

# LAVAZZA

TORINO, ITALIA, 1895

# Magystra

THE EXPERTISE OF COFFEE SHOP,  
THE PLEASURE OF CHOICE.



## INSTALLATION AND MAINTENANCE MANUAL

READ THE INSTRUCTIONS  
CAREFULLY



BEST LAVAZZA ULTIMATE ESPRESSO

LB 2600 INT  
LB 2600 MENA  
LB 2600 AUS

[lavazza.com](http://lavazza.com)



**⚠ Purpose of appliance:**

This device is intended for use in **professional** and similar applications such as:

- staff kitchen areas in shops, offices and other working environments;
- farm houses;
- by clients in hotels, motels and other residential type environments;
- bed and breakfast type environments.

Any improper use, not provided for by these instructions, is strictly forbidden. Likewise, no technical modification must be made. The machine may not be used by children under 8 years of age or persons with physical, sensory or mental impairment, or lacking the necessary experience, unless supervised or after being instructed in the safe use of the machine and understanding the potential dangers. Do not let children play with the machine. Keep the machine and its mains lead out of the reach of children under 8 years of age.

The necessary cleaning and maintenance must not be carried out by children if not under direct supervision.

**⚠ Installation site:**

Place the coffee machine in a safe place, where nobody may overturn it or be injured by it. Do not keep the machine at a temperature below 5°C (41°F) as freezing may damage it. Do not use the coffee machine outdoors. Do not place the machine on very hot surfaces or close to flames. Use the machine at room temperature.

**⚠ Power Supply:**

Only connect the coffee machine to a suitable socket. The voltage must correspond to that indicated on the machine's label.

**⚡ Power Cord:**

Do not use the coffee machine if the power cord is defective. Should the power cord be damaged, have it replaced by the manufacturer or the relevant service centre or in any case by a similar skilled person in order to avoid any hazard. Do not pass the power cord around corners, over sharp edges or over hot objects and keep it away from oil. Do not use the power cord to carry or pull the coffee machine. Do not pull out the plug by pulling on the power cord or touch it with wet hands. Do not let the power cord hang freely from tables or shelves.

**⚡ Danger of electric shocks:**

Never allow the live parts and/or the parts where current flows to come into contact with water. Do not immerse the machine in water. Make sure your hands, the machine, the cable and the contact surface of the machine are not wet.

**⚠ Protection for Other People:**

Prevent children from playing with the machine. Children are not aware of the risks related to electric household appliances. Do not leave the machine packaging materials within the reach of children.

**🔥 Danger of Burns:**

Do not touch the hot parts (capsule-holder, etc.) just after using the machine. Be careful of hot liquid spurting while the coffee is issuing from the spout.

 **Cleaning:**

Before cleaning, unplug the machine and let it cool down. Do not immerse the machine in water! It is strictly forbidden to tamper with the internal parts of the machine. Change the water in the tank if not used for 3 days. To prevent damage to the appliance do not use alkaline cleaning agents when cleaning, use a soft cloth and a mild detergent.

 **Storing the Machine:**

If the machine is to remain inactive for a long time, unplug it and store it in a dry place out of reach of any children. Keep it protected from dust and dirt.

 **Servicing / Maintenance:**

In case of failure, problems or a suspected fault resulting from the falling of the machine, immediately remove the plug from the socket. Do not attempt to operate a faulty machine. Servicing and repairs may only be carried out by authorized service centers. All liability for damages resulting from work not carried out by professionals is declined.

 **Water tank:**

Fill the tank only with fresh, non-sparkling, drinking water. Do not operate the machine if there is not enough water in the tank.

 **Pod compartment:**

Put only compatible capsules in the capsule compartment; do not put your fingers or any other object inside the compartment. Pods shall be used once only.

 **Using the dispensers of hot drinks in open canisters:**

(e.g. plastic cups, pottery cups, jugs).

The dispensers of drinks in open canisters may be only used for selling and dispensing drinks obtained by:

- brewing of products such as coffee and tea,
- reconstituting instant or freeze-dry packed products;

These products shall be declared as “suitable for automatic dispensing” in open canisters by the manufacturer. Dispensed products shall be consumed immediately. Under no circumstance shall they be preserved and/or packed for later consumption. Any other use shall be considered as improper and thus potentially dangerous.

 **Machine disposal at the end of its operational life:**

**INFORMATION FOR THE USER:** the symbol of the crossed-out wheeled bin on the appliance or its packaging indicates that the product must be disposed of separately from other waste at the end of its operational life.

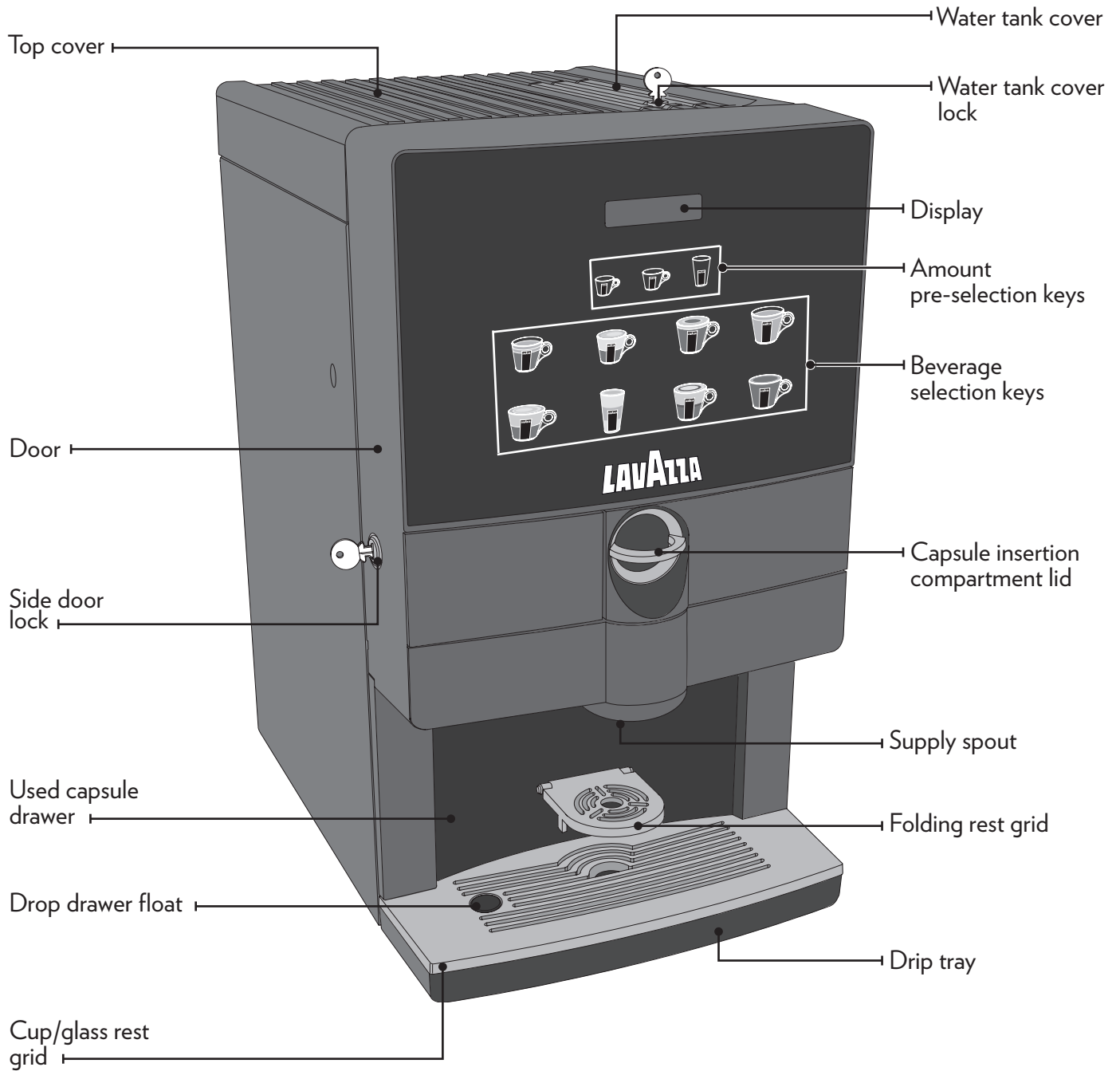
The user must therefore take the appliance to be disposed of to an appropriate separate collection centre for electrical and electronic equipment.

Appropriate separate collection for the dismantled appliance being subsequently sent out for recycling, treatment and for environmentally friendly disposal, contribute to the prevention of possible negative effects on the environment and on human health, and encourage recycling of the materials the appliance is made of.

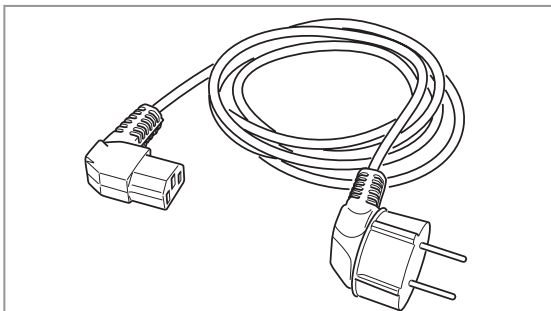
Specific administrative sanctions provided for by current regulations will be applied for illicit disposal of the product by the user.

<b>SAFETY</b> .....	<b>3</b>
<b>EXTERNAL COMPONENTS</b> .....	<b>7</b>
<b>GENERAL INFORMATION</b> .....	<b>8</b>
IDENTIFICATION OF THE MACHINE AND ITS FEATURES .....	8
TECHNICAL FEATURES .....	8
SALES PRICES .....	8
POSSIBLE ADJUSTMENTS.....	8
APPROVALS .....	8
SAFETY .....	8
ELECTRIC ENERGY CONSUMPTION .....	8
TRANSPORT AND STORAGE.....	8
<b>INSTALLATION</b> .....	<b>9</b>
UNPACKING THE VENDING MACHINE.....	9
POSITIONING MACHINE.....	9
ELECTRIC CONNECTION.....	10
<b>INTERNAL COMPONENTS</b> .....	<b>11</b>
CAPACITY OF CANISTERS.....	11
<b>MACHINE COMPONENTS</b> .....	<b>12</b>
DISPLAY .....	12
SELECTION KEYBOARD .....	12
DOOR LOCK .....	12
DOOR SWITCH .....	12
FLAP FOR CAPSULES .....	12
DISPENSER .....	12
WATER FLAP .....	12
WATER TANK.....	12
CAPSULE GROUP.....	12
MIXING BOWLS .....	13
NOZZLES HOLDER .....	13
POWDER ASPIRATOR.....	13
AIR ASPIRATOR.....	13
FUSES .....	13
MIXER MOTORS .....	14
VOLUMETRIC COUNTER .....	14
PRODUCT MOTORS.....	14
PUMP .....	14
THERMOBLOCK.....	14
<b>PREPARING THE MACHINE</b> .....	<b>15</b>
FIRST POWER-ON .....	15
SANITISING MIXERS AND FOOD CIRCUITS FOR THE FIRST TIME .....	16
PRODUCT LOADING .....	17
PRODUCT CANISTERS.....	17
<b>PROGRAMMING</b> .....	<b>18</b>
SOFTWARE.....	18
PROGRAMMING MODE .....	18
PROGRAMMING MENU .....	18
PROGRAMMING KEY .....	19
PROGRAMMING KEY LM .....	20
REGULATE THE SPEED OF MIXERS .....	21
TIME TESTS .....	21
PROGRAMMING PRICES.....	21
PROGRAMMING COINS .....	21
PROGRAMMING TEMPERATURE.....	21
PROGRAMMING MISCELLANEOUS .....	22

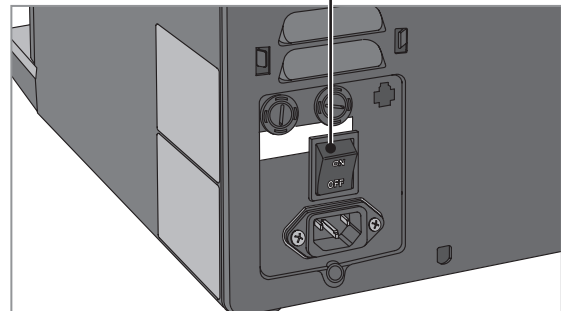
DETERMINE THE SUCTION FAN TIME .....	23
SOFTWARE UPDATE.....	24
DIAGNOSTICS.....	24
SALES AUDIT DATA.....	24
MDB .....	24
PROGRAMMING CLOCK .....	25
REGISTRATION OUT OF SERVICE.....	25
PRODUCT DECOUNTER.....	26
PROGRAMMING MAINTENANCE.....	26
PROGRAMMING GRAMS - SECONDS .....	27
DATA.....	27
CONFIGURATION .....	27
DETERMINE WATER AND PRODUCT .....	27
TIMES .....	27
PROGRAMME DELAYS.....	27
<b>PARAMETERS .....</b>	<b>29</b>
LM SELECTION.....	30
<b>MAINTENANCE AND CLEANING.....</b>	<b>32</b>
CLEANING OF DRIP TRAY/USED CAPSULES DRAWER.....	32
DISPENSING SYSTEM.....	33
PRODUCT CANISTERS.....	34
CAPSULE GROUP.....	36
ACCESS TO THE REAR.....	36
SILICONE TUBES .....	36
CLEANING INNER SIDE OF THE MACHINE .....	37
CLEANING EXTERNAL BODY.....	37
OUT OF ORDER.....	37
<b>SOLUTION OF PROBLEMS .....</b>	<b>38</b>
<b>ELECTRONIC COMPONENTS .....</b>	<b>39</b>
CPU BOARD.....	39
DISPLAY BOARD.....	39
MODEM.....	39
RFID.....	39
<b>HYDRAULIC DIAGRAM .....</b>	<b>40</b>
<b>ELECTRICAL PLAN.....</b>	<b>41</b>
<b>ELECTRICAL PLAN CPU / DISPLAY .....</b>	<b>42</b>



Power supply cable\*



General switch



(\*) The characteristics of the power cord may vary according to the reference market.

Before starting to install and use the machine, it is necessary to carefully read and understand the content of the documentation since it can supply important information on installation safety, utilisation rules and maintenance operations.

## IDENTIFICATION OF THE MACHINE AND ITS FEATURES

Each device is identified by a specific serial number, indicated on the data plate located on the right side. The plate is the only one recognised by the manufacturer and it contains all the data that enable the manufacturer to supply technical information of any kind in a quick and safe manner and to facilitate the management of spare parts.

## TECHNICAL FEATURES

- Height: 560 mm
- Height: (with upper panel up: 835 mm)
- Width: 310 mm
- Depth: 420 mm
- Depth (with open door: 630 mm)
- Weight: 21 Kg
- Power supply voltage: 220-240 V
- Power supply frequency: 50 Hz
- Installed power: 1300 W
- Pressure level: > 70 dB

## SALES PRICES

For each selection a different programmable price can be set. The standard setting has the sales price equal to zero for all selections.

## POSSIBLE ADJUSTMENTS

**Espresso:** water dose

**Instant:** time-based instant and water doses.

**Temperature:** adjustable of firmware.

## APPROVALS

- water presence;
- capsule presence;
- brew unit position;
- liquid waste empty;
- operation temperature reached;
- count of the number of used capsules.

## SAFETY

- Energy
  - main switch 230 V ac
  - door switch 230 V ac
  - two fuses 6,3x32 mm 12 A time-delay
- Heat
  - manually resettable sensors 127° C
  - vibration pump with thermal cut out 110° C
- Software
  - time limits for water dispensing cycles

## ELECTRIC ENERGY CONSUMPTION

The electric energy consumption of the machine will depend upon many factors such as the temperature and ventilation of the room where the machine is installed, the inlet water temperature, the boiler temperature, etc...

## TRANSPORT AND STORAGE

**!** To avoid damaging the machine, loading and unloading operations shall be performed with great care. It is possible to lift the machine by means of a motor-driven or manual lift truck by positioning the forks beneath the machine. Please avoid:

- overturning the machine ;
- dragging the machine by means of ropes or alike;
- lifting the machine by its sides;
- lifting the machine by means of slings or ropes;
- shaking or impacting the machine and its package.

For storage it is necessary to keep the room dry at a temperature between 5 and 35 °C. With the original package never stack more than 2 machines and never forget to keep the vertical position specified by the arrows on the package.

**!** The transport and handling of the machine should always be carried by two operators.



## UNPACKING THE VENDING MACHINE

- !** The operations described here below must be carried out only by the personnel who have a specific knowledge of the machine operation from the point of view of electric safety and health rules.

After having unpacked the machine, make sure that the equipment and the capsule canister are intact. In case of doubt never use the equipment.

- !** No packing material (plastic bags, foam polystyrene, nails, etc.) should be left within the reach of children since they are potential sources of danger.

Packing materials shall be disposed of in authorised dump sites and recyclable ones collected by specialised companies.

## POSITIONING MACHINE

- !** Installation and any subsequent maintenance operation must be carried out when the machine is live and, therefore, by the personnel skilled and trained on the use of the machine as well as aware of the specific risks such a condition may involve.

The machine is not suitable for installation outdoors. It must be installed in a dry room at a temperature ranging from 5°C to 35°C. It can not be installed in a room where water jets are used for cleaning (e.g. large kitchens, etc...).

