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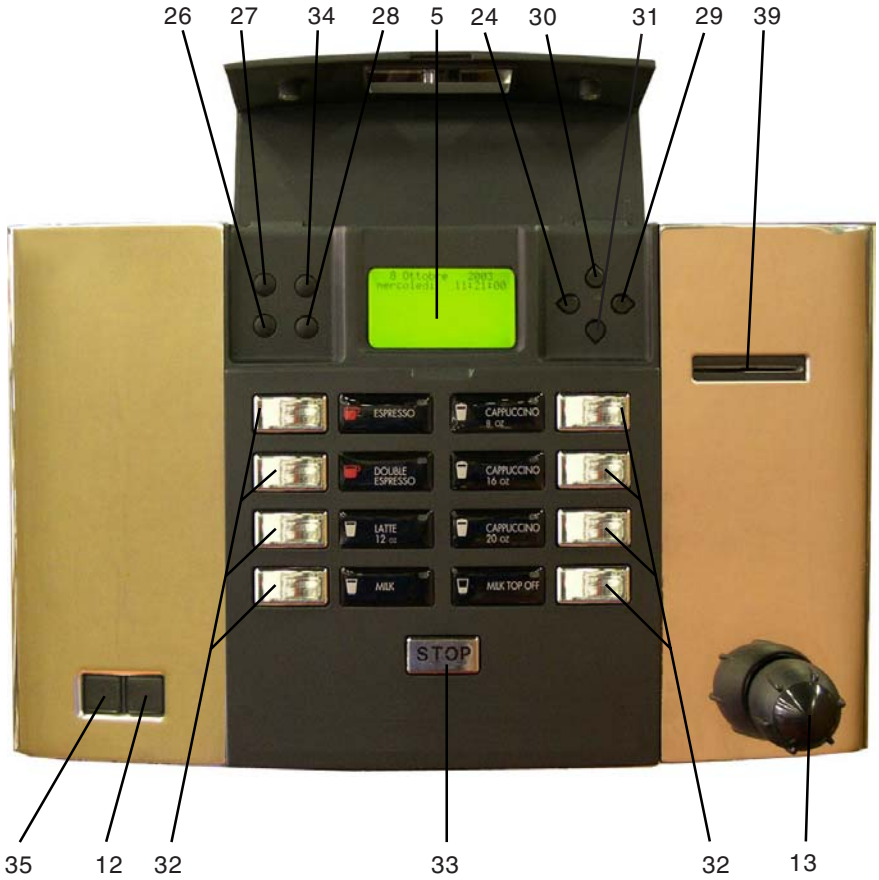
1. Description of the machine

X2 GRANDITALIA

English

2. Description of the control panel

X2 GRANDITALIA



DESCRIPTION OF THE COMPONENTS

1 Delivery spout
3 Selection panel
5 Graphical display
6 Coffee hoppers 1
6a Coffee hoppers 2
12 Hot water button
13 Steam dispensing knob (Autosteam selector*)
14 Hot water outlet
15 Steam pipe
16 Tray
17 Coffee dregs drawer
18 Decaffeinated coffee panel
23 Main switch
24 "**RES**" key (to quit programming mode/ confirm data)
26 Coffee circuit flushing key / short washing
27 "**i**" key (displays the number of cycles)
28 Milk circuit wash key - automatic wash
29 "**PRG**" key (to access programming mode/menu)
30 "**+**" key (to modify parameters/clock)
31 "**-**" key (to modify parameters/clock)
32 Beverage selector key
33 "**STOP**" button (stops products from being dispensed)
34 "**CUSTOMER PARAMETERS**" key
35 Hot water "**STOP-CONTINUOUS**" key
39 Card services slit (technical programming)

The components - * - are applied only in some produit configurations

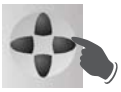
English

English

3. Data flow chart - Technician programming

Insert the technician smart card

To ACCESS menu press PRG



To EXIT menu press RES

KEY MENU

Press SELECTION KEY

- Type
- Cappuccino flow
- Milk dose
- Coffee start
- Emulsion
- HM/FM
- Emulsion stop
- Water dose
- MSx Coffee dose
- MDx Coffee dose
- Backing
- Infusion
- Prs. discharged
- Drying
- Coffee flow
- Water after

CONFIGURATION

Press

- SPECIAL KEYS
- Ser. Boiler press.
- Group Temp.
- TURBOSTEAM
- MESAUREMENT UNITS
- N° grounds
- SOFTNER REGENER.
- Customer prog.
- Program. block
- Paym system
- Buzzer
- WASHING OPTIONS
- Standard data
- DATA IN/OUT
- Archive reset
- MAINTENANCE

TESTING

Press

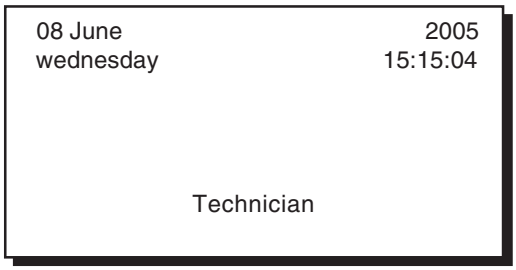
- MANUAL COMMANDS
- PRESS. CALIBRATION

WEIGHTING

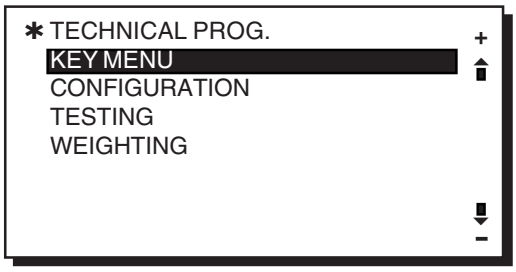
English

4. Programming

How to enter "Programming" menu: Insert the smart card. Besides the date and hour, the word TECHNICIAN will appear.

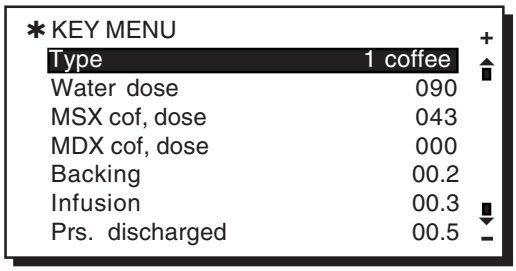


Display of available menus: Press the PRG (**29**) key.

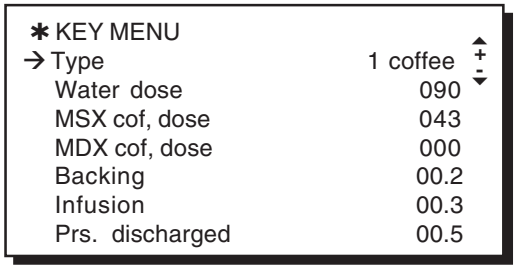


Access to menus: Use the "+" (**30**) and "-" (**31**) keys to position the cursor on the desired line, then press the PRG (**29**) key.

Access and modification of sub-menus: Use the "+" (**30**) and "-" (**31**) keys to position the cursor (black line) on the desired line, then press the PRG (**29**) key.
Use the "+" (**30**) and "-" (**31**) keys also to modify the message or number, then press the RES (**24**) key to confirm the data.
Note: When modifying data, the cursor changes to "→".

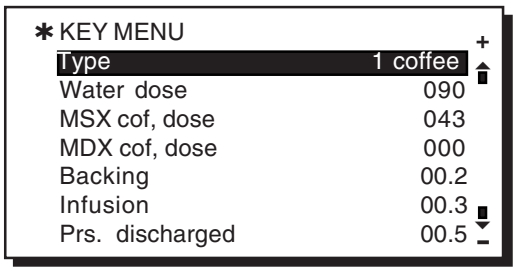


Exiting the programming menu: Always press the RES (**24**) key to confirm/exit the menu.



5. Key menu - Coffee selection

Press one of the coffee dispensing keys (**32**) (the relative led will remain on, not flashing). The following message will appear on the display:



The following coffee selection parameters can be modified:
- ***type*** (key personalizing, e.g.: 1 coffee, 1 cappuccino, 2 coffee, 2 cappuccini, milk, short washing, stop, null);
- ***water dose*** (volumetric dosage pulses, from 0 to 999, with increments of 1);
- ***MSx dose coffee*** (left grinde encoder pulses, 0 ÷ 200 with increments of 1);
- ***MDx dose coffee*** (right grinde encoder pulses, 0 ÷ 200 with increments of 1);
- ***backing*** (the return time for the chamber, which can be adjusted for each key: from 0 to 6 with increments of 0.1 seconds);
- ***infusion*** (infusion time: 0 ÷ 6 seconds, with increments of 0.1);
- ***pressure release*** (pressure release time: 0 ÷ 5 seconds, with increments of 0.1)
- ***drying*** (pod drying time; 0 ÷ 5 seconds, with increments of 0.1);
- ***water after*** (volumetric dosage pulses, from 0 to 999, with increments of 1);

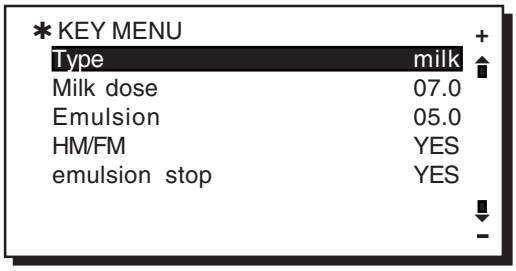
"Water after" represents the number of pulses of the volumetric doser before the activation of the additional water solenoid valve **Eva** (not all models).
If the value set is higher than the water dose, the additional water solenoid valve will not be activated.

Note: the coffee doses for both grinders set in the technical programming menu, are subject to change in the customer programming menu within a range of + 10 of the set value.

English

5.1 Key menu - Milk selection

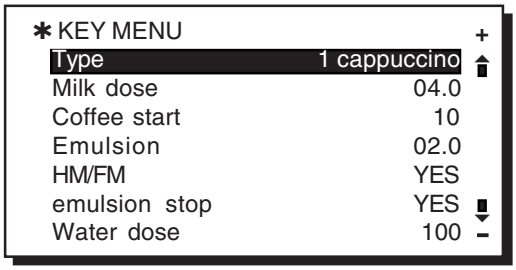
Press one of the milk dispensing keys (**32**). The related LED remains on and does not blink. The display appears as follows:



Milk selection parameters that can be changed are:
- ***Type*** (personalization key, i.e., 1 cappuccino, 2 coffees, 2 cappuccinos, milk, short washing, stop, disable);
- ***Milk dose*** (milk dispensing time: 0 ÷ 60 seconds, with increments of 0.1);
- ***Emulsion*** (foamed milk dispensing time, from 0 to 60, with increments of 1 second);
- ***HM/FM*** (this parameter lets you decide which type of milk (frothed or regular) to dispense first.
  YES: regular milk – frothed milk
  NO: frothed milk – regular milk;
- ***Emulsion stop*** YES/NO (with the “emulsion stop” function set (YES): foamed milk dispensing time, from 0 to 58, with increments of 1 second. The maximum setting time is always 2 seconds less respect “milk dose”);

5.2 Key menu - Cappuccino selection

Press one of the cappuccino dispensing keys (**32**). The related LED remains on and does not blink. The display appears as follows:



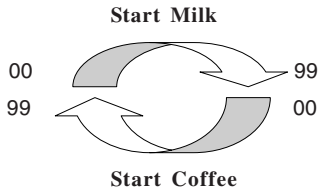
Cappuccino selection parameters that can be changed are:
- ***Type*** (personalization key, i.e., 1 cappuccino, 2 coffees, 2 cappuccinos, milk, short washing, stop, disable);
- ***Milk dose*** (milk dispensing time: 0 ÷ 60 seconds, with increments of 0.1);
- ***Milk start/coffee start*** ** (milk dispensing delayed after coffee dispensing, and vice versa)
- ***Emulsion*** (foamed milk dispensing time, from 0 to 60, with increments of 1 second);
- ***HM/FM*** (this parameter lets you decide which type of milk (frothed or regular) to dispense first.
  YES: regular milk – frothed milk
  NO: frothed milk – regular milk.
- ***Emulsion stop*** YES/NO (with the “emulsion stop” function set (YES): foamed milk dispensing time, from 0 to 58, with increments of 1 second. The maximum setting time is always 2 seconds less respect “milk dose”);
- ***Water dose*** (volumetric dosage pulses: 0 ÷ 999, with increments of 1)
- ***Coffee dose MSx*** (left grinder encoder pulses: 0 ÷ 200, with increments of 1)
- ***Coffee dose MDx*** (right grinder encoder pulses: 0 ÷ 200, with increments of 1)
- ***backing*** (the return time for the chamber, which can be adjusted for each key: from 0 to 6 with increments of 0.1 seconds.)
- ***infusion*** (infusion time: 0 ÷ 6 seconds, with increments of 0.1)
- ***pressure release*** (pressure release time: 0 ÷ 5 seconds, with increments of 0.1)
- ***drying*** (pod drying time; 0 ÷ 5 seconds, with increments of 0.1).

Note: the coffee doses for both grinders set in the technical programming menu, are subject to change in the customer programming menu within a range of + 10 of the set value.

(**) Start milk/Start coffee function

You can use the"+" (**30**) and "-" (**31**) keys to change the "**Start milk**" setting (milk dispensing start delayed after coffee dispensing and vice versa) from "**00**" to "**99**" with "**1**" second increments.
If over "**99**" is set, the "Start milk" setting will become the "**Start coffee**" setting (coffee dispensing start delayed after the milk dispensing), then the setting returns to "Start milk" in a cycle.

The default settings for cappuccino selections are: Start milk 00.



By setting:

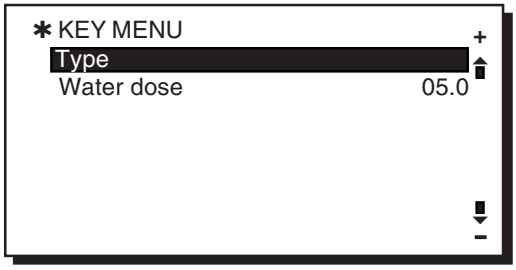
"**Start milk 00**" - milk dispensing takes place when the selection key is pressed. After a few seconds, coffee is dispensed;
"**Start milk 99**" or at a high setting that exceeds the coffee dispensing time - milk dispensing starts after coffee is dispensed.
"**Start milk 05**" - coffee dispensing starts, and 5 seconds after the selection key is pressed, milk is dispensed.
Note: If the time setting exceeds the coffee dispensing time, milk dispensing begins immediately after coffee is dispensed.

"**Start coffee 00**" - Coffee dispensing starts after milk is dispensed.
"**Start coffee 99**" or any setting other than 0 - coffee dispensing will start 99 seconds (or after the set time) after milk is dispensed.

English

5.3 Key menu - Hot water selection

Press the hot water dispensing key (**12**). The following message will appear on the display:

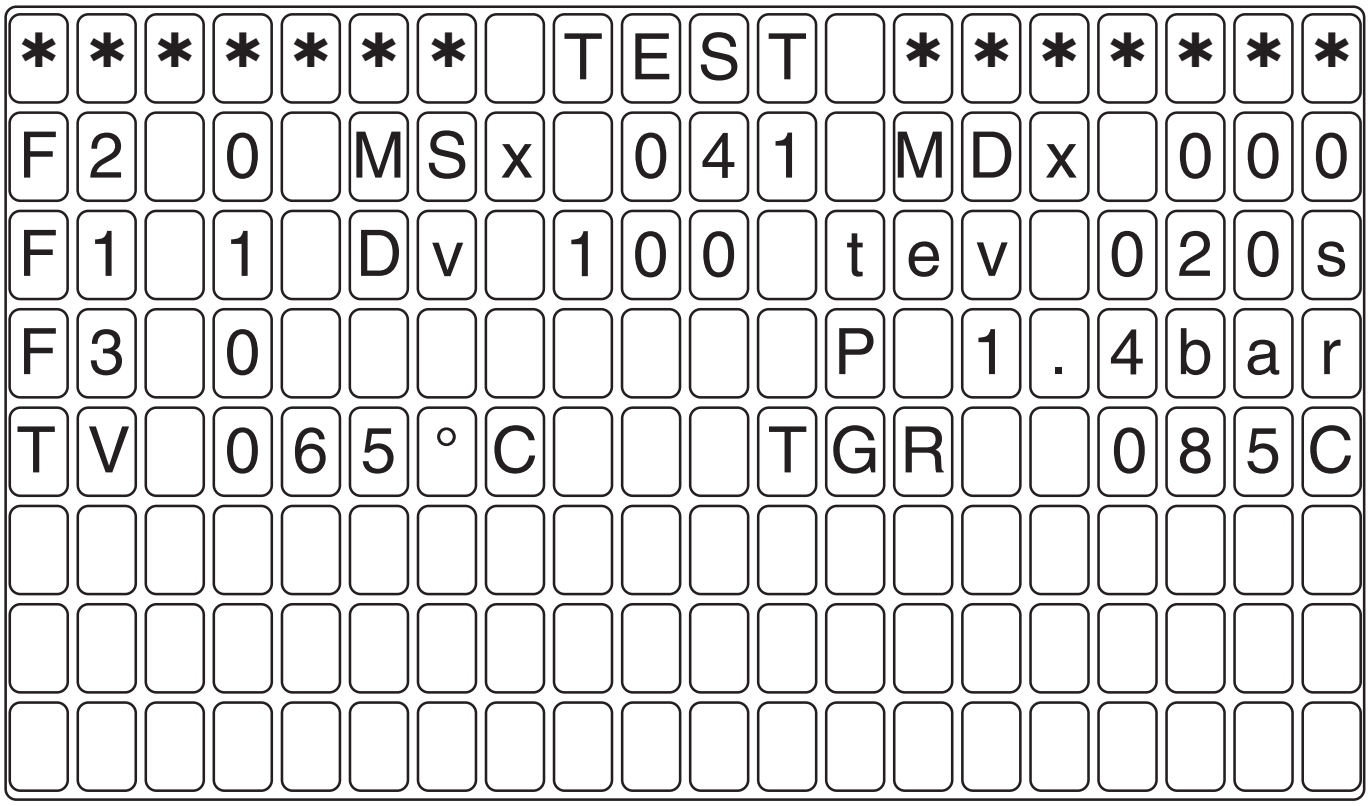


The following hot water selection parameters can be modified:

- ***Water dose*** (dispensing time in seconds.).

6. TEST board

During whichever execution of the selections of coffee, cappuccino, water, and vapor , is possible to visualize the parameters relating the dispense in course pressing the key " **i** " (**27**); the display appears as follows:

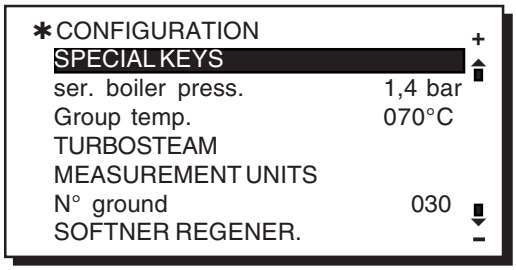


The parameters displayed refer to:

F1: Middle limit switch (1 in position)
F2: High limit switch (1 in position)
F3: Low limit switch (1 in position)
MSx:Left hopper coffee extraction impulses
MDx:Right hopper coffee extraction impulses
Dv: Volumetric meter impulses
tev: Dispensing time in seconds
P: boiler pressure
TGR: unit temperature
TV: steam temperature (if the Autosteam system **is not** present, this parameter is not displayed)

English

7. Configuration menu



SPECIAL KEYS (not active) **-** The key can be personalized with one of the following functions:
- II choice (second function, dispensing of a second beverage
- disable (disables key);
- stop.

Service boiler pressure – indicates the boiler pressure: 1.3 ÷ 1.4 bar (18 ÷ 20 psi)

Unit temperature – indicates the unit temperature, from 70 to 110 ° C and from 158 to 230 ° F

TURBOSTEAM - includes 2 sub-menus

Stop steam temperature – indicates the automatic stop steam temperature (Autosteam). Can be set between a minimum of 40 and a maximum of 85° C (104 – 185 ° F).

Regolator **-** flow regolator: YES/ NO.
YES - the machine has the flow regolator on the turbosteam circuit .
NO - the machine does not have the flow regolator; is therefore possible to set 4 different levels of emulsion.

See paragraph *"Autosteam"* on the following pages.

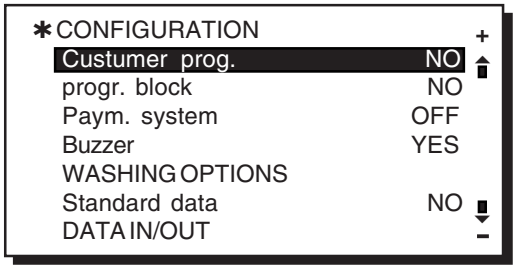
MEASURING UNIT – includes 2 sub-menus

Temperature – can be set to °C Celsius centigrade or °F Fahrenheit degrees.

Pressure – can be set to bar or psi.

N. grounds – refers to number of grounds, from 0 (external container) to 50.

REGENERATION - includes the parameters for the softner regeneration: liters of resin (da 0,1l a 25l), hardness (da 0 a 45 °F)



Customer programming – YES/ NO

Programming block - programming block: YES/NO.
With the function active (YES) the use of the programming keyboard is allowed with the technician card; "**i**" key remains always active.

Payment system – permits configuration of payment system, when connected.

Buzzer - The machine buzzer can be enabled so that a beep is heard when the keys are pressed.

WASHING OPTIONS - See paragraph *"Washing options"* on the following pages.

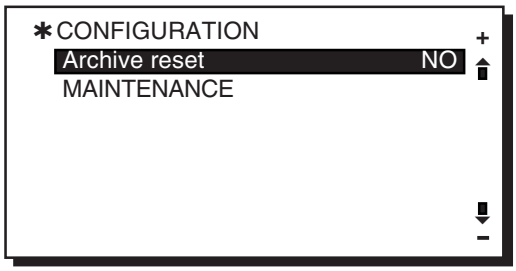
Standard data – loads standard data. YES/NO

DATA IN/OUT – contains three entries:

Key – indicates the key number from 0 to 60.

Data IN transfer from smart card to machine. OUT transfer from machine to smart card.

TX/RX – to start data transfer



Archive reset – zeros the error log (Wash 1 Archive and malfunctions archive) stored on the machine: YES/NO

MAINTENANCE - contains five entries to setting maintenance parameters:

Max cycles - the number of cycles initially set: 40,000.

Max days - the number of days initially set: 185.

N° cycles - the number of cycles remaining before the next maintenance session.

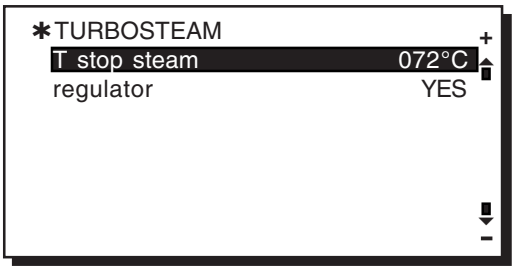
N° days - the number of days remaining before the next maintenance session.

Reset - options are:
NO, countdown of cycles and days remaining before the next maintenance session.
YES, the settings for number of cycles (40,000) and remaining days (185) are reset
OFF, all controls for programmed maintenance are disabled, and the "N. cycles" and "N. days" counters are zeroed.

English

8. *Autosteam - Programming function*

Once you have selected TURBOSTEAM, use the “+” and “-“ keys to position the cursor on the T STOP STEAM line, and press the PRG key.



You may now program the automatic steam function, by setting a “xxx°C” temperature value for either hot or whipped milk.

