. Under counter installation

When installing the refrigerator under the counter, some parameters must be adjusted. Please note chapter 4.6.4.

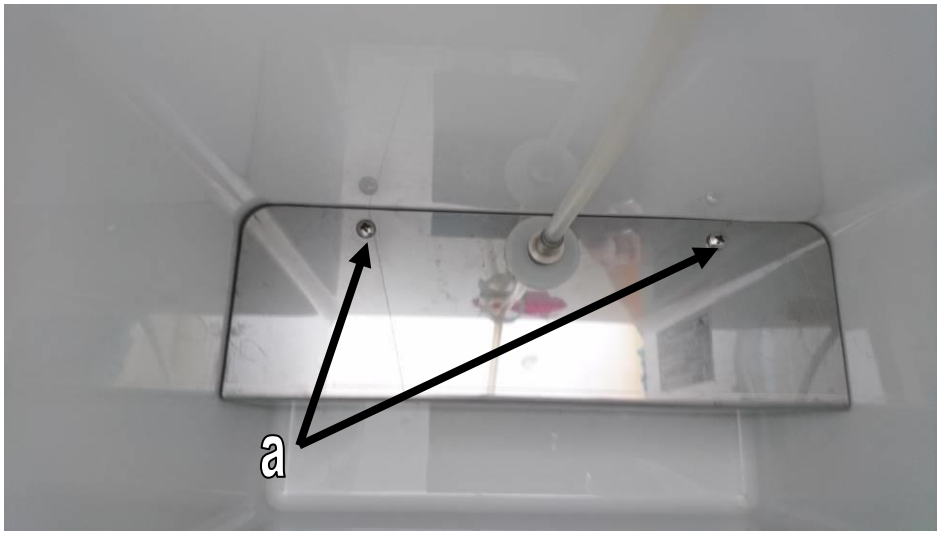
4.9. Fridge FUM

4.9.1. *Temperature adjustment*

The temperature adjustment is on the back side of the fridge.
Turn the thermostat to the left to lower the temperature.
Do not turn to the maximum power, as the milk might freeze.
We recommend to mark the ideal temperature on the scale. The ideal temperature is in the area, where the controller is palced in the picture.

4.9.2. *Remove milk pumps*

Switch off the fridge!
Remove the two screws (a) on the upper end of the milk pump unit inside the fridge.
Take out milk pump unit.

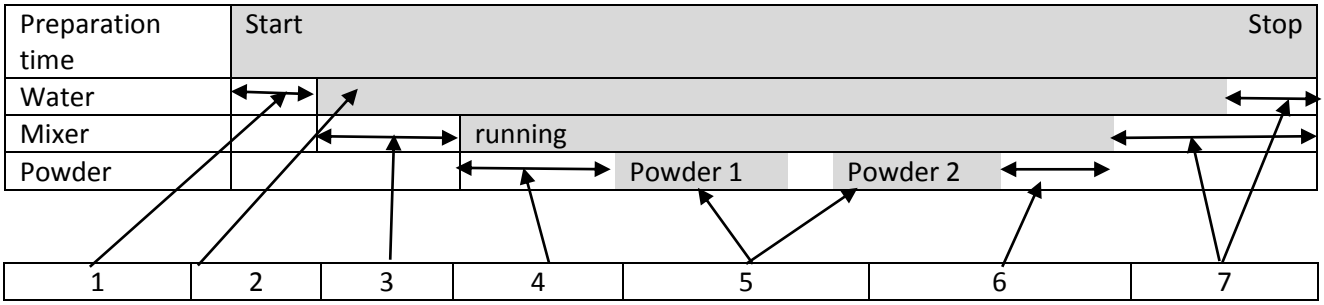


4.10. Powder Module

The preparation of a powder product is handled with a number of parameters described with the diagram below. The parameters are split in the one, which are necessary to adjust for each product and the ones which are handled as a machine parameter.

Make sure to make the water calibration, in the <Product Setup/Powder/Water test> of the EgroTech app!

Parameters of the **EgroTech app** are makred with "ET". All other parameters are configured in the **Egro UI**

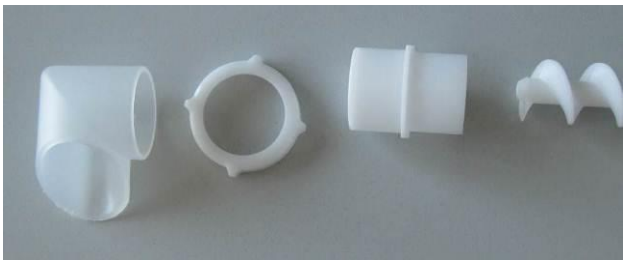


1	Product configuration/ Powder delay
2	Product configuration/ Water delivery
3	"ET" Product set up/ Mixer delay
4	"ET" Product set up/Hopper delay

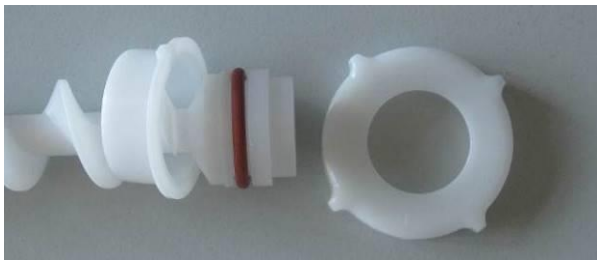
5	Product configuration/ Left powder amount or Right powder amount
6	"ET" Product set up/ Stop Mixer
7	Fix values (not configurable)

4.10.1. *Powder hopper*

The powder hoppers should be cleaned completely once a week.
When reassembling, it is important to have the right order and placements of the parts to secure a proper function. Some parts are similar and can easily be mixed up.