The machine can be installed near a wall, but in such a way that the back is min. 4 cm. far from the wall in order to provide for regular ventilation. It shall never be covered with pieces of cloth or alike.

The machine must be arranged in such a way that the maximum inclination will not exceed 2°. The machine is accessed at the back in case of extraordinary maintenance and/or repair. As a consequence, it shall be possible to rotate the machine around itself in order to disassemble the back.

The machine can be arranged on a table or any other proper support (recommended height 80 cm). It is recommended to arrange an easily cleanable impermeable protection beneath the vending machine to collect any accidental product fall.

When the machine is in its final working position:

- 1** Cut the clamp securing the door key to the drip tray grilled cover.
- 2** Insert the door key into the lock.
- 3** Rotate it and open the door.
- 4** Remove the envelope of documents and labels.
- 5** Take the power supply cable.
- 6** Lift the machine cover and remove the guards intended to fasten product containers for transport.

## ELECTRIC CONNECTION

**!** It is absolutely necessary to use a main switch in compliance with the installation rules in force, placed in an accessible position. It shall be featured in such a way that it can support the maximum load required as well as ensure complete disconnection from the mains on the conditions of overvoltage category III and, therefore, the protection of circuits against earth faults, overloads and short-circuits.

The switch, the power socket and the corresponding plug shall be located in an accessible position. The electrical safety of the machine is only ensured when the machine is correctly and efficiently grounded according to the safety standards in force.

**!** It is necessary to check this fundamental safety requirement and, in case of doubt, to require professionally qualified personnel to check the installation carefully.

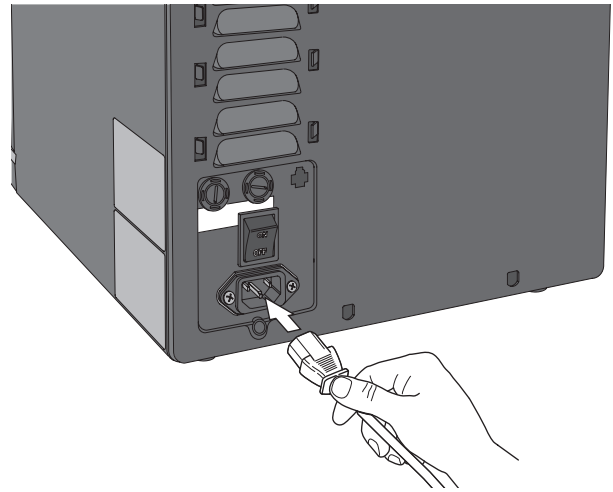
**i** It is recommended to install a differential current device operating below 30 mA, detaching the machine from the mains and promptly tripping in case of improper electric input in order to considerably reduce the risks arising out of any short-circuit.

The power cable is flexible type and is separated from the machine. If necessary, the connection cable shall be replaced by qualified personnel by using only cables of the H05 RN - F or HO5 V V-F or H07 RN-F type, 3x1-1.5 mm<sup>2</sup> in cross-section.

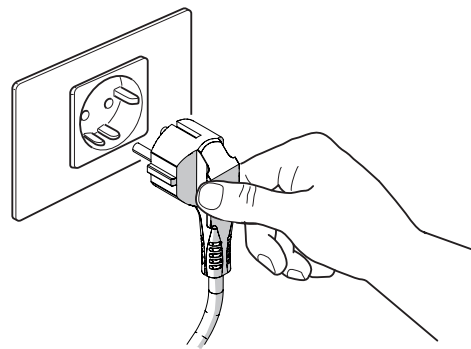
**!** It is forbidden to use adapters, multiple sockets and/or extensions.

The manufacturer disclaims all responsibility for any damage caused by the non-observance of the precautions mentioned above.

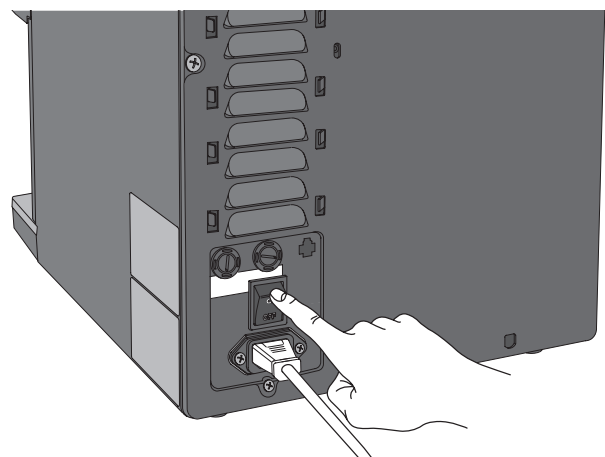
- 1 Plug the power cord into the socket at the back of the machine.



- 2 Plug the cord into the mains socket.



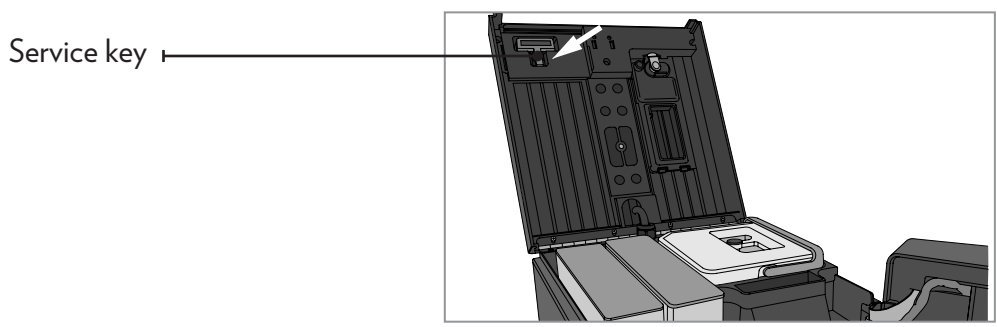
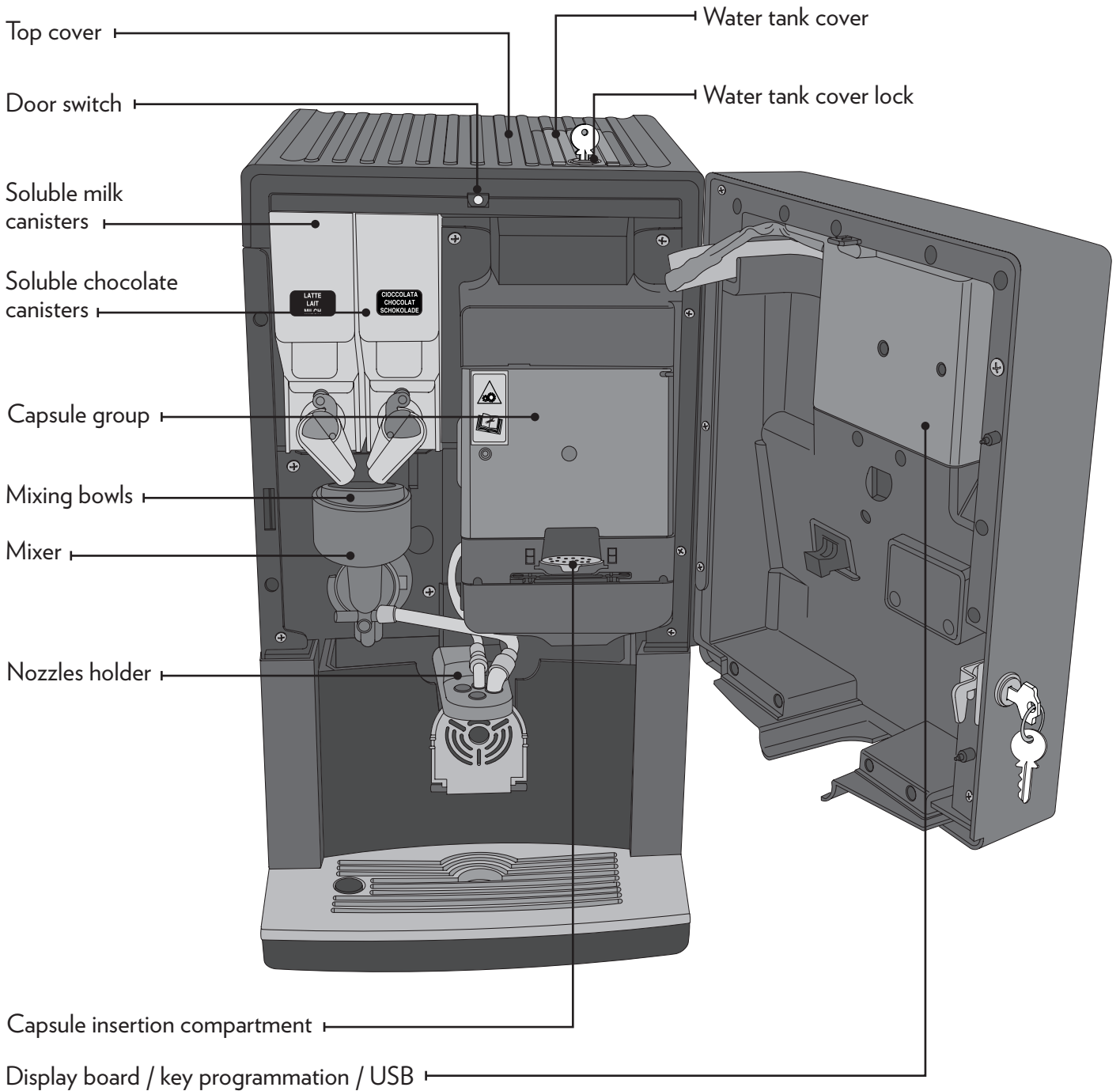
- 3 Press the main switch and put it in position [ON]. The display will show the machine is turned on.



**⚠ All the operations requiring the machine to be directly connected to a source of electricity when the door is open must be **ONLY** carried out by the personnel qualified and informed on the specific risks involved.**

## CAPACITY OF CANISTERS

Instant milk:	Kg	0.8
Instant chocolate	Kg	0.8
Used capsules drawer:	Pz	25
Drip tray:	ml	300
Water tank:	Lt	3,6

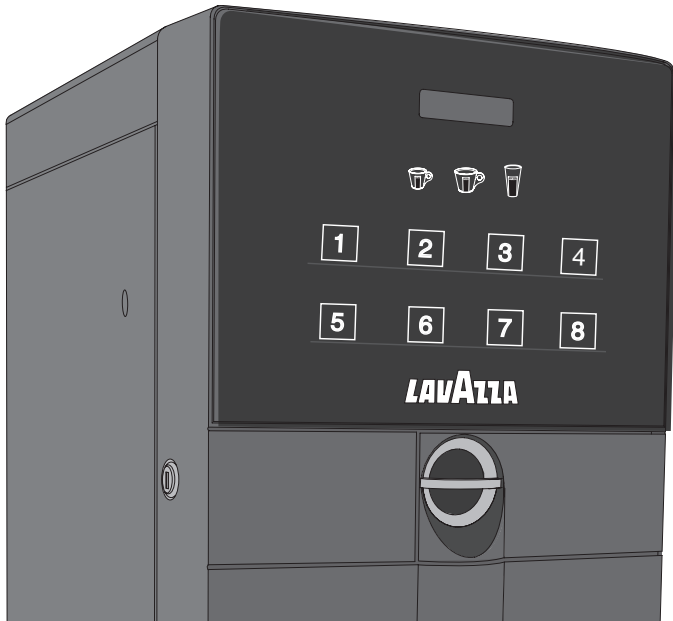


## DISPLAY

The display messages inform users and operators about the operation state of the vending machine.

## SELECTION KEYBOARD

In programming mode, the keys assume different functions and enable the operator to modify the machine parameters. Keys are progressively numbered from the left to the right.



## DOOR LOCK

The door is closed by means of a lock. The key is mapped and numbered for identification.

## DOOR SWITCH

To open the door unlock the side lock with the key. Whenever you open the door, a special switch will power off the electric installation of the equipment. To power the system with the door open, simply use the special service key. The key is located in a proper housing of the top cover.

**!** When the door is open, you are not allowed to access any live part.

Only the parts protected by covers and signalled by the label “power off before removing the cover” remain live inside the machine.

Before removing these covers, detach the power supply cable from the mains.

Before closing the doors be sure to have removed the service key, if any.

## FLAP FOR CAPSULES

Arranged on the front panel of the vending machine; it opens as a swing door to the right and houses the coffee capsule that must be inserted in the correct direction. While entering the capsule unit, the new capsule pushes the capsule that has been inserted into the exhausted capsule canister before.

## DISPENSER

The LB 2600 vending machine has a fixed drink dispenser on the cup support surface and a flap support for small cups. The dispensing compartment, in stand-by, is lit up by a led turning off during the dispensing cycle and turning on again as soon as the drink can be taken.

## WATER FLAP

A lid, positioned on the top cover of the dispenser, gives access to the internal water tank to allow filling. A lock is available that prevents filling to unauthorized persons.

## WATER TANK

The internal water tank is intended to supply the vending machine and it can be filled through a flap in the cover of the vending machine, locked so as to prevent unauthorised people from filling or by opening the cover of the vending machine and extracting it upwards by means of the handle. A capacitive sensor checking the water level in the tank is arranged in the vending machine. When the water level is not enough, a warning message appears on the display and any dispensing cycle is inhibited until the water level is restored. A red floater indicates the maximum filling level of the tank.

## CAPSULE GROUP

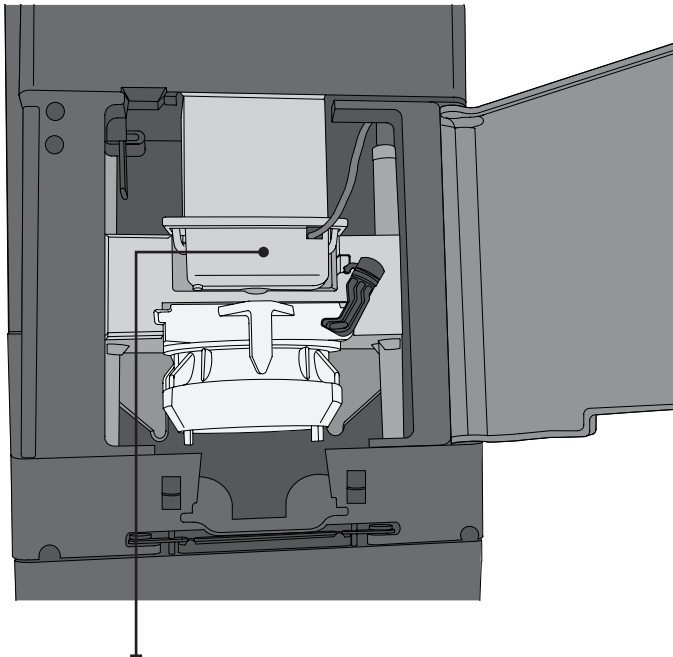
In the capsule unit, after having inserted the capsule in the correct position, having closed the lid and having selected the required beverage, infusion takes place with the water coming from the heating element. The spent capsule is conveyed to the spent capsule drawer when a new capsule is inserted for next supply.

**!** Never insert your fingers or any object into the capsule compartment.

Only capsules compatible ones must be inserted into the capsule compartment.

Insert one capsule at a time.

The microswitches inserted into the capsule flap are used to: detect the capsule passage in the unit, detect the correct closure of the flap and enable the capsule unit to carry out the dispensing cycle.



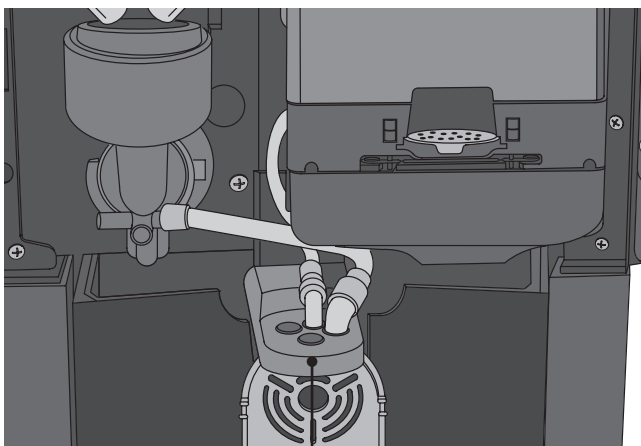
Capsule group

## MIXING BOWLS

The mixing bowls of the mixer will accommodate the instant products you have poured to mix them with water. The fan of mixer motor will act at the bottom and the drink outflow to the dispenser occurs by means of a silicone tube. Mixing bowls and outlet tubes can be washed with lukewarm running water.

## NOZZLES HOLDER

A fixed support on the cup station is intended to house the dispensers from the coffee group and the mixer bowl. Press the release lever and put the support toward to clean or to remove the nozzles holder.



