

Victoria Arduino

1905



SERVICE MANUAL



[illegible]



MACHINE DESCRIPTION	1
FIRST INSTALLATION AND PRELIMINARY OPERATIONS	2
REMOVAL OF THE EXTERNAL SURFACE	3
INFUSION UNIT	4
STEAM HEATER	5
COFFEE BOILERS	6
HYDRAULIC CIRCUIT	7
ELECTRIC COMPONENTS	8
ALARMS AND CONTROL OF THE EMERGENCIES	9
SPECIAL FUNCTIONS	10
MAINTENANCE CHECKING	11
TROUBLESHOOTING	12
DIAGRAMS	13
SPARE PART CATALOGUE	14

**INDEX**

1. MACHINE DESCRIPTION	1.1
1.1 DESCRIPTION.....	1.2
1.2 KEYBOARD DESCRIPTION (Standard configuration)	1.3
1.3 SAFETY REGULATIONS	1.4
1.4 MACHINE IDENTIFICATION	1.7
1.5 TRANSPORT	1.8
1.5.1 HANDLING	1.8
2. FIRST INSTALLATION AND PRELIMINARY OPERATIONS	2.1
2.1 FIRST INSTALLATION	2.2
2.1.1 WEIGHT AND DIMENSIONS....	2.2
2.1.2 WATER SPECIFICATIONS	2.3
2.1.3 ELECTRICAL SPECIFICATIONS.	2.3
2.1.4 CONNECTION TO WATER SUPPLY	2.5
2.1.5 PROCEDURE OF FIRST INSTALLATION	2.6
2.1.6 PRESSURE ADJUSTMENT....	2.8
2.1.7 HOT WATER ECONOMISER ADJUSTMENT	2.8
2.2 CABLE STRIP COVERING (optional) ...	2.9
2.2.1 PROGRAMMING BEFORE INSTALLATION	2.9
2.2.2 SETTING OF LANGUAGE, DATE AND TIME	2.9
2.2.3 SETTING OF T3 TEMPERATURES.	2.10
2.2.4 SETTING OF DOSES (VOLUMETRIC VERSION).....	2.13
3. REMOVAL OF THE EXTERNAL SURFACE	3.1
3.1 REMOVAL OF THE CUP HOLDER SURFACE	3.2
3.2 REMOVING OUTER PANELS.....	3.3
3.3 REMOVAL OF THE FRONT, LOWER PANEL	3.4
3.4 REMOVING THE GROUP COVER.....	3.5
3.5 REMOVING THE TFT SCREEN	3.7
4. INFUSION UNIT	4.1
4.1 REMOVAL OF SHOWER AND GASKET.....	4.4
4.2 REPLACING THE GASKET IN THE.....	4.5
4.3 REMOVAL OF THE TEMPERATURE PROBE, AND UNIT HEATING ELEMENTS (T3 VERSION ONLY)	4.6
4.4 COFFEE VALVE	4.8
5. STEAM HEATER	5.1
5.1 EMPTYING THE HEATER	5.2
5.2 ACCESS TO THE HEATER	5.4
5.3 HEATING ELEMENT AND HEAT PROTECTION.....	5.5
5.4 REPLACEMENT OF THE LEVEL GAUGE.....	5.7
5.5 ANTI-SUCTION VALVE.....	5.8
5.6 SAFETY VALVE	5.9
5.7 HEAT EXCHANGERS (T3 VERSION ONLY).....	5.9
6. COFFEE BOILERS	6.1
6.1 COFFEE BOILERS	6.2
6.2 ACCESS TO COFFEE BOILERS	6.2
6.2.1 ACCESS TO THE UPPER PART OF THE HEATER.....	6.2
6.2.2 ACCESS TO THE BOTTOM OF THE HEATER	6.3
6.3 EMPTYING OF THE COFFEE BOILER ..	6.4
6.4 TEMPERATURE PROBE	6.6
6.5 REPLACEMENT OF THE TEFLON INJECTOR	6.8
6.6 REMOVAL OF THE HEATER.....	6.11
6.7 THERMAL FUSE REPLACEMENT	6.12
6.8 PROCEDURE FOR AUTOMATICALLY FILLING THE COFFEE BOILER	6.13
7. HYDRAULIC CIRCUIT	7.1
7.1 DRAINING TUBS AND SERVICE TAPS	7.2
7.2 THE PUMPING ELEMENT.....	7.4
7.3 REMOVAL OF THE PUMP	7.5
7.4 REMOVAL OF THE CAPACITOR.....	7.6
7.5 REMOVING AND REPLACING THE MOTOR	7.6
7.6 REPLACING THE COFFEE VALVE	7.8
7.7 FLOWMETER AND NON-RETURN VALVE (ONLY VERSION V)	7.10
7.8 HOT AND COLD WATER VALVE	7.16
7.9 STEAM NOZZLE.....	7.19
8. ELECTRIC COMPONENTS	8.1
8.1 CONTROL UNIT	8.2
8.2 THE CONTACTOR	8.6
8.3 STATIC RELAYS	8.7
8.4 ACCESS TO THE STATIC RELAYS AND THE SENSOR CARD	8.10
8.5 ACCESS AND REPLACEMENT OF THE DIGITAL PRESSURE GAUGE	8.11
8.6 REPLACEMENT OF TFT SCREEN	8.12
8.7 UPDATING THE TFT SCREEN.....	8.14
8.8 REPLACEMENT OF GROUP PUSH BUTTON PANELS AND SCREENS. ...	8.16
8.9 MACHINE CONFIGURATION	8.18
8.10 GRAVIMETRIC CONTROL UNIT	8.19

8.11	LOAD CELLS AND SENSORS (VERSION G ONLY).....	8.20
8.12	REMOTE CONTROL	8.23

9. ALARMS AND CONTROL OF THE EMERGENCIES..... 9.1

10.	SPECIAL FUNCTIONS	10.1
10.1	GROUP OFFSET ADJUSTMENT	10.2
10.2	HEATER OFFSET ADJUSTMENT	10.2
10.3	CUP WARMER ADJUSTMENT	10.3
10.4	MAINTENANCE ALARM	10.3
10.5	ALARM HISTORY RESET	10.4
10.6	PASSWORD SETTING	10.4
10.7	CONTROL UNIT CONFIGURATION ...	10.6
10.8	DESCRIPTION OF THE SETTABLE FUNCTIONS	10.8

11.	MAINTENANCE CHECKING	11.1
11.1	DAILY MAINTENANCE BY THE BARISTA	11.2
11.2	WEEKLY MAINTENANCE BY THE BARISTA	11.2
11.3	MAINTENANCE EVERY 4-6 MONTHS	11.2
11.4	YEARLY MAINTENANCE.....	11.3
11.5	YEARLY MAINTENANCE KIT.....	11.4

12.	TROUBLESHOOTING.....	12.1
12.1	UNIT DOSING ERROR.....	12.2
12.2	UNIT DISPENSING ERROR	12.3
12.3	LEVEL ERROR.....	12.4
12.4	PRESSURE ERROR.....	12.5
12.5	BOILER PRESSURE METER ERROR..	12.6
12.6	CUP WARMER SENSOR ERROR	12.7
12.7	SERIAL COMMUNICATION ERROR...	12.8
12.8	X UNIT SENSOR ERROR	12.9
12.9	BOILER STEAM COLD	12.10
12.10	ERROR HEATING UNIT X.....	12.11
12.11	BOILER ERROR	12.12

13.	DIAGRAM.....	13.1
13.1	HYDRAULIC DIAGRAM.....	13.1
13.2	WIRING DIAGRAM VA388 T3 VOLUMETRIC	13.2
13.3	WIRING DIAGRAM VA388 T3 (CSA version).....	13.3
13.4	WIRING DIAGRAM VA388 T3 GRAVIMETRIC.....	13.4

14. SPARE PART CATALOGUE 14.1

14.1	EXTERNAL COMPONENTS 2-3 GROUPS	14.2
14.2	DETAIL OF PUSH BUTTONS - DISPLAY COMPONENTS.....	14.3
14.3	PURING UNIT COMPONENT.....	14.4
14.4	STEAM AND HOT WATER VALVES PARTS	14.5
14.5	HOT WATER MIXER AND STEAM PIPES COMPONENTS	14.6
14.6	HOT WATER MIXER AND STEAM PIPES COMPONENTS	14.7
14.7	BOILER PARTS T3 COPPER FROM 18-03-2016.....	14.8
14.8	COPPER PIPES FROM 18-03-2016. ...	14.9
14.9	HYDRAULIC GROUP COMPONENTS UNTIL 17-03-2016 ...	14.10
14.10	HYDRAULIC GROUP COMPONENTS COPPER FROM 18-03-2016.....	14.11
14.11	PUMP GROUP COMPONENTS.....	14.12
14.12	OLD HYDRAULIC SYSTEM COMPONENTS (AS OF 04/12/2014) ..	14.13
14.13	EXTERNAL SURFACE COMPONENTS 2-3 GROUPS	14.14
14.14	ELECTRIC AND ELECTRONIC COMPONENTS.....	14.15
14.15	GRAVIMETRIC SCALE COMPONENTS.....	14.16
14.16	EASY CREAM COMPONENTS	14.17

1. MACHINE DESCRIPTION

1

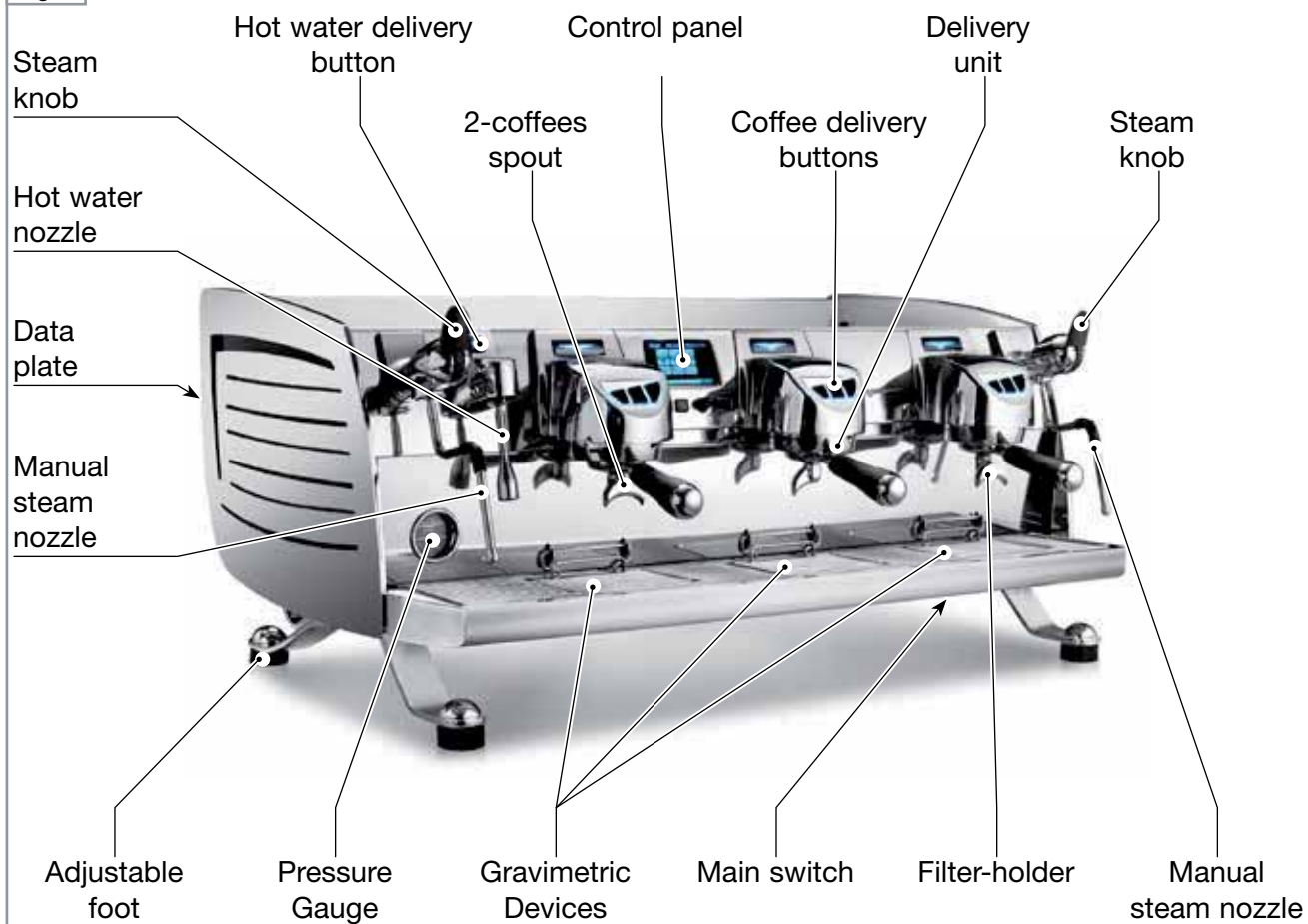


INDEX

1. MACHINE DESCRIPTION	1.1
1.1 DESCRIPTION	1.2
1.2 KEYBOARD DESCRIPTION	
(Standard configuration)	1.3
1.3 SAFETY REGULATIONS	1.4
1.4 MACHINE IDENTIFICATION	1.7
1.5 TRANSPORT	1.8
1.5.1 HANDLING	1.8

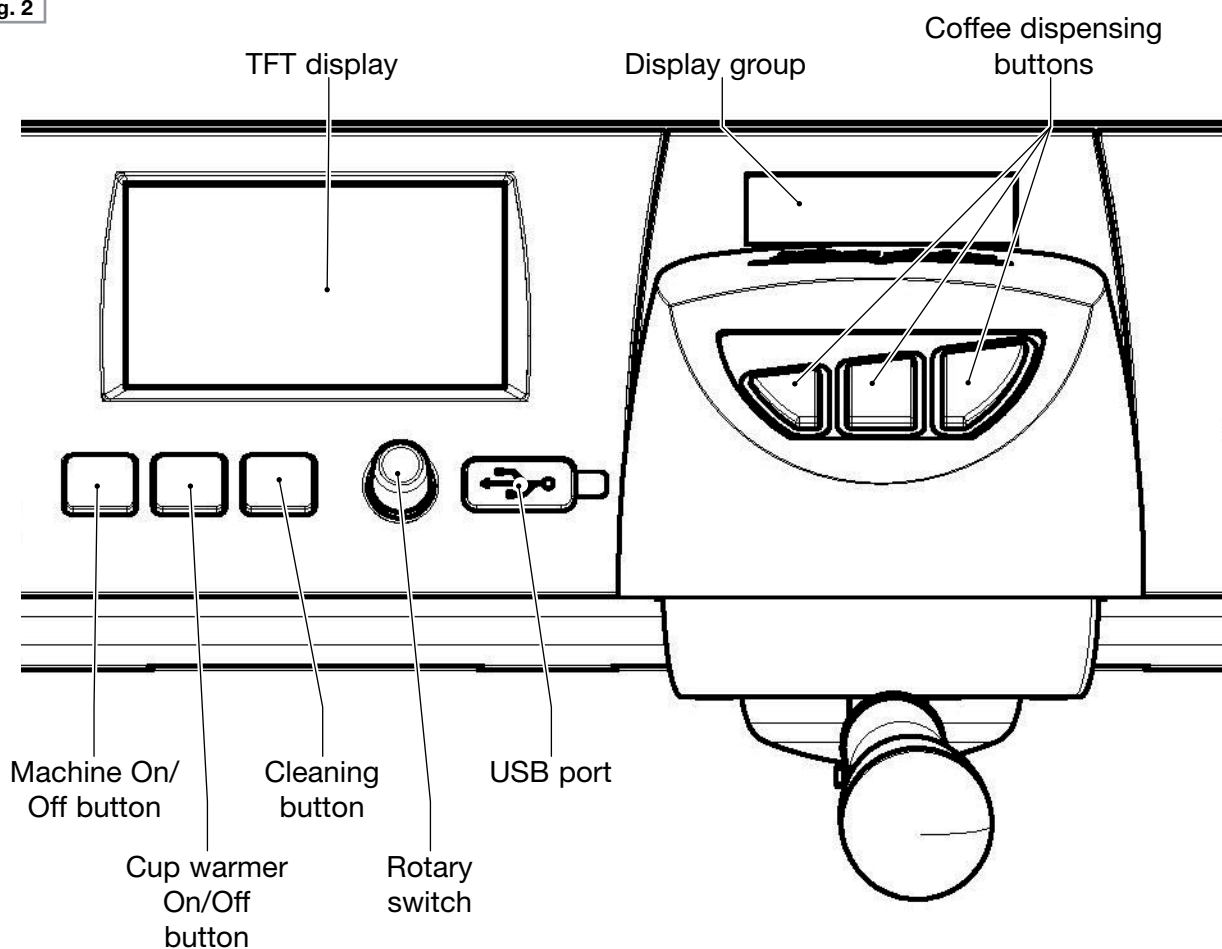
1.1 DESCRIPTION

Fig. 1



1.2 KEYBOARD DESCRIPTION (Standard configuration)

Fig. 2



1.3 SAFETY REGULATIONS

This book is an integral and essential part of the product and must be given to the user. Read this book carefully. It provides important information concerning safety of installation, use and maintenance. Save it carefully for future reference.

All illustrations contained in this manual are meant for information purposes only.

Your machine may differ slightly from the one shown here.

Victoria Arduino reserves the right to make any changes to products and the manual without the need for any updates to previous products and manuals.

After removing the packaging, verify appliance integrity. In case of doubts, do not use the appliance, but consult a qualified technician. Packaging items which are potentially dangerous (plastic bags, polystyrene foam, nails, etc..) must be kept out of children's reach and must not be disposed of in the environment.



RISK OF POLLUTION

Fig. 3



The machine can be installed in staff kitchen areas in shops, offices and other working environments, farm houses by clients in hotels, motels and other residential type environments and bed and breakfast type environments.

Before connecting the appliance make sure the rating plate data correspond with the mains. This plate is on the front panel at the top right hand side of the appliance. The appliance must be installed by qualified technicians in accordance with current standards and manufacturer's instructions.

The appliance must be installed according to the applicable federal/national/local stand-

ards (codes) concerning the hydraulic systems including back-flow devices. Owing to the above, the hydraulic connections must be carried out by a skilled technician. The warranty will be rendered null and void in case the features of the power supply do not match the plate data.

The manufacturer is not liable for any damage caused due to failure to ground the system. For the electrical safety of the appliance, it is necessary to equip the system with the proper grounding. This must be carried out by a qualified electrician who must ensure that the electric power of the system is sufficient to absorb the maximum power input stated on the plate.

Fig. 4



The electrician with the appropriate qualification certificate must make sure that the section of the system cables is suitable to the power absorbed by the machine.

The use of adapters, multiple sockets or extensions is strictly forbidden. If they prove necessary, call a fully qualified electrician.

For appliances powered at 220-230 V, the maximum impedance from the mains must be no higher than 0.37 Ohm.

When installing the device, it is necessary to use the parts and materials supplied with the device itself.

Should it be necessary to use other parts, the installation engineer needs to check their suitability for use in contact with water for human consumption.

The machine must be installed in compliance with the local health standards in force for plumbing systems. Therefore, contact an authorized plumber.

The device needs to be supplied with water that is suitable for human consumption and compliant with the regulations in force in the place of installation. The installation engineer needs confirmation from the owner/manager of the system that the water complies with the requirements and standards stated above.

This appliance must only be used as described in this handbook. The manufacturer shall not be liable for any damage caused due to improper, incorrect and unreasonable use.

This appliance is not suitable for use by children or persons with reduced physical, sensory or mental capabilities, or by persons with a lack of experience or knowledge, unless supervised or given instructions.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The machine shall be installed only in rooms, in which the use and the maintenance are restricted to skilled staff.

The appliance shall not be install where water jets can be used.

The maximum and minimum storage temperatures must fall within a range of $[-5, +50]^{\circ}\text{C}$.

The operating temperature must be within the range of $[+5, +35]^{\circ}\text{C}$

At the end of installation, the device is switched on and taken to rated operating conditions, leaving it in a state in which it is “ready for operation”.

The coffee machine must not be left switched on without supervision, that is to say without the presence of an operator.

The Simonelli Group is not responsible for any damage caused by malfunction of the machine, in case this machine is left on without the presence of the operator.

After reaching the “ready for operation” condition, the following dispensing operations are carried out:

- 100% of the coffee circuit through the coffee dispenser (for more than one dispenser, this is divided equally);
- 100% of the hot water circuit through the water dispenser (for more than one dispenser, this is divided equally);
- opening of each steam outlet for 1 minute.

At the end of installation, it is good practice to draw up a report of the operations.

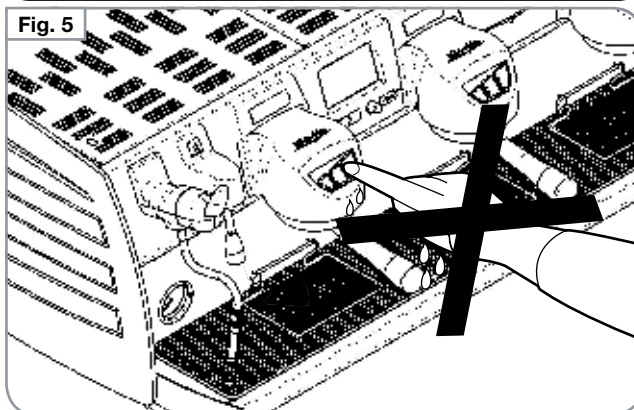
The use of any electrical device must comply with fundamental regulations. In particular:

- do not touch the appliance when hands or feet are wet;
- do not use the appliance when barefoot;



WARNING RISK OF SHORT CIRCUITS

Fig. 5

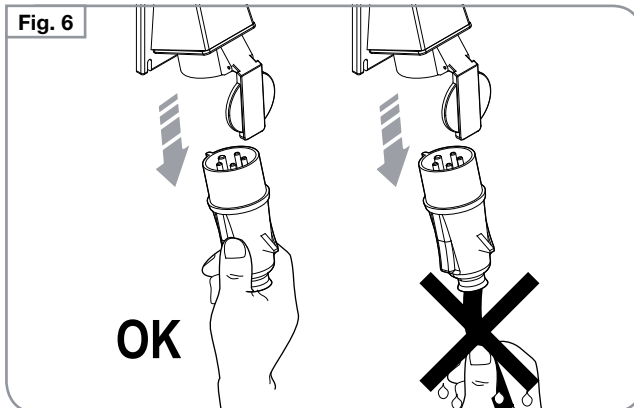


- do not use the appliance when barefoot;
- do not pull the supply cord out of the socket to disconnect it from the mains;
- do not leave the appliance exposed to atmospheric agents (rain, sun, etc.);
- do not let the appliance be used by children, unauthorised staff or staff who have not read and fully understood the contents of this handbook.

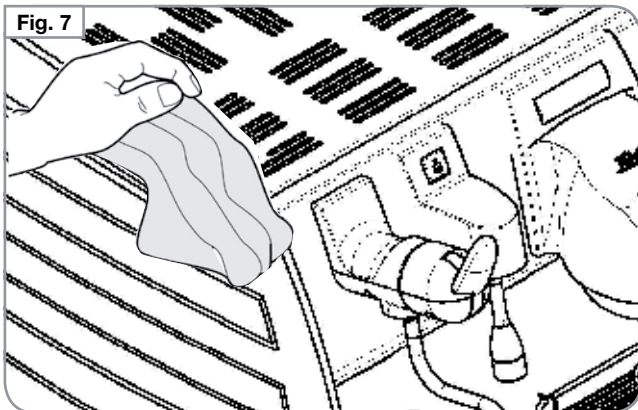
During installation, the mains power system needs to be equipped with a disconnect switch to cut off each phase.

Before carrying out any maintenance operation, the authorised service engineer will switch off the machine and open the disconnect.

Fig. 6



For all cleaning operations comply exclusively with the instructions given in this booklet.



In case of breakdown or wrong functioning of the machine, switch it off. Any intervention is strictly forbidden. Contact qualified experts only.

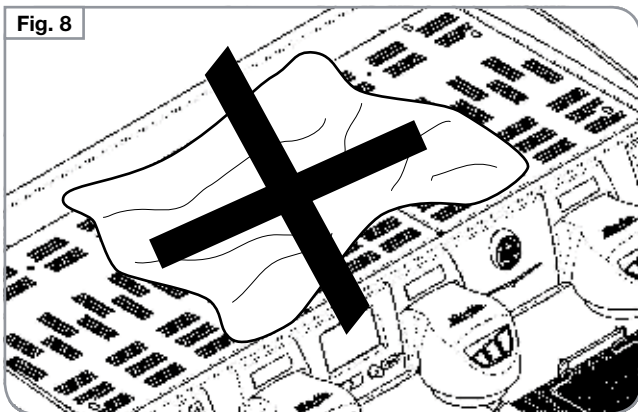
Repairs should only be made by the manufacturer or authorized vice centres. Only original spare parts must be used.

Failure to observe the above, could make the appliance unsafe.

For installation, the qualified electrician must fit an omnipolar switch in accordance with the safety regulations in force and with 3 (0.12) or more mm (in) between contacts.

To avoid dangerous overheating, it is recommended to carry out for the whole length of the power cable.

Do not obstruct the extraction and/or dissipator grids, especially of the cup warmer.



Single-phase appliances with current above 15 A and three-phase appliances sold without plugs are directly wired to the mains power and therefore, it is not possible to use a plug.

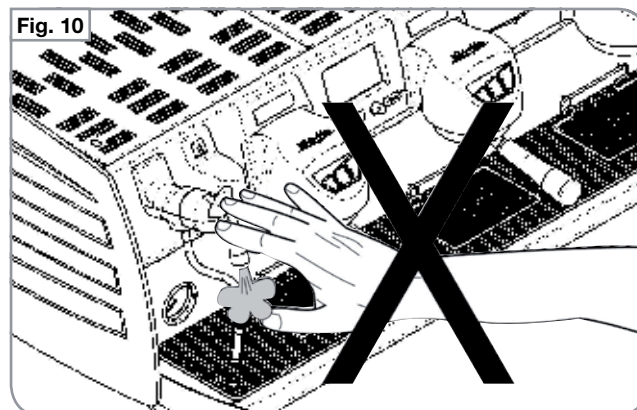


Do not dispose of the machine in the environment: for waste disposal, contact a specialised authorised centre or contact the manu-

facturer that will give you information about this.



Handle the vapour spear with care when using it, do not put hands under it and avoid to touch it immediately after use.



Before carrying out any operation of installation, maintenance, download, or setting, the qualified operator must wear working gloves and safety shoes.



After washing is started, do not stop it to prevent detergent residues from remaining into the delivery unit.

The maximum noise disturbance level is lower than 70db.

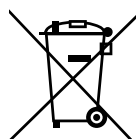
If the pipe connecting to the mains water is replaced the old pipe must never be re-used.

In case of machine with water connection to the line, the minimum pressure must be 2 bar and the max. pressure for the proper operation of the machine must not exceed 4 bar.



WARNING

INFORMATION TO THE USERS



Pursuant to Art. 13 of the Legislative Decree dated 25th July 2005, No. 151 "Implementation of the 2002/95/EC, 2002/96/EC, and 2003/108/EC on the restriction of the use of certain hazardous substances in Electrical and Electronic Equipment as well as on waste disposal".

The symbol of the crossed large rubbish container that is present on the machine points out that the product at the end of its life cycle must be collected separately from the other wastes. The user for this reason will have to give the equipment that got to its life cycle to the suitable separate waste collection centres of electronic and electro-technical wastes, or to give it back to the seller or dealer when buying a new equipment of equivalent type, in terms of one to one. The suitable separate waste collection for the following sending of the disused equipment to recycling, the dealing or handling and compatible environment disposal contributes to avoid possible negative effects on the environment and on the people's health and helps the recycling of the materials the machine is composed of. The user's illegal disposal of the product implies the application of administrative fines as stated in Law Decree n.22/1997" (article 50 and followings of the Law Decree n.22/1997).

1.4 MACHINE IDENTIFICATION

Always quote the machine serial number in all communications to the manufacturer **Victoria Arduino**.

Fig. 11

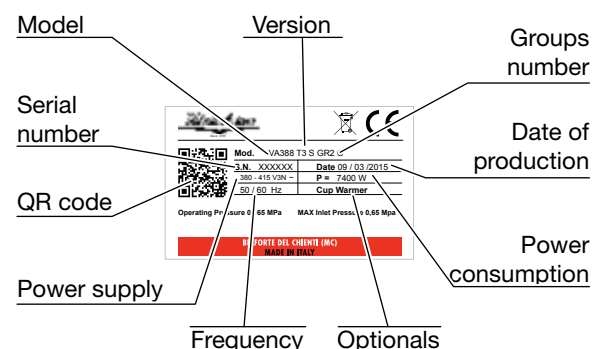


Fig. 12

Mod. VA388 T3 S GR2 C		
S.N. XXXXXX	Date 09 / 03 /2015	
380 - 415 V3N ~	P = 7400 W	
50 / 60 Hz	Cup Warmer	

Operating Pressure 0,165 MPa
MAX Inlet Pressure 0,65 Mpa

BELFORTE DEL CHIANTI (MC)
MADE IN ITALY

The machine internet page can be accessed directly through the QR code.

By downloading and installing one of the apps to read such codes on a mobile device. Start the app and position the camera in front of the code so that it can be clearly seen. Wait some time while the app processes the result and shows the internet page of the machine on the display.

1.5 TRANSPORT

The machine is transported on pallets which also contain other machines - all boxed and secured to the pallet with supports.

Before carrying out any transport or handling operation, the operator must:

- put on work gloves and protective footwear, as well as a set of overalls which must be elasticated at the wrists and ankles.
The pallet must be transported using a suitable means for lifting (e.g., forklift).

1.5.1 HANDLING



WARNING

COLLISION OR CRUSHING HAZARD

During the entire handling operation, the operator must make sure no one or nothing is inside the operating area.

Slowly lift the pallet to about 30 cm from the ground and move to the loading area. After making sure there are no obstacles, persons or things, proceed with loading.

Once at destination, always using an adequate lifting mechanism (e.g. fork-lift), after making sure there is no one or nothing within the unloading area, lower the pallet to about 30 cm from the ground and transport it to the storage area.



WARNING

COLLISION OR CRUSHING HAZARD

Before performing the following operation, make sure the load is in place and is not likely to fall when the straps are cut.

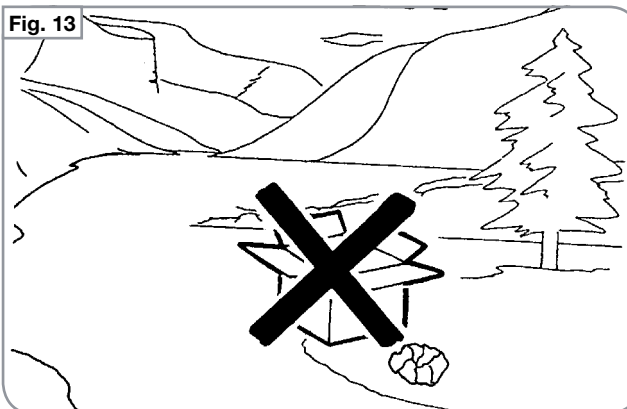
The operator, wearing safety gloves and footwear, must now cut the straps and store the product. To perform this operation, check the technical characteristics of the product to determine the weight of the machine to be stored and take consequent precautions.



WARNING

RISK OF POLLUTION

Fig. 13



Once the machine has been removed from the pallet or the container, do not dump them - pollution hazard.



2. FIRST INSTALLATION AND PRELIMINARY OPERATIONS

2

INDEX

2. FIRST INSTALLATION AND PRELIMINARY OPERATIONS	2.1
2.1 FIRST INSTALLATION	2.2
2.1.1 WEIGHT AND DIMENSIONS.	2.2
2.1.2 WATER SPECIFICATIONS	2.3
2.1.3 ELECTRICAL SPECIFICATIONS.	2.3
2.1.4 CONNECTION TO WATER SUPPLY	2.5
2.1.5 PROCEDURE OF FIRST INSTALLATION	2.6
2.1.6 PRESSURE ADJUSTMENT.	2.8
2.1.7 HOT WATER ECONOMISER ADJUSTMENT	2.8
2.2 CABLE STRIP COVERING (optional).	2.9
2.2.1 PROGRAMMING BEFORE INSTALLATION	2.9
2.2.2 SETTING OF LANGUAGE, DATE AND TIME	2.9
2.2.3 SETTING OF T3 TEMPERATURES.	2.10
2.2.4 SETTING OF DOSES (VOLUMETRIC VERSION).	2.13

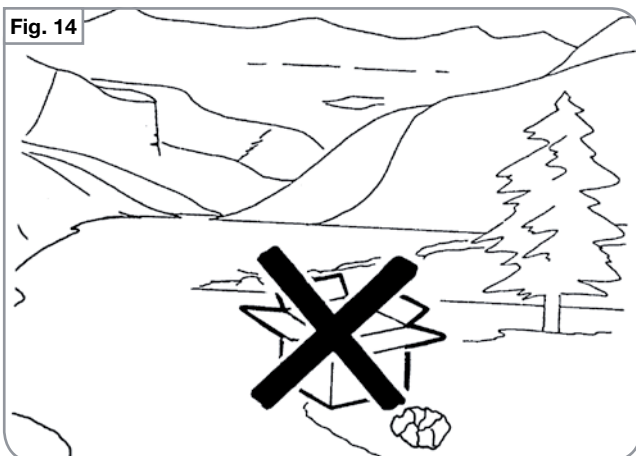


RISK OF POLLUTION

DO NOT DISPOSE PACKAGING in the environment.

Prior to installation please carefully read the safety instructions in this manual. The company cannot be held responsible for damage to persons or property arising from non-compliance with safety regulations, either during installation or maintenance of the machine described in this manual.

Fig. 14



WARNING

Place the machine in an area where all risks of malfunction can be avoided.



WARNING

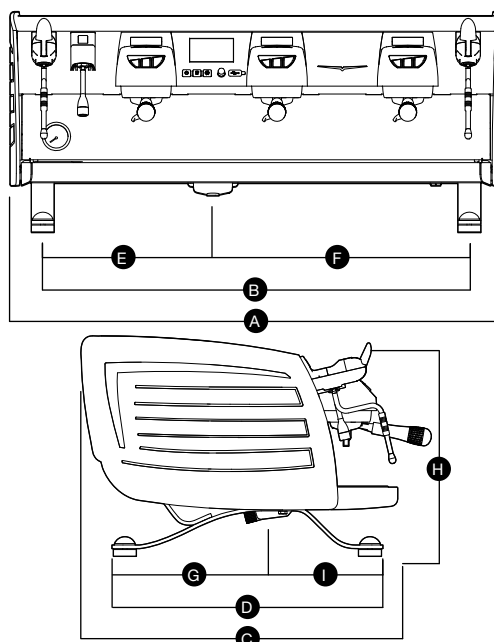
Never install in areas where the machine may be subject to jets of water.

2.1 FIRST INSTALLATION

2.1.1 WEIGHT AND DIMENSIONS

TECHNICAL CHARACTERISTICS

Fig. 15

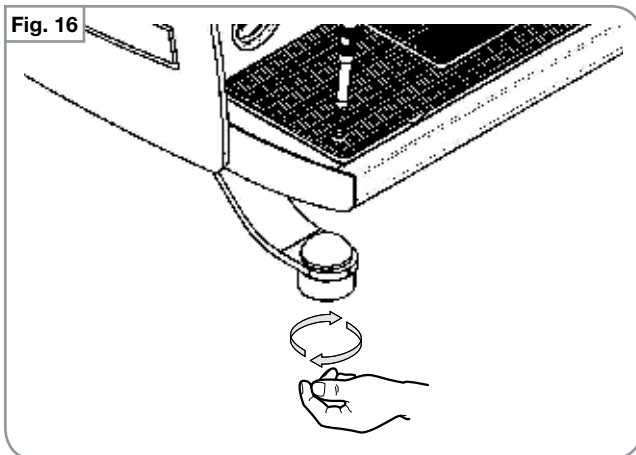


	2 Groups		3 Groups	
NET WEIGHT	85 kg	187 lb	110 kg	243 lb
GROSS WEIGHT	105 kg	231 lb	130 kg	287 lb
POWER	7300 W	7300 W	9100 W	9100 W
DIMENSIONS	A 822 mm	A 32,36 in	A 1072 mm	A 42,2 in
	B 729 mm	B 28,7 in	B 979 mm	B 38,54 in
	C 690 mm	C 27,17 in	C 690 mm	C 27,17 in
	D 584 mm	D 22,99 in	D 584 mm	D 22,99 in
	E 390 mm	E 15,35 in	E 395 mm	E 15,55 in
	F 338 mm	F 13,3 in	F 575 mm	F 22,64 in
	G 369 mm	G 14,53 in	G 369 mm	G 14,53 in
	H 480,5 mm	H 18,92 in	H 480,5 mm	H 18,92 in
	I 215 mm	I 8,46 in	I 215 mm	I 8,46 in

Once the machine is out of the packaging and its integrity, and that of the accessories has been checked, place it on a flat, horizontal surface and if necessary, use the adjustable feet to make sure it is correctly level:

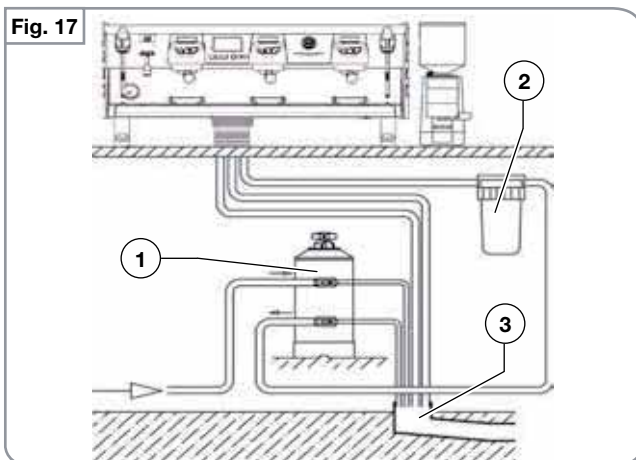
- Turn the feet to the left to raise the machine up to a maximum of + 1 cm;
- Turn the feet to the right to lower the machine.

Fig. 16



It is advisable to install a softener (1) and then a mesh filter (2) on the external part of the plumbing system, during preliminaries and after leveling the machine.

Fig. 17



KEY

- 1 Softener
- 2 Mesh filter
- 3 Drain Ø 50 mm



WARNING

Recommended mains pressure for the water is [2.3] bar.



WARNING

Avoid throttling in the connecting tubes. Assess that the drain pipe (3) is able to eliminate waste.

2.1.2 WATER SPECIFICATIONS

Monitoring of water recipe to keep it within required levels and maintenance of filtration system is the user's responsibility.

Failing to meet and maintain water at the following levels will void the entire warranty:

Total hardness	50 -60 ppm
Waterline pressure	2-4 bar, cold water
Minimum flow	200 l/hr
Chloride	Below 1.0 micron
Alkalinity	10-150 ppm
Total dissolved salts (TDS)	50 -250 ppm
Chloride	<0.5 mg/L
pH	6.5- 8.5

2.1.3 ELECTRICAL SPECIFICATIONS

The **VA388** is available in the three-phase version 380V 50/60 Hz or single phase version 220V 50-60 Hz and the power supply must be selected when ordering.

The machine with two groups has a total consumption of 7300W, while the 3 groups has 9100W.

The resistances of the steam boiler are respectively 4500 and 5000W, while the coffee groups and boilers consume 300W and 1000W each. An additional 200W are estimated necessary for operating the pump and the control unit.



CAUTION RISK OF SHORT CIRCUITS

The machine must always be protected by an automatic omnipolar switch of suitable power with contact openings of equal distance or more than 3mm.

Victoria Arduino is not liable for any damage to people or objects due to not observing current security measures.

Prior to connecting the machine to the electrical mains, assess that the voltage shown on the machine's data plate corresponds with that of the mains.

If it does not, carry out the connections on the basis of the available electrical line, as follows:

KEY

- 1 Black
- 2 Grey
- 3 Brown
- 4 Blue
- 5 Yellow-green

NOTE

At the start of the day's activities and in any case, if there are any pauses of more than 8 hours, then it is necessary to change 100% of the water in the circuits, using the relevant dispensers.

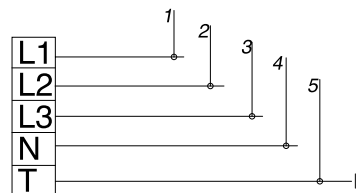
NOTE

In case of use where service is continuous, make the above changes at least once a week.

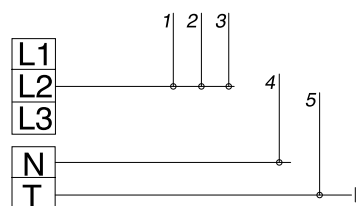
NOTE

If the installation site is devoid of all the power needed it is possible to use the **ECO WARMUP** mode. With the **ECO WARMUP** mode it is possible to reduce the power required during initial heating phase. Using this mode, the various boilers are heated sequentially rather than in parallel, thereby limiting the total consumption to about 5500 W, compared to the higher transient time needed to become fully operational.

- for 380V / 3 phases voltage + Neutral:



- for 230V / monophase voltage:



2.1.4 CONNECTION TO WATER SUPPLY

The machine comes with a loading tube with a 3/8-inch connection for the water main.

The cable is already installed in the machine, simply connect it to the water supply.

Verify that the water inlet pressure is between 2 and 5 bars. If the pressure is higher, insert a pressure reducer upstream to ensure a pressure reading within the values indicated.

To connect the drain, simply insert the draining pipe supplied to the waste water collector and tighten the connector by hand.

Fig. 18



Fig. 19



Fig. 20



2.1.5 PROCEDURE OF FIRST INSTALLATION

When first installing the machine or after maintenance on one of the coffee boilers, switch ON the machine using the main switch positioned to the bottom on the right and proceed as follows:

- 1 If the message **"OFF – CLOCK DISABLED"** appears on the display proceed as follows in step 3.
- 2 If the display reads **"OFF"** press the WASH key until the display reads **"OFF –CLOCK DISABLED"** and then proceed as described in step 3.



WARNING

INSERT A WATER COLLECTION PAN IN ORDER TO AVOID FLOODING THE MACHINE.

- 3 Turn on the machine by pressing the button and after it is turned on you will automatically hear the pump filling the steam heater to a level and water will come out from the groups for about 45 seconds in order to ensure that the coffee boiler is properly filled.
After 90 seconds, a **LEVEL ERROR** message will appear, because the motor protection will start operating. This system not only protects the motor but also serves to avoid that the pump accidentally works without water, if there are problems with the water supply (e.g. forgot to open the upstream tap).
Just turn the machine off and on again for the water to continue entering the boiler. Normally the 2 group machine requires this operation only once, the three group machine 2 times.
It is important that the cycle ends when the operator sees water gushing freely from all machine groups and the pump motor has stopped introducing water into the boiler. Only in this way you will ensure that all the coffee boilers are actually filled. This cycle cannot and must not be interrupted.

Fig. 21

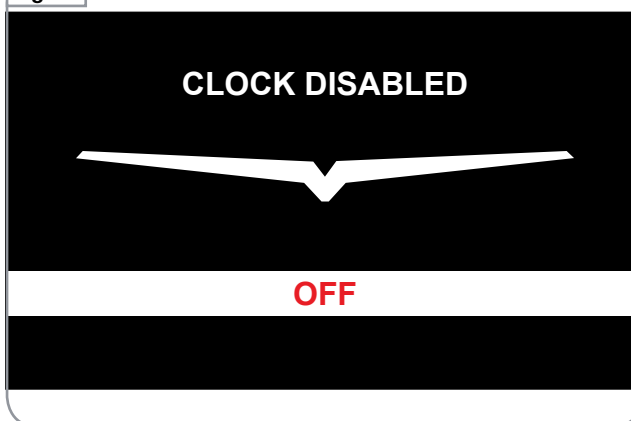


Fig. 22



Fig. 23



**NOTE**

If this cycle is interrupted due to a power outage or if the machine is accidentally switched off from the main switch, the next time the machine is switched on, the cycle will be started again for other 45 seconds. Similarly, if the cycle does not end with the outflow of water from all the coffee boilers, it is reasonable to turn off the machine immediately and restart the procedure to check whether or not there are problems filling the coffee boilers.

**WARNING**

If the coffee boilers are not completely filled with water this could cause damage to the coffee boilers.

2.1.6 PRESSURE ADJUSTMENT

The pressure of the machine must be set while the coffee is brewing.

While coffee is delivered, check that the value of the gauge reaches 9 bar, the optimum value.

In the event that it were necessary, use the knob located below the machine to make an appropriate adjustment.

Turning the knob clockwise raises the pressure, turning it counter-clockwise decreases the pressure.

When the machine is on standby, the gauge shows the value of the water pressure.

Fig. 24



Fig. 25



2.1.7 HOT WATER ECONOMISER ADJUSTMENT



NOTE

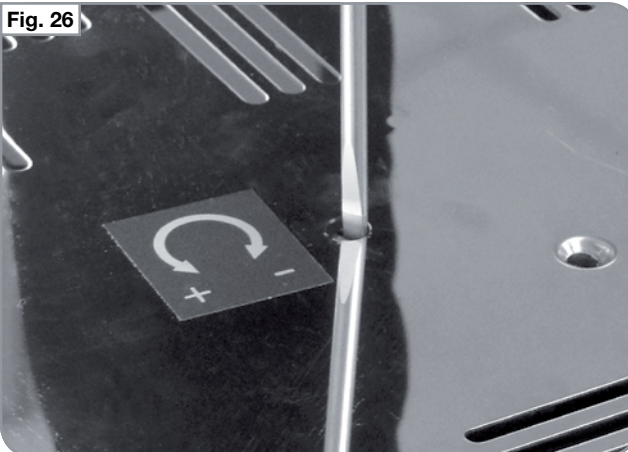
This operation can be carried out while the machine is turned on.

All models  are fitted with a hot water mixer, which serves to adjust the temperature of the water leaving the wand and to optimise system performance.

To set the hot water economy device, use a screwdriver on the screw in the top part of the machine, as shown in the figure.

- Turn it **CLOCKWISE / ANTICLOCKWISE** to **REDUCE / INCREASE** the temperature of the hot water.

Fig. 26



2.2 CABLE STRIP COVERING (optional)

Once the machine has been levelled and connected to the power and water mains, use the cable strips (optional) to cover up the wiring, as shown in the figure.

Fig. 27



2.2.1 PROGRAMMING BEFORE INSTALLATION

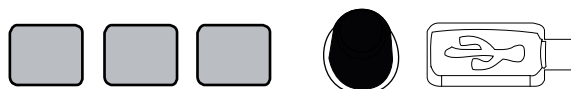
Using the rotary switch you can move inside the interface. When the icon is selected, it changes colour and lights up white; press to enable the selected function/icon. Programming also makes it possible to increase or reduce settings.

The "Home" button always returns to the initial interface, while the "menu" icon goes back one level when navigating.

The minimal operations to be carried out once the machine is installed and turned are as follows:

- 1 Update the language, the date and time if necessary.
- 2 Set the temperatures T3.
- 3 In version V set also doses (volume at CC) for the various keys.
- 4 In the Gravimetric version set the dosage grams and the weight compensation.

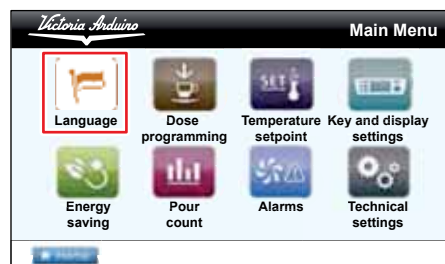
Fig. 28



2.2.2 SETTING OF LANGUAGE, DATE AND TIME

Use the rotary switch to move to the "Language" icon and press the icon to open.

Fig. 29



This shows the page for selecting the language for the whole interface.

Fig. 30



Use the rotary switch to move within the screen and press to confirm the language selected. After selecting the language, select "menu" to go up to the top level and select Settings techniques.

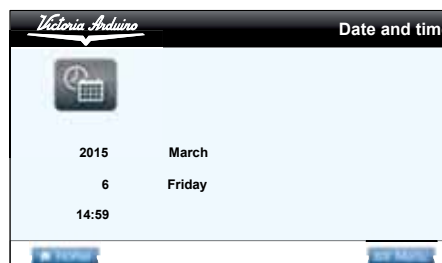
Fig. 31



Select the "Date and Time".

Once the icon has been selected with the rotary switch, press it to access the change mode for the year, month, day, hour and minutes. After the minutes have been set, the machine returns to the main menu.

Fig. 32



2.2.3 SETTING OF T3 TEMPERATURES

GROUP TEMPERATURE



Use the rotary switch to move to the "Set point temperature" and press to enter:

Fig. 33



4 options will be displayed:

GROUPS SET POINT



Use the rotary switch to select the coffee group to adjust and confirm by pressing it.

Set the temperature for each single group.

We recommend setting the temperature for the groups and coffee boilers at the same value, except in special cases where you want to obtain very specific results.