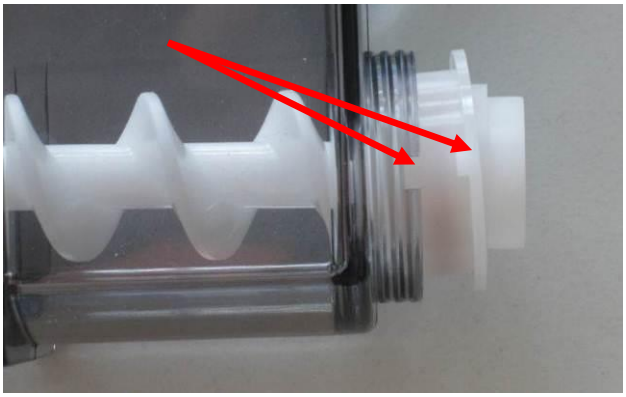


Front components



Back components

Take care on the knobs!
They are available on the front and on the back of the powder hopper



4.11. Diagrams, Fuses and Print Boards

The diagram set with the electric and hydraulic diagrams and their legend are delivered with the coffee machine.

For the detailed description of the print boards with the values of the fuses and the description of the LEDs we offer a separate document in our download area.

5. Software

5.1. Use of USB

Egro NEXT offers the possibility to use a USB-drive for updates and backups. Data to upload must be saved on the root directory of the USB-drive.

5.2. Software components and versions

The software of Egro NEXT consists out of four components:

- **Egro UI**: the user interface, the version can be seen on the Cleaning Page in the Menu.
- **EgroTech**: the technician interface, the version can be seen in “Machine Configuration: Software Version”

- **Firmware of the control board**, the version can be seen in the **EgroTech** App under “Machine Configuration: Software Version”

- **Operating system of the screen** (Android, the version can be seen on the default android background image in the upper right corner.

5.3. Filenames

- Control Board Firmware: SwNEXT_900.mhx
- Egro UI_v2.0.5_bxxxx_YYMMDD.apk
- EgroTech_v9.0.0_bxxxx_YYMMDD.apk

5.4. Software update

5.4.1. Control Board

To update the control board, use the **EgroTech** App.

5.4.2. Display /Android OS

First backup your product database in the **Egro UI**. Use the FileManager App!!
Switch off the machine, insert the USB-drive, switch on machine. If the drive is correctly recognised, the display shows 4 penguins instead of the 4 coffee beans. Then wait till the screen says “END UPDATE” (approx. 5 min.), switch off, remove the USB-drive and restart the machine.
The first startup after an update of the OS will take longer, showing the “NEXT” animation for some minutes. At the end, the **Egro UI** starts automatically.
Restore the products database.

5.4.3. EgroTech and Egro UI

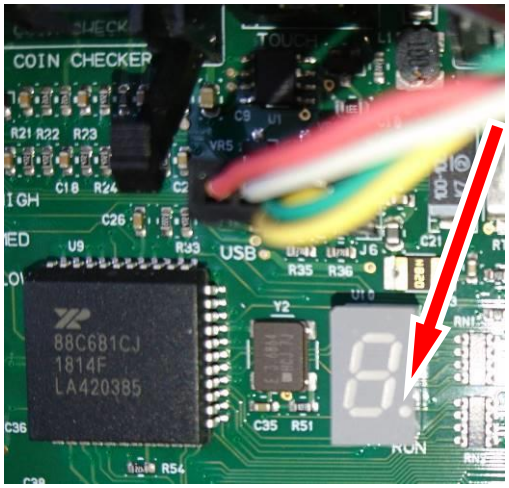
Put the latest version of the two App’s onto a USB-drive, insert the drive, open the FileManager, locate the directory of the USB-drive (/mnt/media_rw/) and click on the App’s on the drive “/mnt/media_rw”.
The **EgroTech** App must be updated first.

NOTE: The major version of the **EgroTech** and control board firmware must match.

5.4.4. Recovery

If the software update fails or the control board due to a memory error (BE x) does not start anymore, you have to upload the „RECOVERY.UPD“ as following:

1. Download Software V9.0 „RECOVERY.UPD“ from our homepage and store it in the root of a USB-drive
2. Switch off machine
3. Remove left side panel
4. Connect the USB-cable ID 34070075 to control board J6 and insert the USB-drive.
5. Switch on machine
6. Machine boots directly from USB and installs the software and message file.
   Wait until on the control board display (see picture) the red point on bottom right hand corner is flashing (2 minutes). Unplug USB-drive and wait till machine did start up and finished rinsing.



5.4.5. Exchange of Touchscreen

When changing the screen, it can happen, that the screen from spare part has a software version which is not compatible with the firmware on the control board.

In this case, **Egro UI** will not be able to connect. Entering the **EgroTech** (via VirtualMachine) will show the corresponding message.
If this happens, the firmware of the control board must be updated. Select the correct firmware version and upload it using Load&Show Menu in the EgroTech App.

5.5. Pictures and videos

Egro NEXT allows the upload of pictures and videos, just follow the insructions in the **Egro UI**. Unused files can be deleted with the FileManager-App. The files are usual in the path «/sdcard/EGRO/».