Nozzles holder

## POWDER ASPIRATOR

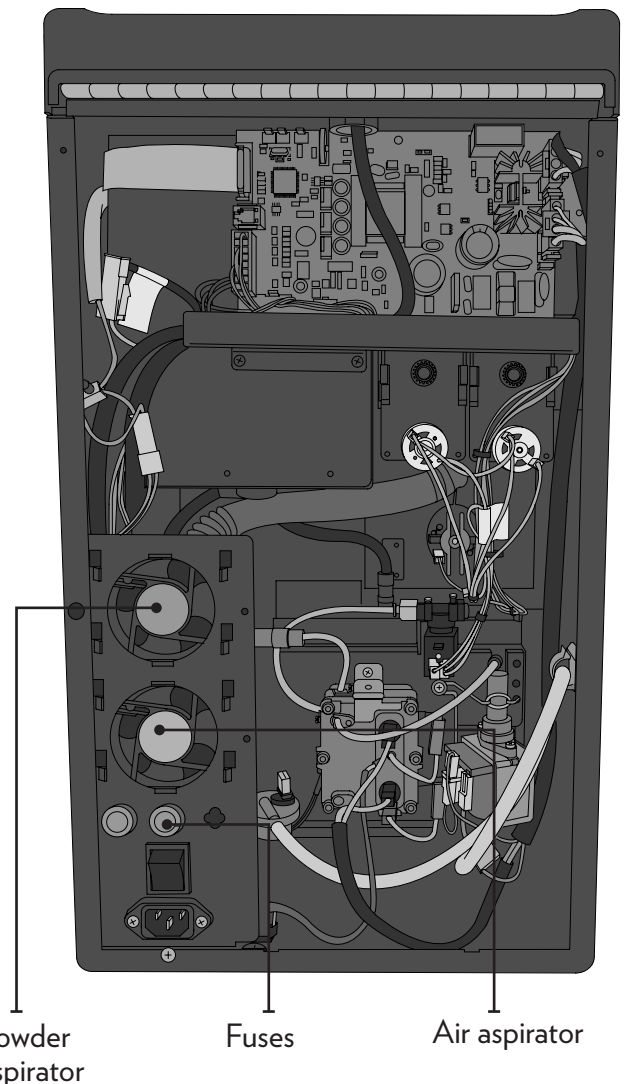
An aspirator will eject suspended product residuals from the vending machine. The aspirator is connected with a drawer beneath product slides to intercept the residual impalpable powder coming from selections. The action time of the aspirator is programmable by means of a software parameter. Aspirated air is ejected through the slots of the rear panel.

## AIR ASPIRATOR

It provides to intake air from the inside of the machine so as to avoid the formation of condensation and decreases the moisture level by a constant recirculation. Intake air is expelled through the rear panel slots.

## FUSES

Installed on the mains power supply to protect the machine. Fuses must be necessarily replaced by specialised technical personnel only.



Powder aspirator

Fuses

Air aspirator

## MIXER MOTORS

The motors of mixers help you mix instant products with water by means of the rotation of the fan mounted on their axis; the rotation speed can be adjusted to the features of the various products.

## VOLUMETRIC COUNTER

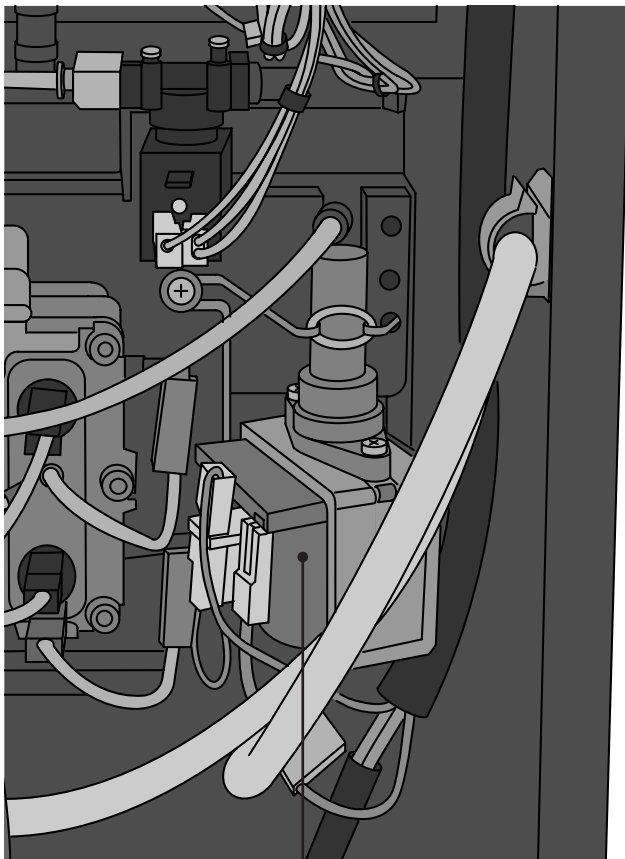
It supplies the CPU the water quantity running through the coffee brewer to establish its volume. The water quantity of instant selections is established by the time set in the “water N” parameter only.

## PRODUCT MOTORS

They are intended to rotate the worm screws inside instant product canisters to pour the product quantity necessary for selection in the mixing bowls.

## PUMP

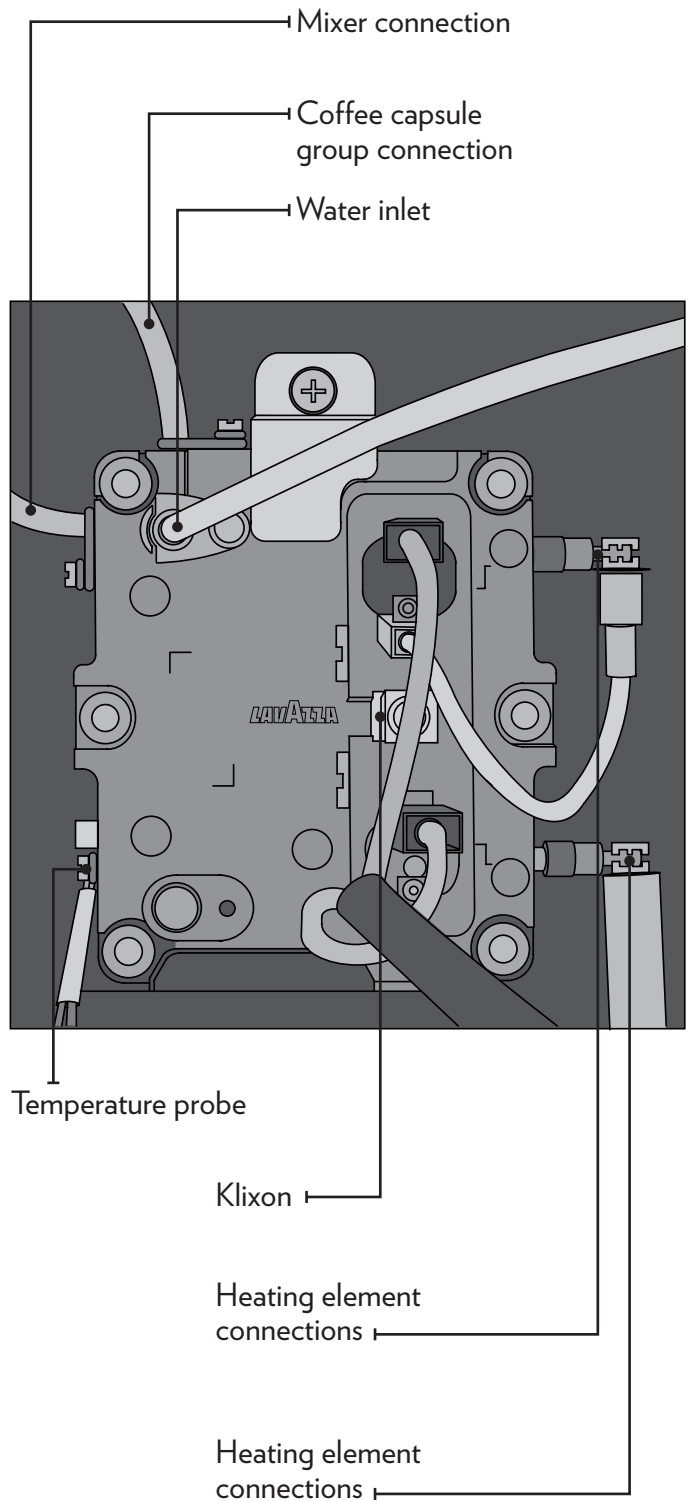
A vibrating pump send water inside the thermoblock.



Pump

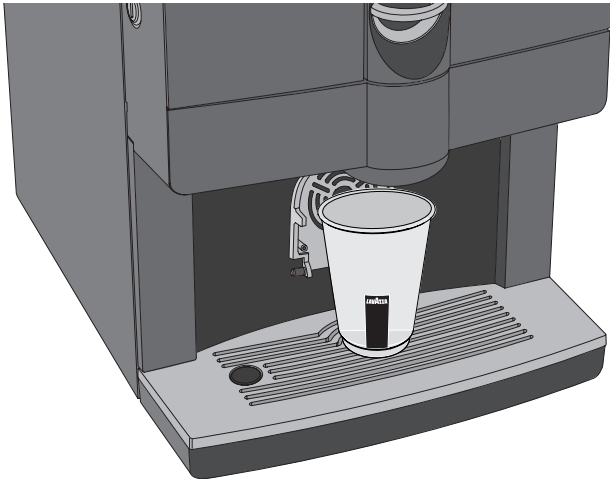
## THERMOBLOCK

**!** It's not allowed the disassembly of the thermoblock. these components may be very hot even if the machine is off.



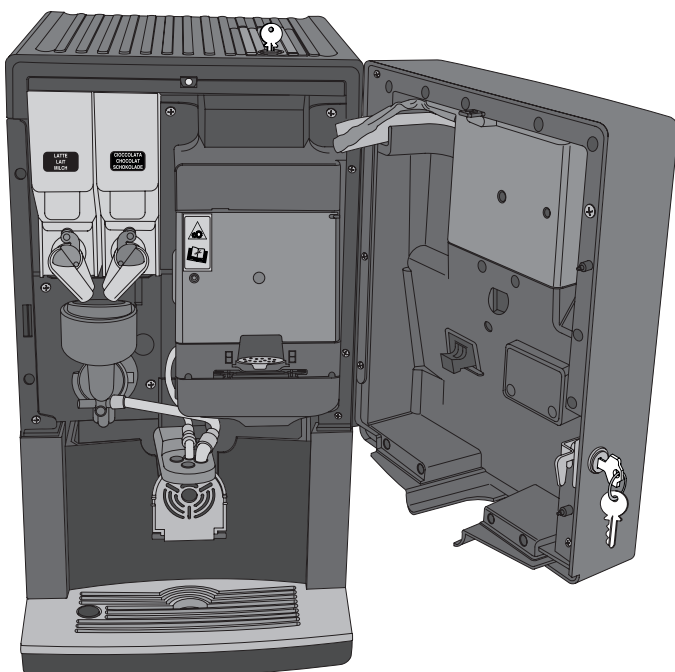
## FIRST POWER-ON

- 1 Press the main switch and put it in position [ON]. The display will show the machine is turned on.
- 2 Arrange a cup beneath the nozzles.



- 3 Open the dispenser door by unlocking the lock with the proper key.

Whenever you open the door, a special switch will power off the electric installation of the equipment.



- 4 Fit the service key into the door switch to power the system.

**!** The vending machine is supplied and running to all effects. The mobile parts of the coffee group will be handled; act extremely carefully.

The start-up test messages appear on the display in a sequence:

LB2600 REV.1.17  
04-03-2016

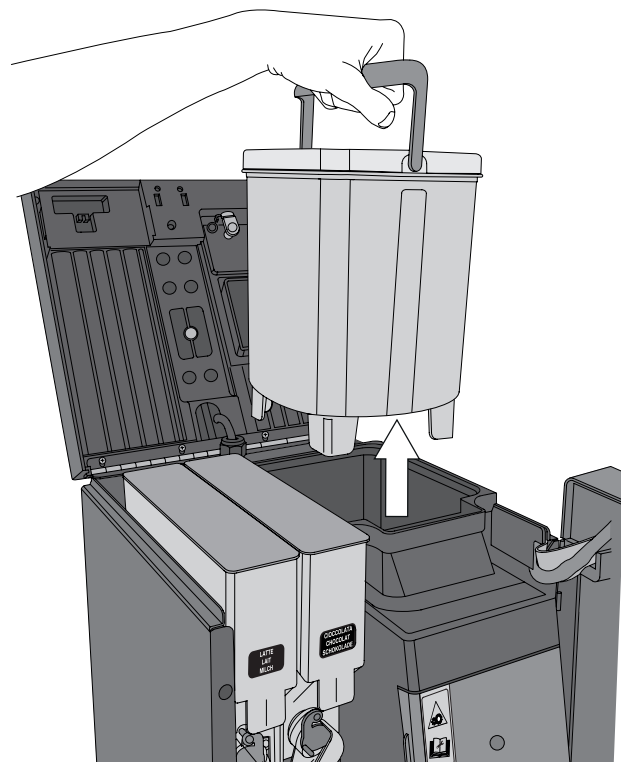
TEST

LAVAZZA  
TEST

CHECK COFFEE  
BREWER

REFILL  
WATER

- 5 Lift the top cover and remove the water tank upwards, using the proper handle.



- 6 Rinse the tank before use. Fill the water tank using only non carbonated fresh drinking water.

**!** A red float inside the tank indicates the maximum filling level.

- i** Using a water softener filter (optional accessory) improves water quality and prolongs the life of the device. To insert the filter follow the instructions sheet attached to it. Read carefully the filter instructions sheet and observe the replacement instructions.

- 7** At the end of assembly and final testing, the water used for testing is discharged from the machine. At the first power-on, all circuits must be filled in before any other action, the vending machine will load water from the inner tank.
- 8** The vending machine executes a diagnostic cycle for loading water and rinsing. During this phase, the display shows.

INSTALLATION

END INSTALLATION

- 9** Wait for water to come out of the dispensing nozzles for some seconds. The flow will automatically stop.

- !** Ca. 120 cc. of hot water will be dispensed.

- 10** The water heating phase starts in the thermoblock, whose temperature shall reach the pre-set value.

PLEASE WAIT...  
TEMPERATURE

- 11** Now the vending machine is ready to dispense on a free basis and the display will alternatively show some stand-by messages.

LAVAZZA

TAKE A RELAX  
MOMENT

## SANITISING MIXERS AND FOOD CIRCUITS FOR THE FIRST TIME

As soon as you install the machine, carefully disinfect the mixers, the tubes intended to dispense instant drinks and the internal tank in order to guarantee the hygiene of dispensed products.

- !** It is absolutely forbidden to use water jets for cleaning.

- 1** Open the front door on the back of the dispenser door, to access the display board.
- 2** Press the programming button:

1= PROG      2= DATA  
3= CLEANING

- 3** Press "3" to enable the wash cycles of the water circuit.

CLEANING  
BUTTON 1

- 4** Press key "1" to dispense water through the instant bowl. Repeat the operation some times to rinse completely; during the wash cycle the display shows:

CLEANING 1  
IN PROGRESS

- !** Ca. 50 cc. water will be dispensed for each wash cycles.

- 5** At the end of the wash cycle, the display shows:

CLEANING  
BUTTON 1



## PRODUCT LOADING

**!** Before loading products make sure that they have been preserved according to the producer's instructions for storage, preservation temperature and pull date.

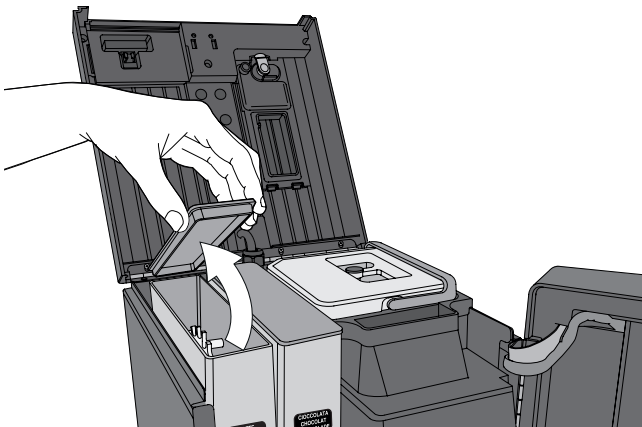
Load the products by observing the information supplied here below. Products may even be loaded if canisters are partially full.

## PRODUCT CANISTERS

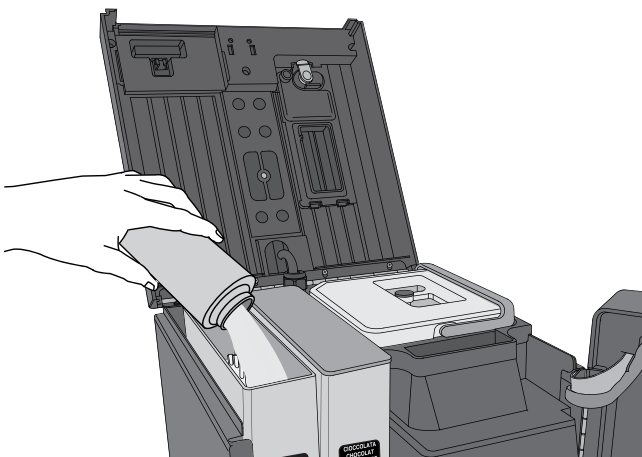
Instant product canisters dispense their content in the underlying mixing bowls. An internal worm screw driven by the product motor will push the instant product to the product slide. They can be equipped with a wheel and a product shaker for constant dispensing. The outlet, the dimension of which can be either standard or smaller, has got a closing baffle; to protect the products, containers are closed by a cover.

**!** Power off the vending machine by means of the service key and put it into its support. Power off the main switch at the back of the machine.