Setting options:

"0" setting:

- manual steam stop

Any number between "40°C ÷ 85°C" (104°F ÷ 185°F)

- automatic steam stop

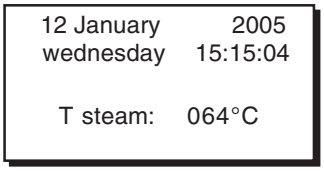
"OFF" setting:

- steam stop disabled

Automatic steam knob/button programming

MODE 1, STEAM AUTOMATIC STOP
A temperature is set at the “T stop steam xxx°C" field using the "+" and "-" keys, with "xxx" which ranges from a minimum of 40°C (104°F) and a maximum of 85°C (185°F).
Steam dispensing is started using: the **A** or **B** buttons, the knob (**13**).
In particular:
- milk is frothed using the **A** button and the knob (**13**) (clockwise)
- milk is heated using the **B** button and the knob (**13**) (counter-clockwise)

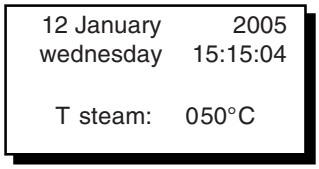
The message "T steam xxx°C" appears on the display, indicating the temperature read by the probe.



N.B.: *When the set temperature is reached,* ***steam supply stops automatically*** *and the display continues indicating steam value for the next 3 seconds.*
Steam dispensing can be stopped at any moment (even if the set temperature has not been reached), by pressing again either button ***A*** *or button* ***B****, or turning the automatic steam knob (****13****) in the same direction used for activating supply.*

MODE 2, STEAM MANUAL STOP
Set the temperature value on item "T stop steam xxx°C" at "000" zero. Steam dispensing and the choice of milk type are performed as in MODE 1.

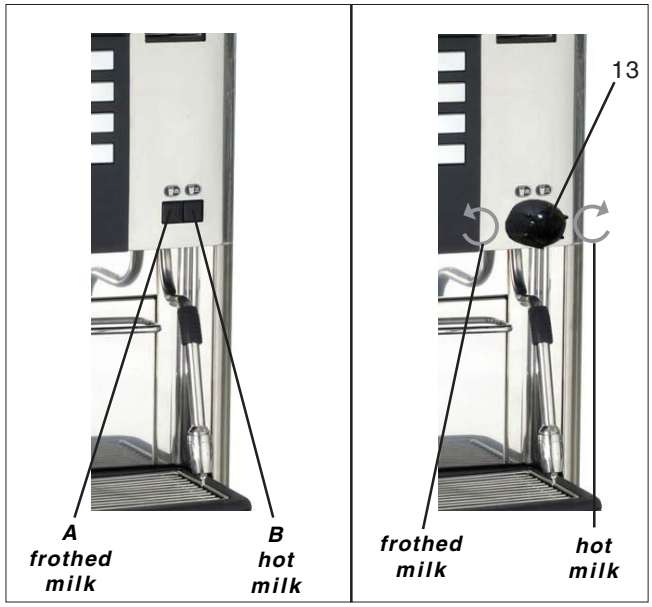
The message "T steam xxx°C" appears on the display, indicating the temperature read by the probe.



Note: The user controls when steam dispensing is stopped*, once the desired temperature has been reached, it will act upon the* ***A*** *or* ***B*** *buttons, or on the automatic steam knob (****13****) in the same direction used for activating supply.*
For the next 3" after steam dispensing has stopped, the display shows the milk temperature that has been reached.

Note: If the milk is frothed, the symbol appears beside "Steam T: xxx°C". If the milk is warm, the symbol appears beside "Steam T: xxx°C".

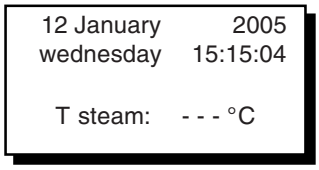
Time out is set at 180" for both the programming modes.



BEVERAGE TEMPERATURE READING
The steam probe also detects the beverage temperature, but only if it is higher than 50°C. Inset the steam nozzle (**15**) into the container, making sure the tip is completely submerged in the milk. After a few seconds the phrase "T steam: xxx°C", corresponding to the probe reading, appears.
When the steam nozzle is removed from the milk, the phrase remains on the display for the following 3 seconds.

To view the temperature in Fahrenheit degrees, please refer to the "configuration menu -Measurement unit".

If the thermocouple is malfunctioning, the Error Log will list the ES-053 error. The latest set temperature value is, however, saved until thermo-couple operation is restored. The machine works as if it is in the STOP STEAM mode. You can froth or heat milk, but during the process, the display will show:



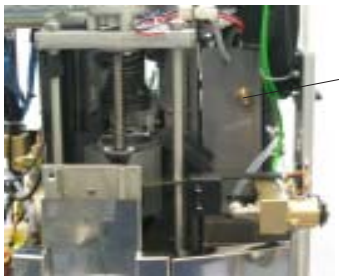
The temperature detected by the probe will appear again on the display once the thermocouple functions again.

English

(Where is present)
The ideal setting for milk frothing is set in the factory. If additional adjustments must be made, turn the flow adjustment valve (**A**) underneath the panel control of the machine:

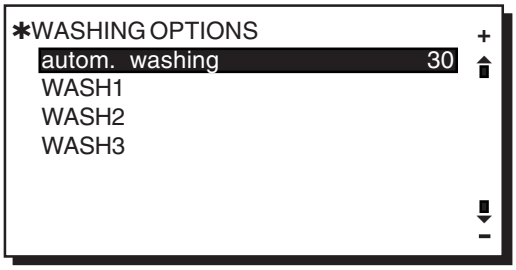
- counterclockwise: more air > more frothy milk
- clockwise: less air > less frothy milk

Note: even slight turns of the valve (A) can make a great difference in how the milk is frothed.



9. Washing options

WASHING OPTIONS - includes four sub-menus for setting washing parameters:



Washing options - Automatic washing

Depending on the selected setting (**OFF/10÷99**), the automatic wash is changed.

Setting "autom. washing OFF":

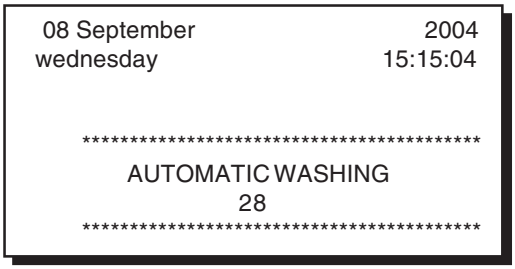
- timed automatic wash cycle is disabled;
- when the button (**28**) is pressed, the milk circuit washing cycle is performed.

Setting "autom. washing 10...99":

- the timed automatic wash cycle is activated and the set time interval starts;
- when the button (**28**) is pressed, the milk circuit washing cycle is performed.

The cycle starts automatically. The time interval is set between 10 and 99 minutes. The timer starts at the end of each milk dispensing phase. When the time runs out, the automatic wash cycle begins.

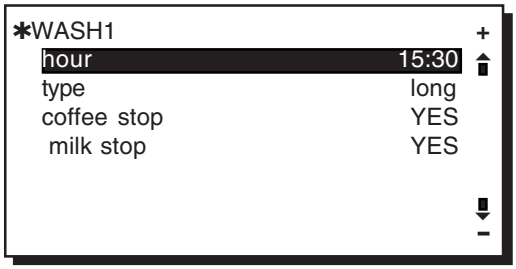
30" before the timer stops, the LEDs on the keys of the cappuccino maker unit start blinking. The display appears as follows:



During this standby phase:
If the coffee dispensing key is pressed, the counter will start again 30" from the end of the dispensing cycle (per use);
If a milk/cappuccino key is pressed, the counter will start again from the set time (10' + 99');
If the key (**28**) is pressed, the automatic washing cycle will be immediately performed.

Washing options - Washing 1, 2, 3

These are wash cycles set at programmable times, each with four changeable parameters, which are:

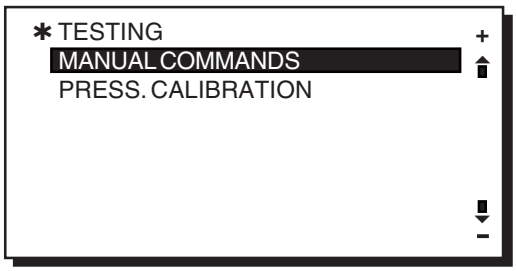


- **hour**: when the wash cycle must be performed.
  "WASH 1" cannot be disabled. It is requested daily at the programmed hour and within 24 hours..
  WASH 2 and 3 can be disabled and set to OFF.
- **type**: indicates type of wash cycle that will be performed. Long wash (milk circuit with detergent and coffee circuit with tablet), short wash (automatic milk wash cycle + fast wash coffee cycle). "WASH 1" only performs the long cycle.
- **coffee stop**: when the function (YES) is set, if the wash cycle does not take place within 60' (30' if short washing) from the moment that the "EXECUTE WASHING GROUP" message appears, the machine is blocked and all selections for coffee are inhibited.
- **milk stop**: when the function (YES) is set, if the wash cycle does not take place within 60' (30' if short washing) from the moment that the "EXECUTE WASHING MILK CIRCUIT" message appears, the machine is blocked and all selections for milk are disabled.

NOTE: if the "block coffee" and "block milk" entries are set to NO for the 'WASH 1" cycle, the machine will never be blocked.
WASH 1 cycles that are not carried out are recorded in the WASH 1 LOG ("**i**" key **27**), as "failed".

English

10. Test menu



MANUAL CONTROLS – permit parts to be manually operated using the "+" and "-" keys (see paragraph "*Manual control panel*")

PRESSURE CALIBRATION - (only for machines with a pressure sensor).

The ideal boiler pressure setting is made in the factory with a standard number. If further adjustments must be made, please follow these instructions.
The procedure must be performed when the machine is cold or with a boiler pressure of approximately 0 bar.

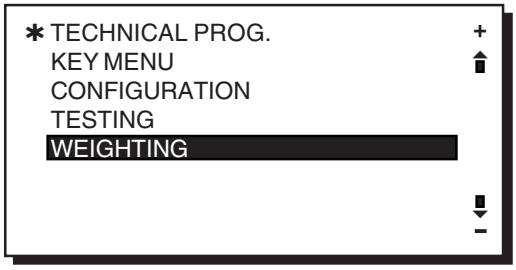
There are 2 submenus:

offset – indicative setting. It represents the voltage at which the pressure sensor is calibrated.

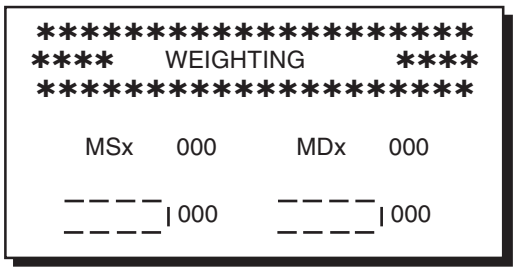
execute – press the PRG key to execute the calibration process. After a short period of time, the word "OK" appears and the *"offset"* value is updated.
If the boiler pressure is not 0 bar, the word "KO" appears and the offset parameter remains unchanged.

11. Weighting

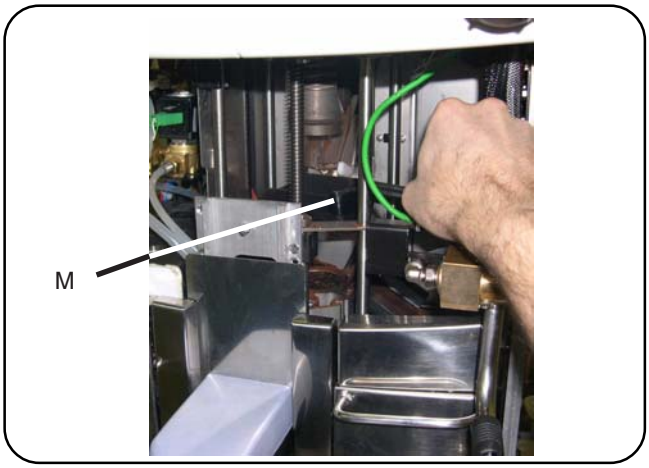
This menu permits the weighing of the ground coffee.



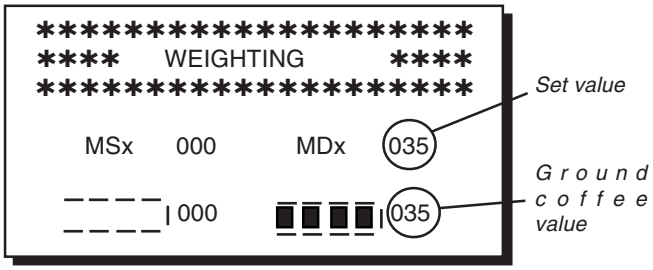
When the PRG (**29**) key is pressed, the following will appear on the display:



After raising the control panel, place the coffee grounds scoop (**M**) beneath the ground coffee chute and press the key to test.



After the grinding phase, the following will appear on the display:



The value set in the test menu and the ground coffee value must be the same.

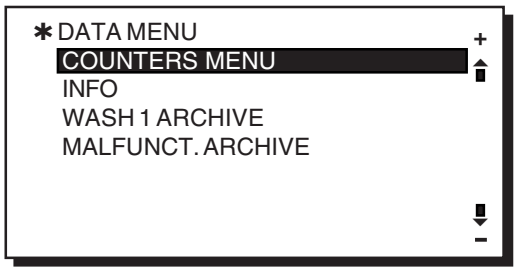
During the grinding phase, make sure that the ground coffee does not slide off the scoop.
Once the grinding phase has ended, remove the scoop from the machine and weigh the amount of ground coffee on an accurate scale. Note: To obtain the real weight, we recommend performing the coffee grinding phase between 3 and 5 times and then calculating the average.
Once the weighing process is concluded, press the RES (**24**) key three times in a row to bring the unit to the standby position and to exit the programming menu.

Note: If, during the weighing process, the technician card is inadvertently removed, you will exit the programming menu. In this case, press the RES (**24**) key just once to bring the unit back to the standby position.

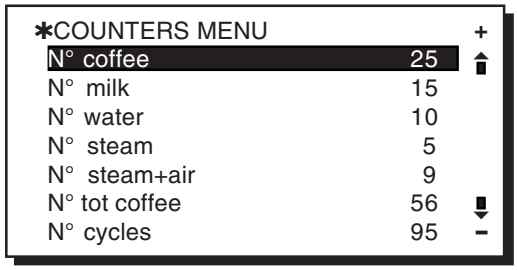
English

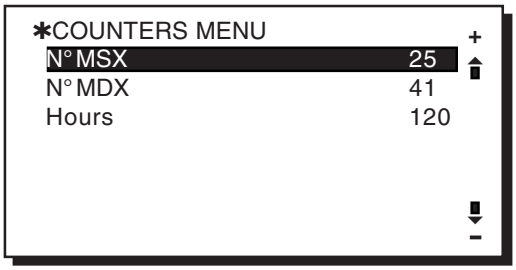
12. DATA menu: COUNTERS

Once you have entered the programming menu, access the DATA MENU, pressing the "i" (**27**) key. The following will be displayed:



Use the "+" (**30**) and "-" (**31**) keys to position the cursor on the COUNTER line, then press the PRG (**29**) key. The following will appear on the display:





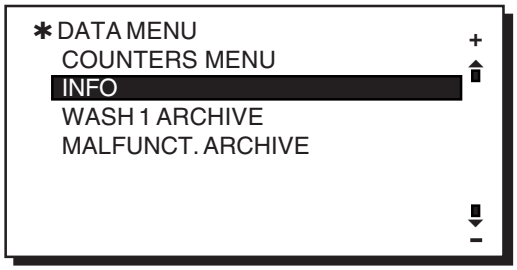
Parameters calculated are:

- ***N. coffee*** (number of coffee beverages)
- ***N. milk*** (number of milk beverages)
- ***N. water*** (number of times water is dispensed)
- ***N. steam*** (number of times steam is dispensed using the turbosteam function)
- ***N. steam + air*** (number of times steam and air are dispensed using the turbosteam function)
- ***N. tot coffee*** (total number of coffee beverages)
- ***N. cycles*** (total number of cycles performed)
- ***N. Msx*** (number of grinding phases performed by the left grinder)
- ***N. Mdx*** (number of grinding phases performed by the right grinder)
- ***Hours*** (Machine life time)

Counters can be zeroed by aligning the cursor on the selected entry, pressing the PRG (**29**) key, and then pressing the '+" (**30**) or "-" (**31**) key.

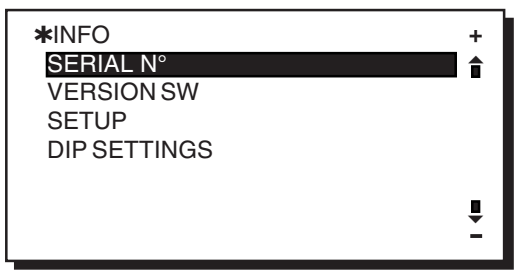
Note: Parameters that cannot be zeroed are:
- ***N. tot coffee***
- ***N. cycles***
- ***N. Hours***

13. DATA menu: INFO

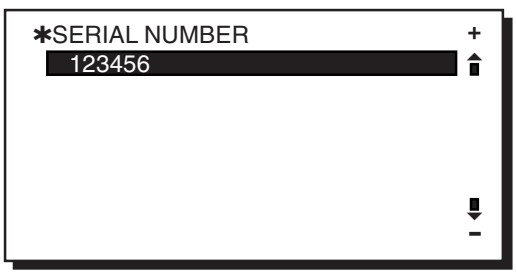


Serial number

Use the "+" (**30**) and "-" (**31**) keys to position the cursor on the INFO line, then press the PRG (**29**) key. The following will be displayed.



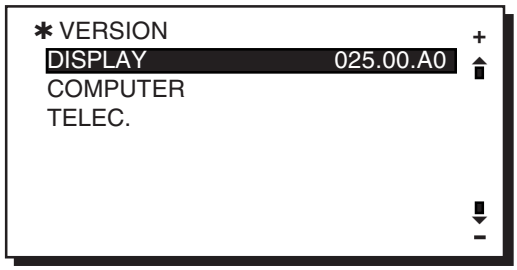
Press the PRG (**29**) key on the "serial n." line. The following will appear on the display.



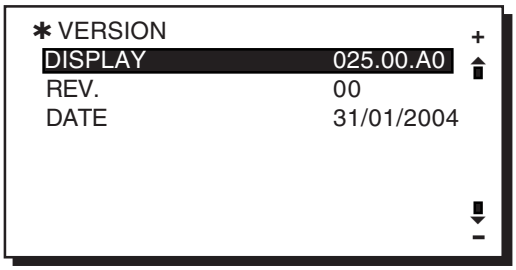
English

Version

The sub-menu of the Version entry shows the memory display version and, if present, also the remote control:

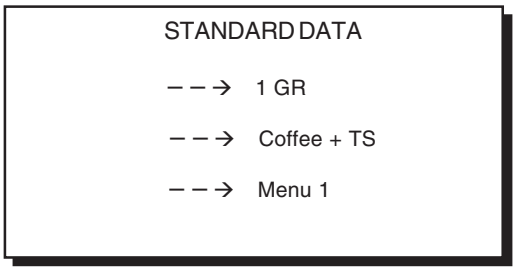


When the PRG (**29**) key is pressed when the cursor is on each of the two lines, besides showing the version, it also displays the data for the revision and memory date.



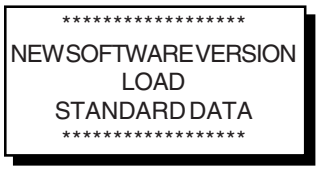
Setup

The “Setup” entry displays the setup settings introduced during the Data Standard insertion phase:



Entering Standard Data

Before performing this operation, switch off the machine and position **dipswitch 1** on display screen = **ON**, then switch on the machine.
If the procedure described above is not performed (dip1=ON), this message will appear on the display:



When inputting the Standard Data, you are prompted to input data regarding model and type of machine:

- ***MODEL:*** 1, 2, gruops;

- ***TYPE:*** coffee, coffee+ TS, cappuccino;

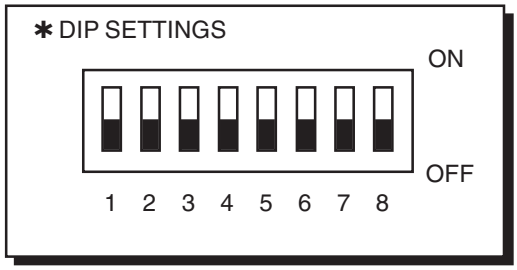
- ***MENÙ:*** different types of drinks

Using the "+" key (**30**) and the "-" key (**31**), select the parameters, **then press the "PRG" key (29) to confirm the details.**

After this operation, switch off the machine and reset the **dipswitch 1** display screen to **OFF**.
Then:
- Switch on the machine again
- Reset date and time, and reset the desired language, if needed.
- Reset maintenance parameters (see "Configuration menu - Maintenance")
- Zero the error log.

Dip settings

The “dip setting” entry displays the dipswitch settings.



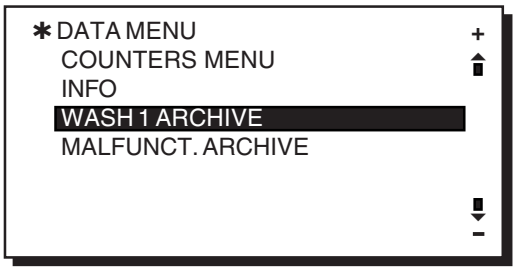
Under standard conditions, the dip-switches are positioned on OFF.

- DIP 1 = OFF - ON Input of standard data
- DIP 2 = OFF
- DIP 3 = OFF - ON Simulation of engineer's card
- DIP 4 = OFF - ON Simulation of bookkeeping's card
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

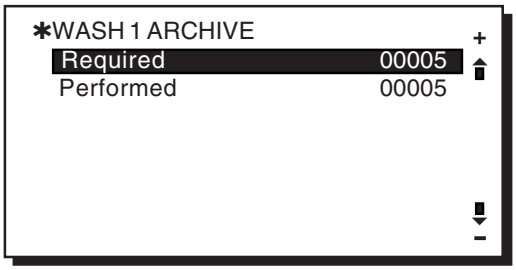
For more details, please consult the technical manual at the "Setting - CPU Dip-Switch" paragraph.

English

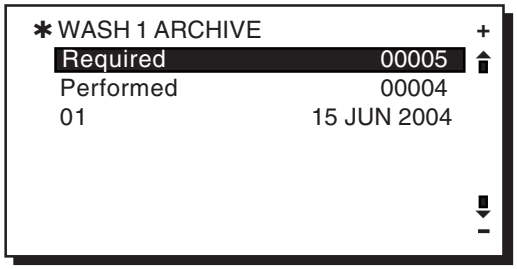
14. DATA menu: WASH 1 ARCHIVE



Press the “PRG” key (**29**) key, the following message appears on the display:



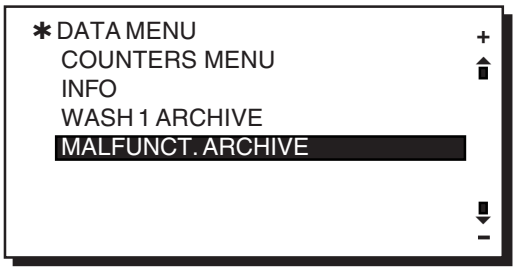
The parameters for the WASH 1 log that can appear on the display are:
- **Requests**: number of wash cycles that have been requested by the machine.
- **Executed**: number of wash cycles that were performed within the timeout time of 60'.



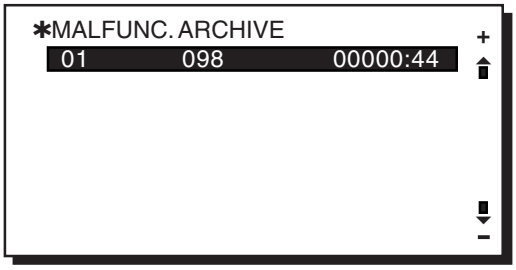
NOTE: If the wash cycles requested occur during the timeout, under the entry "Executed" you will also see a list of the last 10 "failed" wash cycles, with progressive number and date.
The first line refers to the most recent date

Use the "+" (**30**) and "-" (**31**) keys to scroll through the failed wash cycles, then press the RES (**24**) key to pass to another menu.