5.5.1. Pictures

Resolution: 1900*1280 pixels; jpg, bmp or png files.
We recommend to use pictures with the right size and resolution.

5.5.2. Video

Videos can be played on the screen of Egro NEXT. The best resolution is 1900*1280 pixel in the format mp4.
As the screen has no speakers, Audio is not supported.

5.6. Display

5.6.1. Clean the display

Lightly wipe to clean the dirty surface with absorbent cotton or other soft material like chamois without scrubbing it hardly. Always wipe the surface horizontally or vertically. Never give a wipe in a circle. To prevent the display surface from damage and keep the appearance in good state, it is sufficient, in general, to wipe it with absorbent cotton.

5.6.2. Lifetime

The use of a pen or any other sharp item reduce lifetime of the display. Please do not use!

5.7. Backup

Attention!
These parameters are stored in the backup-file of the Egro NEXT but they will not be overwritten when loading a backup to another machine:

REDUCED POWER
MILK MODULE TYPE
MILK SENSOR
POWDER MODULE TYPE
STEAM MODULE TYPE
TROLLEY UNIT
P1 OUT
P1 TURNS
P2 TURNS
BREWING GROUP
BOILER TYPE
QR-SETTINGS
SERIAL NUMBER

5.8. Technician Menu

The technician menu is password protected (Default password: 1849). It can be accessed from the user interface.

A new, separate App – **EgroTech** – opens and provide the configuration of the coffee machine. Depending on the configuration different settings are available

	Enter EgroTech App
1	Open Technician menu in the Egro UI
2	Select in the “General settings” the menu point “Start machine Settings”
3	EgroTech opens
4	Select setting
5	Modify and store settings

	Leave EgroTech App
1	Press <EXIT> to leave **EgroTech** App

Product setup

Coffee	Boiler temperature	Temperature set point of the coffee boiler		
	Group heater	Power management of the group heater		
	Auto-Rinse time	Time for the automatic rinse after the last brewed coffee 0=OFF		
	First Coffee	Increases the amount of coffee powder for the first coffee after 3 min of no coffee		
Milk	Module type	Type of the milk module – Not installed / QuickMilk /TopMilk / TopMilk CMF		
	Auto-Rinse time	Time for the automatic rinse after the last delivered milk		
	Pump purge	Purge the milk pump circuit with the fridge 0=OFF		
	Milk rinsing	Renew hourly the milk in the milk tubes when having a cool box		
	Correction time	Delay of steam for the milk delivery after a milk auto-rinse		
	Rinsing time	Increase of the rinsing time in case of longer tubes (under counter installation)		
	Blowout time	Increase of the blowout time in case of longer tubes (under counter installation)		
	Milk temperature	Configuring and testing three different milk temperature (Fast speed – low temperature, low speed – high temperature)		
	Foam texture	Configuring three different levels of foam texture		
	CMF	Setting 1… 3	Milk pump power	Power of the milk pump in %
			Air pump power	Power of the air pump in %
			Mixer power	Power on the mixer in %
	Left sensor / Single	Sensor type	Off=no sensor; Switch = capacitive sensor; Level = pressure sensor	
		Container Capacity (l)	Capacity of the milk container	
		Calibration	Autocalibration	Starts the automatic calibration and sets the values for the milk level measurement
			Zero level (cm)	Value is from the sensor down to the minimum level; will be set in auto calibration – should not be changed
			High factor	Factors for the control of the milk pump speed. These values will be set by the auto calibration and should not be changed
			Medium factor	
			Low factor	
		Residual Milk	"Off" blocks all milk product, when milk level is too low; "ON" blocks only the milk products, which cannot be done anymore	
		Warning level (cm)	Level of milk in the container, to activate the Low level-information; with 0.0 the function is deactivated	
	Right Sensor	The right sensor has the same submenu as the left sensor. It will not be repeated.		
Grinders	Grind left time/10g	Time to grind 10g of coffee with the left grinder		
	Test left Grinder	Test function to grind and adjust the correct amount of ground coffee for the left grinder		
	Grind right time/10g	Time to grind 10g of coffee with the right grinder		
	Test right Grinder	Test function to grind and adjust the correct amount of ground coffee with the right grinder		
	Left time %	Time of the left grinder – 50% = both grinders ground the same amount		
	SAG	Module Type	Modes: Not installed – Manual – Auto adjust – End switch	
		Ref. Product left	Defines the reference product for the left grinder, most time «Espresso»	
		Target time left	Requested target time for the left reference product	
		Ref. Product right	Defines the reference product for the right grinder, most time «Espresso»	
		Target time right	Requested target time for the right reference product	
	Manual Adjustment	Left grinder	With these menues the grinders can be adjusted. If the parameter «SAG/Module Type» is on "Manual", the adjustment will be kept, otherwise, the machine will adjust the grinders.	
		Right grinder		
Steam	Module type	Steam wand – Not installed / iSteam / Steam wand		
	Foamed milk	Shut-off temperature	Shut-off temperature of the foamed milk	

