INSTALLATION, USE, MAINTENANCE

Spazio

Fresh Brew

Instant

UK English

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NECTA

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DICHIARAZIONE DI CONFORMITA'
DECLARATION OF CONFORMITY
DÉCLARATION DE CONFORMITÉ
KONFORMITÄTSERKLÄRUNG
DECLARACIÓN DE CONFORMIDAD
DECLARAÇÃO DE CONFORMIDADE
VERKLARING VAN OVEREENSTEMMING
INTYG OM ÖVERENSSTÄMMELSE
OVERENSSTEMMELSESERKLÆRING

Valbrembo, 04/09/2000

Dichiara che la macchina descritta nella targhetta di identificazione, è conforme alle disposizioni legislative delle direttive: **89/392**, **89/336**, **73/23 CEE** e successive modifiche ed integrazioni.

Declares that the machine described in the identification plate conforms to the legislative directions of the directives: **89/392**, **89/336**, **73/23 EEC** and further amendments and integrations.

Déclare que l'appareil décrit dans la plaque signalétique satisfait aux prescriptions des directives: **89/392**, **89/336**, **73/23 CEE** et modifications/intégrations suivantes.

Erklärt, daß das im Typenschild beschriebene Gerät den **EWG** Richtlinien **89/392**, **89/336**, **73/23** sowie den folgenden Änderungen/Ergänzungen entspricht.

Declara que la máquina descripta en la placa de identificación, resulta conforme a las disposiciones legislativas de las directivas: **89/392**, **89/336**, **73/23 CEE** y modificaciones y integraciones sucesivas.

Declara que o distribuidor descrita na chapa de identificação é conforme às disposições legislativas das directivas **CEE 89/392, 89/336 e 73/23** e sucessivas modificações e integrações.

Verklaart dat de op de identificatieplaat beschreven machine overeenstemt met de bepalingen van de **EEG** richtlijnen **89/392, 89/336** en **73/23** en de daaropvolgende wijzigingen en aanvullingen.

Intygar att maskinen som beskrivs på identifieringsskylten överensstämmer med lagstiftningsföreskrifterna i direktiven: **89/392**, **89/336**, **73/23 CEE** och påföljande och kompletteringar.

Det erklæres herved, at automaten angivet på typeskiltet er i overensstemmelse med ovsdirektiverne **89/392, 89/336** og **73/23 CEE** og de senere ændringer og tillæg.

ANTONIO CAVO

C.E.O

IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and
CISQ/IMQ-CSQ
hereby certify that the organization

NECTA VENDING SOLUTIONS S.p.A.

Via Roma, 24 – I-24030 VALBREMBO (BG)

for the following field of activities
Design, manufacturing and sale of
electronical/electromechanical vending machines
has implemented and maintains a
Quality Management System
which fulfills the requirements of the following standard

ISO 9001

Issued on: 2000 - 03 – 31

Registration Number: IT - 12979

IQNet — *Catherine Neville*
President of IQNet

CISQ — *Gianrenzo Prati*
President of CISQ

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CISQ is a multi-sector, independent, non-profit Federation of Italian organizations for the certification of company management systems, each operating in its own sector of responsibility.

CERTIFICAZIONE ITALIANA DEI SISTEMI QUALITÀ AZIENDALI
ITALIAN CERTIFICATION OF COMPANY QUALITY SYSTEMS

CSQ

CERTIFICATO n. / *CERTIFICATE n.* **9130.ZAVE**

SI CERTIFICA CHE IL SISTEMA QUALITÀ DI
WE HEREBY CERTIFY THAT THE QUALITY SYSTEM OPERATED BY

NECTA VENDING SOLUTIONS S.p.A.

UNITÀ OPERATIVE
OPERATIVE UNITS

Via Roma, 24 – 24030 VALBREMBO (BG)

È CONFORME ALLA NORMA / *IS IN COMPLIANCE WITH THE STANDARD* **UNI EN ISO 9001**

PER LE SEGUENTI ATTIVITÀ
CONCERNING THE FOLLOWING ACTIVITIES

Progettazione, produzione e commercializzazione di apparecchiature elettromeccaniche/elettroniche per la distribuzione automatica e la ristorazione
Design, manufacturing and sale of electronical/electromechanical vending machines

IL PRESENTE CERTIFICATO È SOGGETTO AL RISPETTO DEL REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI QUALITÀ DELLE AZIENDE
THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE REQUIREMENTS OF THE RULES FOR THE CERTIFICATION OF COMPANY QUALITY SYSTEMS

SINCERT

EA: 19

Prima emissione / *First issue* 1 Giugno 1994

Emissione corrente / *Current issue* 31 Marzo 2000

IMQ - VIA QUINTILIANO, 43 - 20138 MILANO

La validità del presente certificato è subordinata a sorveglianza annuale e al riesame completo del Sistema di Qualità con periodicità triennale secondo le procedure dell'IMQ S.p.A.
The validity of the certificate is submited to annual audit and a reassessment of the entire Quality System within three years according to IMQ S.p.A. rules

TABLE OF CONTENTS

INTRODUCTION

This technical documentation is part and parcel of the vending machine and must always follow the machine in case it is moved or transfer of ownership, so as to allow consultation by different operators.

Before starting installation and using the machine, it is first necessary to carefully read and understand the instructions contained in this manual, as they offer important information on installation safety, operating instructions and maintenance.

This manual is divided into three sections.

The **first section** describes the loading and routine maintenance operations which are carried out in areas of the machine accessible with simple use of the door key, without using any other tools.
The **second section** contains the instructions for correct installation and all information necessary for optimum use of the machine.
The **third section** describes maintenance operations which involve the use of tools to access potentially dangerous areas.

The operations described in the second and third sections must be carried out only by personnel who have the specific knowledge of the machine functioning from a point of view of electrical safety and health regulations.

IDENTIFICATION OF THE VENDING MACHINE AND ITS CHARACTERISTICS

This manual describes the following machines:

- models with one brewing unit for fresh tea and for reconstituting instant products;

- models for reconstituting instant products.

Every machine is identified by its own serial number, indicated on the rating plate attached inside the cabinet on the right-hand side.
This plate is the only one acknowledged by the manufacturer as identification of the machine, and carries all the data which readily and safely gives technical information supplied by the manufacturer. It also assists in spare parts management.

IN CASE OF FAILURE

In most cases, any technical problems are corrected by small repair operations; however, before contacting the manufacturer we recommend that this manual be read carefully.
Should there be failures or malfunctions that cannot be solved, then contact:

NECTA
VENDING SOLUTIONS SpA
Via Roma 24
24030 Valbrembo
Italy - Tel. +39 035606111

TRANSPORT AND STORAGE

To prevent any damage, special care should be taken when loading or unloading the vending machine.
The machine can be lifted by a motor-driven or manual fork lift truck, and the forks are to be placed underneath the machine from the side clearly indicated by the symbol on the cardboard package.

Do not:

- overturn the vending machine;

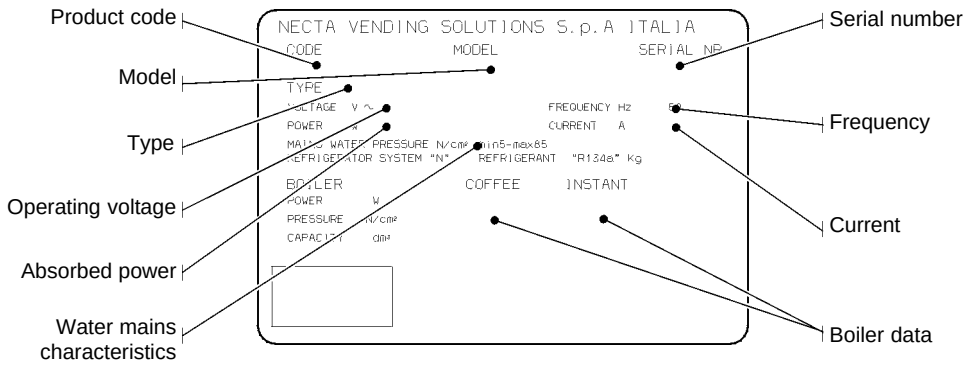
- drag the vending machine with ropes or similar;

- lift the vending machine by its sides;

- lift the vending machine with slings or ropes;

- shake or jolt the vending machine and its packing.

The machine should be stored in a dry room where the temperature remains between 0°C and 40°C.
Avoid stacking machines one on top of the other and always keep it upright as indicated by the arrows on the packing.



USING VENDING MACHINES FOR HOT DRINKS IN OPEN CONTAINERS

(Ex.: plastic cups, ceramic cups, jugs)

Vending machines for drinks in open containers should be used only to sell and dispense drinks obtained by:

- brewing products like coffee and tea;
- reconstituting instant and lyophilized products;

These products should be declared by the manufacturer as "suitable for automatic vending" in open containers.

The dispensed products should be consumed immediately. They should never be preserved and/or packed for later consumption.

Any other use is unsuitable and thus potentially dangerous.

POSITIONING THE VENDING MACHINE

The vending machine is not suitable for outdoor installation. It must be installed in a dry room where the temperature is between 2°C and 32°C, and not where water jets are used for cleaning (e.g. in large kitchens, etc.).
The machine should be placed close to a wall, so that the back panel is at a minimum distance of 4 cm from it and correct ventilation may be ensured.
The machine must never be covered with cloth or the like.
The machine should be positioned on a flat level.
If necessary provide proper levelling by way of the adjustable feet included.

WARNING FOR INSTALLATION

The machine installation and the following maintenance operations should be carried out by qualified personnel only, who are trained in the correct use of the machine according to the standards in force.

The machine is sold without payment system, therefore the installer of such a system has sole responsibility for any damage to the machine or to things and persons caused by faulty installation.

The integrity of the vending machine and its conformity with the rules and regulations in force for its relevant systems must be checked by qualified personnel at least once a year.

All packing materials shall be disposed of in a manner which is safe for the environment.

PRECAUTIONS IN USING THE MACHINE

The following precautions will assist in protecting the environment:

- use biodegradable products only to clean the machine;
- adequately dispose of all containers of the products used for loading and cleaning the machine;
- switch the machine off during periods of inactivity, thus achieving considerable energy savings.

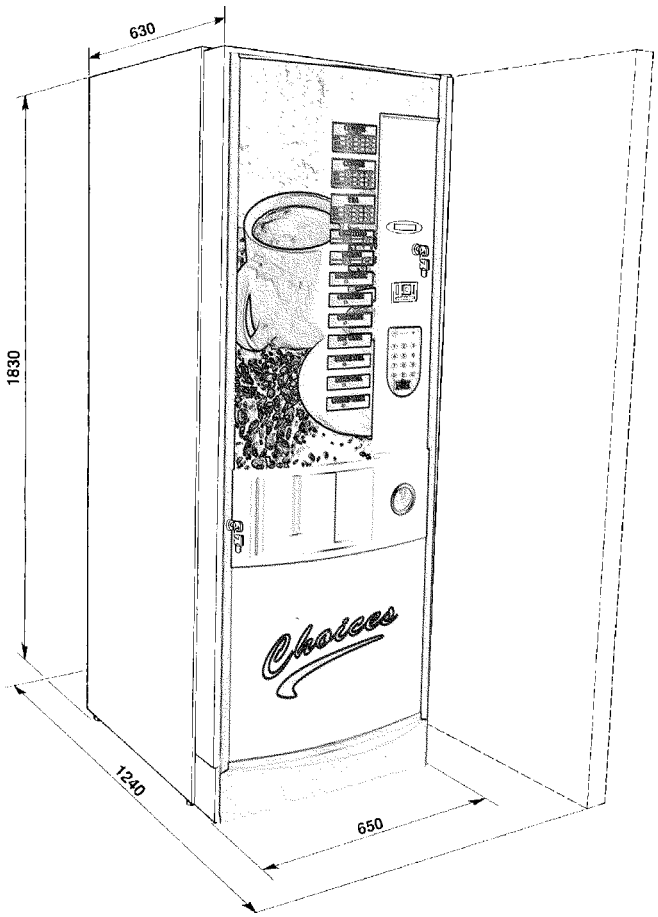
WARNING FOR SCRAPPING

Whenever the machine is to be scrapped, the laws in force regarding environment protection should be strictly observed. More specifically:

- ferrous and plastic materials and the like are to be disposed of in authorized areas only;
- insulating materials should be recovered by qualified companies.

DIMENSIONS

Height	1830	mm
Width	650	mm
Depth	630	mm



TECHNICAL SPECIFICATIONS

Power supply voltage	240	V~
Frequency	50	Hz
Installed power	2500	W
Weight	140	Kg

Lamps (240 V~)	N.	W
Upper advertising panel	1	16
Lower advertising panel	1	16
Dispensing compartment	1	25

CUP DISPENSER

For cups with a rim diameter of 73-74 mm. Capacity of 600 cups approximately;

COIN MECHANISM

The machine is provided with arrangements for an EXECUTIVE coin mechanism.

SALES PRICES

A different sales price can be programmed for each selection.
The sales price of selections for coffee and/or tea based products can be reduced or increased according to the concentration of the product required by the user.
The standard setting has the same sales price for all selections.

JUG FACILITIES AND FREE VEND

Using a special key, up to 5 selections of fresh brew without dispensing cups can be made to fill a jug, or free dispensing of normal beverages can be obtained.

COIN BOX

Made with aluminized metal sheeting. Lid and lock are available as optional accessories.

WATER SUPPLY

From the mains, with a water pressure of 5 (20, if a refrigerating unit is used) to 85 N/cm^2.

AVAILABLE ADJUSTMENTS

Time adjustment for coffee, instant products and water doses.

Temperature control

Factory set on the correct operating temperature. If necessary, a trimmer located on the control board allows small adjustments.

CONTROLS

- Presence of cups
- Presence of water
- Presence of brewing unit
- Liquid waste container full
- Operating temperature reached

SAFETY DEVICES

- Door switch
- Manual-reset boiler safety thermostat
- Manual-reset boiler anti-over-boiling thermostat
- Float jamming
- Overflow solenoid valve
- Float for full liquid waste container
- Boiler sensor short-circuit/failure detector
- Timer protection for:
  - Coffee unit ratiomotor
  - Coffee dispensing
- Overheating protection for:
  - Doser units
  - Coffee unit ratiomotor
  - Mixers
- Fuse-protection for:
  - Board power supply transformer
  - Executive power supply transformer

CAPACITY OF CONTAINERS

Fresh tea	2.5	Kg	approx.
Sugar	4.2	Kg	
Whitener	1.4	Kg	
Instant coffee	1.2	Kg	
Instant tea	4.3	Kg	
Chocolate	3.0	Kg	

POWER CONSUMPTION

The machine power consumption depends on many factors, such as the temperature and ventilation of the room where it is installed, the inlet water and boiler temperature, etc.
Under average conditions, and namely:

- Ambient temperature:	20°	C
- Instant product boiler temperature:	94°	C
- Inlet water temperature:	18°	C
- Water dose (average) per selection:	93	cc

the following power consumption levels resulted:

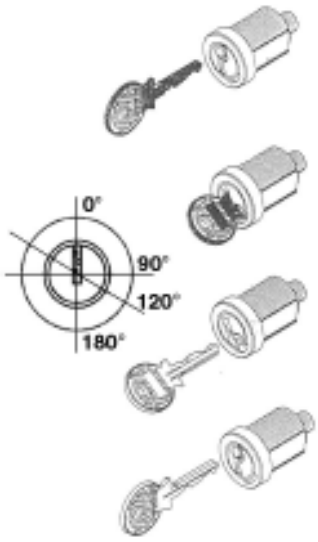
- To reach operating temperature	280	Wh
- Hourly stand-by power consumption	156	Wh
- Average consumption for instant products	11.2	Wh

The above power consumption calculated from average data should only be taken as an indication.

CHANGEABLE COMBINATION LOCK

Some machine models are fitted with a changeable combination lock.
The lock is supplied with two silver colour keys to be used for normal opening and closing.
The lock can be customised by using a kit, available as accessory, which permits changing of the lock combination.
This kit includes a change key (black) for the current lock combination as well as change (gold) and use (silver) keys for the new combination.
Sets of change and use keys with other combinations can be supplied on request.
Additional sets of use keys (silver) may be requested, indicating the combination stamped on the keys.
Generally, only the use key (silver) is used, while the combination change keys (gold) can be kept as spares.