Generally mixtures with good percentage of robust prefer temperatures below 90°, while 100% Arabic is able to express the best characteristics with temperatures above 90°.

COFFEE BOILER TEMPERATURE

To adjust the temperature of the coffee boiler return to the previous screen by pressing the menu button.

BOILER SET POINT



The display shows:

Select the coffee boiler to be adjusted and confirm by pressing the rotary switch.

Heater 1 example:

Turn the rotary switch to select the required temperature for the group, then press it to confirm.

Fig. 34



Fig. 35



Fig. 36

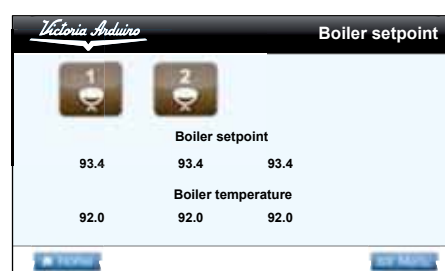
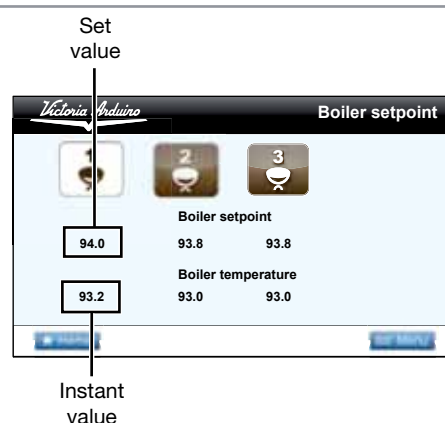


Fig. 37



TEMPERATURE OF THE STEAM HEATER

To adjust the temperature of the steam heater, return to the previous screen by pressing the menu button.

STEAM BOILER SET POINT



The display shows:

Select the steam icon and confirm with the rotary switch.

Turn the rotary switch to select the required temperature for the group; press it to confirm the setting.

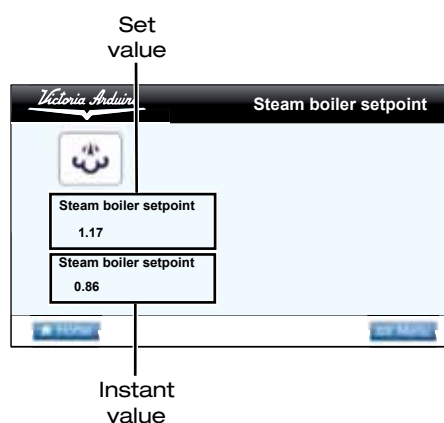
The pre-set value is 1.20 bar. The following table shows the temperature values that correspond to the various pressure values.

PRESSURE-TEMPERATURE TABLE		
Bar	°C	°F
0,50	110,5	230,9
0,55	111,5	232,7
0,60	112,5	234,5
0,65	113,5	236,3
0,70	114	237,2
0,75	115	239
0,80	115,5	239,9
0,85	116,5	241,7
0,90	117,5	243,5
0,95	118	244,4
1,00	119	246,2
1,05	119,5	247,1
1,10	120,5	248,9
1,15	121	249,8
1,20	122	251,6
1,25	122,5	252,5
1,30	123	253,4
1,35	124	255,2
1,40	124,5	256,1

Fig. 38



Fig. 39



PRESSURE-TEMPERATURE TABLE		
Bar	°C	°F
1,45	125	257
1,50	126	258,8
1,55	126,5	259,7
1,60	127	260,6

2.2.4 SETTING OF DOSES (VOLUMETRIC VERSION)

Use the rotary switch to move to the "Dose Program." icon and press to open:

This shows 3 options:

Select program. doses.

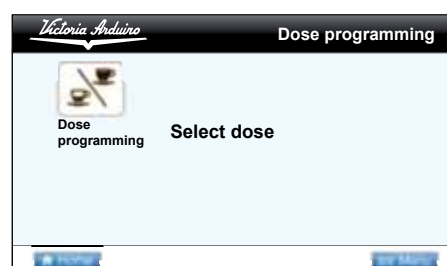
Fig. 40



Fig. 41



Fig. 42





Select the icon again with the rotary switch and press.

All programmable keys will start to flash:

Fig. 43



COFFEE

Press the button to be programmed, the display shows the icon for the selected key and the value already programmed.

It is possible to change the dose using the rotary switch and then pressing it to confirm the setting. Or, press the coffee key to programme, the delivery will start and in the meantime, all of the other lights will switch off.

Once the required dose has been poured, press the continuous coffee button  to stop delivery.

- The display will show the new value and it can be changed again using the rotary switch.
- In any case, press the rotary switch to confirm the programmed dose.
- Once confirmed, the programmed coffee button will turn off by pressing the rotary switch.

To program hot water, just press the button and indicate how long we want water to be delivered.

To continue programming of the various keys, select the icon again with the rotary switch and press it.

Fig. 44

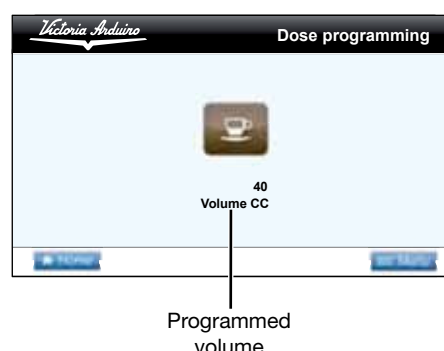
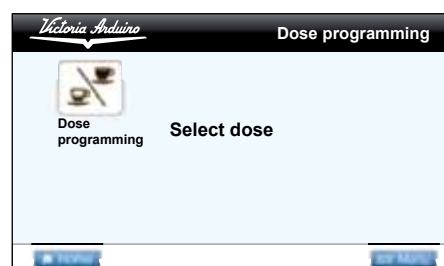


Fig. 45



HOT WATER

Press the hot water button  to be programmed; the display shows the icon for the function selected and the value already programmed.

It is possible to change the dose using the rotary switch and then pressing it to confirm the setting.

Or by pressing the hot water button  to be programmed, dispensing will start (in the meantime all the other lights will go out).

Once the desired dose is reached, press the hot water button  to stop dispensing.

- The display will show the new value and it will still be possible to change it using the rotary switch.
- In any case, press the rotary switch to confirm the programmed dose.
- The programmed hot water button goes out once confirmed by pressing the rotary switch.
- In machines produced from mid-2016, below the value of 1, the function can be set manually.

TRANSFERRING DOSES

This function serves to transfer the value of the programmed dose settings to other groups.

Select the group to use as “source” and confirm:

Select the “destination” group for the copy of the settings and confirm.



NOTE

The group used as a source is uninhibited.

Fig. 46



Fig. 47

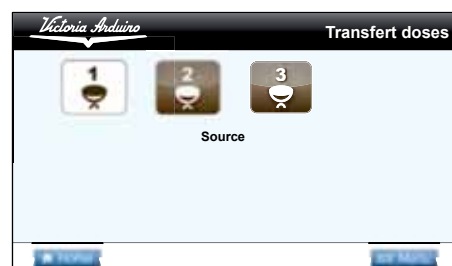


Fig. 48

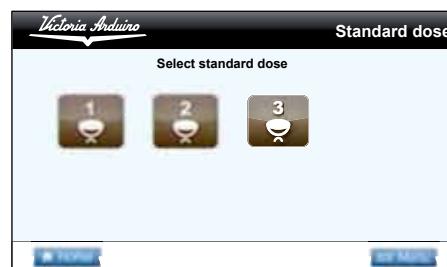


STANDARD DOSES

With this function you can recall the values of "standard doses" for the groups. The display shows:

Select the coffee group to which the programmed "standard doses" apply and confirm by pressing the rotary switch.

Fig. 49



WEIGHT COMPENSATION

(only Gravimetric version):

Using this function, it is possible to introduce a weight compensation value.

This parameter allows you, at the end of dispensing, to obtain the actual value set in programming: Since when the solenoid closes the coffee group continues to drop, the quantity measured in the cup is slightly more than that set by programming.

Every coffee has its specific compensation, linked to the characteristics that distinguish it. These quantities to be compensated depend on the dispensing: the value will differ between a single coffee dispensed and a double coffee dispensed.

By setting this parameter the machine will stop dispensing sooner based on the compensation value established.

The compensation value can vary from a minimum of 0.0 g to a maximum of 5.0 g with variations of 0.5 g.

Fig. 50



Fig. 51



WEIGHT CALIBRATION

The calibration function was introduced to have a univocal correspondence with a possible external reference scale.

Select the group to be calibrated.

Press the rotary switch to select the group to be calibrated.

- 1 Turn the rotary switch to increase/decrease the weight value.
- 2 Select a supply of 100 g of coffee.

In the first case it is sufficient to turn the rotary switch to the desired value.

NOTE

EXAMPLE: The external scale always reads two grams more than that displayed: the calibration value must be set on 98 gr.

In the second case the dispensing must be specific, as follows:

- 1 Evaluate the tare weight of a large container at least 120 g with the external scale.
- 2 Place the coffee in the filter holder and place the container on the grid.
- 3 Confirm calibration.

Fig. 52



Fig. 53



Fig. 54

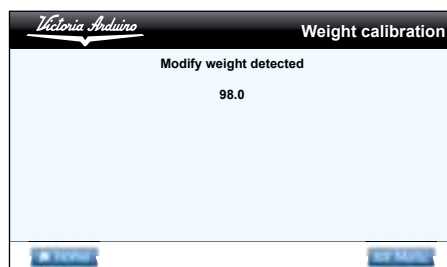
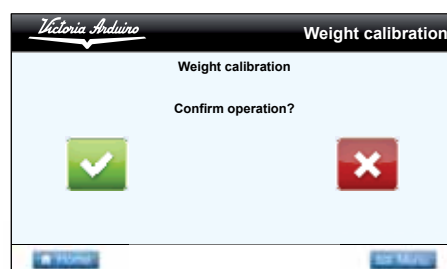
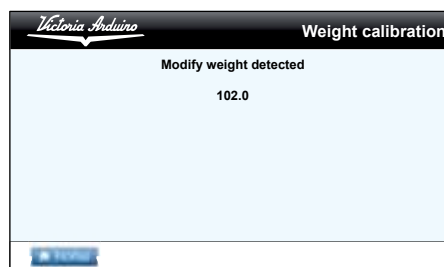


Fig. 55



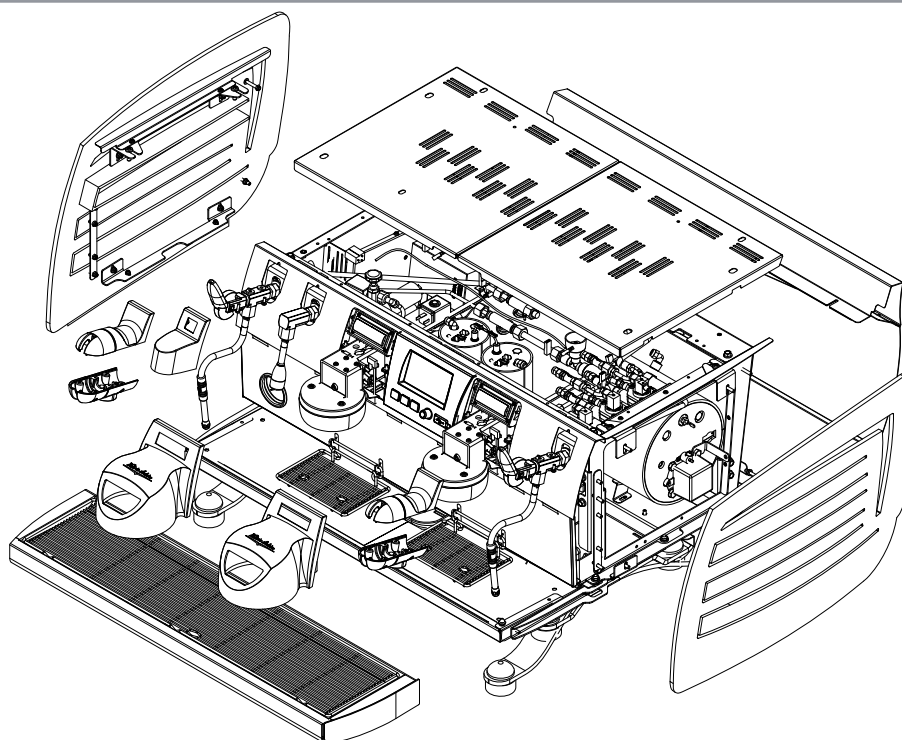
The machine will dispense up to 100 gr.
The value displayed may obviously be slightly higher.

At this point it is necessary to verify the correspondence between the value displayed above the group (e.g. 102) and the reference value of the external scale (e.g. 104). The difference has to be added to the value shown on the machine, then set the calibration to 102 gr.

Fig. 56

3. REMOVAL OF THE EXTERNAL SURFACE

3



INDEX

- 3. REMOVAL OF THE EXTERNAL SURFACE 3.1**
 - 3.1 REMOVAL OF THE CUP HOLDER SURFACE 3.2**
 - 3.2 REMOVING OUTER PANELS 3.3**
 - 3.3 REMOVAL OF THE FRONT, LOWER PANEL 3.4**
 - 3.4 REMOVING THE GROUP COVER . . . 3.5**
 - 3.5 REMOVING THE TFT SCREEN. 3.7**

TOOLS NEEDED:



Use gloves to protect against sharp or hot surfaces that you can bump against involuntarily during operations.

NOTE

Before proceeding with the removal of the panels it is advisable to clean and free up enough space where the machine parts will rest so that they are not be unintentionally damaged.

DANGER

Before proceeding with the operations described in the chapter make sure that the machine is turned off and unplugged from the mains. Discharge any residual pressure present in the steam heater.

3.1 REMOVAL OF THE CUP HOLDER SURFACE

To remove the modular cup warming tray:

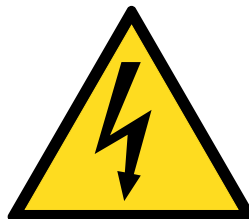
- 1 Unscrew the 3 screws for each module with a Phillips screwdriver that is located under the left panel.
- 2 Disconnect the temperature probe of the cup warmer and remove all panels.

Fig. 57



**CUTTING
AND
HOT
SURFACES**

Fig. 58

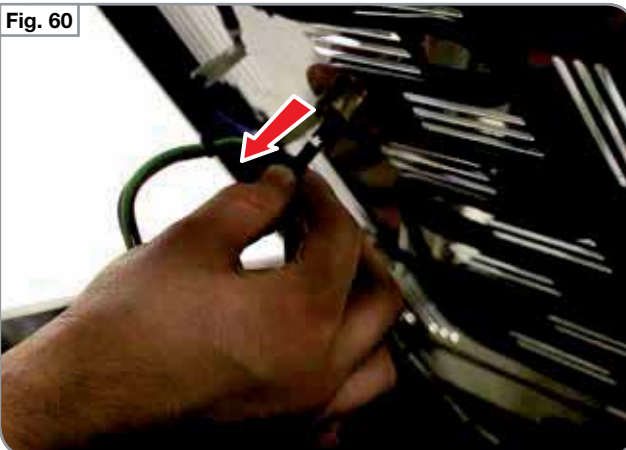


DANGER

Fig. 59



Fig. 60



- 3 Disconnect the power supply of the cup warmer and remove all panels.

3.2 REMOVING OUTER PANELS

The side panels of the **VA388** can be removed independently by partially unscrewing the screws for each panel, accessible without removing the various parts.

SIDE PANELS

- 1 Simply loosen the 2 screws on the top for two turns in order to remove the panel. Use a Phillips screwdriver.
- 2 Gently remove the side panel of the machine and place it on a surface that does not compromise the integrity of the side panel.

Fig. 61

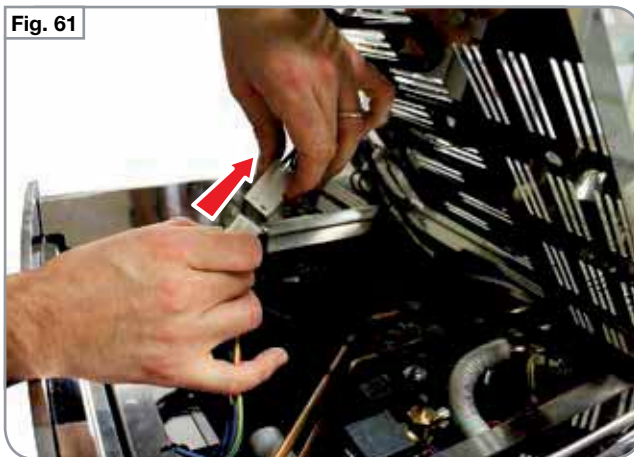


Fig. 62



Fig. 63

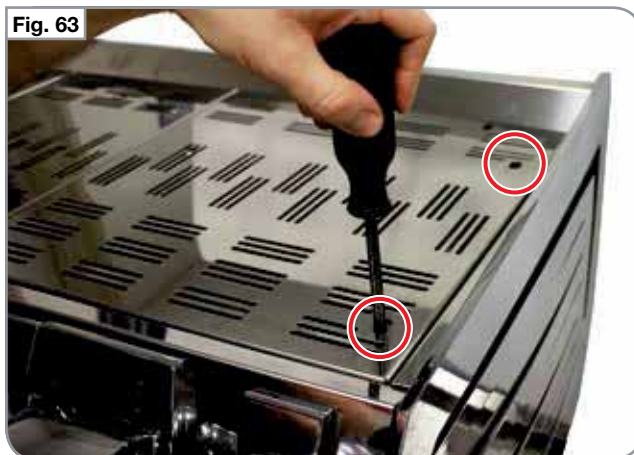


Fig. 64



REAR PANEL

To remove the back panel:

- 1 remove both side panels;
- 2 loosen the 3 screws found on the top.

- 3 Carefully remove the panel.

NOTE

During reassembly, first insert the rear panel then the side panels to avoid damaging them.

3.3 REMOVAL OF THE FRONT, LOWER PANEL

To remove the lower front panel, it is necessary to:

- 1 remove the work surface raising and removing the water collection pan.
- 2 Partially unscrew the 2 side screws that hold the front panel in place.

Fig. 65

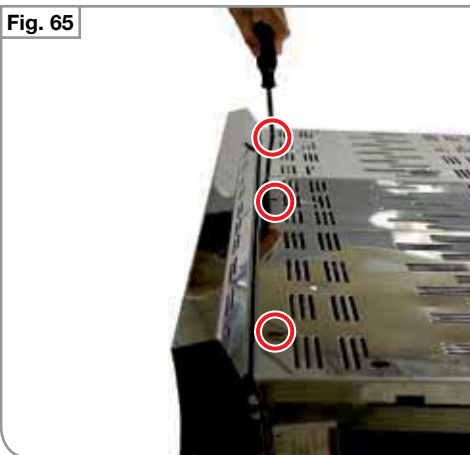


Fig. 66

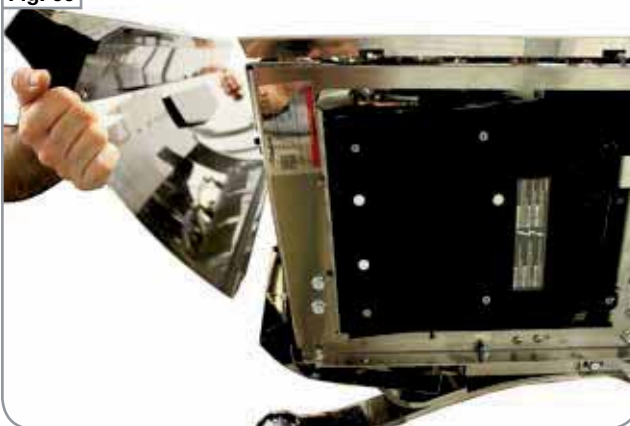


Fig. 67

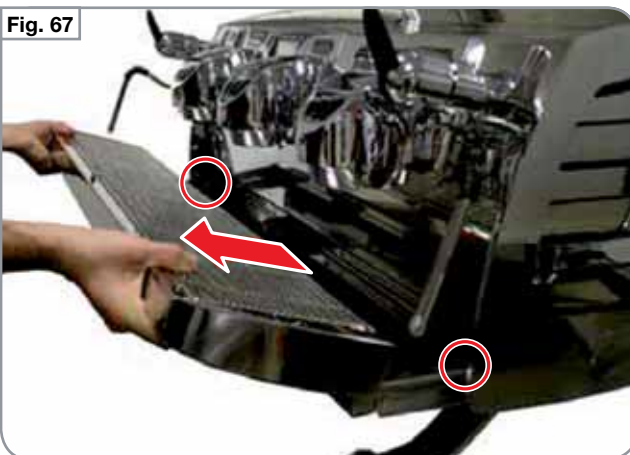
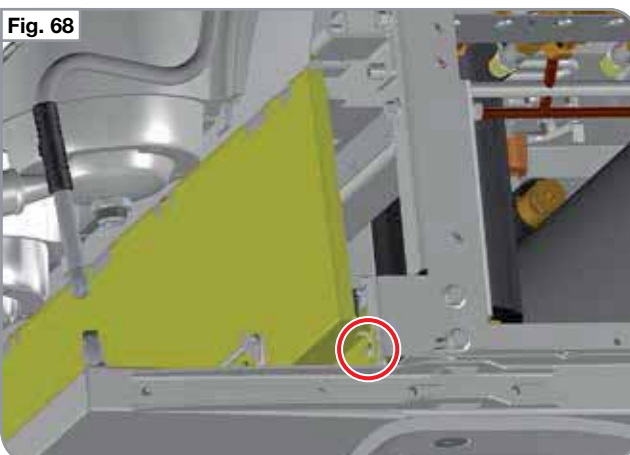


Fig. 68



NOTE

Thanks to the shape of the panel, it is unnecessary to loosen the screws completely.

- 3 Lower the panel to free it from the fixing screws.
- 4 To remove the panel complete, lift it up, turn it and remove.

3.4 REMOVING THE GROUP COVER

To access the groups:

- 1 Remove the lower front panel.

Fig. 69

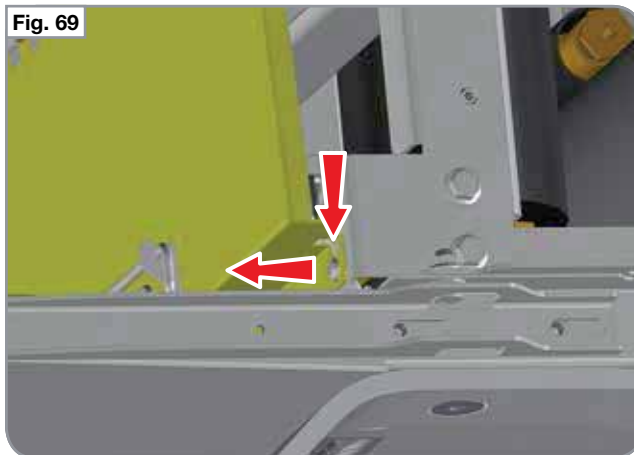


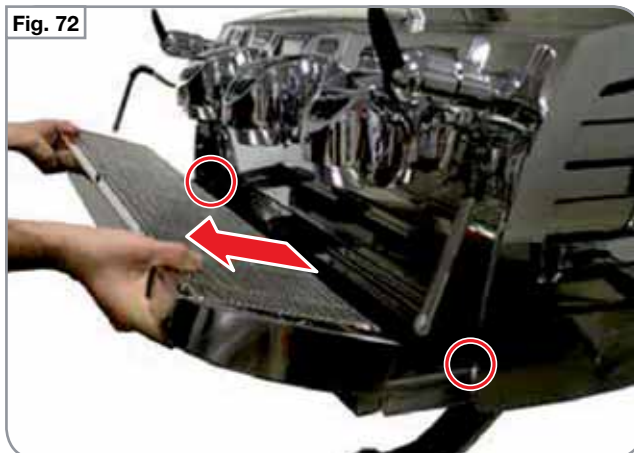
Fig. 70



Fig. 71



Fig. 72



- 2 Use a 3mm hex screwdriver to partially unscrew the two screws holding the group cover.

NOTE

The two screws are located on the sides of the coffee valve.

NOTE

You can use the mirror effect of the work surface to easily center the screws.

NOTE

If the machine has been turned off recently, wear protective gloves.

Fig. 73



Fig. 74

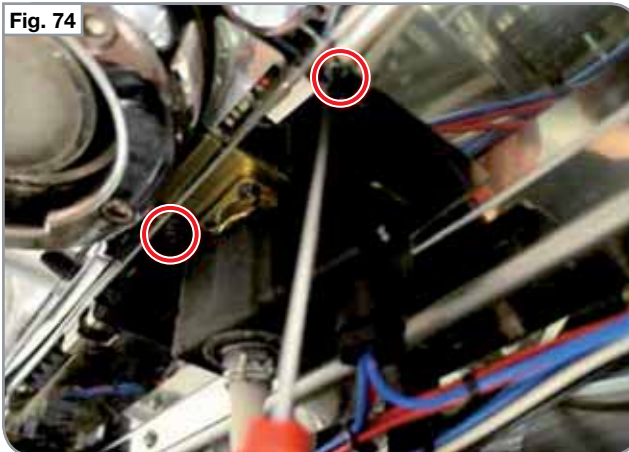
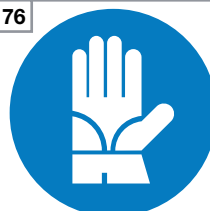


Fig. 75



Fig. 76



**CUTTING
AND
HOT
SURFACES**

- 3 Rotate the group cover from the bottom upwards to free it from the lower support.

Fig. 77



- 4 Rotate the group cover from the top downwards to remove it from the machine. If necessary, disconnect any connections.

Fig. 78

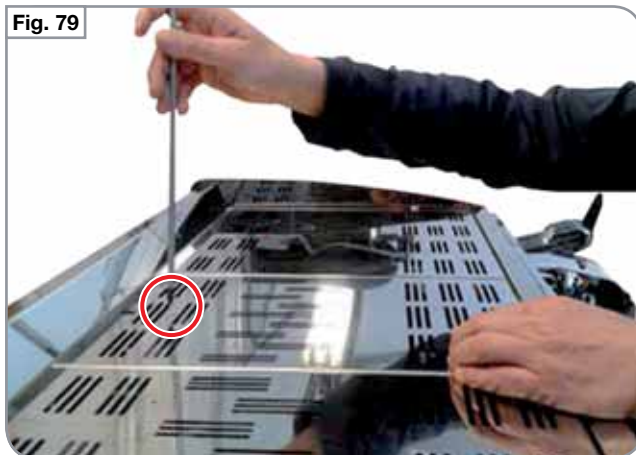


3.5 REMOVING THE TFT SCREEN

To remove the panel that holds the TFT screen:

- 1 Unscrew the fixing screw of the central top panel (3 gr) or remove both cup warmer modules (2 gr).

Fig. 79



- 2 Unscrew the fixing screw of the TFT screen.

Fig. 80



- 3 Lift the bottom of the screen to free it from the support.
- 4 Lift the screen and remove it from its seat.

NOTE

For more information and operations on the TFT screen, see chapter 8.

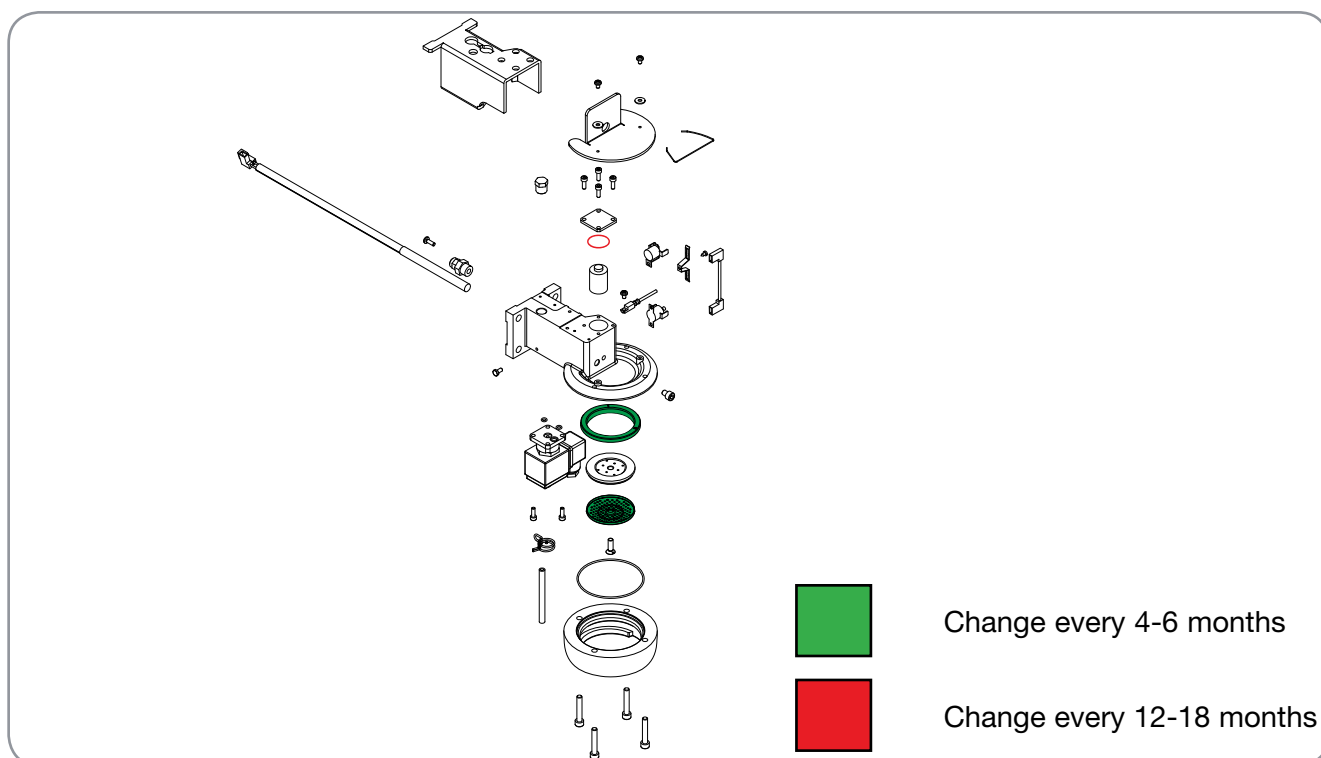
Fig. 81



Fig. 82



4. INFUSION UNIT



INDEX

4. INFUSION UNIT INDEX	4.1
4.1 REMOVAL OF SHOWER AND GASKET	4.4
4.2 REPLACING THE GASKET IN THE PRE-INFUSION CHAMBER	4.5
4.3 REMOVAL OF THE TEMPERATURE PROBE, AND UNIT HEATING ELEMENTS (T3 VERSION ONLY)	4.6
4.4 COFFEE VALVE	4.8

TOOLS NEEDED:



The infusion unit of the **VA388** is different from common systems with thermosiphon circulation. In this case in fact the temperature of the unit is ensured by the presence of a 300 W heating elements cartridge that lights up based on the needs assessed from time to time by the temperature probe located on the upper side.

Fig. 83

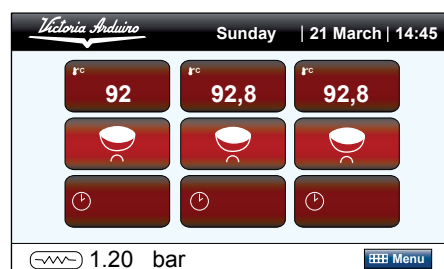


Once the machine is turned on the temperature of the unit can be viewed on the screen or in the descriptive programming pages using the navigation menus.

NOTE

The screen can only display the temperature of the groups.

Fig. 84

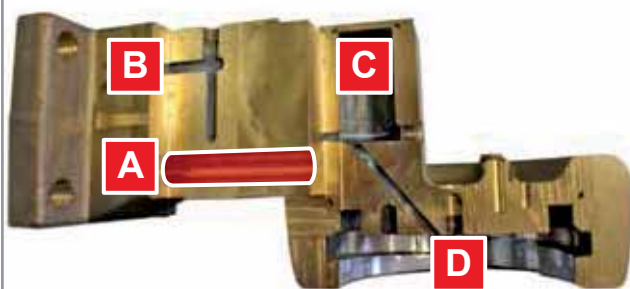


In unit section shows:

- A** Group heating elements housing
- B** water supply into the unit
- C** pre-infusion chamber
- D** water outlet

The unit **VA388** uses also a pre-infusion chamber to increase the time in which water without pressure wets the capsule in order to provide a uniform extract.

Fig. 85



Since this is a machine created for international competitions, it comes equipped with a cylinder, which limits the space and the loss of water after the group is drained.

Water enters the unit (**B**), fills the pre-infusion chamber in about 3 seconds (**C**). In the meantime the capsule is reached by the water (**D**) and is naturally wet. Once the chamber is filled and the delay filled, the pressure of 9 bar reached the coffee initiating the extraction into the cup.

The last part of the machine is houses a pavilion, a shower and underpan gasket.

The pavilion distances the shower from the coffee, according to the need for different thicknesses.

The standard machine comes with 3 mm pavilions; pavilions 4mm or 5mm are also available as original spare parts.

The shower is the interface between the coffee and the machine, preventing the coffee from rising inside the machine.

The hand shower and stand tend to get dirty and must be removed and cleaned at least weekly and replaced periodically.

The underpan gasket prevents water from coming out from the sides of the pavilion and reach the capsule unevenly or spill from the filter holder. Since the material is plastic and exposed to high temperatures, the gasket must be replaced regularly because it tends to deform and lose elasticity.

Fig. 86



Fig. 87



Fig. 88



4.1 REMOVAL OF SHOWER AND GASKET

To remove the shower and pavilion it is sufficient to loosen the central screw under the unit.

WARNING

If the machine was turned off recently, protect yourself with thermal insulation gloves.

To change the gasket use an awl or a slim flat-head screwdriver and at first remove one edge of the gasket and then remove it entirely.

If the unit is worn out just insert shims under the gasket so as to reduce the stroke of the filter holder.

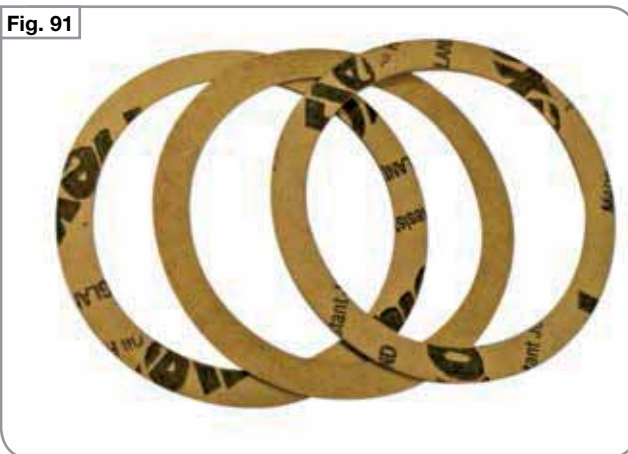
Fig. 89



Fig. 90



Fig. 91



4.2 REPLACING THE GASKET IN THE PRE-INFUSION CHAMBER

The pre-infusion chamber is sealed by a cover fixed with four hex screws.

Under the cover there is a gasket that should be changed annually, in fact like all seals, it may deteriorate in time and lose elasticity.

WHEN TO REPLACE IT

The gasket must be replaced annually or when there is a leak from the pre-infusion chamber.

HOW TO REPLACE IT

Remove the clip of the insulating casing.

Cut the insulation cover.

Loosen the 4 hex screws with an 2,5 mm Allen key.

Fig. 92



Fig. 93

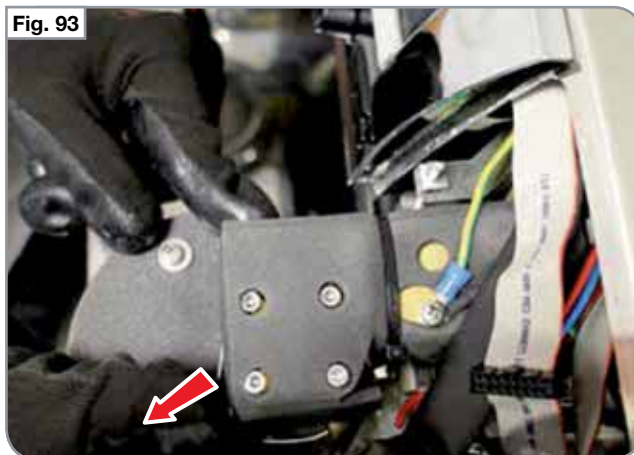
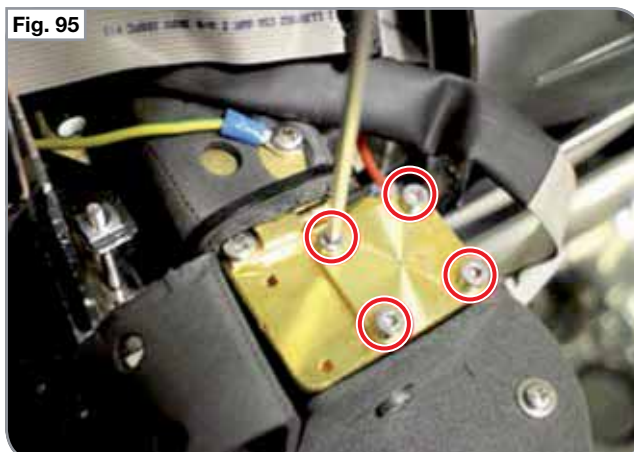


Fig. 94



Fig. 95



4.3 REMOVAL OF THE TEMPERATURE PROBE, AND UNIT HEATING ELEMENTS (T3 VERSION ONLY)

The group is heated with a 300 W heating elements cartridge that is controlled directly by the control unit according to the needs detected by the temperature probe.

WHEN TO REPLACE THE PROBE

In the case where the screen shows the message "*Error probe unit x*" it may be necessary to change the probe which detects the temperature of the unit. The likely reference values of the probe unit operating at room temperature (22°) are 1.08 kOhm and 1.37 kOhm at 90°. If the values are extremely distant from these values it is necessary to replace the temperature probe.

HOW TO REPLACE

To remove the temperature probe simply disconnect the probe from the extension that connects to the sensor card and unscrew the screw that holds it in place using a Phillips screwdriver.

THE HEATING ELEMENTS

Should an abnormality occur in the manual reset guard would interrupt the power to the heating elements once the temperature reaches 135°.

If the circuit is opened by the guard, test the heating elements.

Typical values of the heating elements at room temperature are approximately 1,5 ohms.

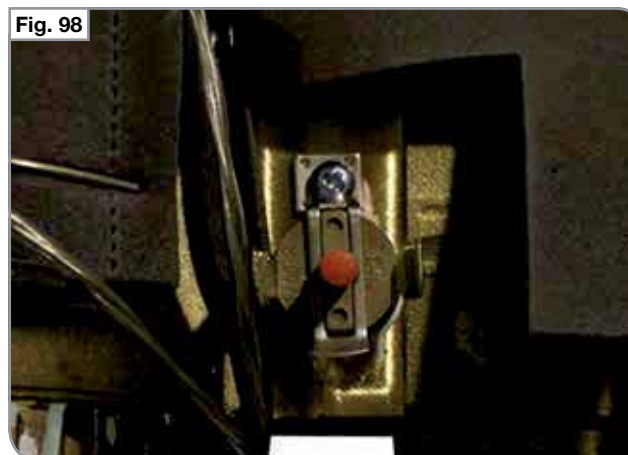
Fig. 96



Fig. 97



Fig. 98



HOW TO REPLACE THE HEATING ELEMENTS

To remove the heating elements cartridge initially remove the screw that holds it in place with a Phillips screwdriver.

The screw is located in the rear wall of the wall that holds the unit. It is then necessary to remove the corresponding cup warming modules beforehand.

If the cartridge does not come out easily because dilated by the temperature it can be forced out. Remove the covers by the unit in question (see corresponding paragraph), move the insulation and push down into the hole in the bottom left to easily remove the cartridge.

Pull out the cartridge and replace it if necessary.

Fig. 99



Fig. 100

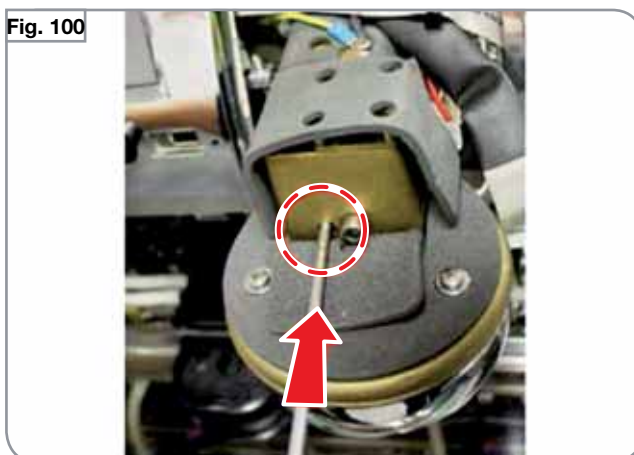
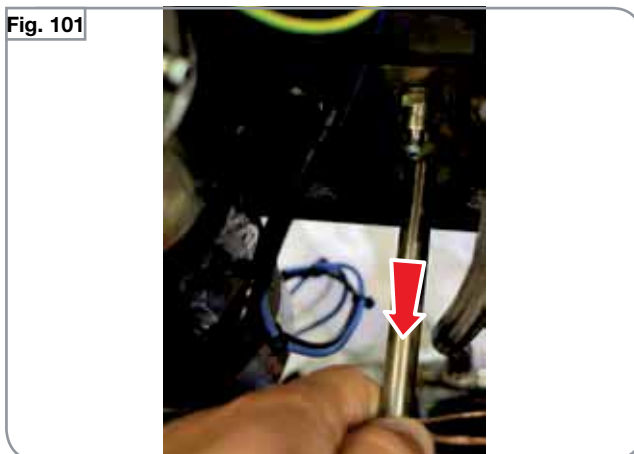


Fig. 101



4.4 COFFEE VALVE

Each unit is provided with a three-way valve called coffee valve. It is a solenoid valve that is normally closed and opens when it received a command to dispense coffee.

When this valve is closed the liquid that remains in the hydraulic circuit is pushed by pressure towards the third valve passage, connected to the wastewater collector.

In this way the water that was under pressure in the group and which is unable to pass through the coffee tablet, is pushed towards the third valve passage, drying the coffee tablet.

TYPICAL PROBLEMS:

If there are problems related to a very wet coffee tablet, there are three possibilities to be examined:

- 1 The third passage of the valve is obstructed, therefore the final suction is less than it should be.
- 2 Shower and pavilion are blocked because of poor machine cleaning.
- 3 The group is constantly dripping, thereby wetting the tablet.

HOW TO REPLACE THE COFFEE VALVE:

To remove the coffee valve after having removed the front panel (Section 3.3) it is necessary to:

- 1 Remove the screw of the head as shown in figure.
- 2 Remove the cable holder using pliers.

Fig. 102



Fig. 103

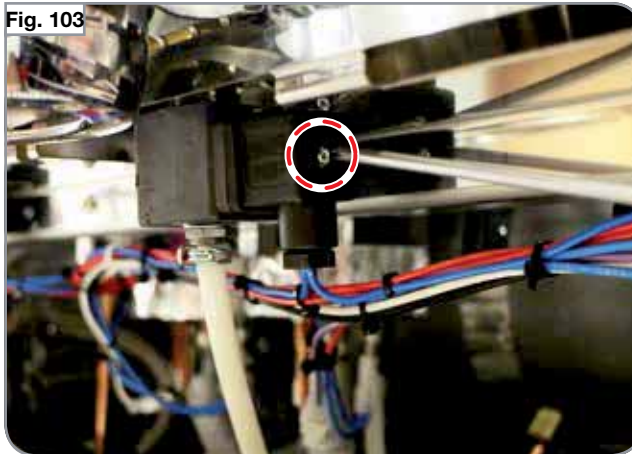
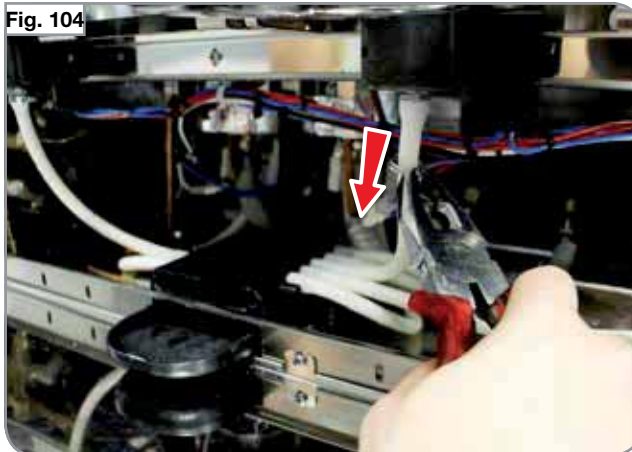


Fig. 104



- 3 Disconnect the Teflon tube of the third passage.
- 4 Unscrew the fixing nut of the head with a wrench No. 14.
- 5 Using a 3 mm Allen wrench or a screwdriver of the same type to remove the two screws that fix the head to the group.
- 6 Place paper towels under the valve to remove the head of the coil. Inspect the contact points that can often be filled with limestone. Clean using a screwdriver or other suitable tool.

Fig. 105

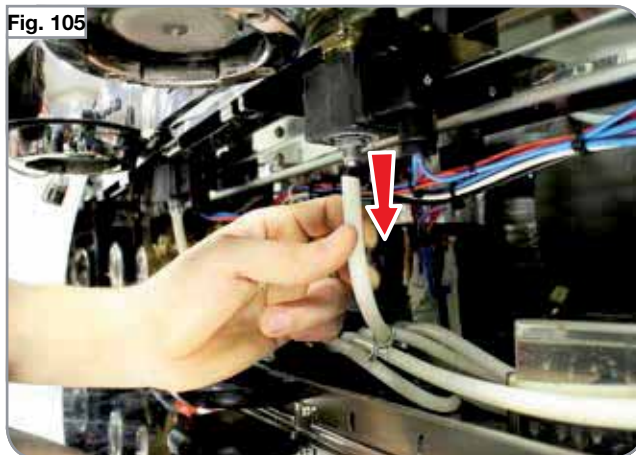


Fig. 106

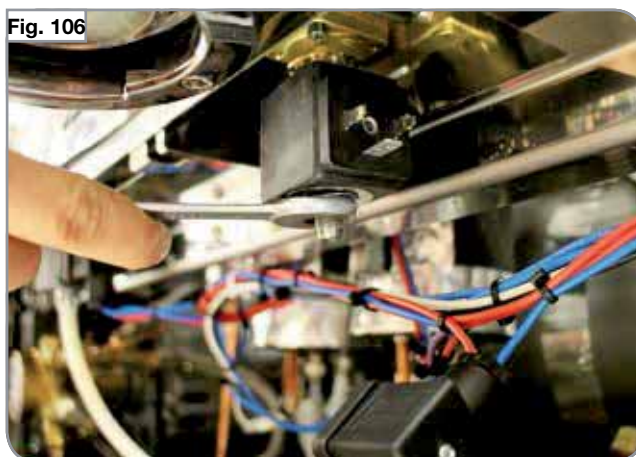


Fig. 107

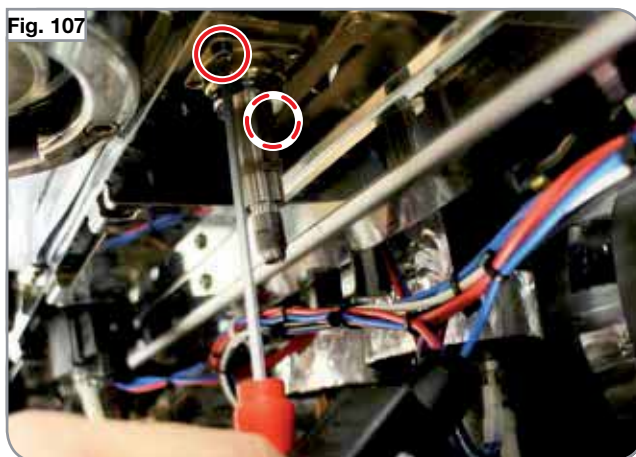
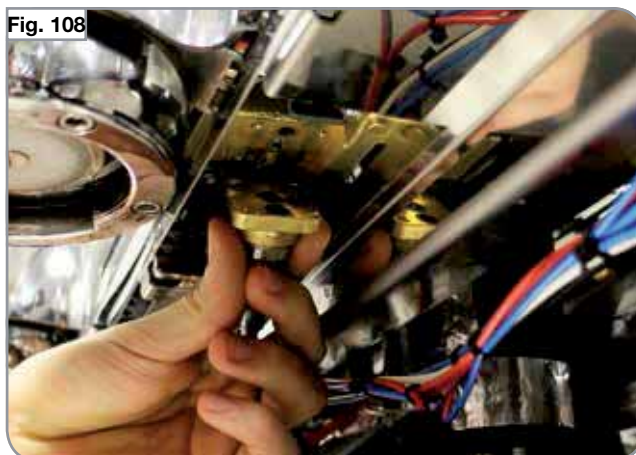


Fig. 108



Thoroughly inspect the presence of limestone or oily residues by unscrewing the valve base. These residues may obstruct the free movement of water, favouring the stagnation of water in the filter holder.