**1** Lift and turn the lid of the soluble milk container.

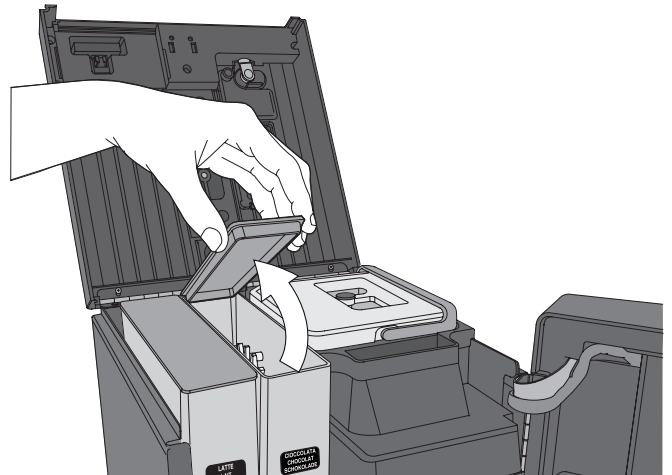


**2** Add soluble milk directly in the container.

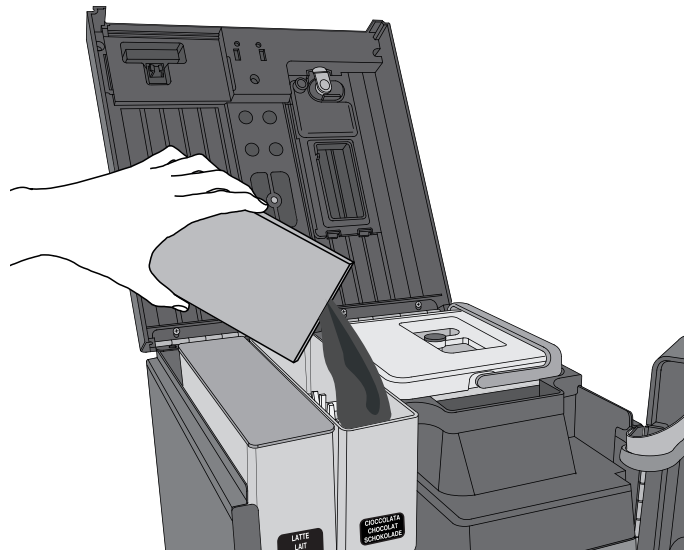


**3** Reposition the lid of the soluble milk container.

**4** Lift and turn the soluble chocolate container cover.



**5** Add soluble chocolate directly in the container.



**6** Put the soluble chocolate container cover back.

**7** Close the covers of the canisters carefully.

**i** The soluble powder container can also be removed from its housing complete with lid in order to fill it.

**8** Close the top cover and the dispenser door closing the lock with the proper key.

## SOFTWARE

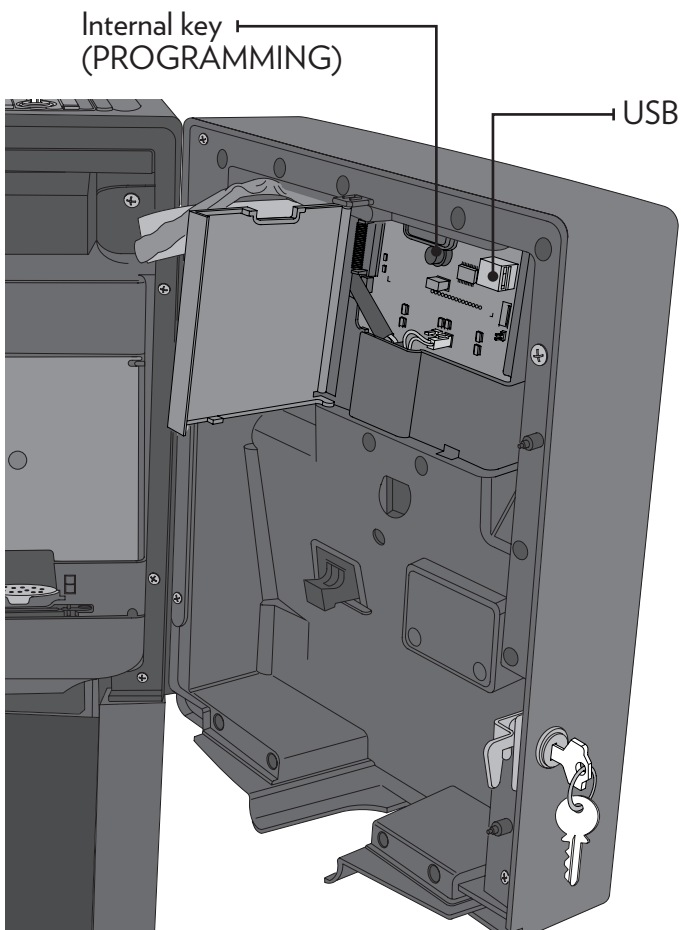
Software installed in LB 2600 is divided into two different parts referred to as:

- **Master:** it is the software determining the machine cycles, the links between the functions, the order of execution of operations. This software can not be modified by the operator, but it can be updated with new releases.
- **Configuration:** it is the software determining the times and the succession of dispensing drinks, the payment system protocol, the display modes, etc.... Variables may be modified by the operator either manually aboard the machine or by means of rheAction to adapt the machine behaviour to the final users' needs (product quantities and mixtures, warning messages, etc...).

## PROGRAMMING MODE

To access the programming mode, open the front door of the machine and use the service key in the safety switch.

**!** The vending machine is supplied and running to all effects in this mode of operation. Act extremely carefully.



Press the "PROG" key, the display show the message:

1= PROG      2= DATA  
3= CLEANING

"1" machine variable programming.

"2" to display the drink quantities you have dispensed.

"3" enable washing.

After having programmed, press "1" and then the key "PROG" to go back to the usual operation of the vending machine and to store all changes you have made. The display will show:

PROGRAMMING END  
PLEASE WAIT..

## PROGRAMMING MENU

Press the "1" key to scroll through the programming menu.



Key 1: to scroll the items forward

Key 5: to scroll the items backward

Key 2: to scroll the variables of items forward

Key 6: to scroll the variables of items backwards

Key 3: to increase the value of the variable on the screen

Key 7: to decrease the value of the variable on the screen

- Programming button
- Programming prices
- Programming coins
- Programming temperature
- Programming miscellaneous
- Diagnostics
- Sales audit data
- Programming clock
- Registration out of service
- Product decoupler
- Programming maintenance
- Programming grams - seconds

## ➤ PROGRAMMING KEY

Press key “2” when the display shows “key n” to scroll the variables composing the function of that key (by pressing keys “3” and “7”).

- If you press “2” when “DISABLED”, the key will be inhibited and it will perform no function.
- If you press “2” when “ENABLED”, the key will perform the function you have programmed (dispensing cycle of a drink).

**i** Use key “2” to scroll the following items:

The first programmable parameter for each selection button is coffee in capsules. The following two variables are available:

- the water quantity in the cup; change it by means of “3” and “7”. If the variable is zero, no espresso will be dispensed (drink composed by instant products only);

COFFEE DOSE  
CC:00

- coffee will be dispensed before (value 1) or after (value 0) instant products.

COFFEE SEQUENCE  
FIRST=1

If this option is enabled, after the capsule has been drilled, the pump will dispense a small water quantity for one second, it stops for the seconds set up here (from 01 to 15) and it resumes the usual dispensing cycle.

PREINFUSION PAUSE  
0.0

Scrolling with “2” you can change the product parameters.

Press keys “3” and “7” to change the rotation time of the N product motor, thus changing the product quantity you have dispensed. If time is zero, no product N will be dispensed.

PRODUCT N  
SECONDS: 0.0

If the time you have programmed is other than zero, the N product motor will be activated at the expiry of the delay time you have programmed; the delay time is increased or decreased by pressing keys “3” and “7”.

START DELAY  
PRODUCT N 0.0

The rotation time of the product motor can be briefly interrupted one or two times during the dispensing cycle (0 = no break). Maximum two breaks are possible, increased or decreased by pressing keys “3” and “7”;

BREAKS NUMBER  
0

To determine the solenoid valve opening time and then the water quantity it will deliver. You can carry out a “time test” on the setpoint.

WATER TIME N  
0=DISABLED 0.0

Water will be dispensed in the mixing bowls at the expiry of the delay time you have programmed.

START DELAY  
WATER N 0.0

The rotation time of the mixer fan can be changed by pressing keys “3” and “7”. If time is equal to zero, the mixer will not rotate.

MIXER N  
0=DISAB. 0.0

If the rotation time is other than zero, the mixer fan will be rotated at the expiry of this delay time.

```
START DELAY
MIXER N           0.0
```

The mixer rotation speed can be regulated between low, medium, high by pressing keys "3" and "7".

```
MIXER SPEED      N
                  0.0
```

### PROGRAMMING KEY LM

"LM" refers to the programming of the second milk to produce a "three-band" drink.

To establish the delay between the second milk and the coffee dispensing cycle in the "Latte macchiato" selection.

```
START DELAY
COFFEE           0.0
```

To establish the milk quantity of the second dispensing cycle.

```
LATTE MACC. PROD
0=DISAB.        0.0
```

To determine the delay of the second milk dispensing cycle.

```
START DELAY
PRODUCT LM      0.0
```

To determine the breaks of the second milk dispensing cycle.

```
BREAKS NUMBER   0.0
```

To establish the water quantity of the second milk dispensing cycle.

```
WATER LATTE MACC.
0=DISAB.        0.0
```

To determine the water quantity delay of the second milk dispensing cycle.

```
START DELAY
WATER LM        0.0
```

To establish the mixer rotation time of the second milk dispensing cycle.

```
MIXER LATTE MACC.
0=DISAB.        0.0
```

If other than zero, the mixer power on will be delayed by the time you have set up.

```
START DELAY
MIXER LM        0.0
```

To determine mixer rotation speed of the second milk dispensing cycle.

```
MIXER SPEED LM N
```

Press "3" and "7" to choose the drink name to display during the dispensing cycle; options are listed here below:

```
SELECTION NAME
```

- "standard", the display will show "drink N under preparation";
- "list of names" of drinks made available in the machine memory; the display will show "drink name under preparation".

During the dispensing cycle, the display shows the progress of the drink that is being prepared:

```
|||||||
DISPENSING
```

You can stop the dispensing cycle in progress at any time by pressing the (illuminated) key relative to the drink that is being dispensed.

### REGULATE THE SPEED OF MIXERS

The rotation speed of the motors of product mixers can be adjusted between 15,000 r.p.m. and 5,000 r.p.m. The drink quality of instant products depends a lot upon the action of the fans of mixers: instant chocolate generally requires a long mixing time at the maximum speed for dissolution in water whereas instant tea shall not be mixed to get a drink quality without any bubble on the surface.

### CHOOSE THE QUANTITY OF BREAK NUMBERS

If instant products can be hardly dissolved in water, it may be of use to stop the product dispensing cycle from the product canister for a short time. The water flowing into the mixing bowl will have the time necessary to remove any product build-up.

### TIME TESTS

To check the rotation time of a product motor and a mixer fan or the activation time of a solenoid valve during the programming phase, when the display shows "PRODUCT N" or "WATER N time" or "MIXER N", press the "PROG" key: the device will be activated for the programmed time.

### ► PROGRAMMING PRICES

Press key "2" to display:

PRICES 1-24

Each selection can be assigned a sales price; use "3" and "7" to change the amount and "2" to scroll the price lines from price "1" to price "24".

### ► PROGRAMMING COINS

Assign each channel its value for the parallel payment system. Press "2" to scroll the coins from A to J and use "3" and "7" to change its value.

COINS A-J

### ► PROGRAMMING TEMPERATURE

Press key "2" to display:

TEMPERATURE  
THERMOBLOCK 00

Press key "3" and "7" to vary the thermoblock temperature.

The "first coffee" management is activated if the time that has elapsed after the last coffee selection is longer than the time set up here.

DEFINITION FIRST  
COFFEE MIN 00

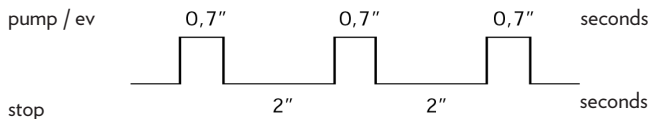
This management consists in: powering on the heating element for the time programmed herein.

RUNNING TIME  
HEATING EL: 0.0

Activating the pump and the brewing solenoid valve for a time set up here for three times.

```
DISPENSING WATER
TIME: 0.0
```

**i** Each activation will last one third of the programmed value, suspended by two-second breaks.



It sets up after how many minutes after the last selection the machine must switch in standby mode, i.e. it will reduce the thermoblock water temperature to the value set up in the following parameter. During the energy saving phase, the vending machine will alternatively display the initial message and the warning message that the “energy saving” function is active.

```
DELAY ENERGY
SAVING: MIN 00
```

Programme the thermoblock water temperature during the “energy saving” phase; the first drink, whose request has been made during the “energy saving” phase, will be dispensed some seconds later to enable the vending machine to achieve the operating temperature, as it is shown by the display.

```
TEMPERATURE ENERGY
SAVING: 00
```

## ► PROGRAMMING MISCELLANEOUS

The “miscellaneous” item includes some options (press keys “3” and “7” to modify the values of these options).

Machine code A and B: you can number the machine to distinguish it from others similar (data collection).

```
MACHINE ID
A 00
```

```
MACHINE ID
B 00
```

Fan time: to determine for how many minutes after the latest dispensing cycle the powder suction fan will remain active.

```
FAN TIME
MIN. 00
```

Beep time active at the end of each machine function.

```
BEEP TIME 0.0
```

Number of decimals: to determine how many decimals are considered in the comparison between the selection price and the credit you have inserted.

```
DECIMALS NUMBER 0
```

Language: to display the messages in the languages made available.

```
LANGUAGE:
ENGLISH 00
```

Enabling this function, only during a selection delivery the selection can be interrupted by pressing any selection key.

```
BUTTON STOP
1=ENABLED           0
```

After dispensing, the piston will wait for the time set up here (in seconds) before starting its stroke up.

```
PAUSE TIME AFTER
DISPENSING          0.0*
```

It sets up the time (in seconds) the coffee unit piston requires to move from the dispensing position to the decompressing position.

```
ASCENT TIME
                   0.0*
```

It sets the break time (in seconds) in the decompressing position, after which it will reach the waiting position. If the value of the three variables is zero, the action is not carried out.

```
PAUSE TIME AFTER
THE ASCENT          0.0*
```

It is used to ensure hydraulic circuit filling at first power-on after disinstallation. If the value is zero, at next power-on, the machine will perform the cycle as described in paragraph "FIRST POWER-ON".

```
FIRST INSTALLATION
0=FIRST            1
```

**! About 50 cc of hot water will be dispensed.**

Deinstallation it's used to empty water circuits automatically. To start the sequence, press button "3".

```
DEINSTALLATION
3=START
```

**! About 50 cc of hot water will be dispensed.**

Remove the water tank and press "1", as it is shown on the display. The water circuit will be totally emptied during uninstallation.

```
REMOVE WATER
TANK PRESS SEL. "1"
```

```
DEINSTALLATION
IN PROGRESS
```

Wait for the phase to come to an end when the display shows the "end of uninstallation" message.

```
END
DEINSTALLATION
```

It loads the "1A" standard configuration pre-set by default.

```
DATI STD. V 1A
3=START
```

### DETERMINE THE SUCTION FAN TIME

To remove the residual powder of instant products from inside the machine, it is recommended to use the value in minutes you have already programmed (one). If you should use particularly volatile products, increase the time to five (and more) minutes.

### ► SOFTWARE UPDATE

- 1 Create a "rhea" folder on a USB support.
- 2 Create a "cpu05" folder inside the "rhea" folder and transfer the file in the new version into this folder.
- 3 Power off the vending machine, access the display board inside the door and insert the USB support into the socket of the display board.
- 4 Power on the machine; the display shows "CPU UPDATE", press key "4".

Software update sequence:

```
CPU UPDATE
4=GO "FILENAME"
```

```
CPU COPYING                N
```

```
CALIPSO BOOT
```

```
PROGRAMMING OK
```

- 5 Power off the machine, remove the USB support, close the machine again; the new software has been properly transferred.

At first power-on, standard "1A" factory-set configuration is loaded.

### ► DIAGNOSTICS

It checks the sensors in the vending machine:

```
S-H2O=0          S-CAS=0
S-SP=0           S-CAP=0
```

s-h2o = tank water sensor

(1) active – (2) not active.

s-cas = drawer presence sensor

(1) active – (2) not active.

s-sp = flap sensor

(1) active – (2) not active.

s-cap = capsule presence sensor

(1) active – (2) not active.

It tests the water circuit of the coffee unit to check its correct operation:

```
TEST
HYDRAULIC                3=START
```

Press key "2" to access diagnostics and to enable the machine to display (keys "3" and "7") the stand-by message and the water temperature in the thermoblock, alternatively.

```
ENABLE DISPLAY
TEMPERAT. 1=SI           0
```

Press "2" once again to display the voltage value intended to supply devices at 24 V dc.

```
VOLTAGE
VOLT                      00.0
```

### ► SALES AUDIT DATA

This menu is intended to gather the quantities of the selections made by the machine: names are assigned according to the EVADTS standard.