Do not use the change key for normal opening, as it may damage the lock.



TO CHANGE COMBINATION DO AS FOLLOWS:

- insert the current change key (black) and rotate to the change position (reference notch at 120°);
- remove the current change key and insert the change key (gold) with the new combination;
- rotate to the close position (0°) and remove the change key.

The lock will now have the new combination.

Keys with the old combination cannot be used for the new combination.

ACCESSORIES

A wide range of accessories can be installed on the machine to change its performance:
The various kits are supplied with their own installation instructions, which must be strictly observed to ensure the machine's safety.

Important notice!!

The use of a kit that is not approved by the manufacturer does not guarantee compliance with safety standards, especially for energised components.
The manufacturer declines all responsibility for the use of non-approved components.

Installation and testing operations, must be carried out only by qualified personnel who have the specific knowledge of the machine functioning from a point of view of both electrical safety and health regulations.

LOADING AND CLEANING

DOOR SWITCH

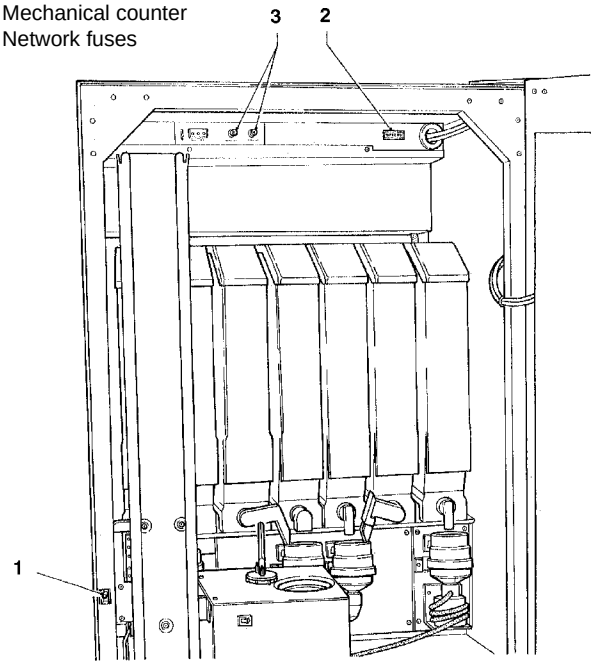
When opening the door a special switch disconnects the power from the machine electrical system to allow the operations described below, regarding loading and routine cleaning, in full safety.

All operations requiring the machine to be energized should be carried out by qualified personnel ONLY, informed about the specific risks of such situation.

The service power socket, permanently live, is sized for small tools; care should be taken not to exceed the rating indicated on the specific plate.
To energize the system with the open door, simply insert the special key into the slot (see Figure 1).
The door can be closed only after removing the key.

Do not leave the vending machine unattended with the door open.

Fig. 1
1 - Door switch
2 - Mechanical counter
3 - Network fuses



MAINTENANCE AND DISINFECTION

According to current safety and health rules and regulations, the operator of an automatic vending machine is responsible for the hygiene and the maintenance of the foodstuff circuits, to prevent formation of bacteria.

At installation the hydraulic circuits and the parts in contact with foodstuff should be fully sanitised to remove any bacteria which might have formed during storage.

It is advisable that specific sanitising agents (such as chlorine-based detergents or similar) are used for cleaning also the surfaces which are not in direct contact with foodstuff.

Some parts of the machine can be damaged by strong detergents.
The manufacturer declines all responsibility for any damage resulting from failure to comply with the above instructions or from the use of strong or toxic chemical agents.

Before starting any maintenance requiring parts of the machine to be removed, the machine must always be disconnected from the power supply.

CONTROLS AND INFORMATION

All user controls and information are conveniently located on the external side of the door (see Figure 2).
The labels with the selection menu and instructions, supplied with the machine, must be inserted at the time of installation.

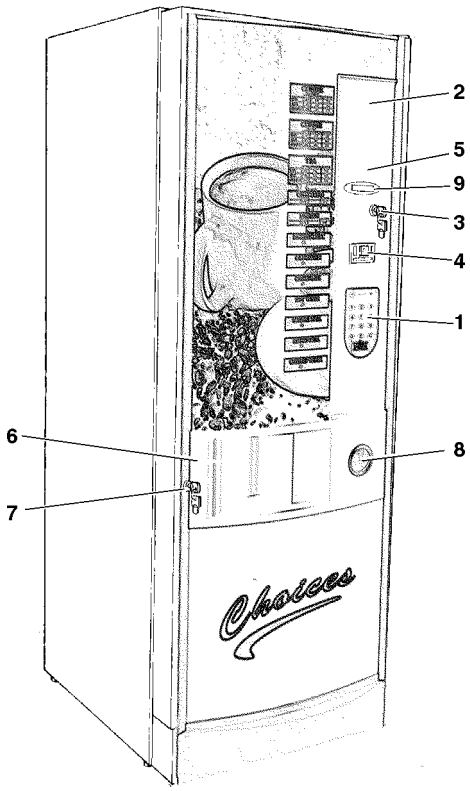


Fig. 2

1 - Selection push-buttons
2 - Spaces for user information
3 - Jug facilities / free vend key
4 - Coin slot / return button. "Exact amount" warning light
5 - Use instruction plate
6 - Dispensing compartment
7 - Lock
8 - Coin return flap
9 - Alphameric display

The Programming button, used to access the machine functions, and the mixer cleaning button are located on the right side of the coin mechanism compartment.

CUP LOADING

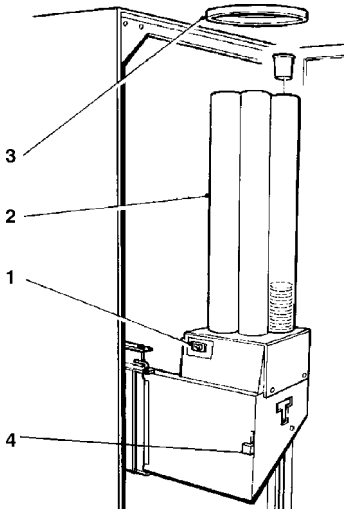
When loading cups for the first time (i.e. with the cup dispenser fully empty) operate as follows:

- disconnect the power from the machine;
- remove the cover from the cup container;
- fill the columns with cups, except the one aligned with the dispensing opening;

All operations requiring the machine to be energized should be carried out by qualified personnel ONLY who must be informed about the risks of such condition.

- switch the machine on; the filled column will be positioned automatically over the dispensing opening;
- fill the empty column;
- release one or more cups using the special button and replace the cover.

Fig. 3



1 - Cup release button
2 - Cup stacker
3 - Cover
4 - Shelf release lever

LOADING SUGAR AND INSTANT PRODUCTS

Each container must carry an appropriate label indicating the type of product.
After lifting its cover, fill the single containers with the appropriate products, taking care not to compress them to prevent packing. Make sure the products do not contain any clots.

SANITISING THE MIXERS AND FOODSTUFF CIRCUITS

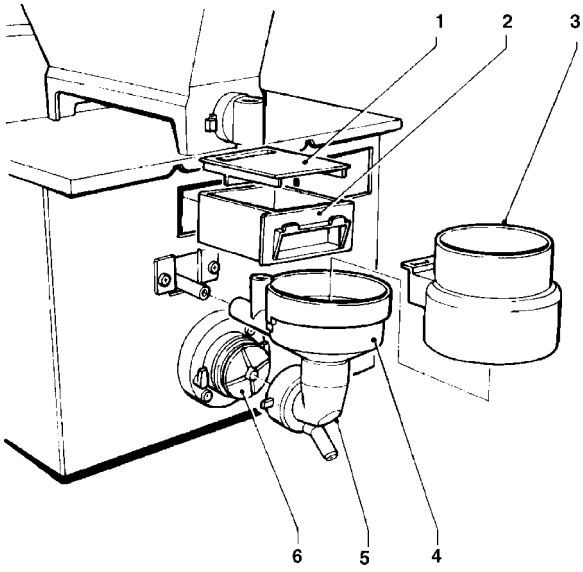
When installing the machine, and then at least once a week or even more frequently according to the use of the machine and the quality of the inlet water, the mixers and the dispensing conduits must be thoroughly sanitised (cleaned and disinfected), to guarantee proper hygiene of the dispensed products.

To make the sanitising operations faster, the machine is supplied with spare parts, to be installed in place of the components being cleaned.

The parts to be cleaned are the following:

- powder deposit drawer, mixer and drink dispensing conduit;
- dispensing hoses and spouts;
- sugar chute;
- dispensing compartment.
- remove the powder and the water funnels, the feeders, the powder deposit drawers and the blades from the mixers;

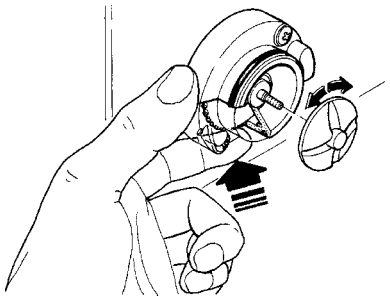
Fig. 4



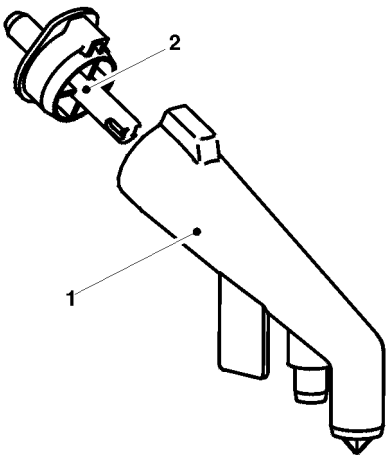
1 - Drawer cover
2 - Powder deposit drawer
3 - Powder funnel
4 - Water funnel
5 - Feeder
6 - Mixer wheel

- to remove the mixer blades it is sufficient to block the disk fitted on the mixer shaft with a finger.

Fig. 5



For models where the fresh product is dispensed directly into the cup, a special spout is used (see Figure 6), which prevents the pressure generated by the brewing piston from being discharged directly into the cup.
Also this spout and its plug must be cleaned following the same procedure described for the mixers.



1 - Tea dispensing spout
2 - Plug

Fig. 6

- Wash all parts with detergent, ensuring that all visible residue and product layers are mechanically removed, if necessary using a brush or similar implements;

Disinfection should be made using chlorine-based detergents.

- soak all components for approx. 20 min. in a container filled with the previously prepared chlorine-based detergent;

- reinstall the feeders and the water funnels;

- refit the powder deposit drawers and the powder funnels after thorough rinsing and drying.

After installing all parts, the following is required:

- go into "Maintenance" mode to clean the mixer (see relevant section) and add some drops of the chlorine-based detergent into each funnel.

- after disinfection, thoroughly rinse all parts to remove all possible residue of the solution used.

All operations requiring the machine to be energized should be carried out by qualified personnel ONLY who must be informed about the risks of such condition.

WEEKLY CLEANING OF THE BREWING UNIT

On a weekly basis, besides cleaning the external parts of the brewing unit to remove any dust residue, especially in the area of the funnel, also the parts of the unit in contact with the drink should be sanitised.

These operations should be carried out with machine switched off

- Undo the screw and remove the cover to gain access to the brewing unit

- Disconnect the pipe from the mixer and remove the mixer from the brewing cylinder.

- Release the cylinder from the assembly by pulling the release lever and then pulling it out of the piston control fork.

- Take the piston out of the cylinder.

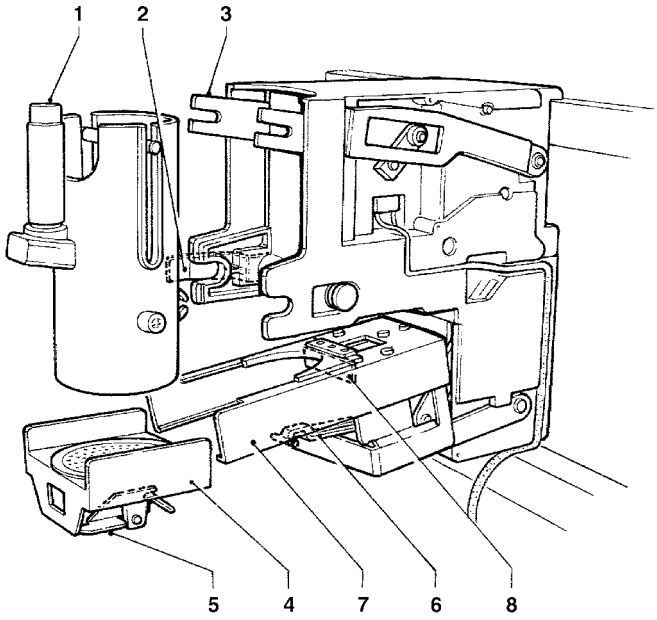
- Remove the sliding filter holder from the guide by releasing the tie-rod from the stop spring.

- Remove the scraper assembly.

- Wash all parts with mild detergent, ensuring that all visible residue and product layers are mechanically removed, if necessary using a brush or similar implements.

- Soak them for approx. 20 min. in a container filled with chlorine-based detergent of the type used for the mixers.

Fig. 7

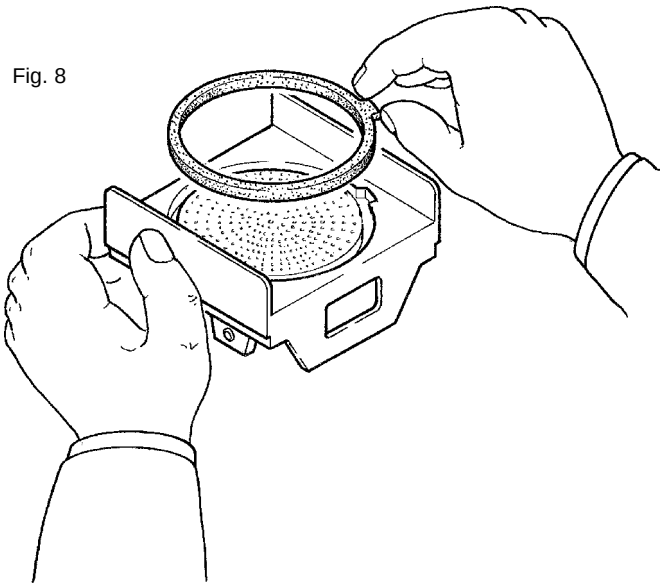


1 - Mixer
2 - Cylinder release lever
3 - Piston control lever
4 - Sliding filter holder
5 - Control tie-rod
6 - Filter holder stop spring
7 - Filter holder guide
8 - Scraper assembly

Do not use screwdrivers or any other sharp objects against the filter holder seal and avoid placing the seal on surfaces which may damage it.

If the metal filter is blocked it should be replaced or cleaned with a specific product.
To remove the metal filter, first pull out the seal from its edge (see Fig. 8).
The filter must be cleaned at least every 2,500 selections.
To reassemble the brewing unit follow the above instruction in the reverse order, making sure to fit the seal before installing the filter.

Fig. 8



REPLACING THE FILTER CARTRIDGE

Every 30,000 drink selections or every 6 months, the water mains metal filter cartridge should be replaced according to the procedure described in section "Installing the filter cartridge".

SUSPENDING FROM USE

If for any reason the machine is switched off for a period of time exceeding the products expiry date, it will be necessary to:

- fully empty the containers and thoroughly wash them with the chlorine-based detergents used for the mixers.
- fully empty the grinder and doser device by dispensing coffee until the empty status is signalled.
- fully empty the air-break and the boiler, loosening the clamp on the relevant hose.

Before reinstating the machine, the cleaning and sanitising operations described in the section "Annual sanitising" should be performed.

INSTALLATION

Installation and the following maintenance operations must be carried out with the **machine energised**, and therefore by qualified personnel only, trained in the correct use of the machine and informed on the specific risks of such condition.

The machine must be installed in a dry room, where the temperature stays always between 2° C and 32° C.