Product setup

		Emulsion level	Emulsion level of the foamed milk
	Steamed milk	Shut-off temperature	Shut-off temperature of the steamed milk
		Emulsion level	Emulsion level of the steamed milk
	iSteam purge warning	Activates the indication to purge the iSteam after use	
	Purge request after [s]	Time after the last iSteam use before «Purge iSteam» is displayed	
Powder / Cool Coffee	Module type	Installation of “Powder” or “Cooled Coffee” module	
	Exchanger volume	Do not change this parameter – shows the volume in pulses of flowmeter	
	Water test	Delivers water for 10 sec. to the powder module -> measure volume and insert value at “Water amount”	
	Water amount	Amount of water delivered in 10 sec.	
	Fan stop time	Follow-up time of the van after the powder delivery	
	Left screw speed	Speed of the left screw drive (is normally at 100 %!) *	
	Right screw speed	Speed of the right screw drive (is normally at 100 %!) *	
	Mixer speed	Speed of the mixer (is normally at 100 %!) *	
	Mixer delay	Delay of the mixer after the water starts running	
	Powder delay	Delay of the powder delivery after the mixer is working	
	Stop mixer	Follow-up time of the mixer after the powder delivery	
	Auto rinse time	Time for the automatic rinse after the last delivered powder product	
		***for special application the motor speed can be reduced**	

Machine setup

Function mode	Stand-by mode	Sets coffee machine in stand-by
	Payment mode	Sets coffee machine in payment system/register mode
	Self-service mode	Sets coffee machine in self-service mode
General	Language	Select the language of the EgroTech App
	Buzzer	Activate buzzer
	Change manager password	**Do not use!** The password for the Manager is set in the **Egro UI**
	Change technician password	Set a new technician password using 4 digits; which is used to enter the EgroTech App
	Illumination	Activates machine light
	Coffee powder alert	Activates the coffee powder alert by software sensor
	Grounds value[kg]	Amount of grounded coffee before «DRAWER FULL» is displayed
	Trolley unit	Trolley installation
Unit converter	Temperature	Selects the temperature unit
	Pressure	Selects the pressure unit
Preselection	Standard mode	Number of preselected beverages in Standard mode
	Payment mode	No. of preselected beverages in payment mode
Boiler settings	Steam boiler	Steam boiler installed
	Boiler steam pressure	Pressure set point of the steam boiler
	Reduced power	Power for the boilers; OFF: 2 boilers can work together; ON: only one boiler can work at the specific moment
	Coffee boiler type	Defines the type of coffee boiler (3 or 2.5 kW)
Factory settings	Brewing chamber	Definition of the brewing unit with 18 or 22 grams. The option of 15 gr is not available for Egro NEXT and should not be selected.
	Lower Offset	These parameters are set with the «Auto calibration» of the brewing unit. They should not be changed.
	Upper Offset	
	Piston 1 out	Position of the upper piston (in number of turns) to eject the coffee cake
	Piston 1 turns	Position of the upper brewing piston to brew coffee
	Piston 2 turns	Position of the lower brewing piston to eject the coffee cake
	Autocalibration	Activates the automatic calibration and sets the values for the pistons
	Hot Rinsing	Activates hot water valve for rinsing: 0 = no hot rinsing 100 = pulsed hot rinsing.
	Cold milk rinsing	
	Air pump boost	
	Sensor Offset AS	Distance between the end switch and the photo sensor at the upper end of the AS - Do not change!
	Password: 2408	All grey fields are protected with an additional password
Data interface	Payment system type	Select the type of payment system
	Decimal point	Number of decimal points
	Coin value	Coin value #1…6 Value of each channel of the coin-checker
	Smart card number	ID number of the smart card to uniquely associate a smart card to a coffee machine
Remote control	Remote Control	Activate the connection for a tablet
	Interface	Defines the connection of the tablet
Telemetry	Telemetry	Activates the telemetry

Machine setup

	Serial number	Displays the serial number to be used in the telemetry
Maintenance function	Initialization	Function to enable the first startup
	Heaters	Switch off the heating elements of both boilers
	Cool down	Cool down of the boilers
	Serial number	Serial number of the machine
	Insert the serial number	Insert the serial number of the machine
AS setting	Module Type	Activation of the automatic spout (AS) – Not installed – AS – AS Plus For Egro NEXT the option AS is not available.
	Crash behavior	„Continue“- the spout tries if it can move on even there is a resistance „Stop“- the spout does not move on
	Cup height 1…5	5 heights for different cup sizes
Software version	Touch Bootloader	Shows the version of the touch boot loader
	Touch board operating system	Shows the version of the touch operating system
	Touch board SW	Shows the software version of the touch
	Touch board message	Shows software version of the touch messages
	Touch board parameters	Shows the software version of the touch parameters
	Control board boot	Shows the software version of the control board boot
	Control board software	Shows the software version of the control board
	HW Control board	Shows the hardware version of the control board
	Control board USB SW	Shows the software version of the control board USB
	Protocol	Shows the protocol version
	Control board messages	Shows the messages version of the control board
	Control board parameters	Shows the parameters version of the control board
	Powder Module Boot	
	Powder Module control board	Shows the version of the Powder module control board

Date + Time		**Do not use these parameters!** **The time master of the machine (Screen or telemetry) overwrites the time of the machine.** **The Auto Power ON is managed by the Egro UI.**
~~Clock~~	~~Date mode~~	~~Defines date mode~~
	~~Set date~~	~~Set date with year, month and day~~
	~~Time mode~~	~~Defines time mode 12h or 24h~~
	~~Set time~~	~~Time setting~~
~~Auto power ON~~	~~Enable Auto power~~	~~Activates the auto power function - Touch: display shows an <<A>> in the header~~
	~~Standby after cleaning~~	~~Standby after cleaning can be enabled, disabled or set to be asked every time~~
	~~Sunday ON~~	~~Set the switch on time for Sundays~~
	~~Sunday OFF~~	~~Set the switch off time for Sundays~~
	~~Copy to all?~~	~~Copy Sunday settings to all weekdays~~