- VA 102 quantity of total vends (parameter not resettable).

```
TOTAL SELECTIONS        000
```

- VA 104 number of sales made after reset, possible for each selection, including pre-selections. It acts on all subtotals: "SEL. SUBT." and "SEL. SUBT.: from 1s to 8L", to reset, press button "3" for abt. 3 seconds.

```
PART. SELECTIONS       000
```

### ► MDB

Use this menu for changing MDB parameters (Refer to Paragraph "PARAMETERS").

- maximum credit
- maximum change
- sale type



## ► PROGRAMMING CLOCK

A time band during which the machine will accept no selection and reduce the thermoblock water temperature can be established for each week day.

SWITCHING ON TIME 00:00

SWITCHING OFF TIME 00:00

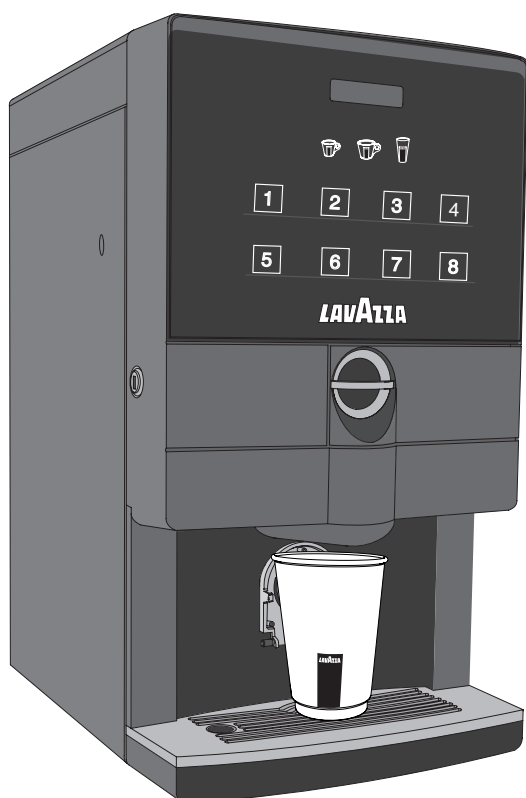
At the indicated time, the machine runs a wash cycle of the mixer provided that, from the last cycle performed, it has carried out at least five supplies of soluble products.

CLEANING TIME 00:00

At the pre-set time, the display shows the message requiring the operator to wash.

CLEANING  
PRESS P5 + P8

Place a cup beneath the dispensing nozzles and press keys "5" and "8" at the same time.



Wait a few seconds for water coming out from supply nozzles. The flow will automatically stop:

- current time;

HOUR: 00:00

- current day;

DAY: 00

- current month;

MONTH: 00

- current year;

YEAR: 0000

## ► REGISTRATION OUT OF SERVICE

To display the recording of the twenty errors last occurred in the machine. Press key "2" to scroll the records and key "4" to reset the recording.

N.N OFF NN  
HH:MM GG-MM-AAAA

### ► PRODUCT DECOUNTER

Each product motor can be assigned a time credit in seconds that will be decreased at each dispensing cycle of that product. After having used up the credit, the machine will answer <<selection not available>> whenever a request is made for that product. This control is disabled at the beginning and the machine has got no constraint.

```
PRODUCT QTY.      N
[IN= 0.0]        0.0
```

To programme the credit time of a product motor, set the variable by pressing key “3” and “7”.

After having reached the time quantity you wish, press key “PROG”; the value will be copied between parentheses on the left of the display.

Quit the programming mode as usual.

- i** That the first warning threshold can be programmed. If exceeded, the display will show an alarm message without interfering with the operation of the machine.

```
PROD. 1 WARNING   N
THRESHOLD        0
```

- i** After having used up the time credit, the operator may decide whether to inhibit or not the dispensing cycle of the selections, including that product.

```
PRODUCT STOP     N
ENABLE 1 = STOP 0
```

### ► PROGRAMMING MAINTENANCE

In this ensemble of parameters, key “2”, you can set up some counters to trigger an alarm after a programmable number of events (press “3” and “7” to set up and PROG to store).

It sets the threshold of capsules dispensed before displaying the message “empty the capsule drawer”.

```
CAPSULE DECOUNT.  N
[00]              00
```

The value between square brackets shows the decoupler that will display the message once reached “00”. When only 5 capsules are required to reach the set-up threshold, the vending machine will show the message “empty the capsule drawer”.

- !** Once reached the set-up threshold, the operation of the machine will be inhibited until the capsule drawer is emptied.

```
EMPTY CAPSULE
DRAWER
```

Dispensing cycles before having to replace the cartridge of the external filter, if any. As soon as 500 dispensing cycles are left, the display will show “change water filter” and as soon as the decoupler has reached 0, it will display “out of service water filter”, thus inhibiting the operation of the machine.

```
H2O FILTER DECOUN. N
[000]              0.0
```

It sets the minimum time necessary (in seconds) to empty the capsule drawer and the drip tray; below the set-up value, the vending machine will not reset the full drawer message.

```
MINIM. TIME RESET  N
DRAWER CAPS        0.0
```

```
RESET DRAWER
CAPSULE COUNTER
```

## ► PROGRAMMING GRAMS - SECONDS

This procedure will convert the programming of the doses of the instant product expressing in grams rather than, as usual, in seconds of activation of the product motor.

To perform this procedure, you must have the following:

- a container (cup) to collect the doses of ground coffee;
- a balance with 50 grams scale ( $d = 0.01$  gram).

Before starting the calibration procedure, it is necessary to weigh the container (cup) that will collect the instant product.

```
CALIBRATION P.      1
GR/SEC             0.0
```

Press PROG.

Put in place the cup to collect the dose, the machine performs two calibration cycles.

The product must weigh 20 grams; if this is true, press the key "1". If not, set the amount weighed by pressing the keys "3" and "7" to change the digits on the display in the lower right corner. At the end, press the key "1"

```
GRAMS READ         3=+
7=- 1=OK          20.0
```

**⚠ Remember to subtract the weight of the empty cup.**

The machine will store the data entered; wait for the end of this automatic cycle, which also includes a switch off/switch on cycle without manual intervention.

## DATA

Choose the option "data" to enable the display to show the data of the dispensing cycles you have performed in succession.

Pages 28 and 29 give some indications concerning:

- general programming schedule;
- LB 2600 software programmable parameters;
- numerical values of actuator times, unless otherwise specified, are in tenths of seconds (e.g.: 27 equals 2 seconds and 7 tenths).

## CONFIGURATION

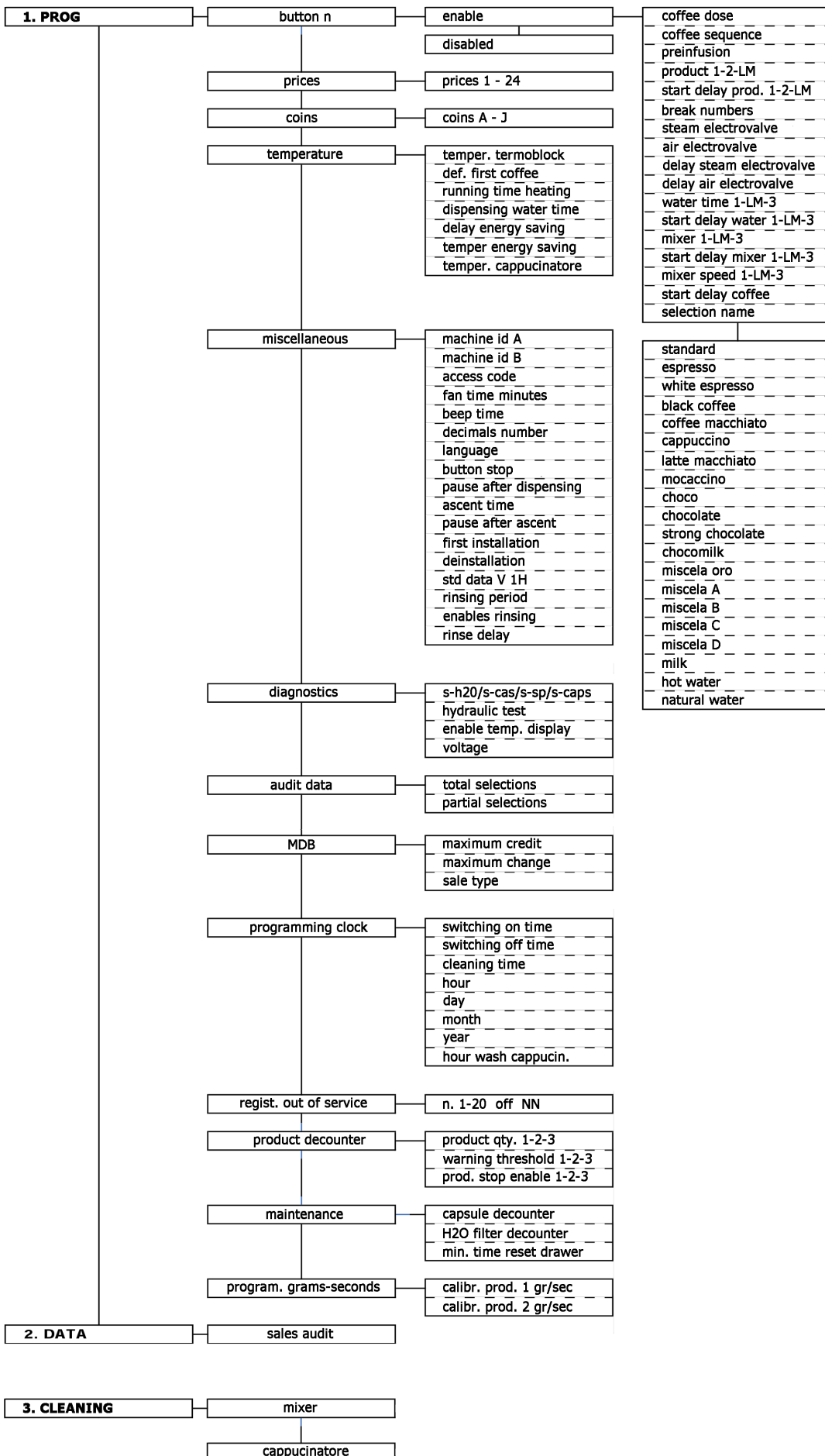
The generic parameters intended to dispense the drinks with the different possible products are supplied here below, just by way of example. These values enable the operator to program the selections of reference and they can be used to obtain some functional dispensing cycles even if it may be necessary to make some slight changes to appeal to the users.

## DETERMINE WATER AND PRODUCT TIMES

The times can be adapted to the capacity of the user's cups (by changing "time water N") and its tastes (by changing "product N"). Please, never forget to make sure that the dispensing time of the instant product is always lower than the one of corresponding water.

## PROGRAMME DELAYS

(If accepted) Dispensing starts as soon as the user presses a selection key; the order in which instant products are poured into the cup depends upon the values of delays (e.g. the one, the delay value of which is zero, will be dispensed before the one, the value of which is 40, dispensed four seconds after the user has pressed the selection key); pay special attention when programming the delays in dispensing a product and the water diluting it in the mixing bowl; except for the instant coffee product, for which just the opposite is applicable, it is recommended to dispense water before the product to enable the latter to drop on the water film already present in the mixing bowl for a better mix; espresso is dispensed before and after any instant product by programming the variable "coffee sequence".





Small



Medium



Large

## PRESELECTIONS

		S	M	L		S	M	L
<b>1. ESPRESSO</b>	coffee dose	30	40	50				
<b>2. ESPRESSO MACCHIATO</b>	coffee dose	30	35	40				
	product 2	1,2	1,2	1,2	rit. prod. 2	0,5	0,5	0,5
	water 1	2,0	2,0	2,0				
	mixer 1	3,0	3,0	3,0	rit. mixer 1	0,2	0,2	0,2
	vel. mixer 1	3	3	3				
<b>3. ESPRESSO LONG</b>	coffee dose	90	110	130				
<b>4. SOLUBLE BEVERAGE</b>	coffee dose	65	80	100				
	product 2	1,9	2,4	3,0	rit. prod. 2	0,2	0,2	0,2
	water 1	4,5	6,0	7,5				
	mixer 1	5,5	7,0	8,5	rit. mixer 1	0,2	0,2	0,2
<b>5. CAPPUCCINO</b>	coffee dose	55	60	65				
	product 2	3,7	4,4	6,0	rit. prod. 2	1,0	1,0	1,0
	break number	1	1	1				
	water 1	7,5	9,5	12,0	rit. water 1		0,3	
	mixer 1	8,5	10,5	13,0	rit. mixer 1	0,3	0,5	0,3
	vel. mixer 1	3	3	3				
<b>6. LATTE MACCHIATO</b>	coffee dose	30	35	40				
	product 2	3,7	3,7	3,7	rit. prod. 2	1,0	1,0	1,0
	break number	1	2,0	2,0				
	product LM	3,7	3,7	3,7	rit. prod. LM	15,0	15,0	15,0
	break number	1	2	2				
	water 1	8,0	8,0	8,0				
	mixer 1	9,0	9,0	9,0	rit. mixer 1	0,3	0,3	0,3
	vel. mixer 1	1	1	1				
	water LM	8,0	8,0	8,0	rit. water LM	14,0	14,0	14,0
	mixer LM	9,0	9,0	9,0	rit. mixer LM	14,3	14,3	14,3
	vel. mixer LM	3	3	3				
	rit. Part. caffè	5,0	5,0	5,0				
<b>7. MOCCACINO</b>	coffee dose	45	50	55				
	product 1	3,2	4,0	4,6	rit. prod. 1	4,8	7,3	10,3
	product 2	3,9	4,4	5,0	rit. prod. 2	1,0	1,0	1,0
	water 1	3,6	4,2	5,0	rit. water 1	4,6	7,1	10,1
	mixer 1	3,7	6,0	5,0	rit. mixer 1	4,7	7,2	10,2
	vel. mixer 1	3	3	3				
<b>8. CHOCO</b>	product 1	3,2	3,5	3,8	rit. prod. 1	1,5	1,5	1,5
	break number	1	2	2				
	water 1	11,0	14,0	15,0				
	mixer 1	11,5	15,0	16,0	rit. mixer 1	0,5	0,5	0,5
	vel. mixer 1	3	3	3				

LM SELECTION

LB 2600 can produce a drink called Latte Macchiato, composed by milk and coffee and served in the cup in differently coloured bands, typically milk, coffee and milk.

To get this special drink, refer to a specific package of instructions, every step of which is called “LM dispensing cycle”.

The sequenced dispensings are:

- 1 Dispensing cycle of 1st mixed milk (at low speed rate);
- 2 10÷15 second pause;
- 3 dispensing cycle of 2nd mixed milk (at high speed rate);
- 4 12÷20 second pause;
- 5 dispensing cycle of espresso coffee.

The different milk consistency due to a different mixing treatment enables coffee to remain in a central range, thus giving origin to the “Latte Macchiato” drink.

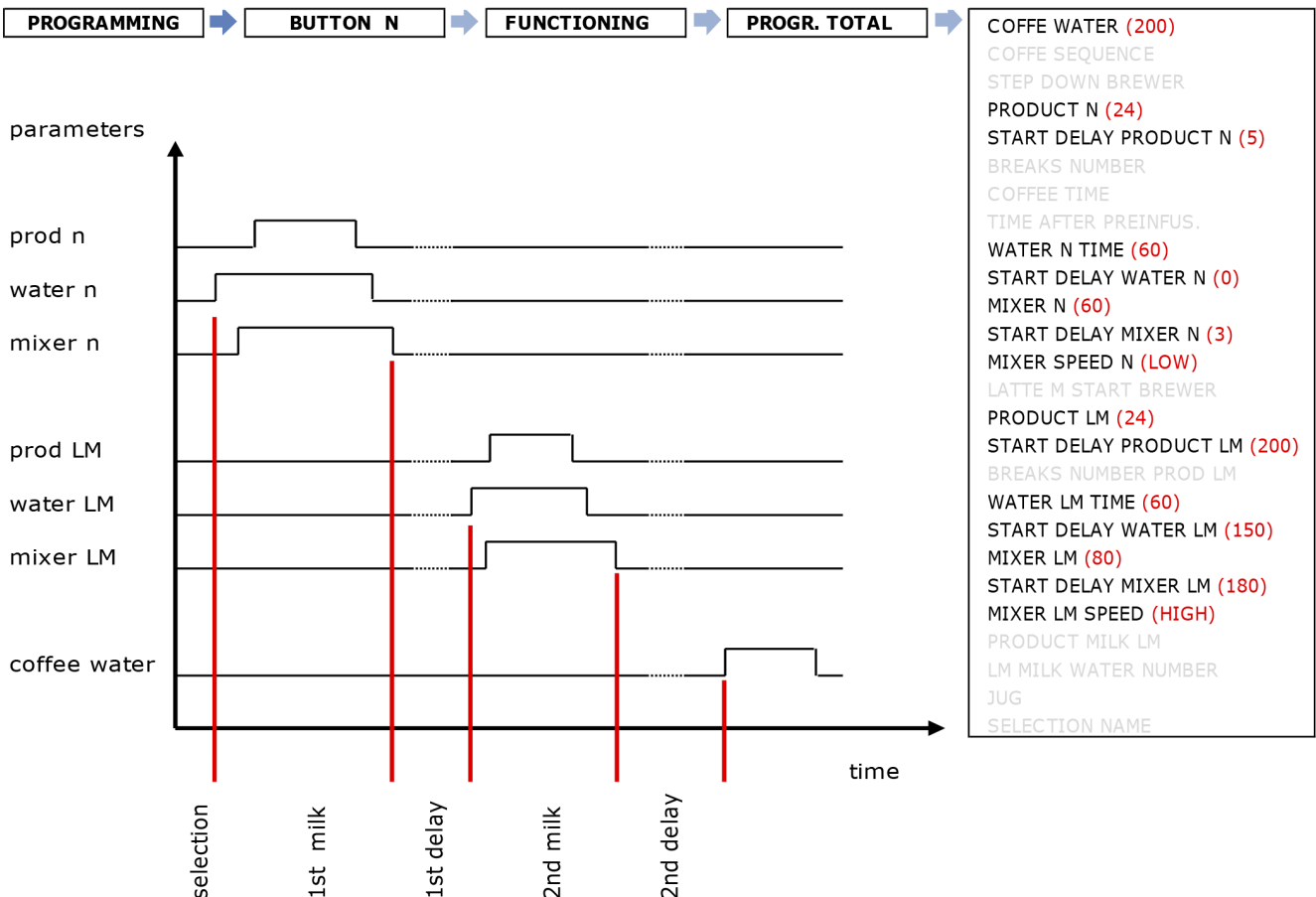


2° MILK

ESPRESSO COFFEE

1° MILK

The data supplied by the table provide for a “latte macchiato” dispensing cycle and they can be adapted to achieve dispensing cycles more suitable for the users’ wishes.