At installation it is necessary to completely sanitise the hydraulic system and all parts in contact with food, in order to eliminate any possible bacteria formed during storage.

UNPACKING THE VENDING MACHINE

After unpacking, be sure the machine is thoroughly intact. If in doubt, do not use the machine.

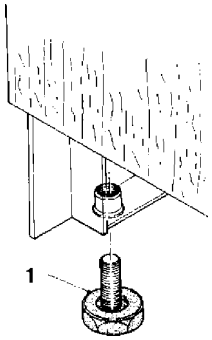
No packing elements (i.e. plastic bags, polystyrene foam, nails, etc.) should be left within the reach of children, as they are potentially dangerous.

Packing materials must be disposed of in authorised areas only, employing specialised companies for recyclable materials.

Important notice!!

The machine should be positioned on a level surface.
If necessary, provide proper levelling by means of the adjustable feet (see Figure 9) supplied with the machine.

Fig. 9



1 - Adjustable foot

INSERTING THE PRODUCT LABELS

The labels indicating the available product selections are supplied with the machine and should be inserted into the special slots at installation.
According to the model, some push-buttons may not be used (refer to the selection dose table).

Before starting any maintenance requiring parts of the machine to be removed, the machine must always be disconnected from the power supply.

INSTALLING THE FILTER CARTRIDGE

Make sure that the coloured ring is in the lower position (turned to the left).
Wet the two cartridge seals (see Figure 10).

a) insert the cartridge into the ring,

b) turn the cartridge to the right,

c) turn the ring fully to the right until locking the cartridge;

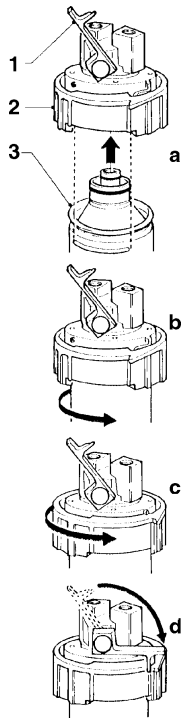
d) block the ring into place by lowering the lever, so that it is just in front of the ring nose.

NOTE: The lever is used as a tap.

lever lifted = tap closed

lever lowered = tap opened.

Fig. 10



1 - Lock lever
2 - Coloured ring
3 - Cartridge

CONNECTING THE MACHINE TO THE WATER MAINS

The machine is to be connected to the drinking water supply. The water pressure should be 5 to 85 N/cm$^{2.}$
Run water from the mains until it is clear and without impurities. Use a hose capable of withstanding the water mains pressure and suitable for use with foodstuffs (minimum inside diameter of 6 mm) to connect the water supply to the 1/4" gas-type union of the water inlet solenoid valve (see Figure 11)

1 - 1/4" gas-type water inlet fitting
2 - Supply hose
3 - Overflow pipe
4 - Inlet hose fittings

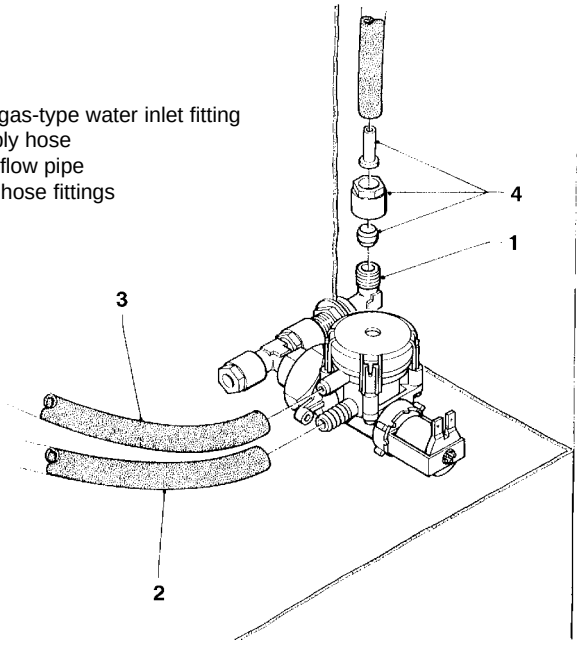


Fig. 11

It is good practice to install a suitable cutoff valve on the water supply outside the machine in an easily accessible position.

OVERFLOW DEVICE

The water inlet solenoid valve (see Figure 11) is equipped with an overflow device mechanically preventing the water from flowing in if there is a malfunction in the solenoid valve itself or in the control device of the boiler water level.
To restore normal operation, proceed as follows:

- disconnect the electric power from the machine;
- drain the water contained in the overflow hose;
- shut off the valve of the water supply outside the machine;
- loosen the nut which secures the solenoid valve supply hose to relieve the water mains residual pressure and then tighten again (see Figure 11);
- open the valve and switch on the machine.

CONNECTING THE POWER SUPPLY

The machine is designed to operate under a single-phase 240 V~ voltage and is protected by 15 A fuses.
Before making the connection make sure that the ratings correspond to those of the power grid, and more specifically:

- the supply voltage rating should be within the limits recommended for the connection points;
- the main switch should be capable of withstanding the peak load required, and at the same time should ensure proper omnipolar disconnection from the power grid when the opening gap of the contacts is at least 3 mm.

The main switch, the power outlet and the plug should be located in an accessible position.

The electrical safety of the machine is ensured only when it is correctly and efficiently earthed according to the safety standards in force.

This fundamental safety requirement must be duly verified, and if in doubt the system must be carefully tested by qualified technicians.

The power cable is of the type fitted with a fixed plug.
Any replacement should be done by qualified personnel only, using exclusively cables of the type HO5 RN - F or HO5 V V-F or H07 RN-F with a section of 3x1-1,5 mm^2.

Do not use adapters, multiple sockets and/or extensions.

Before switching the machine on, be sure it is correctly connected to the water mains and the cutoff valve is open.

THE MANUFACTURER DECLINES ALL RESPONSIBILITY FOR ANY DAMAGE CAUSED BY NONCOMPLIANCE WITH THE ABOVE MENTIONED SAFETY RULES.

DOOR SWITCH

When opening the door a special micro-switch disconnects the power from the machine electrical system.
To energize the system with the open door, simply insert the special key into the slot (see Figure 1).

With the door open, no energised parts can be accessed. Inside the machine the only energised parts are the ones which are covered with protective casings which are marked with a plate indicating "before removing the cover disconnect the electricity".

Before removing these covers it is necessary to unplug the machine from the mains socket.

The door can be closed only after removing the key from the door switch.

INSTALLING THE PAYMENT SYSTEM

The machine is sold without payment system, therefore the installer of such a system is responsible for any damage to the machine or to things and persons caused by faulty installation.

- Install the coin mechanism and make sure that the programming of the relevant parameters is correct;
- adjust the selector opening lever bracket in order to enable a complete selector opening;
- adjust the coin chute according to the type of coin mechanism installed.

FILLING THE WATER SYSTEM

If the air-break device indicates no-water for more than 10 seconds after the machine has been switched on, an installation routine will start automatically, and namely:

- the display will show

"INSTALLATION"

for the whole duration of the routine;

N.B.: If there is no water flow from the mains during the installation routine, the machine will stop until the water is resumed or the machine is switched off.

BREWING UNIT OPERATION

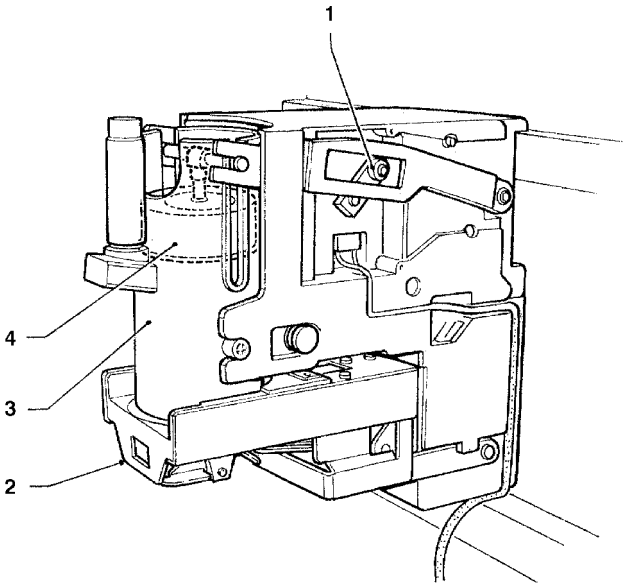
The brewing unit is designed for brewing fresh tea suitable for automatic vending.

Make sure that the powder funnel is properly cleaned at the end of dispensing.

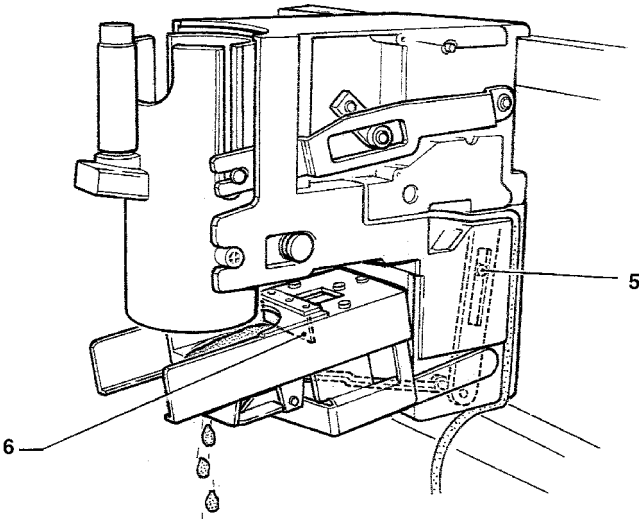
DISPENSING CYCLE

When a selection is made, the brewing unit motor will lift the sliding filter holder against the brewing chamber cylinder until a proper seal is obtained.
At the same time, the brewing piston is raised to let the water and the product mixture into the chamber.
Water dispensing starts one second after the unit motor starts.

Fig. 12



1 - Brewing unit crank
2 - Sliding filter holder
3 - Brew chamber cylinder
4 - Brewing piston
5 - Sliding filter holder motor
6 - Grounds removing scraper



Brewing will continue for a preset period of time, which can be programmed via software, then the piston is lowered to dispense the brewed drink and dry the used dose.
At the end of drink dispensing, the filter holder is lowered, the filter holder motor moves back the sliding filter holder, thus enabling the grounds to be removed by the scraper.
It is also possible to program a pause for drying the product dose to further improve the drink quality.

CHECKING AND ADJUSTING THE MACHINE SETTINGS

To get the best possible results from the product used, the following checks should be carried out:

product weight in grams

water dose

temperature of the drink

The weight of the products and the water dose are directly controlled by the microprocessor.
Therefore, to change these parameters the programming procedures must be followed.

STANDARD SETTINGS

The vending machine is supplied with the following factory settings:

- brew temperature (at the spout) 85-89°C approx.;

- instant product temperature (at the spout) 75°C approx.;

The standard setting of the machine assigns the first price, expressed in number of basic coins, to all selections.

WATER TEMPERATURE CONTROL

If the boiler temperature is to be changed, adjust the special trimmer (see figures 15 and 16) keeping in mind that:

- tightening will increase the temperature;

- loosening will decrease the temperature;

- the temperature varies by approx. 1° C every 2 turns.

CUP SENSOR

The cup sensor is adjusted as to detect the presence of objects (red LED glowing) placed between the sensor lens and the reflector.
The green LED glows when the reading from the reflector is correct.
The sensor's depth of reading is adjusted by turning the trimmer (preset at the factory); the correct setting is approximately 30°, anticlockwise, from the maximum.
For correct operation, the infrared transmitter and the reflector must be kept clean.

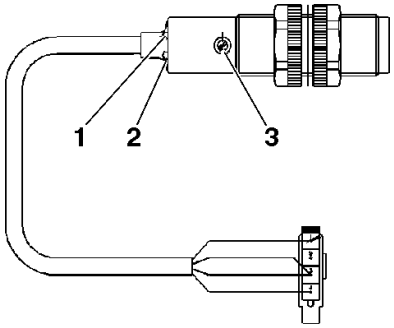


Fig. 13

1 - Green LED
2 - Red LED
3 - Adjustment trimmer

OPERATING MODES

Three different operation modes are available for the machine; according to the specific mode, the buttons may have different functions.
The available operation modes are as follows:

DISPLAY	FUNCTIONS
Normal mode	
"Ready"	coins accepted products dispensed
Maintenance mode	
"Maintenance"	test dispensing machine maintenance
Programming mode	
"Programming"	programming

NORMAL OPERATING MODE

After the apparatus has been switched on, the message "Starting" is displayed for a few seconds, after which the machine normal operating mode is started.
The massages displayed according to the current operation are the following:

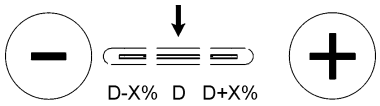
DISPLAY	FUNCTION
"Ready"	Machine ready to dispense drinks against payment.
"Free Vend"	Machine ready to dispense free drinks (key turned anticlockwise).
"Jug facility"	Machine ready to dispense up to 5 drinks without accessories (key turned clockwise).
"Price:...."	Display price of selection made
"Credit:....."	Display credit
"Out of Service"	Machine out of service
"Preparing"	Preparation of drink
"Temperature"	Wait time before reaching the operating temperature
"Installation"	Installation under way
"Sel. disabled"	Selection disabled
"FB out of S."	Brewing unit out of service (Instant models excluded)
"Take"	Drink ready
"Cup"	Cup present

JUG FACILITIES

With the key (see Figure 2) turned by a quarter of a turn anticlockwise, the machine is set to free dispensing of up to 5 consecutive drinks without accessories to permit jug filling.
The selection sequence can be interrupted by turning the key to the central position before one selection is ended.
At the beginning of the first selection the display will show the number of selections remaining to end the sequence.

PRE-SELECTIONS

Before selecting the drink, the powder dose for coffee, decaffeinated coffee and tea based selections can be varied by a programmable percentage using the "-" and "+" buttons.
The user's choice is displayed by the 3-LED card.



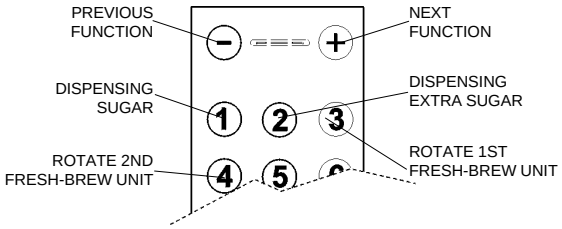
The price of the selections with dose variation may be increased or decreased by a programmed amount.
Button © is used to cancel all pre-selections made.

MAINTENANCE MODE

When the programming button located in the coin mechanism compartment is pressed once the machine will go to "Maintenance" mode.
The message "Maintenance" is displayed for approx. 2 seconds and then the first option of the "maintenance" menu will appear to activate the following functions:

"Compl. selec."	Complete test dispensing including cup and sugar
"Powd. only"	Dispensing powder only
"Water only"	Dispensing water only
"No accessories"	Test dispensing without cup or sugar
"Special functions"	Rotating and brushing the unit Dispensing sugar Dispensing extra sugar

For complete or partial test dispensing press button Ⓔ before entering the selection number.
When the display shows "Special functions" the push-buttons will have the following functions:



PROGRAMMING

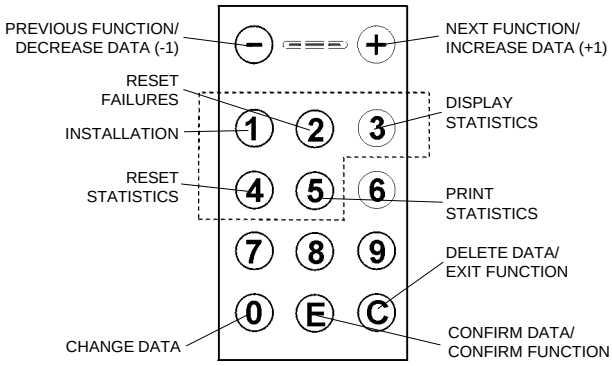
When pressing the programming button located in the coin mechanism compartment twice, the machine will go to "Programming" mode.
The message "Programming" is displayed for approx. 2 seconds, and after this the first option of the programming menu appears on the display enabling the following functions:

"Curr. failures"	current failure reading
"Water dose"	water dose setting
"Powd. dose"	powder dose setting
"Set Price"	price setting
"Set price/select."	price/selection allocation enable/disable selections
"Basic coin / DP"	setting basic coin value and decimal point position
"Validat. lines"	validator line value setting
"Initialise"	RAM initialising
"Machine code"	machine code setting
"Discount"	price change depending on the pre-selections made
"Dose var."	percentage change of powder doses
"Promot. Advert."	enabling/setting promotional message
"Instant Cooling"	pre-dispensing of cold water into the mixer
"FB1 data"	parameter setting for fresh product dispensing 1st brewing unit
"FB2 data"	parameter setting for fresh product dispensing 2nd brewing unit

The following is also possible:

- failure reset;
- machine installation;
- statistics display;
- statistics printout;
- statistics reset.

