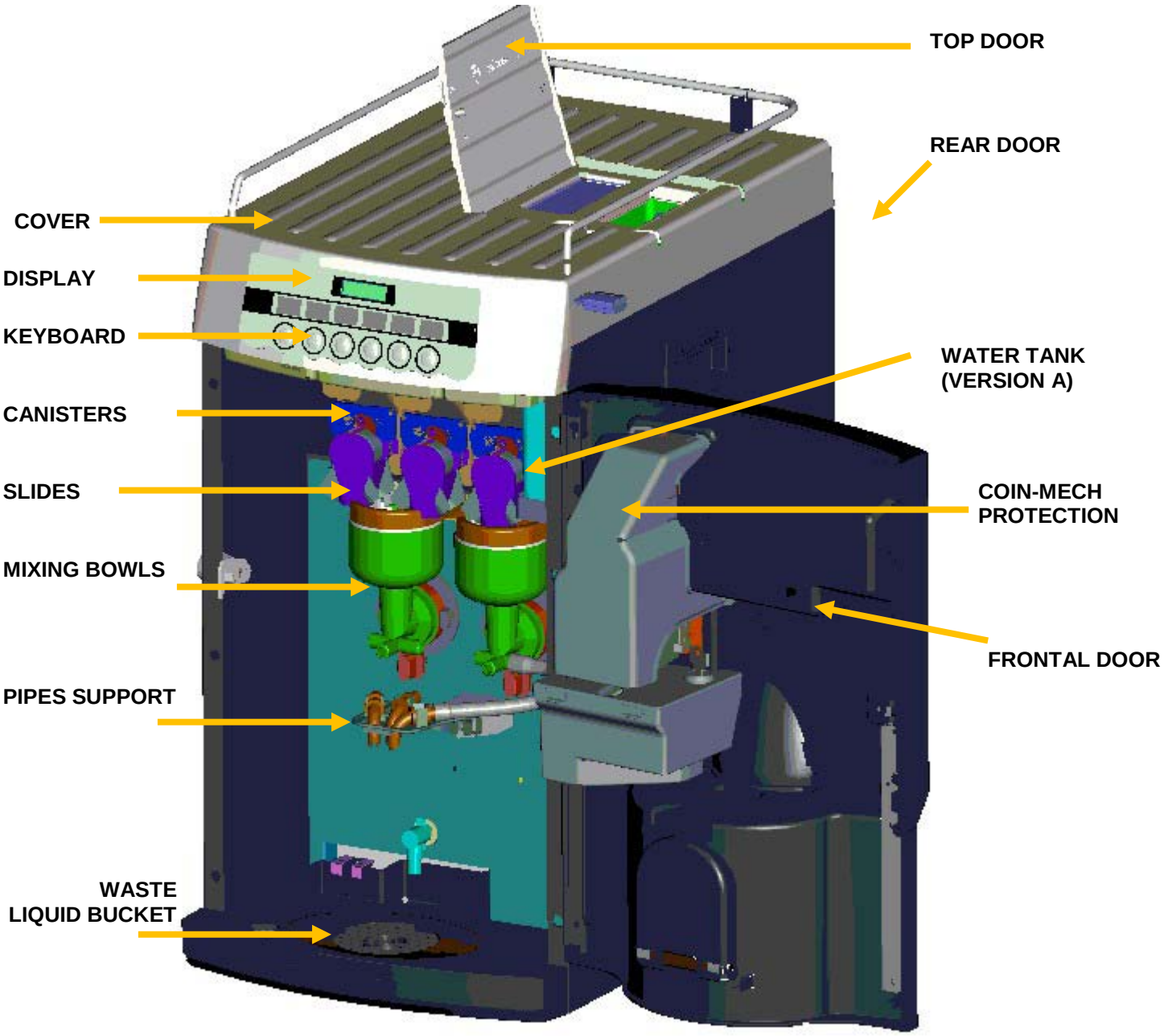
XX OC

(type: XX)

Installation and maintenance manual

This manual must be kept next to the machine

MAN1910117 Vers. 7 - 15/11/2012


TOP DOOR
REAR DOOR
COVER
DISPLAY
KEYBOARD
WATER TANK
(VERSION A)
CANISTERS
SLIDES
COIN-MECH
PROTECTION
MIXING BOWLS
FRONTAL DOOR
PIPES SUPPORT
WASTE
LIQUID BUCKET

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1 Technical Data and Declaration of Conformity

DIMENSIONS ***WEIGHT***

Height 555 mm From 20 Kg to 24 Kg according to version
Width 300 mm
Depth 455 mm

CONNECTION TO THE MAINS WATER SUPPLY (version without autonomous water tank)

Water inlet pressure between 0,1 MPa and 0,8 MPa (1 - 8 bar);

Mains water connection 3/8" gas female

CONNECTION TO THE ELECTRICAL SUPPLY

230 V ~ 50 Hz - 60 Hz Power consumption from 1200 W to 1350 W

SOUND PRESSURE LEVEL WEIGHING-A

< 70 dB

DECLARATION OF CONFORMITY

Rheavendors Industries S.p.A. declares that this vending machine has been planned and made in conformity with the following directives and security norms:

Directives:

2006/42/EC; 2004/108/EC; 2006/95/EC ;
2002/95/EC (RoHS); 2002/96/EC (RAEE); 1238/2007/EC (REACH); 1935/2004/EC;

Norms:

SAFETY part. 2-75: (particular requirements for commercial dispensing appliances and vending machines) +
CEI EN 60335-2-75/A12;
EN 60335-1: 2002 + A1: 2004 + A2: 2006 + A11: 2004 + A12:2006 + A13: 2008 + A14: 2010 +
60335-1/EC: 2010; EN 60335-2-75: 2004 + A1: 2005 + A11: 2006 + A2: 2008 + A12: 2010;

EMC: EN 55014-1: 2006 + A1: 2009; EN 55014-2: 1997 + A1: 2001 + A2: 2008;
EN 61000-3-2: 2006 + A1: 2009 + A2: 2009; EN 61000-3-3: 2008;

EMF: EN 62233: 2008;

Machine's manufacturer: Rheavendors Industries S.p.A. - Via Garavaglia, 58
I - 21042 Caronno Pertusella - Varese - Italia

The legal Agent

(A. D. Majer)

1.1 Copyright Information

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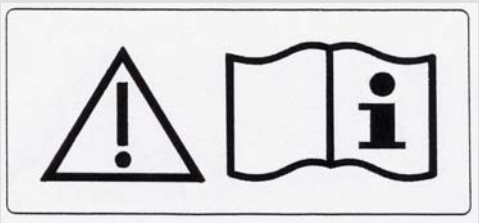
THIS MANUAL MUST BE KEPT NEXT TO THE VENDING MACHINE.



WARNING: You find this warning label placed next to the serial number label inside the machine. It advises the user that a careful reading of this Manual is necessary before installation and use of the machine.

2 Introduction

2.1 Welcome

We congratulate you on your choice of a Rheavendors Industries S.p.A. semi-automatic vending machine. Experts have designed this product and it has been manufactured according to the high quality standards, which have always been a characteristic of all Rheavendors Industries S.p.A. products. This instruction manual will help you to acquire a better knowledge of your machine. We recommend you to read it with the maximum attention and to follow the advice given in the text.

The present manual includes all information and instructions for loading and cleaning operations of the vending machine, as well as instructions reserved to technical personnel for performing maintenance operations of more complex nature. This is the reason why the manual pages are clearly identifiable with relation to the technical preparation of the user to whom they are destined:

Text with grey background: for any person having access to the interior of the vending machine. These pages consist of an introduction, sections of general interest and sections concerning loading and routine cleaning.

Text with normal background: these are for use by qualified technical personnel only. They include all operations related to installation, adjustment, extra ordinary cleaning and general maintenance.

All information contained in this manual are aimed to obtain from the machine the best performance within the limits of use set by the manufacturer. This Manual is integral to the equipment and must be available inside the machine until final displacement. Inside the rear door of the machine there is a suitable pocket where the Manual should be kept. In the event of loss or damaging of the Manual, to obtain an extra copy it will be necessary to supply to the manufacturer all the identification data appearing on the identification sticker. In compliance with the Company's endeavour to adopt technical improvements whenever possible, Rheavendors Industries S.p.A. reserves the right to ameliorate future production (and the contents of future Manuals) without prior notice and without any obligation of updating the products on the market. The Technical service department of **Rheavendors Services S.p.A.** is at your disposal for any further information. Just call or send a fax at the following numbers:

☎ + 39 02 966551
+ 39 02 9655086
or an e-mail to the address rheavendors@rheavendors.com or surf our web site **www.rheavendors.com**.
In order to speed up the response to requests it will be necessary to supply:

- All data appearing on the Serial Number Label (glued to the first page of this manual).

CAUTION: Rheavendors Industries S.p.A. is not liable for any damage that could affect, directly or indirectly, any person or property as a consequence of:

- incorrect use of the machine;
- incorrect installation;
- unsuitable electrical or water supply;
- major shortcomings in maintenance;
- technical interventions or alterations of unauthorised nature;
- adoption of non-original spare parts.

In the event of breakdown, Rheavendors Industries S.p.A. has got no obligation whatsoever neither to compensate any economical damage deriving from the inactivity of the machine nor too extend the warranty period.

3 Description of the Equipment

3.1 Use

The semi-automatic vending machine **xx oc** (**xx office coffee**), in its different versions, is an appliance meant for general use (non professional). The semi-automatic vending machine is supposed to supply beverages automatically, mixing ingredients with water. The distribution of beverages will take place into suitable cups placed properly by the user.