The table is intended to list the minimum and maximum values you can assign to programmable variables. As regards any parameter not contained in this document, please refer to the FRESH MILK MODULE technical manual.

	<b>u.m.</b>	<b>da</b>	<b>a</b>	
<b>exp coffee water</b>	n.	0	250	0 = no coffee;
<b>product</b>	sec.	0	25	0 = no product;
<b>product start delay</b>	sec.	0	25	0 = no delay;
<b>breaks number</b>	n.	0	2	0 = no pause;
<b>water time</b>	sec.	0	25	0 = no water;
<b>water start delay</b>	sec.	0	25	0 = no delay;
<b>mixer</b>	sec.	0	25	0 = no mixer;
<b>mixer start delay</b>	sec.	0	25	0 = no delay;
<b>mixer speed</b>	>	0	5	from low to fast
<b>prices 1 ÷ 10</b>	n.	0	65.000	
<b>coin A ÷ J</b>	n.	0	65.000	
<b>thermoblock temperature</b>	°C	0	105	
<b>first coffee temperature</b>	°C	0	105	
<b>first coffee time</b>	min.	0	30	
<b>heater time</b>	min.	0	15	
<b>water time</b>	min.	0	15	
<b>energy saving delay</b>	min.	0	300	
<b>energy saving temperature</b>	min.	0	100	
<b>first break</b>	sec.	0	200	
<b>first break heating time</b>	sec.	0	20	
<b>flux 1-20</b>		0	40	
<b>machine id A and B</b>	n.	0	65.535	
<b>preinfusion time</b>	sec.	0	10	
<b>preinfusion break</b>	sec.	0	10	
<b>fan delay</b>	min.	0	180	
<b>beep time</b>	sec.	0	1,5	
<b>number of decimals</b>	n.	0	3	
<b>language: english</b>	-	0	1	
<b>pause time after dispensing</b>	sec.	0	25	
<b>ascent time</b>	sec.	0	25	
<b>pause time after ascent</b>	sec.	0	25	
<b>product decouner</b>	sec.	0	6.000	0 = no limits;
<b>product quantity 1-3</b>	sec.	0	68,5	
<b>product threshold 1-3</b>	sec.	0	68,5	
<b>capsule decouner</b>	n.	0	862	
<b>H2O filter decouner</b>	n.	0	688	
<b>maximum credit</b>	n.	0	6000	
<b>maximum change</b>	n.	0	6000	
<b>sale type</b>	n.	0	6000	

## GENERAL FOREWORD

The LB 2600 vending machine requires no special maintenance procedure to do its job. If you provide for careful and frequent cleaning, this may help the machine keep its performance constant, prevent failures and ensure the high quality of dispensed drinks. The frequency of cleaning operations largely depends upon the number of dispensing cycles and the hardness of water in use (use a softener system) and it shall be adjusted to the working conditions of the vending machine.

The actions described are intended to prevent the bacterial growth in the machine areas directly in contact with foodstuffs and to keep the parts conveying drink-composing products clean. After having disassembled the parts of the machine listed here below, use plenty of lukewarm water to remove any residue that might build up.

- i** The support of a bacteriostatic or bactericidal solution may strengthen a deep cleaning action, provided it is compatible with human health and the supply of foodstuffs. Reassemble all the parts you have cleaned after having dried them by means of a clean piece of cloth.

- !** Never forget to power off the machine before carrying out any maintenance operation requiring the disassembly of components.

Never wash the machine by using water jets.

Wash hands thoroughly with water and soap before handling the machine and the products.

Only use potable water.

All components must only be cleaned with warm running water.

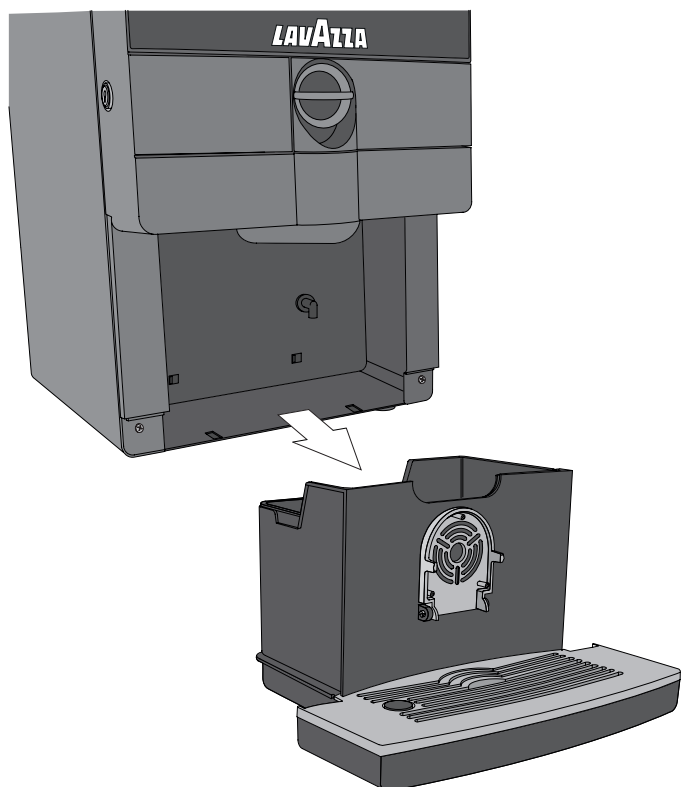
- i** Components can be washed in the dishwasher at a temperature not higher than 40°.
- i** Before accessing the machine for each maintenance operation, it is recommended to warn the users by means of boards properly positioned that it is forbidden to approach the vending machine and to use it.

## CLEANING OF DRIP TRAY/USED CAPSULES DRAWER

Drip tray collects any residual drop from the dispenser and it is slide inserted at the bottom of the machine cabinet, on the front side. It consists of a drawer and a gridded cover that can be washed by running water. A red floater warns that the water content inside the tray has achieved the limit and must be therefore emptied.

Used capsules drawer gathers twenty five capsules after they have been used in the capsule unit; a software option can display a warning message as soon as the canister is filled in. A presence sensor is arranged to inhibit the machine operation if the capsule canister is lacking, the message reset time-out is min. 5 seconds (sw set by default), but it can be modified; moreover, the canister collects waste water in excess, coming from the coffee solenoid valve and the internal water tank.

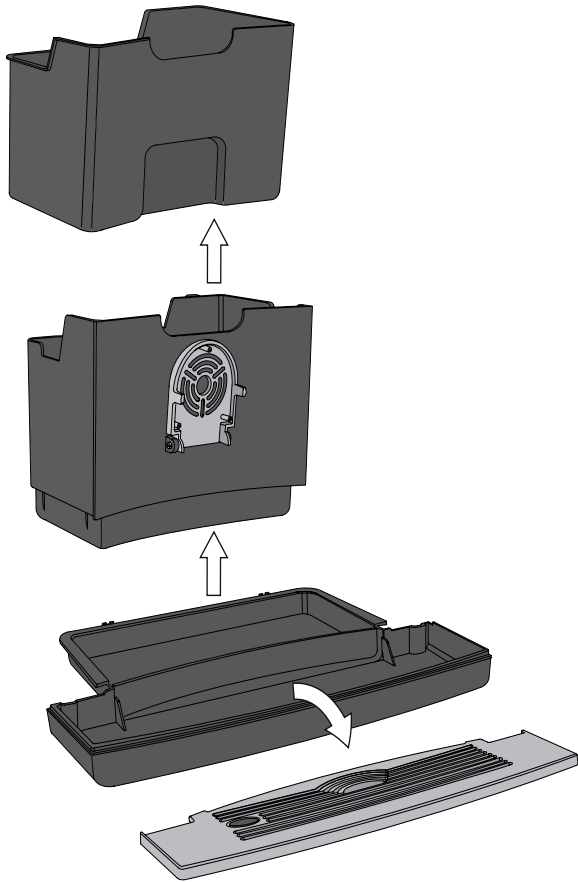
- 1** Connect the power cord and switch the machine on.
- 2** Take the drop/spent capsule drawer out.



- i** Spent capsule counter is reset when the spent capsule drawer is removed with the machine switched on.



- 3** Remove the cup rest compartment and the spent capsule drawer from the drop drawer.



- 4** Empty the drop drawer and the spent capsule drawer and wash them with a mild detergent solution.

- 5** Switch the machine off and disconnect the power cord.

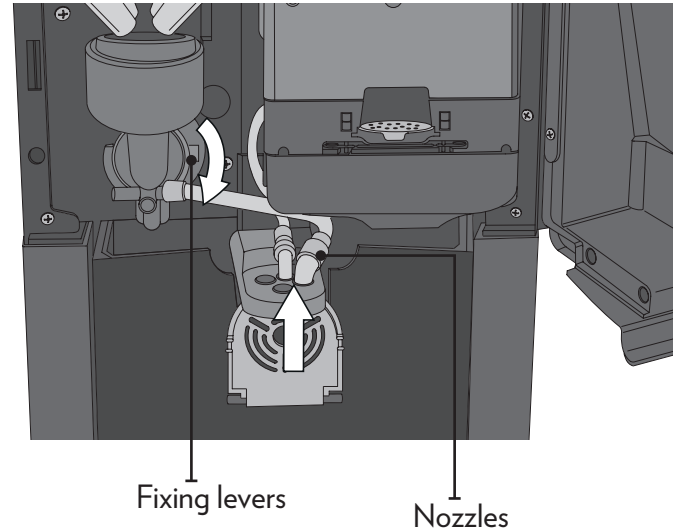
- 6** Unlock the side lock and open the door.

- 7** Clean the drop drawer housing inside the machine and the nozzle supporting spout.

**!** The residual coffee capsules shall be disposed of in observance of the sanitary obligations in force in the country.

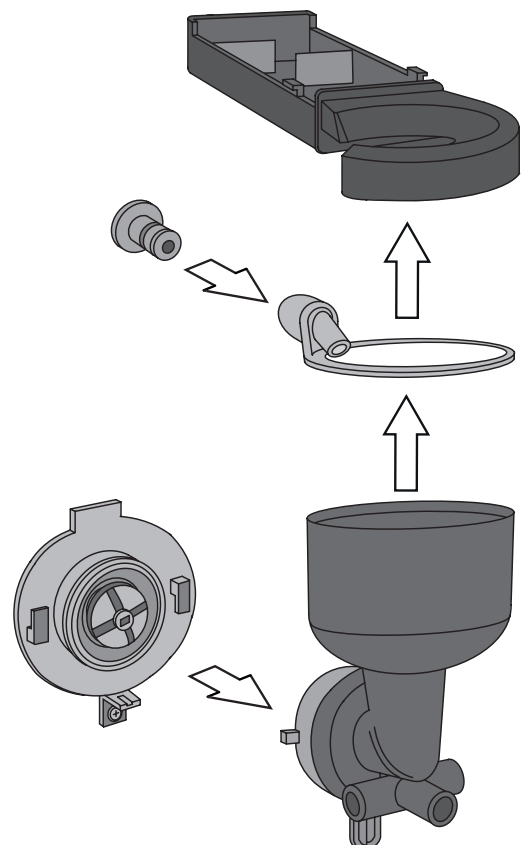
## DISPENSING SYSTEM

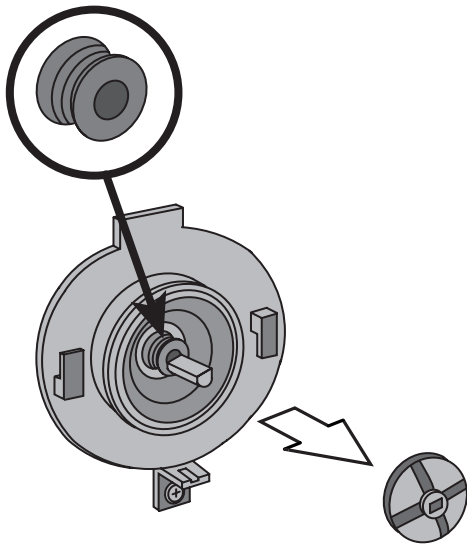
- 1** Turn the fixing levers of mixing bowls clockwise, remove the product nozzles from the holder by releasing them.



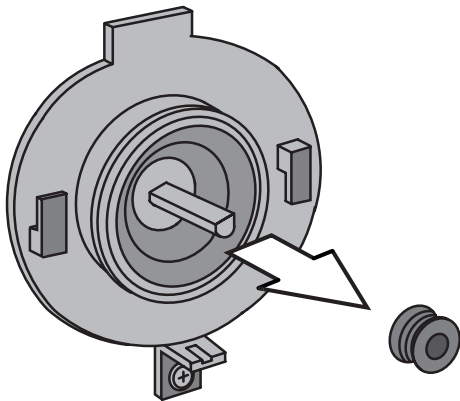
- 2** Disassemble all components of the dispensing system:

- extraction drawer
- water dispensing ring
- mixing bowl
- mixer
- dispensing tubes
- product dispensing nozzle holder





- 3 Extract the mixer fan just by pulling it.
- 4 Check the wear state of the w-ring sheathing the mixer motor shaft. Replace if worn.



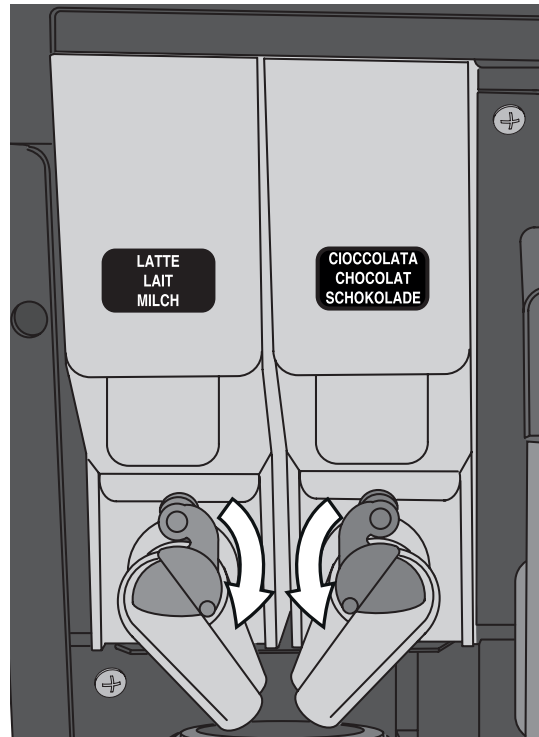
- 5 Wash the assembly of disassembled parts with plenty of lukewarm water.

To replace the blender motor follow the procedure below:

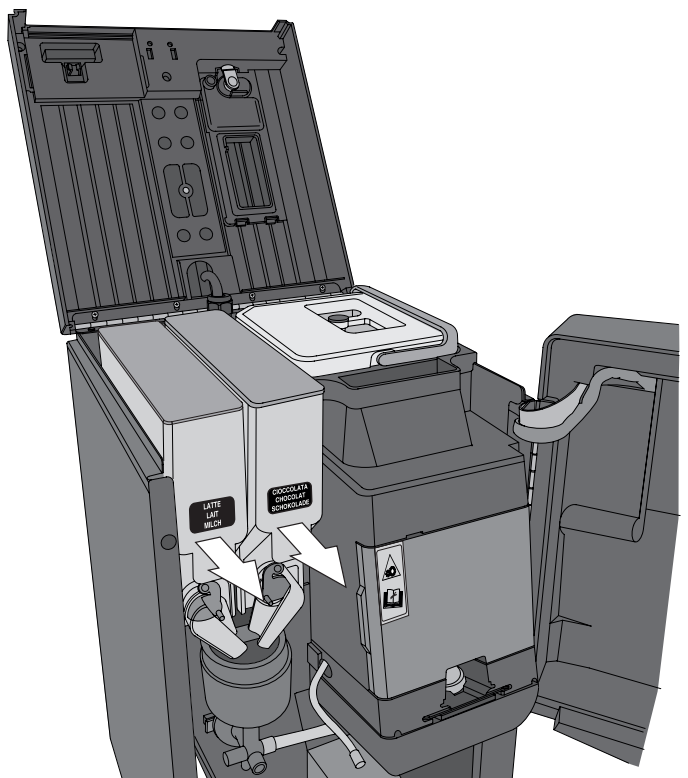
- 1 Remove the silicone tubes intended to dispense the product.
- 2 Turn the orange ring nut clockwise and pull the mixing bowl body.
- 3 Unscrew the crosshead by using a PH2 screwdriver and extract the motor.
- 4 The power supply wires can be removed without any tool.