15. DATA menu: MALFUNCTIONS ARCHIVE

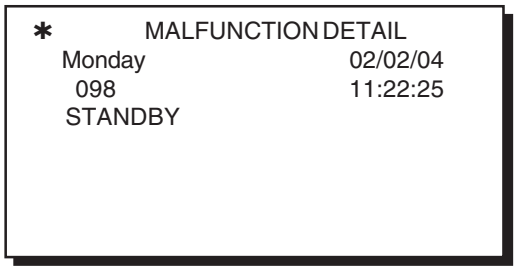


If the PRG (**29**) key is pressed when the cursor is on the “error log” line, the following appears on the display:



The figures appearing after the “error code” indicate, in hours and minutes, the time that has passed since the last recorded error.

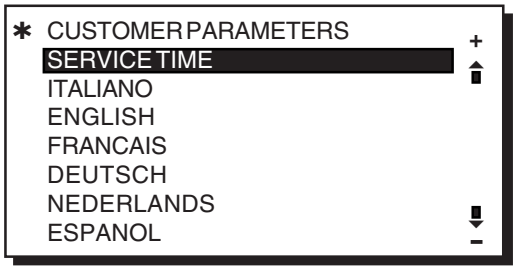
If the PRG (**29**) key is pressed again, the details page is accessed. The following appears on the display:
- day and hour when the error occurred
- machine status when the error occurred



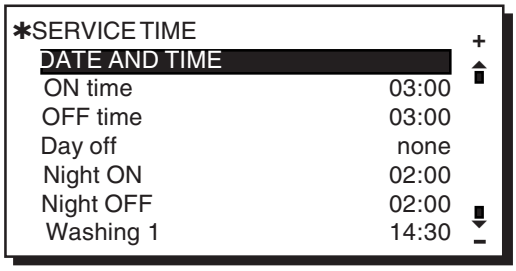
English

16. CUSTOMER PARAMETERS menu

To access "Customer parameters" press " ◷ " key (**34**); the message shown below will appear on the display:

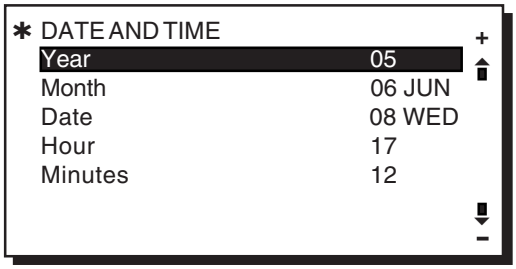


Pressing the “PRG” key (**29**), the following message will appear on the display:



The following service time parameters can be modified:
- ON time (time the machine switches on);
- OFF time (time the machine switches off);
- day off (day on which the enterprise is closed);
- Night ON (start time for evening beverage price: only when payment system is connected);
- Night OFF (end time for evening beverage price: only when payment system is connected);
- wash 1 (request - every 24 hrs - at the programmed hour; cannot be disabled);
- Wash 2 (hour of scheduled washes 2)
- Wash 3 (hour of scheduled washes 3)

Pressing again the “PRG” key (**29**), the following message will appear on the display:



Use the “+” (**30**) and “-“ (**31**) keys to move the cursor (black line) to the entry to be modified, then press the PRG (**29**) key. The cursor will turn into an arrow è and it becomes possible to change the number for the selected entry by using the “+” (**30**) and “-“ (**31**) keys.
Once the operation is completed, press the RES (**24**) key to confirm the data.
Note: the cursor changes back to black line.
Repeat the operation described above to modify other parameters.

General indications

If there is no day off (i.e. the enterprise never closes), enter “none” for the “day off” item.
Enter the same time for the “ON time” and “OFF time” parameters (for example: ON time 22:00
OFF time 22:00)
if the automatic switch on/switch off function is not required and you wish to manually switch the machine on and off.

A short washing cycle will be performed automatically at the switching on and switching off time (for example, at 22:00).

"WASH 1", "WASH 2" AND "WASH 3"

These are scheduled washes that are independent of the wash cycles related to the switching on and switching off phases.
At the set hour, the messages "EXECUTE WASHING GROUP", "EXECUTE WASHING MILK CIRCUIT", "EXECUTE SHORT WASHING" appear, a seconda del lavaggio programmato.
After having positioned the cursor on the line to be changed and after having pressed the "PRG" (**29**) key, change the value using the "+" (**30**) and "-" (**31**) keys. Then press the "RES" (**24**) key to confirm.
Repeat the above operations to change the other wash scheduling times.

"Wash 1"

When this function is requested, a long wash cycle is performed (milk circuit and coffee circuit) as described in the "Cleaning operations" paragraph.

NOTE: Wash 1 cannot be disabled. It is requested daily at the programmed hour, and always within 24 hours.

"Wash 2", "Wash 3"

When these functions are requested, they can either be a long or short wash cycle depending on how they were programmed.
If the set hour for these wash cycles occurs when the machine is switched off, the request will be canceled.

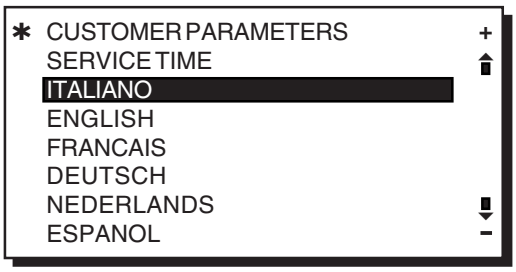
NOTE: Set OFF against the time so as to not activate these wash cycles.
OFF is displayed press the "-" (**31**) key the indicated time is "00:00"

For more details, please consult the technical manual at the "Configuration menu - wash options" paragraph.

Language selection

To display the messages in a different language from that set, after entering into Programming mode, position the cursor on the desired language by pressing the "**+**" (**30**) and "**-**" (**31**) keys and then pressing the "**PRG**" (**29**) key. The machine will restart with the messages provided in the selected language.

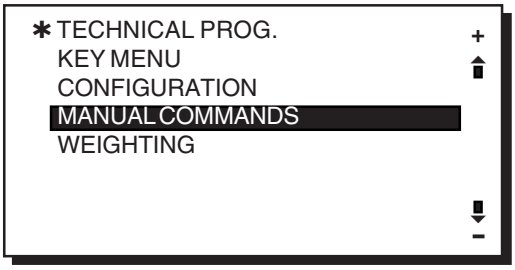
The display (**5**) provides a choice of the following languages: Italian, English, German, French, Spanish, Portuguese, Dutch, Japanese, Russian and Chinese.



English

17. Manual control panel

Move the cursor to the “manual commands” line with the “+” (**30**) and “-” (**31**) keys to access the manuals control panel.



A pressure of "PRG" key (**29**), visualizes on display the following panel:

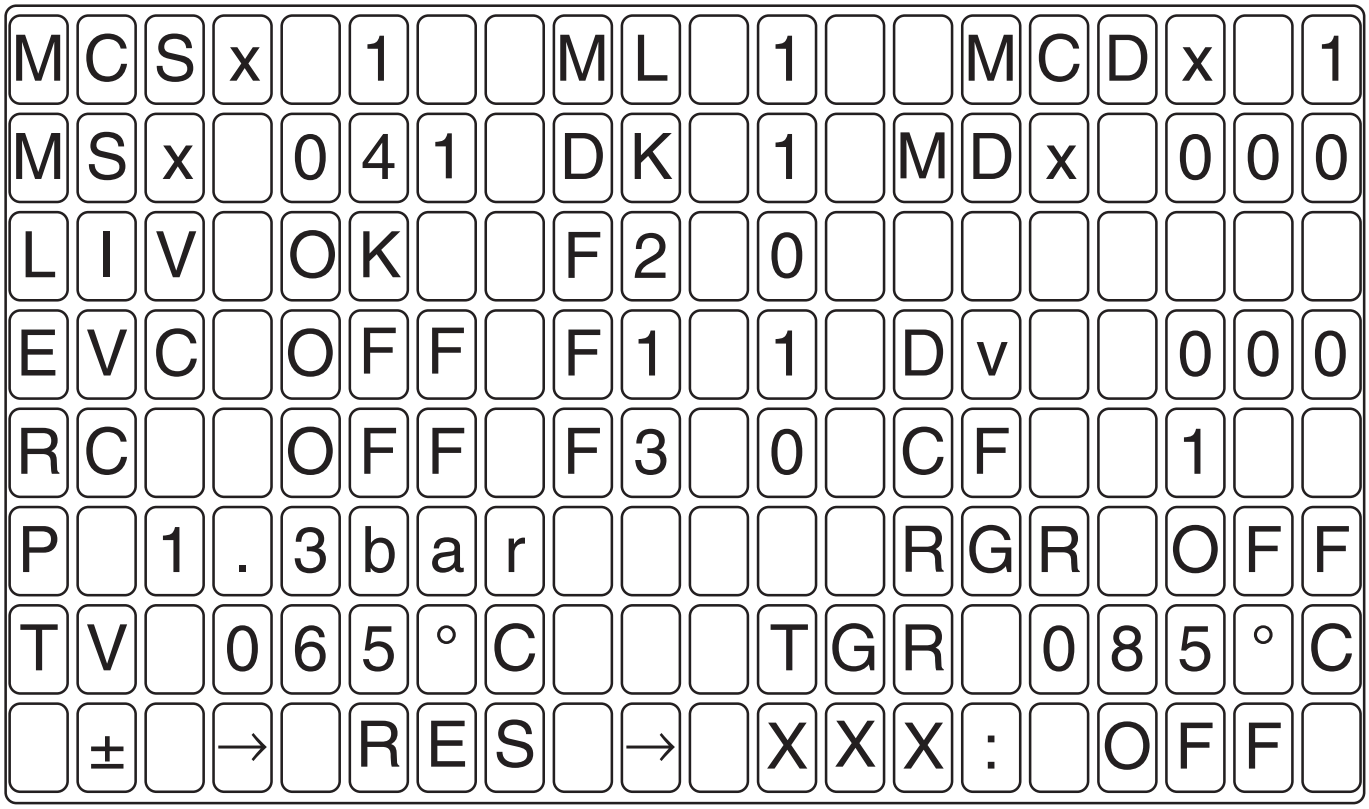
Panel 1

M	C	S	x		1			M	L		1			M	C	D	x		1
M	S	x		0	4	1		D	K		1		M	D	x		0	0	0
L	I	V		O	K			F	2		0								
E	V	C		O	F	F		F	1		1		D	v			0	0	0
R	C			O	F	F		F	3		0		C	F			1		
P		1	.	3	b	a	r						R	G	R		O	F	F
T	V		0	6	5	°	C				T	G	R		0	8	5	°	C
	±		→		P	R	G		→		X	X	X	:		R	E	S	

- Press "+" (**30**) or "-" (**31**) to display the various components;
- Press "PRG" (**29**) to select the component to move and to switch to the next panel M2;
- Press "RES" (**24**) to quit manual mode.

English

Panel 2



- Press "+" (**30**) or "-" (**31**) to activate the components, if they have a direction, use "+" (**30**) and "-" (**31**) to alternate the activations (+Lh/-Rh or +Up/-Down, +Widen/-Narrow the grinders) and to switch to the next panel M3.
- Press "RES" (**24**) to return to panel M1.

Legend

1. **F1** Unit limit switch: middle 0/1*
   F2 Unit limit switch: high 0/1*
   F3 Unit limit switch: low 0/1*

   *1, limit switch in position

2. **CF** Grounds drawer
   Dv Volumetric meter, displays incremental count, zeroed on entry of M1 menu
   DK Decaffeinated coffee drawer
   LIV Water level in boiler
   MCDx "No coffee" sensor right hopper
   MCSx "No coffee" sensor left hopper
   MDx Right grinder counter
   ML "No milk" sensor
   MSx Left grinder counter
   RC Boiler resistance
   RGR Unit resistance
   TGR Unit temperature, in C° (or F°)
   TV Steam temperature (if the Autosteam system **is not** present, this parameter is not displayed)

3. **xxx** defines the moving part that can be accessed.

   Here is the table of symbols used to define the moving parts that can be accessed:

   Mgr motor unit ratiomotor
   El Cappuccino maker wash cycle solenoid valve
   Erf * Flow regulating solenoid valve (Schramme)
   Mcp Compressor motor
   Evp Steam solenoid valve
   Ear Air solenoid valve
   Em Milk solenoid valve
   Evc Boiler load solenoid valve
   Eac Hot water solenoid valve
   G Coffee dispensing solenoid valve
   Mpm pump motor
   MDx grinder 2 motor
   MSx grinder 1 motor
   Eva Water after solenoid valve

   Parts * are applied only in some product configurations.

English

18. Defects - Malfunctions

MALFUN. CODE	DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
001	During operation, the overcurrent interrupt switch is triggered 3 times during the current threshold search phase. The error is recorded in the error log, but does not cause the machine to malfunction.		
003	The FC2 photocell is blocked during the dispensing phase. If this error occurs, the machine cycle is blocked and the machine expels the coffee pod.		**- Replace the coffee ratiomotor unit** **- Replace the card**
008	**Unit movement timeout** The movement requested was not completed within a set time. The error and phase are recorded in the error log. The error appears on the display, and the cycle underway is stopped. Only during phase 3 the error is not displayed and the cycle proceeds as usual. *Detail code* fromFC1 to FC2 001 out from FC2 002 Threshold search 003 Compensation 004 from FC2 to FC3 005 from FC3 to FC1 006	• Broken motor • Defective limit switch • Blocked mechanism	1 **Open the machine** 2 **Activate the manual control panel** 3 **Start the motor unit** - *The motor starts* - Use the manual control panel to check if the F1, F2, F3 limit switches work - *The motor doesn't start* - Use the manual control panel to check if the power is on for the motor. - *If the power is switched on*: - Check if there is a mechanical block. - *If there is no power* - Check the power from the card to contacts 1 and 2 on the Y12 connector - If there is no power from the card, replace the card.
009	**Blocked limit switch** When 2 out of 3 limit switches are blocked, the machine performs a cycle (or reset) for the entire duration in an attempt to re-establish normal operations. If the situation remains unchanged at the end of the cycle, the error code is displayed.	• Coffee grounds near the limit switch • Defective limit switch	1 **Clean the limit switches** 2 **Use the manual control panel to check that the F1, F2, and F3 limit switches are working correctly** 3 **Replace the defective limit switches.**
011 **021**	**Failure to read impulses - Grinder 1 encoder** (After this error is displayed, Grinder 1 is reactivated only after the technician's card has been inserted.) **Failure to read impulses - Grinder 2 encoder** (After this error is displayed, Grinder 2 is reactivated only after the technician's card has been inserted.)	• Blocked machine • Broken machine • Broken encoder	1 **Open the machine** 2 **Activate the manual control panel.** 3 **Start the grinder** - *If the grinder works* - Check the magnet on the grinder shaft - Check alignment and distance (approx. 1 mm) between magnet and encoder - If everything above checks out OK: • replace encoder • Check the cabling • Replace the card - *If the grinder does NOT work* - Check motor voltage (220V) - *If there's power*: - check if any foreign objects are blocking the grinders - Replace the motor.
051	**Boiler temperature malfunctioning**	• Sensor disconnected • Malfunctioning card	**Open the machine** - *Check cabling* - *Replace the sensor* - *Replace the card*
052	**Boiler heating timeout**	• The safety thermocouple has been triggered • The resistance is interrupted (cabling defect) • The Triac card is malfunctioning	**Open the machine** - *Check if the safety thermostat has been triggered, and reset it if necessary* - *Check if there are interruptions or detached fastons on the cabling* - *Check that the boiler resistance is not interrupted and replace it if necessary* - *Replace the Triac card*

English

18. Defects - Malfunctions

MALFUN. CODE	DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
053	**Steam thermocouple (Turbosteam)** Value is outside of acceptable range	• Disconnected thermocouple • Malfunctioning card	**Open the machine** - *Check cabling* - *Replace the thermocouple* - *Replace the card*
054	**KTY plugs (group)** Value is outside of acceptable range	• Disconnected KTY • Malfunctioning card	**Open the machine** - *Check cabling* - *Replace the KTY* - *Replace the card*
055	**KTY plugs (group)** Timeout plug resistance activation	• Disconnected KTY • Malfunctioning card	**Open the machine** - *Check cabling* - *Replace the KTY* - *Replace the card*
058	**Boiler overpressure alarm** (only for machines with a pressure sensor)		• Check cabling
059	**Boiler:** **Refill timeout**	• No water • Refill EV failure • Wiring interrupted • Card failure	
066	**Failure to read impulses by volumetric meter of turbine during coffee dispensing**	• No water • Broken pump • Too much coffee • Coffee ground too fine • Clogged filters • Coffee solenoid valve clogged or defective • Broken turbine	1 **Open the machine** 2 **Use test panel to check if the counter function works during coffee dispensing** - *If the counter works only with a few impulses:* - Check the granulometry and quality of the ground coffee - Clean the filters - Check if the coffee solenoid valve and coffee hydraulic circuit are clogged - *If the counter does NOT function:* - Check if there is water and if the pump works - Replace the turbine - Check the cabling
067	**Failure to read impulses by volumetric meter of turbine during circuit wash cycle**	• No water • Broken pump • Clogged filters • Coffee solenoid valve clogged or defective • Broken turbine	1 **Open the machine** 2 **Use test panel to check if the counter function works during the wash cycle** - *If the counter works only with a few impulses* - Clean the filters - Check if the coffee solenoid valve and coffee hydraulic circuit are clogged - *If the counter does NOT function:* - Check if there is water and if the pump works - Replace the turbine - Check the cabling
098	**Historical malfunctions and wash 1 reset**	• Breakdown log initialization.	

English

18. Defects - Malfunctions

MALFUN. CODE	DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
099	**Default data input**		
	Not working machine, with display extinguished		**- Control the feeding presence in the electrical net system** **- If there is power:** 1 **Open the machine** 2 **Check the feeding presence in the main electrical terminal CT and in the transformer TR** - *If there's power:* - Check the power (10÷11Vac) on 1-5 pins of the Y13 CPU board connector - check the LED on the CPU board: DL1 red = OFF DL3 green = Lam DL4 red = OFF - if at the end of all the controls the display it remains extinguished, replace CPU board - *If there's no power:* - check: power supply cable, main switch, cable - if at the end of all the controls the display it remains extinguished, replace TR transformer
	Machine with display ON; solenoid valves and group not working		1 **Open the machine** 2 **Check the power (23÷25Vac) on 2-4 pins of the Y13 CPU board connector** - *If there's power:* - replace CPU board - *If there's no power:* - replace TR transformer

English

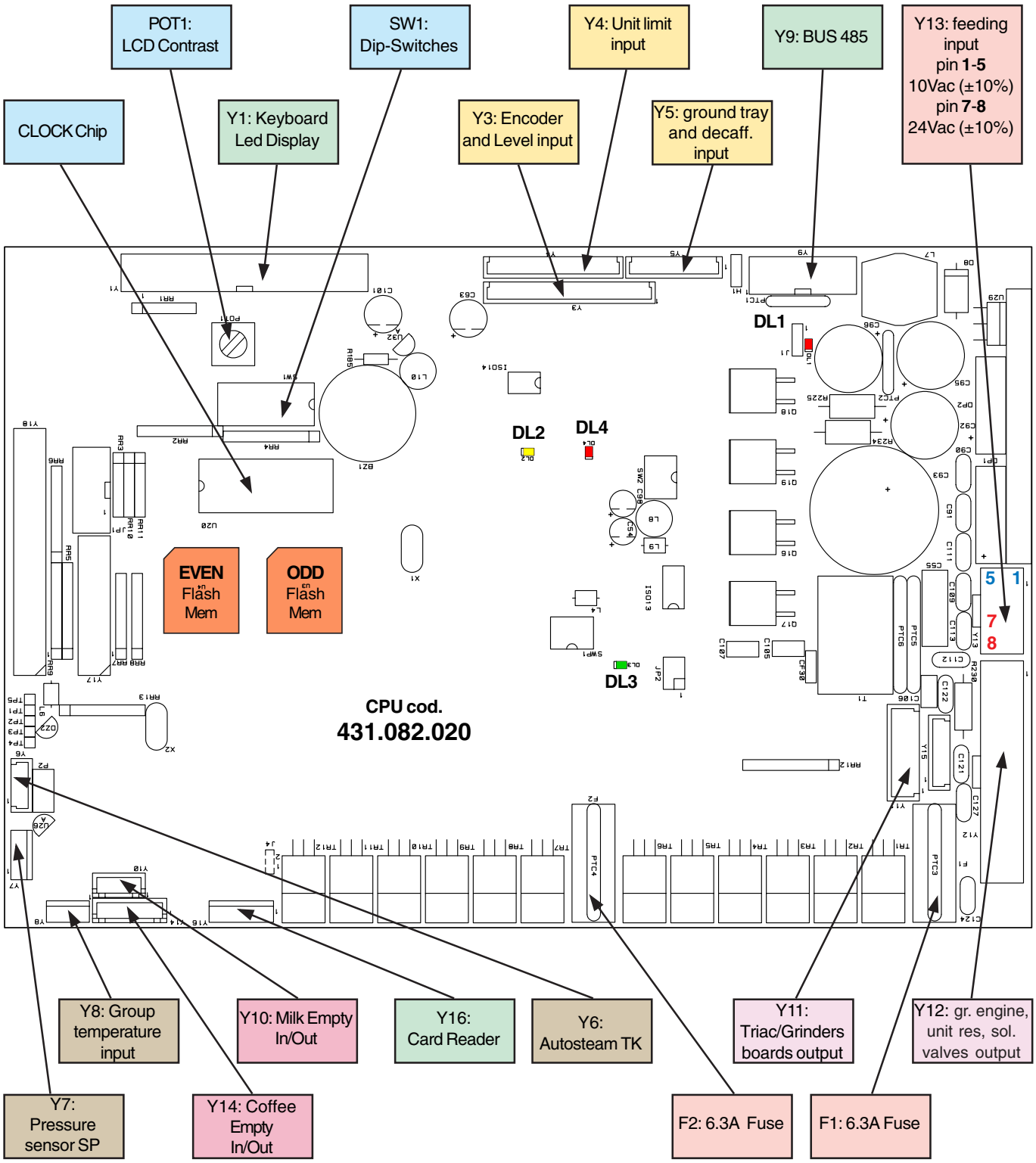
English

19. CPU board connectors

INDEX

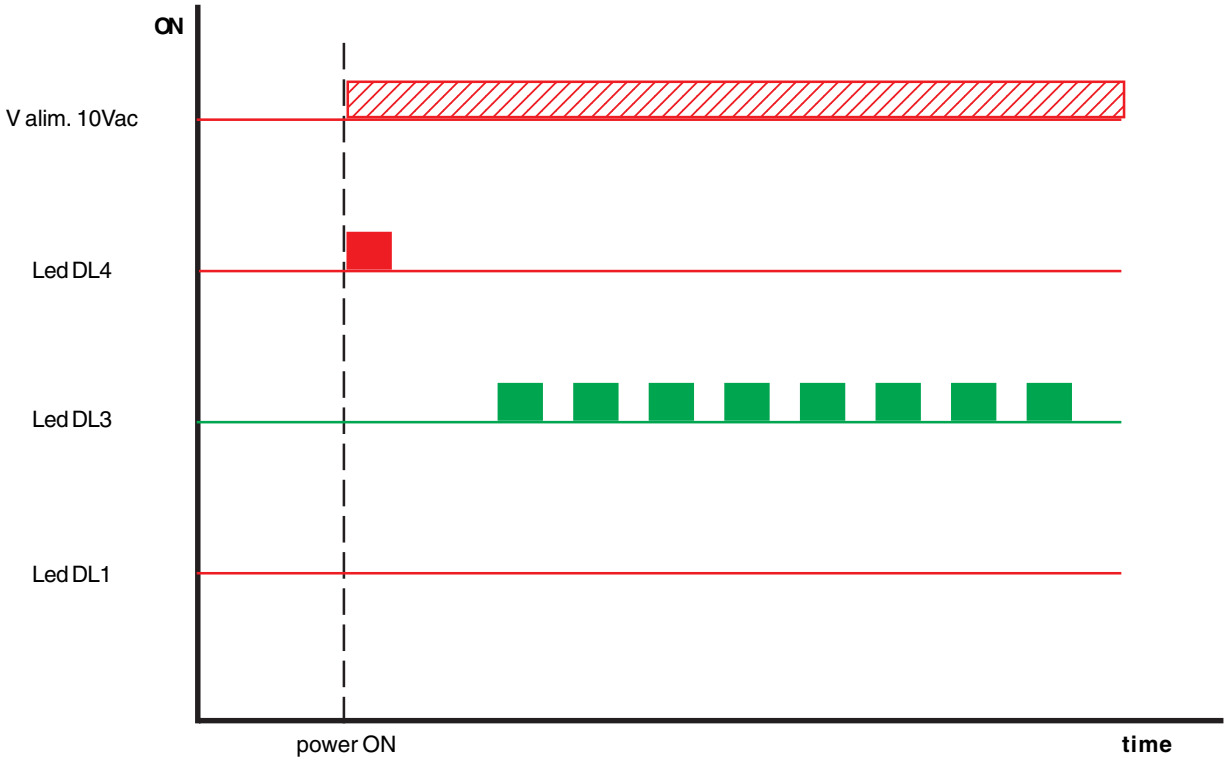
English

1. CPU Board



English

CPU Board = OK *when:*



DL1 red led = extinguished (ignited when short circuit 12V)