3.2 Denomination of the versions

Rheavendors Industries S.p.A. adopts the following conventional codes for the definition of the different versions:
Type: XX
xx oc <coffee/canisters> <electrical supply> <hydraulic supply> where:
<coffee> states the main process for the preparation of coffee:
<I> = Instant coffee (from soluble products)
<E> = states the infusion process through a high pressure Espresso Coffee brewer
<canisters> states the number of product canisters except the one for coffee beans. Capacity and variety of types of beverages that can be supplied by the vending machines will depend on this number;
<electrical supply> 230 V;
<A> states if the machine is equipped with an independent water tank.
<R> states if the machine must be plumbed.

3.3 Obtainable Drinks

The machine can distribute drinks coming from instant ingredients by the programming functions present inside the machine. It is possible to program the machine by the **Rheaction software**

using the **Rhea black flash card** or connecting it to a table top PC by an RS232-FLASH. For further information contact Rheavendors Services S.p.A. - Customer Service.

4 Advice for the installer

Installation and maintenance operations described in text with normal background (white) must be carried out only by qualified technical personnel.

WARNING: For a correct operation, the machine must be installed indoors with operating temperature higher than 5° C in normal conditions of use.

WARNING: Forestall the machine and the ingredients freezing.

WARNING: Given the sensitivity of some ingredients used in the machine to excessive temperature and humidity, some malfunctions may occur if the machine is operated at temperature higher than 30° C or with relative humidity exceeding 80%. Under these conditions the components in contact with the powdered ingredients must be cleaned at least once a day.

WARNING: The maximum operation temperature is 95° C.

WARNING: The operations described in Text with normal background must be developed by qualified technical personnel only.

WARNING: Installation in premises where water jets are used (e.g. large kitchens) is to be avoided.

WARNING: Under no circumstance may the vending machine be used by children or by people with poorer physical, sensorial or mental capacities or who have not been properly informed on correct use; children shall be supervised to prevent them from playing with the vending machine.

The XX OC vending machine, that you have bought, has been manufactured according to the norms and regulations related to the non-toxicity of those parts coming in contact with foodstuffs and electric insulation. The machine is mounted inside of an industrial cleaned ambient. The person entrusted with the mounting and the test operations is subjected to frequent sanitary examinations to confirm his attitude. However, freight conditions, period of stay in the warehouse and possible handling due to the installation of the vending machines do not allow using it immediately.

The machines, before their use, must be subjected to a cycle of sanitary tests as per the instructions shown in paragraph "Cleaning and disinfecting of those parts coming in contact with foodstuffs".

WARNING: Do not clean the machine with water jets.

WARNING: Respect the NATIONAL RULES for machines directly connected to the main water supply.

WARNING: The use of the safety key can make in movements internal parts of the machine.

WARNING: Install the machine placing the electrical plug easy accessible.

WARNING: The machine must be installed following the NATIONAL NORMS and only in good airy places.

WARNING: Use only ingredients specific for semi-automatic vending machines.

WARNING: The personnel in charge of the loading of the ingredients must own a valid certificate of good health following local and NATIONAL NORMS and be equipped with specific protections. Furthermore, compliance with any other domestic or local regulations must be checked.

WARNING: Under no circumstance may the vending machine be used by children or by people with poorer physical, sensorial or mental capacities or who have not been properly informed on correct use; children shall be supervised to prevent them from playing with the vending machine.

5 Basic Operating Principles

The powered machine is normally in the stand-by mode. When a button is pressed, a vend cycle starts. If a sale price is preset, before pressing the selection the required amount of money must be inserted by means of coins. According to the selection required and to the version of the machine, the vend cycle is composed by some of the following procedures.

5.1 Preparation of hot drinks from instant ingredients

This procedure is usually carried out after the cup is correctly positioned under the outlet pipes of the beverage. More than one procedure of this sort can be carried out simultaneously or in sequence during a vend cycle.
This procedure is usually carried out after the cup is correctly positioned under the outlet pipes of the beverage. More than one procedure of this sort can be carried out simultaneously or in sequence during a vend cycle.

For "I" version

1) One of the boiler pump is activated for a pre-set time to transfer the quantity of the required water into the correct mixing bowl;
2) If present, the mixer motor is activated;
3) The geared motor activates the screw feeder, in the canister of the corresponding ingredient, which pours the correct quantity of ingredient in the mixing bowl. More than one canister of ingredients can dispense simultaneously for the same mixing bowl;
4) The boiler pump is switched off;
5) If present, the motor of the mixing bowl is switched off..

For "E" version

1) When the solenoid valve corresponding is activated, the preset quantity of water is poured to dissolve the ingredients;
2) The water coming from the water refilling tank, in which the water level is kept constant, is conveyed under pressure in the boiler by means of a pump;
3) If present, the mixer motor is activated;
4) The geared motor activates the screw feeder, in the canister of the corresponding ingredient, which pours the correct quantity of ingredient in the mixing bowl. More than one canister of ingredients can be activated simultaneously for the same mixing bowl;
5) If present, the motor of the mixing bowl is switched off.

5.2 Preparation of the Espresso coffee

This process is carried out in the models equipped with the espresso coffee group after the selection button corresponding to coffee beans selections has been pressed. The execution priority between this process and the process for the preparation from instant ingredients is preset by the programme of the machine and varies according to the selection chosen.

1) The coffee grounds are ejected into the waste bucket (this procedure can be carried out also after 10 minutes of inactivity of the coffee group);
2) The coffee group moves to the correct position to receive coffee dose;
3) The coffee grinder is activated for a time programmed by software;
4) The coffee group moves to the infusion position: this occurs when the coffee group motor is started. The cup and the lower filter are moved upwards to close the brewer and press the compress of ground coffee;*
5) The water coming from the water-refilling tank, in which the water level is kept constant, is conveyed under pressure in the boiler by means of a pump. After the activation of a solenoid valve, the same quantity of warmed water is then conveyed to the coffee group;
6) The coffee group ends the cycle.

* Procedures marked by asterisk may be carried out in a different order according to the electronic setting of the machine.

6 Transportation

Only qualified personnel must move the machine.

The machine must be carefully transported as any overturning of the machine is to be avoided.

WARNING: The machine must be kept vertically positioned when moved to another location with the topside indicated on the box towards up. DO NOT OVERTURN THE MACHINE to avoid damages to the electronic boards.

The machines are carried on pallet.

WARNING: They must be moved on with dolly, at reduced speed and preventing any excessive bending movement of the machines.

WARNING: the machine weighs from 20 Kg to 24 Kg ca. Take care during transfer to avoid accidents to people (example: muscular rip, hernia, etc.).

If the machine must be stocked for a period before installing it, please keep the machine in a dry place (the relative humidity must not exceed 80%), with temperature between 5°C and 30°C. Do not place on one machine more than another one. Do not overturn the machines.

7 Unpacking

The machine must be unpacked as follows:

1) cut the protection film along one of the protection angle bar around the pallet;
2) remove the pallet from all the machines using the appropriate side holes on the packing of the machines;

WARNING: the machine weighs from 20 Kg to 24 Kg ca. Take care during transfer to avoid accidents to people (example: muscular rip, hernia, etc.)

Each machine must be unpacked as follows:
1) place the machine on a fixed surface;
2) cut the two safe plastic straps;
3) lift up the packing;
4) remove the appropriate bag;
5) lift and place the machine in its working position.

WARNING: the packing materials must be kept out of the reach of unauthorised people, especially children, as potentially hazardous. Qualified waste recovery companies must carry out the disposal of special packing materials.

6) take the access keys fixed with adhesive tape at the grid of the cup station;
7) open the door and remove the adhesive tape from the coin box (if it is present);
8) take out the supply cord and connect it to the plug on the backside of the machine without connecting the other end to the mains electrical supply;
9) lift the superior cover and extract the cartoon sheet placed between the canisters and the cover.

8 Positioning

The machine must be installed indoors on a flat and sound plane.

Any inclination of the surface shall not exceed 2°.

Place the machine at least at 10 cm from the wall to guarantee a suitable air circulation.

Rheavendors Industries S.p.A. declines all responsibility for any shortcomings caused by non-compliance with installation instructions.

The electrical plug must be easily accessible. If the machine is installed on delicate or valuable floors, it is advised to lay a carpet under the machine, about 10 cm larger than the machine itself, made of rugged material, resistant to dirt and water (e.g. synthetic laminate). This is to protect the floor and also prevent it to get dirty for the accidental spilling of beverages. The xx oc support base, supplied as optional, can contain cups, sugar bags and stirrers.

9 Connection to the mains water supply and to the electrical supply

9.1 Connection to the mains water supply (Version R)

WARNING: respect the NATIONAL NORMS relative to main water supply.

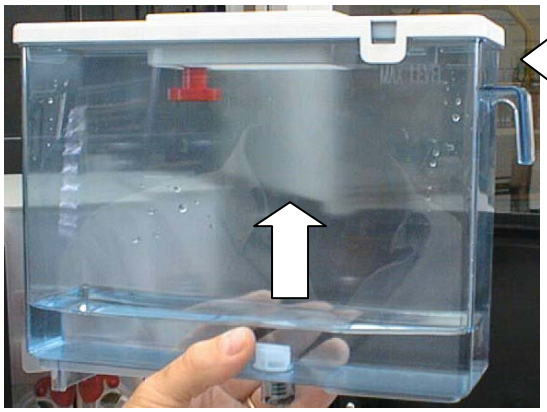
Before proceeding to the connection carry out the following checks on the water to be used:

- Make sure that the water supply is of drinking quality possibly through certificate of a laboratory;
- Make sure that water mains pressure ranges from 0,1 to 0,8 MPa (from 1 to 8 bar);
- If the mains pressure is lower than 0,1 MPa (1 bar), a pump must be installed;
- If the mains pressure is higher than 0,8 MPa (8 bar), a pressure reducer must be mounted, calibrated at 0,3 MPa (3 bar), on the water connecting hose of the machine; in any case the mounting of a pressure reducer is advisable in all installations where high-pressure peaks occur.