Now the push-buttons will have different functions as shown in the figure below.



The push-buttons within the dotted line perform direct functions, the ones outside permit either menu scrolling or changing of data.

DISPLAYING CURRENT FAILURES

When the "Curr. failure" function from the "programming" menu is displayed, press the confirm button Ⓔ to display the error code of the current failure;
press the button ⊕ to display the error code of the next applicable failure. If no failure is currently present, when pressing the confirm button Ⓔ the message "No Failure" will be displayed.
The various failures are shown in the following cases:

BOILER LEVEL

The machine will lock if after 3 selections the float micro-switch has not signalled the lack of water.

BOILER FAILURE

The machine will lock if after 20 minutes of heating time from the machine start or from the last selection the instant boiler fails to reach the operating temperature.

COIN MECHANISM FAILURE

The machine will lock if it receives a pulse longer than 2 seconds on a validator line or the communication with the serial coin mechanism does not take place for more than 30 seconds.

RAM DATA FAILURE

The data contained in the EEprom (i.e. the chip that stores the setting variations) is wrong and must be retrieved from the Eprom, losing all statistics data.

WATER FAILURE

If the air-break microswitch is closed for one minute, the water inlet solenoid valve will remain triggered until the water flow is restored.

CUP FAILURE

When the empty cup column microswitch is opened, the column shift motor is actuated. If after one full turn the microswitch is not closed the machine will lock.

LIQUID WASTE CONTAINER FAILURE

This occurs after the liquid waste container float is triggered.

BREWING UNIT 1 FAILURE

This failure is due to the unit's incorrect position. The machine will not lock but all fresh product based selections are disabled.

FB 1 SCRAPER FAILURE

Incorrect positioning of the waste ejection scraper. The machine will not lock but all fresh product based selections are disabled.

BREWING UNIT 2 / FB 2 SCRAPER FAILURE

As unit 1 and scraper 1, if the second brewing unit is fitted.

SYRUP 1 AND 2 FAILURE

The selections containing syrup are disabled.

MOBILE SPOUT FAILURE

If the spouts do not reach the dispensing points the machine is disabled.

WATER FAILURE (COLD UNIT)

Cold selections are disabled if the pressure switch at the mains inlet indicates a no-water condition.

PROGRAMMING THE WATER AND POWDER DOSES

When either the "Wat. dose" or the "Powd. dose" functions are displayed the doses can be changed from the "programming" menu.
The various doses are identified with dose codes, which are displayed each time.
The dose code locates the water and powder doses related to a given selection.
The dose codes of the various selections can be viewed in the selection dose table which is supplied with the machine.
The values of the doses displayed are expressed in tenths of a second.
Press the confirm button Ⓔ from the “programming” menu to access the dose code list, which can be scrolled with the ⊖ and ⊕ buttons.
When pressing the correction button Ⓒ this value will start blinking and can be changed as necessary.

PRICE SETTING

When the "Set Price" function is displayed, the 14 sales prices stored can be changed from the "programming" menu.
The prices are indicated as number of basic coins.
Press the confirm button Ⓔ from the "programming" menu to access the price list, which can be scrolled with the ⊖ and ⊕ buttons.
When pressing the correction button Ⓒ this value will start blinking and can be changed as necessary.

PROGRAMMING THE PRICES AND THE SELECTION STATUS

When the "Set Price/Select." (price setting) function is displayed, the selection setting to one of the memorised prices and/or the state of one selection can be varied from the "programming" menu.
The prices are indicated as number of basic coins.
Press the confirm button Ⓔ from the "programming" menu to access the selection status, which can be changed with the ⊖ and ⊕ buttons.
When pressing the correction button Ⓒ the selection status will start blinking and can be changed from (enabled) to (disabled) with the ⊖ and ⊕ buttons.
Press the confirm button Ⓔ from the "programming" menu to set the price for each selection, which can be changed with the ⊖ and ⊕ buttons.
When pressing the correction button Ⓒ this value will start blinking and can be changed as necessary.

NOTE: The residual credit is controlled by the minidips located on the CPU board. Refer to the “Configuring the electronic boards” section for settings.

PROGRAMMING THE BASIC COIN AND THE DECIMAL POINT

When the "Basic coin / DP" (basic coin value) function is displayed, the value of the basic coin as well as the position of the decimal point can be modified from the "programming" menu.
Press the confirm button Ⓔ from the "programming" menu to display the current value of the basic coin.
Using the ⊖ and ⊕ buttons, the display will alternate between the value of the basic coin and the number of the decimal point position, i.e.:

0	decimal point disabled
1	XXX.X
2	XX.XX
3	X.XXX

When pressing the correction button Ⓒ this value will start blinking and can be changed as necessary.

PROGRAMMING THE VALIDATOR LINES

When the "Validat. lines" (lines programming) function is displayed, the value of the 6 coin lines of the validator can be varied from the "programming" menu.
The values of the lines are indicated as number of basic coins.
Press the confirm button Ⓔ from the "programming" menu to access the price list, which can be scrolled with the ⊖ and ⊕ buttons.
When pressing the correction button Ⓒ this value will start blinking and can be changed as necessary.

INITIALISING

When the "Initialise" function is displayed the vending machine can be initialised, restoring all default data.
This function should be used when a memory data error occurs or when the EPROM is replaced.
All statistical information will be reset.
When pressing the confirm button Ⓔ the message "Confirm?" is indicated on the display for confirmation.
When pressing button Ⓔ a second time, the message "Working" is displayed for a few seconds.

PROGRAMMING THE MACHINE CODE

When the "Machine code" function is displayed the identification code number of the machine can be changed (from the default 0000 to a number up to 9999).
Press the confirm button Ⓔ to display the current code number; when using the correction button Ⓒ the first digit will start blinking.
Pressing a button, its value will be assigned to the blinking digit and the next digit starts blinking.

DISCOUNT DATA

This function is used to set the amount of price increase or reduction of a selection resulting from the pre-selection of a higher or lower dose of powder. When setting this value to 0 this function is disabled.

DOSE VARIATION

This function is used to set the percentage change (default = 10%) for the product dose when the user makes the pre-selections with ⊖ and ⊕.

SETTING THE PROMOTIONAL MESSAGE

When this menu is displayed , press the confirm button Ⓔ to display the message status (enabled/disabled).
The status can be changed using the ⊖ and ⊕ buttons.
If the message is enabled, press the confirm button Ⓔ and the first character will start blinking and can be changed as necessary.
The push-buttons will have the following functions:

⊖ = back (previous character)

⊕ = forward (next character)

① = A B C D E

② = F G H I J K

③ = L M N O P

④ = Q R S T U

⑤ = V W X Y Z

⑥ = 0 1 2 3 4

⑥ = 5 6 7 8 9

⑧ = .: ; < = > ?

⑨ = <space> ! " $ % &

⓪ = ( ) * + , - . /

Ⓔ = upper/lower case

Ⓒ = exir

The values are displayed alternating by pressing the button sequentially.
The message is stored by pressing button "2" on the last position.

COOLING THE MIXER

When the "cooling mixer" function is displayed, press the confirm button Ⓔ to display the status (enabled/disabled); press the correction button Ⓒ to change the status of the function.
If the function is enabled and no cold drinks have been dispensed into the cold drink mixer during the previous 5 minutes, a small amount of cold water is dispensed before any selection.

FRESH BREW DATA

This group of functions is used to configure programming to adapt the operating cycle of the brewing unit to the type and to the characteristics of the product used, and more precisely:

"Brewing time"	brewing time setting
"Drying time"	time setting for drying the dose

INSTALLATION

Press the installation button "1" to start the filling the hydraulic system, even with the air break full.

RESETTING FAILURES

When pressing the failure reset button “2” the message "Working" is displayed for a few seconds and all current failures are reset.

DISPLAYING THE STATISTICS

When pressing the statistics display button "3" the stored data are sequentially shown on the screen with intervals of 1 second if no other button is pressed, and more precisely:

1 - single selection counter;

2 - single price counter;

3 - counter per type of coin cashed;

4 - total cash counter;

5 - failure counter.

PRINTING THE STATISTICS

The statistics described in the section "displaying the statistics" can be printed with a RS-232 serial printer with a Baud rate of 9600, 8 data bit, no parity, 1 stop bit, connected to the serial port located on the push button board (the CITIZEN I-DP 3110-24RF 230 A p/n 9210219 printer is recommended). The hardcopy printout will also contain the machine code number and the printout progressive number.
The progressive hardcopy printout number can be reset only by initializing the machine.
To connect the printer do as follows:

- Press the statistics print button “5” and the message "Confirm?" will be displayed;

- before confirming connect the printer;

- press the confirm button Ⓔ to start printing

RESETTING THE STATISTICS

When pressing the statistics reset button “4” the message "Confirm?" will be start blinking.
When pressing the confirm button Ⓔ the message "Working" is displayed for a few seconds and the statistics are reset.

PROGRAMMER (OPTIONAL)

AUTOMATIC SETUP TRANSFER

Using the programmer device makes it possible to read the programming routines set and transferred to other apparatuses from a given vending machine.
These data are preserved also when the programmer is disconnected thanks to a couple of Duracell batteries LR03 Format AAA 1.5 V (to be replaced every 12 months).
The programmer allows up to twenty different programs (setups) to be stored.
To identify, among the 20 setups available, those containing data, a special character is displayed, and more precisely:

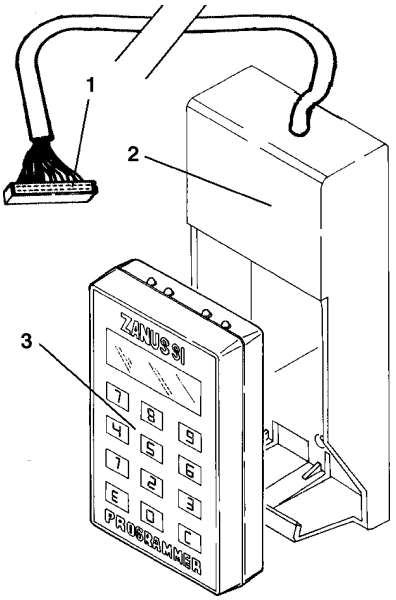
< - > = Setup free

< □ > = Setup with data.

When creating the setup only the programs containing data are available; if no setup contains data, the message "no data available" will appear on the programmer display.
The special holder (see Fig. 14) is used to connect the programmer to the machine, connecting the cable to the special connector of the push-button board (see Fig. 16).
Then enter the "programming" mode and press twice the relevant key on the coin mechanism compartment.
At this point, by inserting the programmer in its holder, an automatic connection will take place, and the setup menu will be shown on the programmer display:

- Pressing key “E” will access the displayed function;
- Pressing key “O” will display the following function;
- Pressing key “C” will display the previous function.

Fig. 14



1 - Connector
2 - Programmer holder
3 - Programmer

PROGRAMMER SETUP READING	SETUP READING SETUP 01 <X> SETUP READING SETUP 20 <X>	SETUP 01 <X> Confirm?
PROGRAMMER CREATE SETUP	CREATE SETUP SETUP 01 <X> CREATE SETUP SETUP 20 <X>	SETUP 01 <X> Confirm?

TRANSFERRED DATA

The following data is transferred through the programmer :

· Water doses
· Powder doses
· 14-price table
· Price/selection status
· Basic coin
· Decimal point position
· Value of the validator lines
. FB data
. Discount data
. Dose changes
. Mixer cooling

CONFIGURING THE LANGUAGE

It is possible to change the programmer configuration with regard to the language in which the messages are to be displayed as well as to reset all of the data therein contained.
To activate the "Programmer configuration" operate as follows:

- fit the programmer in its holder and start the machine.
- wait for about 10 seconds and then press the programmer keys "C" and "O"; the first function will be thus displayed:

LANGUAGE CONFIGURATION	CONFIGURATION ITALIAN CONFIGURATION FRENCH CONFIGURATION GERMAN CONFIGURATION ENGLISH CONFIGURATION SPANISH	CONFIGURATION Confirm?
CONFIGURATION	INITIALISE INITIALISE	Confirm?
CONFIGURATION CONFIG. END	Exit from the configuration menu The software starts again from address 0000 (as when starting the machine)	

MAINTENANCE

The integrity of the machine and compliance of the relevant systems with the standards shall be checked at least once a year by qualified personnel.

Switch the machine off before any maintenance operations which involve disassembly of its components.

The operations described below must be carried out by personnel who have the specific knowledge on the functioning of the machine, both from the point of view of electrical safety and health regulations.

INTRODUCTION

To ensure correct operating conditions over time, the machine must be subjected to regular maintenance.
The following sections contain the procedures and the maintenance schedule, which are given only as an indication, since they greatly depend on the operating conditions (e.g. water hardness, environmental humidity and temperature, type of product used, etc.).
To prevent any risks of oxidation or the action of chemical agents, the stainless steel and painted surfaces should be cleaned with mild detergents (solvents should be avoided).

Do not use water jets to clean the machine.

BREWING UNIT MAINTENANCE

As well as cleaning every week and/or every 2,500 selections, the brewing filter and its seal must be replaced every 25,000 selections, even if they appear to be still sound.
The brewing unit must be disassembled completely and its components thoroughly cleaned every 100,000 selections replacing all worn out parts.
The brewing cylinder must be changed even if it appears to be still sound and efficient.
During these operations the area beneath the brewing chamber is to be properly cleaned.

Important notice!!

Should the whole unit need to be removed, do not handle it by the cylinder or by the filter holder

OVERHEAT PROTECTION

If the brewing unit stops, the software control shuts off the power from the brewing unit motor.
The motor is however fitted with an overheat protection with automatic reset.

BOILER MAINTENANCE

According to the water hardness and to the number of selections made, a periodic descaling of the boiler is necessary.

This operation should be carried out by qualified technicians only.

The boiler must be removed from the machine for descaling. Use only biodegradable, nontoxic and mild products for descaling. Thoroughly rinse all parts before reassembling them.

When reassembling make sure that:

- the electrical contacts (terminals, fastons etc.) are perfectly dry and correctly connected;
- the safety and anti-boiling thermostats are suitably positioned and fastened;
- the hydraulic connections are correctly made.

IMPORTANT NOTICE!!!

If for any reasons the heating system of the boiler is operated without water, before restarting the machine the correct functioning of the boiler temperature sensor should be checked.

If heating without water continues until the safety thermostat is triggered (see hydraulic system) the boiler temperature sensor will be

PERMANENTLY DAMAGED

AND IT MUST BE REPLACED.

ANNUAL SANITIZING

At least once a year, or more frequently depending on the use of the machine and the quality of the inlet water, the entire foodstuff circuit must be cleaned and sanitised in the following way:

- all parts of the system in contact with food, including pipes, must be removed from the machine and fully disassembled;
- wash all part with detergents, making sure to mechanically remove all visible residue and product layers with brushes or similar implements, if necessary;
- all parts removed must be soaked in a sanitising solution for at least 20 minutes;
- the machine internal surfaces must be cleaned with the same type of sanitising solution;
- Thoroughly rinse and then reinstall the parts.

Before restarting the machine, and after all parts have been reinstalled, the same disinfecting procedure described in section "Sanitizing the foodstuff circuits and the mixers" should be repeated.

IMPORTANT NOTICE!!!