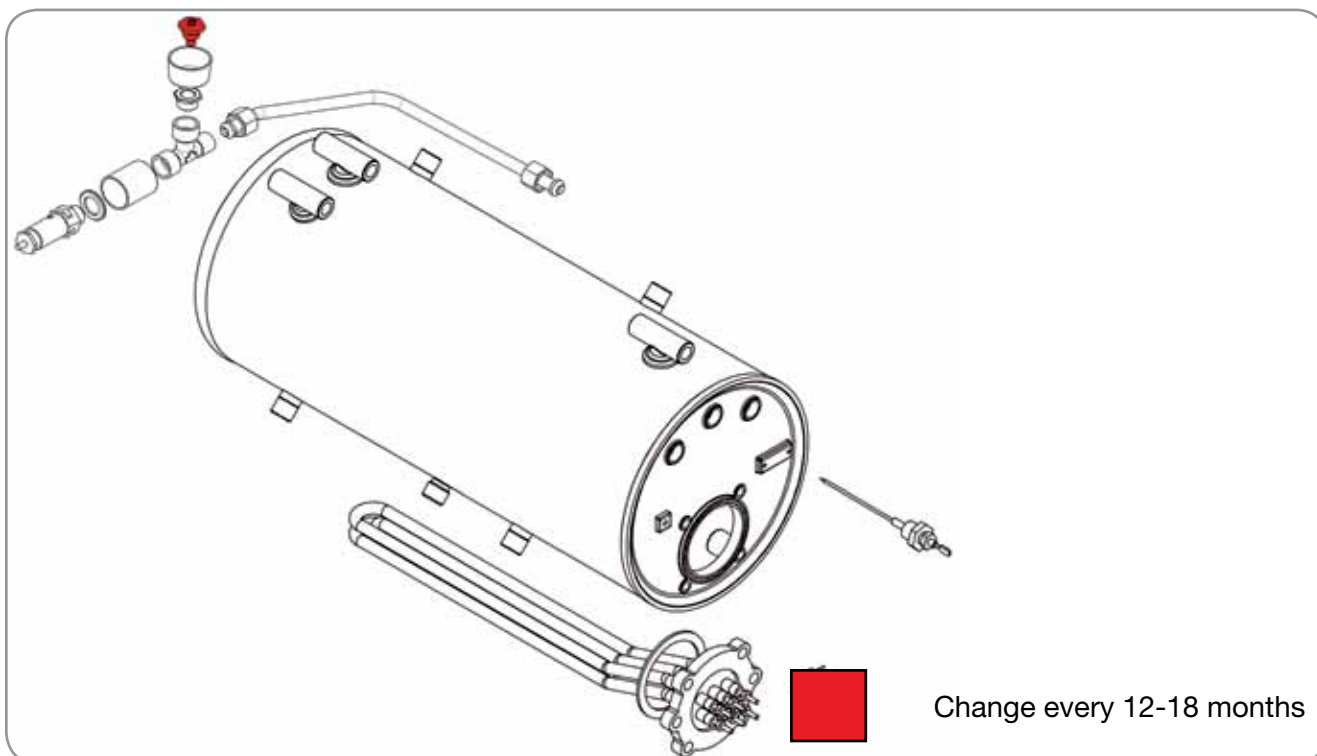
NOTE

In the presence of oily residues properly instruct staff using the machine to perform regular deep cleaning.

Fig. 109



5. STEAM HEATER



5

INDEX

5. STEAM HEATER INDEX.....	5.1
5.1 EMPTYING THE HEATER.....	5.2
5.2 ACCESS TO THE HEATER.....	5.4
5.3 HEATING ELEMENT AND HEAT PROTECTION.....	5.5
5.4 REPLACEMENT OF THE LEVEL GAUGE.....	5.7
5.5 ANTI-SUCTION VALVE.....	5.8
5.6 SAFETY VALVE.....	5.9
5.7 HEAT EXCHANGERS (T3 VERSION ONLY).....	5.9

TOOLS NEEDED:



5.1 EMPTYING THE HEATER

DANGER

Before proceeding with the operations described in the chapter make sure that the machine is turned off and unplugged from the mains. Discharge any residual pressure present in the steam circuit.

WARNING

Before emptying the boiler, disconnect the water inlets inside the water circuit by turning off the inlet tap and disconnecting the tube. These operations are necessary to avoid any water leakage inside the machine that may cause damage.

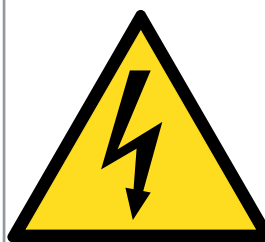
WARNING

Every time you work directly with the heater it is important to ensure that the internal pressure is zero. Completely remove the water inside for operations that require it.

To empty the heater proceed as follows:

- 1 Turn off the machine and let out all the steam by opening the steam pipes completely to quickly decrease internal pressure.
- 2 Remove the work surface and loosen the screws to remove the side panel as shown in chapter 3.

Fig. 110

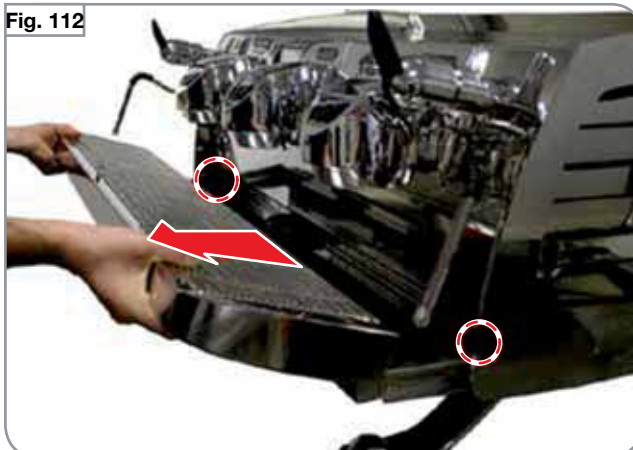


DANGER

Fig. 111



Fig. 112



3 Turn off the water inlet to the pump.

4 Once you see that there is no more steam and pressure in the boiler, lift the lid on the exhaust manifold.

5 With a No. 17 key unscrew the bolt inside the drain water manifold.

6 Let the water flow out completely.

NOTE

When turned on again the self-filling function will load water for 90 seconds. If a level error message is show, turn the machine off and on again using the main switch.

Fig. 113

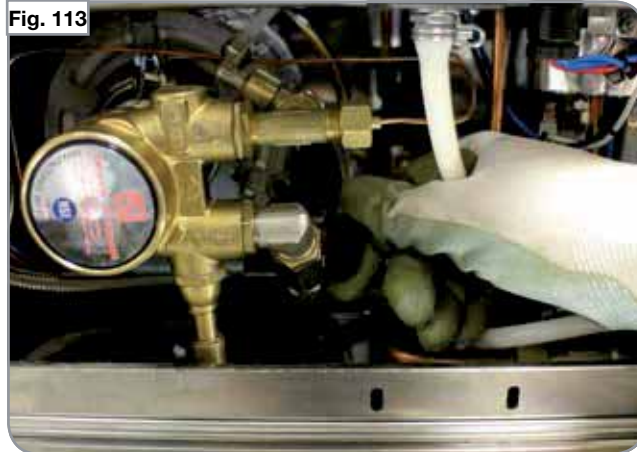


Fig. 114



Fig. 115



5.2 ACCESS TO THE HEATER

To access the heating elements and the visible parts of the heater:

- 1 Loosen the two Phillips screws on the upper right side of the cup warmer and carefully remove the side.

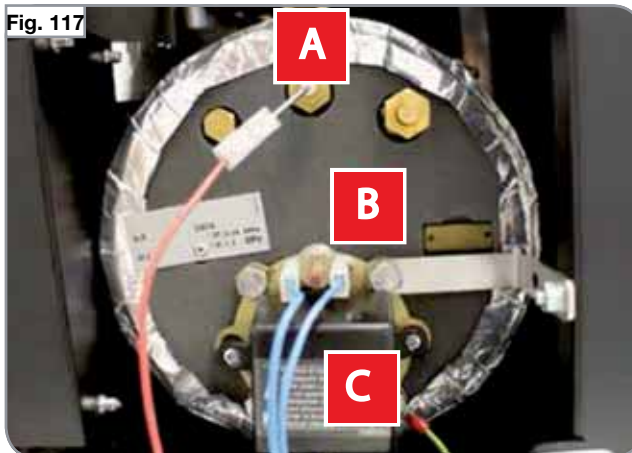
Fig. 116



The visible parts are:

- A** the level probe.
- B** the 135° heat protection.
- C** the cover of the resistor connection terminal.

Fig. 117



To access the terminal, simply unscrew the two screws on the cover with a Phillips screwdriver.

Fig. 118



5.3 HEATING ELEMENT AND HEAT PROTECTION

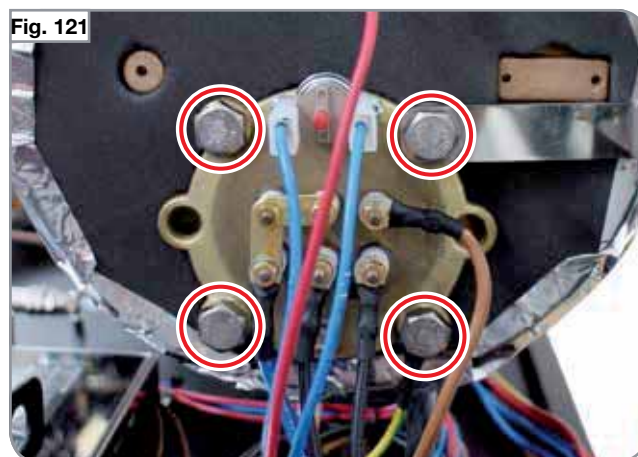
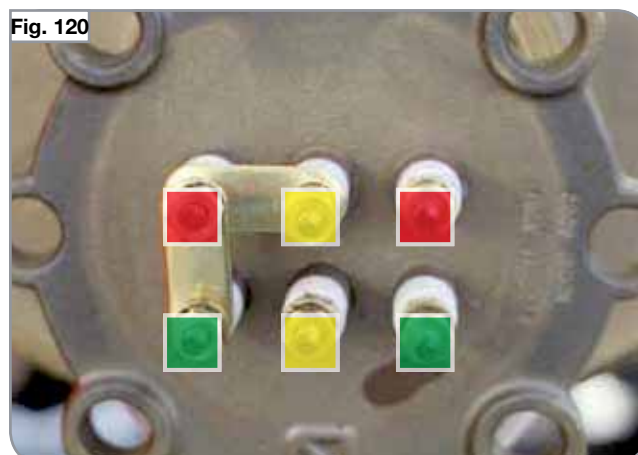
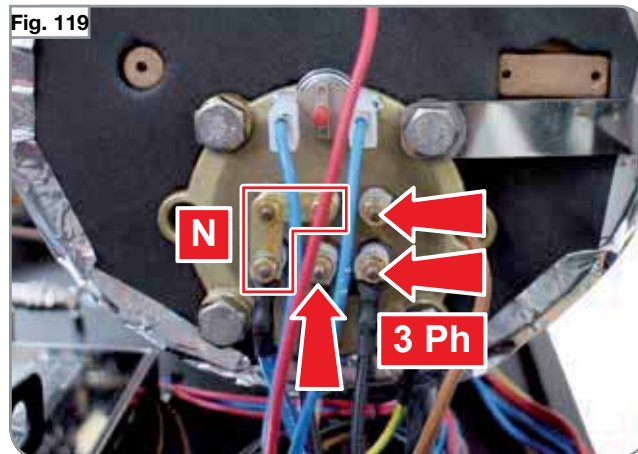
The main heater of **VA388 T3** has the following resistances:

- 4500 W for the 2 unit version.
- 5000 W for the 3 unit version.

There are three heating elements, one for each phase, therefore, in the terminal box we find the neutrals connected in parallel (**N**) and the three phases which arrive each to a different element, perfectly distributing the absorption of the current.

The resistor is composed of three heating elements which in conditions of perfect operation give typical values of about 30/33 Ohm. To detect whether there are damaged elements, place the tester probes on the elements of the same colour as shown in the figure.

If you need to remove the heating element to be cleaned from limestone or replaced, it will be sufficient to disconnect the connections with a 6 mm wrench and unscrew the four bolts with a 13 mm wrench.



Remove with care the panel out of its slot.

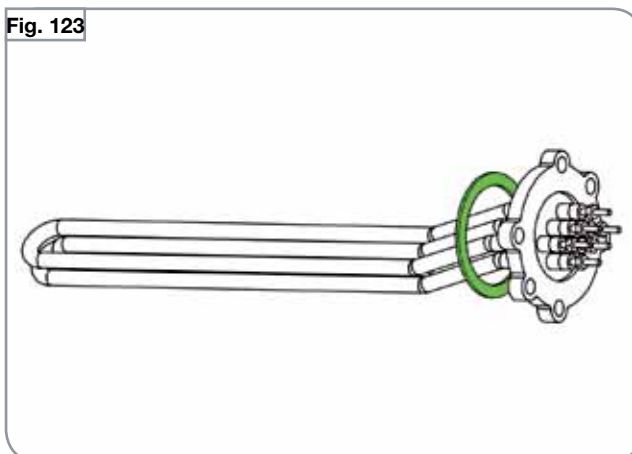
NOTE

Each time you replace the heating elements is also necessary to change the Teflon O-ring that isolates it from the heater because it is a part subject to wear, therefore the component it must be ordered together with the heating elements.

Fig. 122



Fig. 123



5.4 REPLACEMENT OF THE LEVEL GAUGE

The water inside the heater is maintained at a constant level through the use of a level probe inserted inside the heater.

This probe is connected to the electronic control unit that continuously polls the probe.

Being always exposed to high temperatures and steam/water it is subject to encrustations which can inhibit operations.

WHEN TO INTERVENE

- In case it is verified that there are no problems upstream from the probe you can easily access the component and perform careful cleaning with abrasive or descaling agents.
- Make sure that the Teflon coating of the probe is not damaged. If it is, there would be a loss of steam and the probe should be replaced.

To remove the probe simply disconnect the red wire and unscrew the bolt with a 17 mm wrench.

NOTE

When replacing the probe it is necessary to cover the threads with Teflon tape or liquid sealant.

SENSITIVITY PROBE

In the case of particularly demineralized water it is possible to increase the sensitivity of the probe. Follow this path using the selection wheel:

- 1 Menu → technical information → settings.
- 2 Press and hold the wash key  until the configuration screen appears. (see par. 10.8)
- 3 Select the appropriate probe level from among low (1) medium (2) and high sensitivity (3) by using the rotary switch.

The value of the probe (1) in most cases is excellent.

Fig. 124



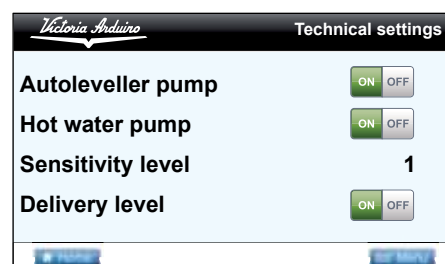
Fig. 125



Fig. 126



Fig. 127



5.5 ANTI-SUCTION VALVE

The anti-suction valve ensures that air enters the heater during the machine cooling phase. In this way the reduction of water volume due to cooling does not create decompressions that may give rise to drawbacks such as the suction of milk through the steam nozzle.

WHEN TO REPLACE

You can assume that there are no problems with the anti-suction valve when:

- A** There is a strong smell of rot when making steam or water is extracted from the heater.
- B** The water leaving the heater is dirty.

In these cases the valve is closed and is locked in this condition.

If the valve blocked open because of limestone the signs would be:

- A** A continuous slight whistling sound coming from the valve.
- B** Condensation drops near the valve.

HOW TO REPLACE

Using a 19 mm cup hex wrench unscrew the valve from its housing.

When inserting the new one, coat the threads with Teflon tape or with a few drops of Loctite.

Fig. 128



NOTE

We suggest that the valve be replaced annually to ensure proper function and excellent sealing.

Fig. 129



5.6 SAFETY VALVE

The steam safety valve is made to open at the pressure of 1.8 bar.
If necessary, it can be replaced using a key to lock the tube that carries the steam and unscrew the entire assembly.

WHEN TO REPLACE

For safety reasons **each time the valve comes into operation it should be replaced** to ensure perfect operation.

So if the heater floods or there is excess steam it is necessary to secure the machine by replacing the entire valve.

We recommend to replace the whole assembly once every 2 years.

HOW TO REPLACE

After removing the assembly comprising the safety valve and anti-suction valve, break the plastic cover and using a vice, unscrew the valve from the T-fitting.

Fig. 130



WARNING

OPERATION TO PERFORM WITH PRESSURE IN BOILER IS ZERO.

Fig. 131



5.7 HEAT EXCHANGERS (T3 VERSION ONLY)

The heat exchangers have the function that pre-heats the water before being injected into the boilers of each group, to be accurately adjusted to the desired temperature.

The cold water enters the heater through the upper entrance and exits heated from the lower end.

The critical points are the areas where there is a greater difference in temperature, therefore, it is appropriate to evaluate the correct cleaning of the water inlet fittings.

We recommend an annual inspection of the fittings that inject water in the exchangers and to remove any residues of calcium that can be created.

Fig. 132

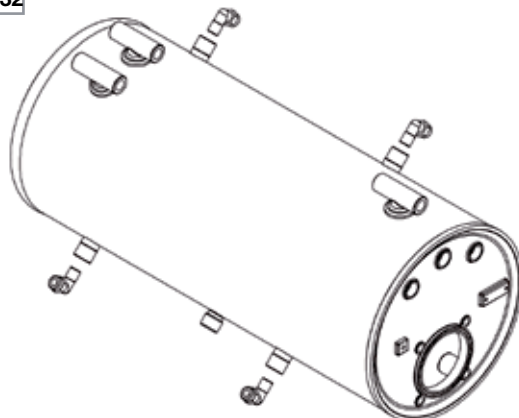
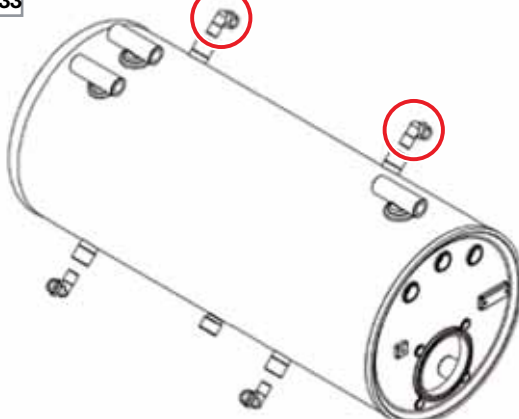


Fig. 133



WHEN TO INSPECT CONNECTIONS

Because of the hardness of the water it is possible that over time the limestone will stratify close to the joint, so it is advisable to check that the water flows freely.



WARNING

To lower the pressure of the coffee dispensing circuit close the pump input tap and depressurize the circuit activating the delivery from the units for a few seconds.

- 1 To remove the connections remove the back panel of the machine. To facilitate the replacement it may be helpful to remove the side walls as well. Using a Phillips screwdriver, unscrew the screws and carefully remove the panels.

- 2 Using a 12mm wrench to disconnect the Teflon tubing.

In newer versions of the machine use a No. 17 key to unscrew the copper pipe. The fitting is conical therefore it does not need Teflon or sealants.

Fig. 134

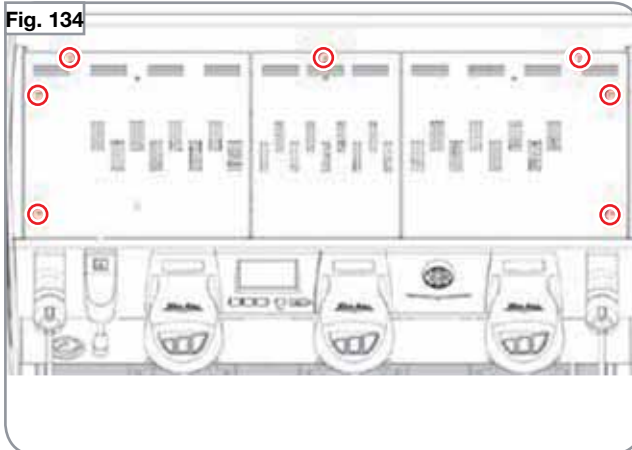


Fig. 135

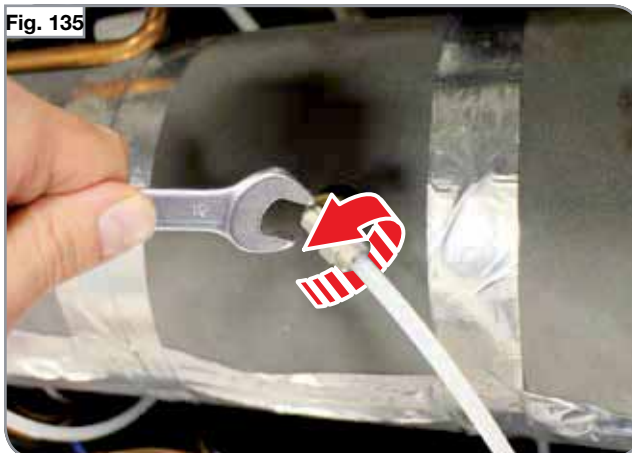


Fig. 136



- 3 Collect the water contained in the tube in an appropriate container.
- 4 Unscrew the fittings and make sure they are clear of obstructions.
- 5 Remove the lime scale using a appropriate descaling product (citric acid, phosphoric acid).

NOTE

Use Teflon tape or a liquid sealant when inserting the ring in the heat exchanger again.

Fig. 137



Fig. 138



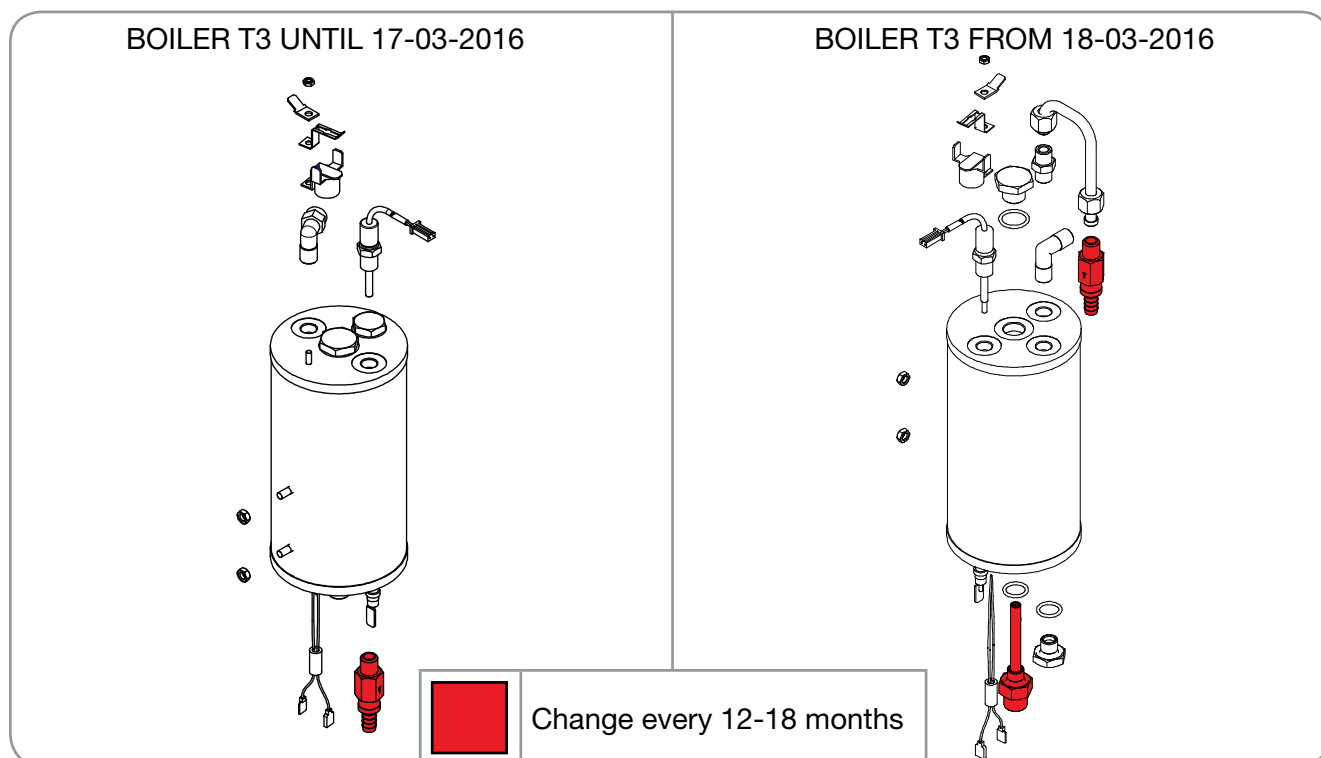
Fig. 139



Fig. 140



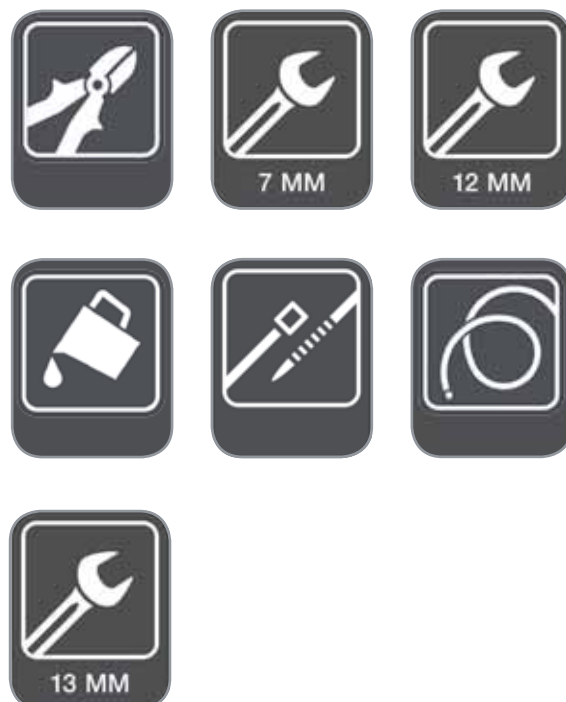
6. COFFEE BOILERS



INDEX

6. COFFEE BOILERS	6.1
6.1 COFFEE BOILERS	6.2
6.2 ACCESS TO COFFEE BOILERS	6.2
6.2.1 ACCESS TO THE UPPER PART OF THE HEATER	6.2
6.2.2 ACCESS TO THE BOTTOM OF THE HEATER	6.3
6.3 TEMPERATURE PROBE	6.4
6.4 EMPTYING OF THE COFFEE BOILER	6.6
6.5 REPLACEMENT OF THE TEFLON INJECTOR	6.8
6.6 REMOVAL OF THE HEATER	6.11
6.7 THERMAL FUSE REPLACEMENT	6.12
6.8 PROCEDURE FOR AUTOMATICALLY FILLING THE COFFEE BOILER	6.13

TOOLS NEEDED:



6.1 COFFEE BOILERS

There is a 0.7 litre coffee boiler in each unit in the T3 machines.

The consumption of each of these coffee boilers is 1000 W.

The coffee boilers are equipped with a temperature probe that communicates with the electronic board and an expansion valve to allow the release of excess water expansion formed during the heating phase. A thermal fuse is connected in series to open the circuit if the safety of the machine is compromised by excessive overheating. The thermal fuse opens the circuit once the temperature limit of 167° is exceeded.

DANGER

Before proceeding with the operations described in the chapter make sure that the machine is turned off and unplugged from the mains. Discharge any residual pressure present in the steam heater.

6.2 ACCESS TO COFFEE BOILERS

6.2.1 ACCESS TO THE UPPER PART OF THE HEATER

To access the upper part of the coffee boilers:

- 1 Remove the screws of the cup warming modules.

Fig. 141



Fig. 142

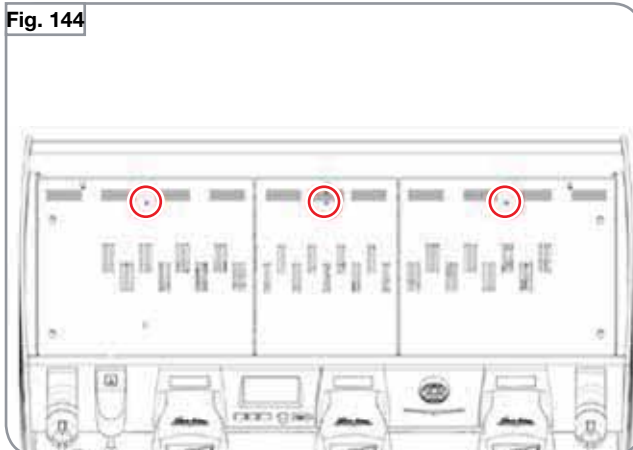


Fig. 143



DANGER

Fig. 144



- 2 Lift the panel and disconnect the connector of the cup warmer heating elements.

6.2.2 ACCESS TO THE BOTTOM OF THE HEATER

- 1 To access the bottom of the coffee boiler it is necessary to remove the work surface and the panel placed on the groups.
- 2 Unscrew the side screws of the panel located beneath the groups to slide the panel out.
- 3 Switch off the temperature probe of the cup warmer.

Fig. 145

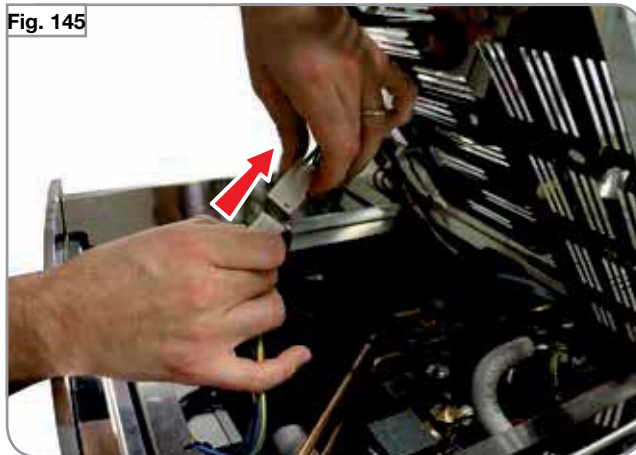


Fig. 146

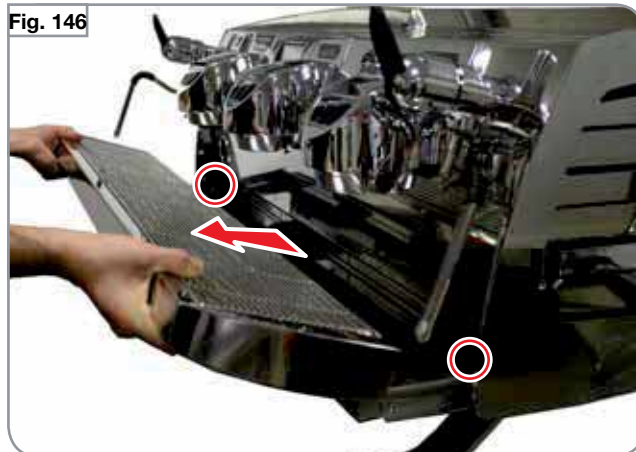
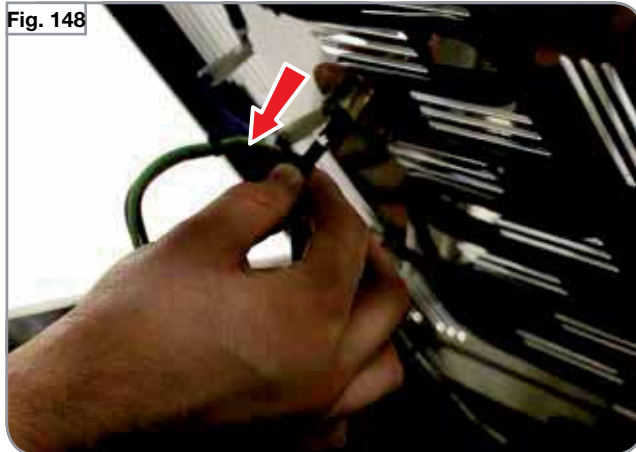


Fig. 147



Fig. 148

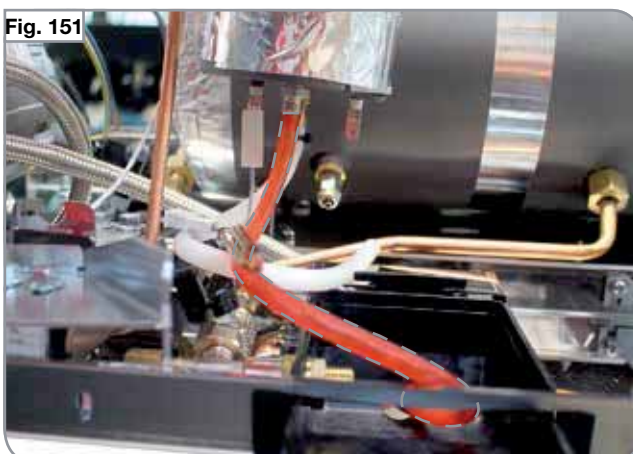
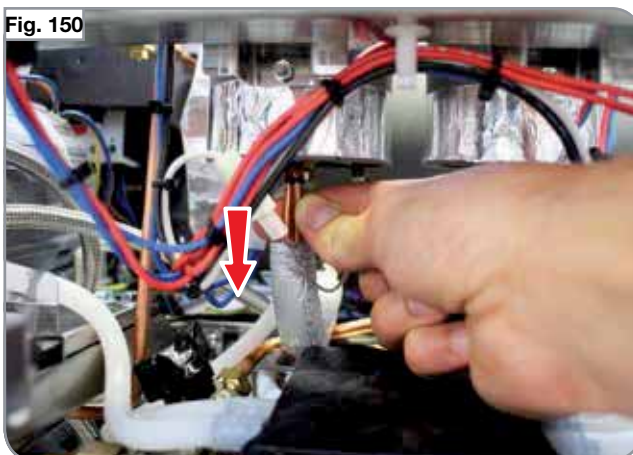
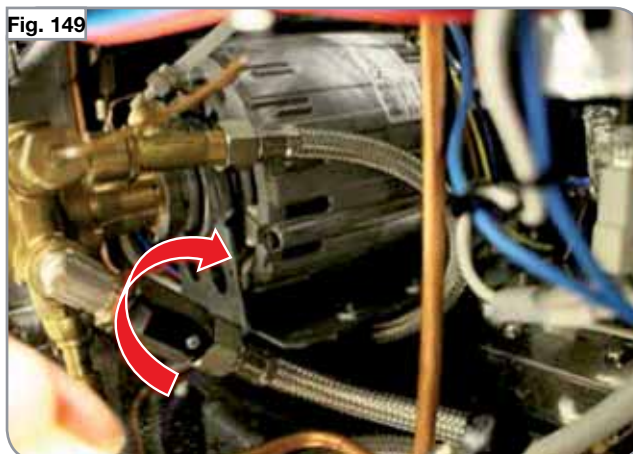


6.3 EMPTYING OF THE COFFEE BOILER

To operate safely when replacing parts of the boiler, it may be necessary to empty the boiler completely. Before working on the machine insert the "CLOCK DISABLED" mode. Turn off the machine until the OFF message is displayed. Hold the cleaning button pressed until the words "CLOCK DISABLED" appear.

At this point you can operate freely:

- 1 Turn off the water tap on the pump, to prevent it from injecting new water and there are no leakages.
- 2 Remove the safety thermal fuse to have more space in which to operate.
- 3 After unscrewing the fitting that carries water in the boiler using a No. 12 wrench, insert a Teflon tube to connect the coffee boiler with the draining pan.



Alternatively, place an appropriate container under the heater (e.g. milk jug). Initially, water will not come out because there is no air entering the heater.

NOTE

In the newer boilers the water inlet pipe in the boiler is made in copper. Use a 17 mm wrench to unscrew the nut and insert a DN 1/4" plug to prevent water leakage.

- 4 With a No. 12 wrench loosen the Teflon water output connector.

At this point water will start to come out from underneath because air can enter.

- 5 To have the water come out faster it is possible to use a piece of Teflon tube and a compressor or air blower inside the heater.

Fig. 152

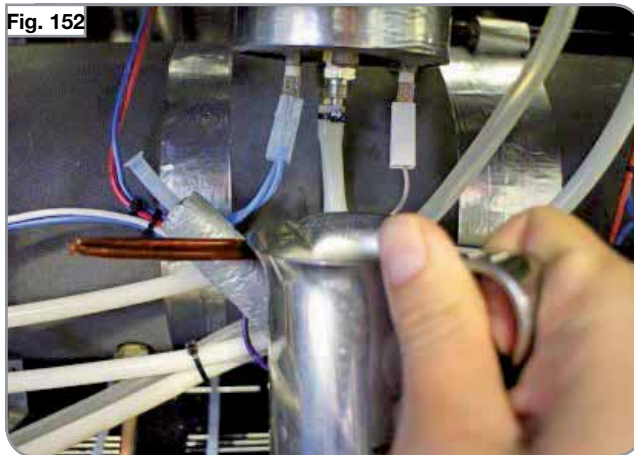


Fig. 153



Fig. 154



Fig. 155



6.4 TEMPERATURE PROBE

The temperature probes of the coffee boilers interface with the control unit located on the left side of the machine through a passive signal collector connected with the control unit via a flat cable.

In this way you can access the probes more quickly and independently. Each probe is equipped with an extension, so you can replace the probe without accessing the data collector.

The temperature probes of the coffee boilers have a value of 47-50 KOhm at room temperature (about 25°) and 4.3 KOhm at about 88°C. The **VA388** is provided with software to detect possible malfunctions.

HEATER PROBE ERROR

If the following error is displayed:

“Heater probe error X NC”.

SOLUTION

- 1 Follow the entire route of the probe up to the data collector and check that the cable is intact;
- 2 Replace the probe;
- 3 Check for any damage to the flat cable that connects the probe collector to the control unit.

Fig. 156

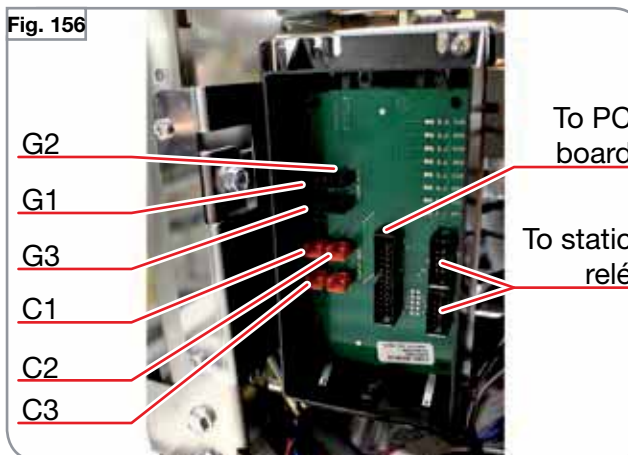


Fig. 157

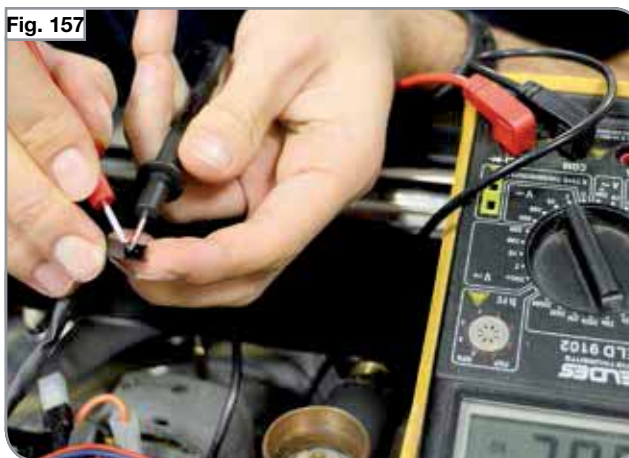
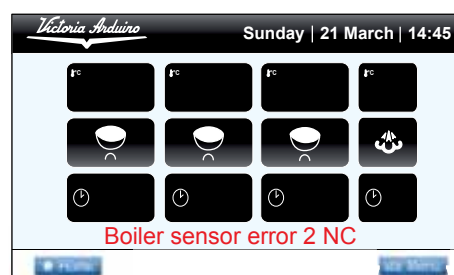


Fig. 158



If the probe is damaged it may short circuit. In this case the message displayed will be:

“Heater probe error X CC”.

SOLUTION

Replace the probe.

SOLUTION

- 1 Follow the entire route of the probe up to the data collector and check that the cable is intact;
- 2 Replace the probe;
- 3 Check for any damage to the flat cable that connects the probe collector to the control unit.

If the value displayed, detected by the probe, is extremely high or quite unstable despite the smooth operations, remove and replace the probe with a new one.

Since the coffee boiler is always full of high temperature water, common limestone problems do not excessively affect the temperature probe. In fact, it is unlikely that the limestone will inhibit the operation of the probe, but more likely it will slow its capability: a probe covered with limestone becomes less sensitive to temperature changes.

In cases like this in which there are no significant changes that place the heater under stress, the probe must be removed and controlled for the presence of limestone.

To remove the probe, simply use a No. 12 wrench.

Remove calcification with appropriate products.

Fig. 159

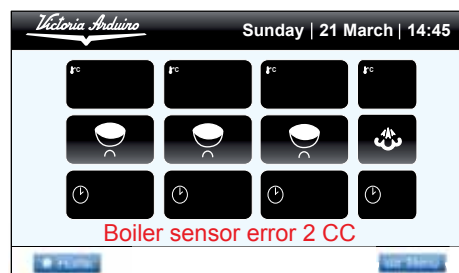
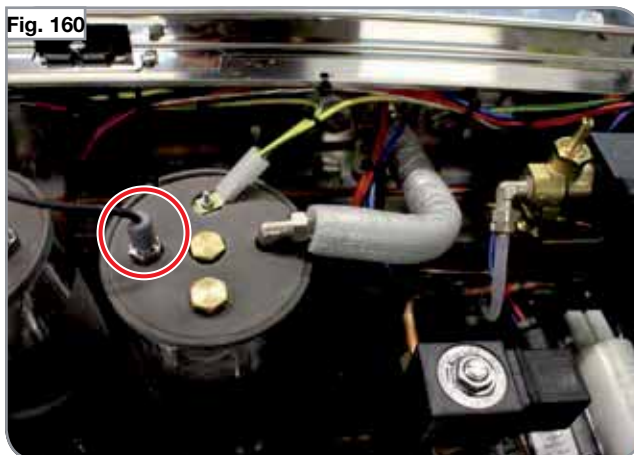


Fig. 160



NOTE

When reinstalling the probe the threading must be wrapped with Teflon tape or use liquid Loctite to prevent leakage.

It is useful for replacement operations to clamp the wires to collect them together to make accessing easier and to avoid contact with high temperature surfaces.

6.5 REPLACEMENT OF THE TEFLON INJECTOR

Inside the coffee boiler sectioned in the figure we can see:

- A** The 1000W Heating elements.
- B** A Teflon injector from which water enters horizontally.
- C** Thermal fuse cover.

The holes of the injector sprays the water heated by the heat exchanger to the base of the heater and consequently the water at a stabilized temperature which is located on top of the heater is released to reach the group unit.

Fig. 161



Fig. 162

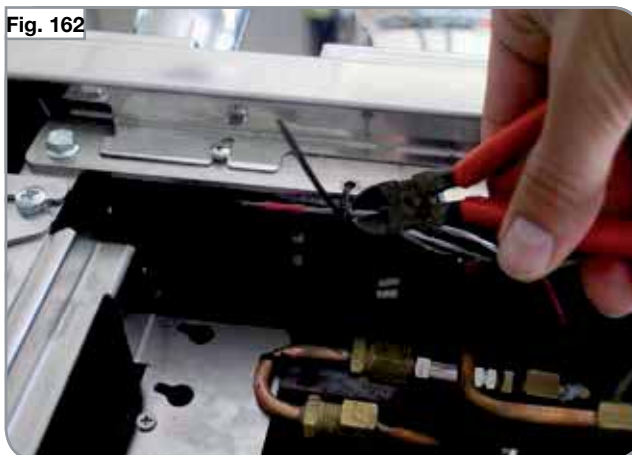


Fig. 163

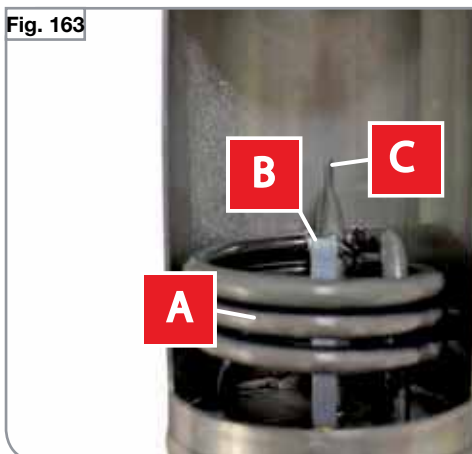


Fig. 164



The holes of the injector tend to become clogged if the operating water is not optimally softened or after several months of work.
For this reason, we recommend that the injectors be replaced once a year.

To remove the injectors it is necessary to drain the heater as shown in section 6.3 and then carefully unscrew the injector from its housing using a No. 14 wrench or 14 mm spanner.

NOTE

Be extremely cautious during removal operations since the ceramic heating elements insulators could be damaged thus compromising the integrity of the entire heater. If the ceramic insulators break the heater must be replaced to prevent a general short circuit.

REASSEMBLY

Wrap the threading of the injector with Teflon tape or use of liquid Loctite before screwing the component into its housing.

Fig. 165

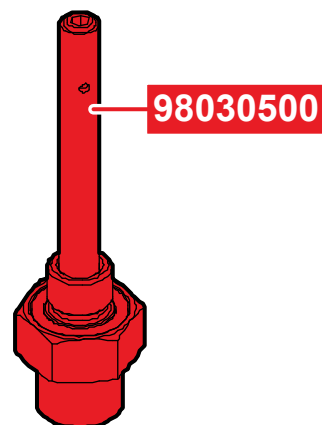


Fig. 166



Fig. 167



Fig. 168

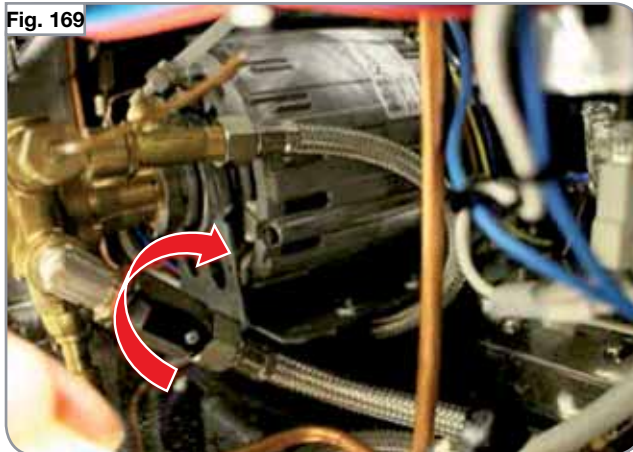


HOW TO CHECK THE OPERATION OF THE INJECTOR?

Should it occur that one unit dispenses less water than the others check to see whether the problem is related to the injector that has accumulated too much limestone. The following instructions are indicative because the result will depend on the incoming water pressure.

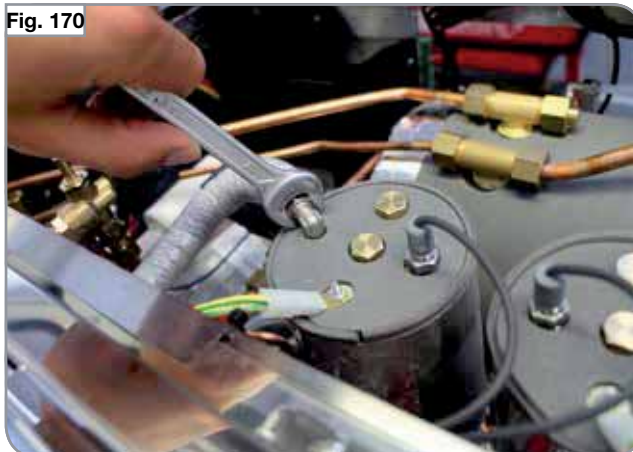
- 1 Turn off the water using the tap on the pump.

Fig. 169



- 2 Unscrew the Teflon tube placed on top of the coffee boiler of the unit that delivers less water, using a 12 mm wrench.

Fig. 170



NOTE

In the more recently manufactured machines have tubes in copper with conical fittings. To remove the boiler use a 13 mm wrench.

Fig. 171



- 3 Reopen the tap of the pump taking care to place an appropriate container (e.g. Milk jug) below the nozzle.

IF THE FLOW THAT ARRIVES IS REDUCED

- A Check if upstream of the heater the water flow is minor. If also at the exit from the heat exchanger the flow is minor the problem is upstream, probably in the fitting that injects cold water into the heat exchanger or in the volumetric metering device (see para. 5.7 heat exchanger).
- B If the outcoming flow from the heat exchanger is abundant the problem is in the injector of the coffee boiler.