If not already existing, install a 3/8" gas tap to exclude the machine from the mains source in case of emergency. Connection of the tap to the machine must be made with a copper or plastic hose which have been approved for food contact use and resistant to operating pressure not lower than 1 MPa (10 bar).

Make sure that the water is free of impurities and does not feature excessive hardness (higher than 20 French Degrees). This shortcoming can be solved using normal water softeners.

9.2 Version with water independent tank (vers. A)



MAX

LEVEL

Fill the internal independent water tank using drinking water. If it is necessary demand a laboratory certification to a specific analysis laboratory. To fill in water, lift the water refilling cover or extract the tank from the machine and pour drinking water inside the tank. The capacity of this tank is about 2 litres.

Do not overpass the maximum level indicated on the tank. In case of too much water inside the tank the red float will lift up.

9.3 Connection to the electrical supply

Make sure that the grounding of the electrical mains to which the machine will be connected is in good conditions and in compliance with domestic and European standards concerning electrical safety.

The machine is equipped with a power supply cord VII-H50VV-F-3G1.0, 3x1.5 mm^2 with Shucko plug C19 (In case of damaged cable contact Rheavendors Industries S.p.A. to replace it).

WARNING: place the machine with the electrical plug easily accessible.

Make sure that the electrical mains voltage is the same as indicated on the identification sticker of the machine and that the current rating of the plug is suitable for the current absorbed by the machine.

The identification sticker is put inside the machine and can be seen opening the door. For connection, an electric plug, single-phase, 230V - 50 Hz, for a maximum load of 10 A is required.
Any type of plug, which is incompatible with the socket of the machine, must be replaced.

Do not use adaptors or multiple plugs.

10 How to activate or deactivate the machine

10.1 Starting switch

A starting switch placed in the rear part of the machine cuts the power off all electrical and electronic components in the machine.

WARNING: If required, to switch the machine off push the starting switch in OFF position or unplug it from the electrical mains.

10.2 Safety switch

A safety switch is provided in the machine, **which cuts the power off to all 24 V supplied components in the machine when the door is opened.**

To activate the machine with the door opened you have to lift the top cover and remove the **safety key** that you can find under the top left side of the cover. Then **insert the safety key** into the safety switch as shown in the picture.

WARNING: if required, to switch the machine off, open the door of the machine or unplug it from the electrical mains.

WARNING: the opening and switching on of the machine with the door open (unless for cleaning operations) must be carried out only by authorised, qualified personnel. Do not leave the machine open unguarded.

WARNING: removing the coffee beans canister a micro-switch cuts the power off grinder in the machine.

10.3 Diagnostics cycle of the switching up

At the starting the machine carries out a diagnostics cycle to check the position of the mobile components, the correct quantity of some ingredients and the correct water mains supply pressure. At the end of checks, the standard invitation message will appear on the display, e.g.:

rheavendors group - - - - - - - - - - - - - - - -

version 2.4 24 - 04 - 03

the date of the update of the software and the version of the master loaded into the machine (e.g.: 2.2).

switching on please wait

Only during the First Installation, at this point, the machine makes some specific operations. They are described in the paragraph "**Start up operations**". At the end of all tests the display shows the message:

rheavendors xx oc

place your cup

11 Start-up operations

11.1 First installation phase

During the First installation phase water is filled inside the water tank and the boiler. Then it is necessary to set the correct boiler's temperature.

11.1.1 Loading the boiler

Make sure that the liquid waste bucket is correctly placed.

Version R - Open the tap of the water circuit.

Version A – Fill the blue water tank.

Open the front door. Insert the plastic key into the safety switch and turn on the machine.

rheavendors 16-11- 05

XX OC LX V1A 14 04 06

(only in case RFID reader is connected)

rheacard reader connected

Please wait

The machine starts to make automatically the First Installations operations. The display shows:

water refilling

The machine starts automatically loading the water tank and the boiler. The boiler is filled up in about 5 min. At the end of this phase the machine starts to test the Damian Snack as described at the paragraph "**Diagnostics cycle of the switching up**".

Il distributore automaticamente inizia a caricare acqua direttamente nel bollitore per la versione solubile e prima nella centralina poi nel bollitore per la versione espresso. A bollitore carico si accende la resistenza per il raggiungimento della temperatura impostata all'interno del bollitore. Durante la procedura di prima installazione il display mostra:

press PROG to STOP water

WARNING: press the key PROG <u>only in case of flowing of water from pipes</u>. Do not press PROG in case you don't see water coming out. This last operation could damage the machine.

At the end of the operation the display will show::

end installation

The machine makes a new check cycle . When ready the display shows:

XX OC LX

place the cup

11.2 Second installation phase

The second phase of the installation of the machine contains the cleaning of the parts in contact with foodstuff, the loading of the food products and the installation of some accessories.

11.2.1 Washing and disinfecting of components in contact with foodstuff.

With the vending machine switched on, make sure that the display shows:

rheavendors
xx oc

place
your cup

Open the door. Insert the plastic key into the safety switch. The display shows:

1=PROG
3=FREE

2=DATA 4=CLEAN
5=MAINT.

Make the cleanings of the mixing bowls pressing **button 4**; the display shows:

CLEANINGS
SEL 1-2- - - - - - - - -

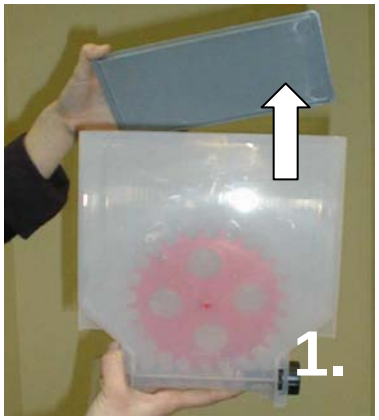
Press **buttons 1** and **2**. With all these three buttons use about 3 litres of water altogether. This will remove any possible trace of dirt from the boiler. Press the internal key on the display board inside the machine.

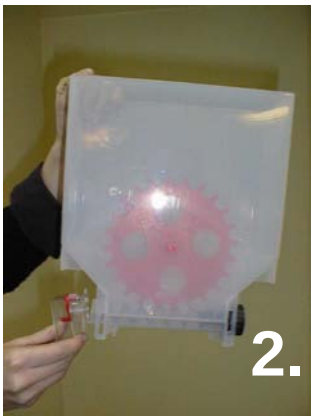
WARNING: Switch off the machine. Wash hands thoroughly.

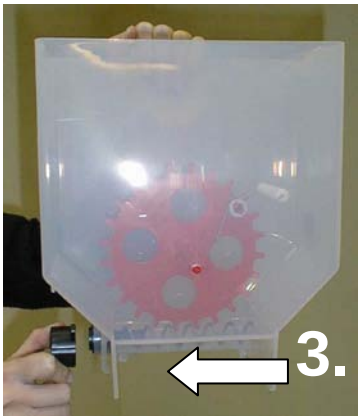
Prepare separately, in a suitable container, a disinfecting antibacterial solution of chlorine, according to the instructions enclosed in the chemical.

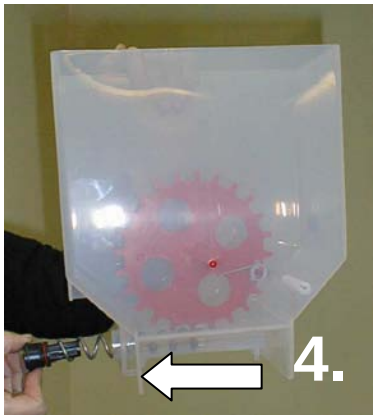
Open the front door and lift the cover. completely the canisters

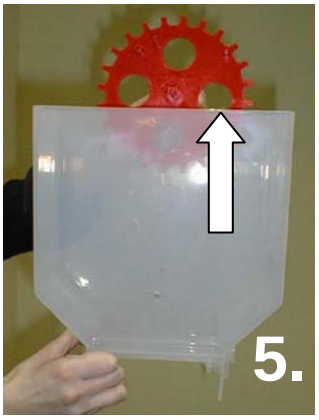
Remove all the ingredients canisters from the machine and disassemble











immerse all parts in the solution previously prepared.

Remove the liquid waste bucket, remove the product pipes,

remove the pipes support, remove the mixing bowls, the mixing fan.

and the aspiration drawers. Immerse all parts in the solution. Using a cloth soaked in the solution, proceed to clean also the attachment bases of the mixers, which remain fixed to the machine. The time of permanence in the solution, in order to obtain a full disinfecting, is stated on the packaging of the chemical.
At the end of the disinfecting, recover all the disassembled parts, dry them very carefully (using compressed air, a hair dryer or perfectly clean and sterile cloths) and reassemble them in the machine in opposite sequence with respect to disassembly. Switch on the machine and make again two or three times a cleaning.
Use about 2 litres of water altogether. This will remove all traces of disinfecting solution from the outlet pipes.

11.3 Refilling of ingredients

Read on the canister the indication of the ingredient to be loaded into the machine. Fill up the canister of the ingredients, after having removed the cover. Use a quantity of product suitable for a period between two refilling, and in any case do not exceed the quantities shown in the table here below.

INGREDIENTS	QTY
Coffee beans	650 g
Instant coffee (small)	330 g
Milk (small)	380 g
Chocolate (small)	940 g
Cgocolate(big)	2200 g
Water	2,2 lit

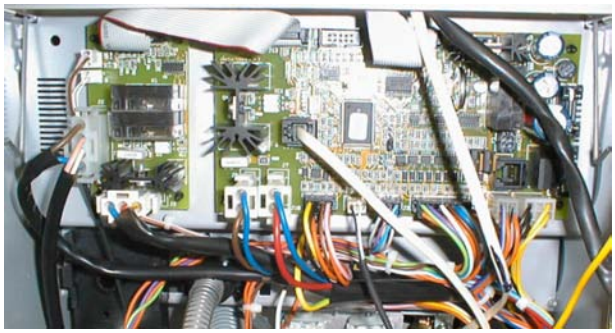
This will prevent deterioration of the quantity of product in excess. Canisters for soluble ingredients can be removed from the machine, in order to facilitate refilling. Rotate the slide lock in order to avoid spilling powder.

closed

open

12 Programming of the machine

12.1 Memory



The machine is controlled by a program stored in the microprocessor of the FLASH memory, installed on the CPU board.