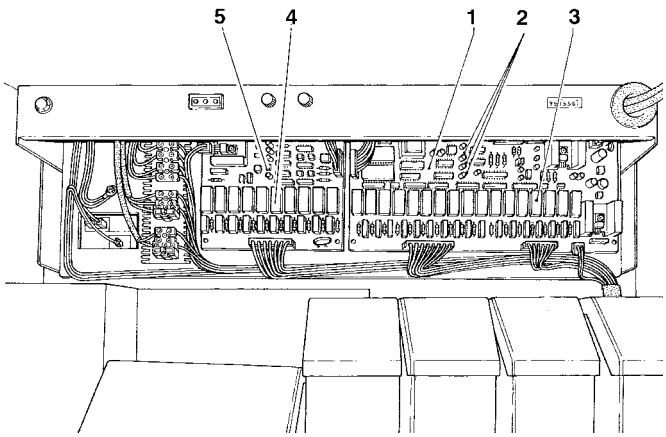
The inlet filter MUST NOT be washed or disinfected. It should be replaced according to schedule.

PRINTED BOARD FUNCTIONS AND INDICATOR LIGHTS

CONTROL BOARD

This board (see Figure 15 and 17) processes the information from the buttons and from the payment system, and controls the actuations and the push-button board.

Fig. 15



1 - Control board
2 - LEDs
3 - Relay
4 - Expansion board
5 - Red LED

The 15 V~ voltage required for board operation is supplied by a transformer which is protected by a 125 mA T fuse on the primary and a 1.25 A T fuse on the secondary winding. The voltage supply is rectified and stabilised directly by the board.
The board also houses the EPROM chip.

- the yellow LED shows the presence of a 12 V DC voltage;
- the green LED blinking indicates that the microprocessor is working correctly;
- the red LED indicates the operating state of the boiler heating element.

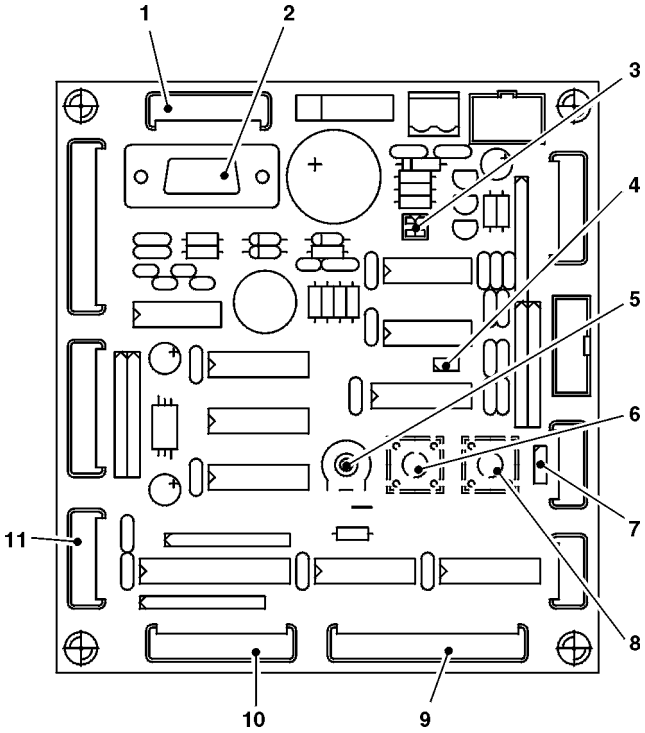
EXPANSION BOARD

This board (see Figure 15 and 18) controls the actuations concerning the instant product boiler as well as the various optional applications (e.g. tea brewer, cold unit etc.).

PUSH-BUTTON BOARD

This board controls the alphameric display, the selection buttons and the service buttons.
It supports the coin mechanism connectors as well as the printer port.

Fig. 16



1 - To the programmer
2 - RS232 serial port
3 - Payment system minidip
(1-2: OFF = BDV; ON = MDB)
4 - Jp1 =
5 - LCD display contrast adjustment trimmer
6 - Programming button
7 - Jp2 =
8 - Mixer cleaning button
9 - To the LCD display
10 - To the push-button panel
11 - To the sugar LED card

CONFIGURING THE ELECTRONIC BOARDS

The electronic boards are designed to be used in many machine models.
In case of replacement, or when wishing to change the machine performance, the configuration of the boards needs to be checked.
Two rows of minidips are located at the centre of the control board (see Fig. 17) and of the expansion board (see Fig. 18), permitting suitable configuration of the board for use in the various machine versions; also a jumper (5) is located on the control board, to configure the board for either Instant or Espresso models. The board is also designed to support 512 Kb and 1 Mb EPROMs by configuring jumpers JS3 and JS4.
To correctly configure the boards, refer to the following tables, keeping in mind that the numbers are referred to the dips of the control board and the numbers followed by an "E" are to be referred to the dips of the expansion board.

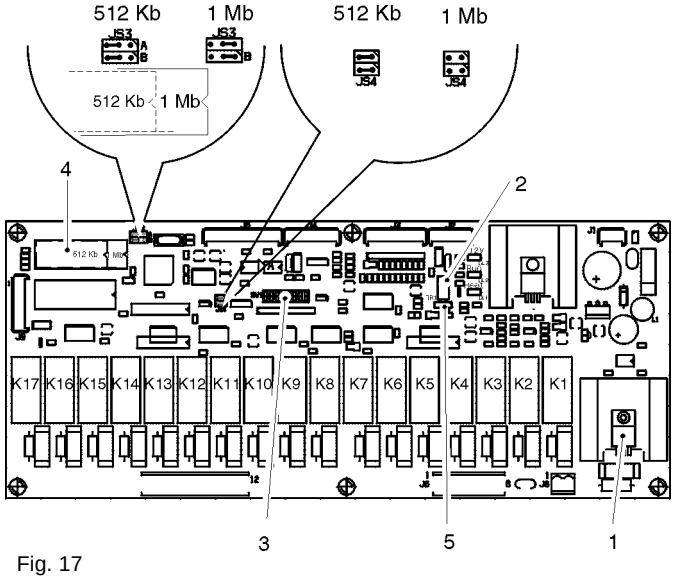


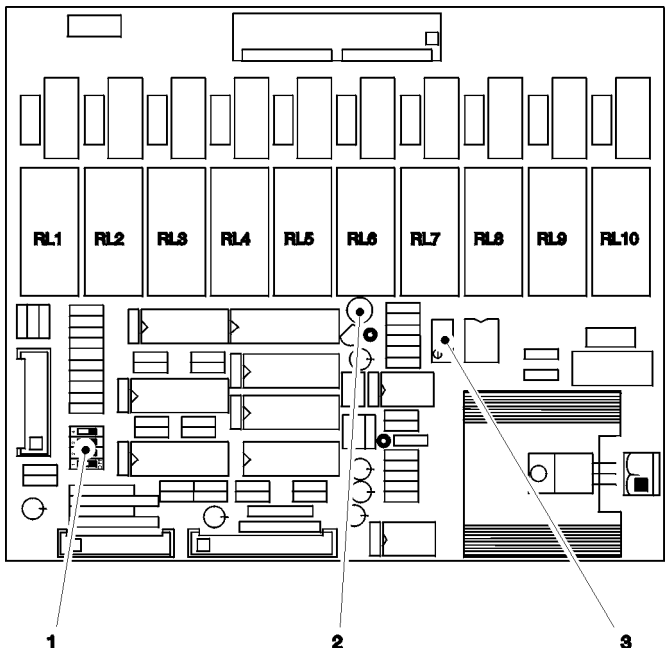
Fig. 17

1 - Triac of the boiler heating element
2 - Temperature control trimmer
3 - Configuration minidip
4 - EPROM
5 - Jumper fixed on 2-3

RELAY FUNCTION (see wiring diagram)

		BREWER	INSTANT
K1	=	MF3	MF4
K2	=	MF2	MF3
K3	=	MD5	MD5
K4	=	E4	E4
K5	=	E3	E3
K6	=	E2	E2
K7	=	E1	E1
K8	=	MFB1	MF1
K9	=	MD4	MD4
K10	=	MD3	MD3
K11	=	MD2	MD2
K12	=	MD1	MD1
K13	=	MSB	MSB
K14	=	MSP	MSP
K15	=	MSCB	MSCB
K16	=	EIA	EIA
K17	=	MF1	MF2

Fig. 18



1 - Minidip
2 - Boiler heating element LED
3 - Instant boiler temperature control trimmer

RELAY FUNCTION (see wiring diagram)

		BREWER	INSTANT
RL1	=	MPF2	PM sanit
RL2	=	MFB2.	EV sanit.
RL3	=	PMF2	PMF2
RL4	=	PMF1	PMF1
RL5	=	EVF1	EVF1
RL6	=	EVF2	EVF2
RL7	=	MSU	MSU
RL8	=	MPF1	E5
RL9	=	MF4	MF5
RL10	=	MD6	MD6

CONFIGURING THE LAYOUT

Depending on the selected drinks to be dispensed, minidips 6 and 7 on the control board and minidips 1 and 2 on the expansion board shall be set according to the selection dose table supplied with the machine.

CONFIGURING THE MODEL

According to the model minidip 5 shall be set as follows:

MODEL	INSTANT	ESPRESSO
MINIDIP 5	ON	OFF

CONFIGURING THE PAYMENT SYSTEM

On the units of the Spazio range it is possible to either install serial payment systems or only a 24 V validator, by setting minidip 1 as shown in table below:

SYSTEM	SERIAL	VALIDATOR
MINIDIP 1	ON	OFF

If the machine is to dispense free drinks, without using payment systems, it will be necessary to ensure that minidip 1 is set to OFF.

CONFIGURING THE CREDIT MANAGEMENT

If only a validator is used, it is possible that the credit paid in excess be made available to the user for a period of three minutes by setting minidip 3 as shown in the table

CREDIT	MANAGED	NOT MANAGED
MINIDIP 3	ON	OFF

CONFIGURING THE SERIAL SYSTEM

When serial systems are used dips 3, 4 and 8 shall be configured as shown in the table below.

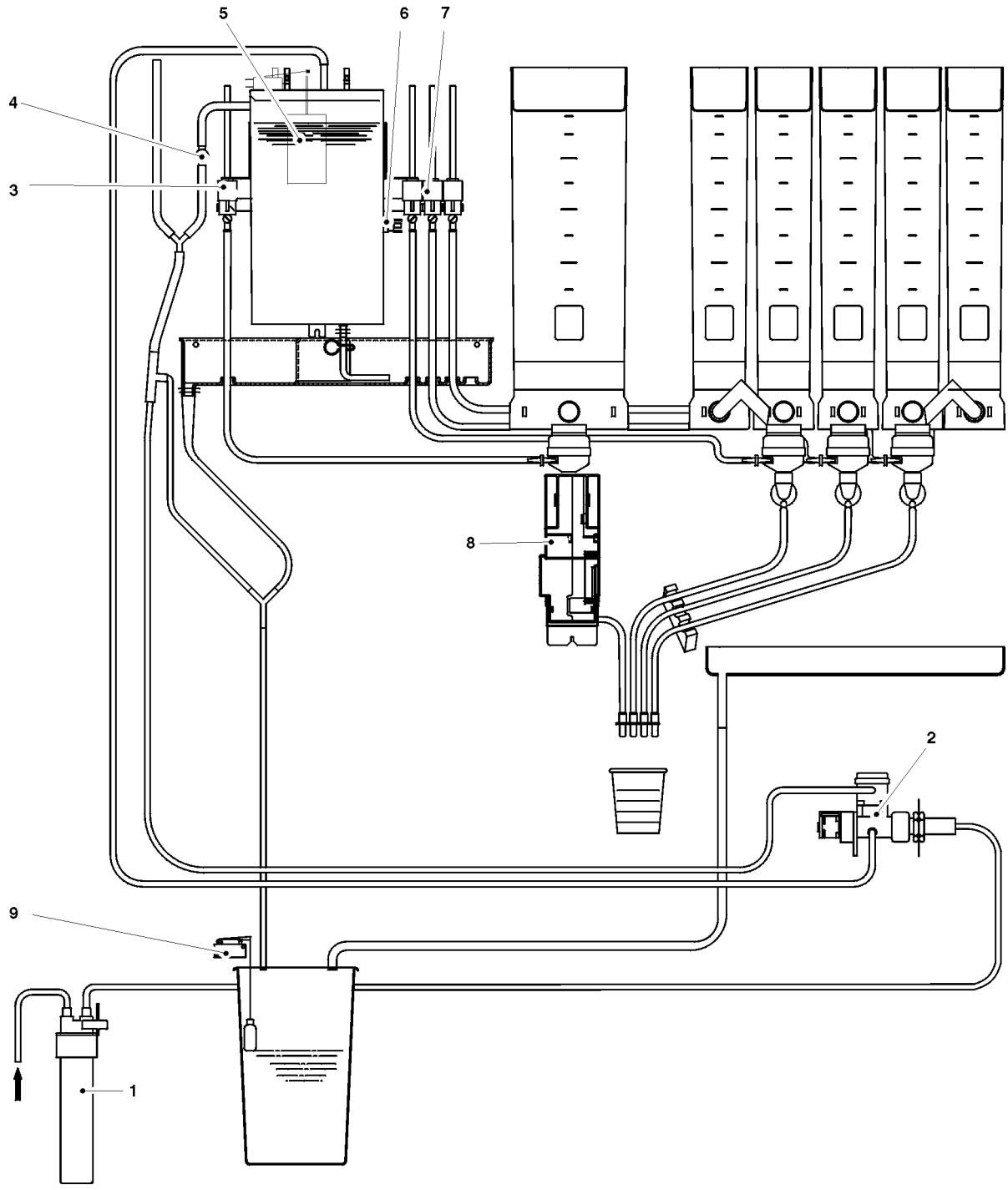
SERIAL SYSTEM	DIP 3	DIP 4	DIP 8
Executive std. U-key URW 2	OFF	OFF	OFF
Executive price holding (parameter 36 = 3)	OFF	ON	OFF
ECS system	ON	OFF	OFF
U-Key URW3	OFF	OFF	ON

Important notice:

The minidips which are not mentioned must be placed in the OFF position.