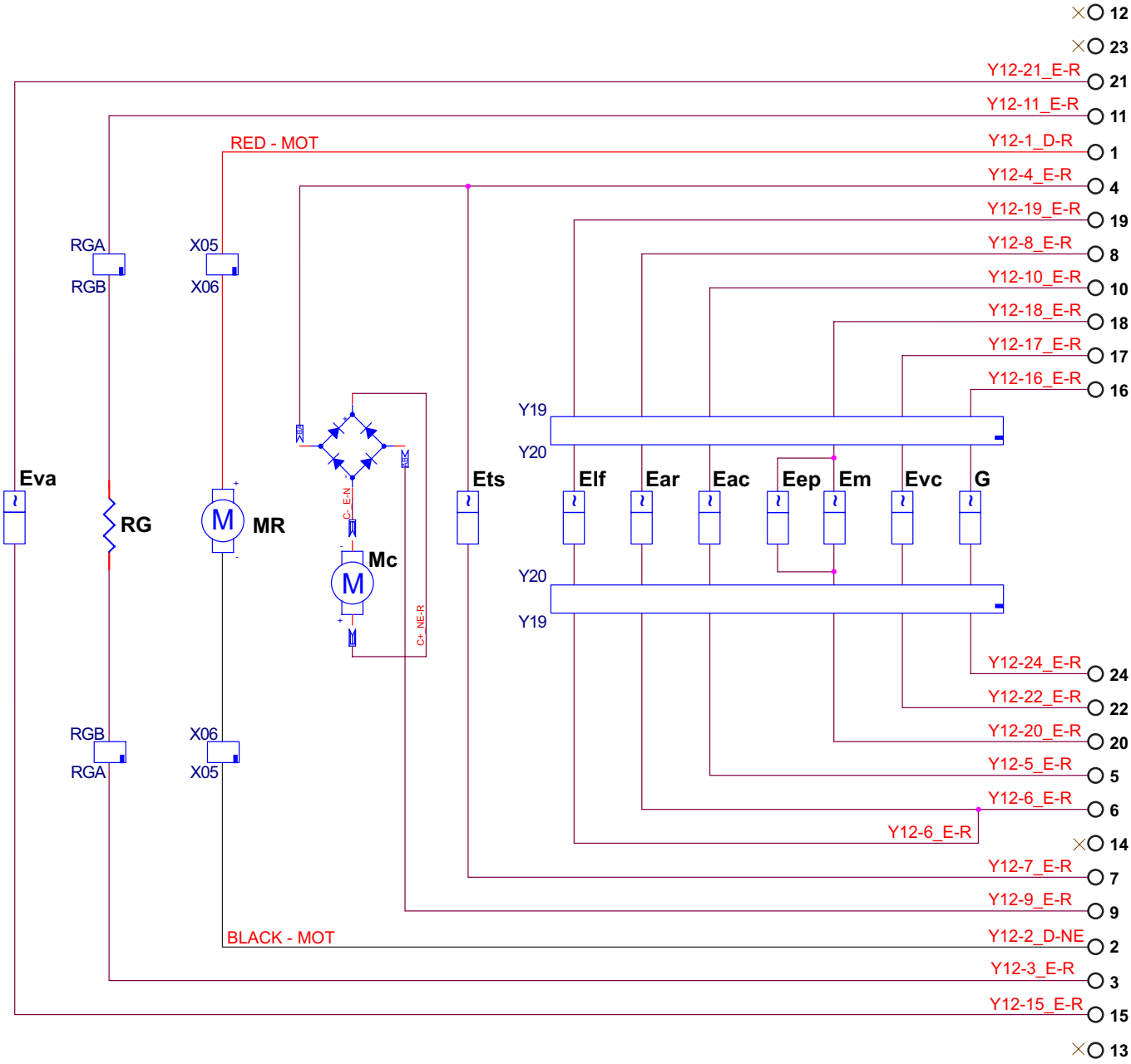
DL2 yellow led = extinguished (ignited when water in boiler lacks)

DL3 green led = blinking

DL4 red led = extinguished (ignited when: microprocessor reset)

English

2. Y12 Connector



Fuse 1

pin: *7, 8, 9, 10, 11, 12*

components: *Eac, Ear, Ets, RG*

Fuse 2

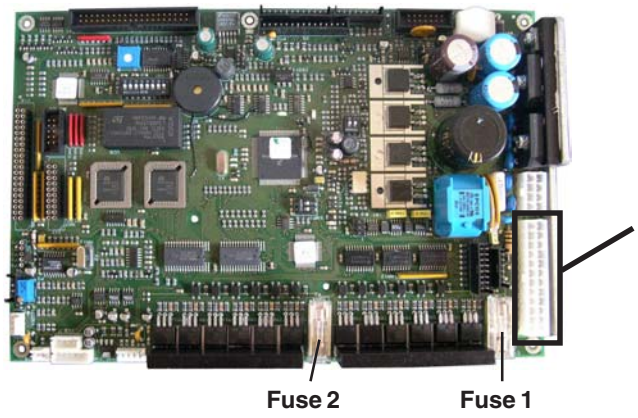
pin: *19, 20, 21, 22, 23, 24*

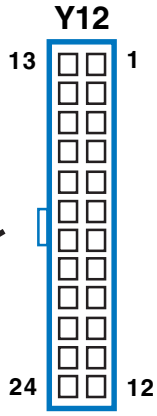
components: *G, Evc, Em, Eep, El*

- **Ets, El, Ear, Eac, Em, Eep, Evc, G, Eva * Solenoid valves** **pin:** *4, 5, 6, 7, 8, 10, 15, 16, 17, 18, 19, 20, 21, 22, 24*
- **Mc, Compressor motor** **pin:** *4, 9*
- **MR, Group engine** **pin:** *1,2*
- **RG, Unit resistance** **pin:** *3, 11*

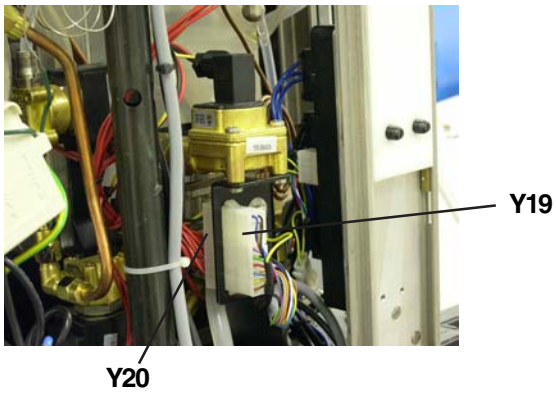
English

2. Y12 Connector

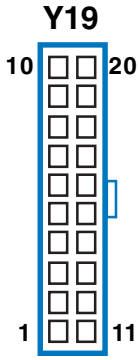




- **Solenoid valves** pin: *4, 5, 6, 7, 8, 10, 15, 16, 17, 18, 19, 20, 21, 22, 24*
- **Mc, Compressor motor** pin: *4, 9*
- **Group engine** pin: *1,2*
- **Unit resistance** pin: *3, 11*

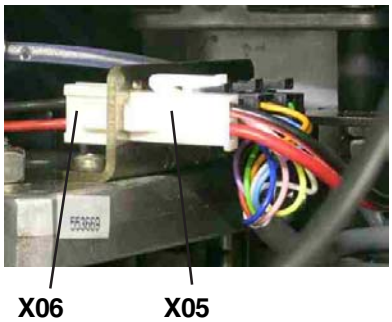


Solenoid valves: *connectors Y19 - Y20*

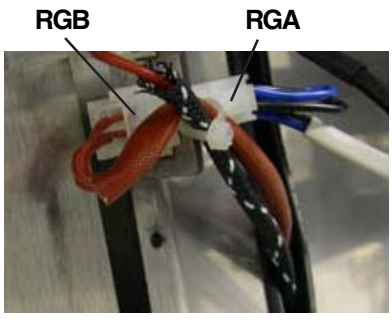


EV G	pin: *1, 11*
EV Evc	pin: *2, 12*
EV Em/Eep	pin: *3, 13*
EV Eac	pin: *4, 14*
EV Ear	pin: *5, 15*
EV Elf	pin: *6, 16*

Group engine: *connectors X05 - X06*

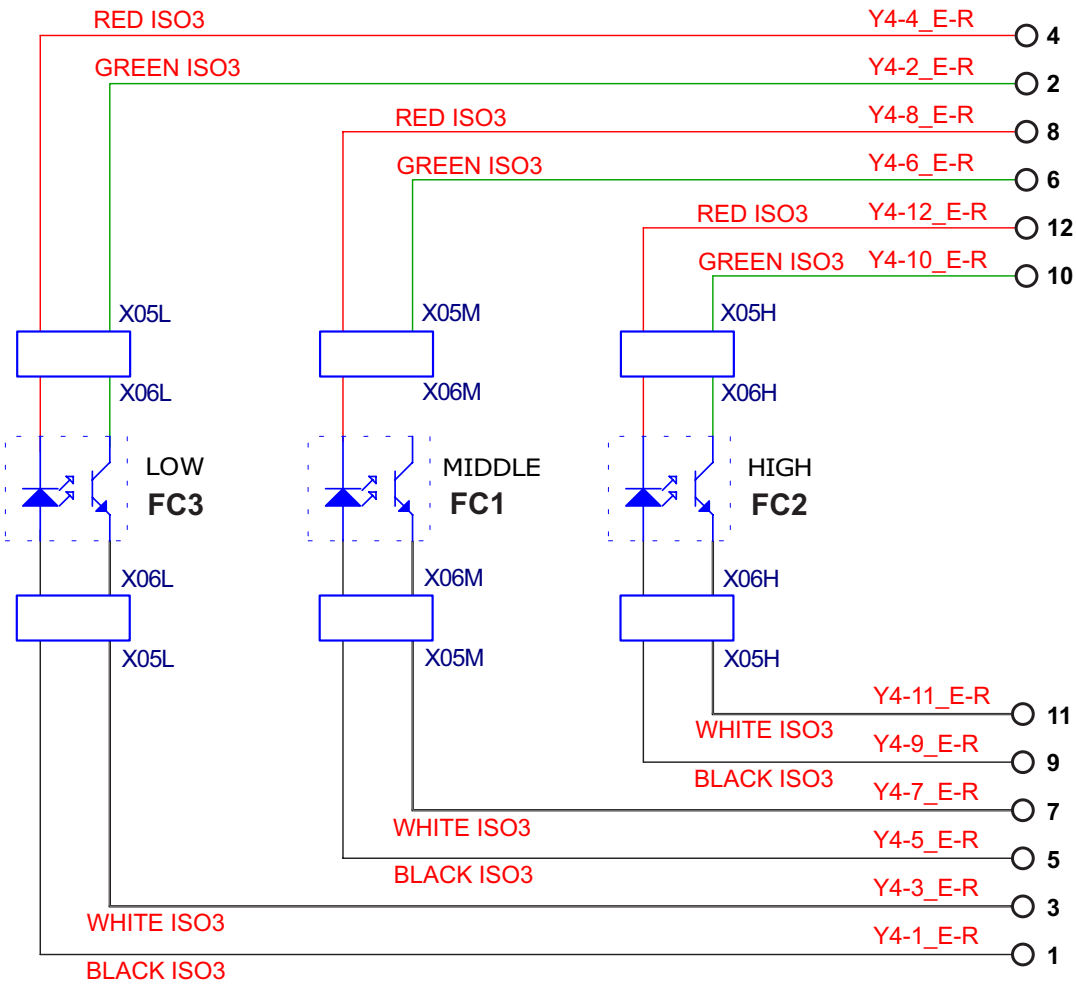


Unit resistance: *connectors RGA - RGB*



English

3. Y4 Connector



FC 1

pin: *5 - 8 = 12V dc*

FC 2

pin: *9 - 12 = 12V dc*

FC 3

pin: *1 - 4 = 12V dc*

- **Unit limit switches**

FC1 **pin:** *5, 6, 7, 8*

FC2 **pin:** *9, 10, 11, 12*

FC3 **pin:** *1, 2, 3, 4*

English

3. Y4 Connector

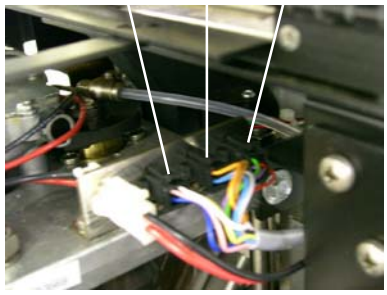
Y4

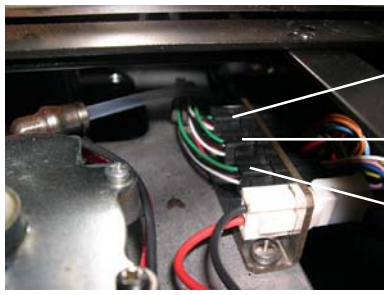
12 1

- **Unit limit switches**

X05L **pin:** *1, 2, 3, 4*
X05M **pin:** *5, 6, 7, 8*
X05H **pin:** *9, 10, 11, 12*

X05H **X05M** **X05L**





X06L

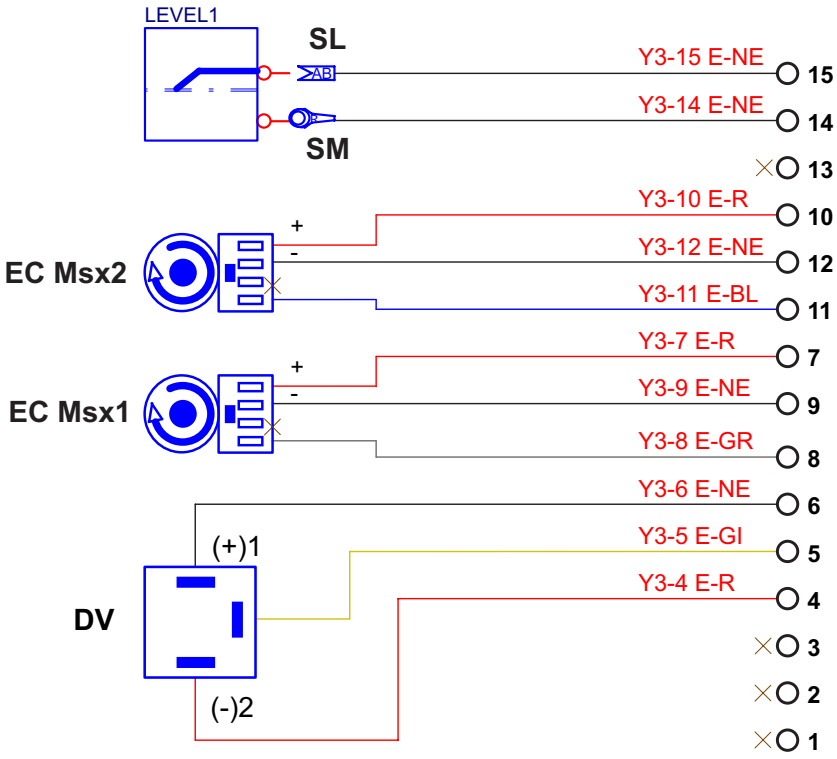
X06M

X06H

Unit limit switches: *connectors X05/L, M, H - X06/L, M, H*

English

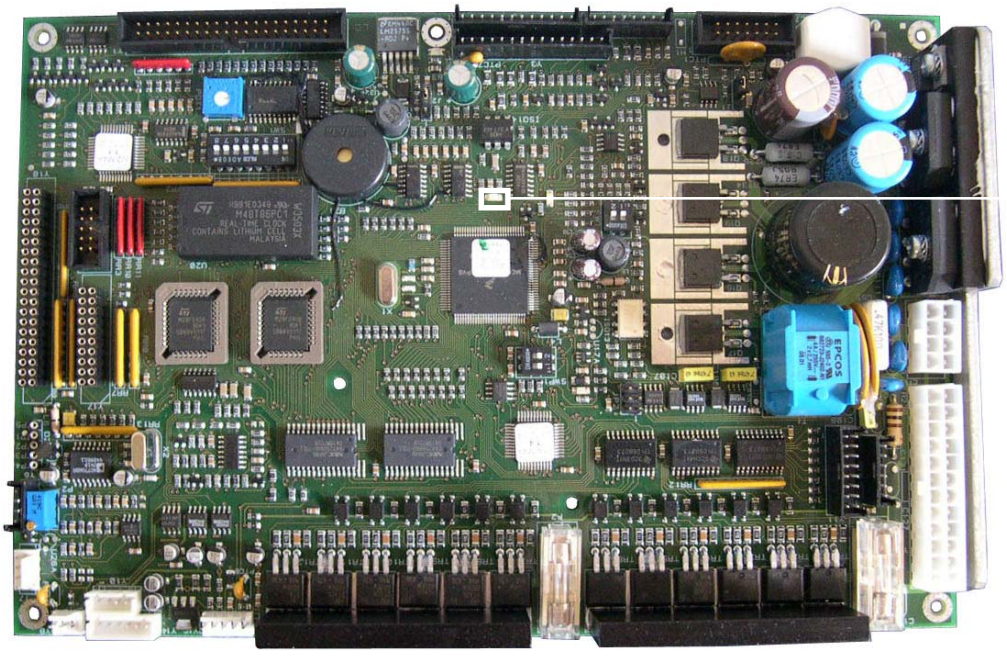
4. Y3 Connector



DV

pin: *4 - 6 = 12V dc*

- **DV, Volumetric meter** **pin:** *4, 5, 6*
- **EC..,Grinders Encoder** **Msx1 pin:** *7, 8, 9* **Mdx2 pin:** *10, 11, 12*
- **SL, Level** **pin:** *14,15*

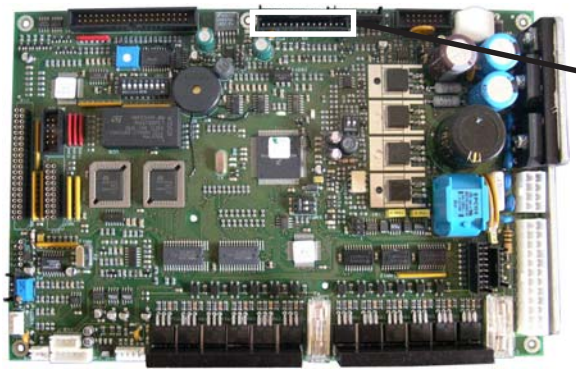


DL2 = ON

Water in boiler lacks

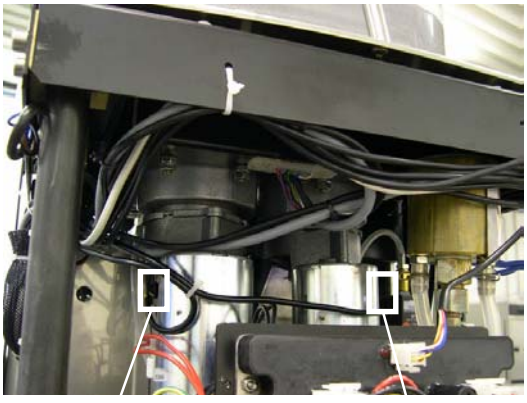
English

4. Y3 Connector

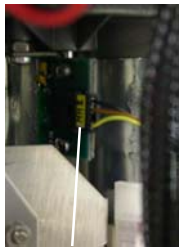


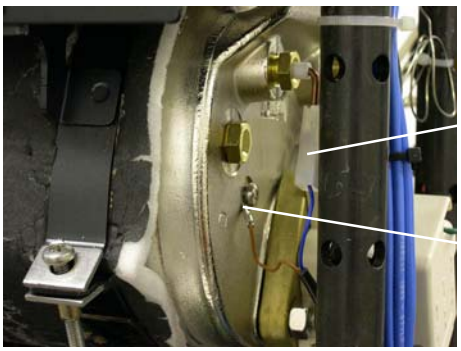
- **Volumetric meter** **pin:** *4, 5, 6*
- **Grinders Encoder** **Msx1 pin:** *7, 8, 9* **Mdx2 pin:** *10, 11, 12*
- **Level** **pin:** *14,15*