The program stored in the memory (**master file**) can be updated with **Rhea black flash card** programmed with the Rheaction Program.

- Download the master file furnished from the factory on the **Rhea black flash card** using the Rheaction Program;
- Switch off the machine;
- Insert the flash card into the flash slot in the front of the machine.
- Switch on the machine.
- Wait until the display shows:

Programming **Master**

OK

- Switch off the machine.
- Extract the flash card.

12.2 Factory set parameters

The machine is supplied already pre-set for the most common operation parameters. In particular:
- configuration of the version;
- throw of powdered ingredients and quantity of water required;
- vend prices (set to 0: the machine is in the free vend mode);
- pre-setting for the use of the system of parallel payment;
- the clock function disabled;

The Data set of the machine must be modified only if the pre-set factory parameters are not complying with the required use.

The parameters stored into the memory (**configuration file**) can be updated with **Rhea black flash card** programmed with the **Rheaction Program**.

- Download the configuration data file furnished from the factory on the flash card using the **Rheaction Program**;
- Switch off the machine;
- Insert the flash card into the flash slot in the front of the machine.
- Switch on the machine.
- Wait until the display shows:

1 = KEY - - - > VMC **2 = VMC - - - > KEY**

- Press **button 1**. The display shows:

Programming **EAROM data**

Programming **OK**

- Switch off the machine.
- Extract the flash card.

12.3 How to enter and exit from the programming mode

To modify the operation parameters of the machine it is necessary to enter in the programming mode. To enter press the internal **key P** on the display board inside the machine. The display shows.

1=PROG **3=FREE**

2=DATA 4= CLEAN **5=MAINT.**

Enter **1** on the keyboard. The display shows:

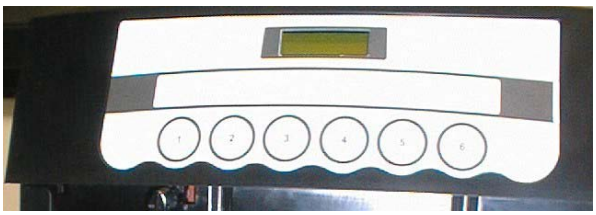
PROGRAMMING **BUTTON 1 - - - - - - - -**

Once the parameters have been modified, enter the **key P** on the keyboard and the machine will exit from the programming. The display shows:

END PROGRAMMING **- - - - - - - - - - - - - - - - -**

12.4 Keys used in the programming mode

Programming is carried out by pressing the buttons on the selection keypad.



Notably:

- with **1** the sequence of programming sub-menus is visualised;
- with **6** the sequence of programming sub-menus is visualised in the reverse direction;
- with **2** the sequence of specific programming functions for the chosen sub-menu is visualised;
- with **3** the sequence of specific programming functions for the chosen sub-menu is visualised in the reverse direction;
- with **4** the value of the visualised function is increased or selected;
- with **5** the value of the visualised function is decreased or selected.

12.5 Programming sub-menus

Access to the programming sub-menus is possible at any time, after entering the programming mode and entering **1** on the keyboard. These sub-menus are repeated cyclically after the last one has been displayed. The sub-menus and their video order are as follows:

PROGRAMMING- - - - - **- BUTTON 1 - - - - - - -**

PROGRAMMING - - - -
- BUTTON 6 - - - - - - -

PROGRAMMING - - - -
- PRICES - - - - - - - - - -

PROGRAMMING
-SPECIAL PRICES - - -

PROGRAMMING - - - -
- COINS - - - - - - - - - -

PROGRAMMING - - - -
-TEMPERATURE - - - -

PROGRAMMING - - - -
-MISCELLANEOUS - -

DIAGNOSTICS - - - - - -
- - - - - - - - - - - - - - - - - -

SALES AUDIT - - - - - -
- - - - - - - - - - - - - - - - -

PROGRAMMING- - - - -
-CLOCK- - - - - - - - - -

REGISTRATION
OUT OF SERVICE

PROGRAMMING
PRODUCT QTY - - - - -

PROGRAMMING
-MAINTENACE- - - - -

PROGRAMMING
- RFID CARD

12.5.1 Pre-setting of the buttons

The modification of throws is a delicate operation as the good operation of the machine can be affected. As a general rule, it is recommended to keep in mind that when instant ingredients are dissolved in water, a brief interval to rinse the mixing bowl must be foreseen at the end of the powdered ingredient vending. This is provided by programming a dispensing time for water about 2 sec. longer than the dispensing time for the instant ingredients. To each of the 6 selections it is possible to associate the recipe of any drinks. To proceed at the pre-setting of each button, in the programming mode, enter **1** until the video shows:

PROGRAMMING- - - - - -BUTTON 1- - - - - - - -

Enter **2** to visualise one of the following functions:

FUNCTIONING

INHIBITED

Scroll the functions entering **4** and **5**. To inhibit the button, which is going to be programmed, confirm **INHIBITED** entering **1**.

12.5.2 Setting of a selection

To program a selection confirm **FUNCTIONING**. Press again the **button 2**. The display shows:

WATER time Coffee brewer xx

Use this parameter to adjust the quantity of the water for ground coffee. Activate this parameter only if you want to associate to this selection button a drink made with coffee beans. Increase or decrease the value pressing respectively the **buttons 4** and **5**. To inhibit this function programme the value 0.0. Press again the **button 2**. The display shows:

opt. coffee-milk (0-1) X

Use this parameter to set the priority of starting between milk and ground coffee for drinks made with these ingredients. Increase or decrease the value pressing respectively the **buttons 4** and **5**. Set this parameter at 0 if you want that milk starts before ground coffee and the value 1 for the opposite. Press again the **button 2**. The display shows:

grinder time: 0.0

Use this parameter to set the time of activation of the grinder motor. Increase or decrease the value pressing respectively the **buttons 4** and **5**. Press again the **button 2**. The display shows:

PRODUCT 1 0=inhib. .0

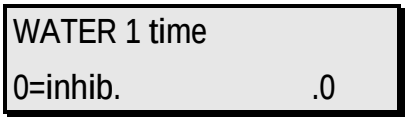
The number of the product shows the position of the canister inside of the machine starting to count from the left the possible positions of the product motors. If the PRODUCT 1 is necessary for the drink that is being set, increase or decrease until the desired value, pushing respectively **4** and **5**; otherwise inhibit the ingredient setting its value to 0.0. If you press the **key PROG**, you can dispense the quantity of product set. **Only if PRODUCT 1 is not set at 0**, entering again **2** the video shows:

start delay PRODUCT 1 .0

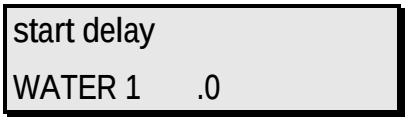
Entering respectively **4** and **5** increase or decrease the ingredient's pouring delay after the beginning of the selection. Entering again **2** the video shows the same items for other products that can be set as the previous one following the recipe of the desired drink. The relative delays are shown only if the PRODUCTS are not at 0. Entering again **2** the video shows:

breaks number : 0

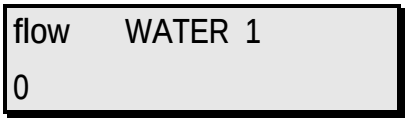
Entering respectively **4** and **5** increase or decrease the number of breaks during the dispensing of the product. The maximum number of programmable breaks is 2. I.e: If you want that products is dispensed into two phases program this parameter at 1. Entering again **2** the video shows:



The number of the WATER shows the position of the mixer starting from the left. Increase or decrease the value pressing respectively **4** and **5**; otherwise inhibit WATER setting its value to 0.0. **Only if WATER 1 is not set at 0**, entering again **2** the video shows:



Entering **4** and **5** increase or decrease respectively the water pouring delay after the beginning of the selection. Entering again **2** the display shows:

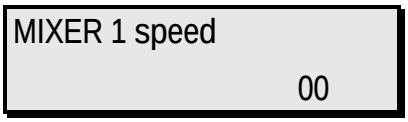


Entering **4** and **5** it is possible to choose among three parameters:

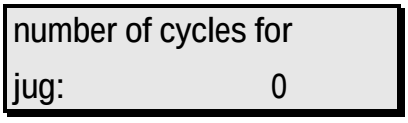
0 which corresponds to "**slow**", **1** which corresponds to "**medium**", **2** which corresponds to "**quick**" to increase or decrease the correspondent water flow. Entering again **2** the video shows:

Increase or decrease the value of the time of working of the mixer pressing respectively **4** and **5**; otherwise inhibit the MIXER setting its value to 0.0. Entering again **2** the video shows:

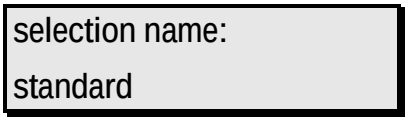
Entering **4** and **5** increase or decrease respectively the mixer start delay after the beginning of the selection. Entering again **2** the video shows:



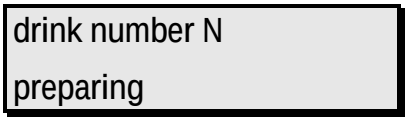
Entering **4** and **5** increase or decrease respectively the mixer speed of the selection. Entering again **2** the video shows the same items for other waters that can be set as the previous one following the recipe of the desired drink. The relative parameters are shown only if the WATERS are not at 0. Entering again **2** the video shows:



Setting this parameter to a value different from 0 a jug drink is activated made of the set number of cycles of the same drink (jug mode). This is possible only in case of RFID card. Increase or decrease the number of the cycles pressing respectively **4** and **5** Pressing again **button 2** the display shows:



Pressing **button 4** and **5** it is possible to modify the message shown in the display during the preparation of the drink. If you select the value **standard**, the display will show:

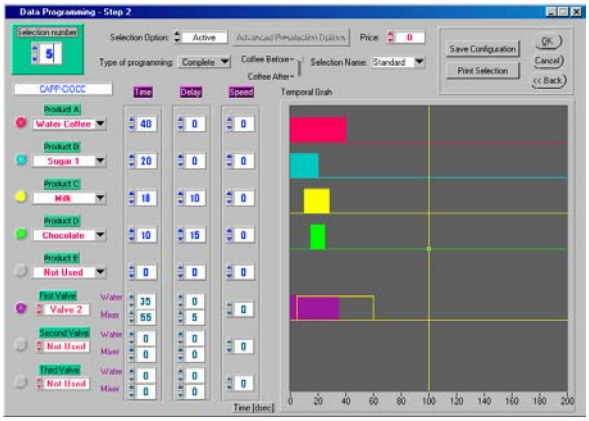


otherwise if you select one of the available selection names the display will show:

selection name
preparing

Press **button 1** to programme the following button.