IF THE FLOW THAT ARRIVES AND FULSOME:

- A check the condition of the infusion group.

6.6 REMOVAL OF THE HEATER

Once the heater is safely drained proceed with:

- 1 Disconnecting the ground and temperature.
- 2 Remove the thermal fuse, disconnect the heating elements.

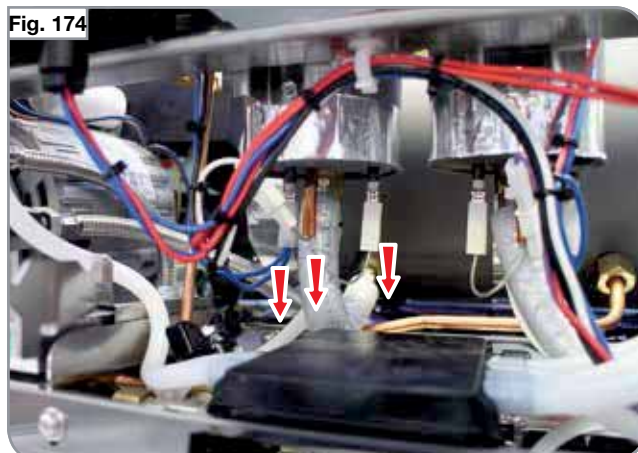
Fig. 172



Fig. 173



Fig. 174



- 3 Disconnect the exhaust pipe of the expansion valve.

Fig. 175



- 4 The loosen the two screws holding the heater using a No. 7 wrench. Simply partially loosen the screw because the mechanism is recessed. Once the screws are loosened lift the heater and remove it from its housing.

Fig. 176

**NOTE**

After replacing the new heater proceed with restoring water inside the heater as described in paragraph 6.8.

6.7 THERMAL FUSE REPLACEMENT

Once the temperature of 135° is exceeded the thermal fuse must be replaced. This event can occur in several cases:

- The heater heats without water inside.
- Power surges can damage the thermal fuse.
- Problems with the temperature probe may lead to an excessive temperature and therefore rupture.

Since it is an excellent conductor when operating properly, its value is normally about 0.5 Ohm. If the value is extremely higher than it must be replaced.

Simply remove the element and insert the new one with due attention.

Fig. 177



6.8 PROCEDURE FOR AUTOMATICALLY FILL- ING THE COFFEE BOILER

Once the various parts of heater, or the heater itself, have been replaced it is necessary to carefully fill it to prevent it from starting to heat in the absence of water.

If this were to happen the thermal fuse would break to protect the heating elements.

The steps are:

- 1 Re-open the water tap at the entrance to the pump.

Turn on the machine by pressing the power button located on the side of the screen and place it **IMMEDIATELY** in the condition in which the screen displays the status “OFF”.

Press and hold the wash button until the screen displays “CLOCK DISABLED”.

Now press the power button: in this way the operational mode will be that entered before installation which will properly fill all coffee boilers for 45 seconds. Wait until the water is uniformly delivered by all units.

Fig. 178

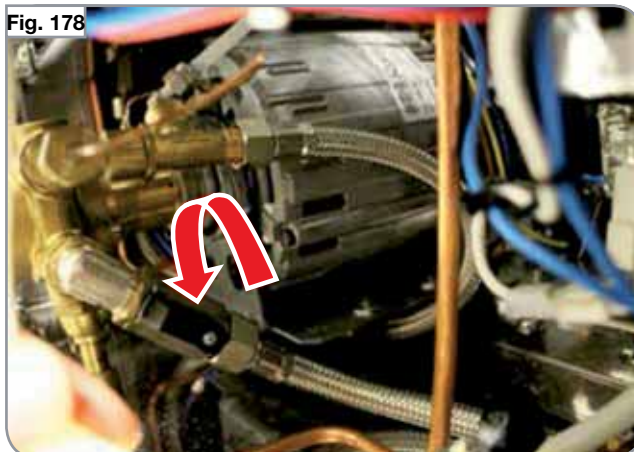


Fig. 179

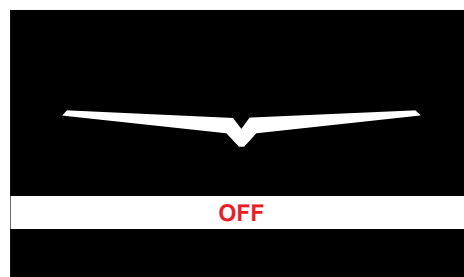
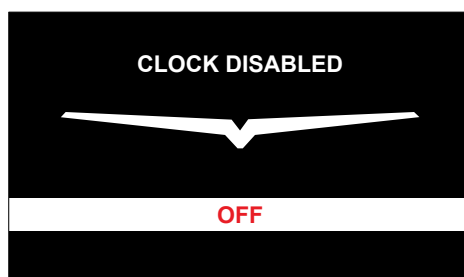
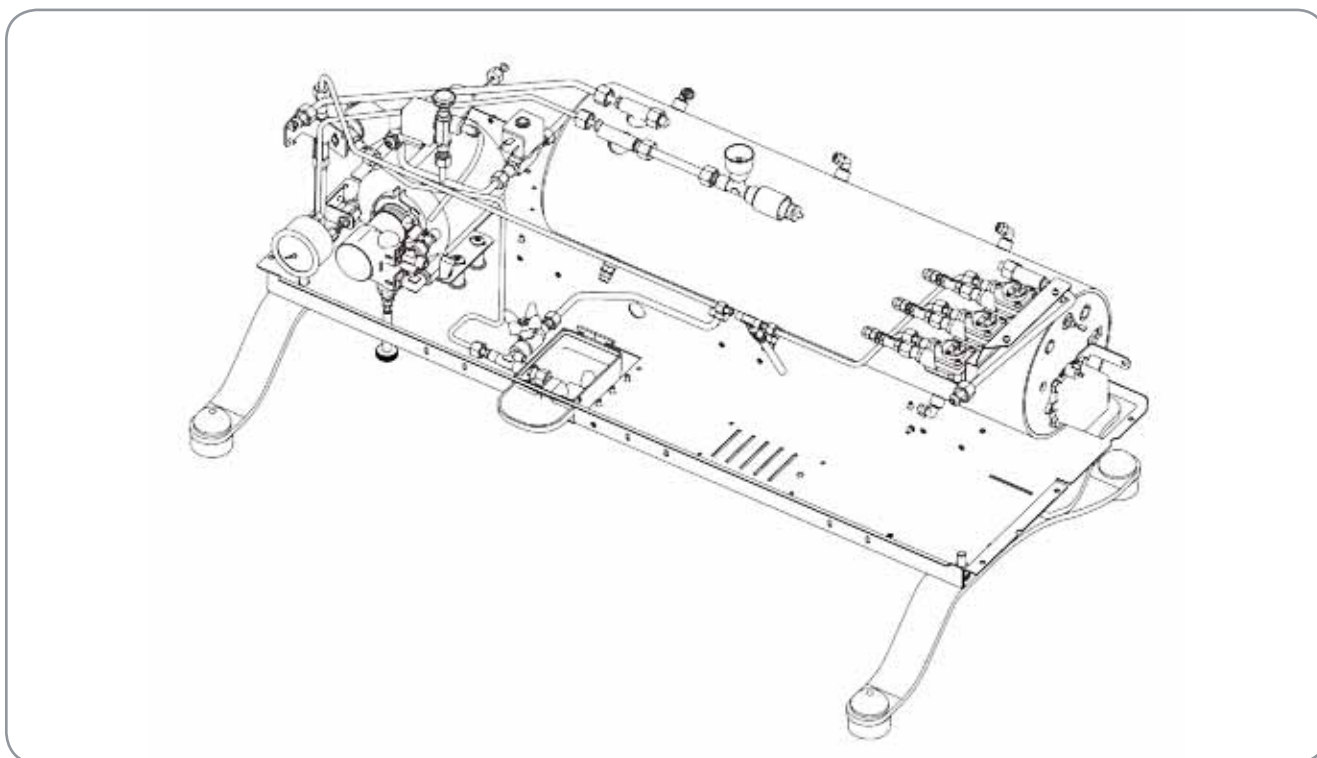


Fig. 180



7. HYDRAULIC CIRCUIT



7

INDEX

7. HYDRAULIC CIRCUIT	7.1
7.1 DRAINING TUBS AND SERVICE TAPS	7.2
7.2 THE PUMPING ELEMENT	7.4
7.3 REMOVAL OF THE PUMP	7.4
7.4 REMOVAL OF THE CAPACITOR	7.6
7.5 REMOVING AND REPLACING THE MOTOR	7.6
7.6 REPLACING THE COFFEE VALVE	7.8
7.7 FLOWMETER AND NON-RETURN VALVE (only version V)	7.10
7.8 HOT AND COLD WATER VALVE	7.16
7.9 STEAM NOZZLE	7.19

TOOLS NEEDED:

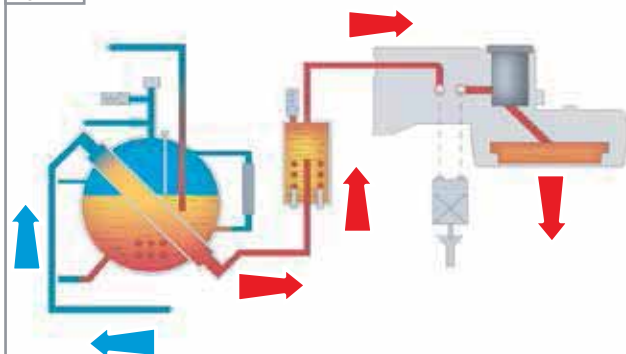


Normally in conventional machines the cold water is fed into the lower part of the heat exchanger and then exits from the upper part.

T3 technology instead uses water in a different way: the liquid enters the heat exchanger from above and exits from below.

The heat exchanger is smaller than normal and contains a reduced amount of water.

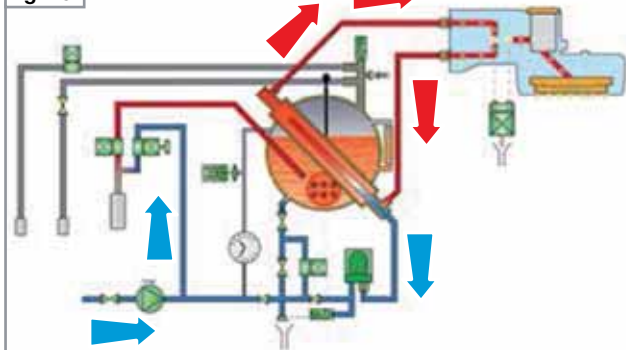
Fig. 181



T3 version

In the DIGIT version, the water enters underneath the heat exchanger and exits from above. Therefore, it is heated by the effect of heat radiation circulation.

Fig. 182



DIGIT version

7.1 DRAINING TUBS AND SERVICE TAPS

To access the hydraulic part at the base of the machine it is necessary to:

- 1 Remove the work surface.
- 2 Partially unscrew the 2 side screws that hold the front panel in place. Lower and rotate the panel to remove it.

Fig. 183



Fig. 184

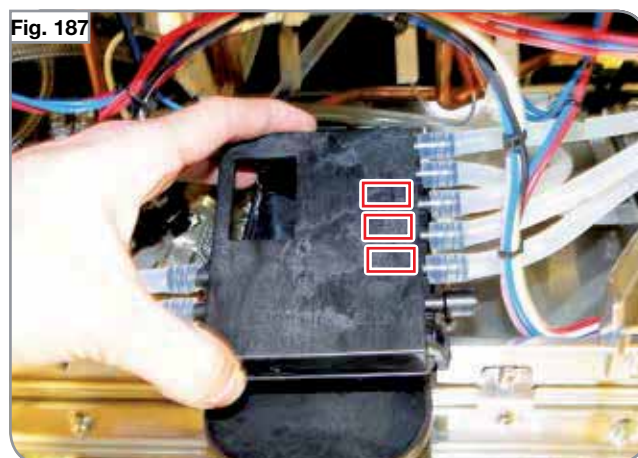
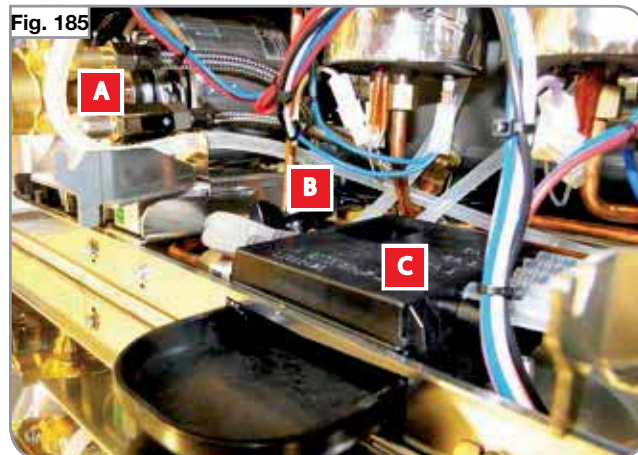


- 3 Once the front panel is removed the following are visible:
 - A** The pump valve to close incoming water;
 - B** The service valve to prevent boiler water from returning into the hydraulic circuit;
 - C** The water drip tray.

The water collection tray has a lid to which are connected all the silicone tubes. For each group, there is a drain for the dispensing valve, and a drain for the boiler expansion valve. Furthermore, there is an additional silicone tube connected to the water expansion valve that goes into the volumetric dosing circuit.

In the latest versions of the machine the draining tray has a different valve with the entrances prepared for discharges from the group valves. Connect the silicone tubes as shown on the surface of the cover.

The nut used to empty the boiler is located immediately under the lid.



The cover of the water draining tray must have rubber fittings that are unused and appropriately obstructed, and the O-ring of the lid perfectly positioned in its seat to ensure maximum grip.

Fig. 189



7.2 THE PUMPING ELEMENT

The pump of the **VA388** is located on the left side of the machine. The duration of the pump depends on the amount of daily work and the quality of the water. The pressure at which the machine is set by the factory is ideal for extracting coffee: 9 bar.

WHEN TO REPLACE THE PUMP

- **It is noisy:** if the impurities enter inside the pump, the blades of the impeller may block, therefore making it impossible to load water.
- **Pressure not adjustable:** with time the impeller blades can wear out, therefore if it is not possible to adjust the pressure with the appropriate wheel it would be necessary the replacement.
- **Pressure fluctuation during dispensing:** the bypass or the impeller are damaged.

7.3 REMOVAL OF THE PUMP

If the pump needs to be removed it is necessary to:

- 1 Remove the left cover panel and the front.
- 2 Completely loosen the pressure control wheel.
- 3 Close the water inlet valve upstream from the machine and disconnect the water inlet pipe using a 21 mm wrench and a 17 mm wrench for the outlet hose of the pump.
- 4 Unscrew the metal clamp that secures the displacement pump coupled to the engine, and then remove it.
- 5 Loosen the fittings with a 20 mm wrench and adapt them to the new pump, using the Teflon tape to gasket the parts.

Fig. 190



Fig. 191



Fig. 192



Fig. 193



7.4 REMOVAL OF THE CAPACITOR

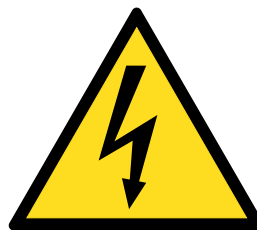
DANGER

Before proceeding with the operations described in the chapter make sure that the machine is turned off and unplugged from the mains.

To replace the capacitor:

- 1 Remove the left side panel as shown in chapter 3.
- 2 Remove the bolt that holds it to the motor using a 13 mm wrench.
- 3 Disconnect the sockets and connect the new capacitor.

Fig. 194



DANGER

Fig. 195



Fig. 196



Fig. 197

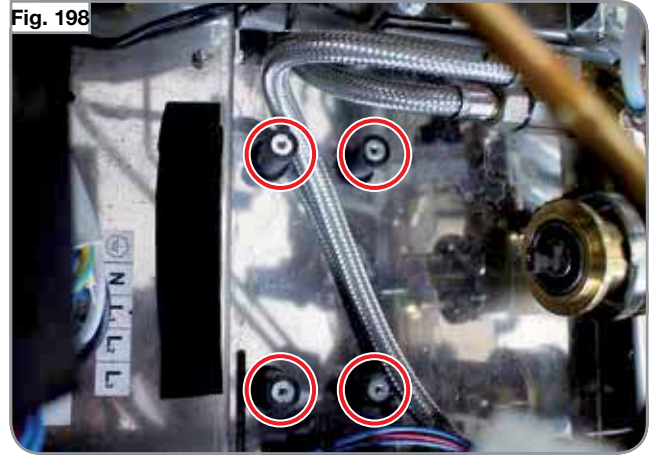


7.5 REMOVING AND REPLACING THE MOTOR

- 1 Remove the back panel of the machine by first removing the left side panel as shown in chapter 3.
- 2 Remove the pump as shown in the first paragraph of this chapter.
- 3 To facilitate the removal of the motor, it can be very effective to unscrew the screw that holds the door on the control unit closed. Use a screwdriver to remove the screw.

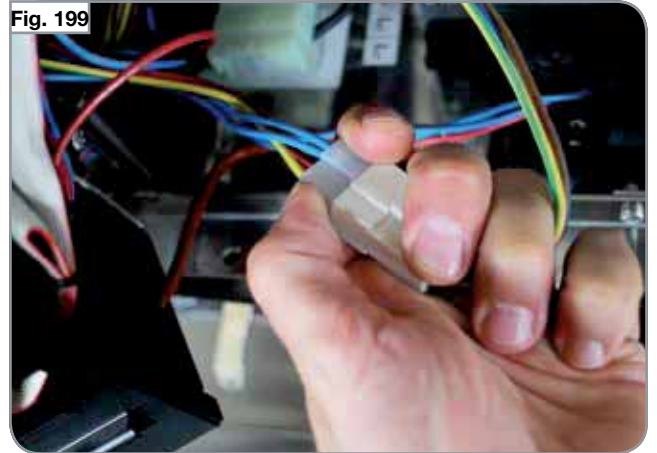
- 4 Unscrew the four screws holding the motor. In the picture the holders that support the motor plate.

Fig. 198



- 5 Disconnect the motor.

Fig. 199



- 6 Carefully remove the motor.

Fig. 200



- 7 Remove the capacitor using a 13 mm wrench.

Fig. 201



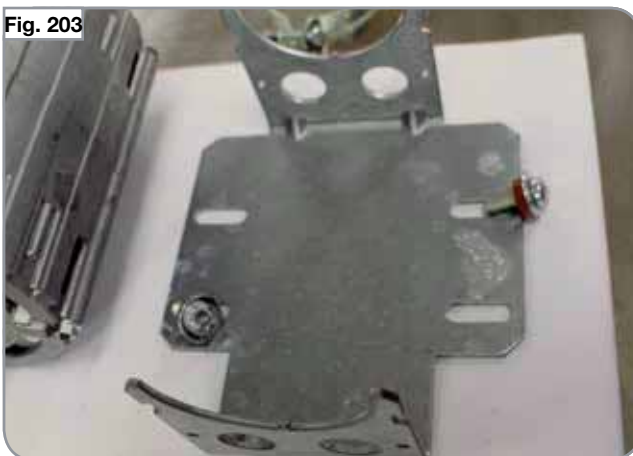
- 8 Remove the side clamps which hold the motor to the mounting plate using an 8 mm wrench.

Fig. 202



- 9 Fit the new motor in the mounting plate and replace all removed parts.

Fig. 203



7.6 REPLACING THE COFFEE VALVE

The coffee valve is located under the work surface. Its operation regulates the amount of water that flows inside the heater during all phases of machine operation. The control unit continuously interrogates the level probe and opens the valve when the water level in the boiler is not sufficient to cover the heating elements.

To remove the coffee valve it is necessary to:

- 1 Turn off the water inlet located on the pump.
- 2 Close the valve that prevents water from the heater to return in the input circuit.

Fig. 204

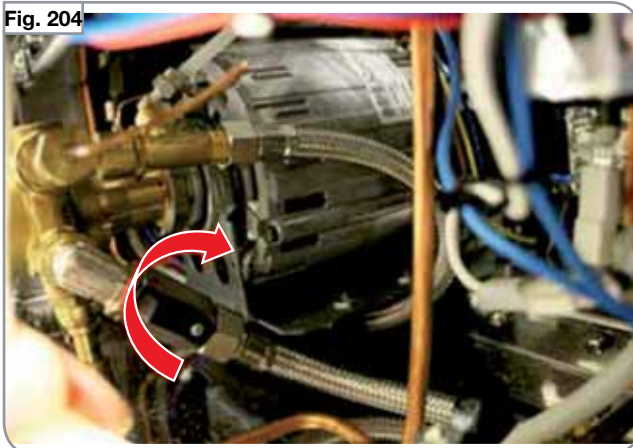
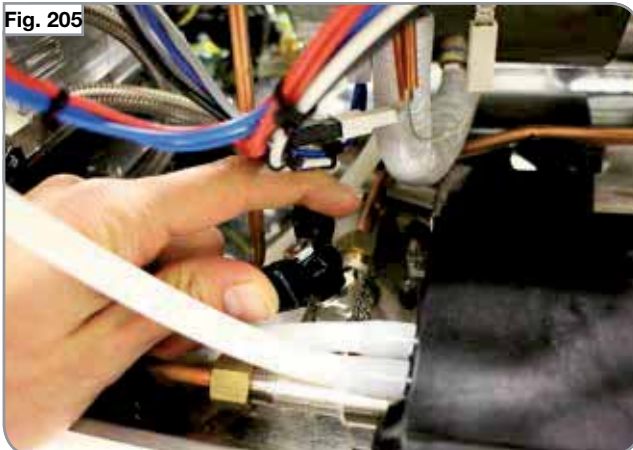


Fig. 205



3 Disconnect valve outlet using a key No. 17.

Fig. 206



4 Disconnect the pipe that carries water to heat exchangers.

Fig. 207



5 Unscrew and remove the valve head.

Fig. 208



6 Remove the screws of the plate that holds the valve in position.

Fig. 209



- 7 Remove the valve assembly. At this point it is possible to remove the electromagnetic coil with a 14 mm key and the movable cylinder with a 24 mm wrench.

Fig. 210



- 8 If the valve is completely replaced, use Teflon tape to ensure that the various joints are perfectly sealed.

Fig. 211



7.7 FLOWMETER AND NON-RETURN VALVE (only version V)

For each group there is a flowmeter (known as Ventolino).

The issues related to the flow meter are those that can be found when dosing coffee, therefore only when using the pre-set dosage buttons.

WHEN TO INTERVENE

The most common errors that you may encounter are:

- 1 Wires disconnected accidentally or unintentionally (e.g. after replacing a card).
- 2 There are impurities in the filter at the entrance of the fan.
- 3 The coil of the magnetic sensor has deteriorated and no longer reads the values correctly.
- 4 The non-return valve is blocked.
- 5 By pressing a button on one unit dispensing begins on another unit or on multiple units simultaneously.

If one of these cases occurs, pressing one of the buttons with pre-set the machine does not make coffee and never stops (obstruction to the limit), or it can happen that the delivery does not stop or will not start as planned.

In these cases the machine could signal an error with a message (e.g. Group doser error 3).

Moreover, the key pressed with pre-set will remain lit, while the continuous / stop key will flash to highlight a malfunction.

Even if the pre-sets do not work, the machine will always operate in semi-automatic mode using only the start/stop button until the arrival of the technician.

To verify that the fan is effectively locked you can:

- 1 Check function by measuring the voltage supplied to the control unit during a delivery.
- 2 Directly inspect the part.

Fig. 212



Fig. 213



HOW TO VERIFY THE SIGNAL OF THE FAN

To measure the signal it is necessary to access to the electronic board located on the left side.

- 1 Remove the left side panel.
- 2 Unscrew the screw to open the flap.
- 3 Access the board by loosening the top and bottom screws with a Phillips screwdriver.
- 4 With a multimeter measure the voltage alternating between the ends of the faulty dispenser (see figure). Place the test leads of the voltmeter at the terminals of the doser using the references in the image.

The signal generated by the fan is a square wave of about 5 V.

If the dispenser is damaged we cannot read anything.

Fig. 214



Fig. 215

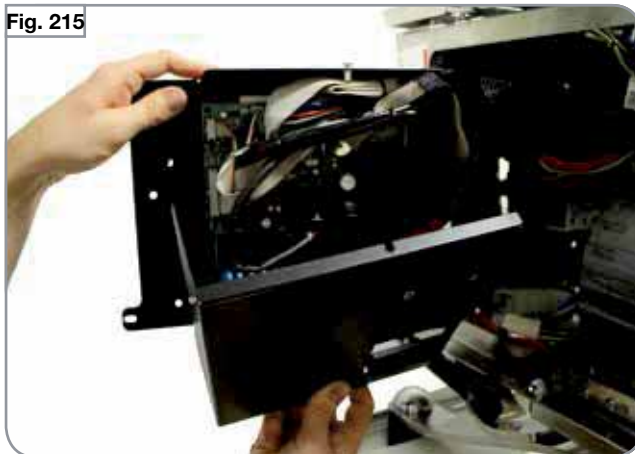
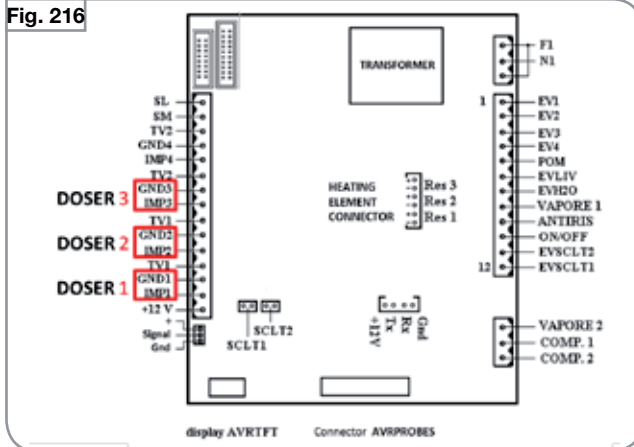


Fig. 216



HOW TO REMOVE THE FAN

If instead it is necessary to inspect or remove the flowmeter:

- 1 Remove the front panel and close the valve on the pump.
- 2 Remove the cup warmer modules. The flowmeters are located under the right module.
- 3 Place a cloth or paper towel under the Ventolino to be examined and unscrew the Teflon tubing using a 12 mm wrench.
- 4 Disconnect the copper tube using a 17mm wrench.

Fig. 217

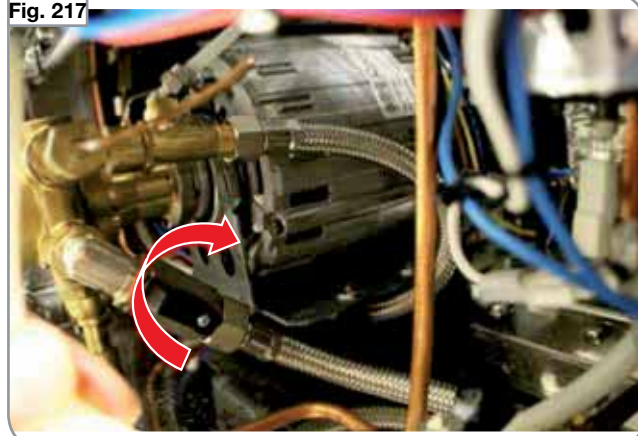


Fig. 218



Fig. 219

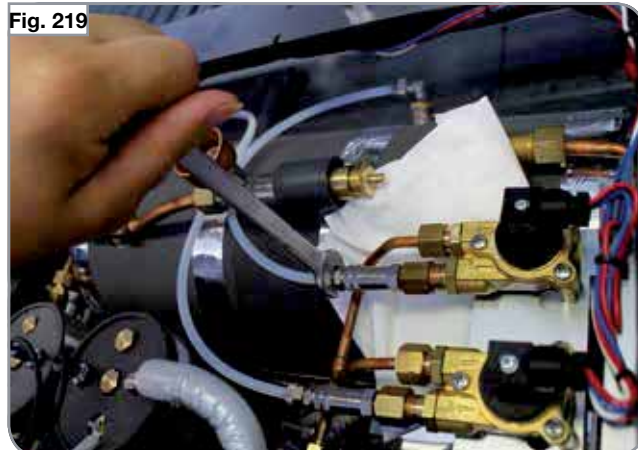
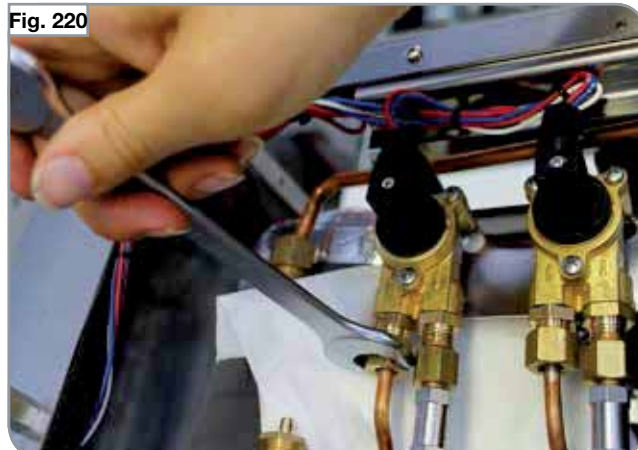


Fig. 220



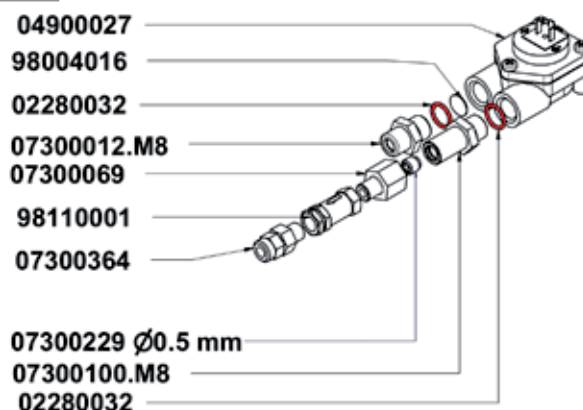
- 5 Unscrew and remove the power to the sensor.

Fig. 221



The flowmeter includes several parts, it is advisable to replace the gaskets every time it is fully inspected.

Fig. 222



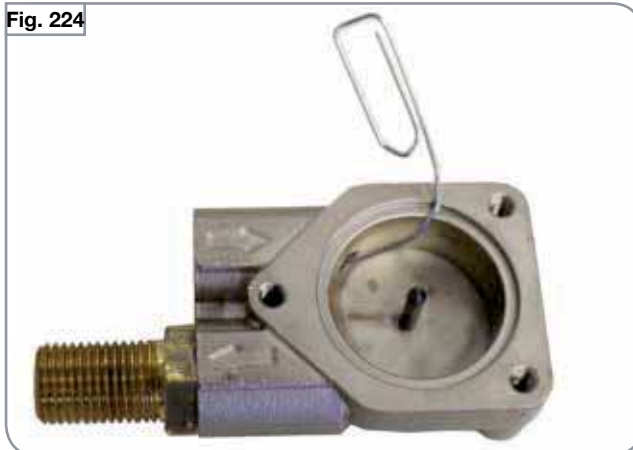
Check that there is no limestone in the Ventolino inlet grid, remove the 3 screws that hold the cover and check that there is nothing to obstruct the smooth operation.

Fig. 223



To remove the filter screen, in the event that it is particularly clogged, simply use a wire to push the retina, if necessary a common clip is also sufficient.

Fig. 224



We recommend changing the valve located downstream of fan at least once a year. Attention must be given to the gigler at the exit from the fan: it can clog and affect the pre-infusion. To remove, clean or change it use an Allen wrench or a 4 mm hex screwdriver.

Normally the default gigler is 0.8 mm and if wanting to increase the pre-infusion time the gigler can be tightened to 0.5 mm. In this case the water would pass more slowly along the whole path and would soak the coffee capsule more slowly, thus increasing the time of pre-infusion.

QUICK REPLACEMENT OF THE ENTIRE BLOCK

The flowmeters can be removed in block:

- 1 Unscrew the three screws that hold the assembly.
- 2 Unscrew the nut from the tube which feeds the block with a 14 mm wrench while holding the fitting with a 12 mm wrench.

Fig. 225



Fig. 226

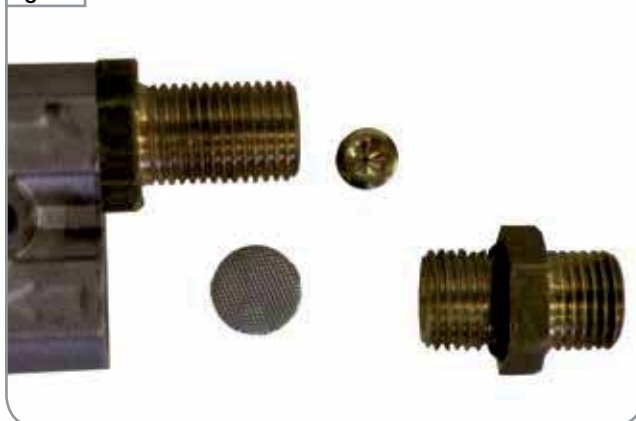


Fig. 227

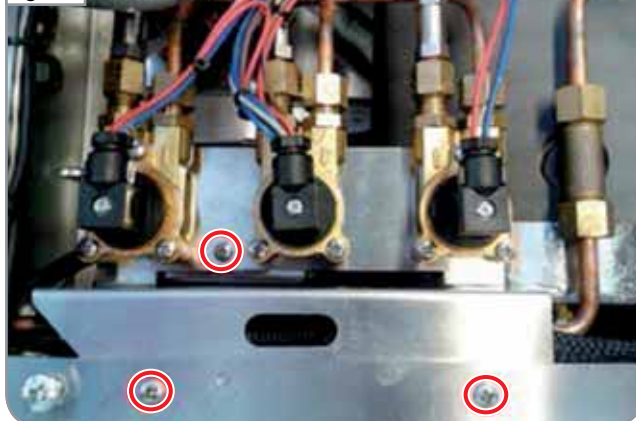
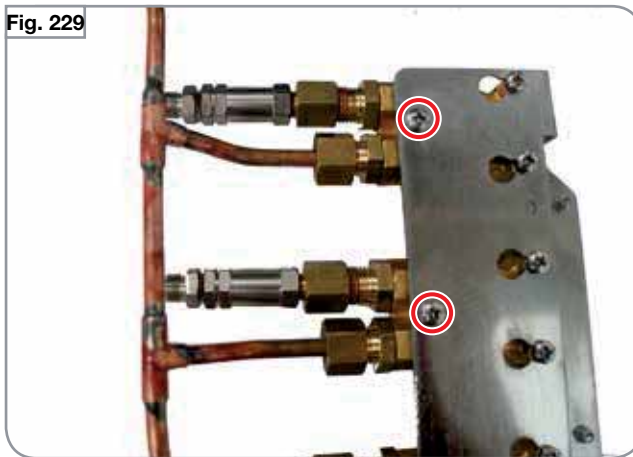


Fig. 228



- 3 At this point it becomes much easier to remove the flowmeter by removing the underlying screws that bind it to the metal plate.

Fig. 229



7.8 HOT AND COLD WATER VALVE

The **VA388** is provided with a hot water tap with adjustable mixer.

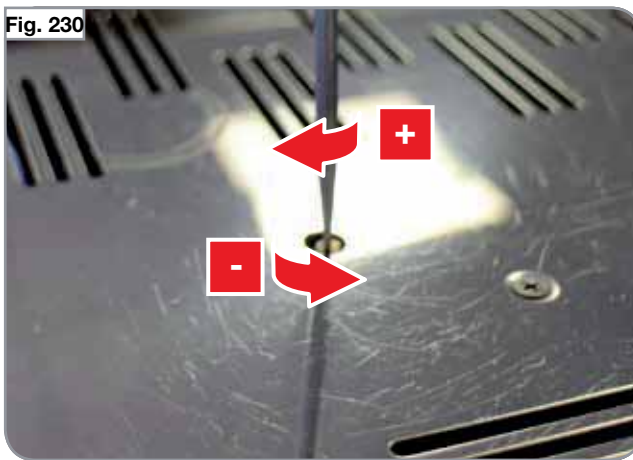
In this way the outlet water temperature can be lowered by mixing water from the heater with water from the network, thus reducing the levy in the heater and consequently saving on heating. For this reason it is commonly called hot water economizer.

HOW TO ADJUST THE TEMPERATURE

To adjust the temperature, simply use a flat screwdriver while the water is running.

To decrease the temperature, simply turn the screw counter-clockwise, while to increase it, turn the screw clockwise.

Fig. 230



WHEN TO INTERVENE

Problems that can be encountered in the economizing unit are:

- 1 Failure to deliver water.
- 2 Delivers only hot or only cold water.
- 3 Continuous dripping.
- 4 Erroneous programming.

Cases **1**, **2** e **3** are due to malfunction of the valves so you need to access them and verify that they are working properly.

The valve may stop operating due to electrical problems or is not working properly due to obstructions for example caused by pieces of limestone that detach from the heater and clog the valve.

If both valves do not work and the classic opening and closing noise is not heard, there could be a problem with the relay in the electronic board, therefore it is necessary to directly measure the voltage with a voltmeter while water is being dispensed.

Position the tip at the point indicated in the figure while dispensing, considering that the hot water and cold water valves are in parallel, just verify the operation of this relay to check both valves.

HOW TO ACCESS THE VALVES

To safely access the valves it is necessary to:

- 1 Open the steam taps until all the steam is released.

NOTA

It is not possible to operate with pressure in the heater.

- 2 Turn off and disconnect the power to the machine.
- 3 Remove the first cup warmer module on the left, unscrew the Phillips screw, disconnect the power supply to the cup warmer and remove the probe.
- 4 Remove the work surface and close the water entrance near the pump.

Fig. 231

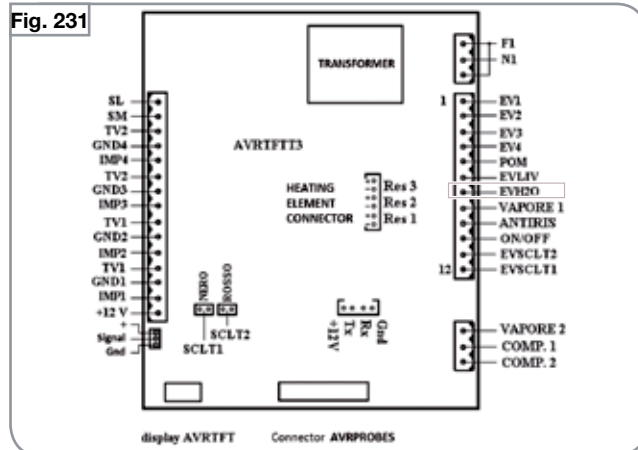


Fig. 232



Fig. 233

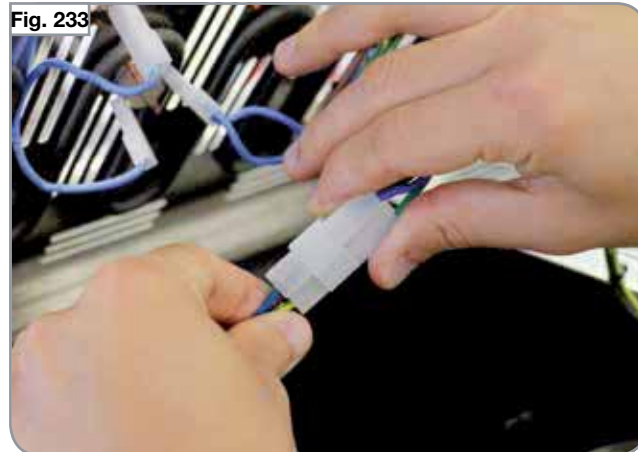
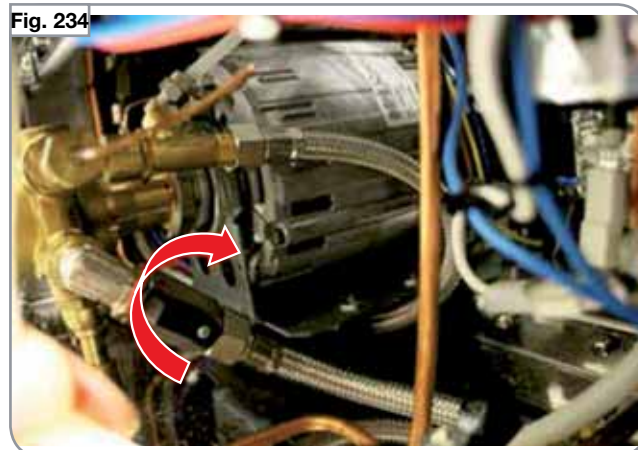


Fig. 234



- 5 Remove the nut that holds the head of the coil using a 14 mm wrench.

Fig. 235



- 6 Turn and loosen the head that feeds it.

Fig. 236



- 7 Place absorbent material (e.g. Paper) to prevent leaks from affecting the motor or the circuit board and unscrew the moving part of the electronic valve using a 24 mm wrench.

Fig. 237



- 8 Check the spring is working properly and that the inner cylinder is clean. Replace the valve completely, if there is nothing visible that affects its use.

Fig. 238



COLD WATER VALVE

The same procedure also applies for the cold water valve. In this case, since it is connected with a tap it may be necessary to replace the whole part.

7.9 STEAM NOZZLE

The steam nozzle is composed of a piston actuated by the knob, which presses on a nut with spring return. By pressing against the spring it creates space for the steam to pass.

We suggest to replace the seals that keep the piston perfectly aligned, every 4-6 months. Every year it is advisable to replace the nut to prevent the gasket that insulates the steam from drying and letting steam pass. Since these parts must be changed, we suggest replacing all the seals simultaneously.

WHEN TO INTERVENE

Problems related to the steam nozzle are:

- Continuous loss of steam.
- Water dripping from the steam nozzle.
- Delayed closure.
- Steam lever too loose.

DANGER

Before proceeding with the operations described in the chapter make sure that the machine is turned off and unplugged from the mains. Discharge any residual pressure present in the steam heater.

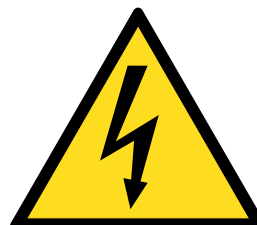
Fig. 239



Fig. 240



Fig. 241



DANGER

If there is a loss of vapour or condensation, it is necessary to:

- 1 Turn the machine off, let out all the steam until there is no pressure in the heater.
- 2 Unscrew the pair of screws shown in the figure using a Phillips screwdriver.

Carefully remove the upper and lower covers.

- 3 Remove the two screws that hold the front parts of the cover and extract.

Fig. 242



Fig. 243

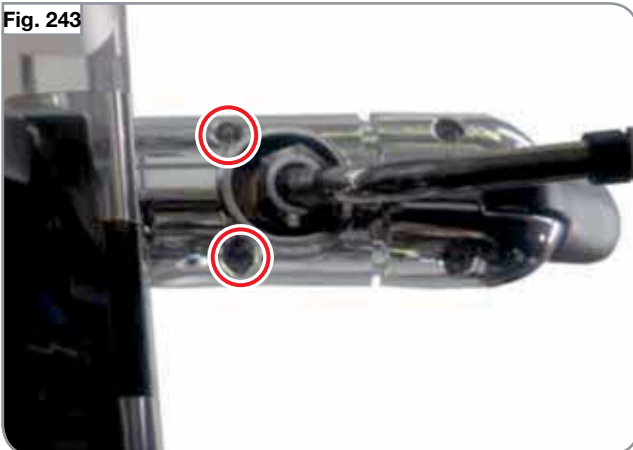
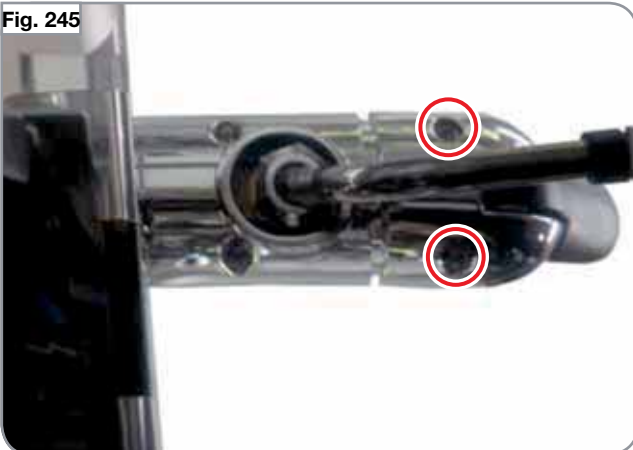


Fig. 244



Fig. 245



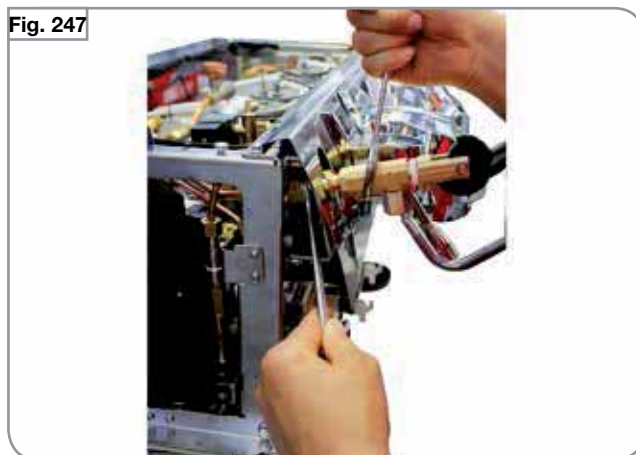
- 4 Unscrew the nut of the hose that carries the steam using a 20 mm wrench. Hold the nozzle still using a spanner.

Fig. 246



- 5 Using a 22 mm wrench loosen the nut that holds the release nozzle to the machine. Use a 22 mm wrench to hold the valve still.

Fig. 247



- 6 With a 3 mm Allen Remove the knob from the nozzle.

Fig. 248



MAINTENANCE OF STEAM NOZZLE

To carry out repairs and maintenance once the steam nozzle is removed we can proceed with the following steps:

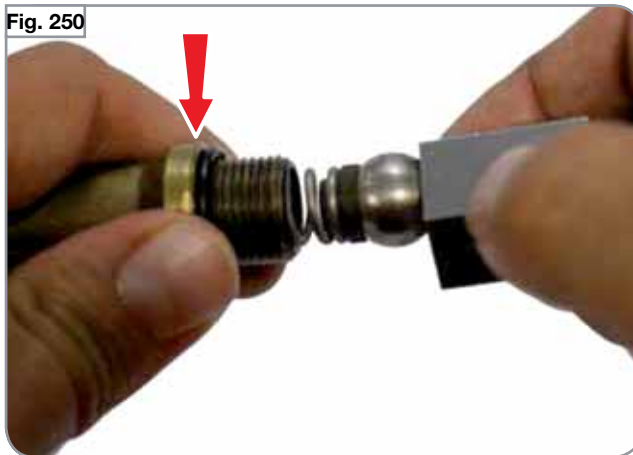
- 1 Remove the piston which is actuated by the lever. The seals that make it slide in its housing tend to wear out and must be replaced depending on the use or every 4-6 months.

Fig. 249



- 2 Using a 22 mm wrench remove the steam nozzle from its housing. We recommend replacing the gasket at least once a year.

Fig. 250



- 3 Unscrew the fitting with a 21 mm wrench to reach the spring. We recommend replacing the gasket at least once a year.

Fig. 251



- 4 Remove the steam piston behind the spring. We recommend replacing the piston at least once a year.

Fig. 252



The steam nozzle in its simplicity has components that must be replaced annually or periodically due to wear.

We recommend replacing:

- The seals of the piston (code 02280014) every 4-6 months, to avoid misalignment.
- The seals of the lever block (02280037) and connection to the heater (02280011).
- The internal piston (98008004).

Fig. 253



The **VA388** is equipped with steam nozzles of the cool touch series. These steam nozzles, thanks to the presence of an internal Teflon tube, do not heat up quickly. In this way, the bartender has a chance to work more comfortably even on an ongoing basis, without the fear that the steam nozzle may reach excessive temperatures.

To access the Teflon tube for replacement it is sufficient to hold the steam nozzle and unscrew the top anticlockwise with a No. 9 wrench.

To remove the dispensing nozzle it is sufficient to unscrew the lower part of the nozzle by hand. We suggest an annual replacement of the O-ring that holds the gasket.

REASSEMBLY

During the reassembly phase it is important to lubricate the seals of the piston in contact with the lever, to ensure fluid movement inside the housing.