Volumetric meter



Grinders Encoder: *connectors EC Msx 1 - EC Mdx 2*

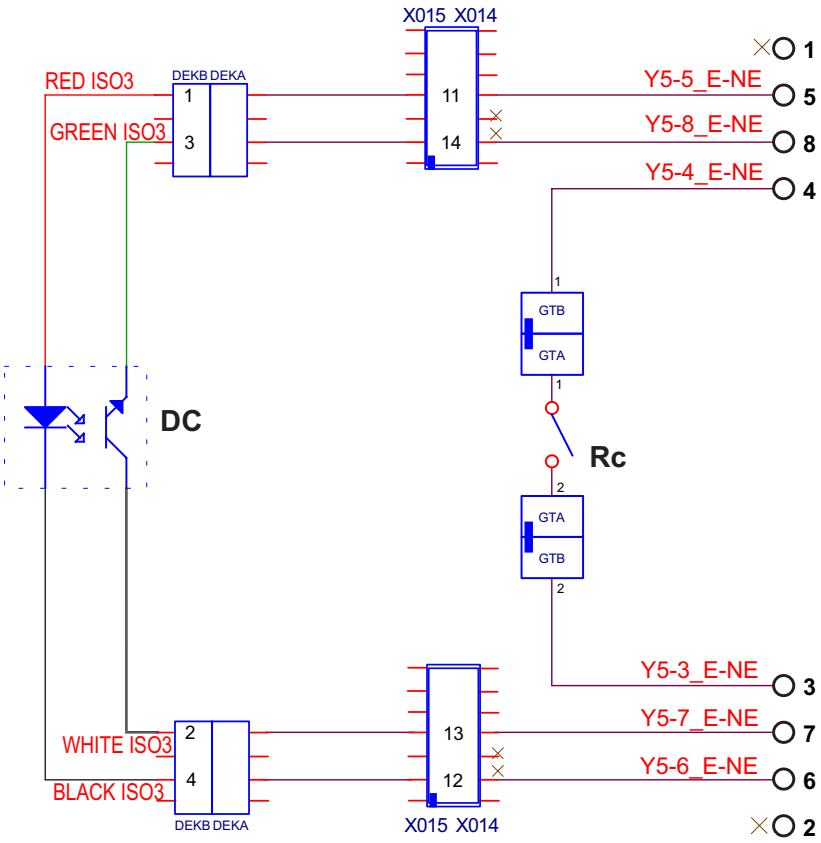




Level: *connectors SL - SM*

English

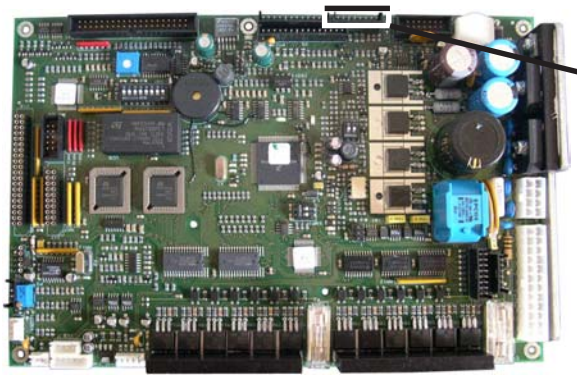
5. Y5 Connector

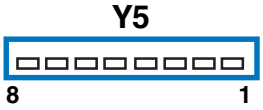


- **Rc, Grounds tray** pin: *3,4*
- **DC, Decaffeinated** pin: *5, 6, 7, 8*

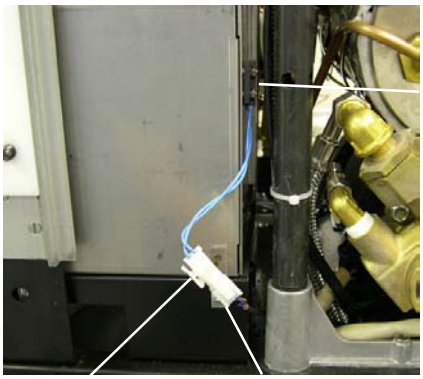
English

5. Y5 Connector

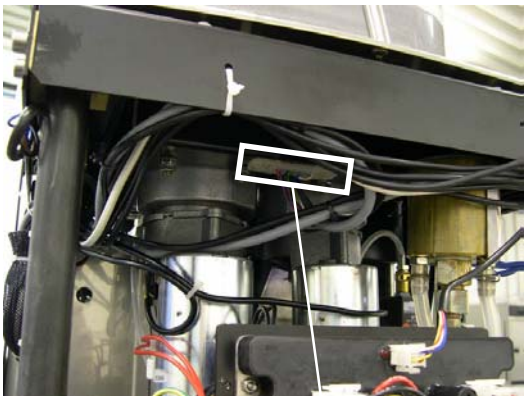




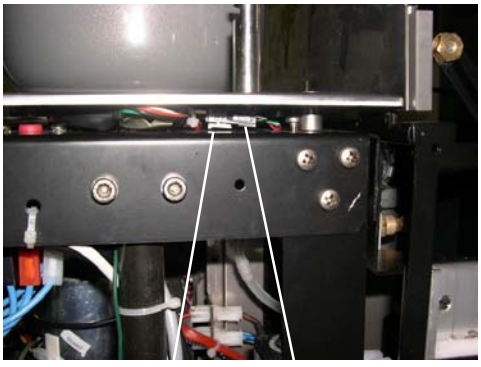
- **Grounds tray** pin: *3,4*
- **Decaffeinated** pin: *5, 6, 7, 8*

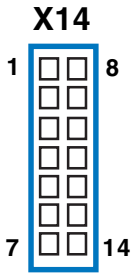


Ground tray: *connectors GTA - GTB*



Decaffeinated: *connectors X014 - X015 - DEKA - DEKB*

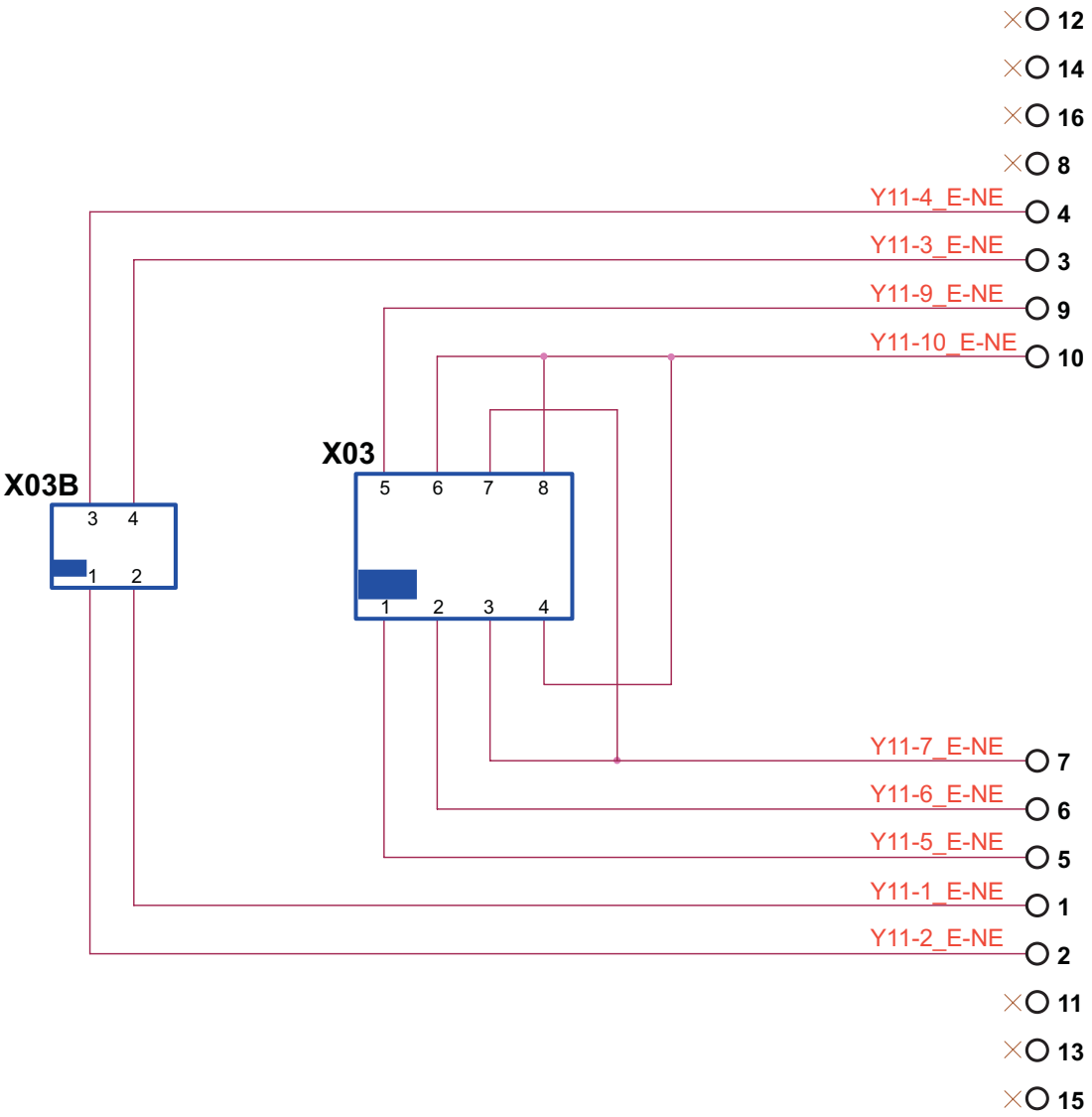




DC pin: *11, 12, 13, 14*

English

6. Y11 Connector



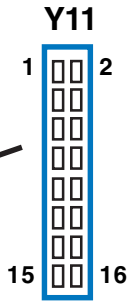
- **Triac boards command**

  X03, Triac board: **pin:** *1, 2, 3, 4*

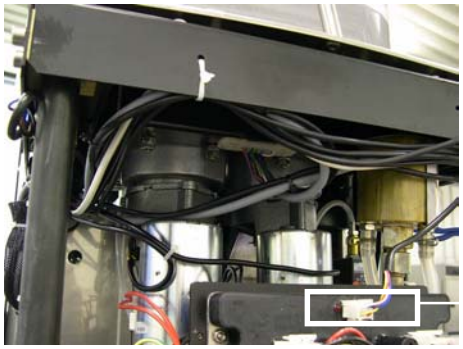
  X03B, Grinders triac board: **pin:** *5, 6, 7, 9, 10*

English

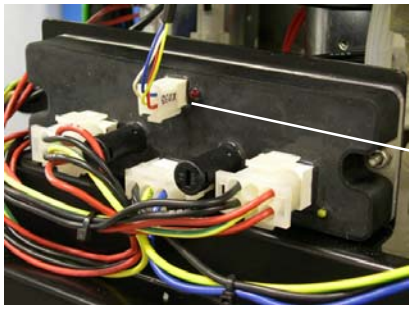
6. Y11 Connector

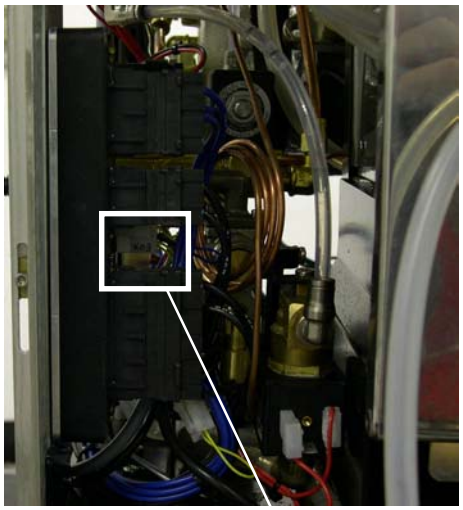


- **Triac boards command**
  X03 pin: *1, 2, 3, 4*
  X03B pin: *5, 6, 7, 9, 10*



Grinders triac board: *connectors X03B*

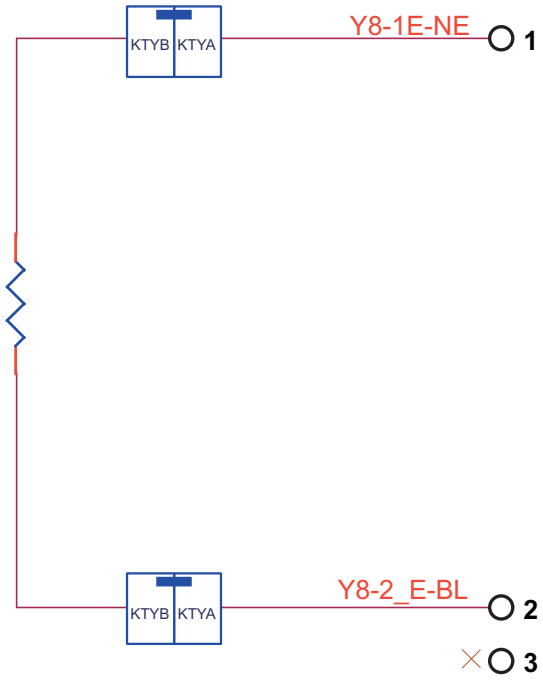


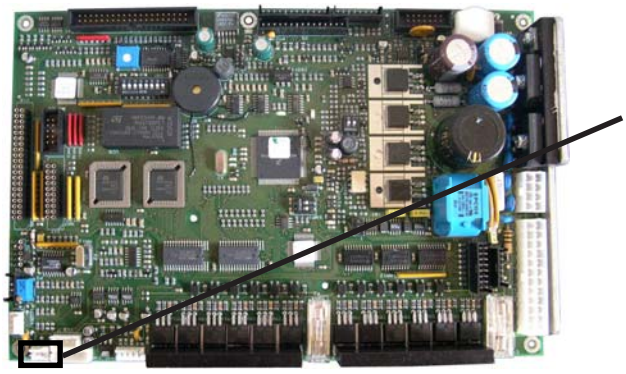


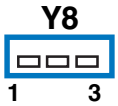
Triac board: *connector X03*

English

7. Y8 Connector

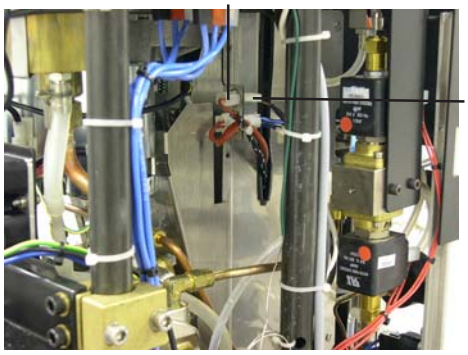




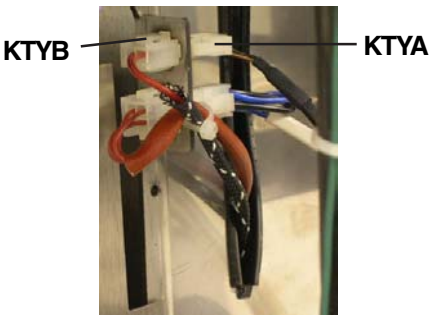


• **Group temperature sensor** pin: *1, 2*

KTYB

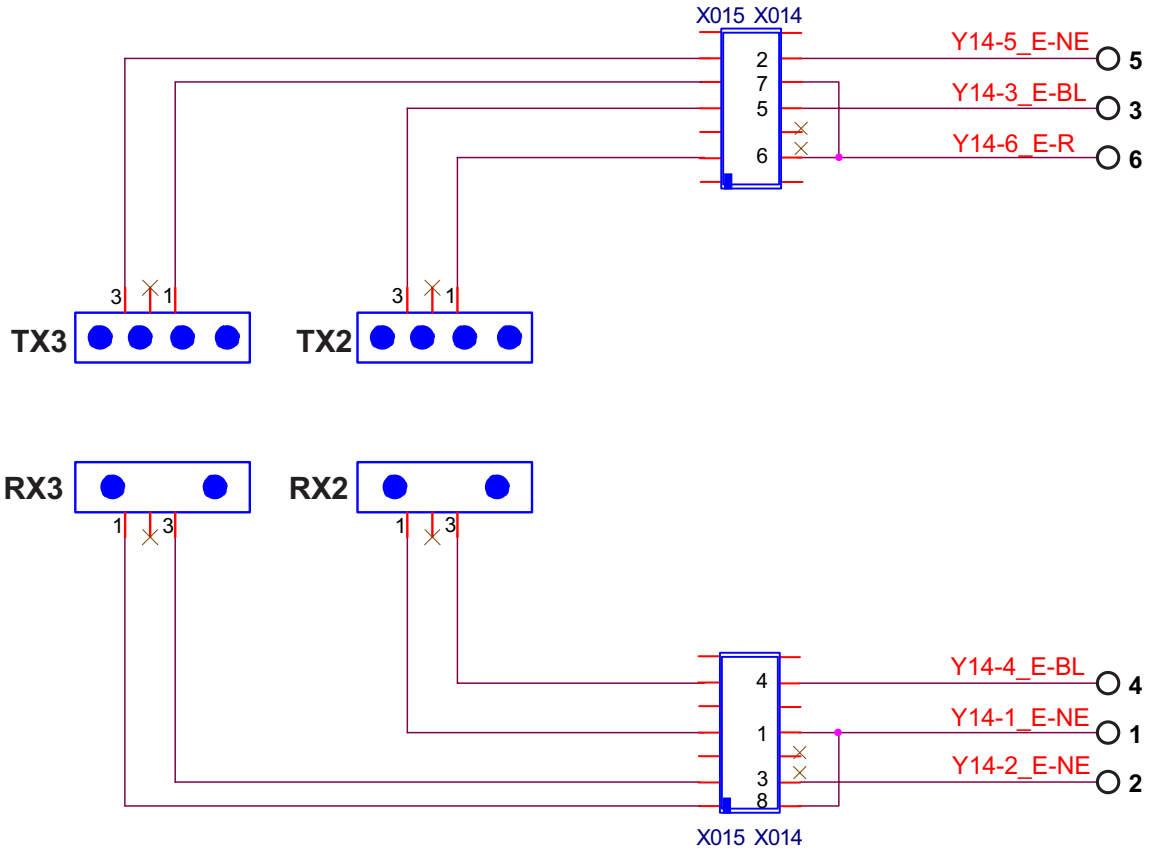


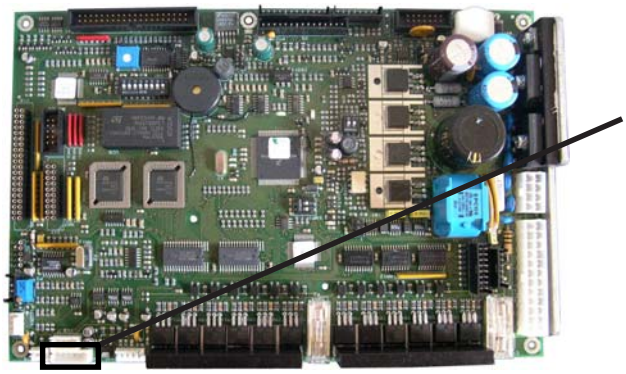
Group temperature sensor: *connectors KTYA - KTYB*

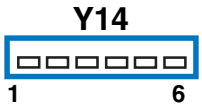


English

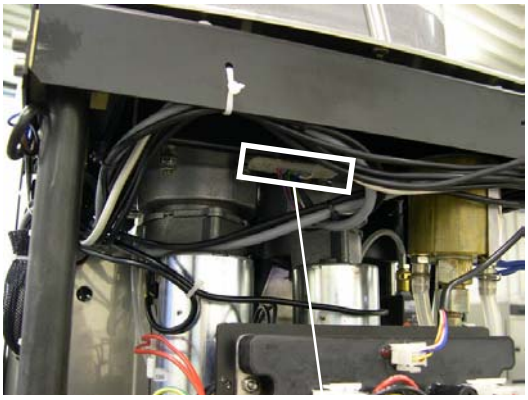
8. Y14 Connector





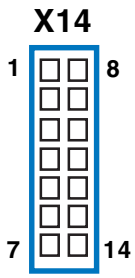


• **Coffee empty receiver**



X014/X015

Coffee empty receiver: *connectors X014 - X015*

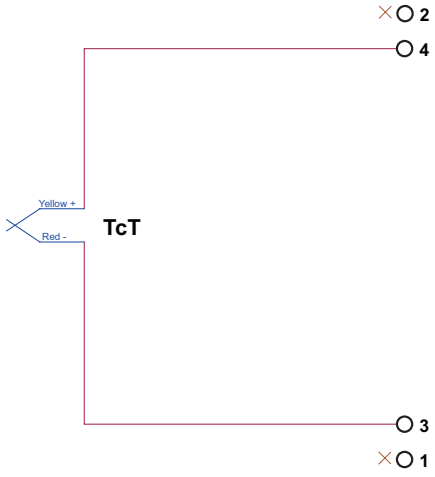


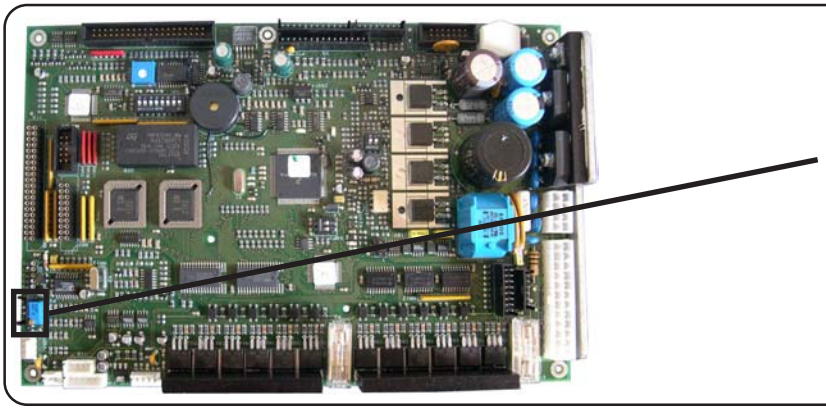
DC pin: *1÷8*

English

9. Y6 Connector

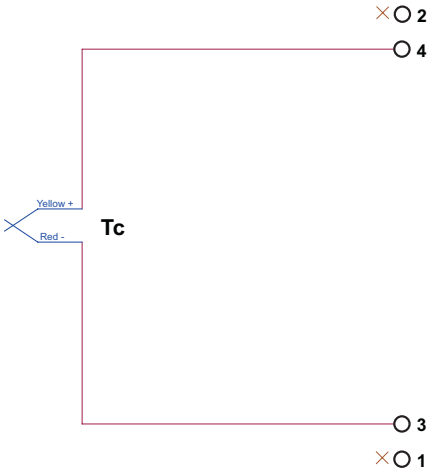
CPU cod.
431.082.020

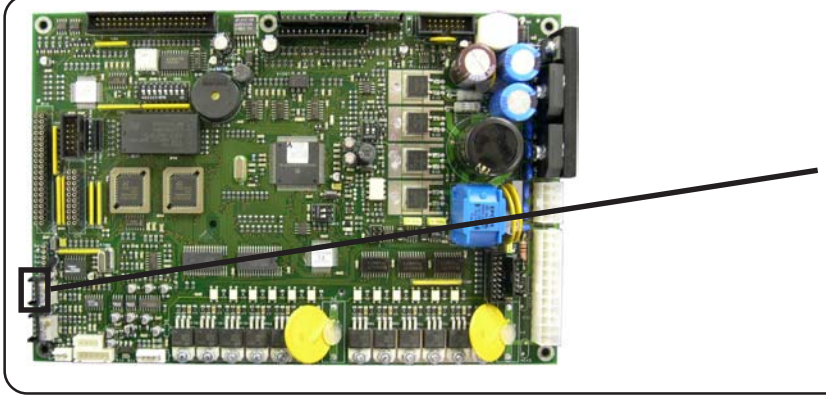




- **Autosteam thermocouple**
  TcT, **pin:** *3, 4*

CPU cod.
431.082.010



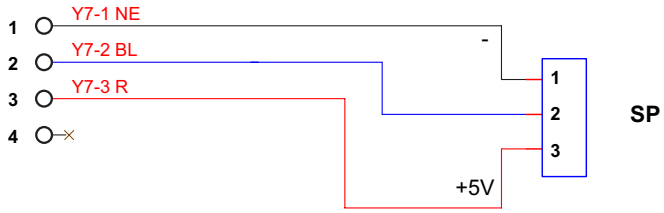


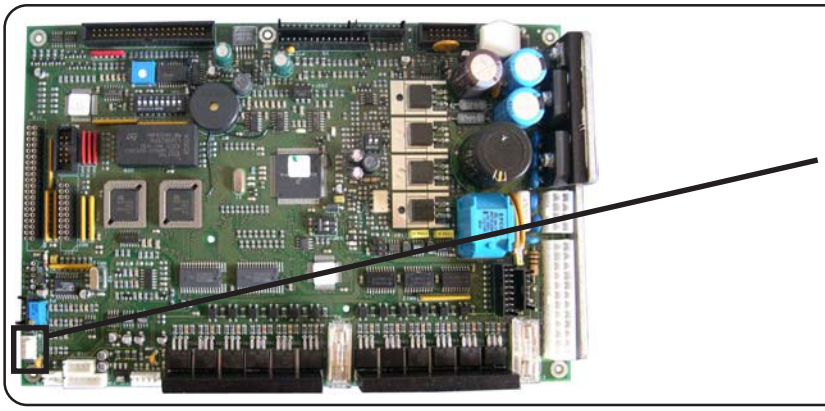
- **Boiler thermocouple**
  Tc, **pin:** *3, 4*