Enter **1** to programme next button. All the settings described in this and in following paragraphs can be set in an easier way using **rheaction** software. For further information contact Rheavendors Services S.p.A - Customer Service.



12.5.3 Setting of sale prices

One price for each selection available can be memorised in the machine. When a selection is matched to a price set to zero, the selection is in the free vend mode. To modify sale prices, in the programming mode, enter **1** until the sub-menu

PROGRAMMING - - - -
PRICES - - - - - - - - - -

is visualised. Enter **2** and **3** and select the price to be modified. For example:

PRICE X
XXXX

will appear on the video. Enter **4** and **5** to modify the value of the price videoed. Enter **1** to confirm the set data.

Setting of sale prices One price for each selection available can be stored in the machine. When a selection is matched to a price set to zero, the selection is in the free vend mode. To modify sale prices, in the programming mode, press **button 1** until the sub-menu

PROGRAMMING - - - -
PRICES - - - - - - - - - -

is visualised. Press **buttons 2** and **3** and select the price to be modified. For example:

PRICE X
XXXX

will appear on the display. Press **buttons 4** and **5** to modify the value of the price displayed. Press **button 1** to confirm the set data. When the invitation message is visualised and with machine open and switched on, the pre-set sale prices can be by-passed by entering the selection test mode (free-vend). To have access to this mode, press the **key P** on the display board inside the machine, then press **button 3**. The display shows:

1=PROG
3=FREE

2=DATA 4=CLEAN 5=MAINT.

TEST

At this point the machine is able to dispense any selection, without charge. Selection sales in the selection test mode are counted in a separate counter (see "Reading of sales data"). To exit from the selection test mode, press the **key P** on the display board inside the machine.

12.5.4 Setting of special sale prices

During HAPPY TIMES (see PROGRAMMING CLOCK to activate HAPPY TIMES) also one special price for each selection available can be memorised. To set special sale prices, in the programming mode, enter **1** until the sub-menu

PROGRAMMING - - - - SPECIAL PRICES - - - - -

is visualised. Enter **2** and **3** and select the price to be modified. For example:

SPECIAL PRICE X XXXX

will appear on the video. Enter **4** and **5** to modify the value of the price videoed. Enter **1** to confirm the set data.

12.5.5 Presetting of coin-set

The set of values that the machine assigns to each signal (canal) received from the payment system is called *coin-set*. Press **button 1** until to visualize the sub-menu:

PROGRAMMING- - - - - -COINS- - - - - - - - - -

Pressing **button 2** the display shows from:

COIN A 0

to:

COIN J 0

Pressing **buttons 4** and **5** change the value of the visualised coin. Press **button 1**, exit from the programming mode, and switch the machine off and on. The machine will use the new coin-set. For further information see the paragraph " Modifying other operation parameters (Miscellaneous)" the parameter "single or multi vend".

12.5.6 Modification of the operating temperature

The machine defines and regulates water temperature in the boiler. To modify the temperature thresholds, in the programming mode, enter **button 1** until the sub-menu

PROGRAMMING TEMPERATURE

is videoed. Entering **2** the video shows:

TEMPERATURE Boiler XXX

Entering **4** and **5** set the value. The maximum programmable temperature is 95° C. At the end of programming, press **button 1**and **key P** to confirm the set data. Pressing **button 2** the display shows:

DEF. FIRST COFFEE
Minutes N

Use this parameter to obtain drinks made with coffee beans at a right temperature also after long periods of inactivity of the coffee group. When this parameter is set (it is indicated in minutes) if for N consecutive minutes the machine does not make any selection with coffee beans, before making the next selection with coffee beans the machine will wait that the temperature reaches a defined value. Press the **buttons 4** and **5** to increase and decrease the value. At the end of programming, press **button 1** to confirm the set data

12.5.7 Modifying other operation parameters (miscellaneous)

To modify parameters, in the programming mode, enter **1** until the sub-menu

PROGRAMMING
MISCELLANEOUS

is visualised. Entering **2**, the video shows:

MACHINE CODE A
0

Entering again **2**, the video shows:

MACHINE CODE B
0

Enter **4** and **5** to associate to each vending machine personal codes. These numbers are useful only when a data audit system is used with the machines. Pressing again **2**, the display shows:

MESSAGE NUMBER
0

Press **4** and **5** the number of the stand by message to show on the display during the working of e machine (from 0 to 7). Pressing again **2**, the display shows one of the following options (scroll the options pressing **4** and **5**). Select

type coin-mech
PAR. SING. VEND.

to programme a parallel payment system in single vend;

type coin-mech
PAR. MULT. VEND.

to programme a parallel payment system in single vend;

type coin-mech
PAR. spi SING.

to programme a parallel payment system RFID Rhea pre-paid card in single vend;

type coin-mech
PAR. spi MULT.

to programme a parallel payment system RFID Rhea pre-paid card in multi vend. Entering again **2**, the display shows:

code:
INHIBITED

To protect all the data set into the PROGRAMMING mode and the access to the free-vend modality, it is possible to introduce a 3 digits secret code; the machine requests this code every time somebody tries to enter into PROGRAMMING mode or FREE-VEND mode pressing the **key** on the display board inside the machine and then **1** or **3**.

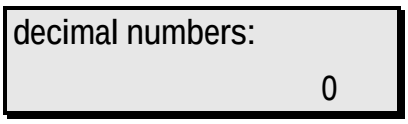
Entering **4** and **5** it is possible to set the secret code (from 111 to 888 with the exception of all the numbers containing the digit 9; i.e. the machine accepts the code 123 but not the code 109). Exit from Programming mode. Now when the **key** on the display board inside the machine is pressed if somebody tries to enter **1** or **3** the display will show:

Enter the code pressing the selection buttons. If the inserted code is wrong the machines come back automatically to vend mode. Normally the machines come out from the factory without any code stored:

and so it is possible to go inside the Programming mode and in free-vend mode. Entering again **2**, the video shows:

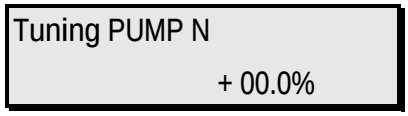
entering **4** and **5** it is possible to modify the value of the time range between the end of the cycle of a drink and the switching off of the aspiration fan. If you set this value at 0, the fan works only 1 minute. Entering again **2**, the video shows:

Pressing again **button 2**, the display shows:

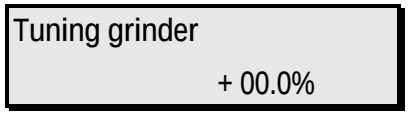


Pressing **buttons 4** and **5** it is possible to set the number of the decimal digits after comma according with the values of the coins, which the machine has to accept (Es: 0=50, 1=5,0 2=0,50…). Pressing again **button 2** the display shows:

Pressing **button 4** and **5** set this parameter at 0 to activate the First Installation procedure at the switching on of the machine as described at the paragraph "**Start up operations**". Entering **4** and **5** it is possible to set the number of the decimal digits after comma according with the values of the coins, which the machine has to accept (Es: 0=50, 1=5,0 2=0,50…). Entering again **2**, the video shows:



Setting this parameter you can adjust in percentage the quantity of the water dispensed from each pump of the boiler. Entering **4** and **5** you can decrease or increase this value from –30% to +30%. Entering again **2**, the video shows:



Setting this parameter you can adjust in percentage the quantity of coffee beans grounded from. Entering **4** and **5** you can decrease or increase this value from –30% to +30%.

At the end of the programming, enter **1** to confirm the set data.

12.5.8 Diagnostics programmes

In the programming mode, a certain number of diagnostics programmes can be carried out in order to test the correct operation of some components of the machine. To modify the parameters, in the programming mode, enter **1** until the sub-menu

DIAGNOSTICS - - - - -
- - - - - - - - - - - - - - - -

is visualised. Entering **2** and

HABIL. DISPLAY
TEMPERA. 1=YES 0

is videoed on the video. According to the value of the parameter, which can be modified with **4** and **5**, the inside temperature of the machine is videoed in real time. Set the parameter to 1 (it is normally 0) to have the video of temperature. To read the temperature, enter **1** and exit from the programming mode. Entering again **2** the video shows:

12.5.9 Reading of the sales data

This sub-menu concerns the reading of the sales data. The machine keeps various counters stored, which allow a direct reading for consumption and cashing. To have an immediate reading of all the data audit, simply press the **key P** on the display board inside the machine and then **button 2**. The will display show:

1=PROG
3=FREE

2=DATA 4= CLEAN
5=MAINT.