HYDRAULIC SYSTEM

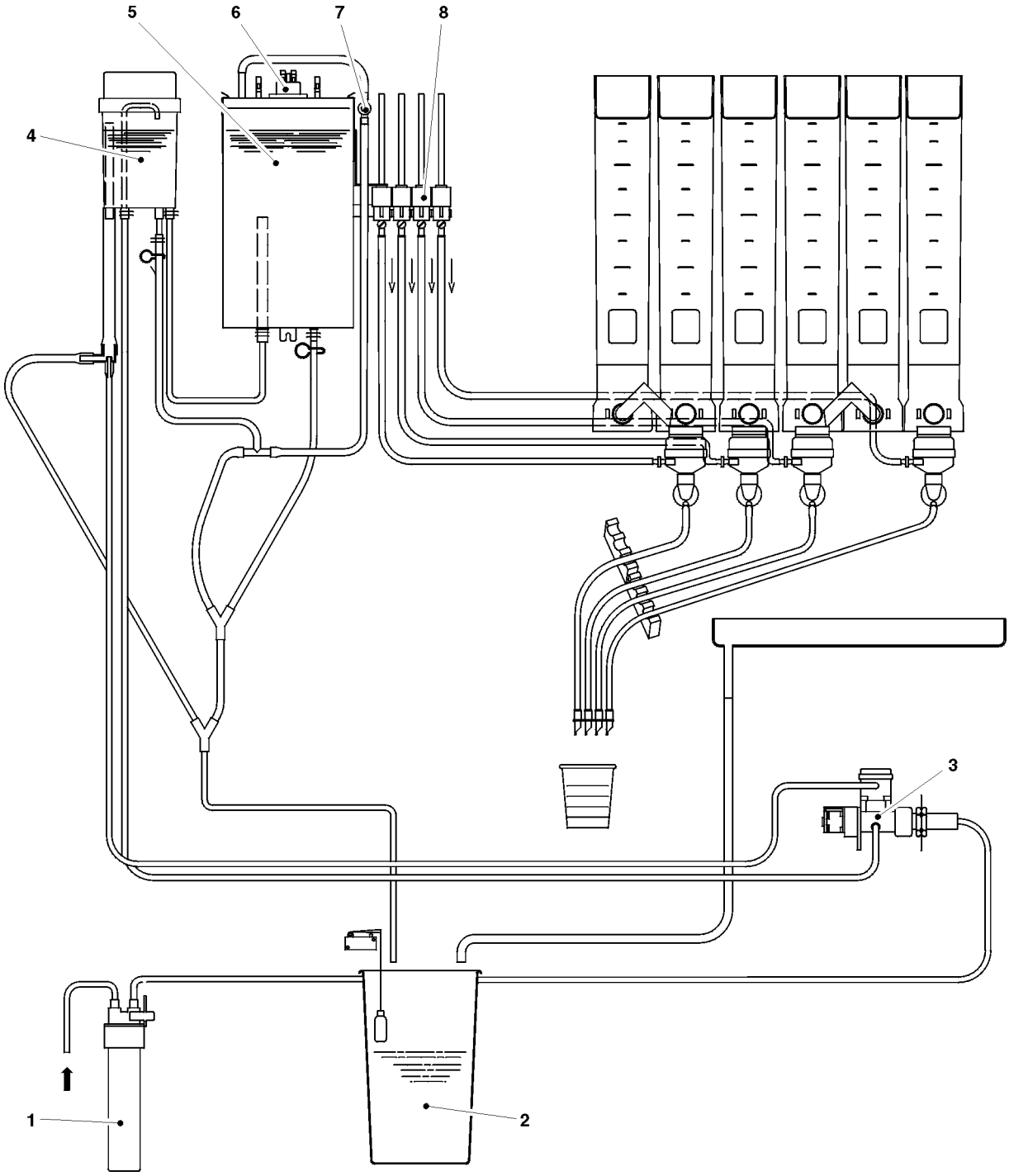
models equipped with brewing unit



1 - Dechlorinating filter
2 - Water inlet solenoid valve
3 - Brewing unit solenoid valve
4 - Anti-boiling thermostat
5 - Boiler float
6 - Safety thermostat
7 - Instant product solenoid valves
8 - Brewing unit
9 - Liquid waste container float

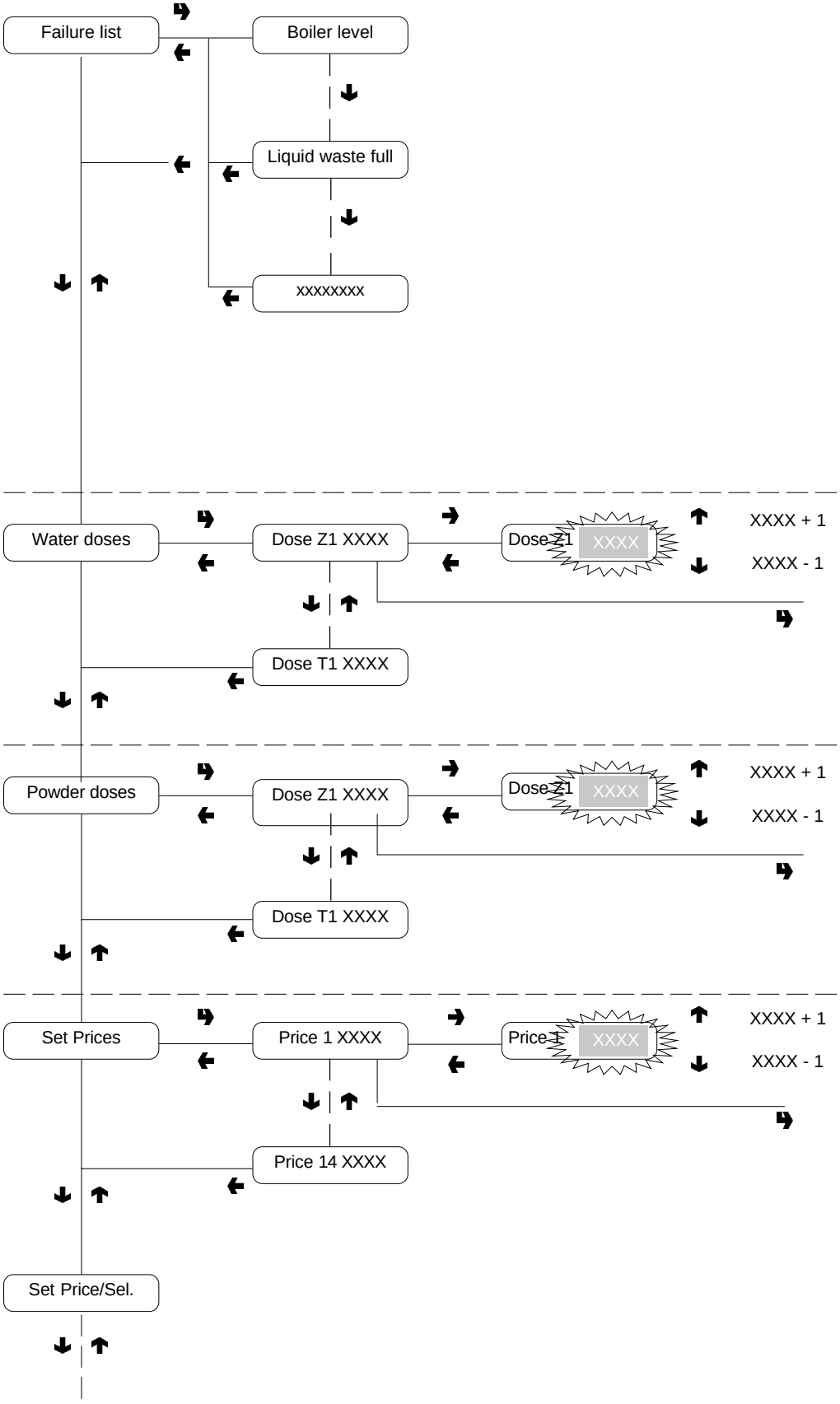
HYDRAULIC SYSTEM

instant models



1 - Dechlorinating filter
2 - Liquid waste container
3 - Water inlet solenoid valve
4 - Air-break
5 - Instant boiler
6 - Safety thermostat
7 - Anti-boiling thermostat
8 - Instant product solenoid valves

Programming menu



FAILURE DISPLAY

If no failure is detected, when pressing button ↳ the message "No failures" is displayed

FAILURE LIST
Boiler level
Boiler
Coin mechanism
RAM data
Water failure
Cup failure
Liquid waste full
Mixer wheel
Brewing unit
Unit scraper
Syrup 1 failure
Syrup 2 failure
Mobile spouts
Cold unit water failure

WATER DOSES

Refer to the selection dose table for the correspondence between dose code and powder or water dose

POWDER DOSES

Refer to the selection dose table for the correspondence between dose code and powder or water dose