English

10. Y7 Connector

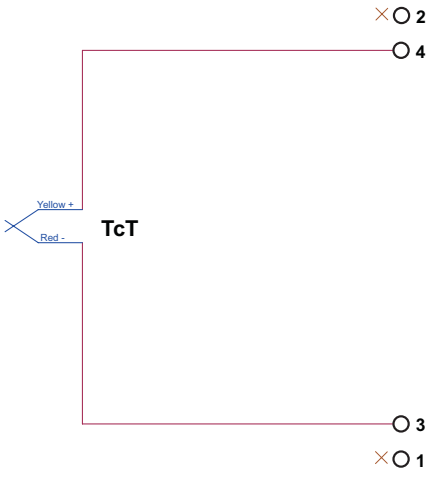
CPU cod.
431.082.020

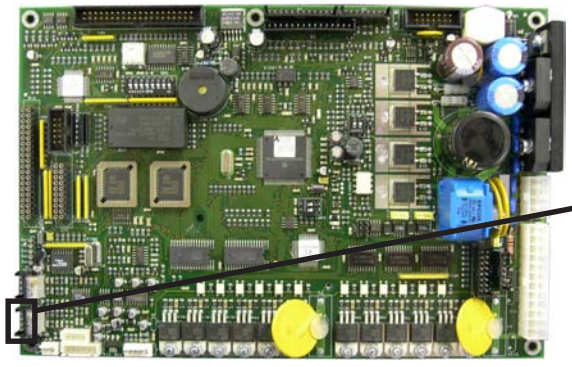




- **Pressure sensor**
  SP, **pin:** *1, 2, 3*

CPU cod.
431.082.010





- **Autosteam thermocouple**
  TcT, **pin:** *3, 4*

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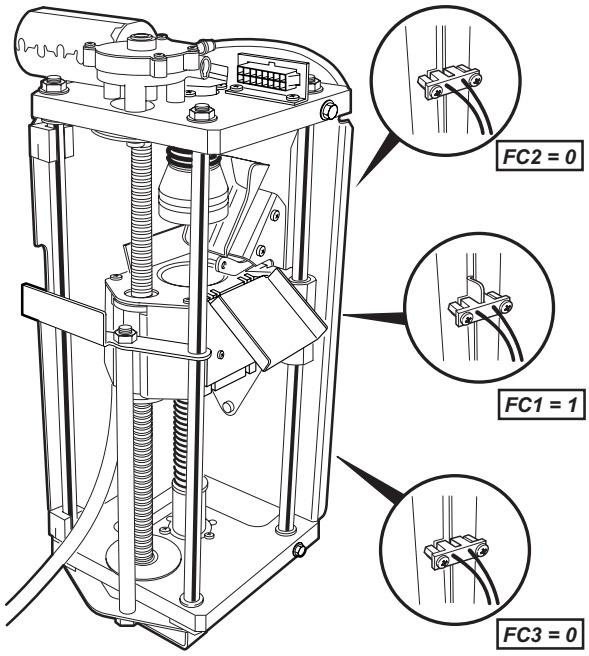
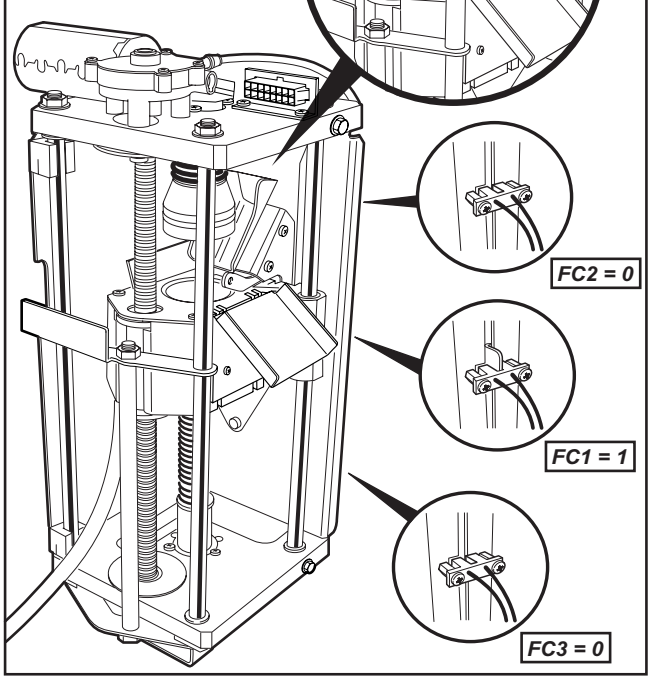


2. Grinding phase



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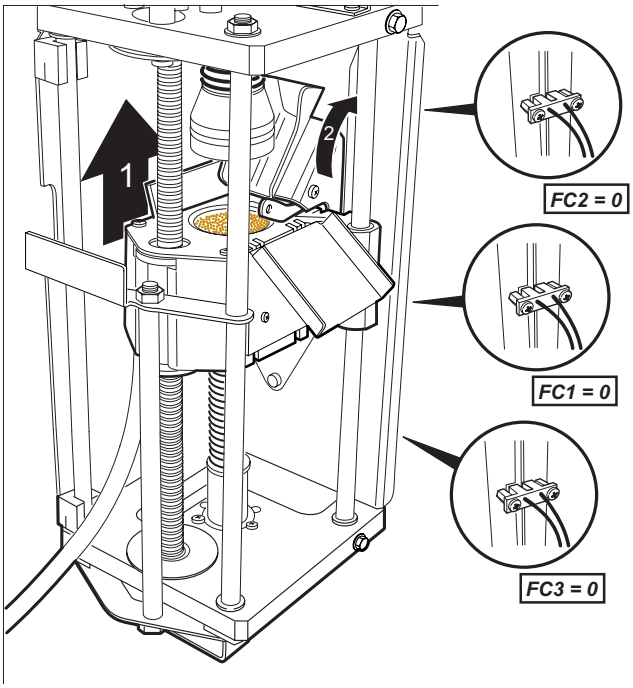
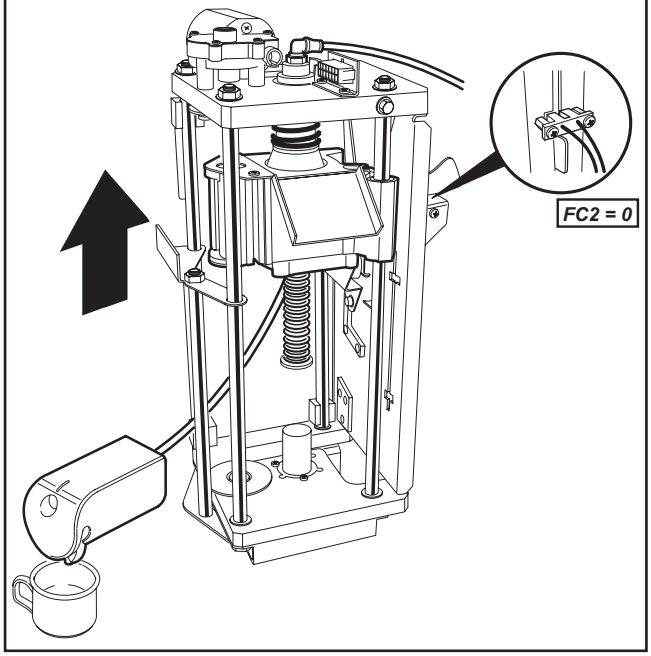


4. Intermediate moving up phase 1



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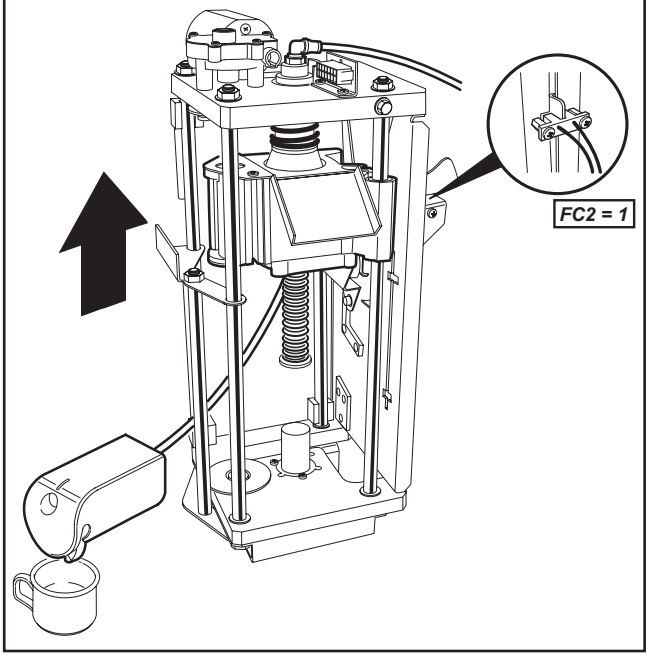

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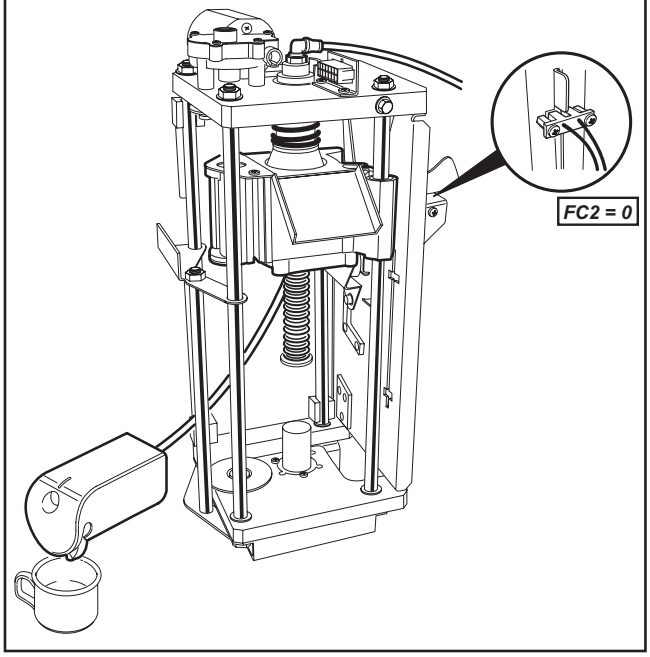

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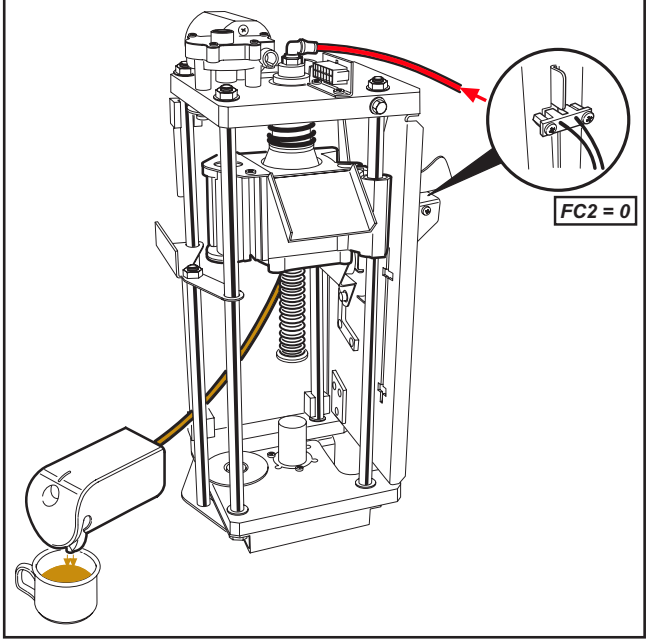

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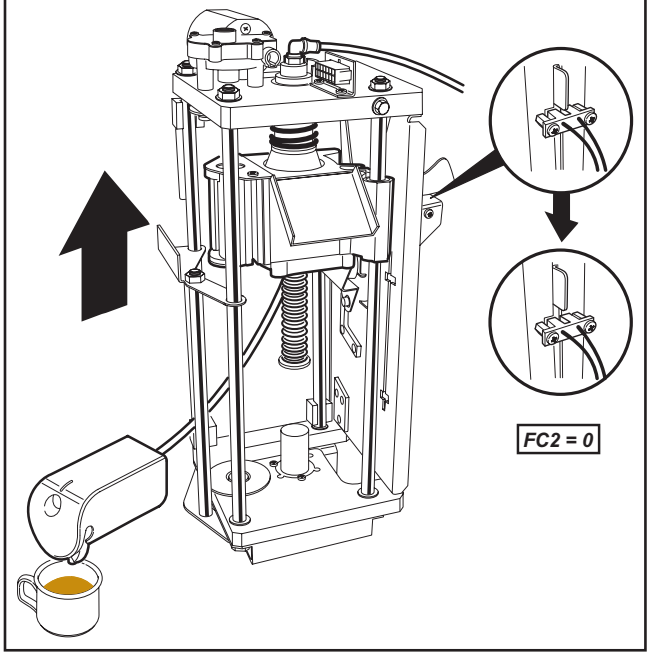

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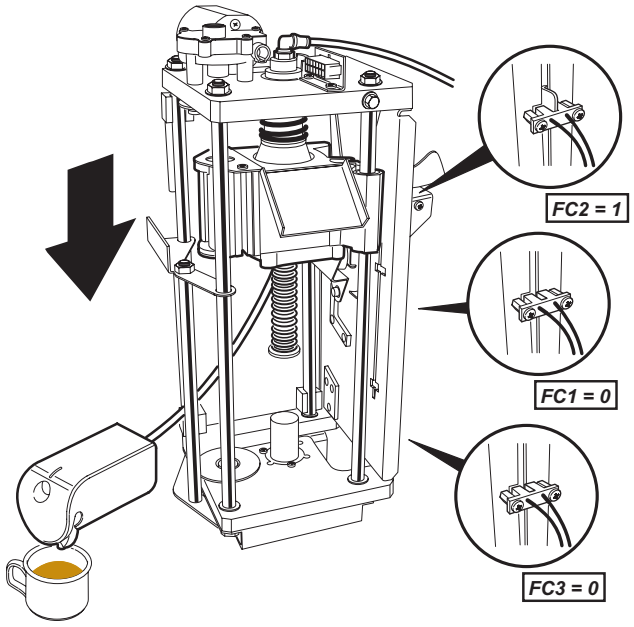
9. Starting moving down phase



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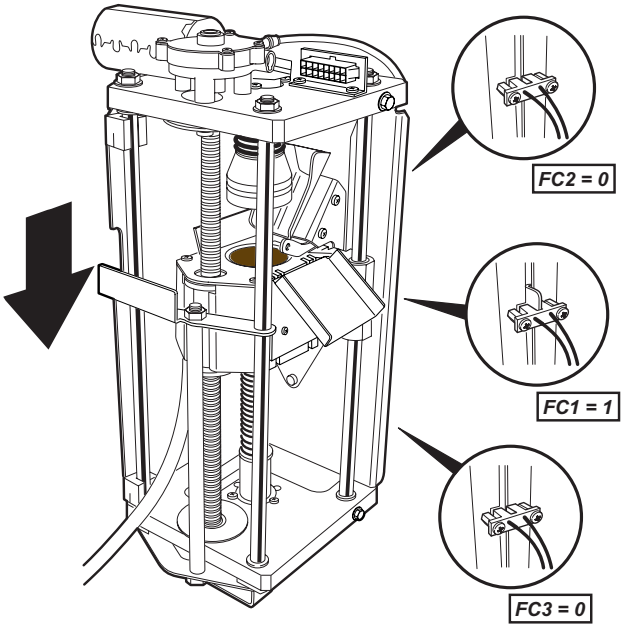

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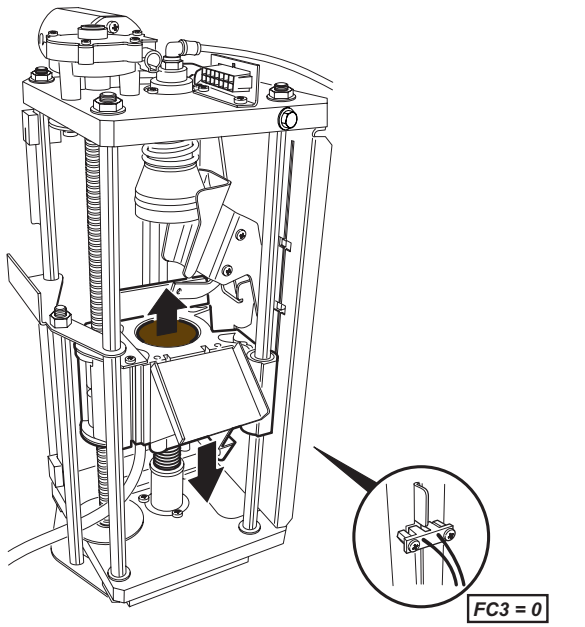

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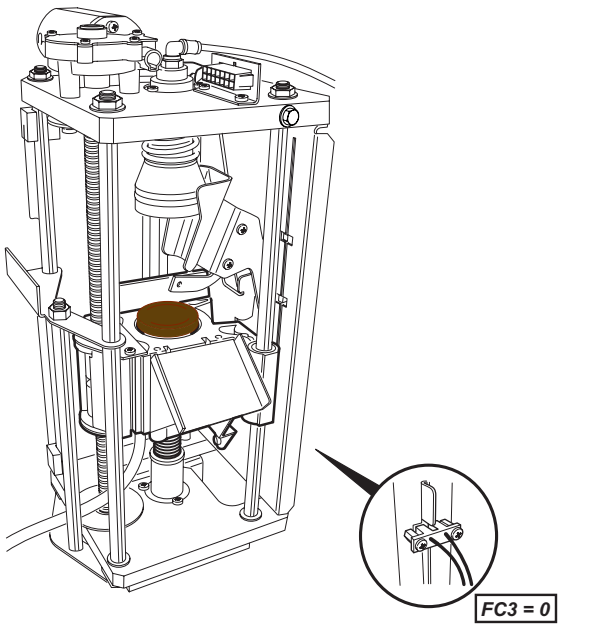

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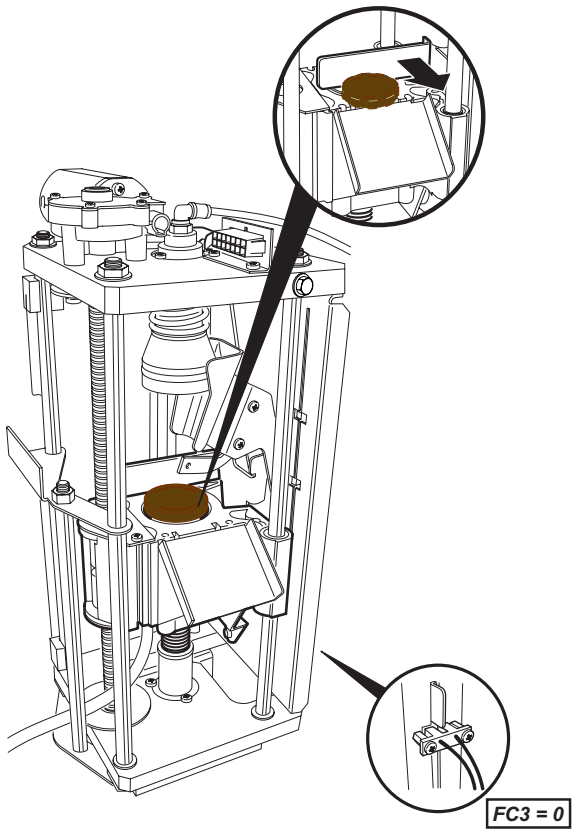
13. Coffee ground expulsion -1-



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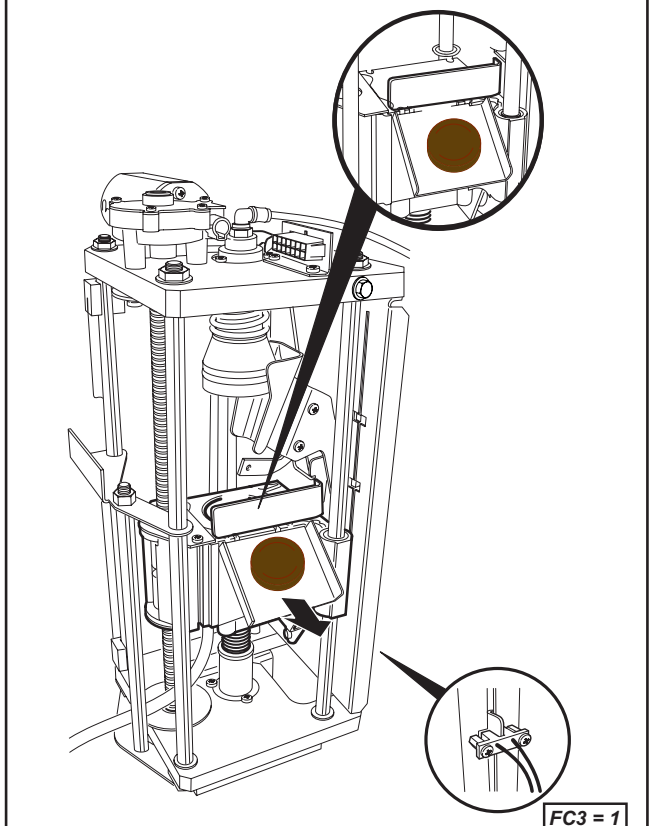

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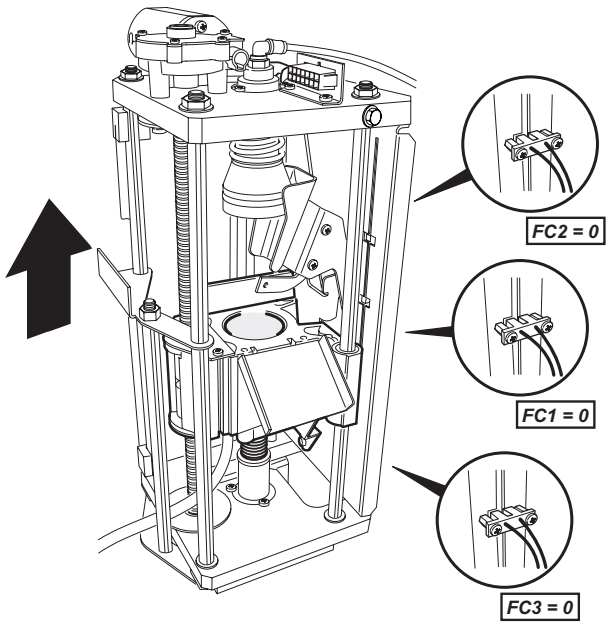

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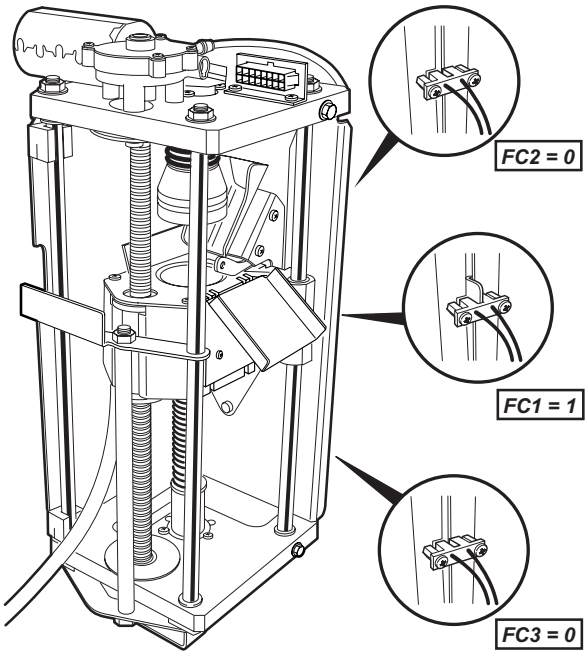