Then entering **2** the PC will show in sequence all the sales counters. To read all the sales counters, in the programming mode, enter **1** until the sub-menu

SALES AUDIT - - - - - -
- - - - - - - - - - - - - - - -

is videoed. Then enter **2** and the following counters are shown in sequence:

TOTAL SELECTIONS
XXXXXX

This value indicates the total sale cycles of the machine. This value cannot be set to zero.

PARTIAL
XXXXXX

This value indicates the partial number of sale cycles of the machine starting from the last reset operation.

TOTAL MONEY
XXXXXXXX

This value indicates the amount of money cashed starting from the last reset operation.

PARTIAL MONEY
XXXXXXXX

This value indicates the partial amount of money cashed starting from the last reset operation.

N TESTS
XXXXXX

This value indicates the number of beverages in the selection test mode (free-vend: see "Pre-setting of normal sale prices").

PARTIAL N TESTS XXXXXXXX

This value indicates the partial number of beverages in the selection test mode (free-vend: see "Pre-setting of normal sale prices") starting from the last reset operation.

Total loaded card XXXXXXXX

This value indicates the total amount charged on RFID card. This parameter cannot be reset.

Partial loaded card XXXXXXXX

This value indicates the partial amount charged on RFID card.

Total downloaded card XXXXXXXX

This value indicates the total amount discharged on RFID card. This parameter cannot be reset.

Partial downloaded card XXXXXXXX

This value indicates the partial amount discharged on RFID card.

By entering **2** several times, the values

TOTAL SEL X XXXXXXX

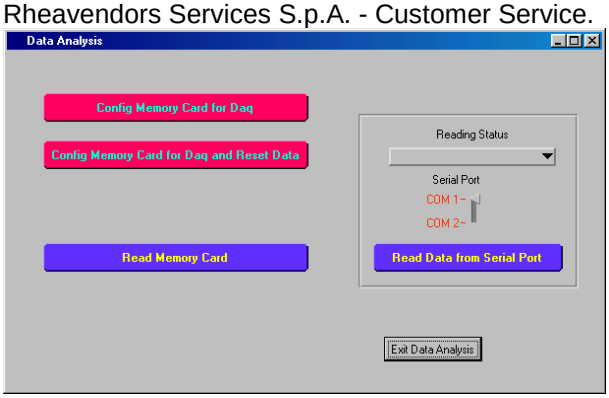
appear which indicate the total of beverages supplied for each sale price. By entering **2** several times, the values

TOTAL SPECIAL SEL X XXXXXXX

appear which indicate the total of beverages supplied for each **special sale price**. By entering **2** several times, the value:

total sel. X FREE _

appear which indicate the total of beverages supplied in free vend using RFID card.
The Data Audit can be done also using **Rhea flash card** and **rheaction** software. For further information contact Rheavendors Services S.p.A. - Customer Service.



12.5.10 Pre-setting of functions based on the internal clock

The machine is equipped with an internal clock able to up-date the time also when the machine is switched off. Some functions of the machine are based on the internal clock. To modify the pre-settings of the clock, in the programming mode, enter **1** until the sub-menu

is videoed. Enter **2** and **3** and choose the function, which requires to be altered. Enter **4** and **5** and modify the value of the videoed function. The first two functions are:

SWITCHING ON XX.XX
SWITCHING OFF XX.XX

The time when the machine should be switched on and off (hh.mm) can be programmed. When the machine is off, only the option to accept coins and selections is disabled. When one of the two values is set to 00.00, the machine is never switched off. By entering **2** the following messages:

HOUR: hh.mm
DAY: DD
MONTH: MM
YEAR: YY

will appear. These functions are foreseen to adjust the current time (hh.mm), the current month (mm) and day (dd) and the current year (yy), respectively. At the end of programming, enter **1**.

day of week: Monday

will appear. These functions are foreseen to adjust the current time (hh.mm), the current month (mm) and day (dd) and the current year (yy), the current day of the week (Monday), respectively. Press **2** and **3** and choose the function, which requires to be altered. Press **4** and **5** and modify the value of the displayed function. The next functions are:

Start happy 1 hh:mm
End happy 1 hh:mm

You will find 3 happy times. During this 3 time ranges (from Start to End) all selections will be sold at happy prices. Press **2** and **3** and choose the function, which requires to be altered. Press **4** and **5** and modify the value of the displayed function. Next functions from Monday to Sunday are:

SWITCHING ON Monday hh:mm
SWITCHING OFF Monday hh:mm

The time when the machine should be switched on and off (hh.mm) can be programmed. When the **machine is off**, all selctions are disabled and, as a measure to save energy, the heating element is always off. When one of the two values is set to 00.00, the machine is never switched off. At the end of programming, press **1**.

12.5.11 Storing of OUT OF ORDERS

The machine stores the last 20 OUT OF ORDERS. To read them on the video, enter **1** until the video shows:

STORING
OUT OF SEVICES

Entering **2**, the video shows hour, day, month and year of the last 20 OUT OF ORDERS.

n. 1 OFF NNN
hh:mm gg - mm - aa

To delete, visualize each OUT OF ORDER and keep pressed **4** for some seconds.

12.5.12 Pre-setting of Product Counters down

You can decide to set how many seconds an ingredient motor should work to dispense instant product In some versions of machines it is possible to set how many seconds a motor should work to dispense instant product before displaying that the product inside the canister is finished.

To proceed at the setting of this parameter enter in PROGRAMMING mode, press **1** until the display shows:

PROGRAMMING
PRODUCT QTY - - - - -

Pressing **button 2** the display shows:

coffe beans
[-xx] xx

Pressing **4** and **5** program the number of the seconds durino which the grinder motor should work. Pressing **button 2** the display shows:

QTY PRODUCT 1
[-xx] xx

until

QTY PRODUCT 6
[-xx] xx

Pressing **4** and **5** program the number of the seconds that the relative motor should work. To by pass this function pre set these parameters from **PRODUCT QTY 1** to **PRODUCT QTY 6** at 0.

To activate this function take note for each canister of how many seconds the relative motor should work to dispense 1 g of product. Calculate then, depending from the quantity of product that can be filled inside the canister, how many seconds the motor should work to finish the product and pre-set the value of the relative counter.

EG: If inside the coffee canister, which corresponds to motor 1, you fill in 1000 g of coffee and the coffee motor dispenses 1 g of coffee in two seconds then the canister will be empty in 2000 seconds; so you have to program **PRODUCT QTY 1** = 2000.0.

When all selections prepared with this product are dispensed the relative counter is decreased the available seconds. When all the seconds finish all the drinks made with this product are inhibited and the display shows:

selection
not available

To confirm the set data press **button 1** and then press the **key P** on the display board inside the machine. When the display shows the standard sale message keep pressed for at least 8 seconds the **key** on the display board inside the machine, until the display shows the message:

set product
OK

To set again the data in sale mode keep pressed for at least 8 seconds the **key P** on the display board inside the machine, until the display shows the message:

set product
OK

12.5.13 Maintenance

A new MAINTENANCE menu has been introduced to have the possibility to improve maintenance operations. Press the **key P** on the display board inside the machine. The display will show:

1=PROG
3=FREE

2=DATA 4=CLEAN
5=MAINT.

Then press **5**. The display will show:

PROGRAMMING - - - -
MAINTENANCE

Water filter replacing

Pressing **2** the display will show the first maintenance option:

dec. filter H2O
[200] 200

Use **4** and **5** to increase or decrease the number of the selections that the machine has to dispense before the message that **the filter should be changed** appears on the display. To program the number of drinks that can be dispensed press the **key P** inside the machine. The display shows:

reset H2O filter
1=no 4=yes

Press **4** to confirm the number, **1** to exit. The machine comes back in stand-by mode. During the functioning of the machine, the counter on the right decreases. Starting from 500 selections to 0, the machine still works but the display shows the message:

change
water filter

When the counters arrives at 0 the machine stops working and the display will show:

OUT OF SERVICE
water filter

This message means that you have to replace the water filter. After replacing the filter to reset the machine enter in the sub-menu MAINTENANCE, look for

dec. filter H2O
[200] 200

and reset the counter keeping pressed **key P**. Press **1** and exit from MAINTENANCE.

Coffee brewer cleaning

Pressing **button 2** the display will show the second maintenance option:

cnt. brewer cof
[200] 200

Use **button 4** and **5** to increase or decrease the number of the selections that the machine has to dispense before the message that the **coffee brewer should be cleaned** appears on the display. To load the number of drinks to make into the machine keep pressed **key P** until the left counter (the one in brackets) contains the same number. During the functioning of the machine, the counter on the right decreases. Starting from 5 selections to 0, the machine still works but the display shows the message:

make brewer cleaning

When the counters arrives at 0 the machine stops working and the display will show:

OUT OF SERVICE **cleaning brewer**

This message means that it is necessary to make a brewer cleaning. After cleaning the coffee brewer to reset the machine enter in the sub-menu MAINTENANCE, look for

cnt. brewer cof
[200] 200

and reset the selections keeping pressed **key P**.

Emptying ground coffee wastes bucket

Pressing **button 2** the display will show the third maintenance option:

cnt cof ground
[200] 200

Use **button 4** and **5** to increase or decrease the number of the selections that the machine has to dispense before the message that the **ground coffee wastes bucket should be empty** appears on the display.

To load the number of drinks to make into the machine, keep pressed **key P** until the left counter (the one in brackets) contains the same number. During the functioning of the machine, the counter on the right decreases. Starting from 5 selections to 0, the machine still works but the display shows the message:

remove coffee grounds

When the counters arrives at 0 the machine stops working and the display will show:

OUT OF SERVICE **coffee grounds**

This message means that you have to empty the ground coffee wastes bucket must be emptied. After emptying the ground coffee wastes bucket to reset the machine enter in the sub-menu MAINTENANCE, look for

cnt cof ground
[200] 200

and reset the selections keeping pressed **key P**. Press **button 1** and exit from MAINTENANCE.