~~Each weekday can be set individually with the following menu options. Closing day - put ON and OFF on the same time.~~

Cleanings settings

Cleaning time	Daily cleaning schedule
Block Machine	Activates the blocking the coffee machine if a cleaning is not performed within 2h from the cleaning time warning
Self-service cleaning	The message for the daily cleaning in self-service mode; ON=message displayed OFF=no message displayed.
Flashing Reminder	Red / blue flashing when cleaning is prompted
Early cleaning	Allow the cleaning up to two hours before the set time. If ON – no reminder will appear on the set cleaning time, if OFF the reminder will appear anyway

Counters

Products	Type	Total	Total amount of all beverage prepared since last reset	
		Coffee	Number of coffee beverages prepared since last reset	
		Coffee & Milk	Number of coffee & milk beverages prepared since last reset	
		Milk	Number of milk beverages prepared since last reset	
		Hot water	Number of hot water beverages prepared since last reset	
		iSteam foamed	Number of foamed milk made using the iSteam foamed button	
		iSteam steamed	Number of steamed milk made using the iSteam Steam button	
		Powder	Number of powder beverages prepared since last reset	
		Powder & Coffee	Number of powder & coffee beverages prepared since last reset	
		Powder & Milk	Number of powder & milk beverages prepared since last reset	
		Powder Coffee Milk	Number of powder, coffee & milk beverages prepared since last reset	
	Products	Displays the number of brewing of each beverage since last reset		
	Reset counters	Reset all product counters. It also shows the last date and time when reset counters made		
	Last reset made	Date of the last reset of brewing cycles		
Maintenance	Brewing group	Brewing cycles	Number of brewing cycles since last maintenance	
		Max cycles number	Number of brewing cycles after machine needs maintenance. 0 = OFF	
		Max time	Time in months after which machine needs maintenance. 0 = OFF	
		No of cleanings since last reset	Shows the number of cleanings since the last reset	
		Reset cycles	Reset the number of brewing cycles since last maintenance	
		Last reset made	Date of the last reset of brewing cycles	
	Water softener	Filter capacity	Water volume after which the softener cartridge must be replaced. 0 = OFF	
		Water used	Water used since last maintenance	
		Reset filter	Reset number of liters of water used since the last maintenance	
		Last reset made	Date of the last reset of the water softener	
	Cleaning counters	Coffee cleanings	Number of coffee cleanings since last reset	
		Milk cleanings	Number of milk cleanings since last reset	
		Reset cleaning counters	Reset the cleaning counters	
	Lifetime counters	Type	Total	Total amount of brewing's of all beverage
			Coffee	Number of brewed coffee beverages
			Coffee & Milk	Number of prepared coffee & milk beverages
			Milk	Number of prepared milk beverages
			Hot water	Number of prepared hot water beverages
			iSteam foamed	Number of foamed milk made with iSteam foamed
			iSteam steamed	Number of hot milk made with iSteam steamed
			Powder	Number of prepared powder beverages
			Powder & Coffee	Number of prepared powder & coffee beverages
			Powder & Milk	Number of prepared powder & milk beverages
			PowderCoffeeMilk	Number of prepared powder, coffee & milk beverages
		Products	Displays the number of brewing of each beverage	
		Cycles	Number of brewing cycles during coffee machine lifetime	
		Water	Shows the liters of water used during coffee machine lifetime	
		Cleaning counters	Coffee cleanings	Total amount of coffee cleanings
			Milk cleanings	Total amount of milk cleanings

Counters

Grinder	Left Grinder	Amount of coffee grind with the left grinder in kg
	Max. value left	Defines the amount of coffee before changing the burrs
	Ref. Product left	Number of prepared reference products for the left grinder
	Last reset made (left)	Shows date and time of the last reset for the left grinder
	Reset left	Resets the counter of the left grinder
	Right grinder	Amount of coffee grind with the right grinder in kg
	Max. Value right	Defines the amount of coffee before changing the burrs
	Ref. Product right	Number of prepared reference products for the right grinder
	Last reset made (right)	Shows date and time of the last reset for the right grinder
	Reset right	Resets the counter of the right grinder