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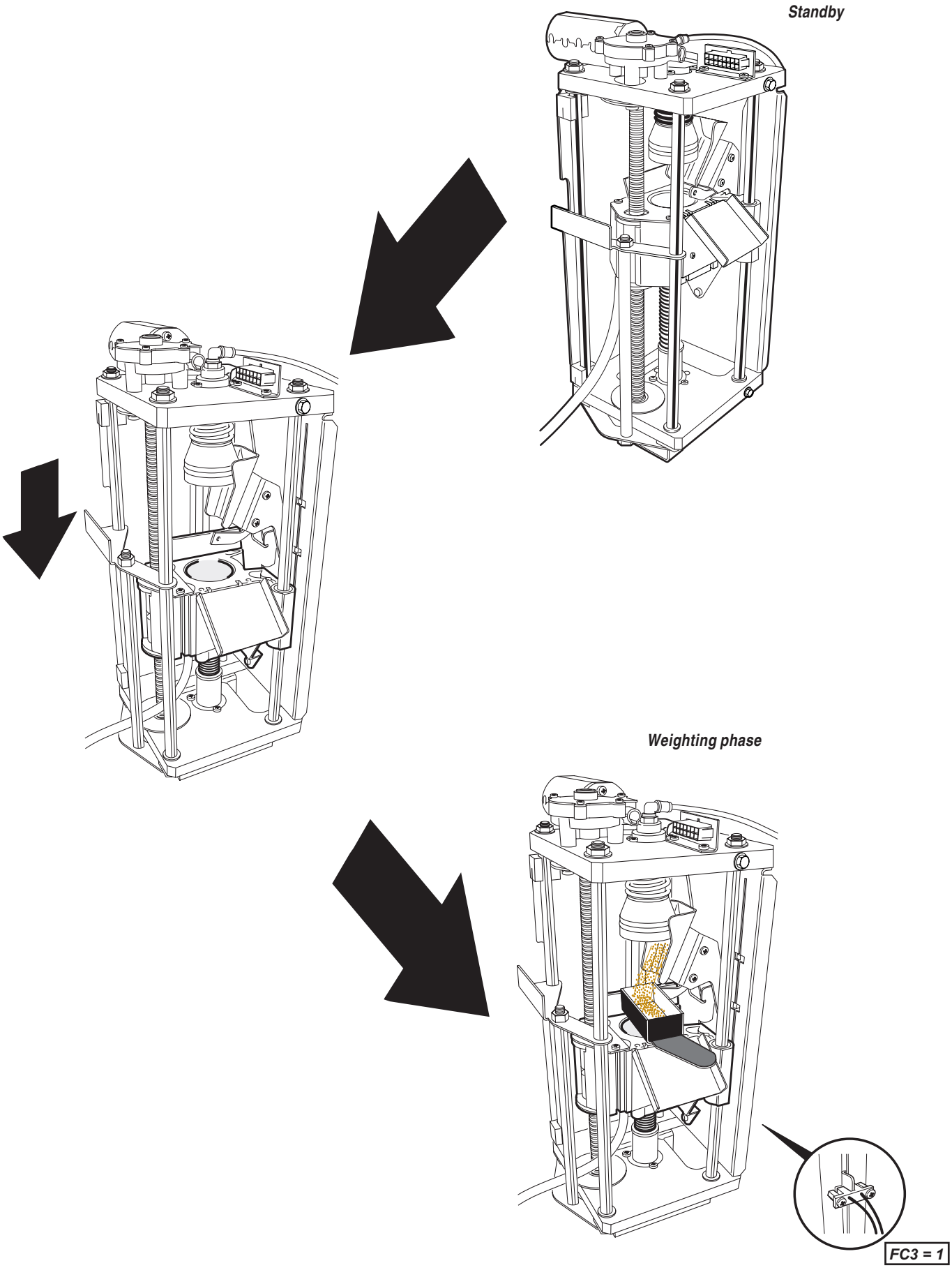

Smontaggio - Disassembly - Demontage
Abmontierung - Desmontaje - Desmontagem

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I **Prima di effettuare operazioni di apertura o smontaggio di parti della carrozzeria della macchina, togliere l'alimentazione elettrica agendo sull'interruttore principale dell'impianto elettrico del cliente.**

GB **Switch off the electricity via the mains switch before opening or dismantling the chassis of the machine.**

F **Avant d'effectuer les opérations d'ouverture ou de démontage des parties représentant la carrosserie de la machine, s'assurer de bien avoir déconnecté l'énergie électrique en appuyant sur l'interrupteur principal de l'installation électrique.**

D **Vor der Ausführung von Schritten der Öffnung oder der Abnahme von Gehäuseteilen muß über Betätigung des Hauptschalters die Netzstromzuführung unterbrochen werden.**

E **Antes de efectuar las operaciones de abertura o desmontaje de algunas partes de la carrocería de la máquina, desconectar la alimentación eléctrica por medio del interruptor principal de la instalación eléctrica del cliente.**

P **Antes de se proceder às operações de abertura ou desmontagem de partes da armação da máquina, desligar a alimentação eléctrica, através do interruptor principal da instalação eléctrica do cliente.**

1. Apertura pannello comandi - Opening the command panel. Ouverture du tableau des commandes - Öffnung der Schalttafel Abertura panel mandos - Abertura painel de comandos

I Rimuovere la manopola vapore (**13**).
Sollevare il pannello e bloccarlo come indicato nelle figure.

GB Remove the steam knob (**13**).
Raise the panel and block it as shown in figures.

F Retirer la poignée de vapeur (**13**). Soulever le panneau et le bloquer comme indiqué dans les figures ci-contre.

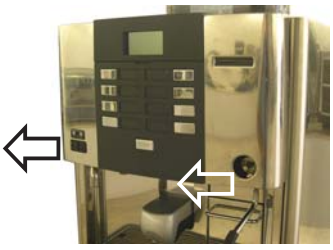
D Den Dampfabgaberegler (**13**) abnehmen. Die Schaltblende anheben und wie in den Darstellungen dargestellt feststellen.

E Quitar el pomo vapor (**13**).
Levantar el panel y desbloquearlo como se indica en las figuras.

P Remover a manípulo vapor (**13**).
Levantar o painel e bloqueá-lo como indicado nas figuras.

1

2



3

4

5

2. Rimozione tramoggia - Removal of the Coffee Beans Receptacle
Soulèvement de la trémie - Abnahme des Trichters
Extracción tolva - Remoção da tremonha

I Svitare la vite (**V**) e ruotare in senso orario la maniglia (**M**).
Sollevare e rimuovere la tramoggia (**6**).

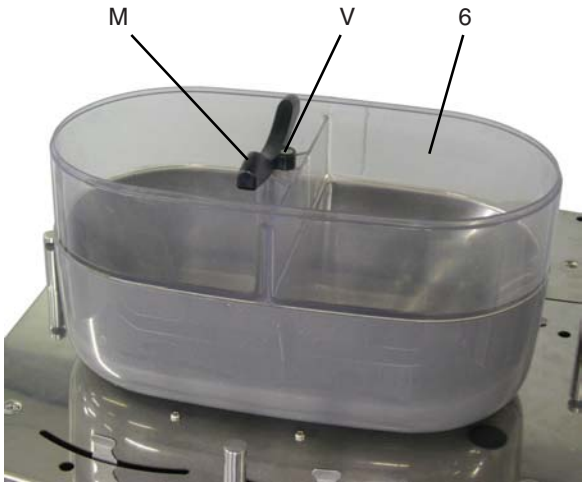
GB Unscrew the screw (**V**) and turn the handle (**M**) clockwise.
Raise and remove the hopper (**6**).

F Dévisser la vis (**V**) et tourner dans le sens des aiguilles d'une montre la poignée (**M**).
Soulever et enlever la trémie

D Die Schraube (**V**) lösen und den Regler (**M**) im Uhrzeigersinn drehen. Den Trichter (**6**) anheben und abnehmen.

E Destornillar el tornillo (**V**) y girar en el sentido de las agujas del reloj la manilla (**M**).
Levantar y quitar la tolva (**6**).

P Afrouxar os parafusos (**V**) e rodear a manilha no sentido dos ponteiros do relógio (**M**).
Levantar e remover a tremonha (**6**)



3. Smontaggio fiancate - Removal of the Side Panels
Démontage des côtés - Abnahme der Seitenpaneele
Desmontaje paneles laterales - Desmontagem dos lados

I Allentare le due viti (**F**) di fissaggio del pannello laterale.
Inclinare il pannello e rimuoverlo.

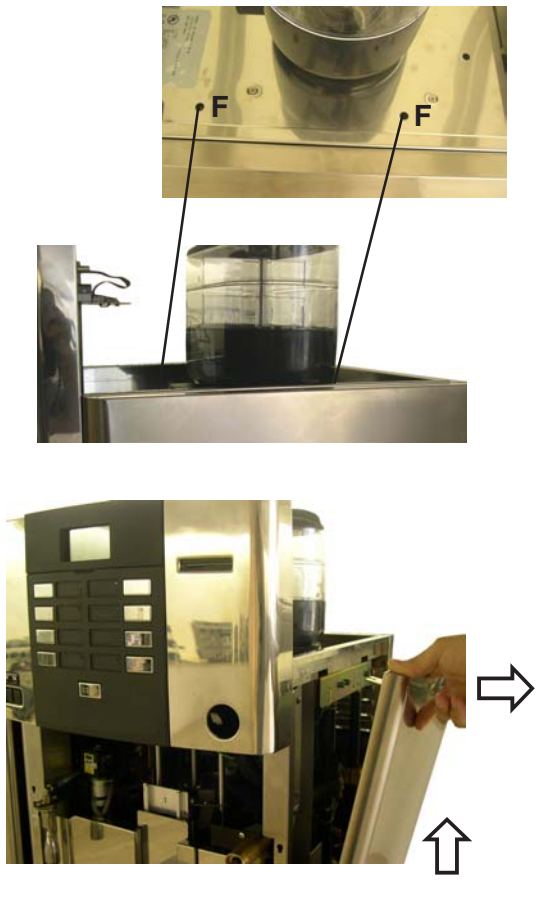
GB Loosen the two screws (**F**) on the side panel.
Tilt the panel and remove it.

F Dévisser les deux vis (**F**) de fixage du panneau latéral.
Incliner le panneau et l'enlever.

D Lösen Sie die beiden Schrauben (**F**) zur Befestigung der Seitenpaneele.
Neigen Sie das Paneel, und nehmen Sie es ab.

E Aflojar los dos tornillos (**F**) de fijación del panel lateral.
Inclinar el panel y extraerlo.

P Afrouxar os dois parafusos (**F**) de aperto do painel lateral.
Inclinar o painel e retirá-lo.



4. Pannello posteriore - Back Panel
Panneau postérieur - Abnahme des hinteren Paneels
Panel posterior - Painel traseiro

I Svitare le due viti (**P**) di fissaggio e rimuovere il pannello.

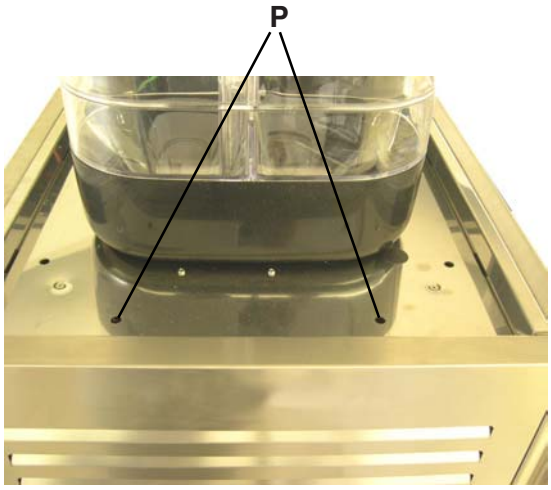
GB Loosen the screws (**P**) and remove the panel.

F Dévisser les vis (**P**) de fixage et enlever le panneau.

D Lösen Sie die Schrauben (**P**) zur Befestigung, und nehmen Sie das hintere Paneel ab.

E Destornillar los tornillos (**P**) de fijación y quitar el panel.

P Afrouxar os parafusos (**P**) de aperto e tirar o painel.



5. Pannello frontale inox - Stainless steel front panel
Panneau frontal inox - Abnahme des vorderen Paneels aus Edelstahl
Panel frontal inoxidable - Painel dianteiro inoxidável

I Togliere la bacinella appoggiatazze (**16**).
Allentare la vite (**G**) di fissaggio. Estrarre il cassetto fondi (**17**). Rimuovere il pannello (**I**).

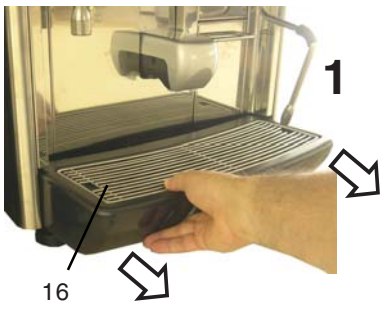
GB Remove the cup tray (**16**).
Loosen the screw (**G**). Remove the coffee ground tray (**17**). Remove the panel (**I**).

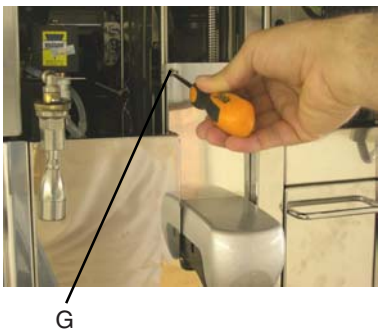
F Enlever le petit bassin appuie-tasses (**16**).
Dévisser la vis (**G**) de fixage. Extraire le tiroir à marcs (**17**). Enlever le panneau (**I**).

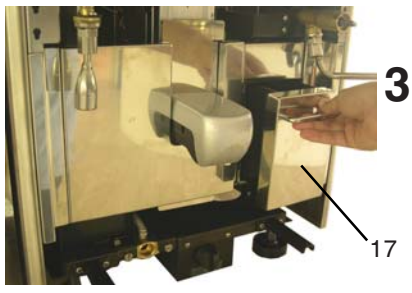
D Nehmen Sie die Wanne zur Tassenaufsetzung (**16**). Lösen Sie die Schraube (**G**) zur Befestigung. Den Schubkasten für den Kaffeesatz (**17**) herausziehen. Nehmen Sie das hintere Paneel ab (**I**).

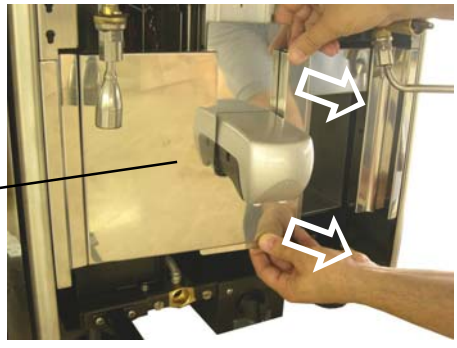
E Quitar la bandeja apoya-tazas (**16**).
Destornillar lo tornillo (**G**) de fijación. Saque el cajón fondos (**17**). Quitar el panel (**I**).

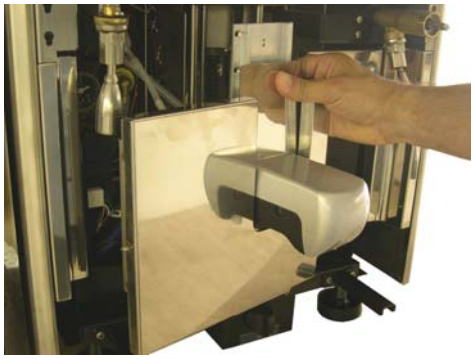
P Retirar o tabuleiro para apoiar as chávenas (**16**).
Afrouxar o parafuso (**P**) de aperto. Extrair a caixa de borras (**17**). Tirar o painel (**I**).











6. Scatola elettrica - Junction Box
Boite électrique - Elektrokasten
Caja eléctrica - Caixa eléctrica

I Togliere la bacinella appoggiatazze (**16**).
Svitare le due viti (**A**) anteriori e le due viti (**P**) posteriori di fissaggio e rimuovere la scatola elettrica (**S**).

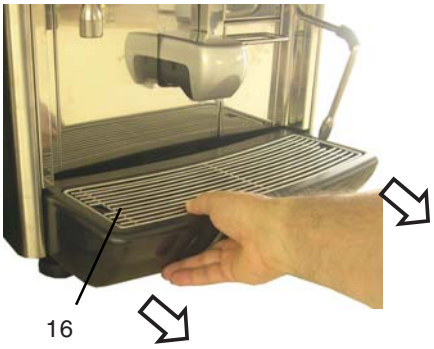
GB Remove the cup tray (**16**).
Unscrew the two front screws (**A**) and the two rear screws (**P**) and remove the electric box (**S**).

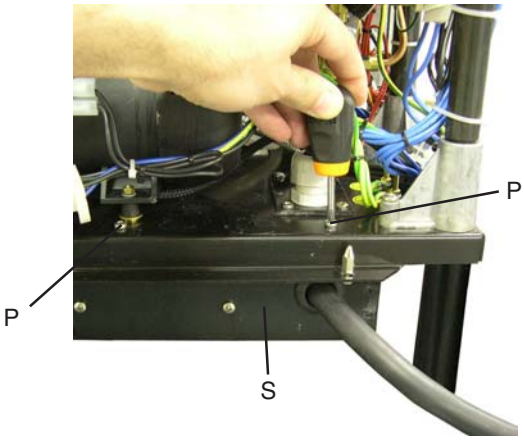
F Enlever la bassine appuie-tasses (**16**).
Dévisser les deux vis (**A**) avant et les deux vis (**P**) arrière de fixage et enlever la boîte électrique (**S**).

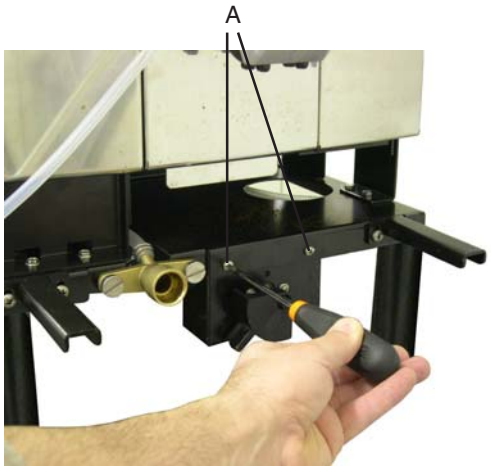
D Die Wanne zur Tassenabstellung (**16**) abnehmen.
Die beiden vorderen Schrauben (**A**) und die beiden hinteren Schrauben (**P**) lösen und den Elektrokasten (**S**) abnehmen.

E Quitar la bandeja apoya-tazas (**16**).
Destornillar los dos tornillos (**A**) anteriores y los dos tornillos (**P**) posteriores de fijación y quitar la caja eléctrica (**S**).

P Tirar o tabuleiro para apoiar as chávenas (**16**).
Afrouxar os parafusos (**A**) dianteiros e os dois parafusos (**P**) traseiros de fixação e remover a caixa eléctrica (**S**).







Regolazioni - Setting - Reglages
Einstellung - Regulaciónes - Regulações

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1. Pompa volumetrica - Volumetric pump
Pompe volumetrique - Volumetrische Pumpe
Bomba volumetrica - Bomba volumetrica

I **BY- PASS (A)** - Vite di regolazione pressione pompa.
Tarare a 9÷10 bar a mandata chiusa.

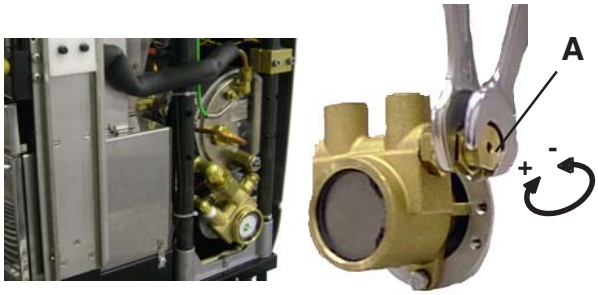
GB **BY-PASS (A)** - Screw for adjusting the pump pressure.
Calibrate to 9 ÷ 10 bar with screw tightened

F **BY-PASS (A)** - Vis de réglage de la pression de la pompe.
Tarer à 9-10 bar à envoi fermé.

D **BY-PASS (A)** - Pumpendruck-Einstellschraube.
Stellen Sie den Betriebsdruck der Pumpe bei gesperrter Druckzuführung in einem Bereich zwischen 9 und 10 bar ein.

E **BY-PASS (A) -** Tornillo de regulación presión bomba.
Regular a 9÷10 bar con válvula cerrada.

P **BY-PASS (A)** - Porta de regulação pressão bomba.
Afinar em 9÷10 bar com emissão fechada.



2. Regolazione aria cappuccino - Cappuccino Air Setting
Réglage de l'air du cappuccino - Regelung der Luft zur Cappuccino-Zubereitung
Regulación aire capuchino - Regulação do ar do garoto (cappuccino)

I Avvitare completamente la vite (**C**), poi tornare indietro di 2 giri.
Per diminuire la quantità di crema, ma aumentare la compattezza, avvitare la vite (**C**).
Per aumentare la quantità di crema, ma diminuire la compattezza, svitare la vite (**C**).

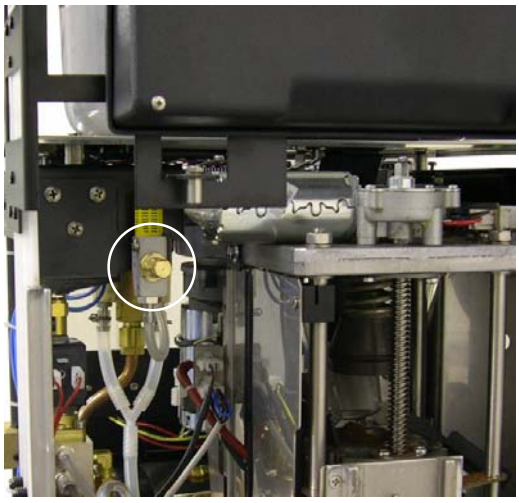
GB Tighten screw (**C**) completely then turn back two turns.
To decrease the quantity of cream and increase its consistency tighten the screw (**C**).
To increase the quantity of cream and decrease its consistency loosen the screw (**C**).

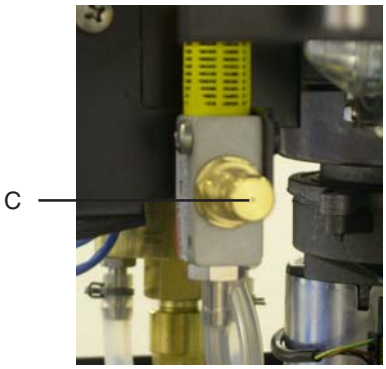
F Visser complètement la vis (**C**), et puis revenir en arrière de deux tours.
Pour diminuer la quantité de crème, en augmenter la consistance, visser la vis (**C**).
Pour augmenter la quantité de crème, en en dimunuant la consistance, dévisser la vis (C).

D Ziehen Sie die Schraube (**C**) bis zum Anschlag an, und drehen Sie sie um 2 Umdrehungen zurück.
Zur Reduzierung der Haubenstärke und zur Erhöhung der Haubenkonsistenz muß die Schraube (**C**) angezogen werden.
Zur Erhöhung der Haubenstärke und zur Verminderung der Haubenkonsistenz muß die Schraube (**C**) gelockert werden.

E Apretar completamente el tornillo (**C**), luego volver hacia atrás 2 vueltas.
Para disminuir la cantidad de crema, pero aumentar la consistencia, apretar el tornillo (**C**).
Para aumentar la cantidad de crema, pero disminuir la consistencia, aflojar el tornillo (**C**).

P Apertar completamente o parafuso (**C**), seguidamente voltar para trás de 2 rotações.
Para diminuir a quantidade de créme, mas aumentar a densidade, apertar o parafuso (**C**).
Para aumentar a quantidade de créme, mas diminuir a densidade, desapertar o parafuso (**C**).