12.5.14 Setting of RFID CARD

The vending machine can work with RFID pre-paid cards. To proceed at the setting of this parameter enter in PROGRAMMING mode, press **1** until the display shows:

PROGRAMMING
RFID CARD

Entering **2**, the video shows

max. credit card
00000000

Pressing **buttons 4** and **5** program the value of the maximum credit that can be loaded in a RFID Rhea card. Entering again **2**, the video shows:

coin a
card 0 = acc

Press **buttons 4** and **5** to change the value of the parameter shown. Set 0 to each coin from **a** to **j** that the coin-mech has to accept when the RFID Rhea card is present and 1 to each coin that must not be accepted in this case.

Entering **2**, the video shows

coin a
no card 0 = acc

Press **buttons 4** and **5** to change the value of the parameter shown. Set 0 to each coin from **a** to **j** that the coin-mech has to accept when the RFID Rhea card is not present and 1 to each coin that must not be accepted in this case.

13 Installation of the coin-mechanism support unit

To install the payment systems always follow the instructions supplied by the manufacturer. For information only, the installation of a token machine is hereunder described.

1. Switch off the machine;
2. Open the front door

3. Remove the coin-mec protection inside the door;

4. Fit the coin-mechanism;

5. Connect the dialogue cable to CPU board on the rear side of the machine;
6. Switch on the machine.

The machine is now ready to use the payment system .

14 Cleaning and loading operations

WARNING: The personnel in charge of the loading of the ingredients must own a valid certificate of good health following local and NATIONAL NORMS. Furthermore, compliance with any other domestic or local regulations must be checked.

WARNING: Given the sensitivity of some ingredients used in the machine to excessive temperature and humidity, some malfunctions may occur if the machine is operated at temperature higher than 30° C or with relative humidity exceeding 80%. Under these conditions the components in contact with the powdered ingredients must be cleaned at least once a day.

WARNING: The use of the safety key can make in movements internal parts of the machine.

WARNING: To fill canisters use only ingredients specific for vending machines.

To guarantee a correct operation of the machine, it is advisable to carry out the periodic cleaning operations hereunder described. Some of these operations are required to comply with health legislation in force. The cleaning operations must not be carried out when the machine is not working (e.g. if it has already been temporarily out of service following instructions given in section "Out of service - Temporary").

WARNING: **The cleaning operations must be carried out when the machine is open and switched off. The loading of ingredients, if required, must be carried out after any cleaning operation.**

WARNING: The correct installation of the machine is must be in closed places with temperatures between 5°C and 30°C and relative humidity no more than 80%.

14.1 Daily cleaning

The objective of these operations is to avert any growth of bacteria in areas in contact with foodstuff. **Before any operation, wash your hands thoroughly.** To carry out these operations use two clean cloths as well as a clean brush; if drinkable water near the machine is not available, also provide for a container with drinkable water. Proceed as follows:

Make sure that the machine is off.

1) With a damp cloth, clean the visible components in the ingredients vend area.

3) Carefully remove and rinse:

the mixing bowls, the mixing bowls' drawers and fans;

the silicone, outlet pipes of the ingredients.

When the mixers are disassembled, clean the basis of the mixer supports with a damp cloth.

Dry the components thoroughly with a dry cloth and mount again all the washed components to the original position.

14.2 Weekly cleaning

These operations are carried out once a week, after completing the daily cleaning operations.
Make sure that the machine is off.
With a damp cloth clean the surface where the ingredient canisters lay and the bottom of the machine to remove any powder eventually spilled during loading. Clean the outside of the machine, taking care to the vend area.

14.3 Refilling of consumption products

When required, proceed to the following loading operations.

ATTENTION: the loading operation of ingredients must be carried out only with machine off.

14.3.1 Refilling of ingredients

Read on the canister the indication of the ingredient to be loaded into the machine.

Fill up the canister of the ingredients, after having removed the cover.

Use a quantity of product suitable for a period between two refilling, and in any case do not exceed the quantities shown in the table here below.

INGREDIENTS	QTY
Coffee beans	650 g
Instant coffee (small)	330 g
Milk (small)	380 g
Chocolate (small)	940 g
Chocolate (big)	2200 g
Water	2,2 lit

This will prevent deterioration of the quantity of product in excess. Canisters for soluble ingredients can be removed from the machine, in order to facilitate refilling.

Rotate the slide lock in order to avoid spilling powder.

After having refilled, refit the canister and open the slide lock.

15 Machine out of service

15.1 Monthly maintenance

15.1.1 Disinfecting of components in contact with ingredients

WARNING: during the ordinary and prevention maintenance operations the technical personal can be in contact with moving parts.

Maintenance operations include cleaning, refilling of products, electronic programming and so on. During these operations the personal in contact with the machine should have all necessary protections. These operations must be carried out once a month to ensure the hygiene of the machine. These operations have already been described in the paragraph "Cleaning and Disinfecting of components in contact with ingredients".

15.1.2 Adjustment of grinding

The brewing time for a 50 ml espresso coffee must be around 20 sec. If due to the wear and tear of the grinder, the brewing time is shorter, turn the adjustment ring nut of the grinder by 1-3 steps in the direction indicated by the sticker near the grinder itself. A thinner grinding and therefore, an adequate brewing time id then obtained.

15.1.3 Maintenance of the espresso group

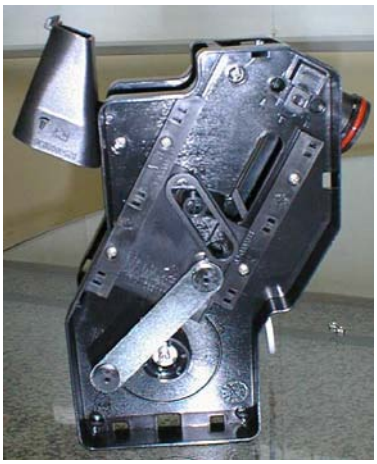
Every month, using silicone grease compatible for foodstuff, the following components must be lubricated.

If the group has vended at least 15000 coffees from the last check-up, the sealing of the filters must be replaced.

For the clean

Remove the plates of the superior filter

Turn upwards the superior filter, dismount and clean it with hot water removing all coffee powder.



Turn the group in the position of ejection waste grounds and overturn the slide of coffee

Dismount the inferior filter and clean it with hot water removing all coffee powder.

Reassemble the group in the original position
this operation can be carried out near a 3/8" mains connection and a drain.
- close the tap of the mains water supply, outside the machine;
- insert the drainpipe of the upper tap in the container;

15.1.4 Washing and disinfecting of components in contact with foodstuff.

With the vending machine switched on, make sure that the display shows:

rheavendors

place your cup

Open the door. Insert the plastic key into the safety switch. The display shows:

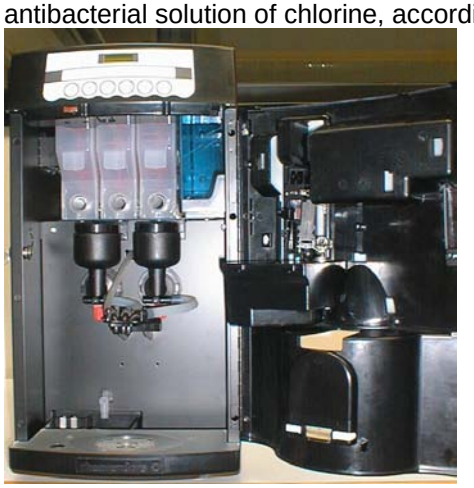
1=PROG 3=FREE

2=DATA 4=CLEAN 5=MAINT.

Make the cleanings of the mixing bowls pressing **4**; the display shows:

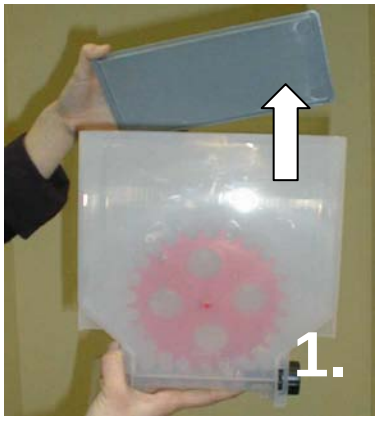
CLEANINGS SEL 1-2- - - - - - - - -

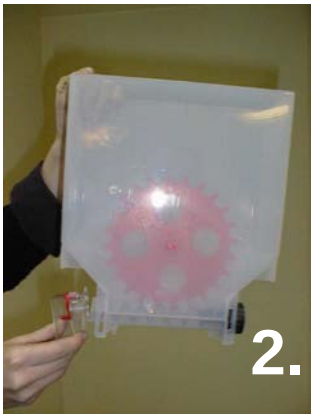
Press **1** and **2**. With all these three buttons use about 3 litres of water altogether. This will remove any possible trace of dirt from the boiler. Press the internal key on the display board inside the machine.
Switch off the machine. **Wash hands thoroughly.** Prepare separately, in a suitable container, a disinfecting antibacterial solution of chlorine, according to the instructions enclosed in the chemical.

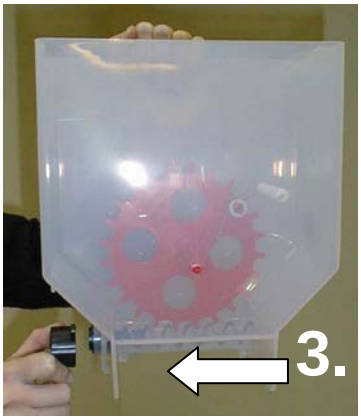


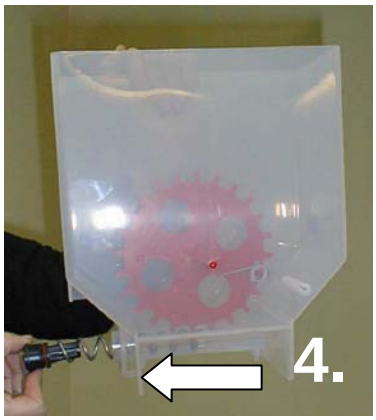
Open the front door and lift the cover. completely the canisters

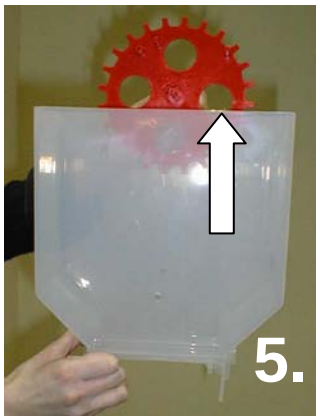
Remove all the ingredients canisters from the machine and disassemble











immerse all parts in the solution previously prepared.