Diagnostic

Errors	Last error list	Displays last 32 errors/warnings from most recent to oldest (resettable)	
	Reset last error list	Function to reset "Last errors list"	
	Total error list	Displays last 64 errors/warnings from most recent to oldest (not resettable)	
Tests	Valve Test	Brewing	Switch the brewing valve Y1
		Bypass	Switch the bypass valve Y6
		Steam boiler fill	Switch the steam boiler filling valve Y3
		Steam right foamer	Switch steam valve for the right foamer Y5
		Steam left foamer	Switch steam valve for the left foamer Y4
		Pre steaming valve	Switch pre steaming valve Y18
		Rinsing cold water	Switch the rinsing cold water valve Y10
		Air valve	Switch the air valve Y13A
		Milk rinse right	Switch the rinsing valve for right milk Y12B
		Milk rinse left	Switch the rinsing valve for left milk Y12A
		Tea cold water	Switch the cold water valve for Tea Y2A
		Tea hot water	Switch the hot water valve for Tea Y2B
		iSteam Air	Switch the air valve for iSteam Y14A
		iSteam Steam	Switch the steam valve for iSteam Y14
		Heating relay	Switch the heating element relay S2
		AUX 2	
		Milk rinsing hot	Switch the valve Y21
		PM: Hot water valve	Switch the hot water valve for powder module Y30
		CMF Milk valve	Switch the CMF milk valve Y20
		CMF Air valve	Switch the CMF air valve
		Valve 3	
		IR1 enable	
		IR2 enable	
		Power BLE	
		CCO rinsing valve	Switch the CCO rinsing valve Y40
		CCO inlet valve	Switch the CCO inlet valve Y41
		CCO switch valve	Switch the CCO switch valve Y43
		CCO spare valve	
	Heater Test	Coffee boiler	Switch the heating element of the coffee boiler and displays the temperature in the coffee boiler E1
		Steam boiler	Switch the heating element of the steam boiler and displays the pressure in the steam boiler E2
		Brewing chamber	Switch the heating element inside the brewing group E3
		Flush steam boiler	Switch the filling valve of the steam boiler, the hot water valve and the pump
	Motor Test	Pump	Switch the pump M1
		Right Grinder	Switch the right grinder M3
		Left Grinder	Switch the left grinder M2
		AUX output	Switch the auxiliary output
		Right milk pump	Switch the right milk pump
		Left milk pump	Switch the left milk pump M4
		Upper piston	Moves the upper piston and displays the current position of the piston
		Lower Piston	Moves the lower piston and displays the current position of the piston
		Air Pump	Switch the air pump M6
		AUX output	Switch the auxiliary output

	PM: L screw drive	Switch the left screw drive of the powder module M30	
	PM: R screw drive	Switch the right screw drive of the powder module M31	
	PM: Mixer	Switch the mixer of the powder module M32	
	PM: Fan	Switch the fan of the powder module M33	
	AS Outlet	Diagnostic of the spout motor M14	
		Endswitch	Upper endswitch of the AS
		Encoder	Encoder of the spout motor
		Move up	Button to move the AS up
		Move down	Button to move the AS down
	EX: M12 CMF Mixer	Switch the mixer of the CMF module	
	EX: M15 SAG left	The left SAG-motor can be moved	
		Endswitch 1	Endswitch 1 of the SAG-motor
		Endswitch 2	Endswitch 2 of the SAG-motor
		Encoder	Encoder of the SAG motor
		Open	Button to open the SAG – gives more space between the grinder burrs
		Close	Button to close the SAG – decrease the space between the grinder burrs
	EX: M16 SAG right	The right SAG-motor can be moved	
		Endswitch 1	Endswitch 1 of the SAG-motor
		Endswitch 2	Endswitch 2 of the SAG-motor
		Encoder	Encoder of the SAG motor
		Open	Button to open the SAG – gives more room between the grinder burrs
		Close	Button to close the SAG – decrease the room between the grinder burrs
Sensors	Steam boiler level	Shows level in the steam boiler B3	
	Steam boiler pressure	Shows the pressure (bit + value) in the steam boiler S13	
	Temp. Coffee boiler	Shows the temperature (bit + value) in the coffee boiler B1	
	Flowmeter	Function to brew a fixed number of impulses. Shows the counted impulses from the flowmeter P1	
	Milk level switch left	Shows the level switch of the single or in case of two kind of milks of the left milk in the fridge B2	
	Milk level switch right	Shows the level switch of the right milk in the fridge B5	
	Milk level left	Shows the level of the single or in case of two kind of milks of the left milk in the fridge B9	
	Milk level right	Shows the level of the right milk in the fridge B10	
	iSteam Temperature	Shows the temperature (bit + value) of the iSteam probe B4	
	Supply voltage	Shows the rectified voltage (bit + value) of the secondary winding of the transformer	
	Trolley tanks	Shows the status of the trolley tank sensor	
	Grounds drawer	Shows the status of the grounds drawer S12	
	AUX2 Switch	Shows the status of the switch AUX2	
	PM: Door sensor	Shows the status of the door switch of the powder module S32	
	Ultrasonic		
	Infrared 1		
	Infrared 2		
Button & LED	iSteam foamed button	Shows the status of the iSteam foamed button	
	iSteam steamed button	Shows the status of the iSteam steamed button	

LED Milk foamed	Switch the foamed iSteam LED	
LED Milk steamed	Switch the steamed iSteam LED	
Illumination	White	Switch the white light
	Red	Switch the red light
	Green	Switch the green light
	Blue	Switch the blue light

6. Fault finding

6.1. List of errors

Error - Coffee machine is blocked

Code	Fault description	Solution
E02	Short circuit +24V AUX or trolley sensors	Check 24V AUX or trolley sensors • Check connection between trolley and coffee machine • Check Fuse F1 on the power board
E03	Short circuit +24V valves, brewing group heating or milk sensors	Check listed elements • Check cables and wiring
E04	Short circuit +5V card reader	Check listed elements • Check cables and wiring
E06	Short circuit payment system	Check listed elements • Check cables and wiring
E08	Short circuit +12V power board	Check power board
E09	Short circuit heating element relay	Check heating element relay – replace if necessary
E10	Heating element relay interrupted	Check heating element relay and cable – replace if necessary
E11	Overheating coffee boiler	Check temperature sensor of coffee boiler with diagnostic • Check power supply (triac) • Check fuse F10 A + B
E12	Overpressure steam boiler	Check heater of steam boiler with diagnostic • Check level sensor • Check Steam boiler filling valve • Check pressure on the manometer • Check power supply (triac)
E13	Error during upper piston movement	Check spindle motor with diagnostic – movement, switch function • Check upper piston shaft • Check also lower piston switch for proper movement • Perform brewing group calibration • Check the ejactor for wear
E14	Error during lower piston movement	Check spindle motor with diagnostic – movement, switch function • Check lower piston shaft • Clean lower piston/sieve if dirty (blockage can cause error) • Perform brewing group calibration
E15	Link payment system interrupted	Check cables and interface • Check connection to control board