Fig. 254



Fig. 255

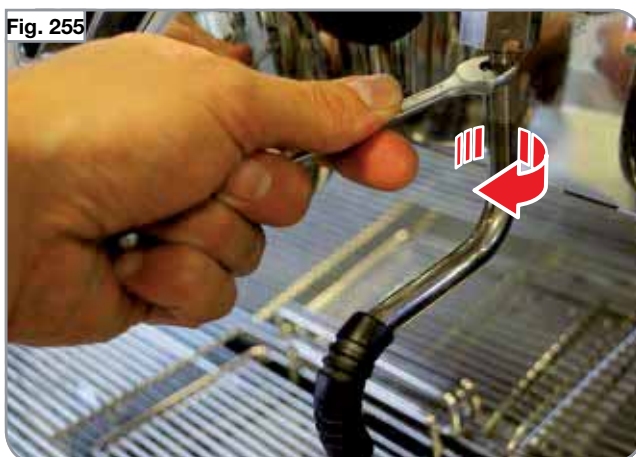


Fig. 256



Fig. 257



The correct position of the lever with respect to the piston is shown in the picture and is the groove in the middle of the lever.

Fig. 258

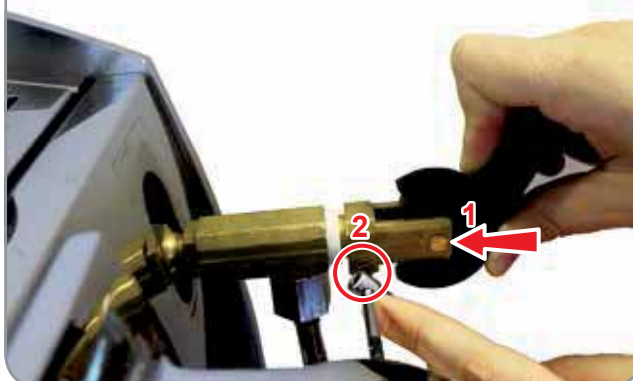


When fixing the screw that holds the lever on the steam nozzle it is necessary to.

- 1 Lightly press the lever.
- 2 Pull the screw with a 3 mm Allen wrench keeping the lever pressed.

In this way there is a perfect balance between a steam nozzle that is excessively soft and one that is rigid.

Fig. 259

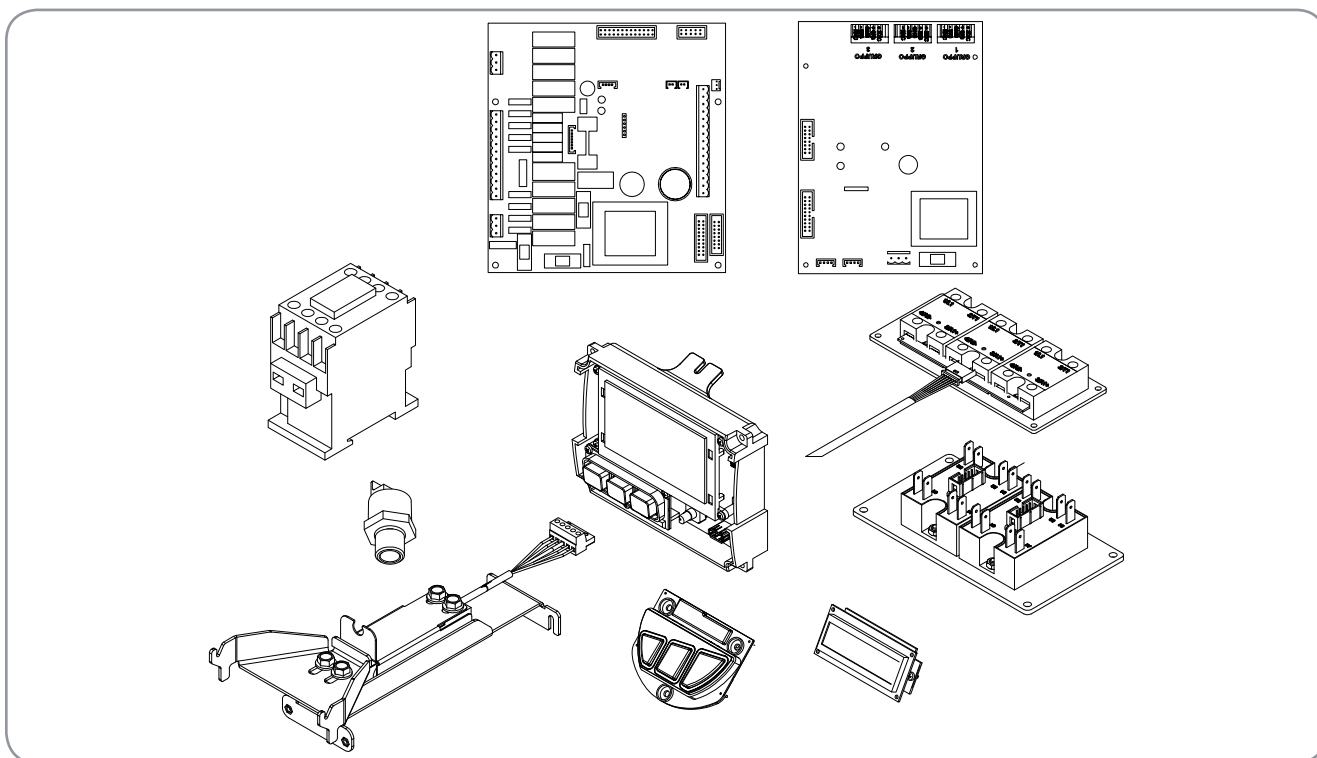
**WARNING**

This operation must be carried out with the machine on to set up the steam lever perfectly.

Fig. 260



8. ELECTRIC COMPONENTS



8

INDEX

8. ELECTRIC COMPONENTS	8.1
8.1 CONTROL UNIT	8.2
8.2 THE CONTACTOR	8.6
8.3 STATIC RELAYS	8.7
8.4 ACCESS TO THE STATIC RELAYS AND THE SENSOR CARD	8.10
8.5 ACCESS AND REPLACEMENT OF THE DIGITAL PRESSURE GAUGE	8.11
8.6 REPLACEMENT OF TFT SCREEN	8.12
8.7 UPDATING THE TFT SCREEN	8.14
8.8 REPLACEMENT OF GROUP PUSH BUTTON PANELS AND SCREENS	8.16
8.9 MACHINE CONFIGURATION	8.18
8.10 GRAVIMETRIC CONTROL UNIT	8.19
8.11 LOAD CELLS AND SENSORS (version G only)	8.20
8.12 REMOTE CONTROL	8.23

TOOLS NEEDED:



8.1 CONTROL UNIT

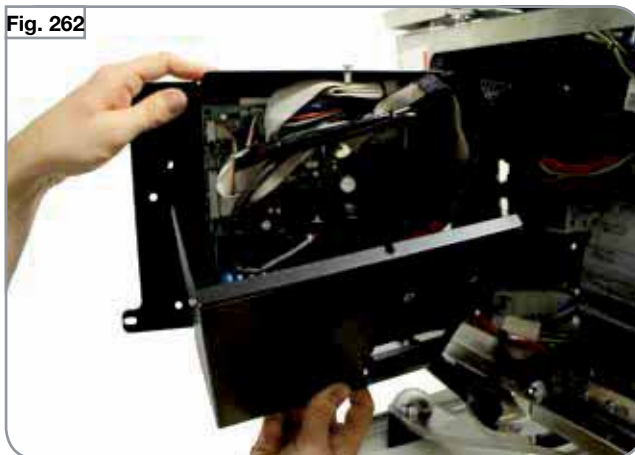
To access the main board it is necessary to:

- 1 Remove the left side panel, disconnecting the lights.
- 2 Remove the screw that holds the door closed using a Phillips screwdriver.
- 3 Loosen the two top and bottom screws with a screwdriver and remove the cover.

Fig. 261



Fig. 262

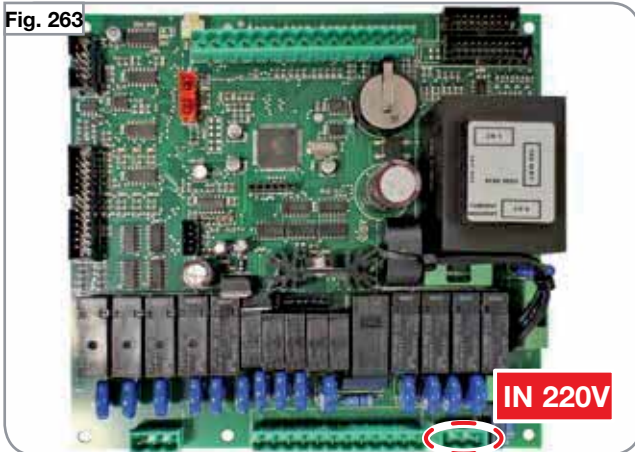


The control unit without connections appears as shown in the figure.

The 3 volt battery type CR2032 is needed to store meter and date / time information.

Analysing the various parts.

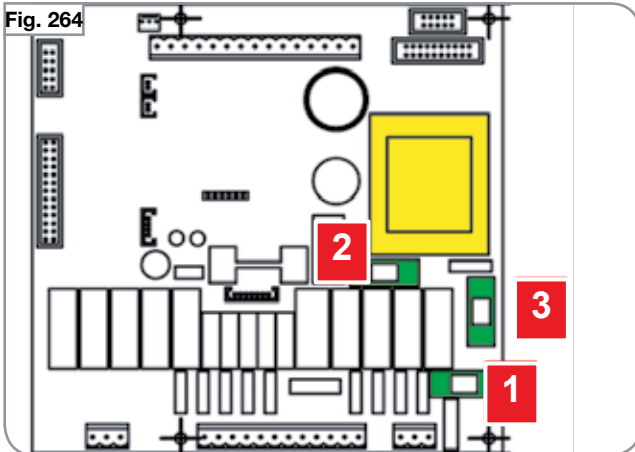
Fig. 263



The transformer and fuses are located on the right side. The fuses are:

- 1 5 Ampere: relay fuse.
- 2 1 Ampere: fuse downstream of the transformer (abnormal absorption on the secondary of the transformer).
- 3 160 mAmpere: transformer input fuse.

Fig. 264



Connections that are at the top are used to connect the fans and the temperature probes for the steam nozzles.

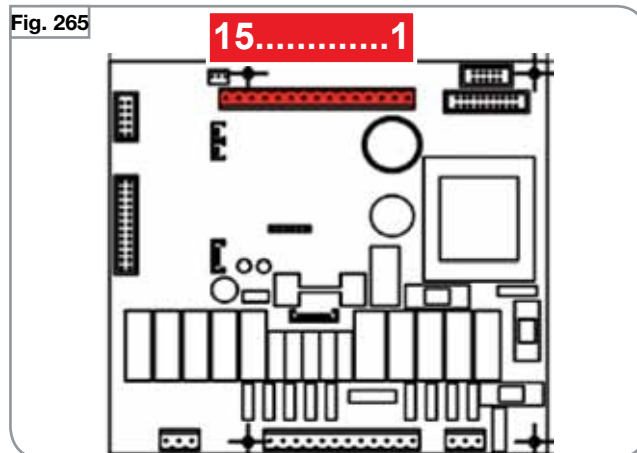
Volumetric version

PIN	CODE	COLOUR	DESCRIPTION	CABLE
1	SL	Red	Level probe	1
2	SM	Yellow Verde	Mass level probe	2
3	TV2	Black	Right steam probe	ND
4	GND4			
5	IMP4			
6	TV2	White	Right steam probe	ND
7	GND3	Blue	-	7
8	IMP3	Brown	Dispenser 3 impulses	8
9	TV1	Black	Left steam probe	ND
10	GND2	Blue	-	10
11	IMP2	Grey	Dispenser 2 impulses	11
12	TV1	White	Left steam valve	ND
13	GND1	Blue	-	13
14	IMP1	White	Dispenser 1 impulses	14
15	+12V	Red	+	15

Gravimetric version

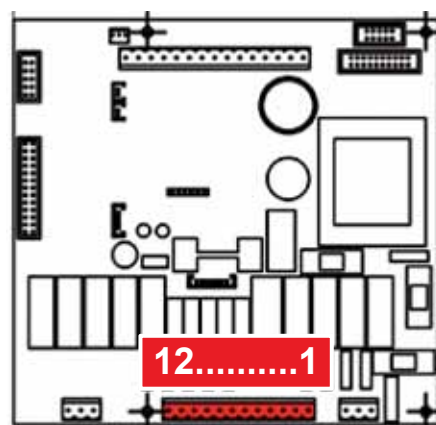
PIN	CODE	COLOUR	DESCRIPTION	CABLE
1	SL	Red	Level probe	1
2	SM	Yellow Green	Mass level probe	2
3				ND
4				
5				
6	TV2	White	Right steam probe - optional	ND
				7
				8
9	TV1	Black	Left steam probe - optional	ND
10				10
11				11
12	TV1	White	Left steam valve - optional	ND
13				13
14				14
15	+12V	Red	+	15

Fig. 265



PIN	CODE	COLOUR	DESCRIPTION	CABLE
1	EV1	Red	1 gr coffee valve relay	00
2	EV2	Red	2 gr coffee valve relay	11
3	EV3	Red	3 gr coffee valve relay	22
4	EV4	Red	4 gr coffee valve relay	ND
5	POM	Red	Pump relay	44
6	EVLIV	Red	Auto level valve relay	55
7	EVH2O	Red	Hot water valve relay	66
8	STEAM1	Red	Left steam valve	V1
9	ANTIRIS	Red		
10	ON/OFF	Red	Meter relay	88
11	EVSCLT2	Red		ND
12	EVSCLT1	Red	Cup warmer 1	77

Fig. 266



EXTRA STEAM NOZZLE:

If automatic lances nozzles are installed such as Autosteam or Easycream extra wiring is added which is connected as shown in the next image.

The connector feeds the compressors and valves:

- 1 Right compressor (cable 15).
- 2 Left compressor.
- 3 Right steam solenoid (cable 13).

The left steam solenoid instead is fed from position 5 of the lower row.

If only a single steam nozzle is used the other will be covered with heat shrink wrap.

The cup warmer probe is connected on the pin shown in the figure.

The digital pressure switch is connected by means of three coloured cables from left to right in this manner:

- 1 Black
- 2 White
- 3 Red

Measuring the voltage between black and white will give the reading for the pressure switch with values ranging up to about 4 V.

Fig. 267

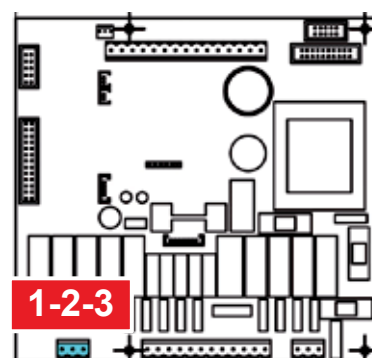


Fig. 268

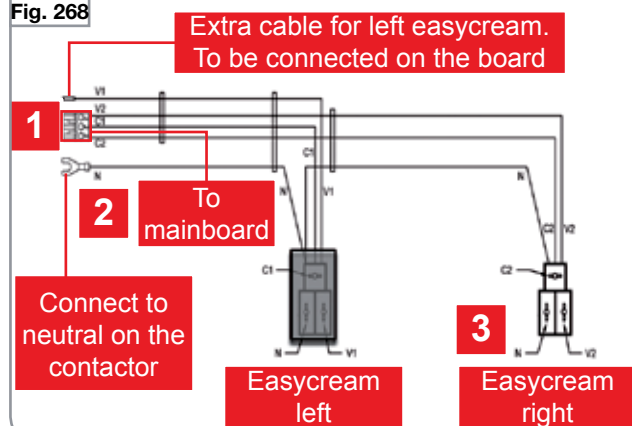


Fig. 269

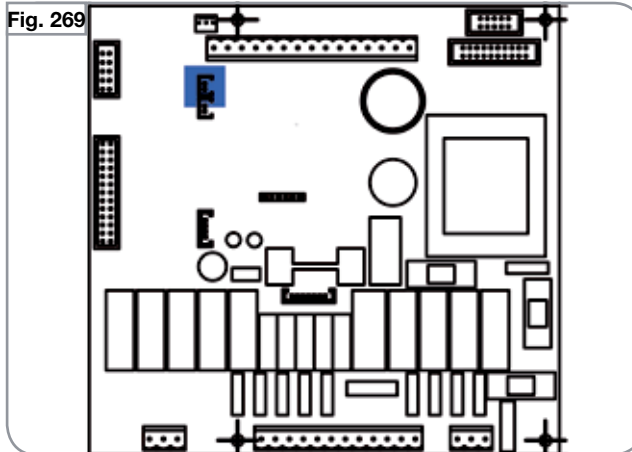
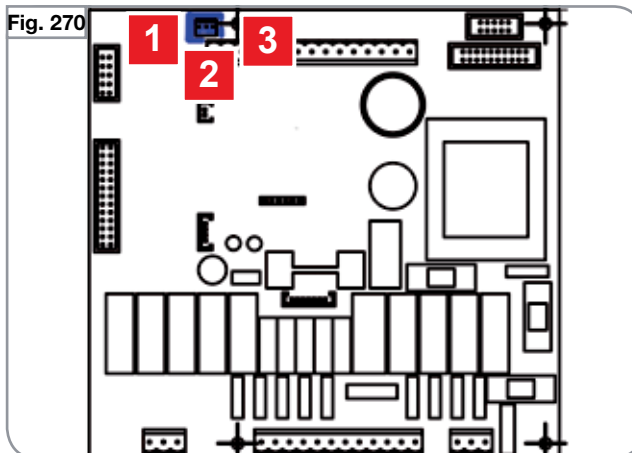


Fig. 270



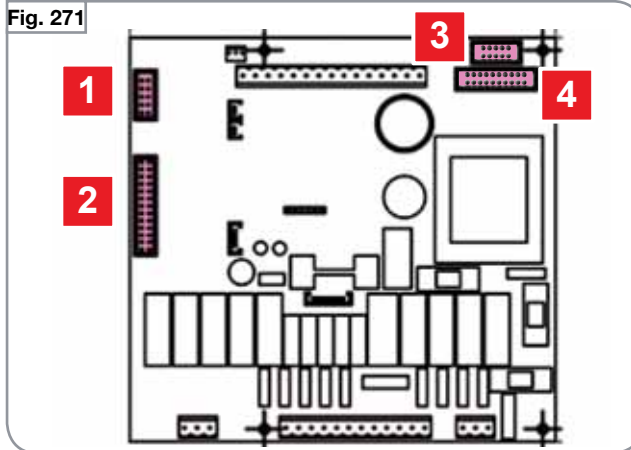
The flat cables that are located on the left side of the board are respectively:

- 1 Connection of the control unit with the data collector probes.
- 2 Connection with the control unit of the screen.
- 3 Connect groups screens.
- 4 Connection unit Gravimetric probes (gravimetric version only).

The unit manages the logic, enables the delivery of power and valves, while the display control unit stores user settings such as doses, alarms, temperature settings etc ..

In the Gravimetric-bit version of the control unit is on the back of the machine handles the scales of communicating signals reach the preset weight.

Fig. 271



8.2 THE CONTACTOR

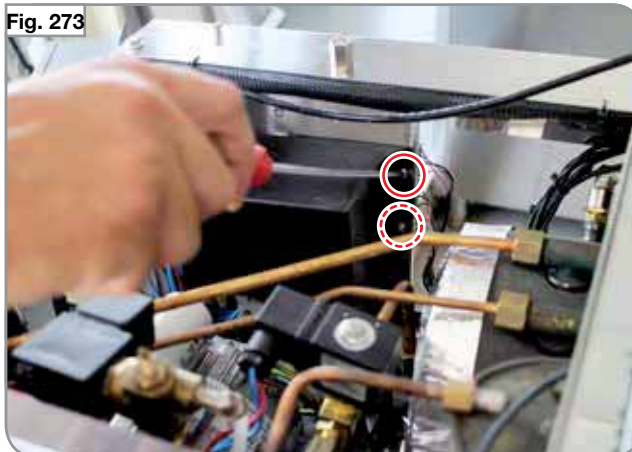
To access the meter:

- 1 Remove the left side panel,
- 2 Remove the screw that holds the door closed using a Phillips screwdriver.
- 3 Remove the cover of the contactor by removing the two screws with a Phillips screwdriver.

Fig. 272



Fig. 273



The contactor is a relay that supplies power to the heating elements of the machine. Then interrupt the neutral and the three phases and the enabling is established by the control unit .

In fact, when the machine is turned on the water level is checked and if the feedback is positive the meter is enabled by the control unit.

PROBLEMS

Normally, the contactor makes a characteristic noise when it closes the circuit, so if you cannot hear the typical noise it is possible that the problem is upstream (probe) or with the contactor itself.

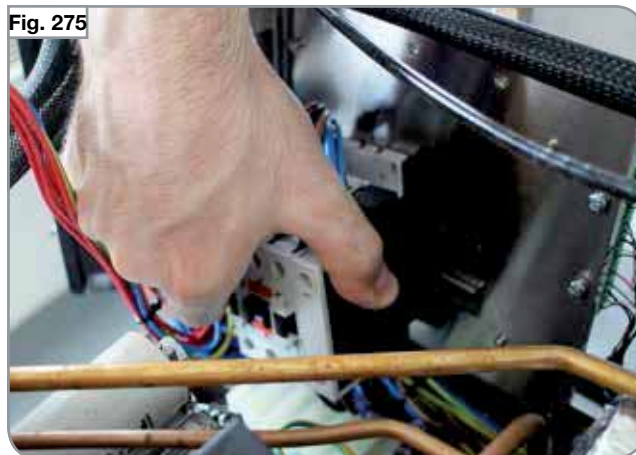
REPLACEMENT

To replace the contactor, simply remove the element from the side and unplug all the cables with the help of a Phillips screwdriver.

Fig. 274



Fig. 275



8.3 STATIC RELAYS

Both versions of the **VA388 DIGIT / T3** machines are equipped with static relays to control the steam boiler.

The T3 version is also equipped with static relays to control the temperature of the coffee boilers.

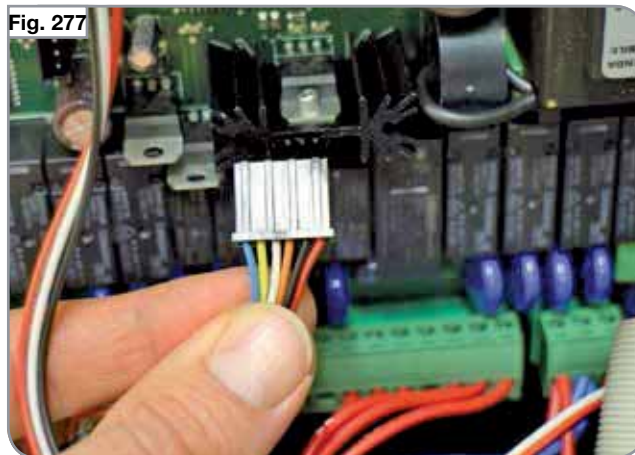
The three relays of the steam heater are activated when the pressure switch detects a pressure lower than that set.

Each handles a different phase and the power is delivered by the remote control switch when enabled, while the on/off command is controlled by the control unit. The upper connections are those of the phases, the lower ones the commands of the relay.

Fig. 276



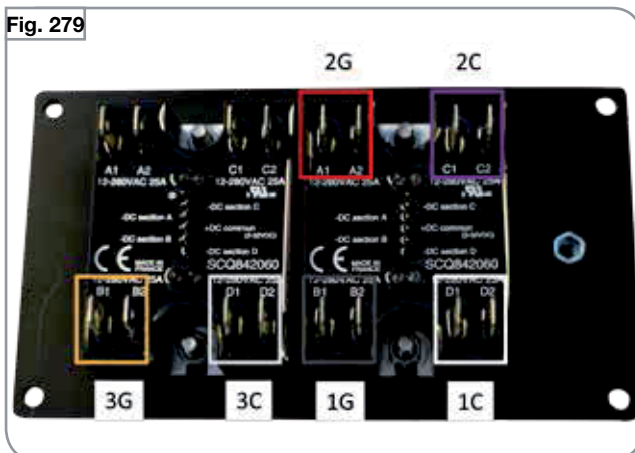
The three relays are connected in the control unit with a single connector.



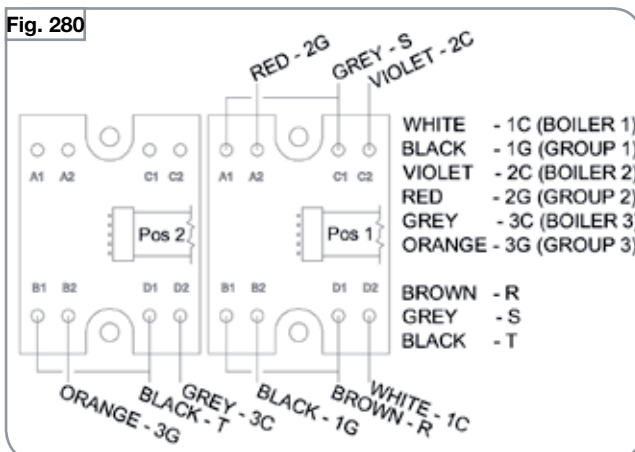
The operation is checked by means of LEDs that light up in the heating phase of the machine. To test simply let out a lot of steam from a steam nozzle until the heating elements starts again. Optimum operation will be when impulses are spaced at varying intervals.

The relay of the groups and coffee boilers are in divided in pairs as shown in the figure. C1 and G1 are Heater 1 and group 1 etc.

Each time the probes detect the need to heat a specific heater or a group, a LED will light up at the side activated.



The configuration of the cables is also present in the relays protection box.



This way it is possible to know and understand if there are problems in the relay or in the probe.

Example:

- 1 The probe does not read values, but the boiler/group is active: The problem is with the probe.
- 2 The relay is active but the corresponding boiler/group does not heat up: problems with the heating elements.
- 3 A group requires manual reset: the relay for that group is pasted in ON status.

The static relays in fact can be damaged in ON or OFF status thereby giving rise to disruptions that are easy to understand thanks to the lights that identify the operation.

In the machine with 3 groups each phase is intended to supply a group independently. Each phase feeds both a group and the corresponding coffee boiler.

The relays are powered by starting from the relays of the steam boiler heating elements.

The groups/coffee boilers relays are driven by addresses managed with flat cables that go from the data collector to the relay block. Each cable can manage 2 coffee boilers and 2 groups, therefore the 3 groups machine will have two cables.

NOTE

The blocks are not invertible in any way since addressed individually. If one of the relays has jumped the entire set of 4 relays must be replaced.

Fig. 281

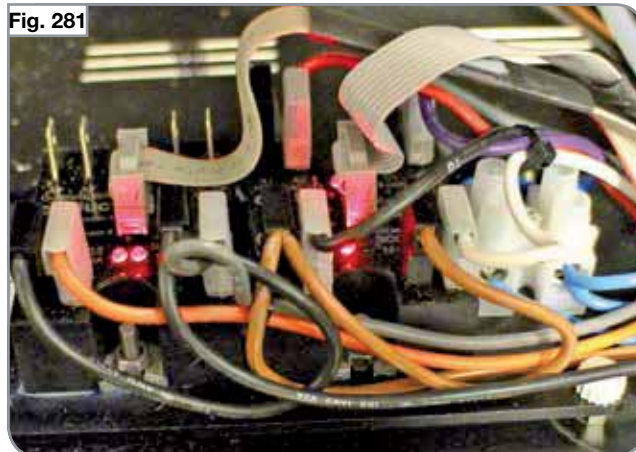


Fig. 282

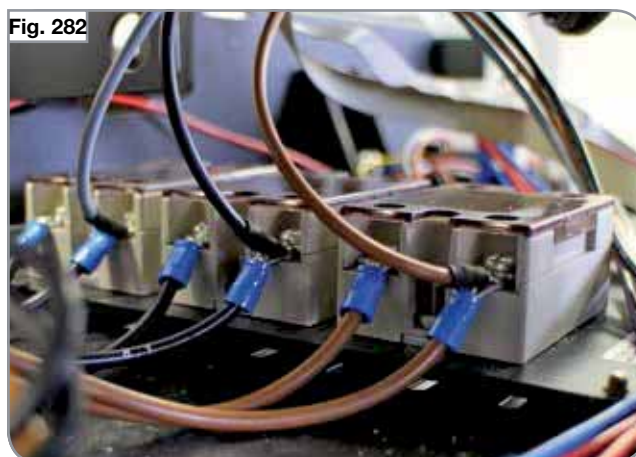
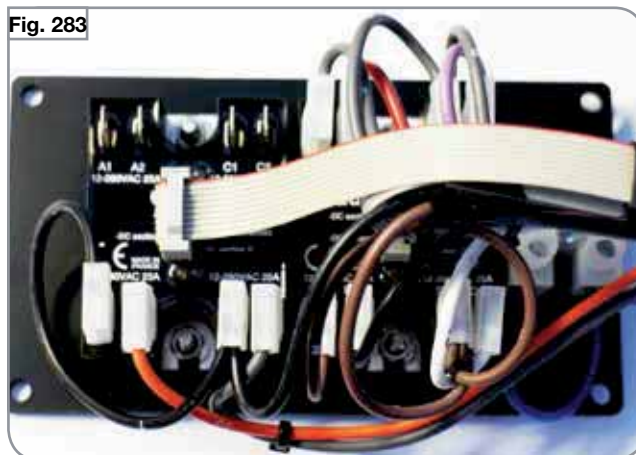


Fig. 283



8.4 ACCESS TO THE STATIC RELAYS AND THE SENSOR CARD

To access the data collector, it is necessary to:

- 1 Remove the panel on the right side by partially unscrewing the two screws that hold the panel.
- 2 Unscrew the two screws holding the cover of the data collector.

The collector has a large flat cable which connects the manifold to the control unit and one (machine with 2 units) or two flat cables (machine with 3 units) to communicate with the static relays of the coffee boilers and groups. All probe groups and coffee boilers are connected here via extension cables.

Each probe has a label which identifies it. When a relay is activated a green light appears at the top right that identifies the active resistor. For example in the picture the resistances of groups 1,2 and 3 are active.

Fig. 284



Fig. 285

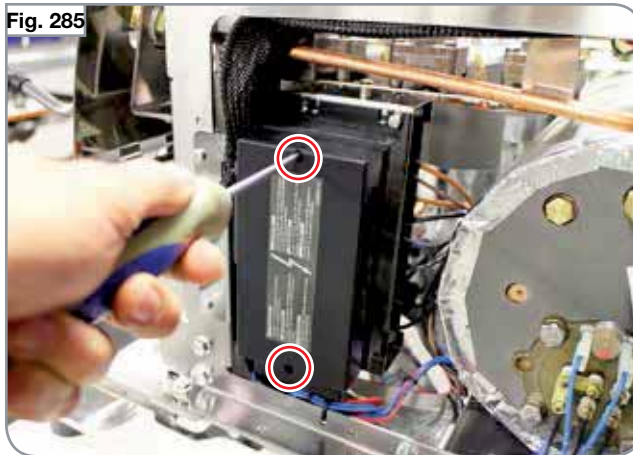


Fig. 286

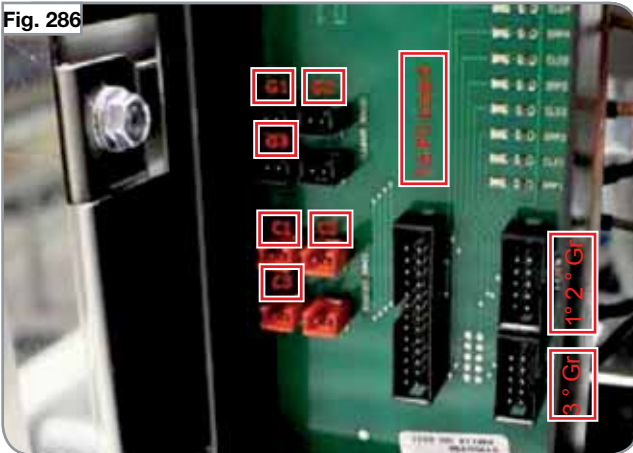
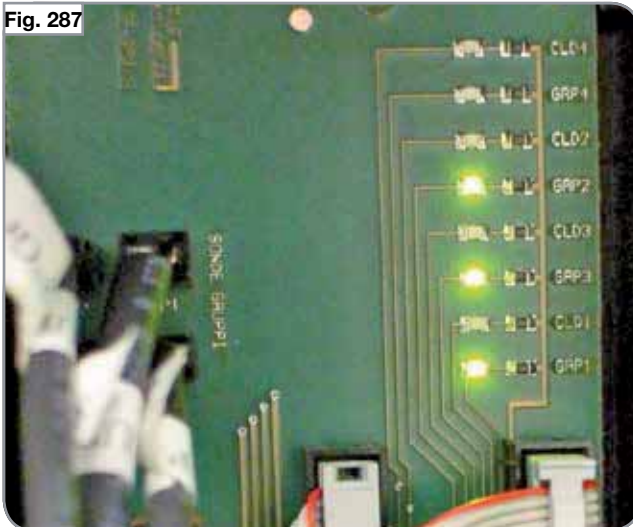
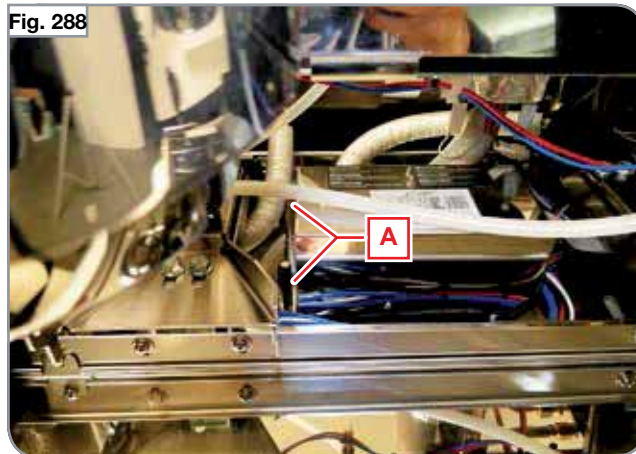


Fig. 287



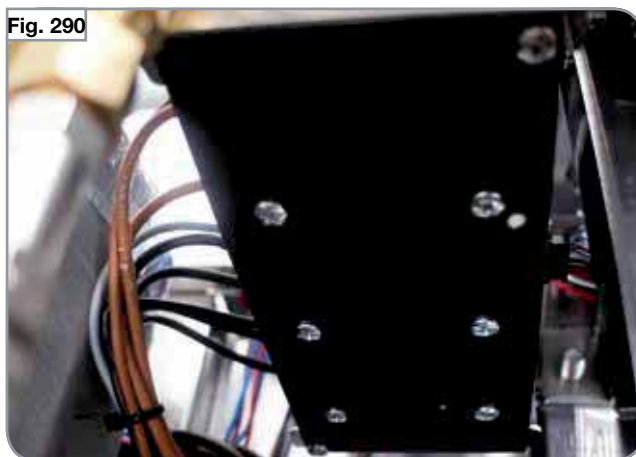
To access the relay sockets remove the screws "A" that hold the covers using a No. 6 wrench.



The relays of the steam boiler are located vertically on the right side of the machine.



To access the relays of the steam boiler heating elements use a small screwdriver to unscrew the two screws that secure the plate to the rest of the machine.



8.5 ACCESS AND REPLACEMENT OF THE DIGITAL PRESSURE GAUGE

To access the digital pressure switch:

- 1 Remove the side panel and disconnect the lights.
- 2 Remove the front panel behind the units, disconnecting the lights.
- 3 Remove the screw that holds the panel of the control unit closed..



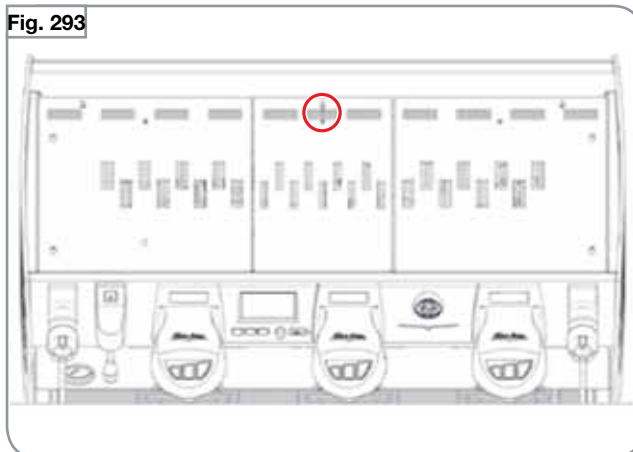
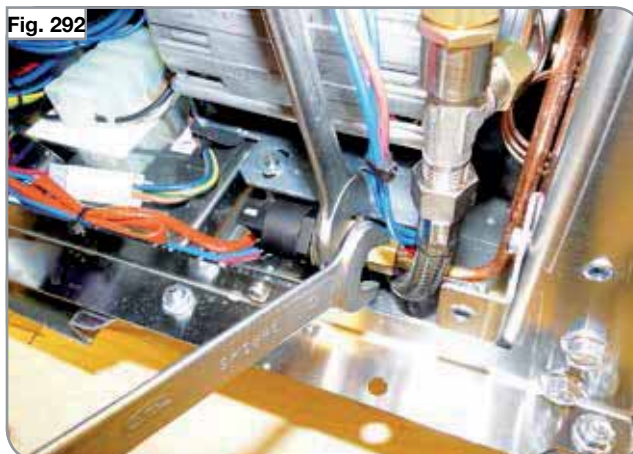
At this point the pressure switch is perfectly visible, it is fixed to the frame of the machine.

The values that the pressure switch reads can be measured with a voltmeter in DC volts measurements. Put the test leads between the black cable and the white one to read the voltage variation comprised in a range between 0.6 V and 4 V.

WHEN TO REPLACE THE DIGITAL PRESSURE SWITCH

If the values are very different it is necessary to replace the pressure switch which is now damaged. Normally errors are detected and displayed and machine operation stopped.

To remove the pressure switch use a 22 mm wrench and a 13 mm to lock the capillary which brings the pressure to the probe.

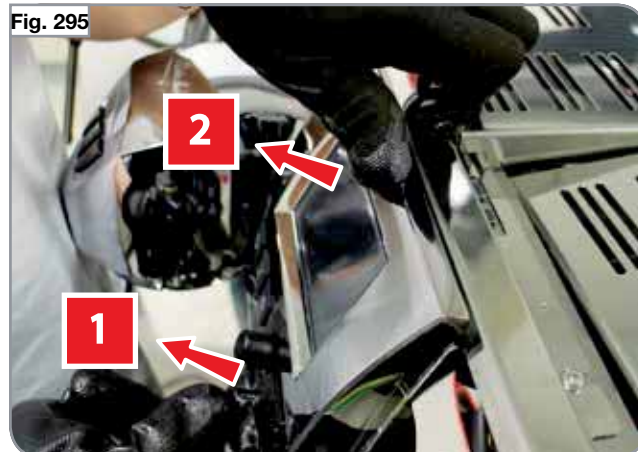


8.6 REPLACEMENT OF TFT SCREEN

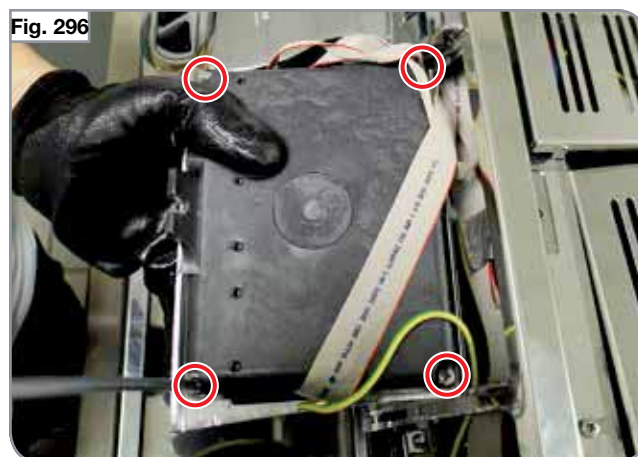
To replace the TFT display in case of failure it is necessary to:

- 1 Turn the machine off at the main switch. Unscrew the central module of the cup warmer and lift it to access the screw located underneath.
- 2 Remove the screw that binds the TFT display.

- 3 Remove the screen from its holder.
First lift the lower side, then the upper.



- 4 Unscrew the four screws that secure the back cover.



- 5 Remove the knob of the rotary switch and then the panel.



- 6 Disconnect all ribbon cables that connect the screen to the power control unit, the buttons and the hot water button.



- 7 Lastly, remove the grounding connection.



8.7 UPDATING THE TFT SCREEN

- 1 If needed, it is possible to update the firmware of the TFT screen using a USB stick.

Fig. 300



UPDATE FIRMWARE

- 2 From this screen, it is possible to update the firmware inside the machine. Follow the procedure indicated on the display and use the proper USB port present on the control panel.

NOTE

It is necessary to use a formatted USB stick containing only the files to be copied in the machine.

NOTE

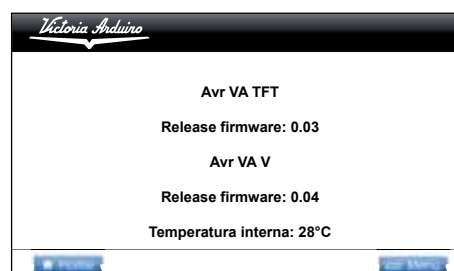
The firmware can be updated also by turning off the machine, inserting the USB stick and turning on the machine.

The hardware will recognize the presence of the USB stick and will automatically install the software if necessary.

Fig. 301



Fig. 302





NOTE

The cells highlighted in RED indicate compatibility with the REMOTE CONTROL.

MACHINE MODEL: VA388 VOLUMETRIC

	TFT SW Control unit	TFT: Cod. NS: 04901156 VATFT		TFT: Cod. NS: 04901169 VATFTR				
		0.04	0.07	1.00	1.01	1.02	2.00	2.10
Main Board: Cod. NS: 04901152 AVRVAT3220V	0.04	✓						
	0.07		✓					
Main Board: Cod. NS: 04901153 AVRVAT3220VR	1.00			✓	✓	✓		
	1.01					✓	✓	
	1.02						✓	
	1.10						✓	✓

MACHINE MODEL: VA388 GRAVIMETRIC

	TFT SW Control unit	TFT: Cod. NS: 04901157 VATFTSCALE							TFT: Cod. NS: 04901168 VATFTSCALER
		0.8	0.9	0.10	0.13	0.14	0.15	0.16	0.22
Main Board: Cod. NS: 04901151 AVRVASCALE220V	0.19	✓							
	0.20		✓						
	0.21		✓						
	0.22			✓					
	0.23			✓	✓	✓	✓	✓	
Main Board: Cod. NS : 04901167 AVRVASCALE220VR	0.28								✓
	0.30								✓

8.8 REPLACEMENT OF GROUP PUSH BUTTON PANELS AND SCREENS

- 1 Remove group bodies as shown in detail in Chapter 3
- 2 Disconnect the cable connected to the screen and the one connected to the panel. The keyboards of the various groups are all connected to the same ribbon cable. Each group then has a unique address which is set using DIP switches.
- 3 Using a screwdriver unscrew the three screws that hold the pushbutton panel and replace with a new one.

When a block is replaced it is necessary to reset the pins with the same configuration.

In keyboards there are 8 Pins that must be configured as follows:

GROUP 1 (left) pin 1-5 ON

GROUP 2 (left) pin 2-6 ON

GROUP 3 (left) pin 3-7 ON

The picture shows the configuration of group 2.

Fig. 303



Fig. 304



Fig. 305



Fig. 306



WHEN TO CHECK THE KEYBOARDS

- Two units deliver by pressing only one button (check the pins and the flat cable).
- Some keys do not work anymore (replaced due to wear).
- All buttons do not work (before replacing check the connection of the flat cable).

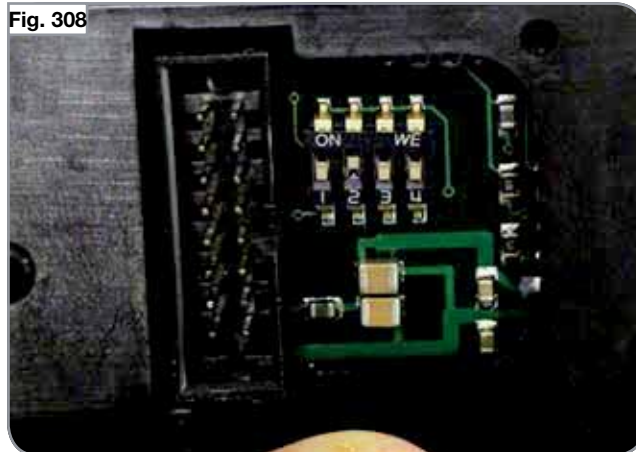
REPLACEMENT OF GROUP SCREENS

- 1 Remove the group cover as shown in chapter 3 and disconnect the ribbon cable that connects all group screens.
- 2 To replace, simply unscrew the two side screws. Once the new screen is installed the DIP switches must be set. Number by following the number of the group starting from the first group on the left. The picture shows the setup of the second group.

Fig. 307



Fig. 308



8.9 MACHINE CONFIGURATION

The control units of the **VA388** are the same for all versions (2-3 groups, steam nozzle automatic and not, etc.), so when you change a control you must set the parameters that characterize the machine

The control units differ for the **VA388 Volumetric** version and the **VA388 Gravimetric** version.

Through the interface it is possible to configure the type of machine: **DIGIT/T3**, number of units, steam nozzle etc.

- 1 Enter the “Technical Settings” menu.
- 2 Select “Information”.

The screen will show the following information.

- 3 Keep the wash key  **PRESSED** until the screen changes.

Fig. 309



Fig. 310

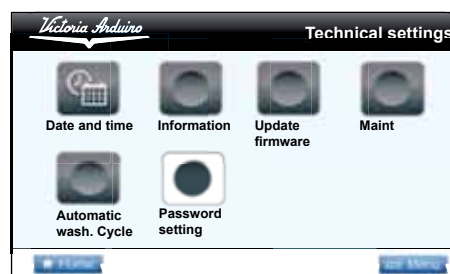


Fig. 311

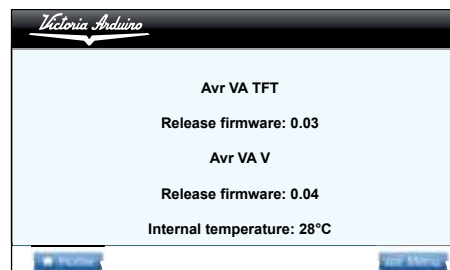
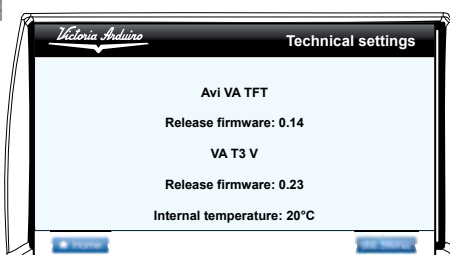


Fig. 312



- 4 Set the various parameters using the scroll wheel to scroll through the various options e.g.: T3/digit, 2/3 units etc.
See Chapter 10 for more details.
- 5 Exit configuration by pressing the "Home" key.

Fig. 313

<i>Victoria Arduino</i>	
Operating mode	T3
Machine groups	3
Cup warmer left	off
Cup warmer right	off
Back Home Menu	

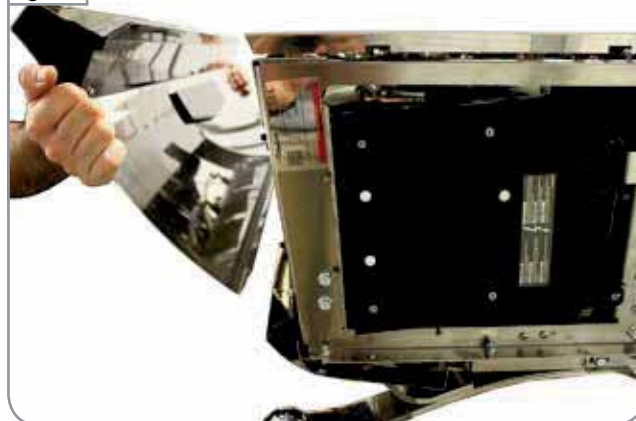
8.10 GRAVIMETRIC CONTROL UNIT

The gravimetric control unit located in the rear of the machine and calculates the weight measured by the load cells.

To access the gravimetric unit:

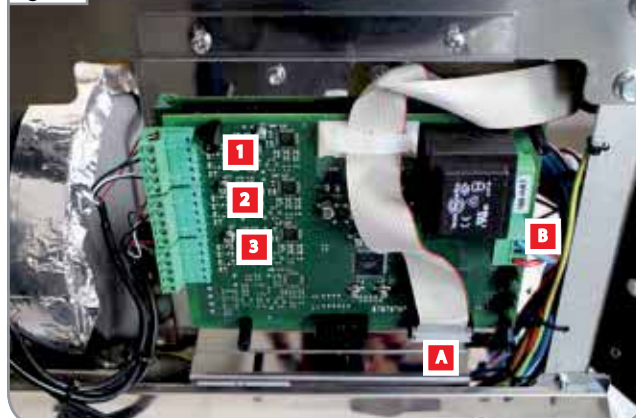
- 1 Remove the side panels and the back panel (see Chapter 3).
The control unit is located on the left side of the machine.