PRICE VALUE

Price table; values expressed in basic coins

⊖ PREVIOUS FUNCTION/ DECREASE DATA (-1) ↓

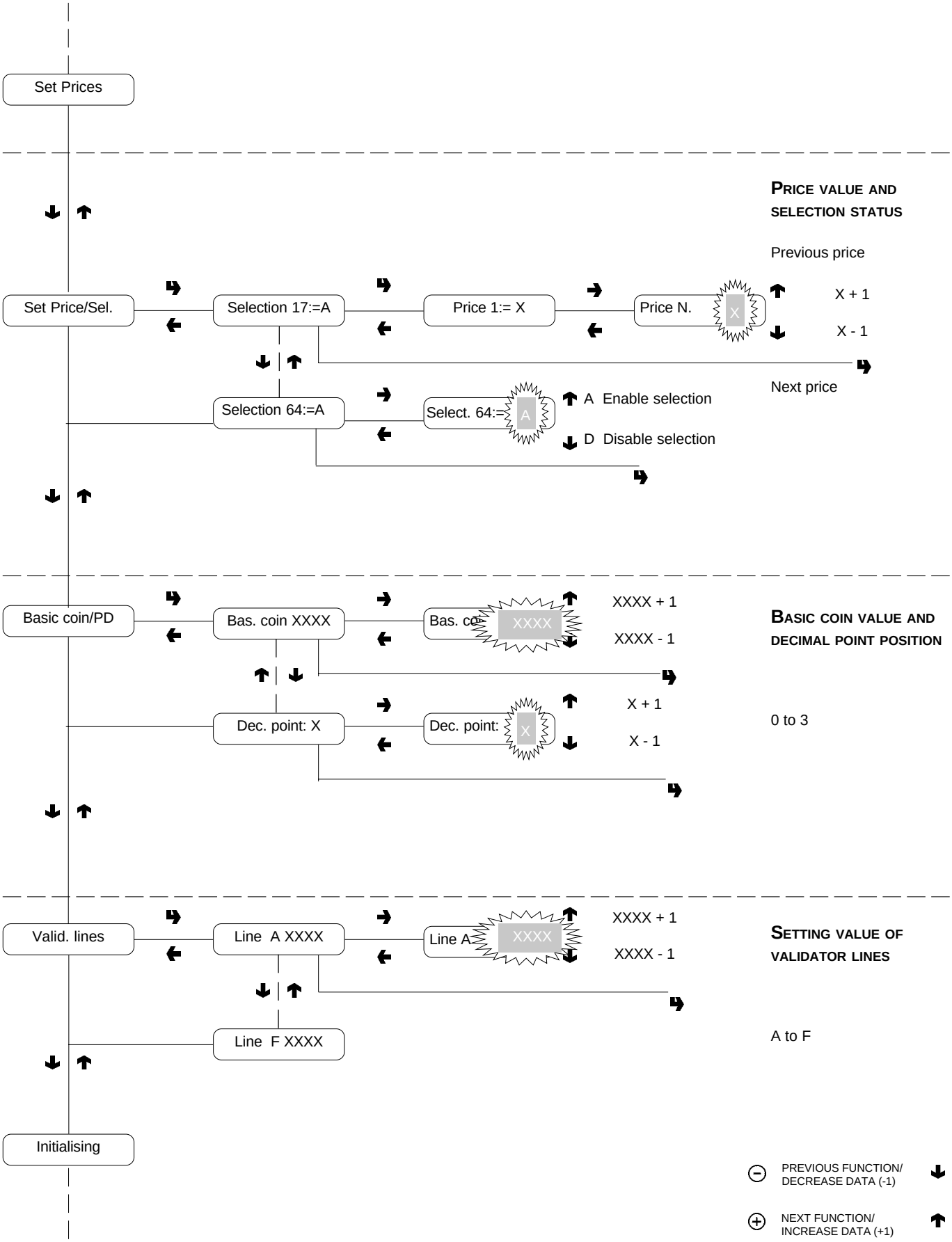
⊕ NEXT FUNCTION/ INCREASE DATA (+1) ↑

Ⓔ CONFIRM DATA/ CONFIRM FUNCTION ↳

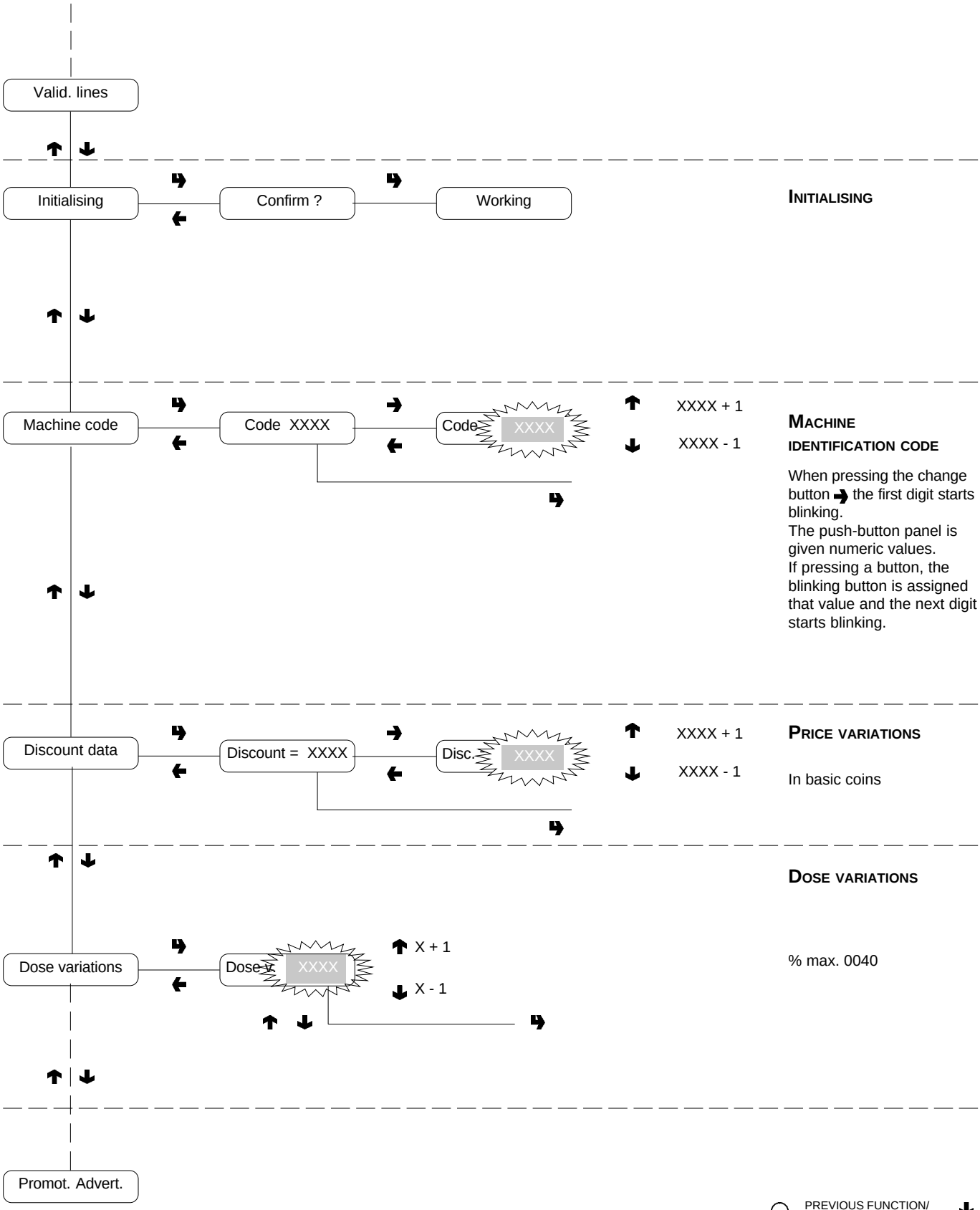
Ⓒ DELETE DATA/ EXIT FUNCTION →

Ⓞ CHANGE DATA ←

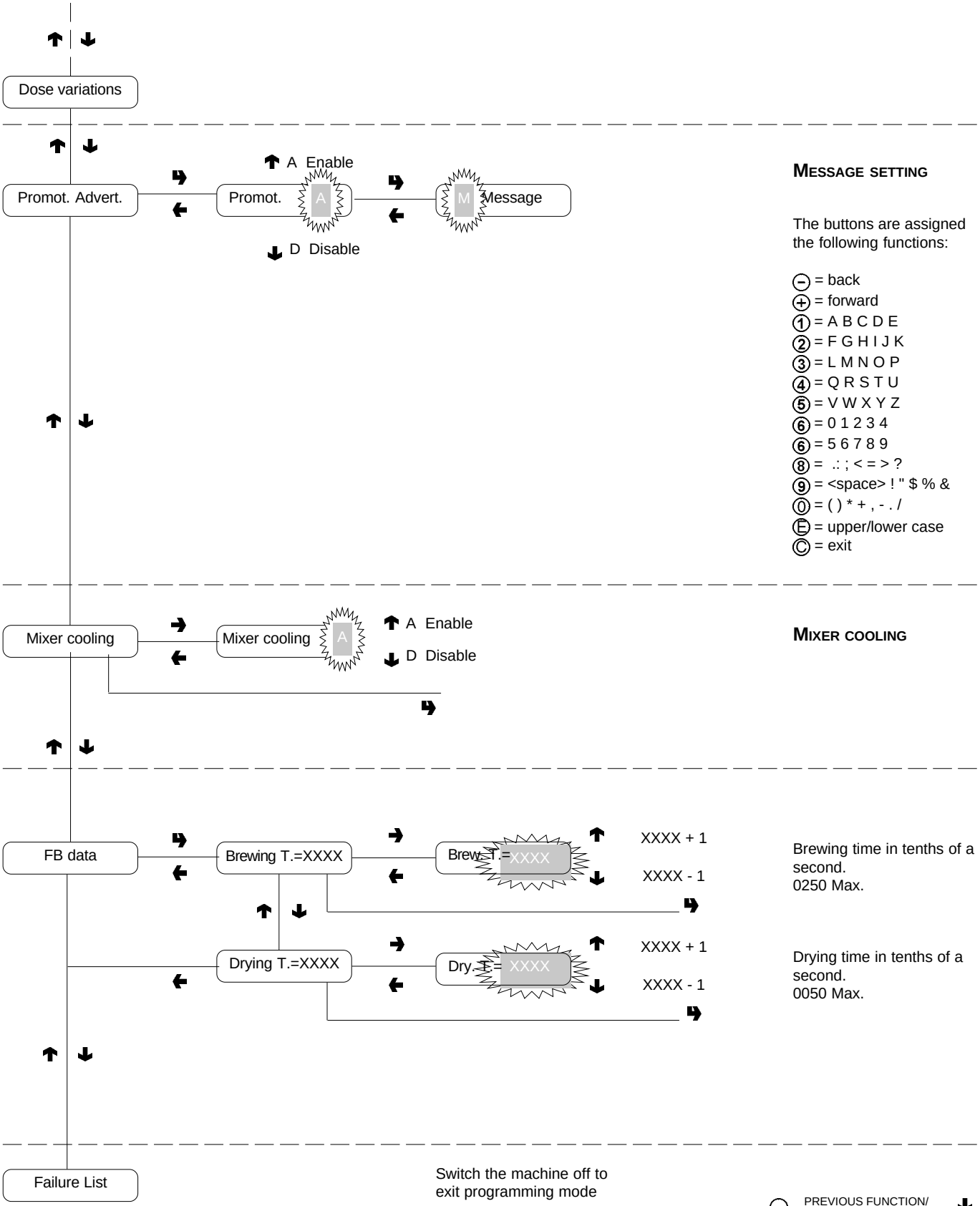
Programming menu



Programming menu



Programming menu



MESSAGE SETTING

The buttons are assigned the following functions:

⊖ = back
⊕ = forward
① = A B C D E
② = F G H I J K
③ = L M N O P
④ = Q R S T U
⑤ = V W X Y Z
⑥ = 0 1 2 3 4
⑥ = 5 6 7 8 9
⑧ = .: ; < = > ?
⑨ = <space> ! " $ % &
⓪ = ( ) * + , - . /
Ⓔ = upper/lower case
Ⓒ = exit

MIXER COOLING

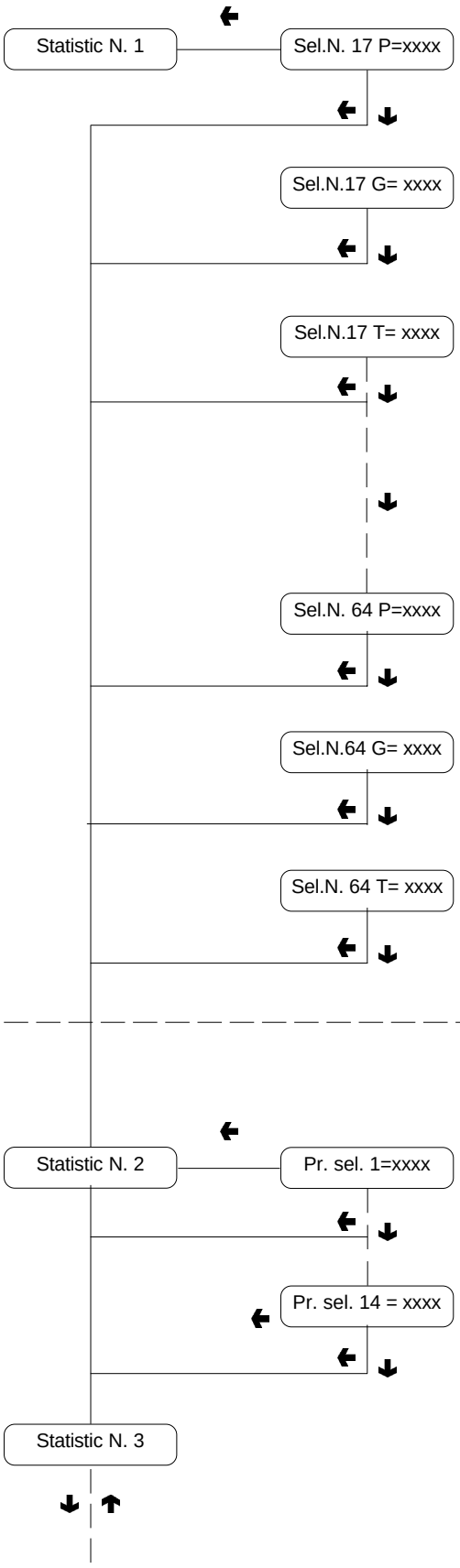
Brewing time in tenths of a second.
0250 Max.

Drying time in tenths of a second.
0050 Max.

Switch the machine off to exit programming mode

⊖ PREVIOUS FUNCTION/ DECREASE DATA (-1) ↓
⊕ NEXT FUNCTION/ INCREASE DATA (+1) ↑
Ⓔ CONFIRM DATA/ CONFIRM FUNCTION →
Ⓒ DELETE DATA/ EXIT FUNCTION →
⓪ CHANGE DATA ←

Reading data



P = Paid dispensing

G = Free dispensing

T = Test dispensing

DISPENSING BY SELECTION

Press button ③ to display statistics for each selection

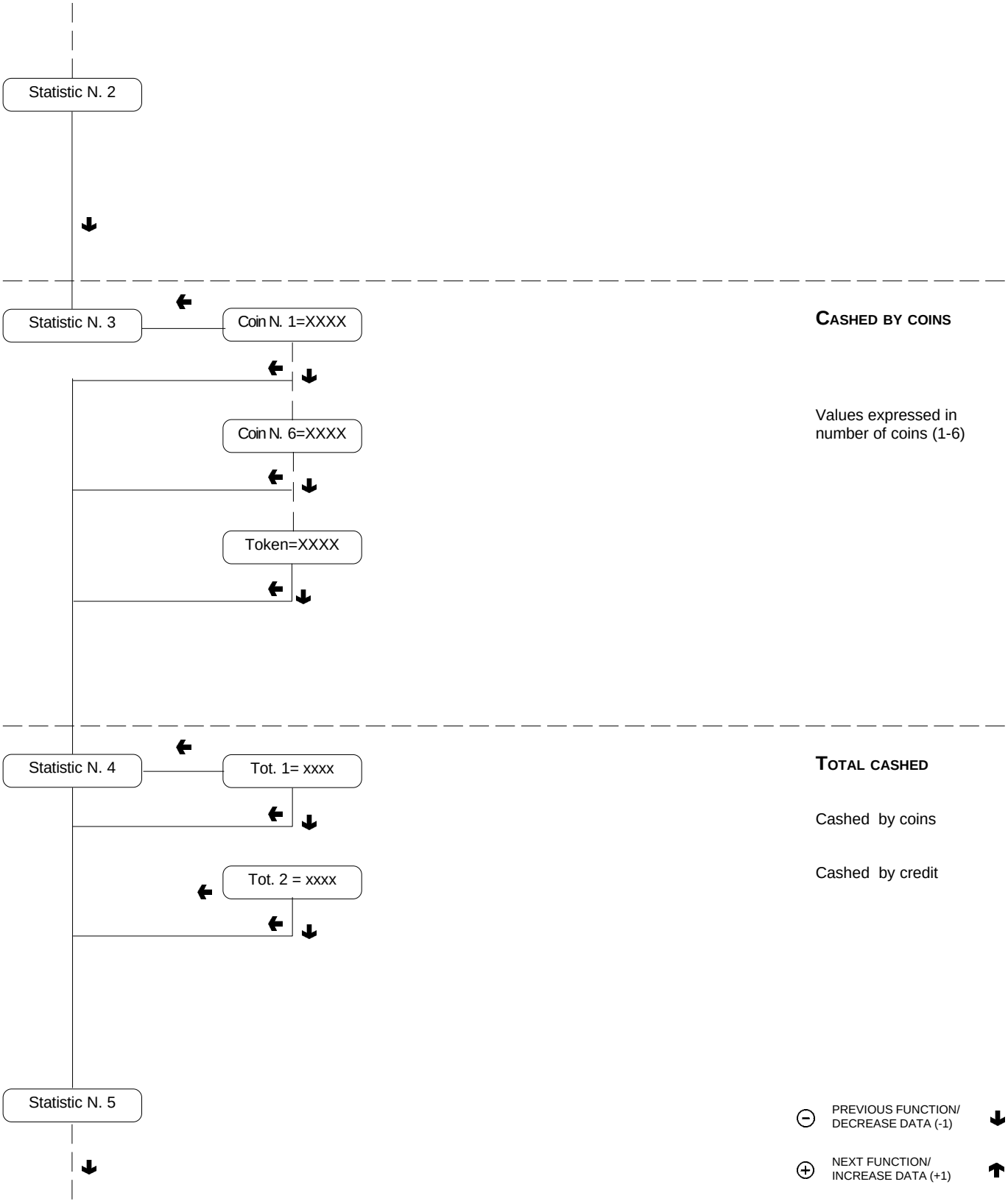
WATER AND POWDER DOSES

Refer to the selection dose table for the correspondence between dose code and powder or water dose

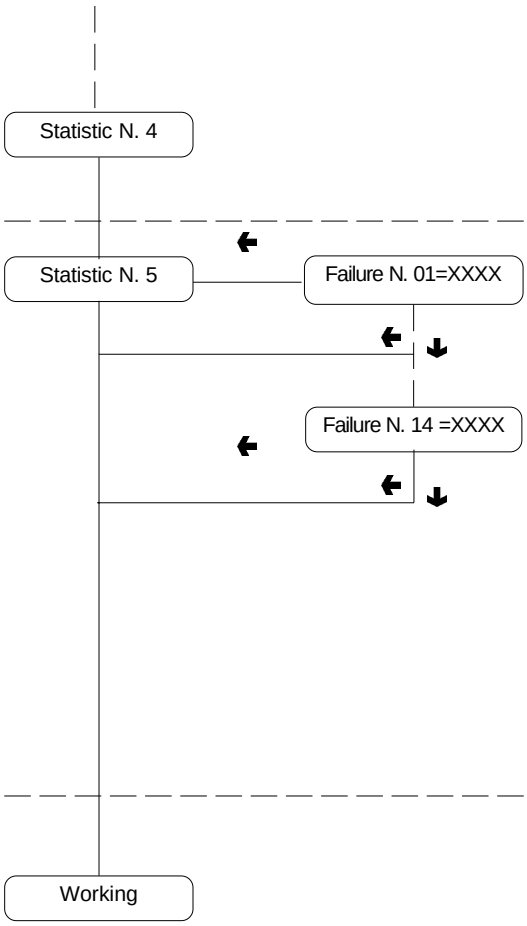
DISPENSING BY PRICE

- ⊖ PREVIOUS FUNCTION/ DECREASE DATA (-1)
- ⊕ NEXT FUNCTION/ INCREASE DATA (+1)
- Ⓔ CONFIRM DATA/ CONFIRM FUNCTION
- Ⓒ DELETE DATA/ EXIT FUNCTION
- ⓪ CHANGE DATA
- ③ DISPLAY STATISTICS
- ④ RESET STATISTICS
- ⑤ PRINT STATISTICS

Reading data



Reading data



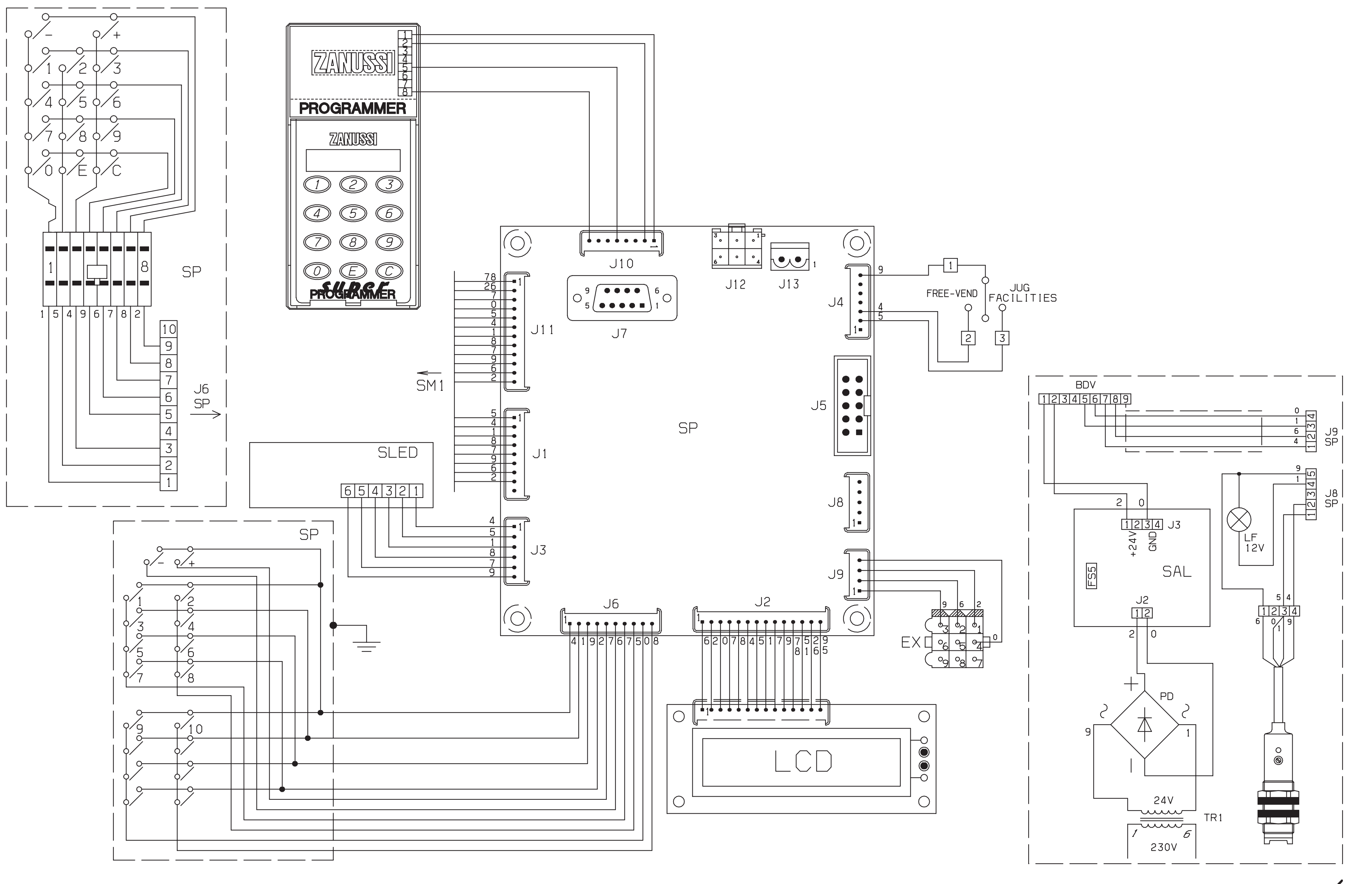
FAILURE COUNTER

FAILURE LIST
01 Boiler level
02 Boiler
03 Coin mechanism
04 RAM data
05 Water failure
06 Cup failure
07 Liquid waste full
08 Mixer wheel
09 Brewing unit
10 Unit scraper
11 Syrup 1 failure
12 Syrup 2 failure
13 Mobile spouts
14 Cold unit water failure