3. Regolazione granulometria - Granulometry Setting
Réglage granulométrie - Regler Mahlfeinheit
Regulación granulometría - Regulação da granulometria

I

Svitare le viti (**C**) e (**D**) e rimuovere il pannello superiore.
Svitare le viti (**E**) e rimuovere le staffe (**S**).
Ruotare in senso orario la ghiera graduata per stringere la macinatura (9 - 8 - ...); in senso antiorario per allargare la macinatura (9 - 10 - ...). Effettuare variazioni di 2/3 tacche al massimo alla volta.
Effettuata la regolazione, rimontare le staffe (**S**) nella posizione centrale (**H**); questa operazione permette di avere un campo di regolazione macinatura esterno, senza dover procedere allo smontaggio della carrozzeria.

GB

Unscrew the screws (**C**) and (**D**) and remove the top panel.
Unscrew the screws (**E**) and remove the brackets (**S**).
Turn the graded ring nut clockwise for a finer grind (9 - 8 - …).
Turn anti-clockwise for a coarser grind (9 - 10 - …).
When increasing/decreasing the texture of the grind, do not exceed 2-3 notches at a time.
Once the adjustment has been made, put the brackets (**S**) back into place in the middle position (**H**): this operation allows an external grind adjustment range without having to dismantle the machine body.

F

Dévisser les vis (**C**) et (**D**) et retirer le panneau supérieur.
Dévisser les vis(**E**) et retirer les gâches (**S**).
Tourner l'embout graduée dans le sens des aiguilles d'une montre, de manière à serrer le moulage (9-8,...);
Tourner dans le sens contraire des aiguilles d'une montre pour élargir le grain (9-10,...).
Effectuer des changements de 2/3 cransà la fois, au maximum.
Une fois le réglage effectué, remonter les gâches (**S**) dans la position centrale (**H**); cette opération permet d'avoir un champ de réglage extérieur de la mouture, sans devoir procéder au démontage au démontage de la carrosserie.

D

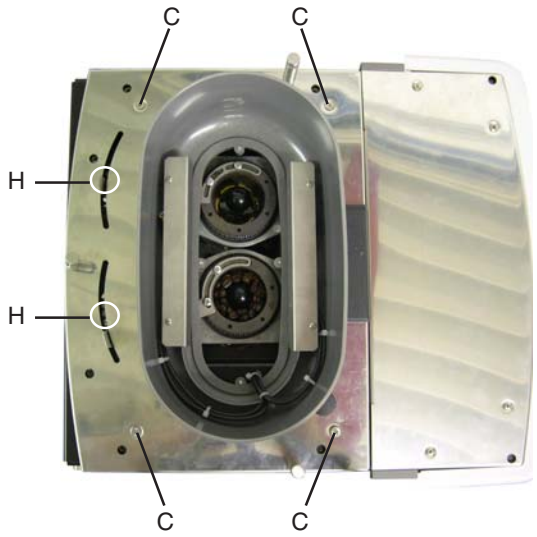
Die Schrauben (C) und (**D**) lösen und das obere Paneel abnehmen.
Anschließend die Schrauben (**E**) lösen und die Bügel (**S**) abnehmen
Drehen Sie den Gewindering zur Einstellung einer feineren Körnung im Uhrzeigersinn (9 - 8 - ...).
Drehen Sie den Gewindering zur Einstellung einer gröberen Körnung gegen den Uhrzeigersinn (9 - 10 - ...).
Nehmen Sie pro Einstellung keine Veränderungen vor, die um mehr als 2-3 Bezugsmarken hinausgehen.
Nach erfolgter Einstellung die Bügel (**S**) in der zentralen Position (**H**) abnehmen; über diesen Vorgang kann die Mahlfeinheit des externen Mahlwerks eingestellt werden. ohne daß eine Abnahme des Gehäuses erforderlich ist.

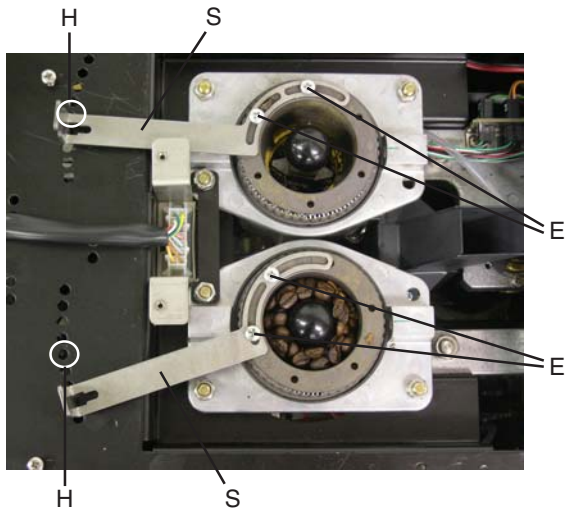
E

Destornillar lo tornillos (**C**) y (**D**) y quitar el panel superior.
Destornillar los tornillos (**E**) y quitar las abrazaderas (**S**).
Girar en sentido horario el casquillo graduado para apretar la molienda (9-8-...);
Girar en sentido contrario a las agujas del reloj para ensanchar la molienda (9-10-...).
Efectuar variaciones de 2/3 muescas como mucho cada vez.
Después de haber realizado la regulación, volver a montar las abrazaderas (**S**) en la posición central (**H**);
esta operación permite tener un campo de regulación de la molienda exterior, sin tener que desmontar la carrocería.

P

Afrouxar os parafusos (**C**) e (**D**) e remover o painel superior.
Afrouxar os parafusos (**E**) e remover os ganchos (**S**).
Rodear em sentido dos ponteiros do relógio através da virola graduada para apertar a moedura (9 - 8 - ...);
Rodear em sentido contrário aos ponteiros do relógio para alargar a moedura (9-10 ...).
Proceder a variações de 2/3 entalhes no máximo de cada vez.
Efectuar a regulação, remontar os ganchos (**S**) na posição central (**H**); esta operação permite obter um campo externo de regulação da moagem, sem dever-se proceder à desmontagem do revestimento exterior.





4. Regolazione contrasto display - Display contrast setting
Reglage du contraste du display - Einstellung des kontrasts der Display
Regulación del contraste del display - Reglage do contraste do display

I

REGOLAZIONE CONTRASTO DISPLAY
Agire sul trimmer (**A**) posto sulla scheda elettronica affinchè sul display si leggano i messaggi in modo chiaro.
Posizione Jumper 2 a seconda del colore display
Bianco: Jumper **J2** su pin 1 - 2
Verde: Jumper **J2** su pin 2 - 3

GB

DISPLAY CONTRAST SETTING
Adjust trimmer (**A**) located on the electronic card until the messages may be clearly read on the display.
Jumper 2 position according to the display color
White: **J2** jumper in 1 - 2 pin
Green: **J2** jumper in 2 - 3 pin

F

REGLAGE DU CONTRASTE DU DISPLAY
Agir sur le trimmer (**A**) plaçé sur la fiche électronique afin de pouvoir lire clairement les messages qui apparaissent sur le display.
Position du jumper 2 selon la couleur de l'écran
Blanc: Jumper **J2** dans pin 1 - 2
Vert: Jumper **J2** dans pin 2 - 3

D

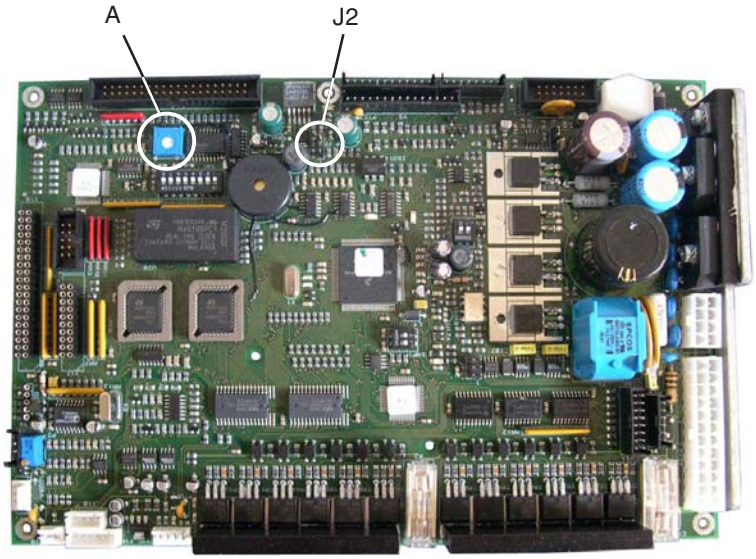
EINSTELLUNG DES KONTRASTS DER DISPLAY
Stellen Sie den auf der Elektronikkarte installierten Reger (**A**) so ein, daß die Meldungen auf der Anzeige in gutem Kontrast abgebildet werden und gut abgelesen werden können.
Position Jumper 2 entsprechend der Display Farbe
Weiß: Jumper **J2** in pin 1 - 2
Grün: Jumper **J2** in pin 2 - 3

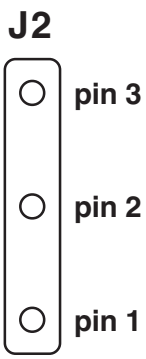
E

REGULACIÓN DEL CONTRASTE DEL DISPLAY
Utilizar el trimmer (**A**) situado en la tarjeta electrónica para que se lean los mensajes claramente en el visualizador.
Posición del jumper 2 según el color del display
Blanco: Jumper **J2** en pin 1 - 2
Verde: Jumper **J2** en pin 2 - 3

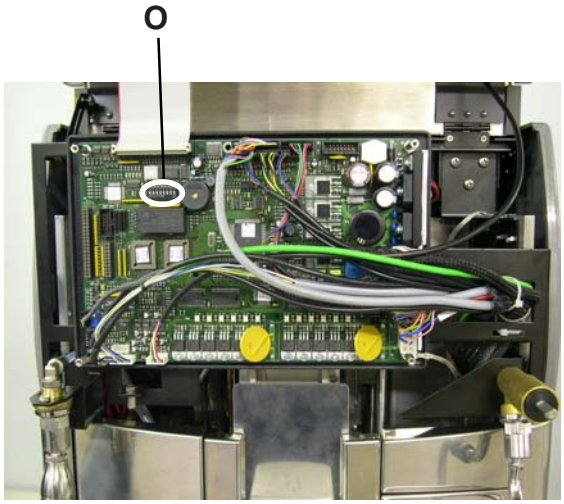
P

REGLAGE DO CONTRASTE DO DISPLAY
Utilizar o trimmer (**A**) colocado sobre a ficha electrónica para que sobre o mostrador se leiam as mensagens de modo claro.
Posição do jumper 2 de acordo com a cor do display
Branco: Jumper **J2** em pin 1 - 2
Verde: Jumper **J2** em pin 2 - 3





5. Dip-Switch CPU - CPU Dip-Switch
Dip-Switch CPU - Dip-Switch CPU
Dip-Switch-Schalter CPU - Dip-Switch CPU



I

Attenzione!
Il cambiamento di posizione dei Dip-Switch deve essere effettuato RIGOROSAMENTE a macchina SPENTA.
Nelle condizioni standard i Dip-Switch sono posizionati su OFF.
Agendo sui Dip-Switch (**O**) si attivano le seguenti funzioni:
- DIP 1 = OFF - ON inserimento dati standard (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulazione chiave tecnico
- DIP 4 = OFF - ON contabilità
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Al termine delle operazioni di inserimento dati standard, riportare il DIP 1 sulla posizione OFF.

GB

CAUTION!
When changing the position of the Dip-Switch, the machine MUST BE SWITCHED OFF.
Under standard conditions, the dip-switches are positioned on OFF.
The dip-switches (**O**) have the following functions:
- DIP 1 = OFF - ON Input of standard (*) data
- DIP 2 = OFF
- DIP 3 = OFF - ON Simulation of engineer's key
- DIP 4 = OFF - ON Bookkeeping
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Upon completion of the standard data input operations, position DIP 1 to OFF again.

F

Attention !
Le changement de position des Dip-Switch doit être RIGOUREUSEMENT effectué lorsque la machine est ETEINTE.
En phase de standard, les Dip-Switch sont plaçés sur OFF.
Utiliser les Dip-Switch (**O**) pour activer les fonctions suivante:
- DIP 1 = OFF - ON introduction informations standard (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulation clef technique
- DIP 4 = OFF - ON comptabilité
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) à la fin des opérations d'introduction des informations standard, remettre le DIP 1 sur la position OFF.

D

Achtung:
Die Verstellung der Dip-Switch-Schalter darf nur bei ABGESCHALTETER Maschine vorgenommen werden!
Bei normalen Betriebsbedingungen müssen die Dip-Switch-Schalter auf OFF gestellt sein. Nachstehend werden die Funktionen bei entsprechender Einstellung der Dip-Switch-Schalter (**O**) aufgeführt:
- DIP 1 = OFF - ON Eingabe Standarddaten (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON Simulation Monteurschlüssel
- DIP 4 = OFF - ON Buchführung
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Nach Abschluß der Eingabe der Standarddaten muß der Dip-Switch-Schalter 1 auf OFF zurückgestellt werden.

E

¡Atención!
El cambio de posición de los Dip-switch (O) se tiene que efectuar RIGUROSAMENTE con la máquina APAGADA.
En condiciones estándares los Dip-switch están colocados en OFF.
Por medio de los Dip-Switch (**O**) se activan las siguientes funciones:
- DIP 1 = OFF - ON introducción datos estándares (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulación llave técnico
- DIP 4 = OFF - ON contabilidad
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Al final de las operaciones de introducción datos estándares, restablecer el DIP 1 a la posición OFF.

P

Atenção!
A mudança de posição dos Dip-Switch deverá ser efectuada RIGOROSAMENTE com a máquina DESLIGADA.
Nas condições standard os Dip-Switch estão posicionados em OFF.
Actuando nos Dip-Switch (**O**) activam-se as funções a seguir indicadas:
- DIP 1 = OFF - ON introdução dados standard (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulação chave técnico
- DIP 4 = OFF - ON contabilidade
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) No fim das operações de introdução dos dados standard, recolocar o DIP 1 na posição OFF.

6. Termostato di sicurezza - Safety thermostat
Thermostat de sureté Sicherheitsthermostat
Thermostato de seguridad - Thermostato de segurança

I In caso di intervento del termostato, riarmare

GB In case of thermostat intervention, switch on again

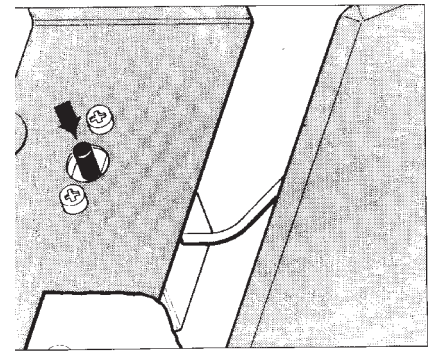
F En cas d'intervention du thermostat, brancher de nouveau

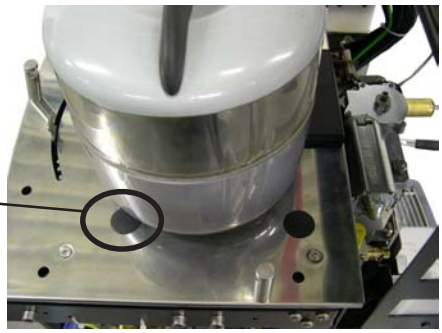
D Falls der Thermostat ausgelöst wird, ihn wiederienschalten

E En caso de intervención del thermostato, reencender de nuevo

P En caso de incarvenção do termostato, reacender de novo.

UBICAZIONE TERMOSTATO DI SICUREZZA
LOCATION OF THE SAFETY THERMOSTAT
EMPLACEMENT DU THERMOSAT DE SECURITE
POSITION DES SICHERHEITSTHERMOSTATS
UBICACIÓN TERMOSTATO DE SEGURIDAD
LOCALIZAÇÃO DO TERMÓSTATO DE SEGURANÇA





7.* Fusibili pompa - Pump fuses
Fusibles pompe - Sicherungen Pumpe
Fusibles bomba - Fusíveis da bomba

I *I fusibili pompa vengono applicati solo su alcune configurazioni di prodotti. Sono alloggiati sotto il basamento della macchina, nella posizione (**F**).

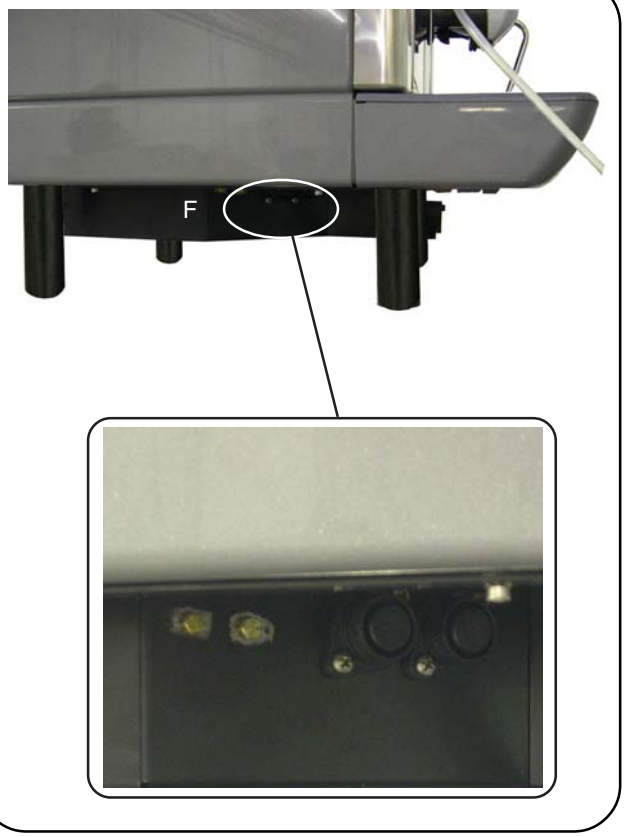
GB * Pump fuses are applied only in some product configurations. They are housed beneath the machine base, in position (**F**).

F * Les fusibles de pompe sont appliqués seulement sur certaines configurations de produits. Ils sont logés sous l'embase de la machine dans la position (**F**).

D * Die Sicherungen der Pumpe werden nur in bestimmten Gerätekonfigurationen eingesetzt. Sie sind unter dem Unterteil der Maschine an der Stelle (**F**) untergebracht.

E * Los fusibles de la bomba se instalan sólo en algunas configuraciones de productos.
Están colocados debajo de la base de la máquina, en la posición (**F**).

P * Os fusíveis bomba são aplicados só em algumas configurações dos produtos. São aplicados por baixo da base da máquina, na posição (**F**).



8. Cambio della tensione di alimentazione del trasformatore - Changing the voltage of the transformer Changement de la tension d'alimentation du transformateur - Änderung der transformator-speisespannung Cambio de tension de alimentacion del transformador - Madunça de tensão de alimentação do transformador

I

Per accedere al cambia tensione di alimentazione, occore svitare le due viti (**T**) poste sul retro della macchina.
Il connettore (**C**) può essere inserito in combinazione con:

cavo bianco:	200V
cavo nero:	220V
cavo blu:	240V

GB

To access the voltage selectors switch, unscrew the two screws (**T**) on the back of the machine.
The connector (**C**) can be inserted in combination with:

white wire:	200V
black wire:	220V
blue wire:	240V

F

Pour accéder au changement de tension d'alimentation, il faut dévisser les deux vis (**T**) placés à l'arrière de la machine.
Le connecteur (**C**) peut être introduit avec:

câble blanc:	200V
câble noir:	220V
câble bleu:	240V

D

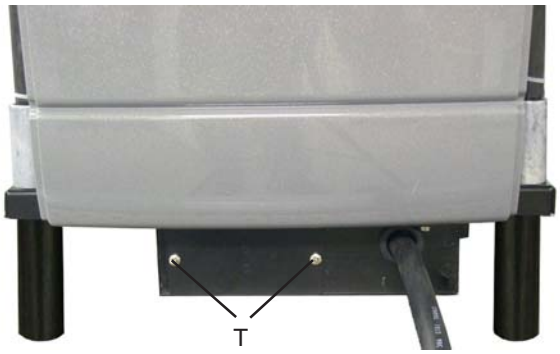
Zur Änderung der Netzspannung müssen die beiden auf der Rückseite des Geräts befindlichen Schrauben (**T**) gelöst werden.
Der Steckverbinder (**C**) kann in folgenden Kombinationen eingesetzt werden:

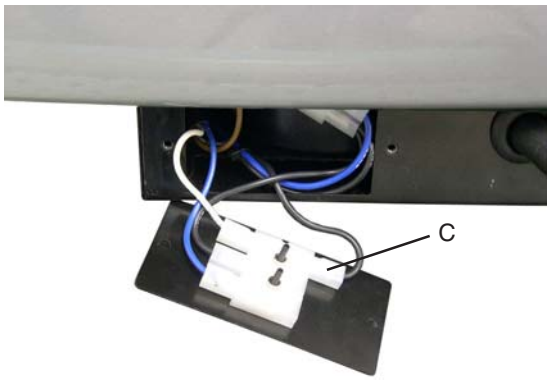
am weißem Leiter:	200V
am schwarzen Leiter:	220V
am blauen Leiter:	240V

E

Para acceder al conmutador de tensión de la alimentación hay que destornillar los dos tornillos (**T**) colocados en la parte posterior de la máquina.
El conector (**C**) se puede instalar en combinación con:

cable blanco:	200V
cable negro:	220V
cable azul:	240V





P

Para proceder à mudança de tensão de alimentação, é necessário afrouxar os dois parafusos (**T**) situados na traseira da máquina.
O conector (**C**) pode ser inserido em combinação com:

cabo branco:	200V
cabo preto:	220V
cabo azul:	240V

9. Ugello erogazione caffè - Coffee distribution nozzle Gicleur distribution café - Kaffeeabgabe Düse Inyector distribución café - Injector distribuição café

I

CAFFÈ "ESPRESSO ITALIANO"
Al fine di ottenere un erogazione caffè tipo "Espresso Italiano", sostituire l'ugello **(A)** da 1,5 montato, con quello da 1,0 in dotazione.

GB

"ESPRESSO ITALIANO" COFFEE
To obtain a distribution of coffee "Espresso Italiano" type, substitute the mounted 1,5 (**A**) with the 1,0 nozzle supplied.

F

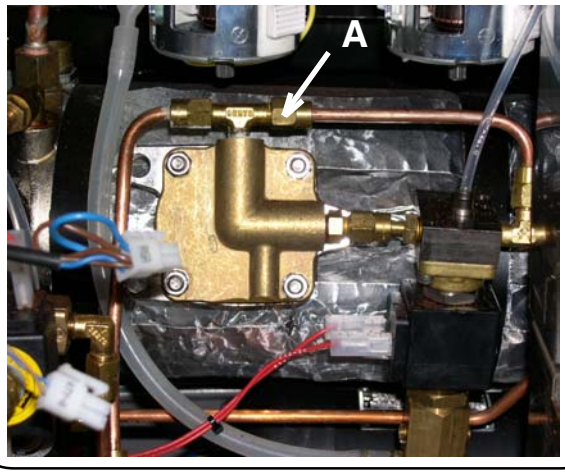
CAFÉ "ESPRESSO ITALIANO"
Pour obtenir une distribution de café type "Espresso Italiano", remplacer la tuyère (**A**) de 1,5 montée avec celle de 1,0 prévue à cet effet.

D

KAFFEE "ESPRESSO ITALIANO"
Zur zubereitung eines echte "Espresso Italiano", muß die auf dem Gerät installierte Düse 1,5 (A) gegen die mit dem Gerät mitgelieferte Düse 1,0 ausgetauscht werden.

E

CAFÉ "ESPRESSO ITALIANO"
Para obtener una distribución del café tipo "Espresso Italiano", sustituya la boquilla (**A**) de 1,5 montada por la de 1,0 que se suministra en el equipamiento



P

CAFÉ "ESPRESSO ITALIANO"
Para obter uma distribuição de café do tipo "Espresso Italiano", substituir o injector (**A**) de 1,5 montado, por o de 1,0 em dotação.