Fig. 314



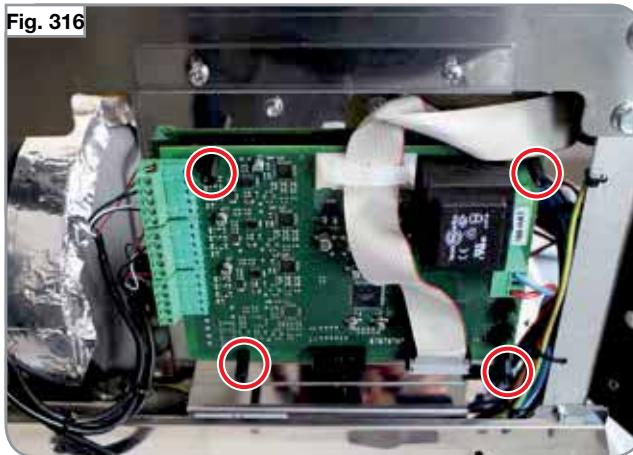
- 2 Disconnect the cables for groups 1, 2 and 3, the FLAT cable "A" and the power supply "B".

Fig. 315



- 3 Unscrew the hex screws to completely remove the gravimetric unit.

Fig. 316



8.11 LOAD CELLS AND SENSORS (version G only)

The load cells allow the calculation of the actual weight of the coffee dispensed from each group and are positioned in the front area of the machine.

To gain access the load cells:

- 1 Remove the front panel and the upper panels.

Fig. 317

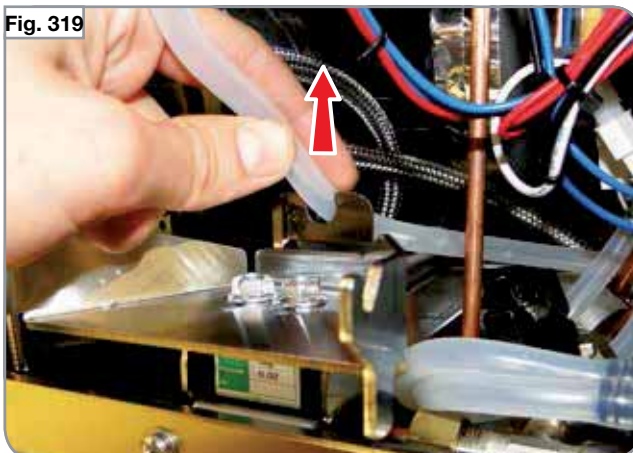


Fig. 318



- 2 Unhook drainage tube from its seat.

Fig. 319



- 3 Disconnect the electrical wiring of the group examined 1,2 and 3 from the control unit.

- 4 With a Phillips screwdriver, unscrew the two front screws "A" and loosen the rear screws "B".
At this point the load cell is free and can be pulled towards the front of the machine.

- 5 To remove the sensor from the load cell, with a No., 10 Belleville key, unscrew the fixing screws "C".

WARNING

The maximum weight supported by each sensor is 3 kg.

Fig. 320

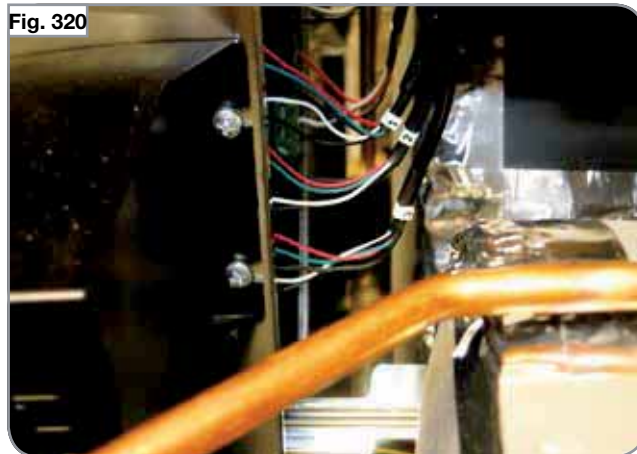


Fig. 321

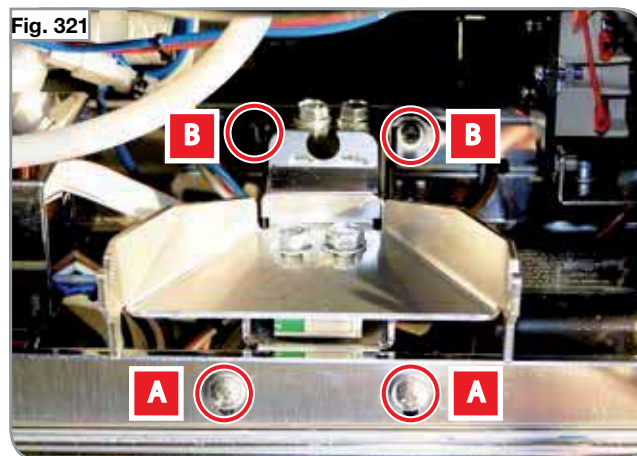
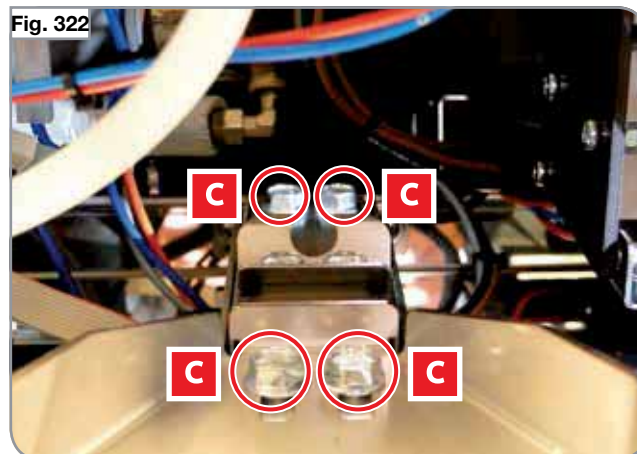


Fig. 322



NOTE

During reassembly it is necessary to adjust the inclination of the sensor via the two front screws "A" and the rear screws "B":

- A:** The front screws must be secured in the rear upper part of the slot.
- B:** The rear screws must be fixed at the bottom part of the slot.

Furthermore, it is necessary to adjust the longitudinal position of the load cell with respect to the front panel.

The correct position of the load cell is obtained by matching the front panel with the beginning of the descent of the hook of the cup holder grid.

NOTE

During reassembly, after attaching the load cell, be sure to insert the drain hose in its seat. This operation is essential for groups 1 and 2, while not affecting the 3 group.

Fig. 323

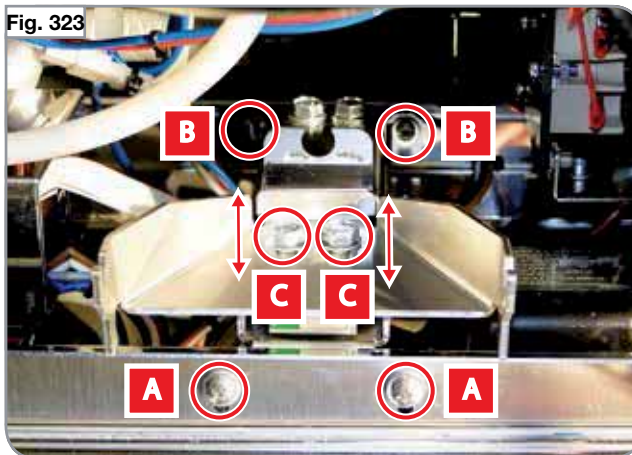


Fig. 324

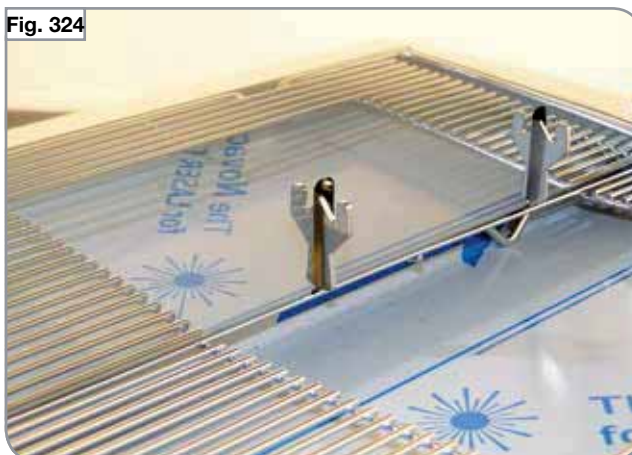
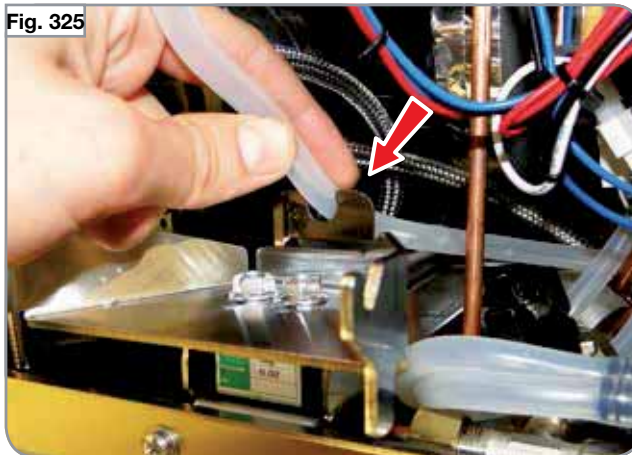
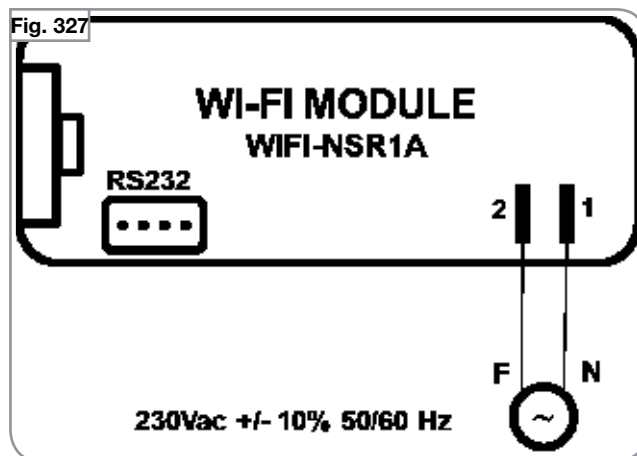


Fig. 325

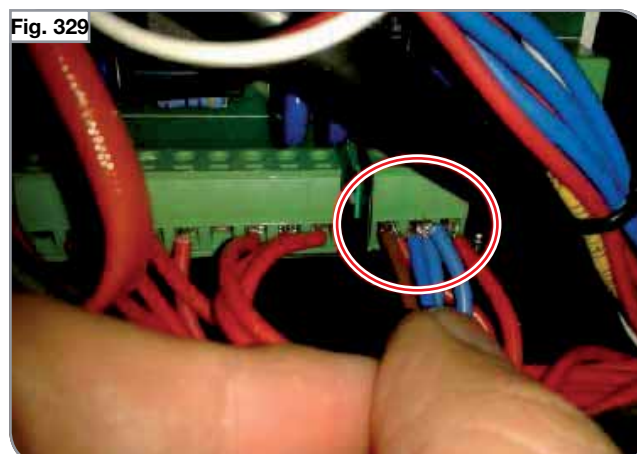
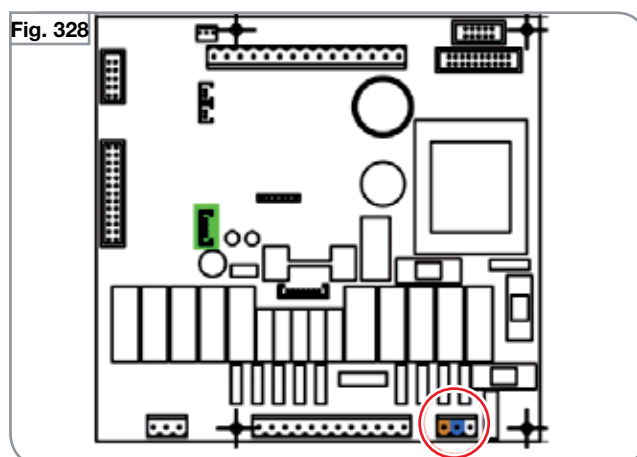


8.12 REMOTE CONTROL

The remote control module is formed by a box with two connections: one for data, and a pair of sockets for the 230V power supply as in the figure.



To configure the module it is necessary to firstly connect the power supply, creating a parallel with the power supply of the machine control unit.



To configure the module you will need a laptop with a Wi-Fi antenna.

As soon as the tiny module is powered by turning on the machine, it will behave like a hot-spot, therefore you can see that between the Wi-Fi networks available there will be one named "NS-XXXXXX" where X represents the MAC address of module.

Connect to this network.

Once the PC is connected to the module hot-spot, open the browser and enter the address <http://192.168.1.1>.

At this point you can access the default logon credentials that are

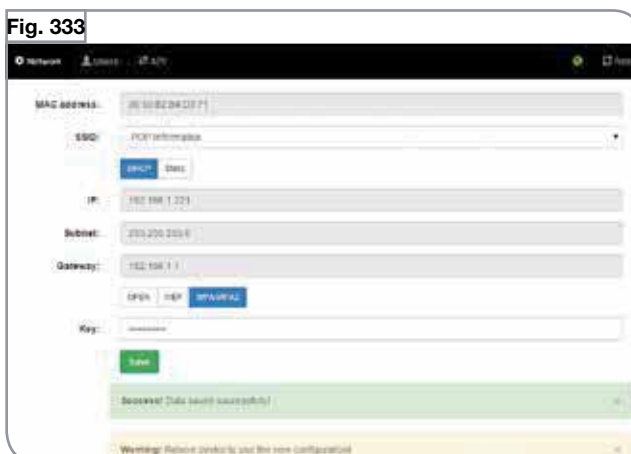
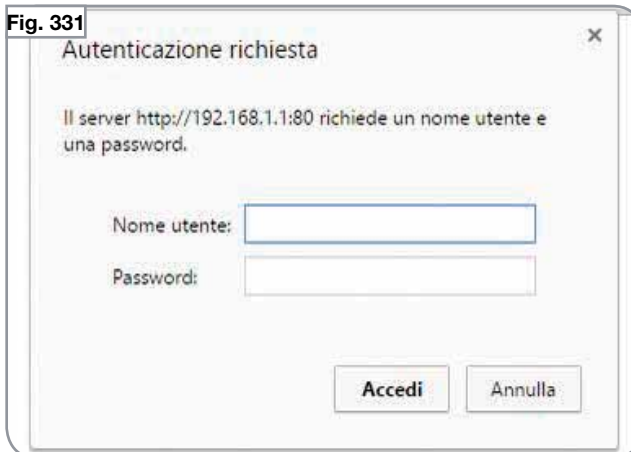
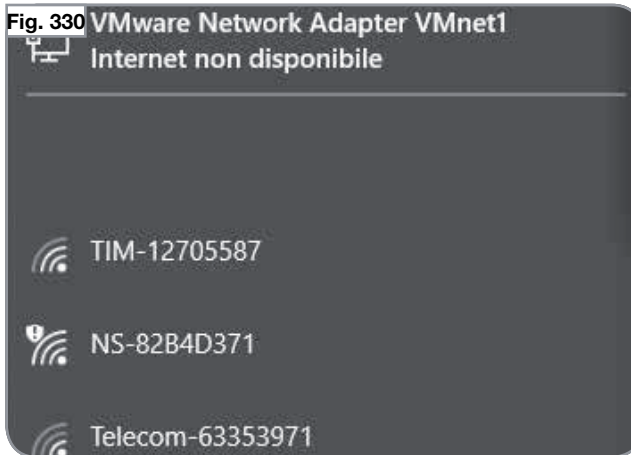
USER: user

PASSWORD: pwd

When accessed, there are three sections to be completed and the small module rebooted. The first is the API section, therefore click in the menu bar of API. Here in the SERIAL field enter the series number of the machine to be connected. The serial number is located on the label of the machine, located on the rear left side of the cup warmer and in the instruction booklet.

After entering the serial number (e.g. 157254) save the data by pressing the **SAVE** button.

Once the user is created and the machine it is connected, select the network to be used to transmit data. In the SSID, select the local network to connect the machine by choosing among those displayed. Also set the network password.



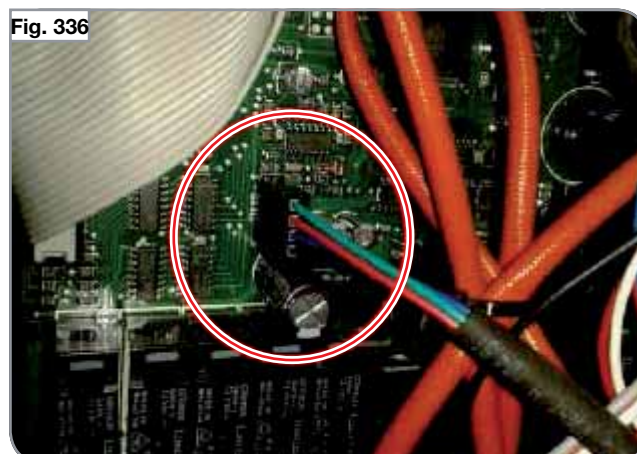
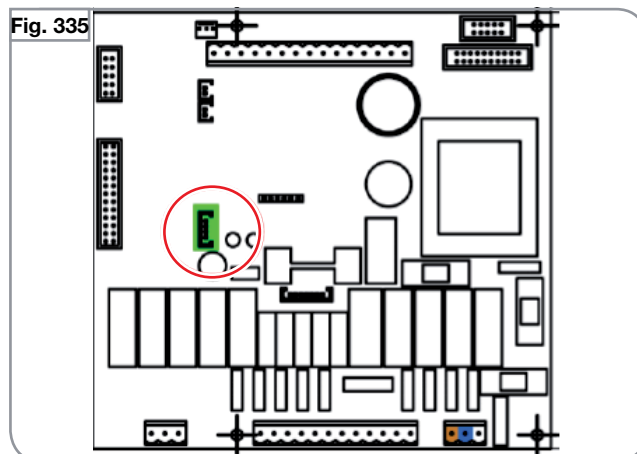
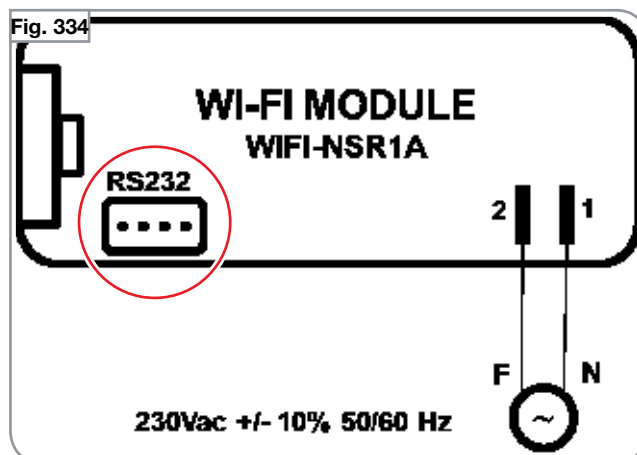
NOTE

Select also the type of key used. If WPA2 is not working, set up your router with a WPA key.

After making the configuration, save all your settings by pressing the **SAVE** button.

Lastly, click the **REBOOT** button on the top right to restart the Wi-Fi module and conclude the connection operation between module and network. From this moment the module is no longer visible as a hotspot, but will automatically connect to the selected network.

When the configuration and reboot operation is concluded, turn off the machine and connect the RS 232 cable as shown in the following pictures.



To conclude, place the module in the machine and reposition the side panels thereby concluding the installation.

9. ALARMS AND CONTROL OF THE EMERGENCIES



INDEX

9. ALARMS AND CONTROL OF THE EMERGENCIES	9.1
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The alarms and the errors signalled by the TFT-series control units are listed below. Please note that some alarm or error messages are significant only from certain releases on.

DISPLAY	CAUSE	SOLUTION
MAINTENANCE ALARM	This alarm signals the need to carry out the machine maintenance.	Menu > Maintenance > change date or cycle number and press the key  to reset the inner counter.
BATTERY ALARM	This alarm signals the need to change the button cell (model CR2032) of the dosage control unit. This button cell is needed to store meter and date / time information.	Replace the button cell (model CR2032).
EEPROM WRITE ALARM	This error signals a failure of the control unit EEPROM. The EEPROM is written when control unit information are saved: meter updating after a dosage/delivery, setting saving, dose and error programming.	• Check whether the error still occurs by performing programming tests. • Replace the card.
RTC READ ALARM	This error signals a reading error of the control unit RTC (real-time clock). The RTC is read during the loading of a meter or the date/hour.	• Check whether the error still occurs by performing programming tests. • Replace the card.
RTC WRITE ERROR	This error signals a writing error of the control unit RTC. The RTC is written during the saving of a meter (after a delivery/dosage) or of the date/hour.	• Check whether the error still occurs by performing programming tests. • Replace the card.
GROUP DOSE ERROR	This error signals that no pulses were received within 3 seconds from the dosage beginning of that unit and it can be due to a failure of the flowmeter or the control unit pulses.	Check the flowmeter and the connections to the control unit.
GROUP POUR ERROR	This error signals that the unit delivery exceeded the limit time of 240 secs. and this can be due to a failure of the flowmeter or the inputs of control unit pulses.	Check the flowmeter and the connections to the control unit.
PRESSURE ERROR	This error signals the pressure detected by the heater pressure switch is above the value of 1.60 Bar.	Check the pressure switch and, if necessary, inspect the heating element or its manual reset.



DISPLAY	CAUSE	SOLUTION
LEVEL ERROR	This error signals that the limit time on the auto-level was reached. This time is 90 secs. when the pump is active with the level ,otherwise it is 180 secs. The problem may be caused by a failure of the level probe.	• Turn the machine off and then turn it on again to check whether the problem still occurs. • When the heater was totally empty, it may be necessary to switch the machine off and on again two times. • Check the level probe, the limestone condition and the connection to the control unit.
BOILER PRESSURE SWITCH ERROR	This error signals a problem on the heater pressure switch.	• Should CC be shown, it means the pressure switch shorted. • Should NC be shown, it means the pressure switch is not connected or is deemed to be an open circuit.
CUP WARMER PROBE 1 ERROR"	This error signals a problem on the cup warmer probe 1.	• Should CC be shown, it means the probe shorted and its replacement is to be considered. • Should NC be shown, it means the probe is not connected or it is deemed to be an open circuit; check the connections.
CUP WARMER PROBE 2 ERROR	This error signals a problem on the cup warmer probe 2.	• Should CC be shown, it means the probe shorted and its replacement is to be considered. • Should NC be shown, it means the probe is not connected or it is deemed to be an open circuit; check the connections.
SERIAL COMS ERROR	This error signals a faulty communication between the control unit and the display.	This may be due to the connection wire between the two cards, connectors on wire or on display or control unit not inserted properly. Therefore, check all involved parts.
CC STEAM PROBE 1 ERROR	This error signals a short-circuit on the steam probe 1. Should the probe be present but it is not detected, the steam operation is in timed mode instead of auto-steam.	Make sure the probe is not faulty and it is connected properly.
CC STEAM PROBE 2 ERROR	This error signals a short-circuit on the steam probe 2. Should the probe be present but it is not detected, the steam operation is in timed mode instead of auto-steam.	Make sure the probe is not faulty and it is connected properly.

DISPLAY	CAUSE	SOLUTION
GROUP PROBE X ERROR	This error signals a problem on the X unit probe.	- Should CC be shown, it means the X unit probe shorted. - Should NC be shown, it means the X unit probe is not connected or the control unit sees it as not connected. - Check connections and verify values detected by the probe using a tester. Replace, if necessary.
BOILER PROBE X ERROR	This error signals a problem on the X heater probe.	- Should CC be shown, it means the X heater probe shorted. - Should NC be shown, it means the X heater probe is not connected or the control unit sees it as not connected. Check connections and verify values detected by the probe using a tester. Replace, if necessary.
WASHING ALARM	It signals the need to wash the units, as the washing alarm threshold was exceeded.	Wash all units. Check settings on Technical settings.
ERROR OF NOT-COMPATIBLE CONTROL UNIT	It signals the machine control unit is not compatible with the display it is connected to. Refer to the document of compatibility of the versions.	Install a compatible control unit or carry out the necessary updates (link on the table).

TABLE OF ERROR AND ALARM MESSAGES

Italiano	English	Francais	Deutsch	Espanol
"Allarme manutenzione"	"Maintenance alarm",	"Alarme entretien",	"Alarm Wartung",	"Alarma mantenimiento",
"Allarme pila"	"Battery alarm",	"Alarme pile",	"Alarm Batterie",	"Alarma pila",
"Errore scrittura EEPROM"	"EEPROM write error",	"Erreur écriture EEPROM",	"Fehler Speichern EEPROM",	"Error escritura EEPROM",
"Errore lettura RTC"	"RTC read error",	"Erreur lecture RTC",	"Fehler Auslesen RTC",	"Error lectura RTC",
"Errore scrittura RTC"	"RTC write error",	"Erreur écriture RTC",	"Fehler Speichern RTC",	"Error escritura RTC",
"Errore dosatura gruppo"	"Group dose error",	"Erreur dosage groupe",	"Fehler Dosierung Brühgr.",	"Error dosificación grupo",
"Errore erogazione gruppo"	"Group pour error",	"Erreur extraction groupe",	"Fehler Ausgabe Brühgr.",	"Error dispensación grupo",
"Errore pressione"	"Pressure error",	"Erreur pression",	"Fehler Druck",	"Error presión",
"Errore livello"	"Level error",	"Erreur niveau",	"Fehler Füllstand",	"Error nivel",
"Errore pressostato caldaia"	"Boiler pressure switch error",	"Erreur pressostat chaudière",	"Fehler Drucksch. Boiler",	"Error presostato caldera",
"Errore sonda scaldatasse 1"	"Cup warmer probe 1 error",	"Erreur sonde chauffe-tasses 1",	"Fehler Sonde Tassenwärmer 1",	"Error sonda caliente-tazas 1",
"Errore sonda scaldatasse 2"	"Cup warmer probe 2 error",	"Erreur sonde chauffe-tasses 2",	"Fehler Sonde Tassenwärmer 2",	"Error sonda caliente-tazas 2",
"Errore comunicazione seriale"	"Serial coms error",	"Erreur communication série",	"Fehl.Kommun.serielle Schnittst",	"Error comunicación serial",
"Errore sonda vapore 1 CC"	"CC steam probe 1 error",	"Erreur sonde vapeur 1 CC",	"Fehler Dampfsonde 1 CC",	"Error sonda vapor 1 CC",
"Errore sonda vapore 2 CC"	"CC steam probe 2 error",	"Erreur sonde vapeur 2 CC",	"Fehler Dampfsonde 2 CC",	"Error sonda vapor 2 CC",
"Errore sonda gruppo 1"	"Group probe 1 error",	"Erreur sonde groupe 1",	"Fehler Sonde Brühgr. 1",	"Error sonda grupo 1",
"Errore sonda gruppo 2"	"Group probe 2 error",	"Erreur sonde groupe 2",	"Fehler Sonde Brühgr. 2",	"Error sonda grupo 2",
"Errore sonda gruppo 3"	"Group probe 3 error",	"Erreur sonde groupe 3",	"Fehler Sonde Brühgr. 3",	"Error sonda grupo 3",
"Errore sonda gruppo 4"	"Group probe 4 error",	"Erreur sonde groupe 4",	"Fehler Sonde Brühgr. 4",	"Error sonda grupo 4",
"Errore sonda caldaia 1"	"Boiler probe 1 error",	"Erreur sonde chaudière 1",	"Fehler Sonde Boiler 1",	"Error sonda caldera 1",
"Errore sonda caldaia 2"	"Boiler probe 2 error",	"Erreur sonde chaudière 2",	"Fehler Sonde Boiler 2",	"Error sonda caldera 2",
"Errore sonda caldaia 3"	"Boiler probe 3 error",	"Erreur sonde chaudière 3",	"Fehler Sonde Boiler 3",	"Error sonda caldera 3",
"Errore sonda caldaia 4"	"Boiler probe 4 error",	"Erreur sonde chaudière 4",	"Fehler Sonde Boiler 4",	"Error sonda caldera 4",

10. SPECIAL FUNCTIONS



INDEX

10. SPECIAL FUNCTIONS	10.1
10.1 GROUP OFFSET ADJUSTMENT . . .	10.2
10.2 HEATER OFFSET ADJUSTMENT . . .	10.2
10.3 CUP WARMER ADJUSTMENT	10.3
10.4 MAINTENANCE ALARM	10.3
10.5 ALARM HISTORY RESET	10.4
10.6 PASSWORD SETTING	10.4
10.7 CONTROL UNIT CONFIGURATION .	10.6
10.8 DESCRIPTION OF THE SETTABLE FUNCTIONS	10.8

The programming mode contains some hidden functions that are reserved to skilled technicians certified by Victoria Arduino.

The special functions can be accessed by keeping the wash button pressed until the screen changes.

10.1 GROUP OFFSET ADJUSTMENT

The temperature probes can be slightly different compared to an outside thermometer.

NOTE

We recommend using a space device and a fluke for these measurements.

Perform tests according to the standard procedure of the Scace device use.

In case of strong irregularities, compensate by accessing the unit offset page.

To access the unit probe calibration page, go to Unit Setpoint page (Main menu -> Setpoint -> Unit Setpoint).

Hold the key  until the new screen appears. Using the rotary switch, set an offset value for each unit.

NOTE

Before measuring using the Scace device, allow the instrument to heat up for 10-15 minutes so as to make the value reading more stable.

10.2 HEATER OFFSET ADJUSTMENT

From the coffee boiler adjusting screen, keeping wash key, the heater temperature offset adjustment is accessed.

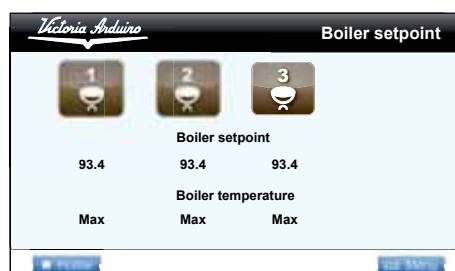
Fig. 337



Fig. 338



Fig. 339



Use the rotary switch to select the heater for off-set adjustment and press it to proceed.

NOTE

Usually, the coffee boiler offset must not be adjusted.

10.3 CUP WARMER ADJUSTMENT

The machine is equipped with a cup warmer with a temperature probe. The machine can work in timed mode or thermo-controlled mode.

To pass from a mode to the other, stay in the programming mode of the cup warmer and keep the key  pressed for at least 5. Select the required option using the rotary switch:

- Single controlled (the temperature can be set).
- Single timed.
- Double timed (when it is required to install another cup warmer).

10.4 MAINTENANCE ALARM

This page permits to modify the delivery number or the date above which the maintenance alarm is activated.

The modification of these fields is made in the same way as the one used in the menu.

To make the new settings effective, it is also necessary to reset the inner counter of cycle for zeroing the cycle number.

Fig. 340



Fig. 341



Fig. 342

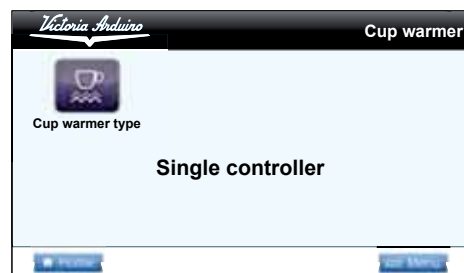
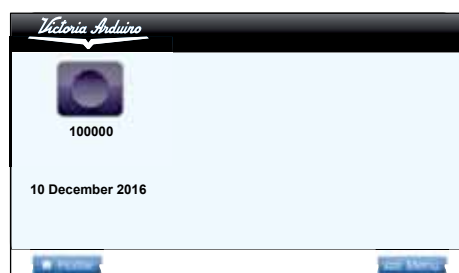


Fig. 343



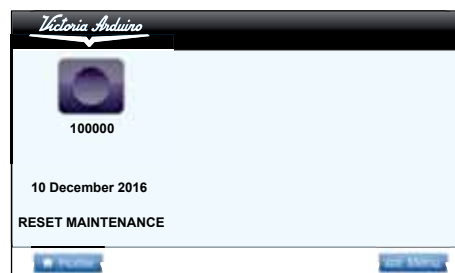
This happens by pressing and holding the button



for a few seconds.

Once having carried out the modifications or having cancelled the maintenance counter, switch the machine off and then on again.

Fig. 344



10.5 ALARM HISTORY RESET

Access the ALARMS menu and select ALARM HISTORY.

Fig. 345

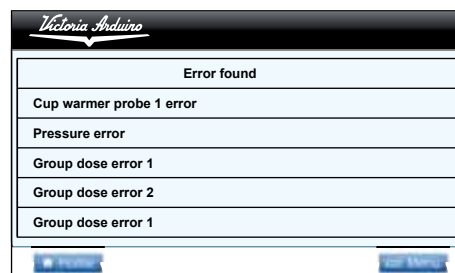


Keep the key  pressed to cancel all saved errors.

NOTE

Is important to reset the error log to avoid paying attention to problems already solved.

Fig. 346



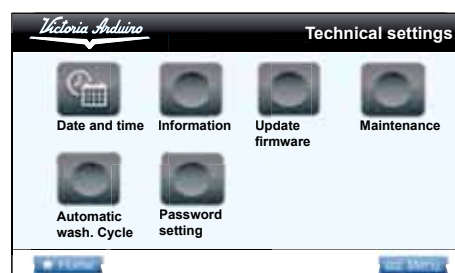
10.6 PASSWORD SETTING

This page is used to enter the login password, when it is required and enabled.

The password may consist of 4 numbers from 0 to 9 in any combination.

The password length may be included between 0 (password disabled or invalid, characterized by horizontal lines) and 4 digits; therefore, even a password of 2 digits is valid.

Fig. 347



Once having entered and confirmed the password, an information page will show the result of the comparison between the entered password and the one previously set.

To enter the pages inside the various menus, when the password is unknown, the passpartout password may be used. The value of this password is 1 9 0 5 and it is asked when accessing any page.

CHANGE OF PASSWORD

This page, which is contained in the technical settings menu, permits to change the password. It is necessary to first confirm the password set (for safety reasons), if the password management is enabled.

Once having entered and confirmed the password, an information page will show the result of the comparison between the entered password and the one previously set. Subsequently, the new password to be set will be requested.

PASSWORD UNLOCK PAGE

In case the user forgets the password set, an unlock code can be used to enter in the hidden page of password unlock.

To access the password unlock page, access the password request page and press the key  for approx. 10 secs.

A message indicating the entering of the unlock code will be shown. The unlock code to be inserted is the following: **1 9 3 6**.

An information page will shown the procedure result. If the entered code is correct, the access to the menu pages by means of the password will be disabled and the previously entered password will be cancelled.

Fig. 348

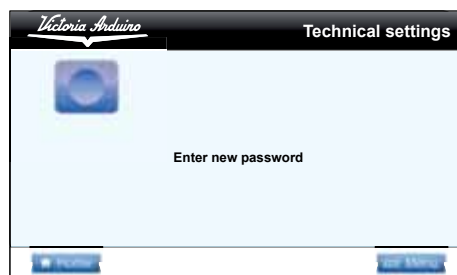


Fig. 349

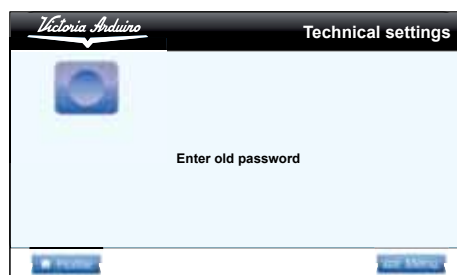


Fig. 350

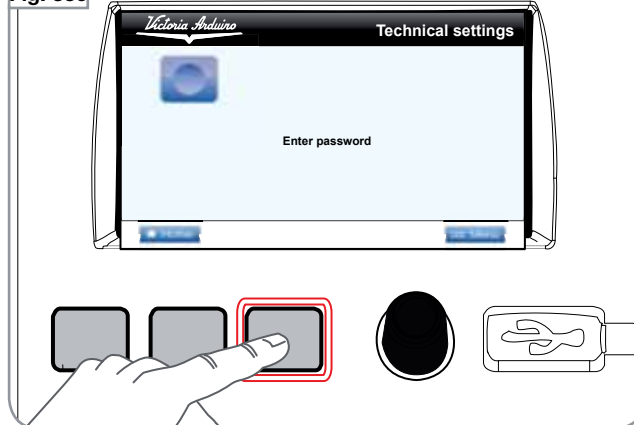
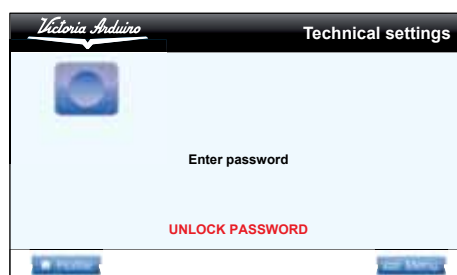


Fig. 351



In case the user intends to remove the password, it is also possible to proceed as follows:

- access the password modification page;
- enter the confirmation password;
- when requested, insert the empty password (4 lines) as new password.

10.7 CONTROL UNIT CONFIGURATION

The control units of the **VA388** are the same for the **DIGIT/T3** version, 2-3 units, etc., so when you change one of them you must set the parameters that characterize the machine.

- 1 Enter the “Technical Settings” menu.
- 2 Select “Information”.
- 3 The screen will show the following information.

Fig. 352

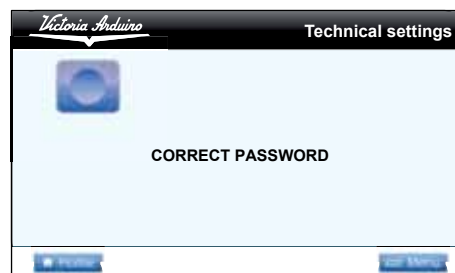


Fig. 353



Fig. 354

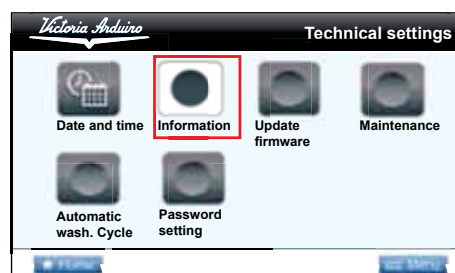
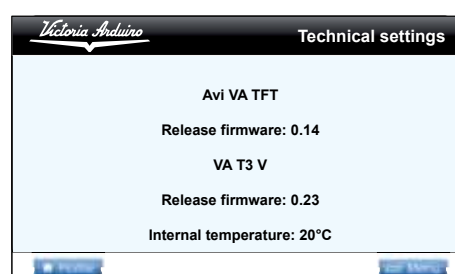


Fig. 355



4 Keep the key  pressed until the screen changes.

5 Set the various parameters using the scroll wheel to move through the various options:

- Operating mode
- Machine units
- Left autosteam
- Right autosteam
- Auto-level with pump
- Hot water with pump
- Level sensitivity
- Delivery level
- Calib. of steam probe 1
- Calib. of steam probe 2
- Pressure calib.
- Clock calib
- Serial connection
- Pre-infusion (Gravimetric version only)
- Delayed tare (Gravimetric version only)

NOTE

In the latest versions of the Gravimetric VA388 the options for pre-infusion and delayed tare are found in the "Technical settings" menu.

6 Exit configuration by pressing the "Home" button.

Fig. 356

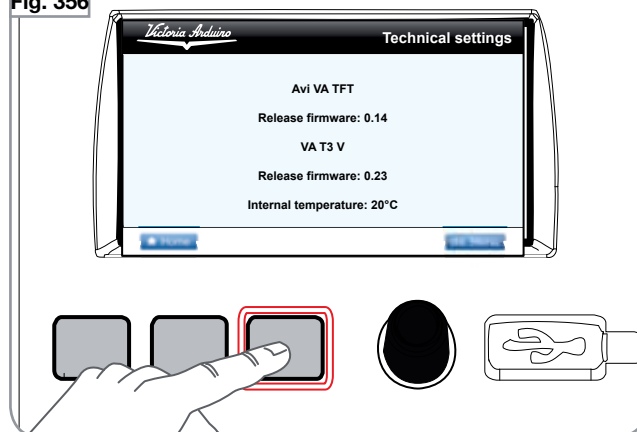


Fig. 357

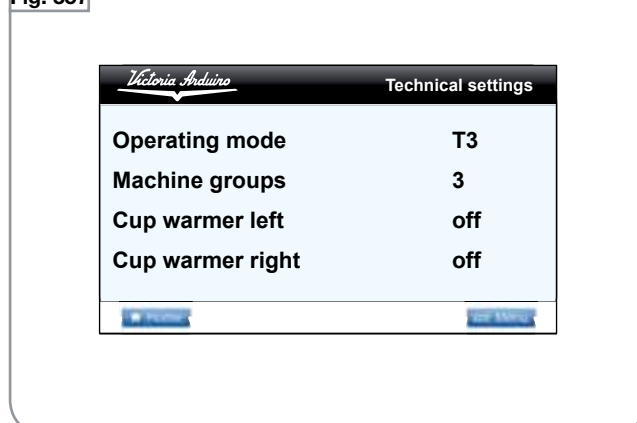


Fig. 358

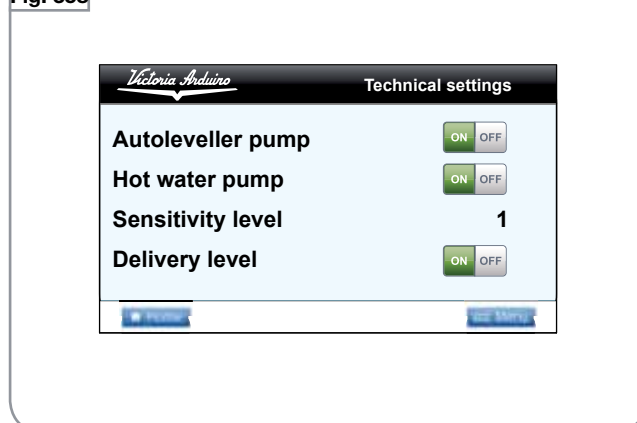
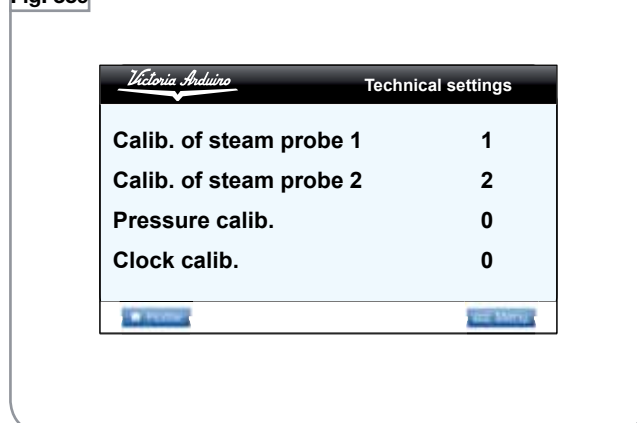


Fig. 359



10.8 DESCRIPTION OF THE SETTABLE FUNCTIONS

- **OPERATING MODE**

It permits to modify the central unit operation by adapting it to the mode with or without T3 technology.

- **MACHINE UNITS**

It permits to select the delivery unit number that are actually present on the machine.

- **LEFT AUTOSTEAM**

It permits to enable/disable the left autosteam/Easycream.

- **RIGHT AUTOSTEAM**

It permits to enable/disable the right autosteam/Easycream.

- **AUTO-LEVEL WITH PUMP**

It permits to enable/disable the pump during the auto-level.

- **HOT WATER WITH PUMP**

It permits to enable/disable the pump during hot water delivery.

- **LEVEL SENSITIVITY**

It permits to set 3 different sensitivity levels for auto-level.

1 330 kOhm - normal water.

2 470 kOhm - water with a low presence of minerals.

3 600 kOhm - water with a very low level of minerals.

When the machine should be filled but it is not, the probe may not detect the presence of water. This option is considered only in extreme cases.

- **DELIVERY LEVEL**

It permits to enable/disable the autosteam even during a delivery.

- **CALIB. OF STEAM PROBE 1**

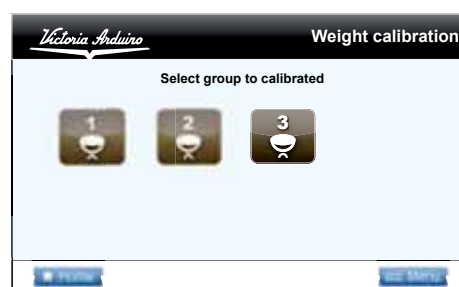
It permits to calibrate the steam probe 1. The values shown are expressed in °C or °F according to the unit of measure set for the machine. In case of °C, the increase/decrease is of one unit at a time, while in case of °F the increase/decrease may also be of 2 units at a time.

Fig. 360



- **CALIB. OF STEAM PROBE 2**
It permits to calibrate the steam probe 2. The values shown are expressed in °C or °F according to the unit of measure set for the machine. In case of °C, the increase/decrease is of one unit at a time, while in case of °F the increase/decrease may also be of 2 units at a time.
- **PRESSURE CALIB.**
It permits to calibrate the steam probe of the steam heater. The values shown are expressed in dozens of millibars.
- **CLOCK CALIB.**
It permits to set the machine inner clock as it may loose the synchronism with a reference clock on the long term (e.g. a month).
- **DELAYED TARE (GRAVIMETRIC VERSION ONLY)**
Allow a time interval to be set within which the machine carries out the tare weight with a maximum of 5 seconds. In the versions starting from 2016 the parameter has been moved to the "Technical settings" section.
- **PREINFUSION**
It permits to enable/disable the automatic preinfusion during delivery. If ON the machine injects water into the circuit, it stops for few seconds to allow water to wet the coffee capsule and then proceed with delivery again. It is possible to set the ON time and the OFF time for the valve opening.
- **SERIAL CONNECTION**
It permits to enable/disable the serial connection to connect the machine to other digital equipment, as electronic devices, pc, etc..

Fig. 361



11. MAINTENANCE CHECKING



INDEX

11. MAINTENANCE CHECKING	11.1
11.1 DAILY MAINTENANCE	
BY THE BARISTA	11.2
11.2 WEEKLY MAINTENANCE	
BY THE BARISTA	11.2
11.3 MAINTENANCE EVERY 4-6 MONTHS	11.2
11.4 YEARLY MAINTENANCE	11.3
11.5 YEARLY MAINTENANCE KIT	11.4

11.1 DAILY MAINTENANCE BY THE BARISTA

T3 / DIGIT VERSION

Required time 15 minutes.

- ☐ Machine washing;
- ☐ Unit washing with blind filter.

11.2 WEEKLY MAINTENANCE BY THE BARISTA

T3 / DIGIT VERSION

Required time 30 minutes.

- ☐ Machine cleaning;
- ☐ Unit cleaning with blind filter and Pulycaff;
- ☐ Cleaning of the discharge pan underneath the working table to prevent coffee deposits;
- ☐ Cleaning of the coffee bean container of the grinder with a damp cloth;
- ☐ Insert the filter holder and the filters in a solution of Pulycaff and hot water for at least 15 minutes.

11.3 MAINTENANCE EVERY 4-6 MONTHS

Required time 60 minutes.

The required time is approx.ly 1-1.5 continuous hours. The skilled technician should take all the necessary precautions relating to safety measures to insulate the machine from the mains and avoid steam pressure whilst working and the water pressure at zero to prevent flooding.

Inform the manager responsible about timing and the need to operate on the electric and water systems of the premises before proceeding to avoid interruptions and complete all procedures easily without further requests.

Before proceeding, remove all perimeter coverings and make sure there are no damages or leakages.

- | | |
|---|---|
| <ul style="list-style-type: none"> ☐ Check the machine for any sign of leakage ☐ Make sure wires are not damaged ☐ Check pump noise ☐ Check the discharge tank for blocks ☐ Check hot water nozzle for leakages ☐ Check anti-vacuum valve ☐ Check automatic filling function ☐ Check shown steam pressure (____Bar); ☐ Check water pressure (____Bar); ☐ Check pump pressure (____Bar); ☐ Check water hardness (____°F); ☐ Check dosage and quality of all products on each unit ☐ Check the water level in the heater ☐ Check valves for any sign of leakage | <ul style="list-style-type: none"> ☐ Make sure the screen is not damaged or faulty ☐ DIGIT VERSION: Check steam heater for leakages. ☐ T3 VERSION: Check steam and coffee boilers for leakages. ☐ Check and note the number of cycles made by the units G1____ G2____ G3____; ☐ Check total counter (Total____); ☐ Replace underpan seals (02280033); ☐ Replace coffee-holders (03000066); ☐ Replace steam nozzle seals (02280014); |
|---|---|

NOTE

The water hardness must be below 6° fr (French degree).

The chlorine content must not exceed 100 mg.



11.4 YEARLY MAINTENANCE

Required time 120-150 minutes

The required time is approx.ly 2-2.5 continuous hours. The skilled technician should take all the necessary precautions relating to safety measures to insulate the machine from the mains and avoid steam pressure whilst working and the water pressure at zero to prevent flooding. Inform the manager responsible about timing and the need to operate on the electric and water systems of the premises before proceeding to avoid interruptions and complete all procedures easily without further requests. Before proceeding, remove all perimeter coverings and make sure there are no damages or leakages.