6.2. List of warnings

Warning - Coffee machine works with limitations

Code	Fault description	Solution
W01	Short circuit +12V light module	Check listed elements • Check cables and wiring
W02	Short circuit +24V spindle motor	Check listed elements • Check cables and wiring
W03	Short circuit +5V end switch spindle motor	Check listed elements • Check cables and wiring
W04	Short circuit +12V pressure sensor	Check listed elements • Check cables and wiring
W05	Short circuit +5V iSteam keyboard	Check listed elements • Check cables and wiring
W06	Short circuit +5V flow meter	Check listed elements • Check cables and wiring
W07	Flow meter interrupted	Check flow meter with diagnostic • Check water supply • Check water pump and water pressure • Check electric contacts • Check the restrictor in the piston • Check brewing valve
W08	Short circuit brewing valve [Y1]	Check valve with diagnostic • Check cable from valve to control board
W09	Short circuit bypass valve [Y6]	Check valve with diagnostic • Check cable from valve to control board
W10	Short circuit fill valve boiler [Y3]	Check valve with diagnostic • Check cable from valve to control board
W11	Short circuit right steam valve or pinch valve [Y5]	Check valve with diagnostic • Check cable from valve to control board
W12	Short circuit left steam valve [Y4]	Check valve with diagnostic • Check cable from valve to control board
W13	Short circuit cold rinse valve [Y10]	Check valve with diagnostic • Check cable from valve to control board
W14	Short circuit air valve [Y13A]	Check valve with diagnostic • Check cable from valve to control board
W15	Short circuit right milk valve [Y12B]	Check valve with diagnostic • Check cable from valve to control board
W16	Short circuit left milk valve [Y12A]	Check valve with diagnostic • Check cable from valve to control board
W17	Short circuit air pump [M6]	Check pump with diagnostic • Check cable from pump to control board
W18	Short circuit right relay milk pump [K5]	Check relay with diagnostic • Restart machine • Check cable from relay to control board
W19	Short circuit left relay milk pump [K4]	Check relay with diagnostic • Restart machine • Check cable from relay to control board
W20	Short circuit 4TEA cold water valve [Y2A]	Check valve with diagnostic • Check cable from valve to control board
W21	Short circuit 4EA hot water valve [Y2B]	Check valve with diagnostic • Check cable from valve to control board
W22	Short circuit iSteam air valve [Y14A]	Check valve with diagnostic • Check cable from valve to control board
W23	Short circuit iSteam steam valve [Y14]	Check valve with diagnostic • Check cable from valve to control board

Code	Fault description	Solution
W24	Short circuit AUX1 valves	Check output with diagnostic • Check cable from output to control board
W25	Short circuit brewing heater	Check heater with diagnostic • Check cable from heater to control board
W26	Short circuit temperature sensor coffee boiler	Check temperature sensor with diagnostic • Check cable from sensor to control board
W27	Temperature sensor coffee boiler interrupted	Check temperature sensor with diagnostic • Check cable from sensor to control board
W28	Short circuit pressure sensor of steam boiler	Check pressure sensor with diagnostic and compare with manometer • Check cable from sensor to control board
W30	iSteam sensor interrupted	Check iSteam sensor with diagnostic • Check cable from sensor to control board
W31	Short circuit iSteam sensor	Check iSteam sensor with diagnostic • Check cable from sensor to control board
W32	Timeout steam boiler filling (120 seconds)	Check filling valve boiler with diagnostic • Check if the water is connected and the tap is open • Check pump • Check non return valve • Check level sensor
W33	Timeout coffee boiler filling (80 seconds)	Check if the water is connected and the tap is open Install the machine according the installation manual! • Check pump pressure (< 10 bar in Diagnostic) • Check pressure relief valve 11bar • Check non return valve boiler inlet • Brewing valve does not close • Check Flowmeter
W34	Timeout steam boiler pressure (600 seconds)	Check heater steam boiler with diagnostic • Check power supply • Check temperature switch F11 A + B • Check pressure sensor
W35	Timeout coffee boiler temperature (180 seconds)	Check heater coffee boiler with diagnostic • Check power supply • Check temperature switch F10 A + B • Check temperature sensor
W36	Incompatibility between parameters and the SW- version	Switch off and on again – Repeat the SW update • Use the latest version of the software from our download area
W37	Check the clock	Check clock – adjust clock – check clock after some minutes • When repeating the error message remove jumper J10 for 10 min and place it again. Adjust clock.
W38	Incompatibility between the messages and the SW	Check SW and message version
W39	Interruption between control board and powder module	Check if powder module is switched on • Check cable from powder module to control board of the coffee machine
W40	Short circuit +12V powder board	Check board of powder module
W41	PM: Over temperature mixer motor	Check mixer motor with diagnostic • Check cable from motor to control board • Check if something blocks the mixer
W42	PM: Short circuit mixer motor	Check mixer motor with diagnostic • Check cable from motor to control board
W43	PM: Overcurrent mixer motor	Check mixer motor with diagnostic • Check cable from motor to control board • Check if something blocks the mixer
W44	PM: Over temperature left screw drive motor	Check left screw drive with diagnostic • Check cable from motor to control board • Check if something blocks the left screw drive