- PREVIOUS FUNCTION/ DECREASE DATA (-1)
- NEXT FUNCTION/ INCREASE DATA (+1)
- CONFIRM DATA/ CONFIRM FUNCTION
- DELETE DATA/ EXIT FUNCTION
- CHANGE DATA
- DISPLAY STATISTICS
- RESET STATISTICS
- PRINT STATISTICS

WIRING DIAGRAM LEGEND

INITIALS	DESCRIPTION	INITIALS	DESCRIPTION
BDV	BDV COIN MECH CONNECTORS	MD1-..	INGREDIENT MOTOR - INSTANT
CCG	GENERAL COUNTER	MDZ	INGREDIENT MOTOR - SUGAR
CM1	COFFEE UNIT MOTOR CAM	MF1-..	WHIPPER MOTOR
CM2	COFFEE DISPENSING POSITION CAM	MFB	FRESH-BREW MOTOR
CMF	FRESH BREW MOTOR CAM	MPU	SPOUT POSITIONING MICROSWITCH
CMPF	FRESH BREW UNIT PISTON MICROSWITC	MSB	CUP RELEASE MOTOR
CMSB	CUP RELEASE MOTOR CAM	MSCB	CUP CONTAINER SHIFT MOTOR
CV	VOLUMETRIC COUNTER	MSP	STIRRER RELEASE MOTOR
E1-...	INSTANT SOLENOID VALVE	MSU	SPOUT MOVING MOTOR
EEA	WATER INLET SOLENOID VALVE	NTC1-.	TEMPERATURE PROBE
ER	COFFEE DISPENSER SOLENOID VALVE	NTCS	INSTANT BOILER TEMPERATURE PROBE
ESC	COFFEE RELEASE MAGNET	PB	POWER SUPPLY SOCKET
EV	HOT GAS ELECTROVALVE	PD	DIODE RECTIFIER
EX	EXECUTIVE COIN MECH CONNECTOR	PG	UNIT DETECTION MICROSWITCH
FA	RADIO INTERFERENCE SUPPRESSOR	PM	PUMP
FREE	FREE VENDING SWITCH	PR	PRESSURE SWITCH
FS1-..	FUSE	PSB	CUP RELEASE BUTTON
I	SANITISING KIT SWITCH	R1	POST-HEATING ELEMENT
ID	COFFEE DOSE SWITCH	RCC	COFFEE BOILER HEATING ELEMENT
IMSP	STIRRER RELEASE MICRO-SWITCH	RCS	INSTANT BOILER HEATING ELEMENT
IP	DOOR SWITCH	RT	BALLAST
IPF	WASTE CONTAINER OVERFLOW SWITCH	SAL	VOLTAGE SUPPLY BOARD
IVA	EMPTY BOILER MICRO-SWITCH	SLED	LED BOARD
IVB	EMPTY CUP DISPENSER MICRO SWITCH	SM1	CONTROL BOARD
JUG	JUG FACILITIES SWITCH	SM2	EXPANSION BOARD
KC1-..	COFFEE BOILER CUTOUT	SP	PUSH-BUTTON BOARD
KS1-..	SAFETY CUTOUT	ST	STARTER
KS3-4	PUMP SAFETY CUTOUT	TH	THERMOSTAT
LCD	LIQUID CRYSTAL DISPLAY	TR	TRANSFORMER
LF	LAMP	TR1	TRANSFORMER 230 V 24 V
M	COFFEE UNIT MOTOR	UPS	COLD UNIT PRINTED BOARD
M.OR	TIMER MICROSWITCH	VAR	VARISTOR
MAC	GRINDER	VENT	FAN



NECTA VENDING SOLUTIONS SpA SI RISERVA ATERMINI DI LEGGE LA PROPRIETA' DEL PRESENTE DISEGNO CON DIVIETO DI RIPRODURLO O DIVULGARLO SENZA SUA PREVIA AUTORIZZAZIONE

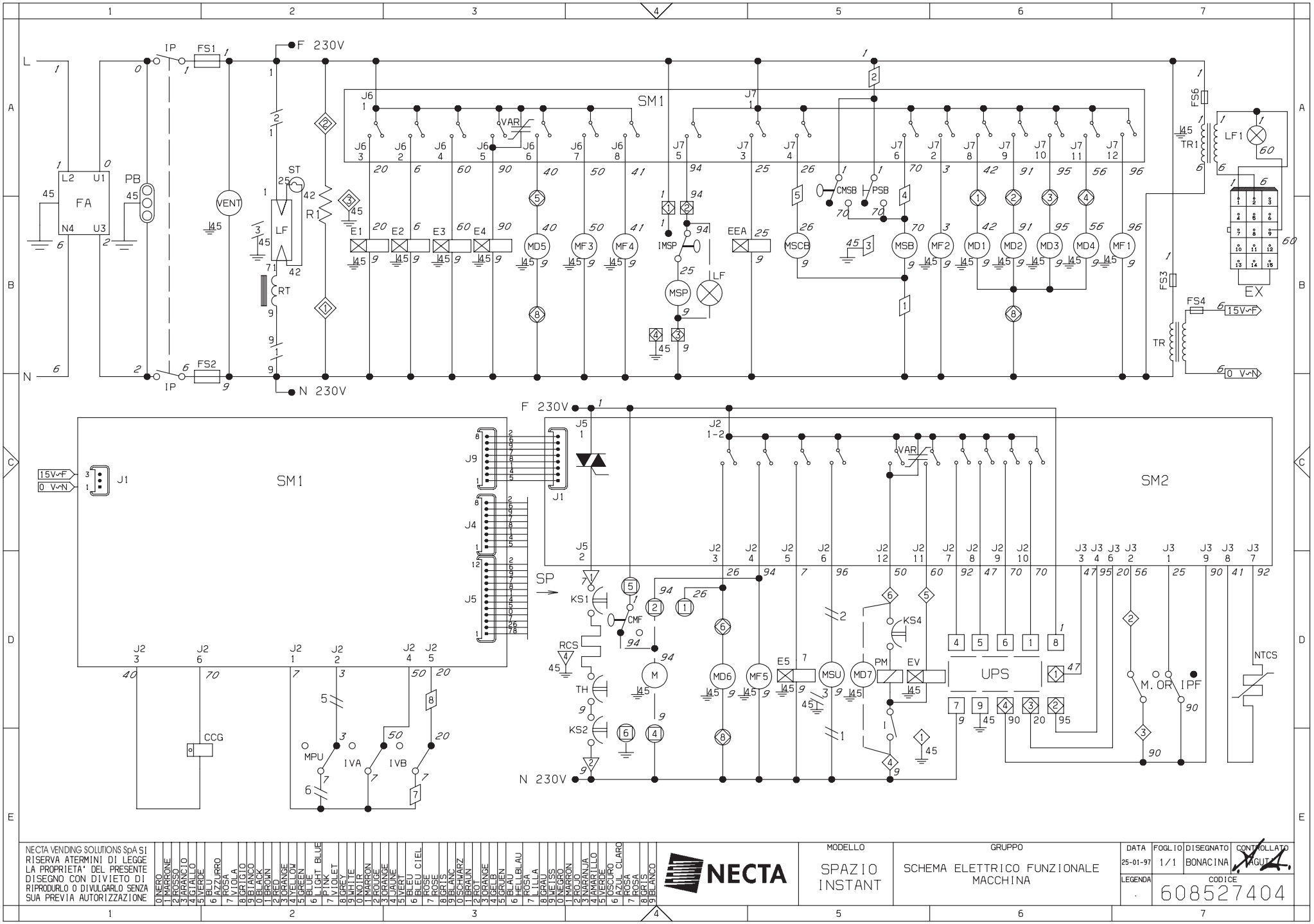
0 NERO, 1 MARRONE, 2 ROSSO, 3 ARANCIO, 4 GIALLO, 5 VERDE, 6 BLU AZZURRO, 7 VIOLA ROSA, 8 GRIGIO, 9 BIANCO
0 BLACK, 1 BROWN, 2 RED, 3 ORANGE, 4 YELLOW, 5 GREEN, 6 BLUE LIGHT BLUE, 7 VIOLET PINK, 8 GREY, 9 WHITE
0 NOIR, 1 MARRON, 2 ROUGE, 3 ORANGE, 4 JAUNE, 5 VERT, 6 BLEU BLEU CIEL, 7 ROSE ROSE, 8 GRIS, 9 BLANC
0 SCHWARZ, 1 BRAUN, 2 ROT, 3 ORANGE, 4 GELB, 5 GRUEN, 6 BLAU HELLBLAU, 7 ROSA LILLA, 8 GRAU, 9 WEISS
0 NEGRO, 1 MARRON, 2 ROJO, 3 NARANJA, 4 AMARILLO, 5 VERDE, 6 OSCURO AZUL CLARO, 7 ROSA ROSA, 8 GRIS, 9 BLANCO

NECTA

MODELLO: SPAZIO

GRUPPO: PORTA / DOOR / TUER / PORTE / PUERTA

DATA	FOGLIO	DISEGNATO	CONTROLLATO
31-10-95	1/1	BONACINA	AGU...
LEGENDA	CODICE		
6085561	608526804		



NECTA VENDING SOLUTIONS SpA SI RISERVA ATERMINI DI LEGGE LA PROPRIETA' DEL PRESENTE DISEGNO CON DIVIETO DI RIPRODURLO O DIVULGARLO SENZA SUA PREVIA AUTORIZZAZIONE

0 NERO	1 MARRONE	2 ROSSO	3 ARANCIO	4 GIALLO	5 VERDE	6 BLU	7 VIOLA	8 GRIGIO	9 BIANCO
0 BLACK	1 BROWN	2 RED	3 ORANGE	4 YELLOW	5 GREEN	6 BLUE	7 VIOLET	8 GREY	9 WHITE
0 NOIR	1 BRUN	2 ROUGE	3 ORANGE	4 JAUNE	5 VERT	6 BLEU	7 BLEU CIEL	8 ROSE	9 GRIS
0 SCHWARZ	1 BRAUN	2 ROT	3 ORANGE	4 GELB	5 GRUEN	6 BLAU	7 HELLBLAU	8 ROSA	9 LILLA
0 GRAU	9 WEISS	0 NEGRO	1 MARRON	2 ROJO	3 NARANJA	4 AMARILLO	5 VERDE	6 AZUL CLARO	7 ROSA
8 GRIS	9 BLANCO								

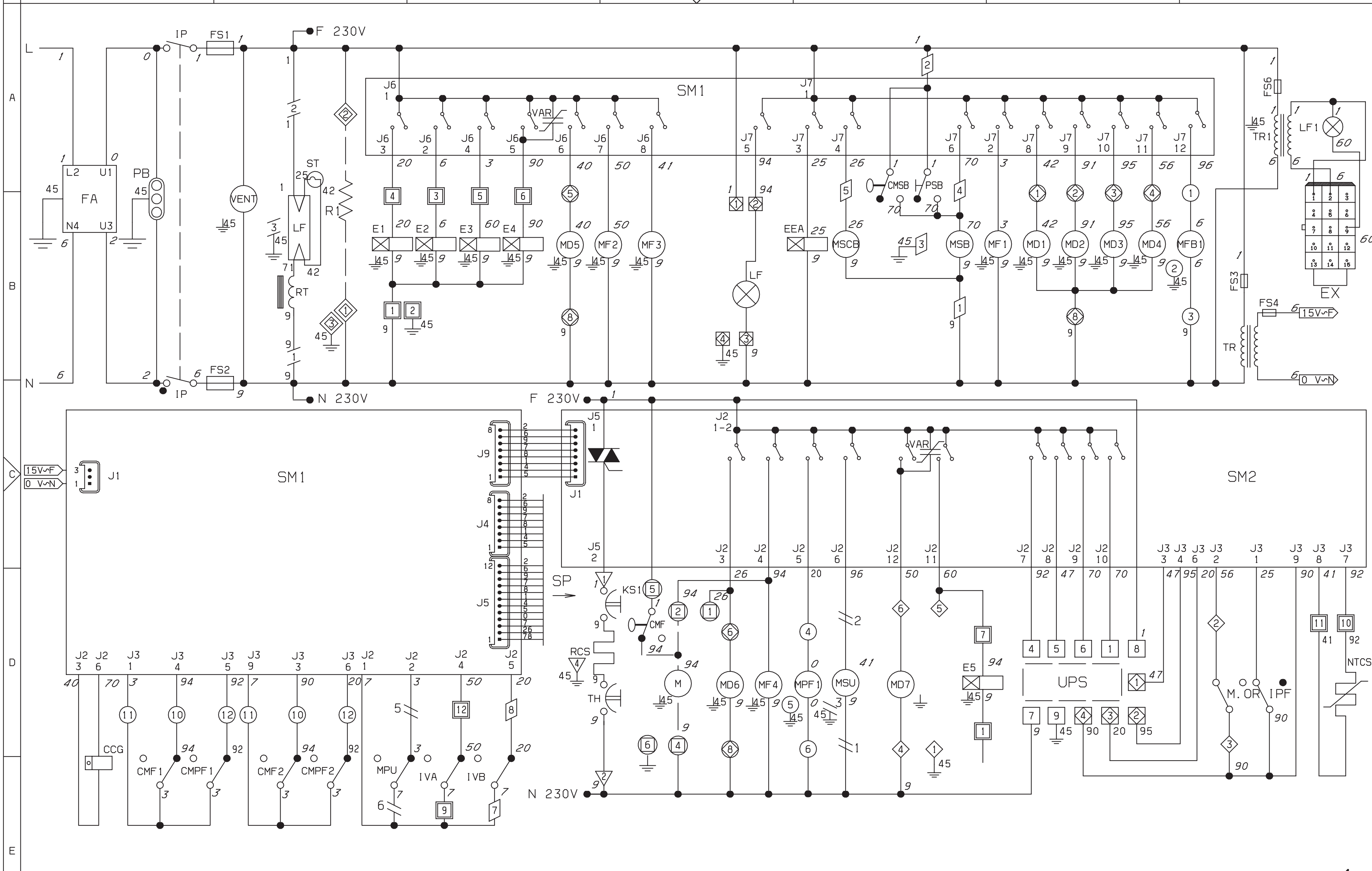
NECTA

MODELLO	GRUPPO
SPAZIO INSTANT	SCHEMA ELETTRICO FUNZIONALE MACCHINA

DATA	FOGLIO	DISEGNATO	CONTROLLATO
25-01-97	1/1	BONACINA	AGUTI

LEGENDA: .

CODICE: 608527404



0 NERO	0 NERO	0 BLACK	0 NOIR	0 SCHWARZ	0 NEGRO
1 MARRONE	1 MARRONE	1 BROWN	1 MARRON	1 BRAUN	1 MARRON
2 ROSSO	2 ROSSO	2 RED	2 ROUGE	2 ROT	2 ROJO
3 ARANCIO	3 ARANCIO	3 ORANGE	3 ORANGE	3 ORANGE	3 NARANJA
4 GIALLO	4 GIALLO	4 YELLOW	4 JAUNE	4 GELB	4 AMARILLO
5 VERDE	5 VERDE	5 GREEN	5 VERT	5 GRUEN	5 VERDE
6 BLU AZZURRO	6 BLU AZZURRO	6 BLUE LIGHT BLUE	6 BLEU BLEU CIEL	6 BLAU HELLBLAU	6 OSCURO AZUL CLARO
7 ROSA VIOLA	7 ROSA VIOLA	7 PINK VIOLET	7 ROSE ROSE	7 ROSA LILLA	7 ROSA ROSA
8 GRIGIO	8 GRIGIO	8 GREY	8 GRIS	8 GRAU	8 GRIS
9 BIANCO	9 BIANCO	9 WHITE	9 BLANC	9 WEISS	9 BLANCO

NECTA

MODELLO Spazio Fresh Brew

GRUPPO

SCHEMA ELETTRICO FUNZIONALE MACCHINA

DATA	FOGLIO	DISEGNATO	CONTROLLATO
22-03-00	1/1	BONACINA	AGUTI
LEGENDA 6085561	CODICE 608535500		

EDITION 01 02 CODE: H 163U 00

NECTA

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