Remove the liquid waste bucket, remove the product pipes,

remove the pipes support, remove the mixing bowls, the mixing fan.

and the aspiration drawers. Immerse all parts in the solution. Using a cloth soaked in the solution, proceed to clean also the attachment bases of the mixers, which remain fixed to the machine. The time of permanence in the solution, in order to obtain a full disinfecting, is stated on the packaging of the chemical. At the end of the disinfecting, recover all the disassembled parts, dry them very carefully (using compressed air, a hair dryer or perfectly clean and sterile cloths) and reassemble them in the machine in opposite sequence with respect to disassembly. Switch on the machine and make again two or three times a cleaning. Use about 2 litres of water altogether. This will remove all traces of disinfecting solution from the outlet pipes.

16 Machine out of service

16.1 Temporary out of service

Should a long period be foreseen in which the machine will not operate, the following operations must be carried out:

Enter in the programming mode (see section "Enter and exit from the programming mode"):

- entering **1** choose the programming sub-menu:

PROGRAMMING
TEMPERATURE

- entering **3**, scroll the functions until the message:

TEMPERATURE	
boiler	85

entering **5** set to 0 the temperature value;
- press **1** to confirm the data

Unplug the machine from the electric mains.

Unload all ingredients from the canisters.

Remove and thoroughly clean in hot water all components in contact with foodstuff. The components are indicated in the part "Maintenance".

For the version without self-water tank close the tap of the external water mains supply and disconnect the water supply pipe from the machine.

Discharge the whole content of the boiler for instant ingredients by removing the cap from the end of the drainpipe. Replace the cap on the pipe end. Use the liquid waste disposal bucket as container for the drained water.

Empty and clean the internal liquid waste tray.

Clean the inside and the outside with a damp cloth. Protect the outside of the machine with a piece of cloth or a plastic film. The machine must be kept in a sheltered place and at a temperature not lower than 5° C

16.2 Definitive out of service

Before carrying out the definitive out of service operation, it is necessary to carry out all operations to empty the machine of ingredients and water according to instructions given in the above section.

The machine is not made of polluting materials. Therefore, for demolition it is advised to disassemble the machine by dividing the various components according to the type of material (plastic, metal, paper, etc.). Especially remove from the electronic board the battery and the waste it in a safety way. The various components can be then delivered to authorised companies for waste disposal.

17 Further advice for the user

The automatic vending machine in your hands is safe for those who follow the loading and ordinary cleaning instructions indicated in this manual. The user must not gain access to areas in the machine, which feature a cover requiring a tool to be removed.

Some maintenance operations (to be carried out by authorised personnel only) require an intentional bypassing of safety protections of the machine. Technical qualification, the compliance of maintenance procedures indicated in this manual and the due care when having access to areas indicated as dangerous allows operating in a safe way.

The stickers indicating danger are applied on fixed covers and show the following symbols:

- possible contact with components under voltage;
- possible contact with hot surfaces.

18 Troubleshooting

18.1 Alarms visualised by the machine

The problems described in this section are shown by an error message on the display of the machine.

WARNING: to reset the machine after an alarm please switch off it using the main interrupter.

SYMPTOM	PROBABLE CAUSE	REMEDY
The display shows **"OFF2": the machine is out of order**	No serial link between the CPU board and the serial payment system.	Check the programming of the payment system (see section "Presetting the payment systems")
		Check the connection of the payment system to the CPU board
	The payment system is not powered or is faulty.	Make sure that the payment system is working
	Jammed coin inside the selector	Remove the coin
The display shows "**NO READER CONNECTED**"	No serial link the CPU board and the RFID payment system.	Check the phone cable between RFID reader and CPU board.
		Switch off and on the machine
The display shows **"OFF5": the machine is out of order**	One or both EAROM memories are faulty	Replace them
The display shows **"OFF 6A" the machine is out of order**	No water	Wait until the mains water pressure is reset **[R version]**
		Open the water supply **[R version]**
	The safety on the water inlet solenoid valve is activated	Reset the safety on the solenoid valve **[R version]**
		Fill in the inside water tank **[A version]**
The display shows **"OFF 6B" the machine is out of order**	Bad working of a pump motor	Check possible water links of the refilling water tank.
The display shows **"OFF6C": the machine is out of order**	No water inside the water tank.	Check the water level sensors and eventually replace it.
The display shows **" OFF 7"**	Check the volumetric counter	Dismount and clean the volumetric counter
	The brewing time of coffee is too long	Adjust the grinding by acting on the special ring nut of the grinder or suitably programme the quantity of ground coffee adjusting the doser wheel
		Programme an adequate quantity of water
The display shows **" OFF 8"**	The coffee group does not return to rest position	Check the micro-switch of the position of the group and the correct power supply at the coffee group motor.
		Remove the group, clean and grease it.
The display shows **" OFF 8A"**	The coffee group is not in its right position or is missing.	Check coffee group and the micro-switch presence coffee group.
The display shows **" OFF 8B"**	The inlet water pipe of the coffee group is not correctly inserted.	Check the inlet water pipe of the coffee group and its micro-switch.

The display shows **"OFF10": the machine is out of order**	Loss of programming standard data	Enter into the programming mode, reset the pre-settings of all functions until they show plausible values and then exit from the programming mode.
The display shows **"OFF14": the machine is out of order**	Too many drinks have been supplied without resetting the level of the refilling pump of the boiler	Check and replace if it is necessary the water level probes.
The display shows **"OFF16": the machine is out of order**	The key P on the display board inside the machine could be trapped.	Check and eventually replace the key.
The display shows **"OFF17": the machine is out of order**	The selection keypad has at least one trapped button.	Check and eventually replace the keypad and or the relative cable, if necessary.
The display shows **"OFF 24A" the machine is out of order**	The power supply of the 24 V elements is excessive	Check the 24 V regulator on the CPU/POWER board and eventually replace it.
The display shows **"OFF 24VB": the machine is out of order**	5 A fuse on the electronic board burnt	Change the fuse
	Problem at the transformer	Replace the transformer
	Problem at the CPU/POWER board	Replace it
The display shows "**OUT OF SERVICE OFF 31A**"	An error occurred in **Espresso** boiler temperature control **(high temperature)**.	Check that the ohmic value of temperature probe is settled at 10Kohm at 25° C or at 1 Kohm at 100°C. Otherwise replace the temperature probe which is short circuited.
		Check out the tension at the ends of boiler heating elements. Replace the temperature setting TRIAC and the opto-insulator on the CPU board if there is tension and the TRIAC control led is switched off.
		Check that the ohmic value of the heating element is settled at 44 Ohm for heating elements of 1200W 230V and 33 Ohm for heating elements of 1600W. Otherwise replace the Espresso boiler heating element.
The display shows "**OUT OF SERVICE OFF 31B**"	An error occurred in **Espresso** boiler temperature control **(low temperature)**.	Check out if the Espresso boiler clicson has been activated. Otherwise press the reset button.
		Check out if there is no tension at the ends of Espresso boiler heating element and the led of TRIAC is switched on and the clicson correctly works. Replace the temperature TRIAC and the opto-insulator on the CPU board. Check out connection between CPU board and heating elements.
The display shows "**OUT OF SERVICE OFF 31C**"	Interrupted **Espresso** temperature probe.	Replace temperature probe of Espresso boiler.
The display "**OUT OF SERVICE OFF 33A**"	An error occurred in **Instant** boiler temperature control **(low temperature)**.	Check that the ohmic value of temperature probe is settled at 10Kohm at 25° C or at 1 Kohm at 100°C. Otherwise replace the temperature probe which is short circuited.
		Check out the tension at the ends of boiler heating elements. Replace the temperature setting TRIAC and the opto-insulator on the

		CPU board if there is tension and the TRIAC control led is switched off.
		Check that the ohmic value of the heating element is settled at 44 Ohm for heating elements of 1200W 230V and 33 Ohm for heating elements of 1600W. Otherwise replace the Instant boiler heating element.
The display "**OUT OF SERVICE OFF 33B**"	An error occurred in **Instant** boiler temperature control **(low temperature)**.	Check out if the clicson has been activated. Otherwise press the reset button.
		Check out if there is no tension at the ends of the heating element and the led of TRIAC is switched on and the clicson correctly works. Replace the temperature TRIAC and the opto-insulator on the CPU board. Check out connection between CPU board and heating elements.
The display "**OUT OF SERVICE OFF 33C**"	Interrupted temperature probe	Replace the boiler temperature probe
Il display shows "**PLEASE LOAD THE MASTER PROGRAM**"	It has not been loaded any master program in the CPU board	Ask to Rhea technical service the correct master file and load the file master with flash card into the machine

18.2 Miscellaneous shortcomings

The shortcomings described in this section are not indicated by any message videoed on the machine.

SYMPTOM	PROBABLE CAUSE	SOLUTION
The machine does not switch on (no component is powered)	No mains voltage	Wait for the resetting of mains voltage
	The boiler is overheated	Reset the safety thermal switch boiler. Check the correct operation and cable of the thermal probe or the resistance in the boiler and replace them if necessary
	One general fuse (230V) is burnt out	Replace it
The machine does not switch on and all leds are switched off.	The fuse on the CPU board (5 V) is burnt out	Replace it