## PRODUCT CANISTERS

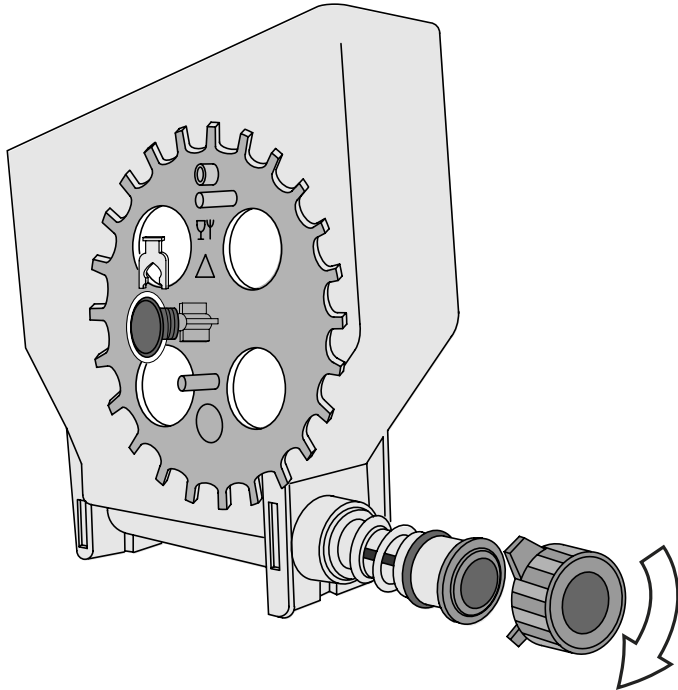
- 1 Turn to closed position the product chute faces.



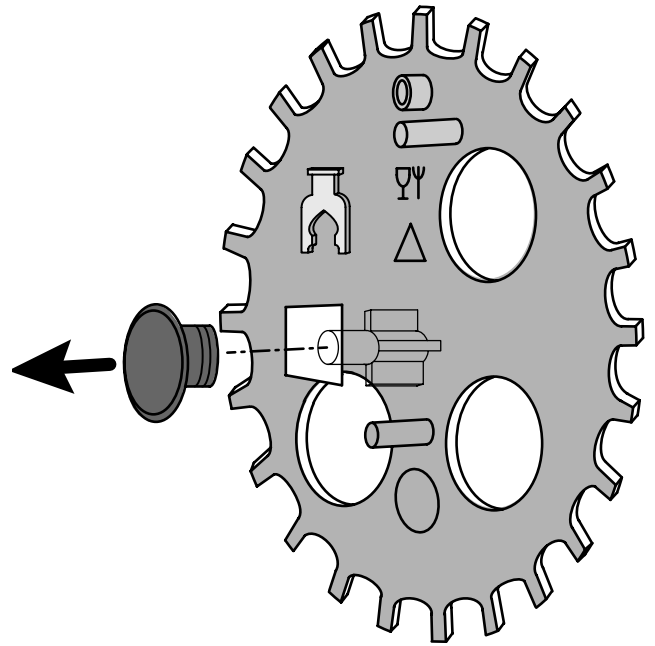
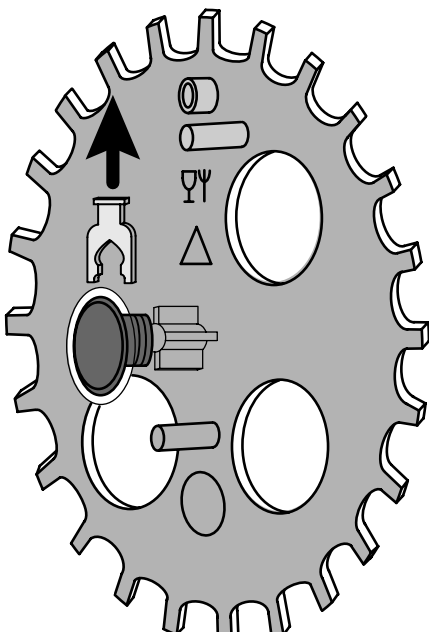
- 2 Remove the product containers, lifting them from the front side and pulling them outwards; remove the cover and empty the residual product, remove the faces from the containers and wash them in abundant lukewarm water.



- 3** At the back of the product canister turn the black ring nut clockwise and remove it. Extract the worm screw by pulling the black bush. To facilitate disassembly, push the stirring wheel in the correct direction.



- 4** Lift the two fastening clips (one for each side) from the inside of the product canister and remove the two red plugs from the outside. Remove the stirring wheel. Wash the disassembled parts with plenty of lukewarm water.



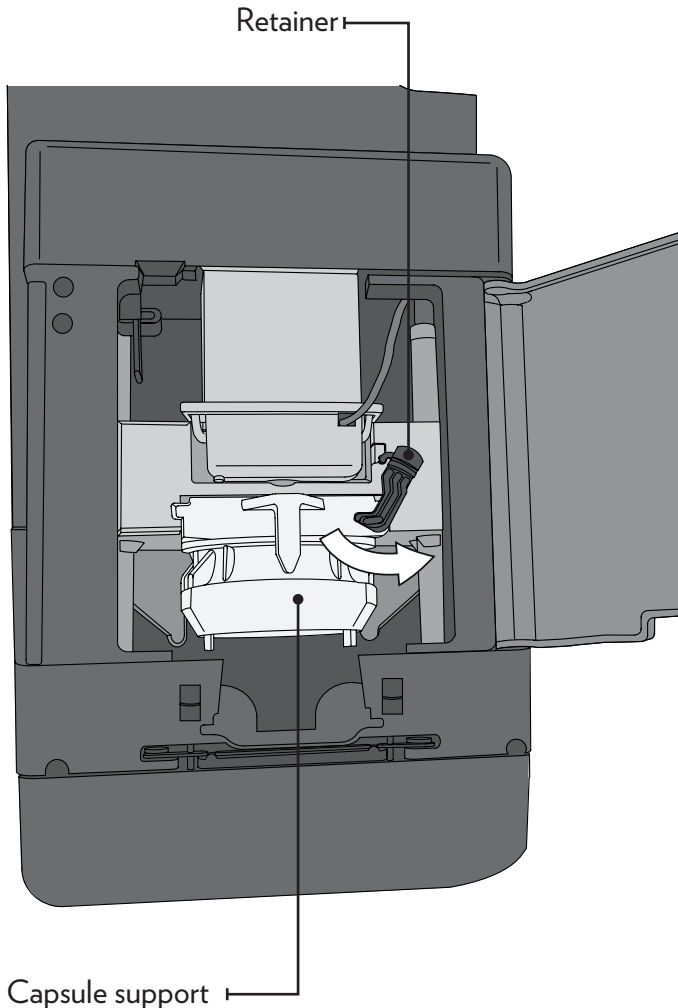
To replace the product motor follow the procedure below:

- 1** Close the faces, remove the product containers, access the rear side of the machine.
- 2** Extract the two small electric cables from the motor, hold the body, push it to the bottom to release it from the bayonet connection of the structure.
- 3** The power supply wires can be removed without any tool.

**!** Observe the polarities.

### CAPSULE GROUP

- 1 Open the capsule unit lid.
- 2 Rotate the retainer in the direction indicated by the arrow.



- 3 Release the capsule support and extract it.
  - 4 Wash the component you have extracted with plenty of lukewarm water.
- !** Reached 10,000 drinks it's recommended to replace the capsule sealing gasket and the perforator sealing gasket.

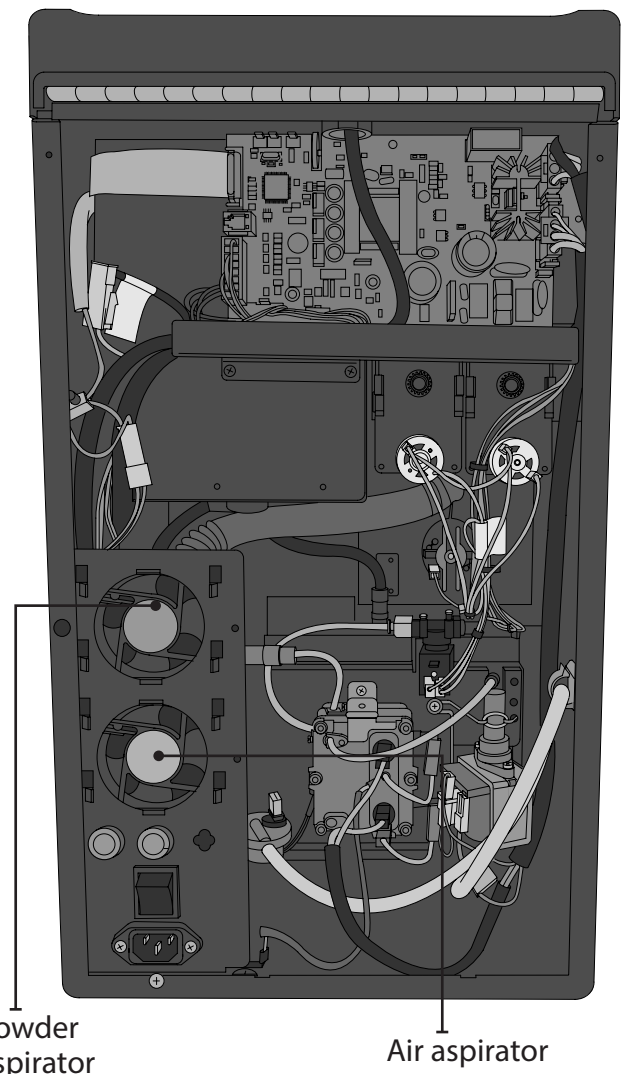
### ACCESS TO THE REAR

- 1 Unscrew the three screws intended to fasten the metal panel.
- 2 Lift slightly and extract the panel.

All internal components of the machine can be now accessed.

### COOLING FAN AND POWDER ASPIRATORS

- 1 Carefully check that the rotors of the two fans on the rear panel of the vending machine can freely rotate without any hindrance or stoppage.



- 2 Make sure that the corrugated tube for connection between the powder aspirator and the extraction drawer is clean and free of any product deposit.

### SILICONE TUBES

Make sure that the water transport tubes are intact and that they have kept their transparency, replace them, if necessary.

## CLEANING INNER SIDE OF THE MACHINE

- 1 Remove any trace of residuals from the internal surfaces of the machine, specially near the glass station and clean with a damp cloth.
- 2 Dry the parts carefully and re-mount them on the machine.
- 3 Re-connect the supply cable and power on the main switch.
- 4 Fit the service key into the door switch to power the system.

**⚠ The vending machine is supplied and running to all effects. The mobile parts of the coffee brewer will be handled. Act extremely carefully.**

- 5 Perform some wash cycles of the hydraulic machine circuits.
- 6 Remove the service key, put it into its housing, close the door.

## CLEANING EXTERNAL BODY

Clean outside the machine by using a piece of non-abrasive cloth, dampened with lukewarm water. Use a neutral, non-foamy detergent, only if necessary.

**⚠ Use neutral detergent products only. Never use abrasive cloths, steel sponges, aggressive or foamy detergents and other solvents, hot water and acids.**

## OUT OF ORDER

If the vending machine should be inactive for a long period, please act as follows:

- 1 Perform the uninstall cycle (see. Para. "PROGRAMMING MISCELLANEOUS").
- 2 Detach the water and energy supply.
- 3 Empty and clean the used coffee capsule drawer, drip tray and water tank.
- 4 Empty and clean the product canisters.
- 5 Empty and clean the coffee capsule group.
- 6 Clean the internal and external surfaces by using a wet piece of cloth.
- 7 Cover the machine by means of a cloth.
- 8 Store it in a sheltered place, at a temperature not below 5 °C, at a relative humidity not above 80%.

If you should definitively set the vending machine out of commission and provide for the disposal of some parts there of, after having carried out the operations above, disassemble the vending machine by separating every single component and subdividing the parts according to the nature of materials.

Any event that may occur during the operation of a machine may totally or partially compromise its functionality.

To help the operator restore the normal functionality of the vending machine, the display shows an error code as an abbreviation that identifies the malfunction and helps the operator find the faulty device.

**i** In the machine, the error may be signalled with or without a suffix that – if present – is intended to specify the meaning better. The number on the display identifies for sure the devices, assemblies and functions in question.

**!** **Not all malfunctions are signalled by an error message since the latter is generated by electric controls that are not made available in all machine districts.**

In the following table:

- The first column shows the machine number. Any variant is shown with the detail letters for more specification.
- The second shows the machine district or function affected by the event.
- The third one contains a comment, the purpose of which is to help find a solution; these notes are surely not exhaustive because a malfunction may have several causes or be originated by an ensemble of factors, but they any way give some hints on how to proceed.

<b>OFF 5</b>	<b><u>EAROM</u></b>	CPU integrated circuits not working properly
<b>OFF 6</b> OFF 6	<b><u>Water supply</u></b> Refill water.	Water level low in the inner tank, or no water.
<b>OFF 7</b> OFF 7 A	<b><u>Volumetric counter</u></b> Water flow counting error in hydraulic circuit.	The volumetric counter is blocked or can not detect pulses in water flow to the thermoblock; display will show: "add water and turn off and on".
<b>OFF 8</b> OFF 8 A OFF 8 C OFF 8 N	<b><u>Capsule group</u></b> No coffee drinks. No coffee drinks. No coffee drinks.	The capsule unit motor is not detected or the motor is short-circuited or disconnected. The capsule unit fails to move within the pre-set period of time. The capsule unit fails to go up within the pre-set period of time.
<b>OFF 10</b>	<b><u>EAROM</u></b>	Stored data are not consistent (reading or writing error) and the overall operation of the vending machine may be otherwise than expected.
<b>OFF 16</b>	<b><u>Internal keyboard</u></b>	The PROG internal programming button is short-circuited or it has been held down too long.
<b>OFF 17</b>	<b><u>Selection keyboard</u></b>	A button appears as if it were constantly pressed.
<b>OFF 24</b> OFF 24 A OFF 24 B	<b><u>Power supply unit</u></b> 24 V dc 24 V dc	The actual 24 V dc voltage value is higher than the tolerated one. The measured 24 V dc voltage value is below the admitted threshold or totally absent, e.g. because a fuse has tripped; find out and remove the causes that have produced this error before powering on the machine again.
<b>OFF 33</b> OFF 33 A OFF 33 B OFF 33 C	<b><u>Temperature error</u></b> Temperature. Temperature. Thermoblock probe.	The thermoblock water temperature is higher than the programmed value. Water fails to achieve the set temperature. Sensor shorted or open.

## CPU BOARD

The CPU board is intended to govern the machine operation. It is the place of location of machine programs and it is secured to the frame by means of board supports. The temperature probe cable is separated from the machine wiring to avoid hampering the removal of the probe.

## DISPLAY BOARD

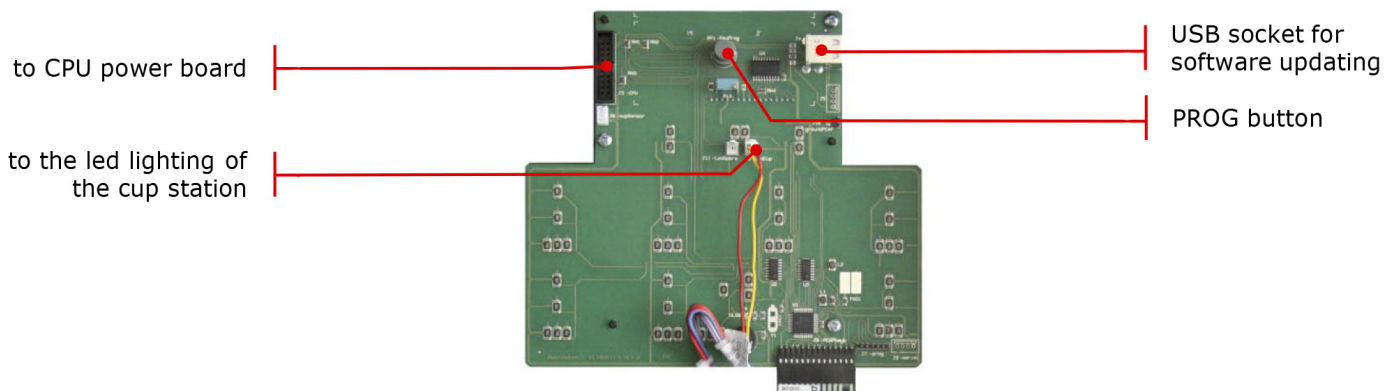
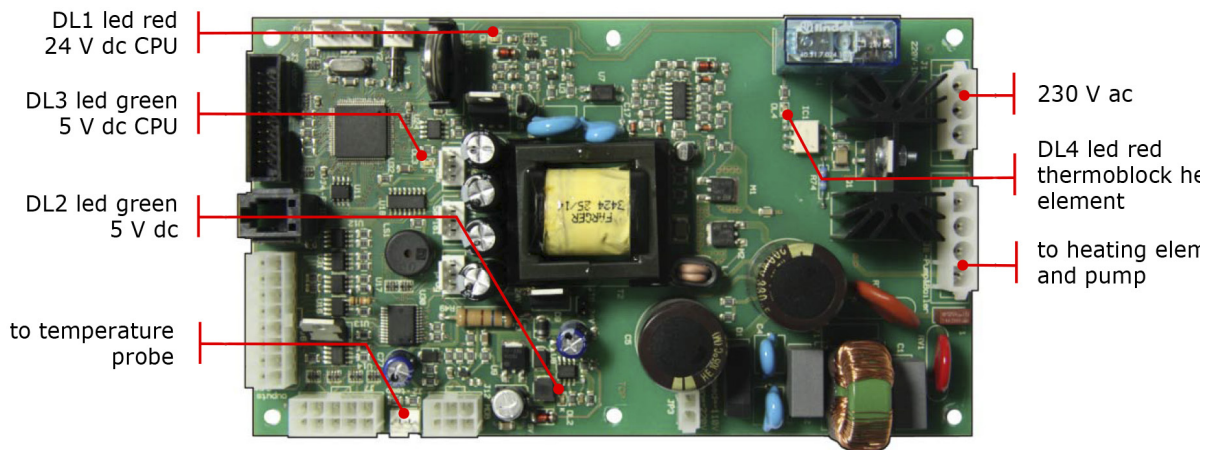
It gathers and processes the signals necessary to display the messages for the user and the operator. It receives the signals from the selection keyboard and supplies the leds intended to illuminate the cup compartment; the button for access to the programming mode of the machine is secured at the back of the display board and protected by a plastic flap.