- | | |
|---|---|
| ☐ Check the machine for any sign of leakage | ☐ Check total counter (Total____); |
| ☐ Make sure wires are not damaged | ☐ Replace underpan seals (02280033); |
| ☐ Check pump noise | ☐ Replace coffee-holders (03000066); |
| ☐ Check the discharge tank for blocks | ☐ Insert or replace, if necessary, shims under the gasket (02060014); |
| ☐ Check hot water nozzle for leakages | ☐ Replace anti-vacuum valve (01000023); |
| ☐ Check anti-vacuum valve | ☐ Replace steam nozzle seals (02280014); |
| ☐ Check automatic filling function | ☐ Replace preinfusion chamber seals (02280012); |
| ☐ Check shown steam pressure (____Bar); | ☐ Replace steam nozzle seals (02280036); |
| ☐ Check water pressure (____Bar); | ☐ Replace steam nozzle guards (05000001); |
| ☐ Check pump pressure (____Bar); | ☐ Replace steam closing piston (98008004); |
| ☐ Check water hardness (____°F); | ☐ T3 VERSION: Replace 2-coffee filter (03000073); |
| ☐ Check dosage and quality of all products on each unit | ☐ T3 VERSION: Replace 1-coffee filter (03000072); |
| ☐ Check water level in the heater | ☐ Replace steam nozzle gasket (02280037); |
| ☐ Check valves for any sign of leakage | ☐ Replace nozzle support gasket (02280011); |
| ☐ Make sure the screen is not damaged or faulty | ☐ T3 VERSION: Replace coffee boiler expansion valves (98120005); |
| ☐ Check steam and coffee boilers for leakages | ☐ T3 VERSION: Replace Teflon injector inside the coffee boiler (98030501); |
| ☐ DIGIT VERSION: Check steam heater for leakages. | ☐ T3 VERSION: Replace check valves (98110001). |
| ☐ T3 VERSION: Check steam and coffee boilers for leakages. | |
| ☐ Check and note the number of cycles made by the units G1 ____ G2 ____ G3 ____; | |

NOTE

The water hardness must be below 6° fr (French degree).

The chlorine content must not exceed 100 mg.

11.5 YEARLY MAINTENANCE KIT



YEARLY MAINTENANCE KIT

VA388 DIGIT

2 groups - Code: 98260000000092

3 groups - Code: 98260000000093

VA388 T3

2 groups - Code: 98260000000095

3 groups - Code: 98260000000096

SPARE PARTS AVAILABLE IN THE KITS

Bag 4 and 8 months

2X

VA388 2 gr

2x40200004

2x03000066

4x02280014

VA388 3 gr

3x40200004

3x03000066

4x02280014

Bag 12 months

1X

VA388 2 gr

2x40200004

2x03000066

1x01000023

2x02280012

4x02280014

2x02280036

2x05000001

2x98008004

2x02280037

2x02280011

1x03000073 (T3)

1x03000072 (T3)

3x98120005 (T3)

3x98030501 (T3)

3x98110001 (T3)

VA388 3 gr

3x40200004

3x03000066

1x01000023

2x02280012

4x02280014

2x05000001

2x02280036

2x98008004

2x02280037

2x02280011

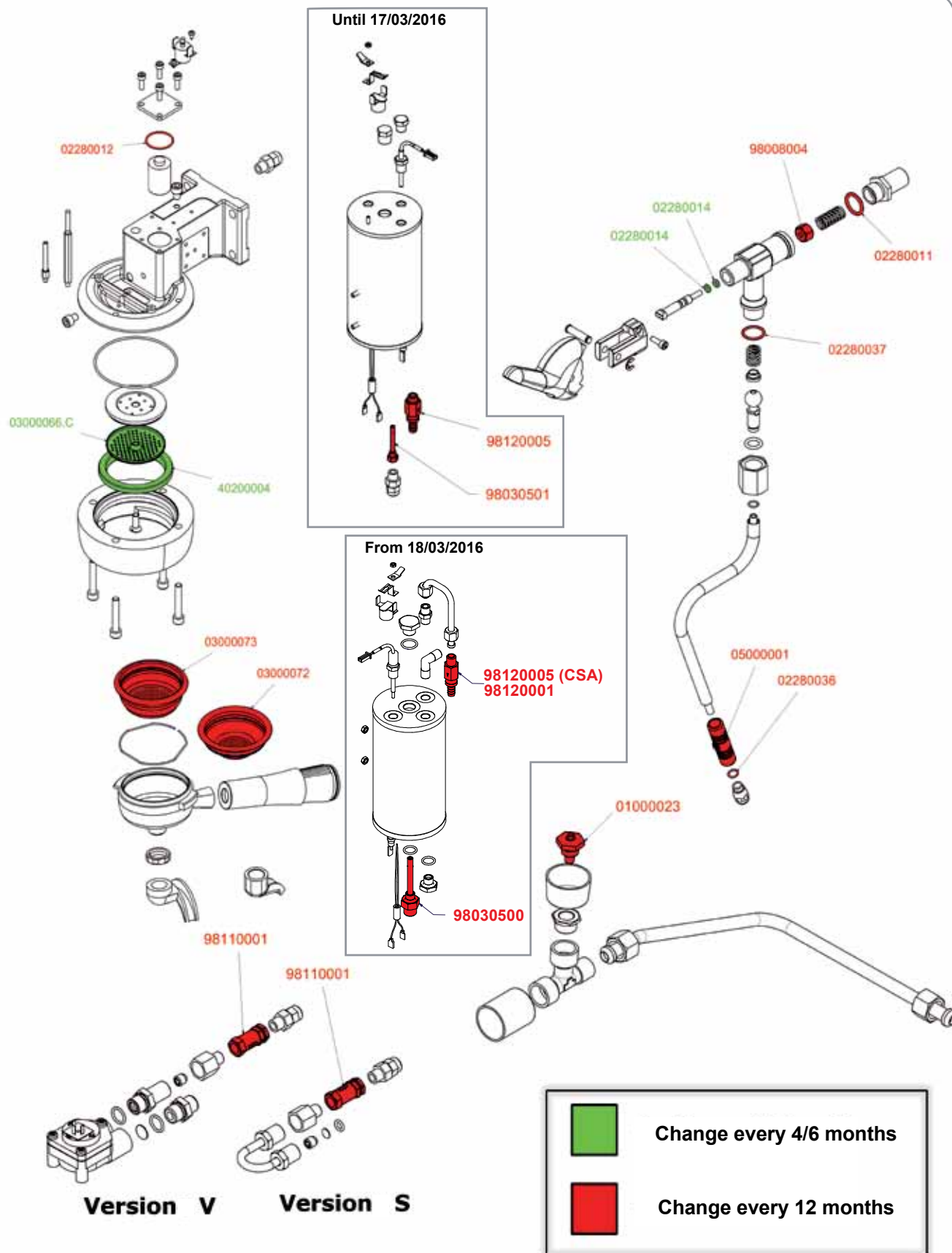
1x03000073 (T3)

1x03000072 (T3)

3x98120005 (T3)

3x98030501 (T3)

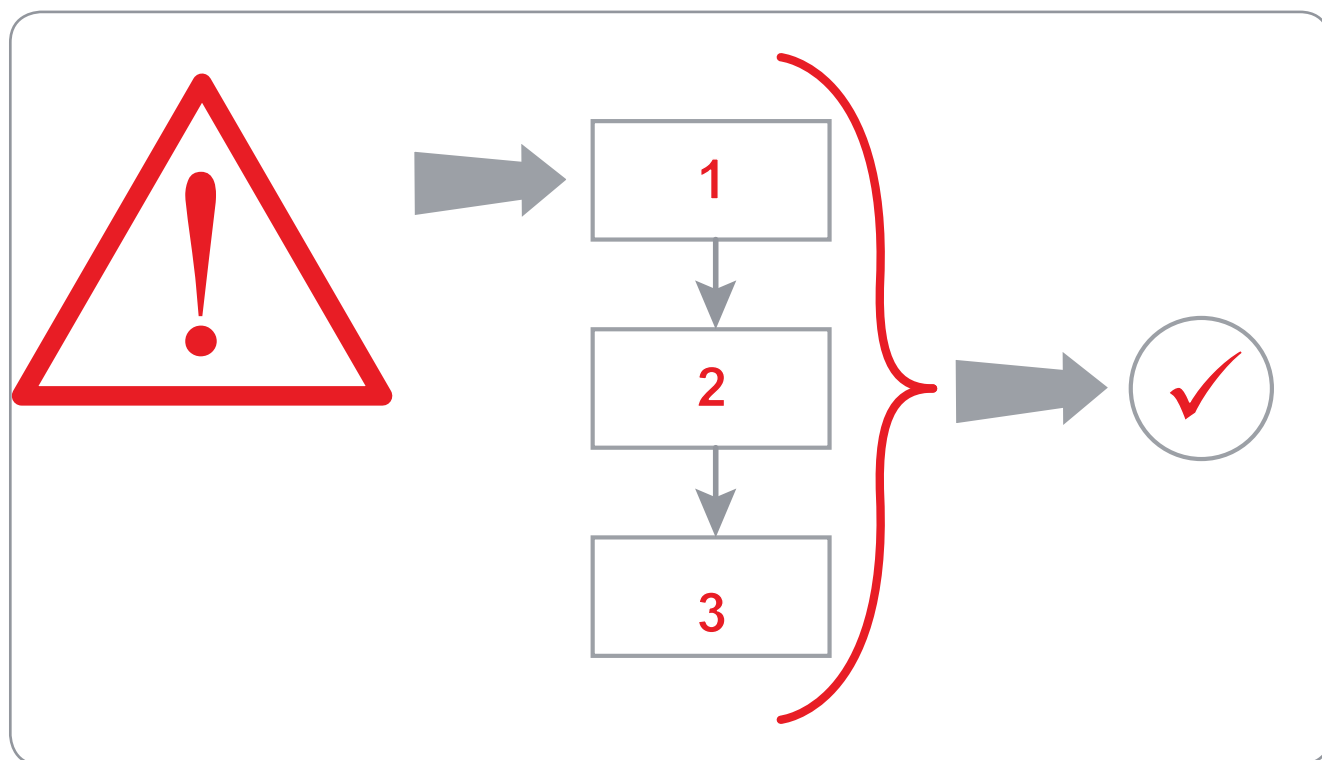
3x98110001 (T3)



Victoria Arduino

dal 1905

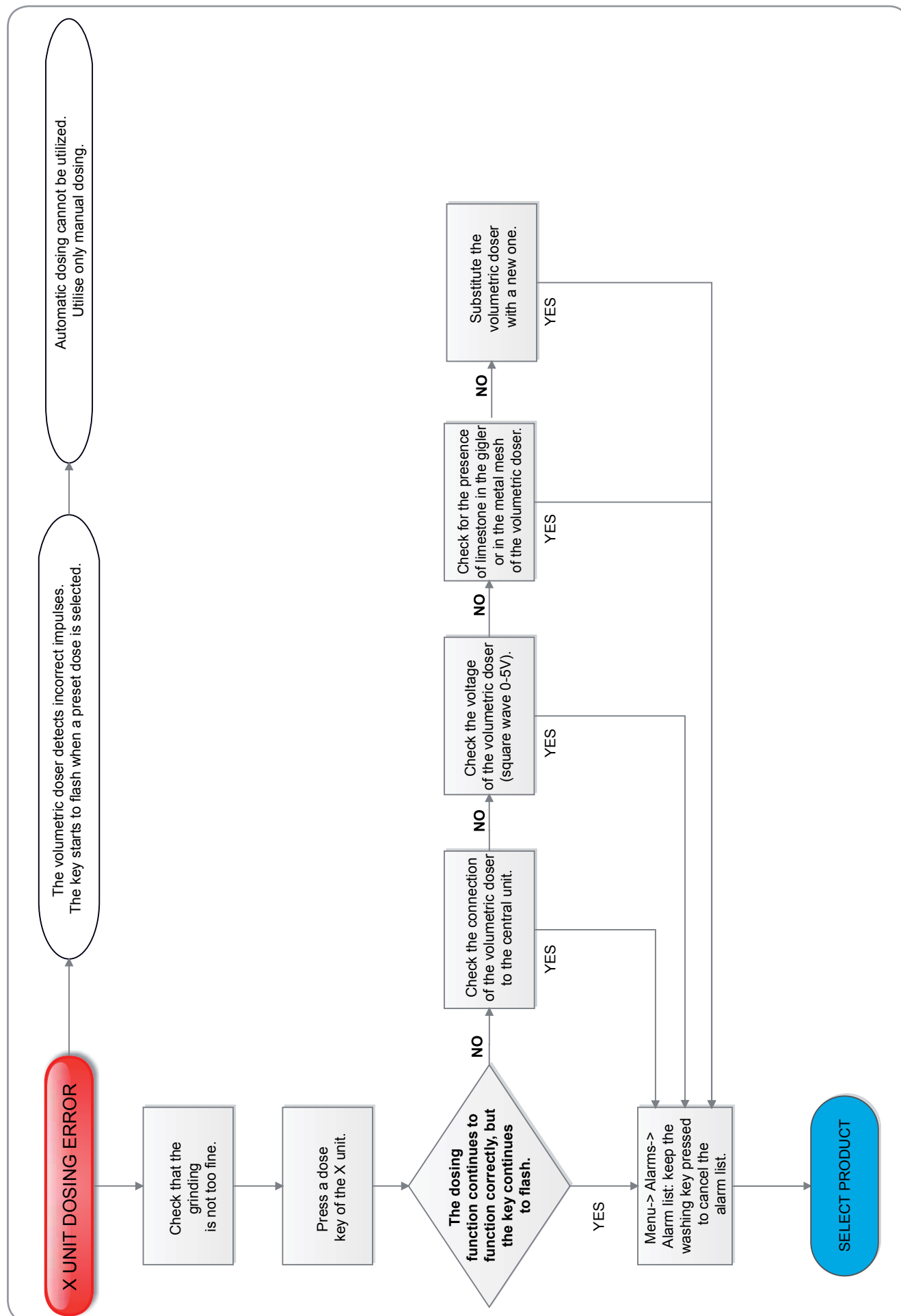
12. TROUBLESHOOTING



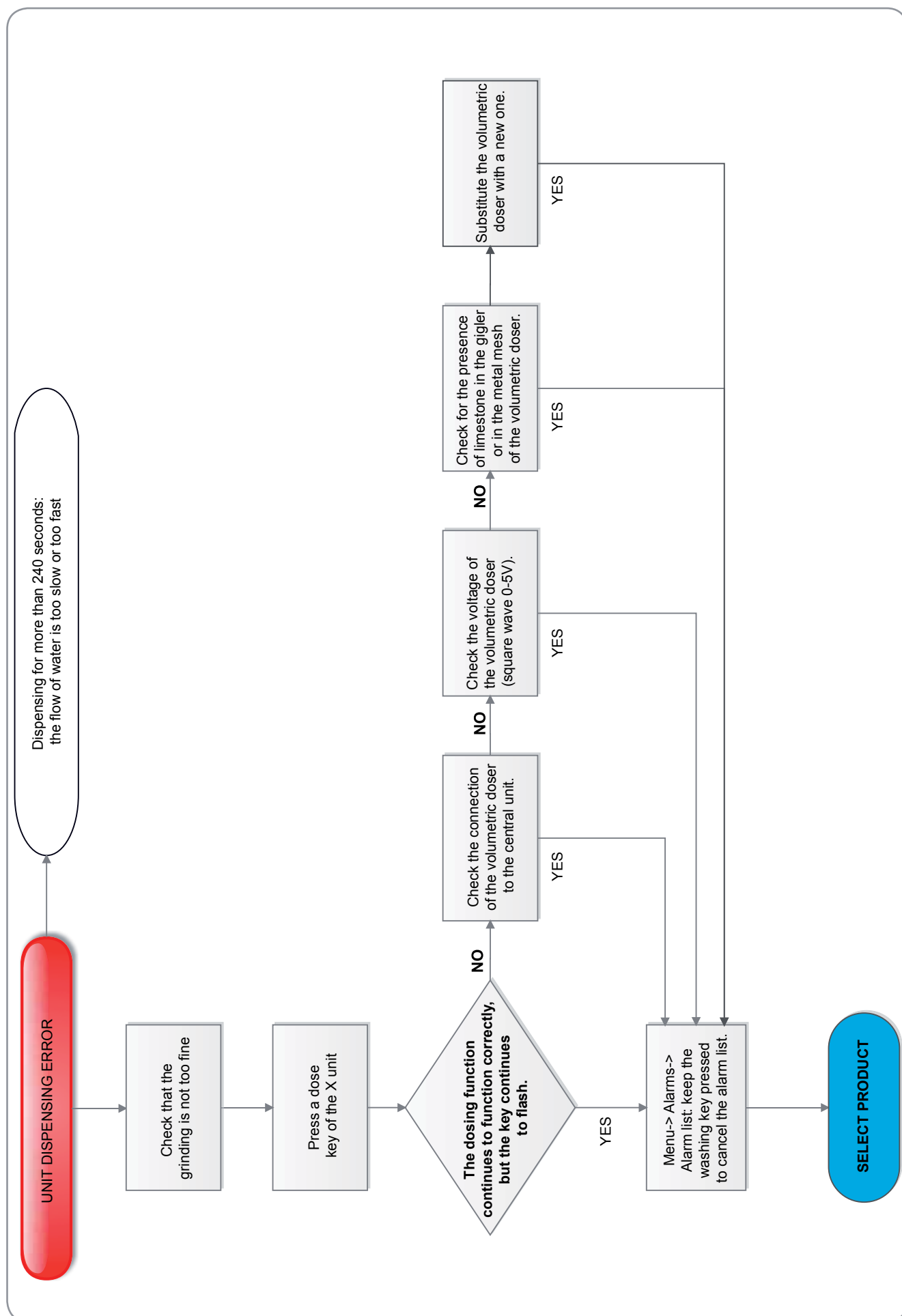
INDEX

12. TROUBLESHOOTING.....	12.1
12.1 UNIT DOSING ERROR	12.2
12.2 UNIT DISPENSING ERROR	12.3
12.3 LEVEL ERROR.....	12.4
12.4 PRESSURE ERROR.....	12.5
12.5 BOILER PRESSURE METER ERROR	12.6
12.6 CUP WARMER SENSOR ERROR. .	12.7
12.7 SERIAL COMMUNICATION ERROR	12.8
12.8 X UNIT SENSOR ERROR	12.9
12.9 BOILER STEAM COLD	12.10
12.10 ERROR HEATING UNIT X.....	12.11
12.11 BOILER ERROR.....	12.12