Code	Fault description	Solution
W45	PM: Short circuit left screw drive motor	Check left screw drive with diagnostic • Check cable from motor to control board
W46	PM: Overcurrent left screw drive motor	Check left screw drive with diagnostic • Check cable from motor to control board • Check if something blocks the left screw drive
W47	PM: Over temperature right screw drive motor	Check right screw drive with diagnostic • Check cable from motor to control board • Check if something blocks the right screw drive
W48	PM: Short circuit right screw drive motor	Check right screw drive with diagnostic • Check cable from motor to control board
W49	PM: Overcurrent right screw drive motor	Check right screw drive with diagnostic • Check cable from motor to control board • Check if something blocks the right screw drive
W50	PM: Hot water valve interrupted [J4]	Check hot water valve with diagnostic • Check cable from valve to control board
W51	PM: Fan interrupted [J6]	Check fan with diagnostic • Check cable from sensor to control board
W52	PM: Short circuit +24V hot water valve [J4]	Check hot water valve with diagnostic • Check cable from valve to control board
W53	PM: Short circuit +24V fan [J6]	Check fan with diagnostic • Check cable from sensor to control board
W54	PM: Flowrate too small	Check flowmeter of the coffee machine with diagnostic • Check cables and wiring • Check hot water valve powder module
W55	Check fridge	Check fridge • Check cables and wiring • Check the milk valves Y12A and Y12B (TM) • Check the steam valves Y4, Y5, Y18 • Check cold water valve Y10 (QM)
W56	Short circuit +24V Milk pumps	Check milk pumps with diagnostic • Check cable from pump to control board
W57	Short circuit pressure sensor milk	Check milk sensor with diagnostic • Check cable from sensor to control board
W60	Communication error pressure sensor milk	Check pressure sensor for milk level measurement in diagnostic • Check the fridge type connected • Check the fridge type configured • Check if “Sensor” or “Switch” is selected
W61	Communication error Extension board	**Switch machine off – wait 10 seconds – Restart** **Do not switch on immediately!**
W62	AS crashed into an object (e.g. high cup)	Warning is not shown on the display
W63	AS blocked for 10 min. due to errors	Products can be delivered AS moves after the configured time again
W64	CMF milk valve Y20 interrupted	Check CMF milk valve with diagnostic • Check cable from the valve to the board
W65	CMF air valve Y21 interrupted	Check CMF air valve with diagnostic • Check cable from the valve to the board
W67	Short circuit CMF milk valve Y20	Check CMF milk valve with diagnostic • Check cable from the valve to the board
W68	Short circuit CMF air valve Y21	Check CMF air valve with diagnostic • Check cable from the valve to the board
W70	CMF mixer error	Check CMF mixer with diagnostic • Check cable from the mixer to the board
W71	SAG error grinder left	Check left SAG motor with diagnostic • Check cable from the motor to the board
W72	SAG error grinder right	Check right SAG motor with diagnostic • Check cable from the motor to the board

Code	Fault description	Solution
W73	AS error	Check AS motor with diagnostic • Check cable from the motor to the board
W74	SAG Left: Endswitch reached	Check position of the end switch • Check seat of the end switch • Possibly change the grinder burrs
W75	SAG Right: Endswitch reached	Check position of the end switch • Check seat of the end switch • Possibly change the grinder burrs
W80	Interruption between Control board and Cooled Coffee Module CCO	Check cable • Switch CCO off and on again in the «Product Setup» • Disconnect CCO and connect again. This has to be done on the connection in the CCO module • Restart machine
W81	Short circuit +12V Cooled Coffee Module CCO	Check cable • Restart machine
W82	Interruption CCO rinsing valve Y40	Check CCO rinsing valve with diagnostic • Check cable from the valve to the board
W83	Interruption CCO inlet valve Y41	Check CCO inlet valve with diagnostic • Check cable from the valve to the board
W84	Interruption CCO depression valve Y42	Check CCO depression valve with diagnostic • Check cable from the valve to the board
W85	Interruption CCO switch valve Y43	Check CCO switch valve with diagnostic • Check cable from the valve to the board
W86	Short cicuit CCO rinsing valve Y40	Check CCO rinsing valve with diagnostic • Check cable from the valve to the board
W87	Short circuit CCO inlet valve Y41	Check CCO inlet valve with diagnostic • Check cable from the valve to the board
W88	Short circuit CCO depression valve Y42	Check CCO depression valve with diagnostic • Check cable from the valve to the board
W89	Short circuit CCO switch valve Y43	Check CCO switch valve with diagnostic • Check cable from the valve to the board
W90	Check left milk sensor	Warning is not activated
W91	Check right milk sensor	Warning is not activated
W92	Cleaning disregarded	Daily cleaning was not performed for more than 24 hours The warning is not visible on the display, but it will be entered in the cleaning history. • Perform daily cleaning
W93	Interruption CCO heat exchanger bypass valve [Y44]	Check CCO heat exchanger bypass valve with diagnostic • Check cable from the valve to the board
W94	Short circuit CCO heat exchanger bypass valve [Y44]	Check CCO heat exchanger bypass valve with diagnostic • Check cable from the valve to the board
W95	Interruption CCO heat exchanger valve [Y45]	Check CCO heat exchanger valve with diagnostic • Check cable from the valve to the board
W96	Short circuit CCO heat exchanger valve [Y45]	Check CCO heat exchanger valve with diagnostic • Check cable from the valve to the board

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