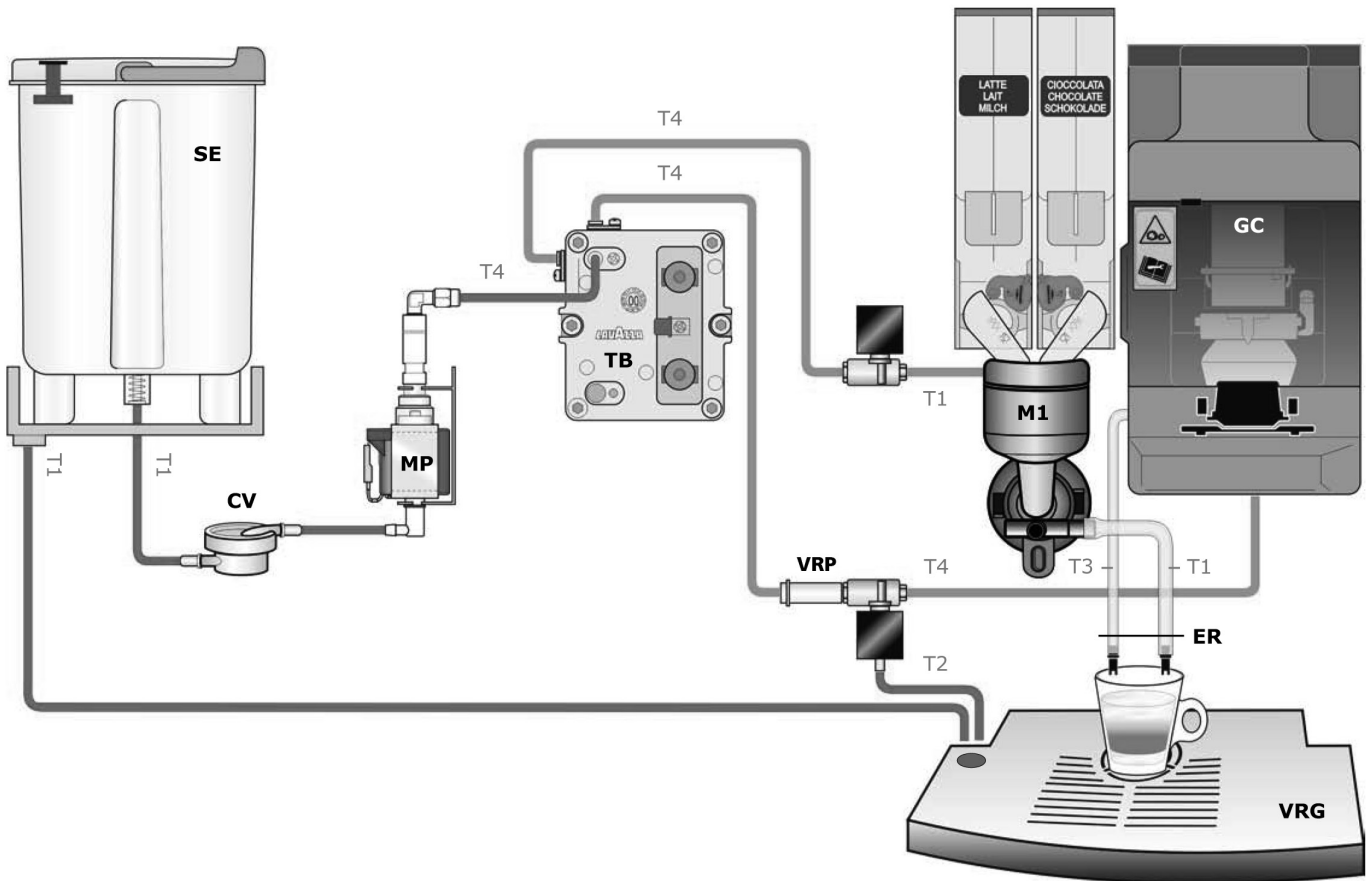
## MODEM

A modem (if installed), connected with the CPU board by means of a phone cable (J8) and supplied by 24 V (J16), provides for connection with a remote operator to send/receive data by means of an aerial placed inside the door.

## RFID

The RFID card is a hardware option that can equip the machine. It is housed inside the cover, it enables the operator to programme the product decouplers and/or it can be used as a payment system.

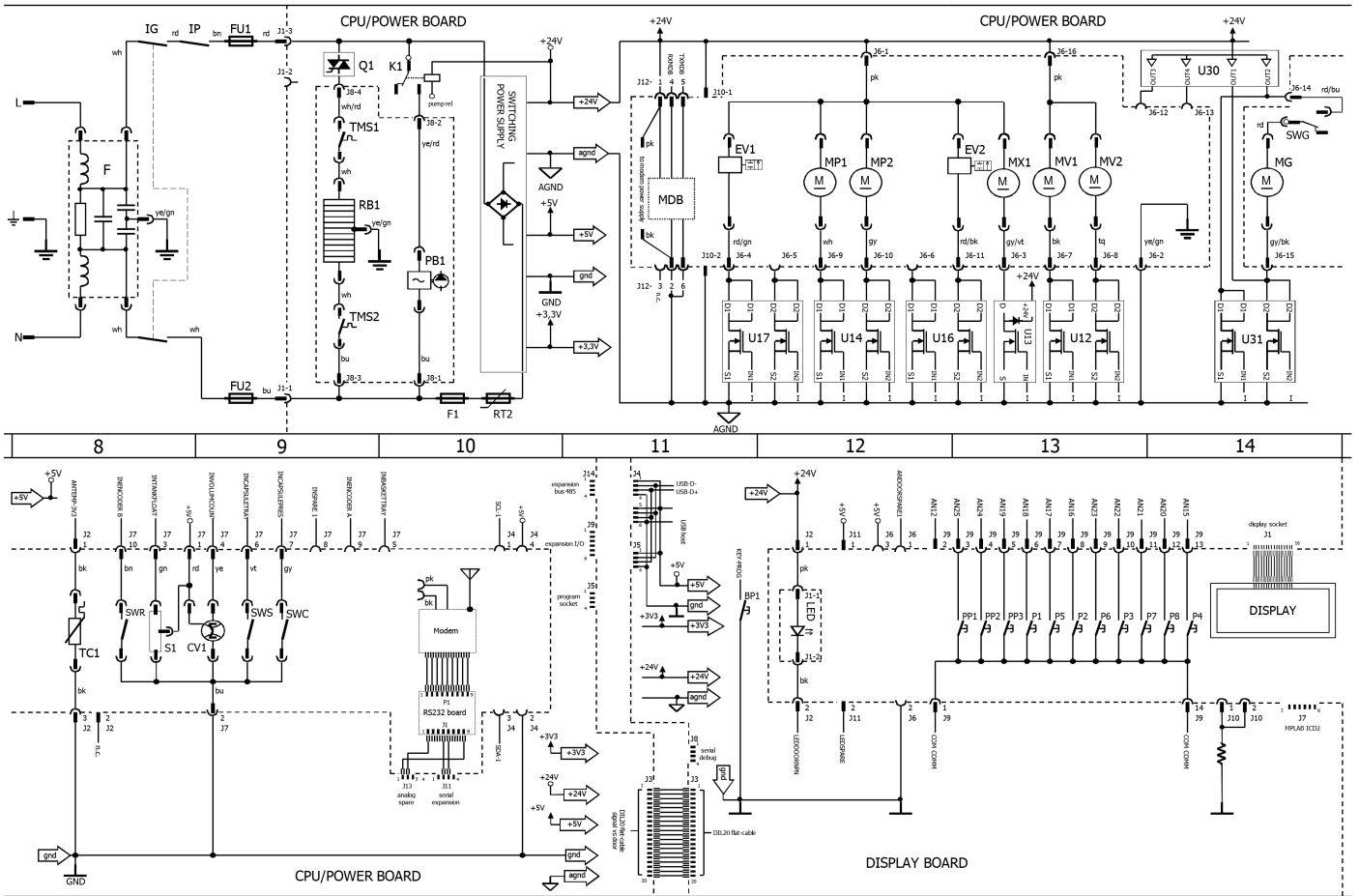




SE = Tank  
 CV = Volumetric counter  
 MP = Volumetric pump  
 TB = Termoblock  
 GC = Capsule group  
 M1 = Mixer  
 ER = Dispenser

VRG = Drip tray  
 T1 = Silicon hose 06/09T  
 T2 = Silicon hose 07/11T  
 T3 = Silicon hose 04/06T  
 T4 = Silicon hose 02/04T  
 VRP = Pressure control valve 6 bar



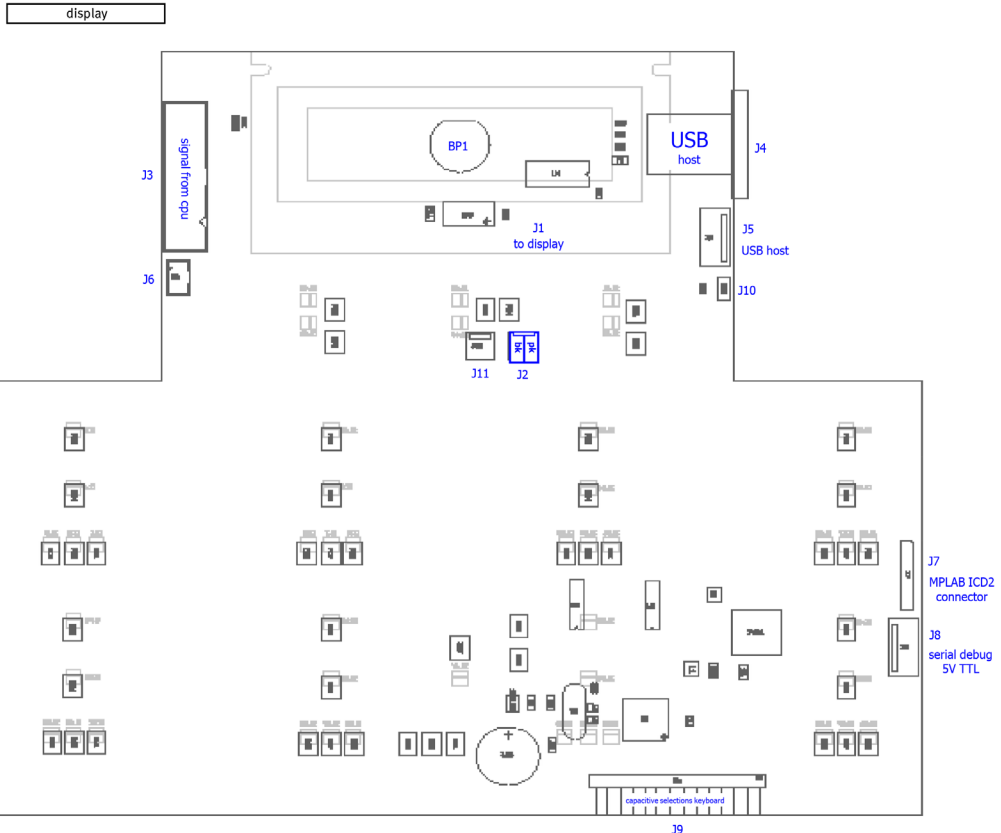
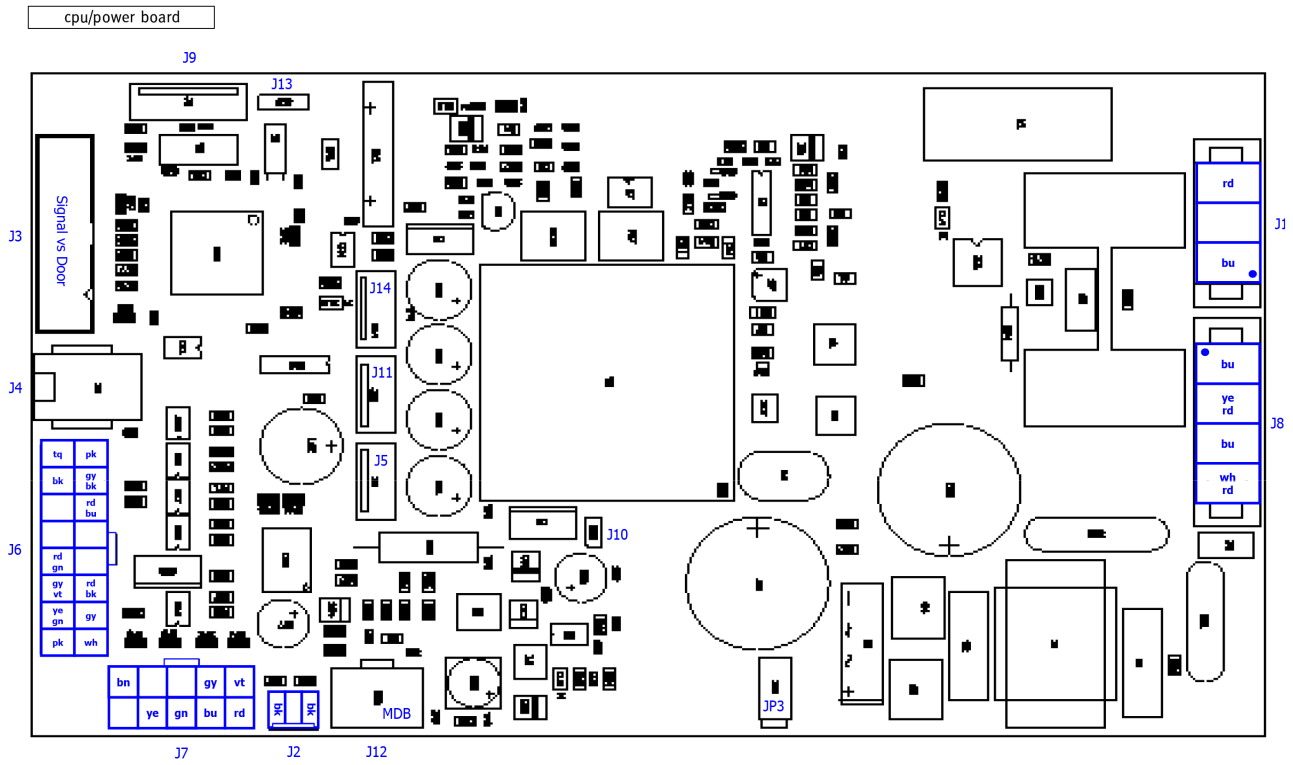


- BP1 = programming mode button
- CV1 = coffee water volumetric counter
- EV1 = solenoid valve
- EV2 = coffee infusion water solenoid valve
- F = anti-noise filter
- F1 = fuse 4A delayed
- FU1/2 = fuses 12A delayed
- IG = general switch
- IP = door safety switch
- K1 = relay for boiler pump
- MG = coffee brewer motor
- MP1/2 = products motor
- MV1/2 = aspirator motor
- MX1 = mixer motor
- P1...8 = drinks selection buttons

- PB1 = boiler pump
- PP1...3 = preselection buttons
- Q1 = boiler thermostat
- RB1 = boiler resistance
- RT2 = ptc device
- S1 = water tank level sensor
- SWC = insertion capsules switch
- SWG = safety switch for coffee brewer motor
- SWR = waste container presence switch
- SWS = capsule drawer locking switch
- TC1 = boiler water temperature sensor
- TMS1/2 = boiler interruption thermal device
- U12...17 = drivers for actuators 24V
- U30...31 = drivers for coffee brewer

- TQ = TURQUOISE
- PK = PINK
- WH = WHITE
- GY = GREY
- VT = VIOLET
- BU = BLUE

- GN = GREEN
- YE = YELLOW
- OG = ORANGE
- RD = RED
- BN = BROWN
- BK = BLACK



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# rheavendors group

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Model: LB 2600 10086290 - 02-17