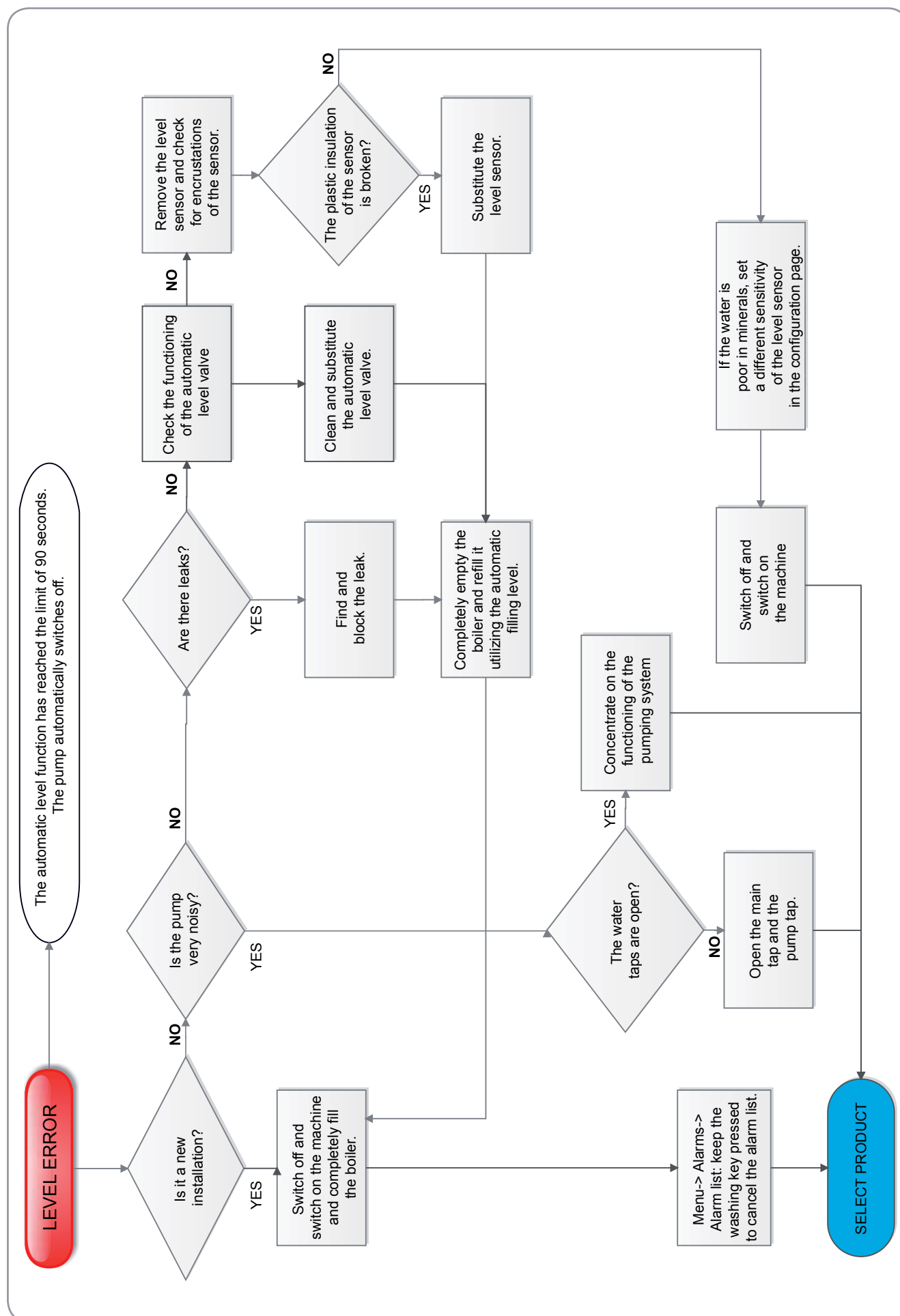
12.1 UNIT DOSING ERROR



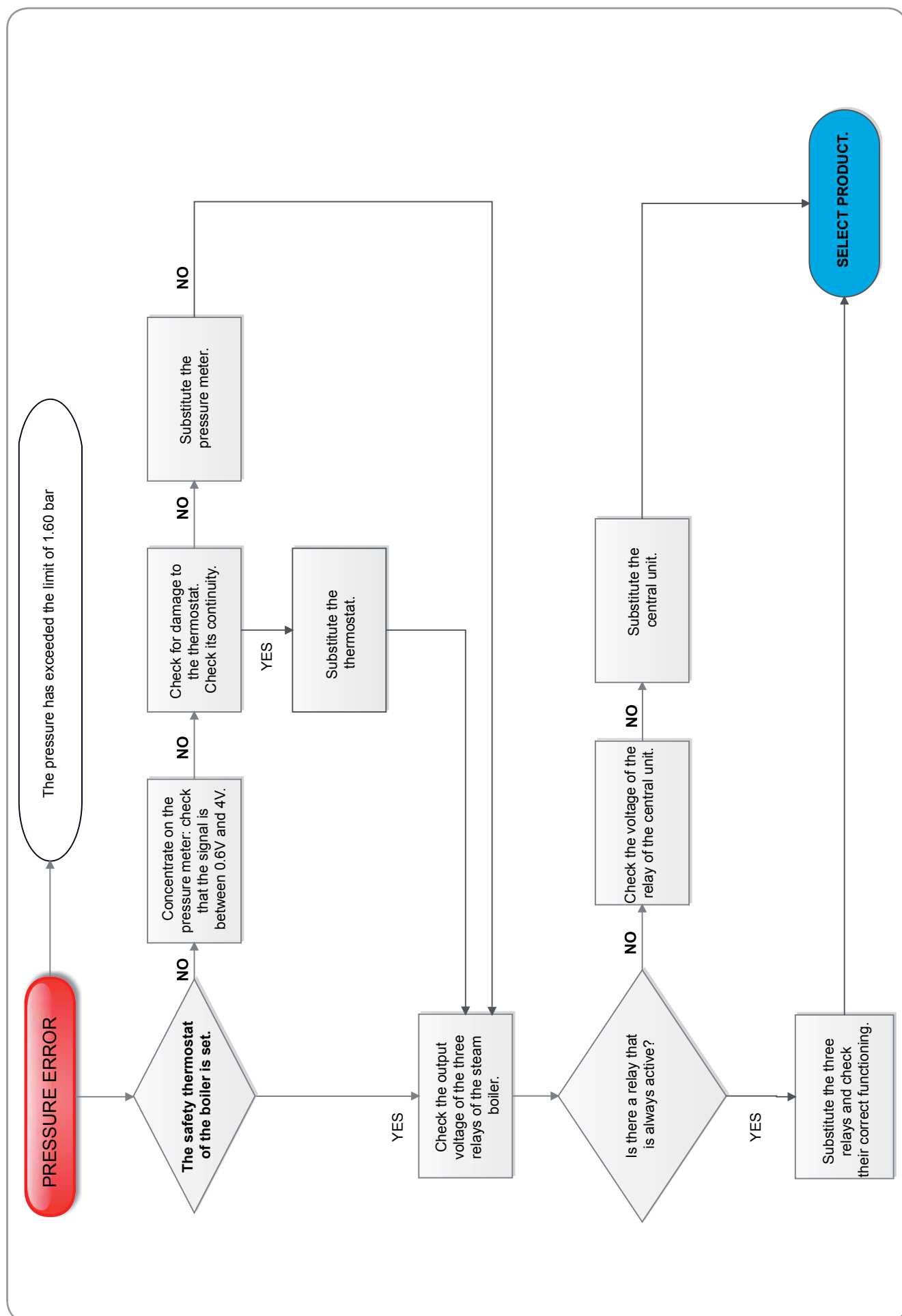
12.2 UNIT DISPENSING ERROR



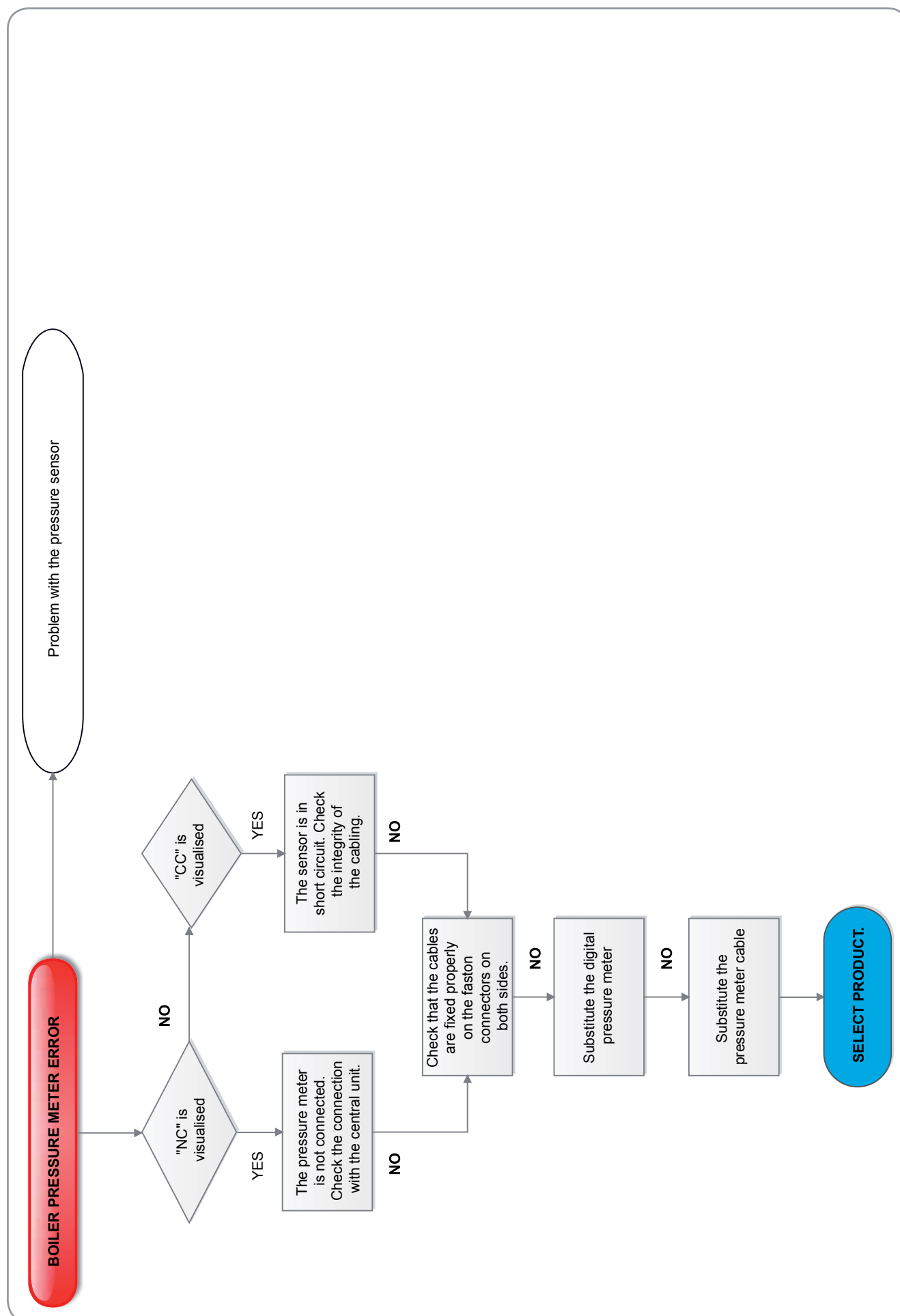
12.3 LEVEL ERROR



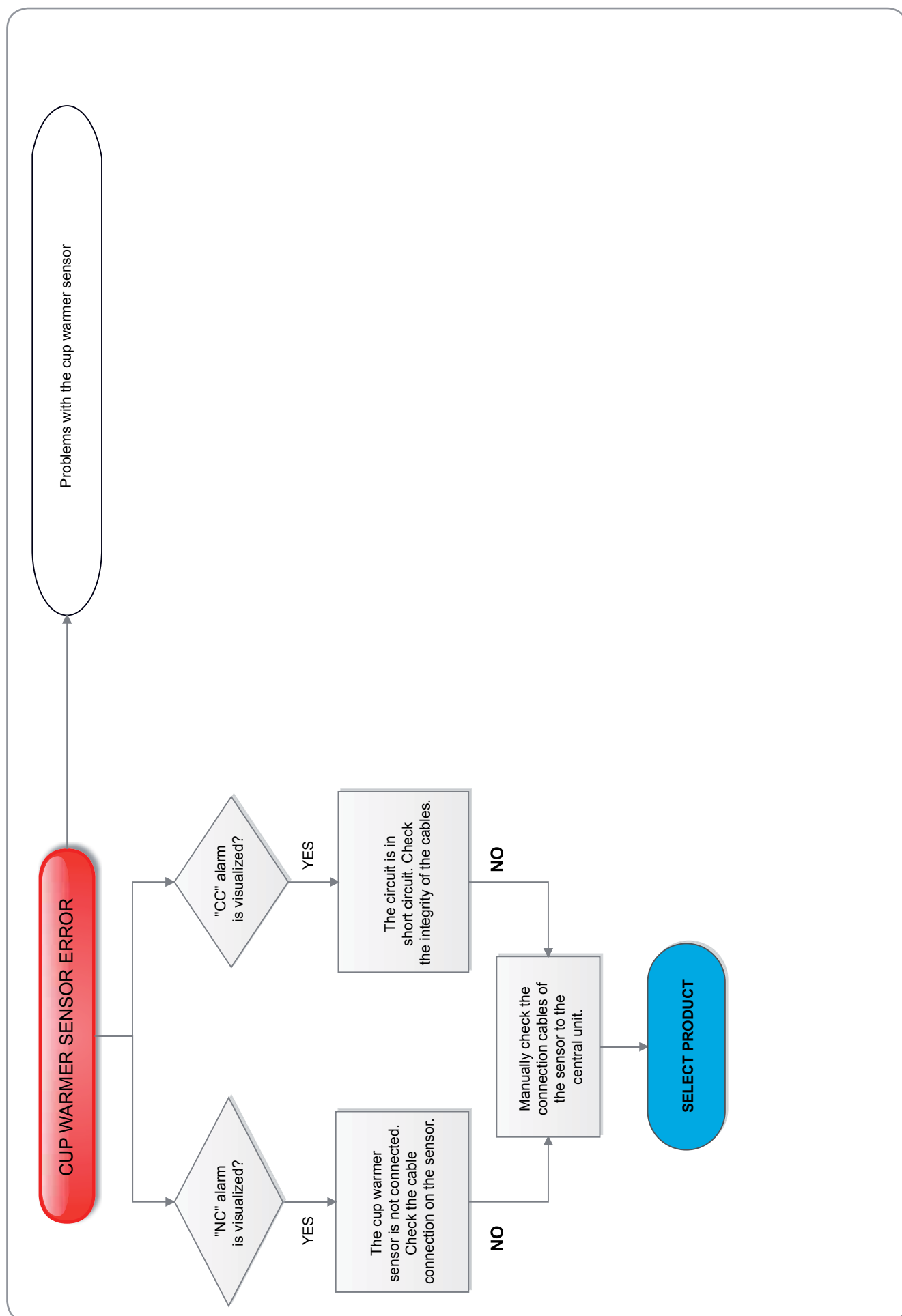
12.4 PRESSURE ERROR



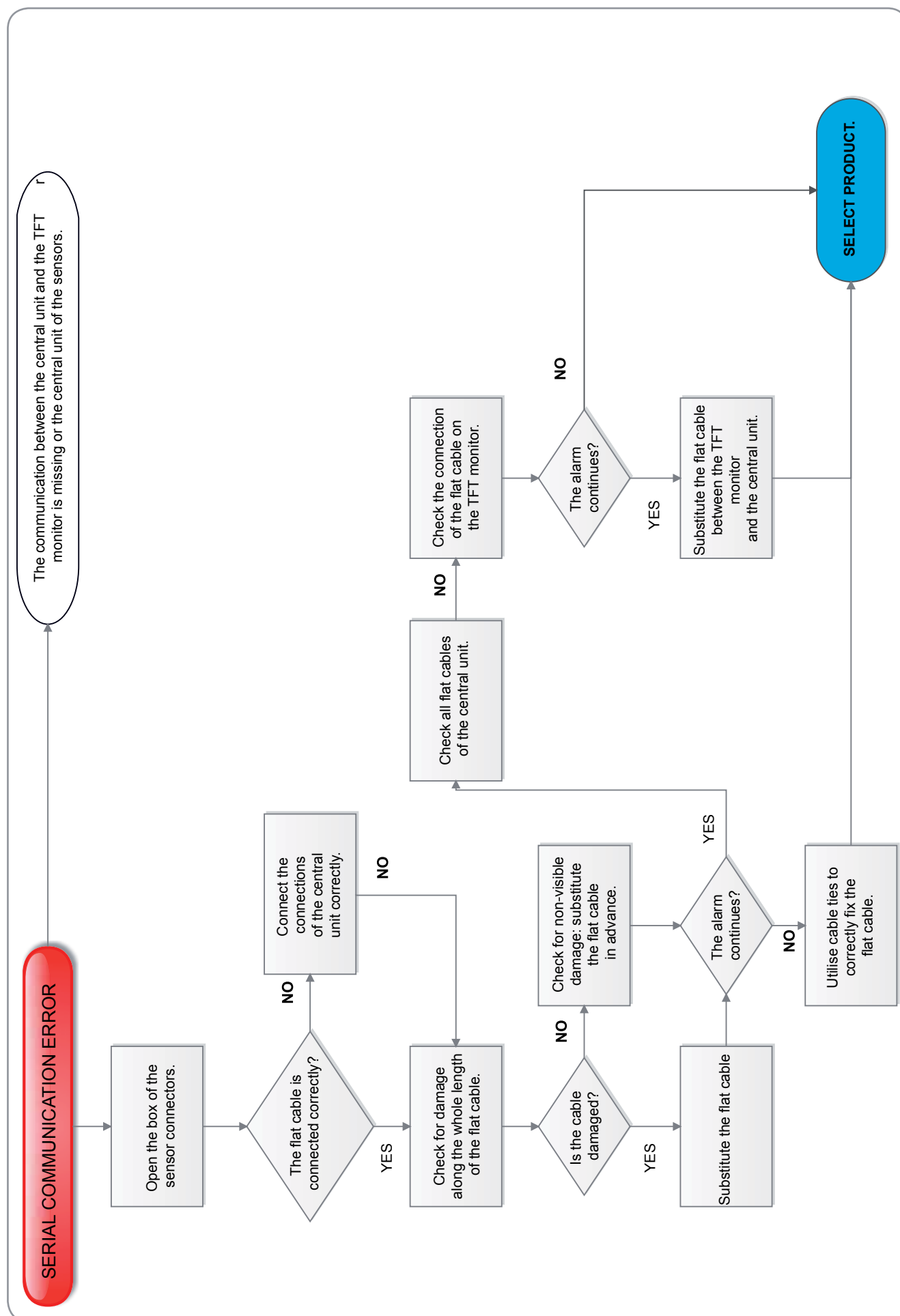
12.5 BOILER PRESSURE METER ERROR



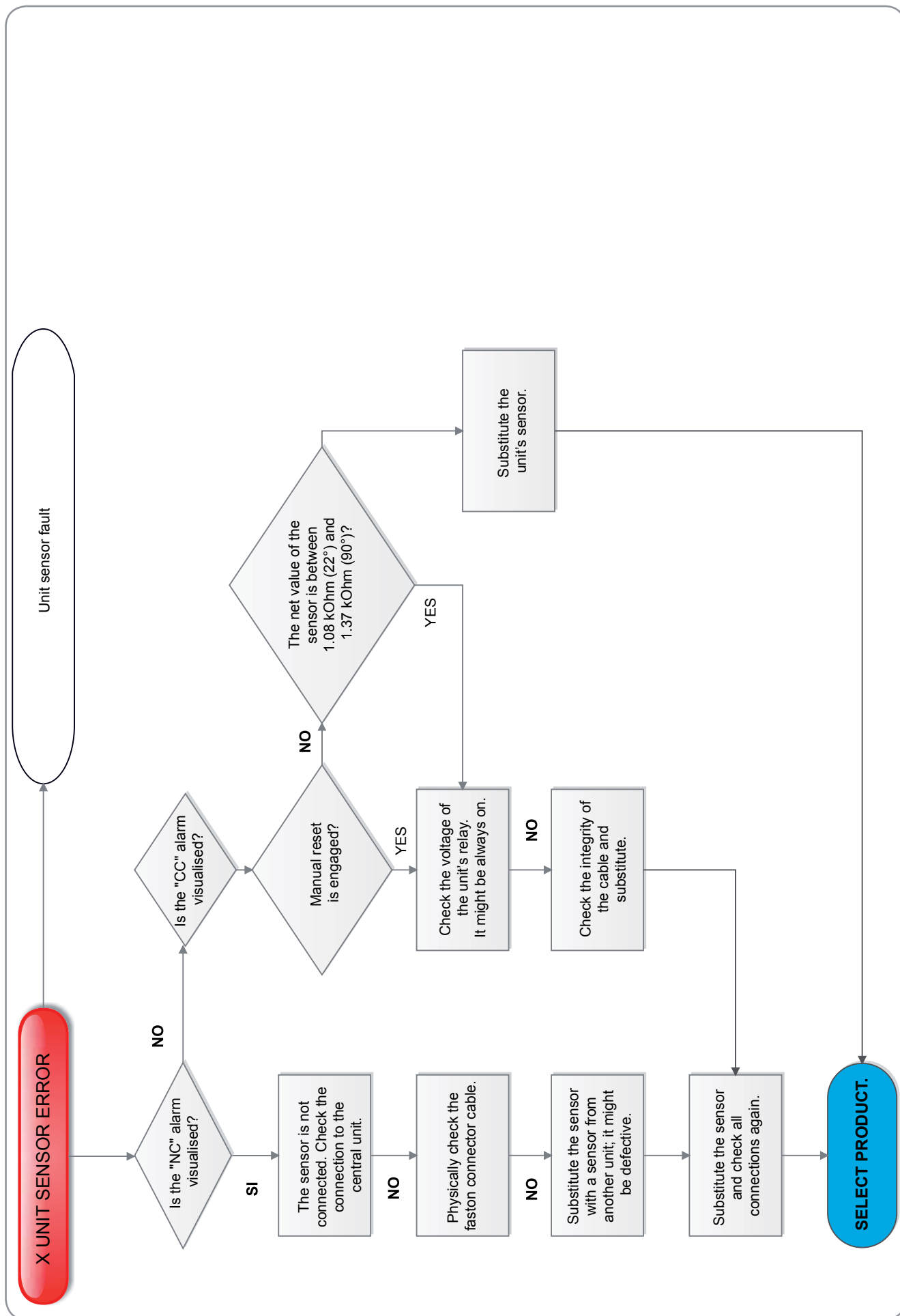
12.6 CUP WARMER SENSOR ERROR



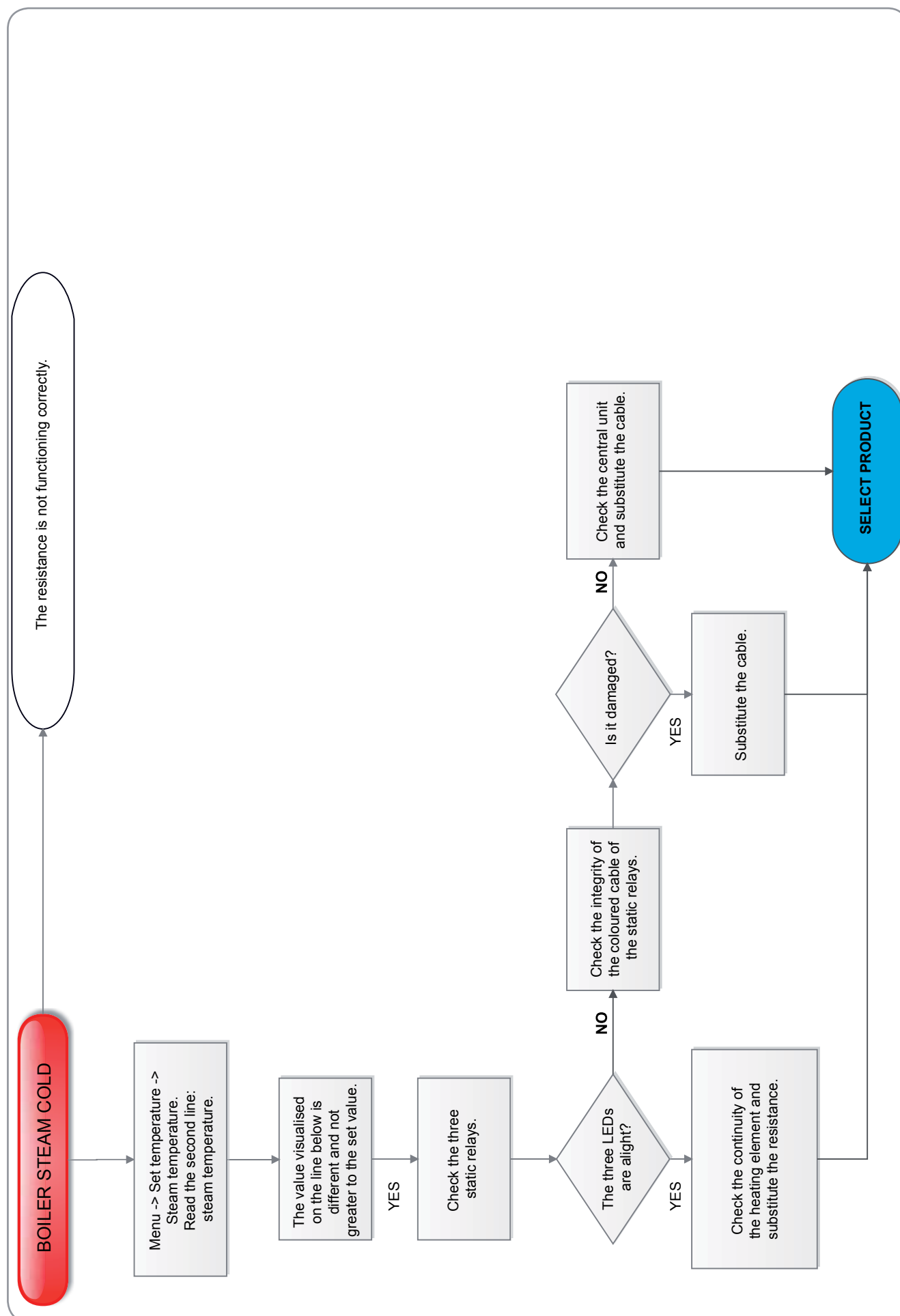
12.7 SERIAL COMMUNICATION ERROR



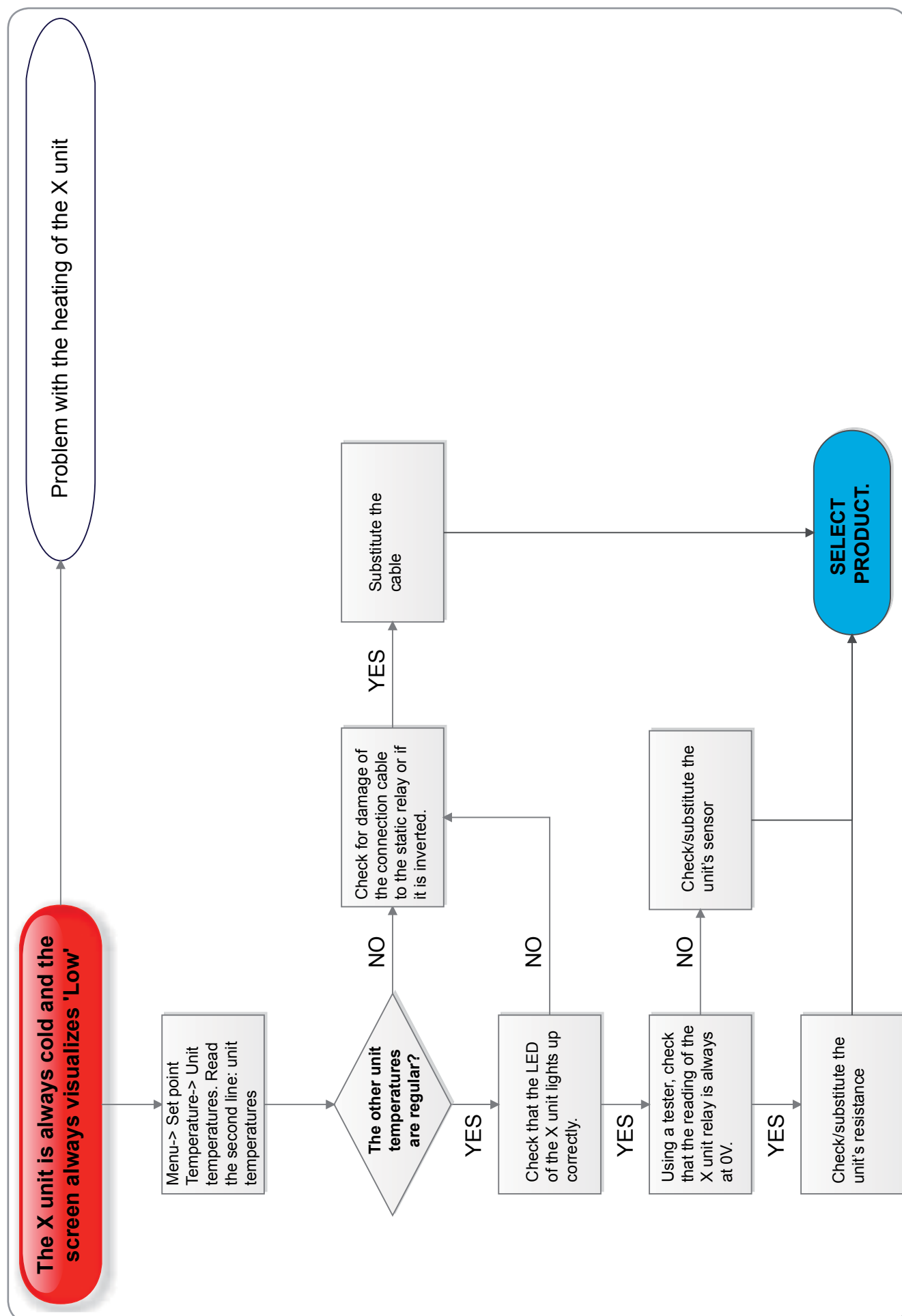
12.8 X UNIT SENSOR ERROR



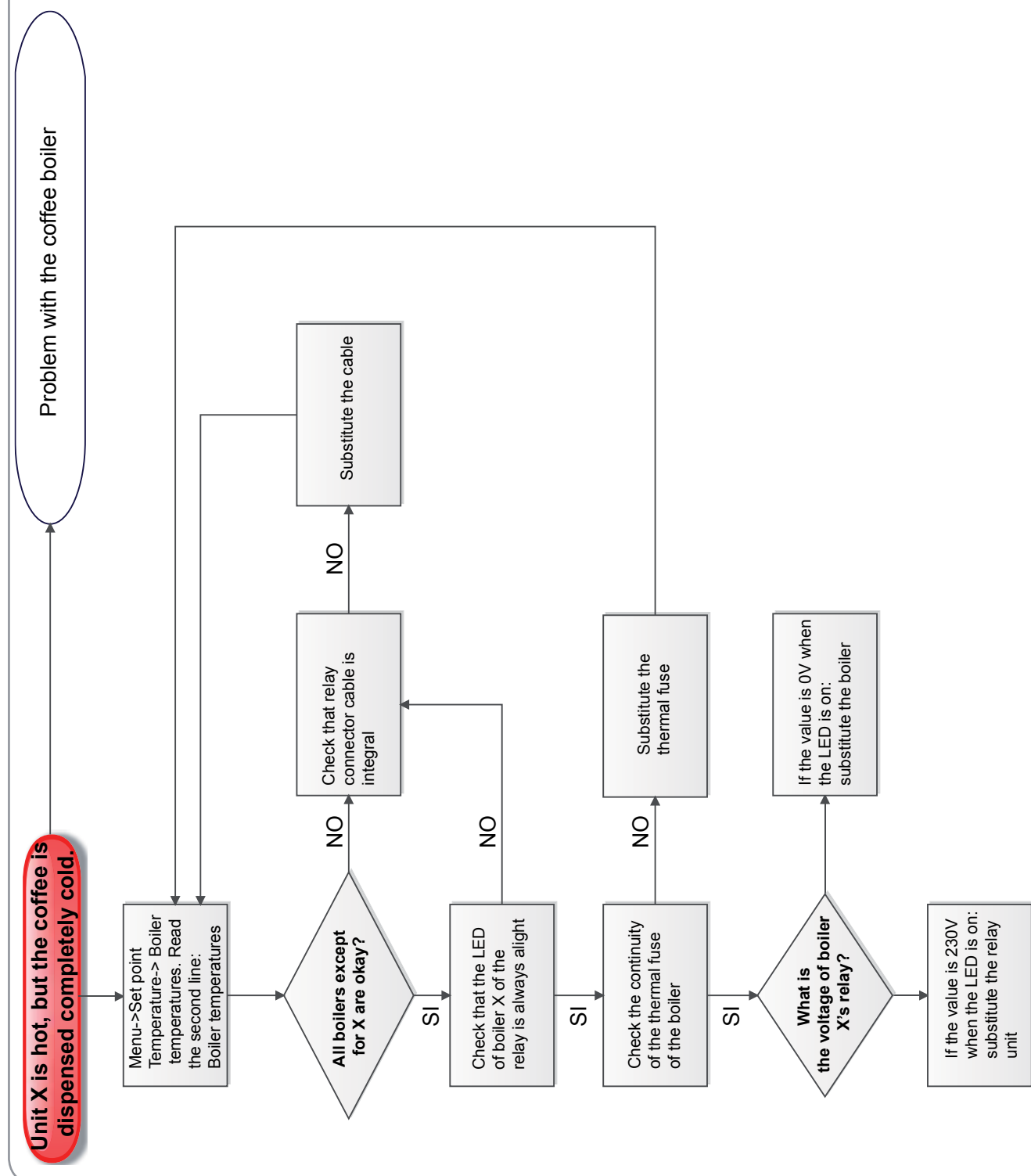
12.9 BOILER STEAM COLD



12.10 ERROR HEATING UNIT X

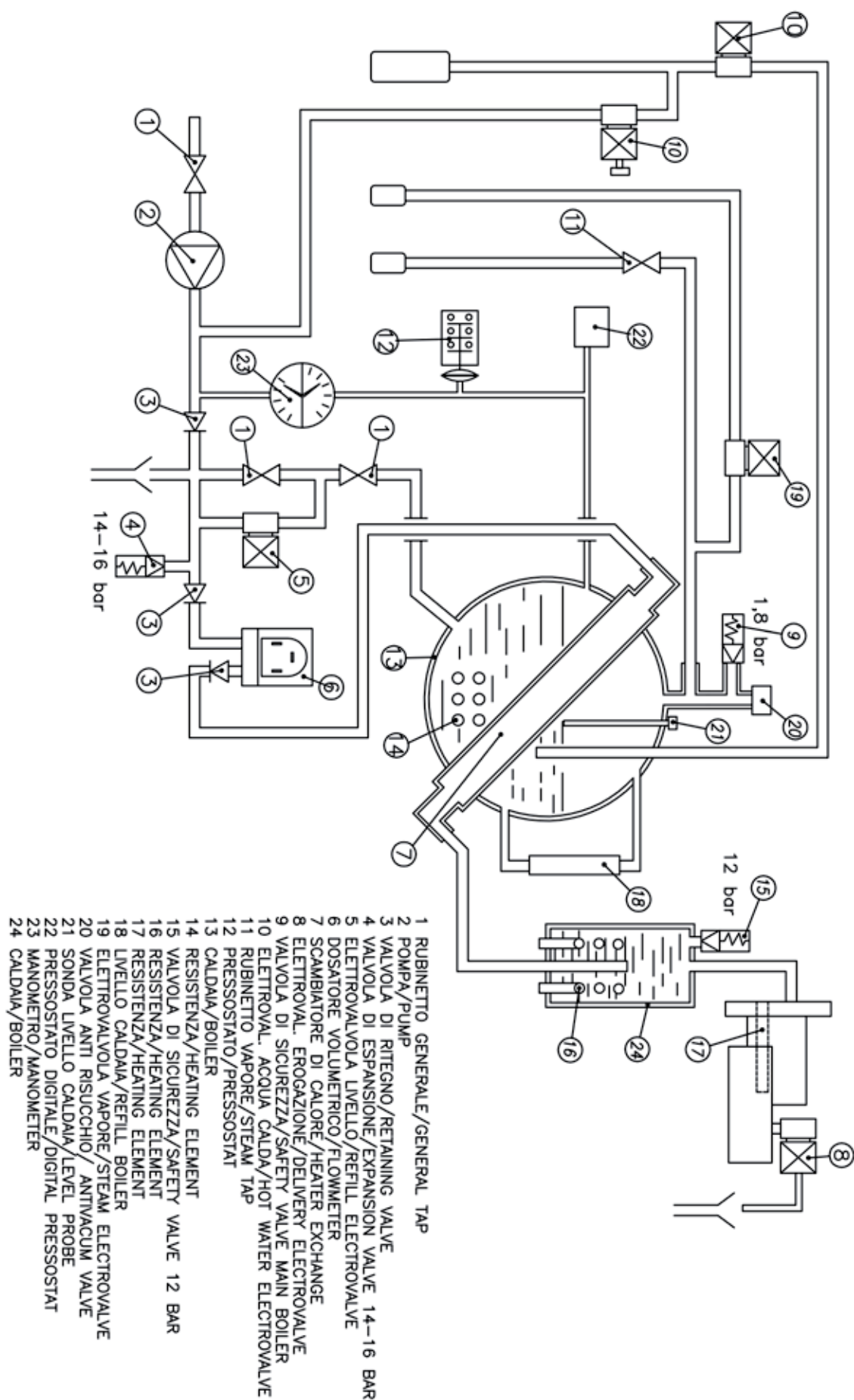


12.11 BOILER ERROR

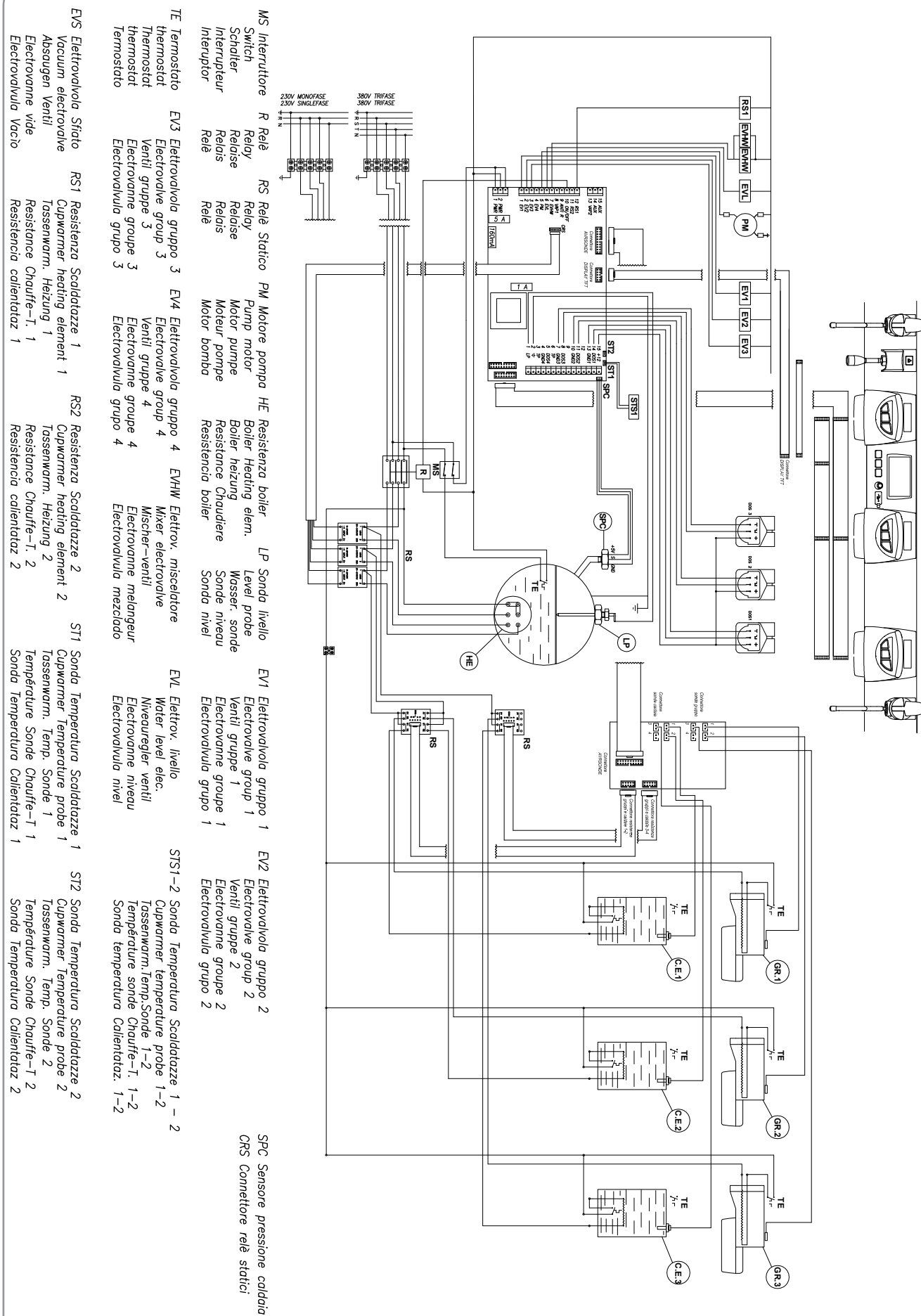


13. DIAGRAM

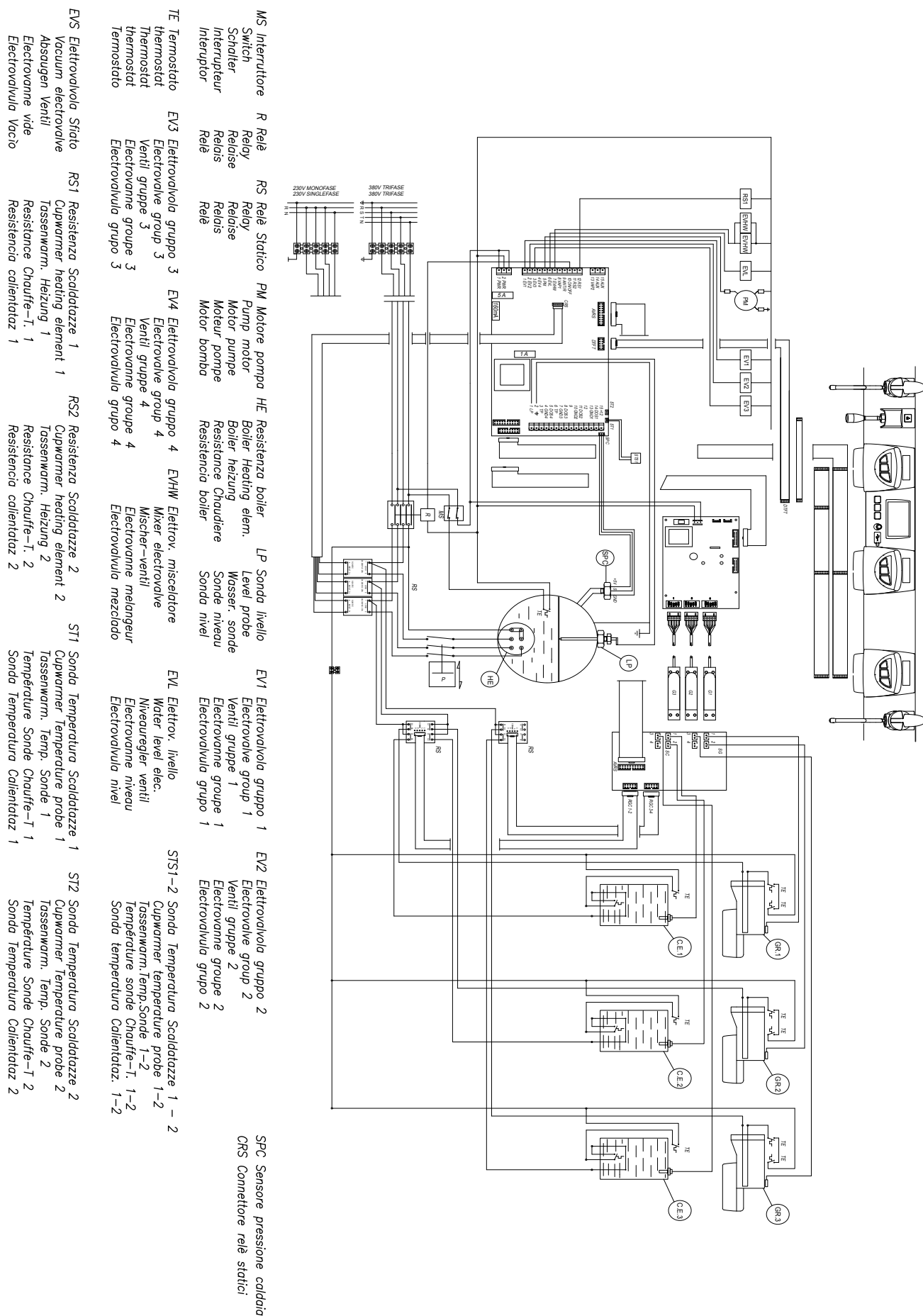
13.1 HYDRAULIC DIAGRAM



13.2 WIRING DIAGRAM VA388 T3 VOLUMETRIC



13.4 WIRING DIAGRAM VA388 T3 GRAVIMETRIC



14. SPARE PART CATALOGUE



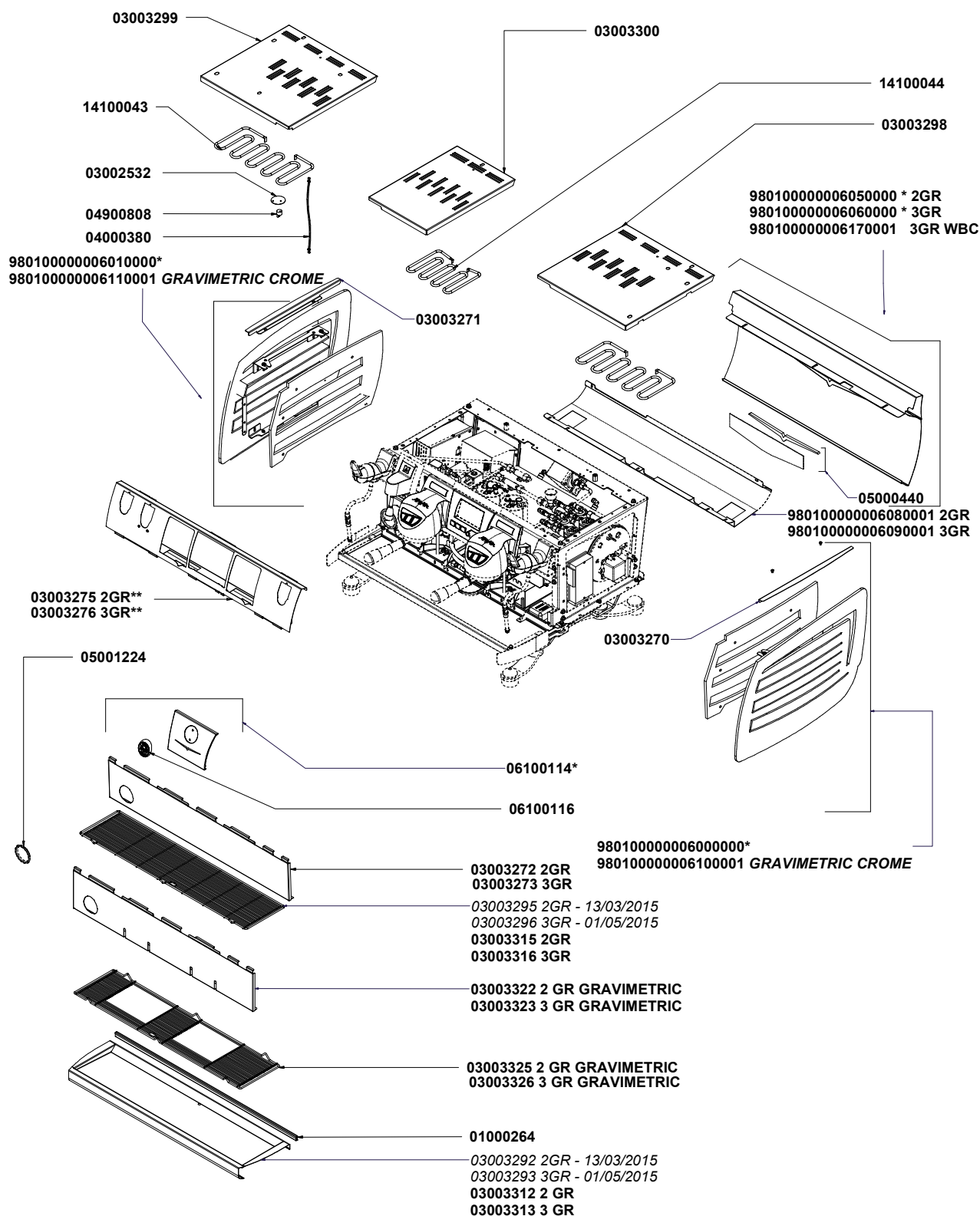
NOTE

Updated to 08/2016

INDEX

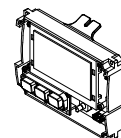
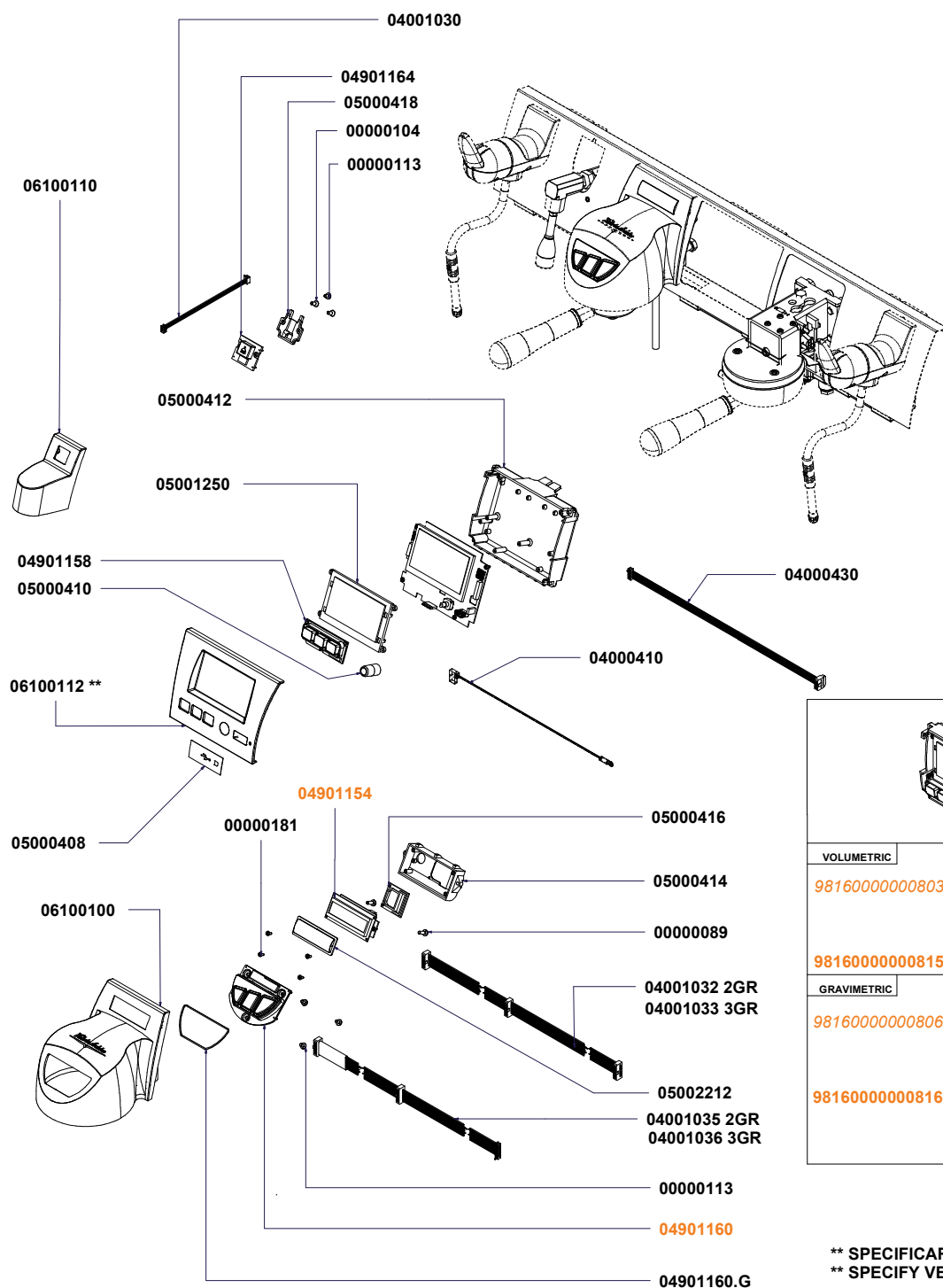
14. SPARE PART CATALOGUE	14.1
14.1 EXTERNAL COMPONENTS	
2-3 GROUPS	14.2
14.2 DETAIL OF PUSH BUTTONS	
- DISPLAY COMPONENTS	14.3
14.3 PURING UNIT COMPONENT	14.4
14.4 STEAM AND	
HOT WATER VALVES PARTS	14.5
14.5 HOT WATER MIXER AND	
STEAM PIPES COMPONENTS	14.6
14.6 HOT WATER MIXER AND	
STEAM PIPES COMPONENTS	14.7
14.7 BOILER PARTS T3 COPPER	
FROM 18-03-2016	14.8
14.8 COPPER PIPES FROM 18-03-2016	14.9
14.9 HYDRAULIC GROUP	
COMPONENTS UNTIL 17-03-2016	14.10
14.10 HYDRAULIC GROUP COMPONENTS	
COPPER FROM 18-03-2016	14.11
14.11 PUMP GROUP COMPONENTS	14.12
14.12 OLD HYDRAULIC SYSTEM	
COMPONENTS (AS OF 04/12/2014)	14.13
14.13 EXTERNAL SURFACE	
COMPONENTS 2-3 GROUPS	14.14
14.14 ELECTRIC AND ELECTRONIC	
COMPONENTS	14.15
14.15 GRAVIMETRIC	
SCALE COMPONENTS	14.16
14.16 EASY CREAM COMPONENTS	14.17

14.1 EXTERNAL COMPONENTS 2-3 GROUPS



* SPECIFICARE COLORE
SPECIFY COLOUR
** SPECIFICARE VERSIONE
SPECIFY VERSION

14.2 DETAIL OF PUSH BUTTONS - DISPLAY COMPONENTS



VOLUMETRIC

9816000000803 FINO AL 14/07/2015
UNTIL 14/07/2015

9816000000815 REMOTE CONTROL

GRAVIMETRIC

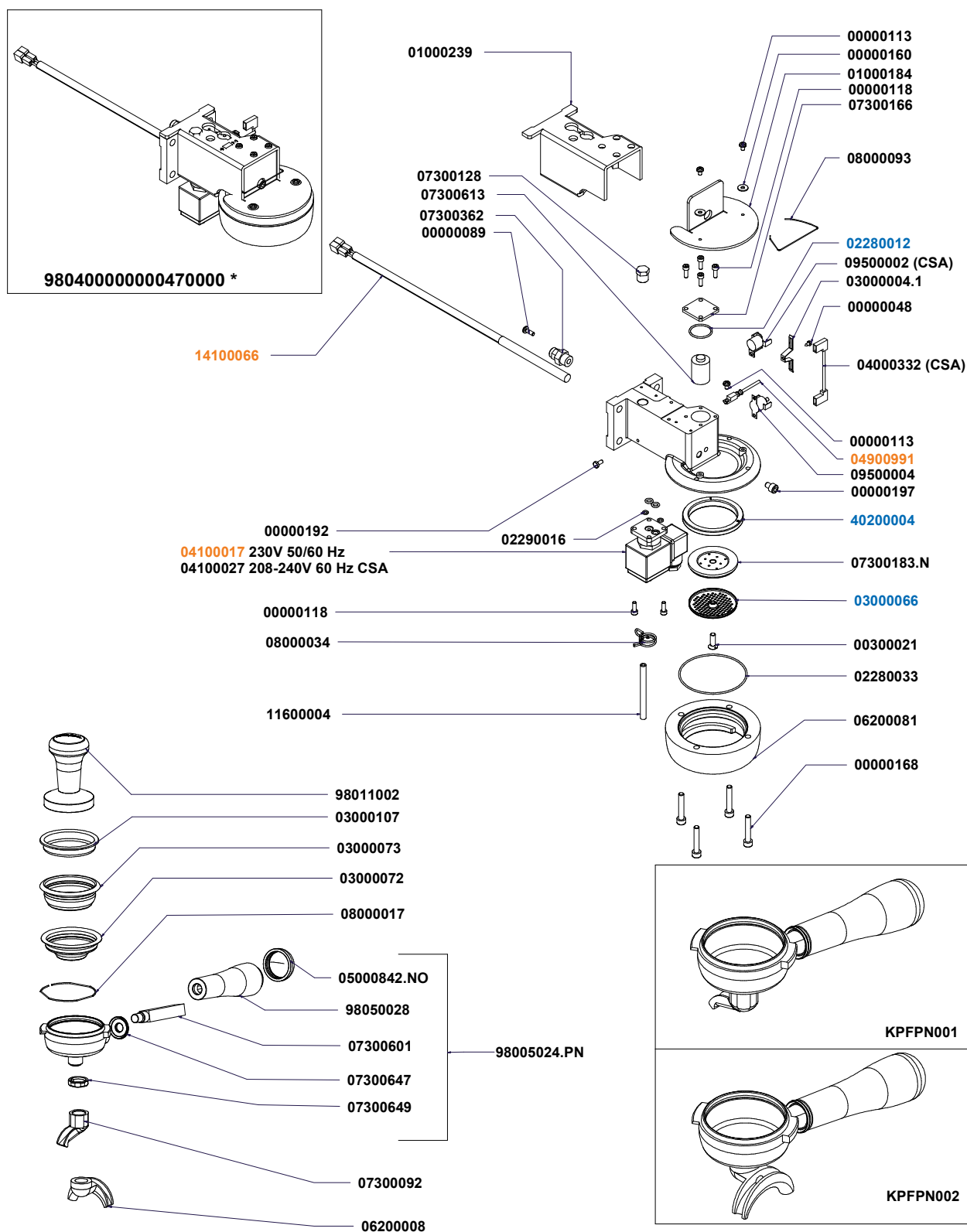
9816000000806 FINO AL 09/06/2016
UNTIL 09/06/2016

9816000000816 REMOTE CONTROL

** SPECIFICARE VERSIONE
** SPECIFY VERSION

- Recommended warehouse components
- Extra warehouse components

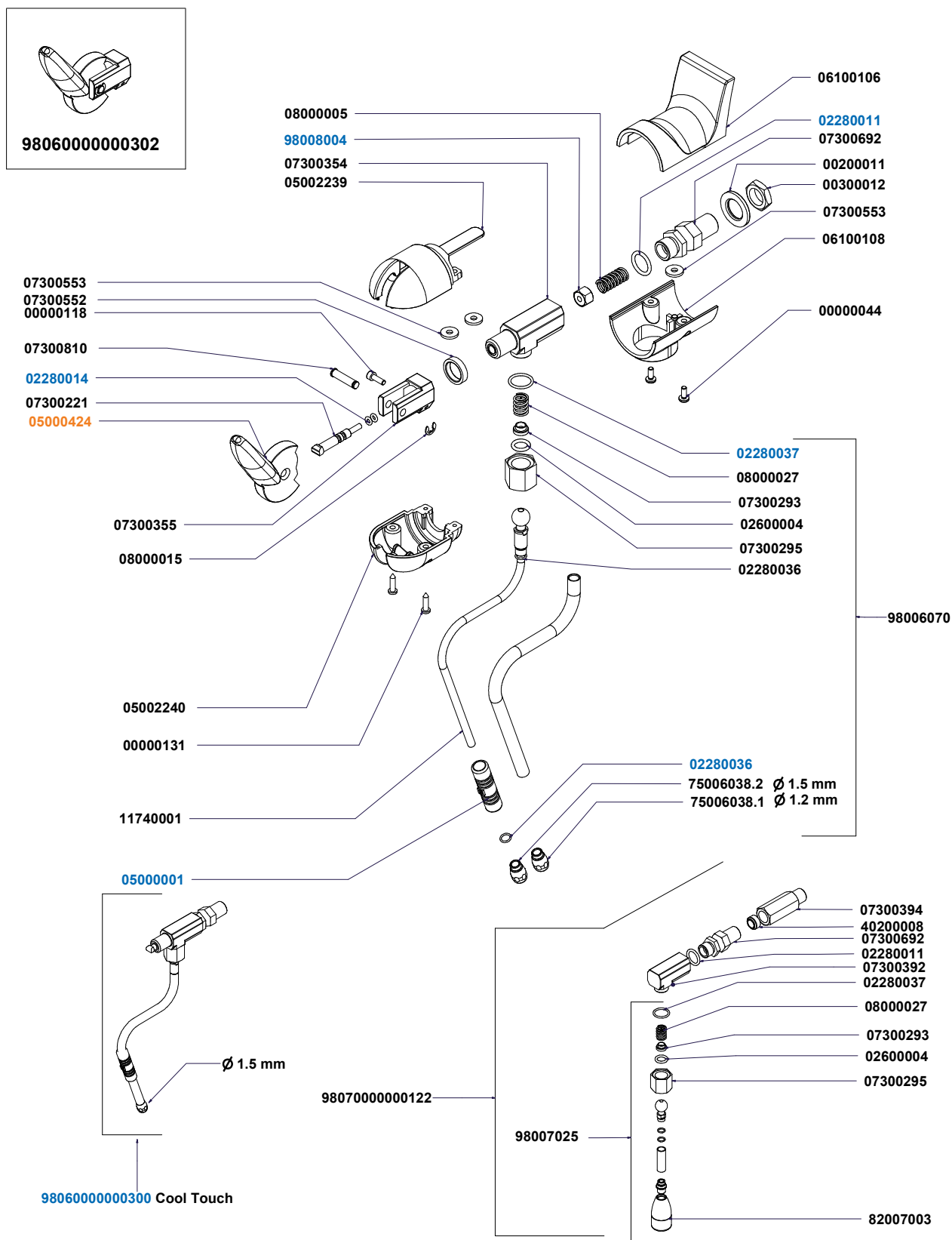
14.3 PURING UNIT COMPONENT



* SPECIFICARE VERSIONE
SPECIFY VERSION

- Recommended warehouse components
- Extra warehouse components

14.4 STEAM AND HOT WATER VALVES PARTS

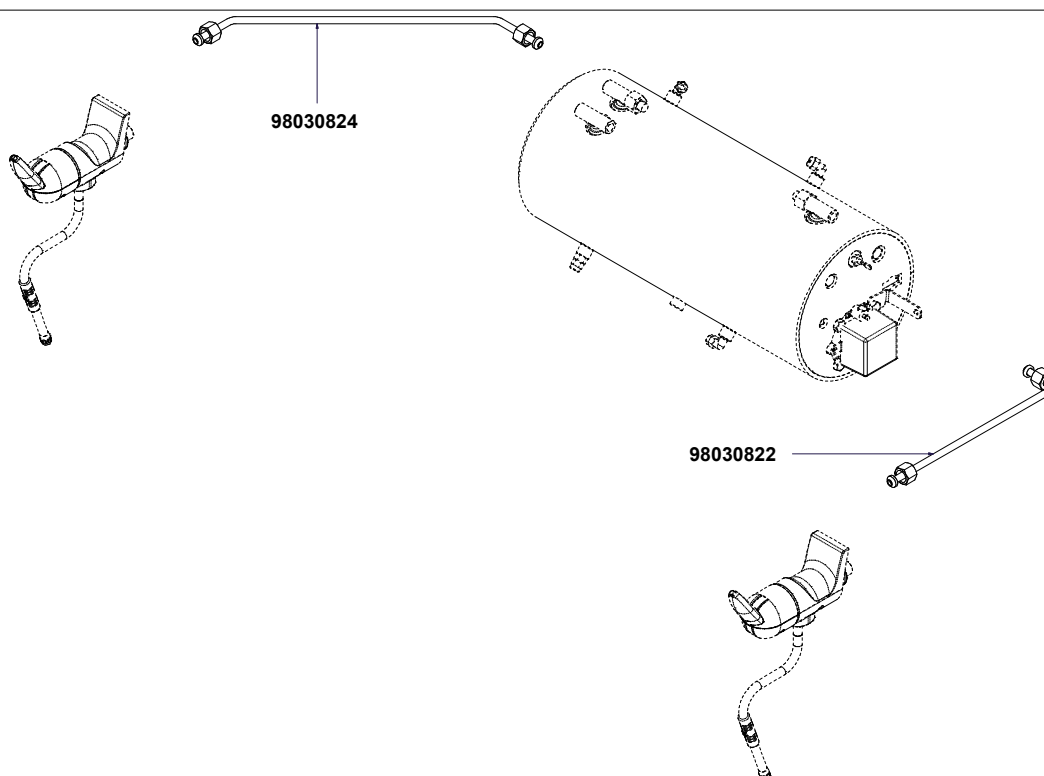
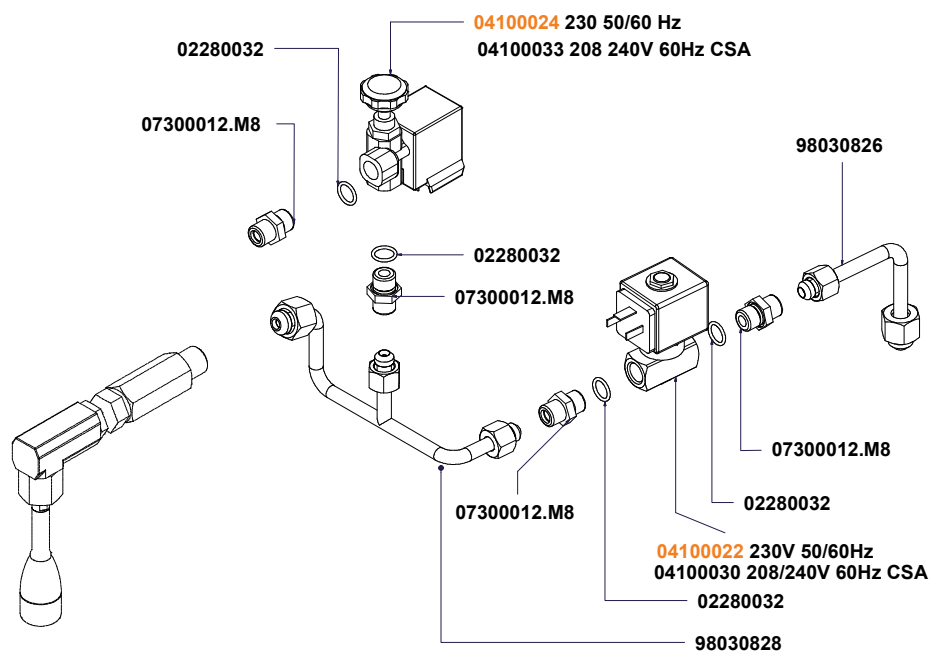


Recommended warehouse components



Extra warehouse components

14.5 HOT WATER MIXER AND STEAM PIPES COMPONENTS



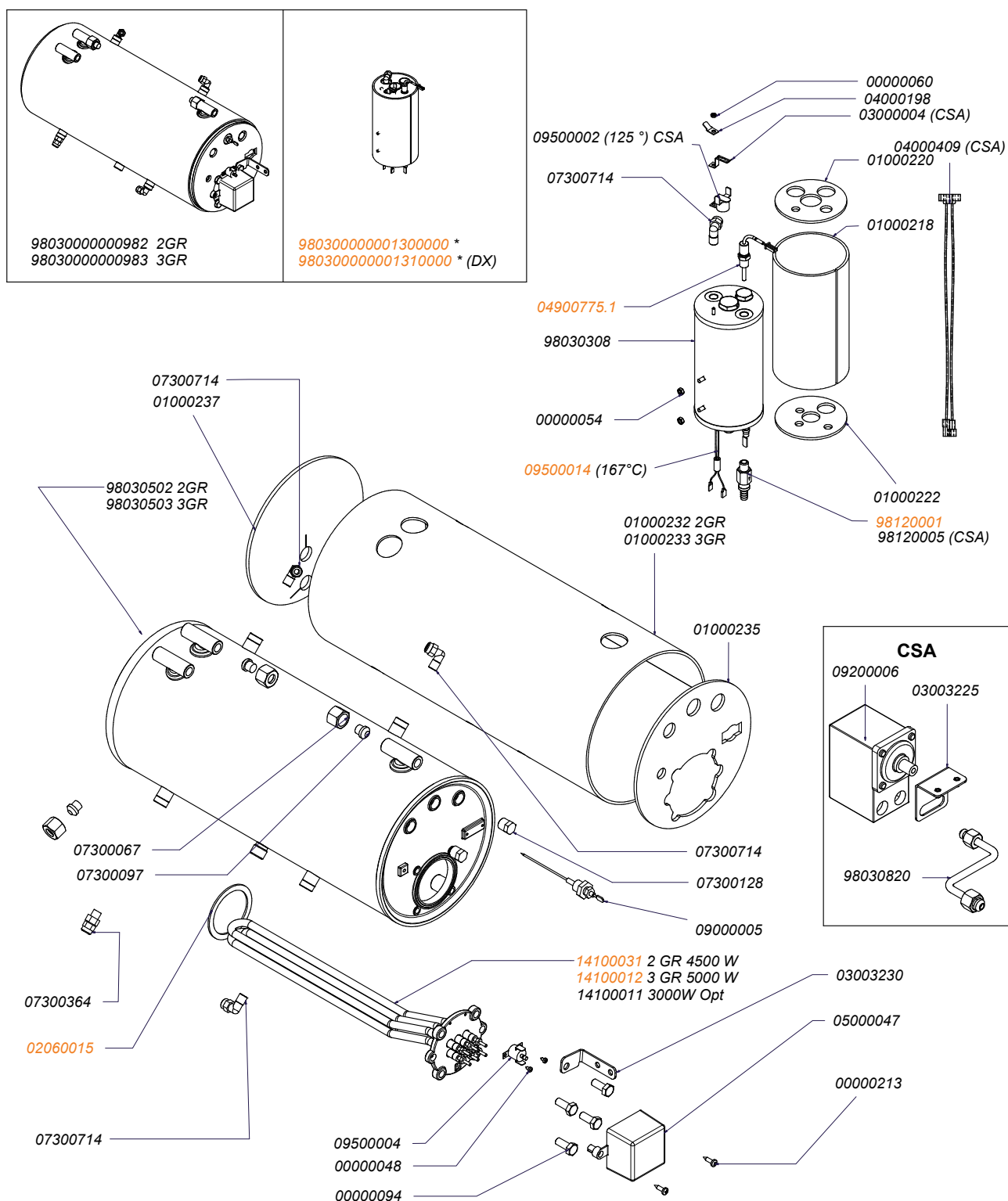
Recommended warehouse components



Extra warehouse components

* SPECIFICARE VERSIONE
SPECIFICY VERSION

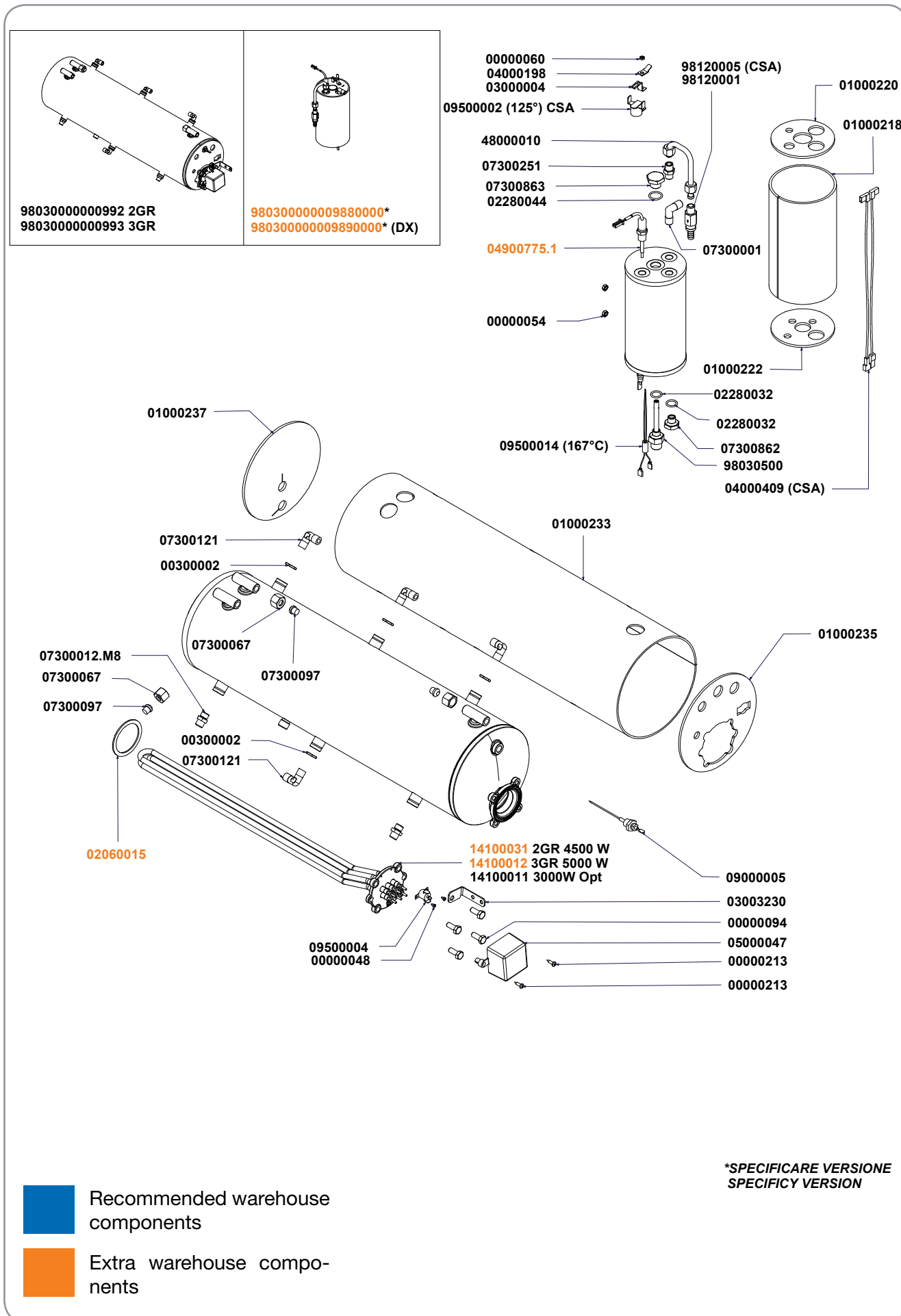
14.6 HOT WATER MIXER AND STEAM PIPES COMPONENTS



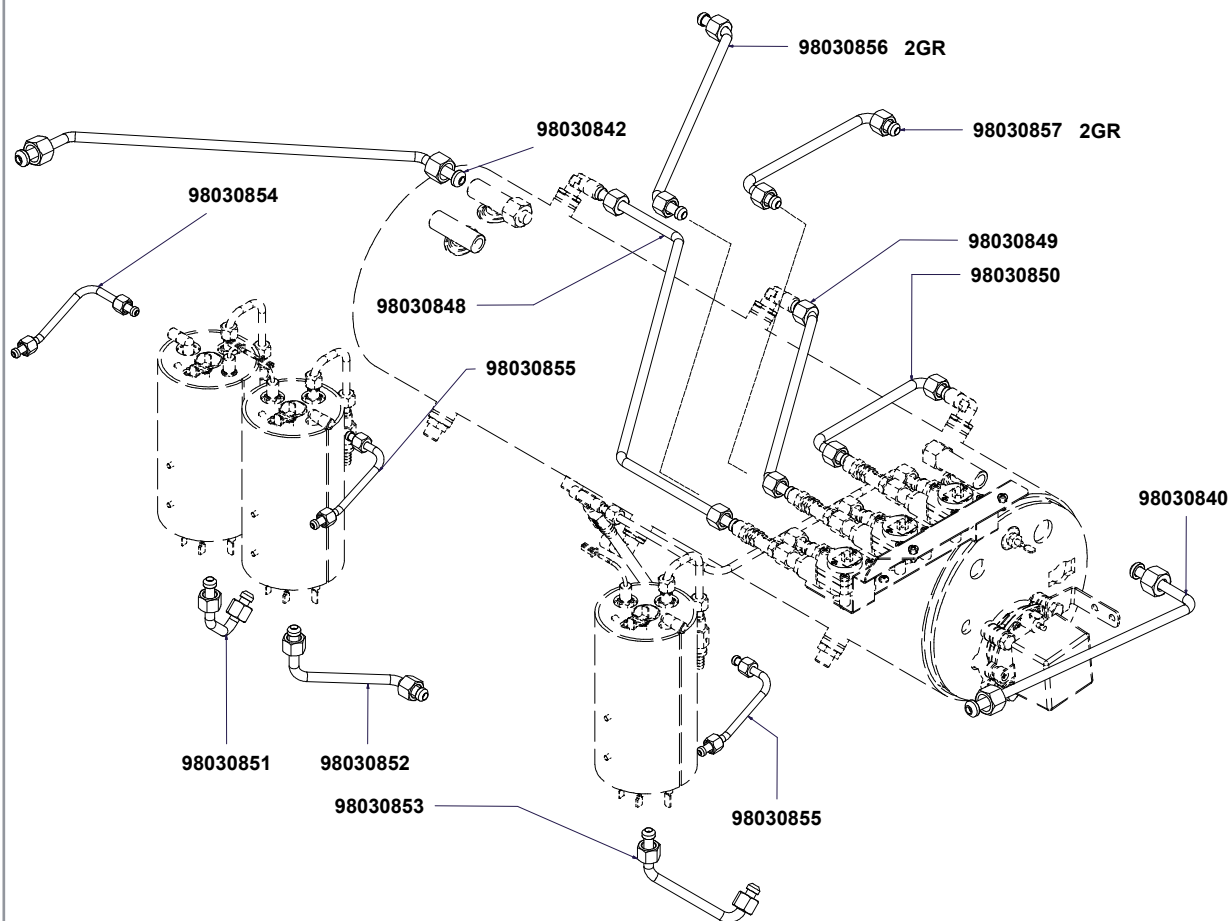
- Recommended warehouse components
- Extra warehouse components

*SPECIFICARE VERSIONE
SPECIFICY VERSION

14.7 BOILER PARTS T3 COPPER FROM 18-03-2016

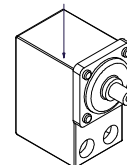


14.8 COPPER PIPES FROM 18-03-2016

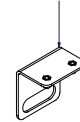


CSA

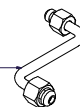
09200006



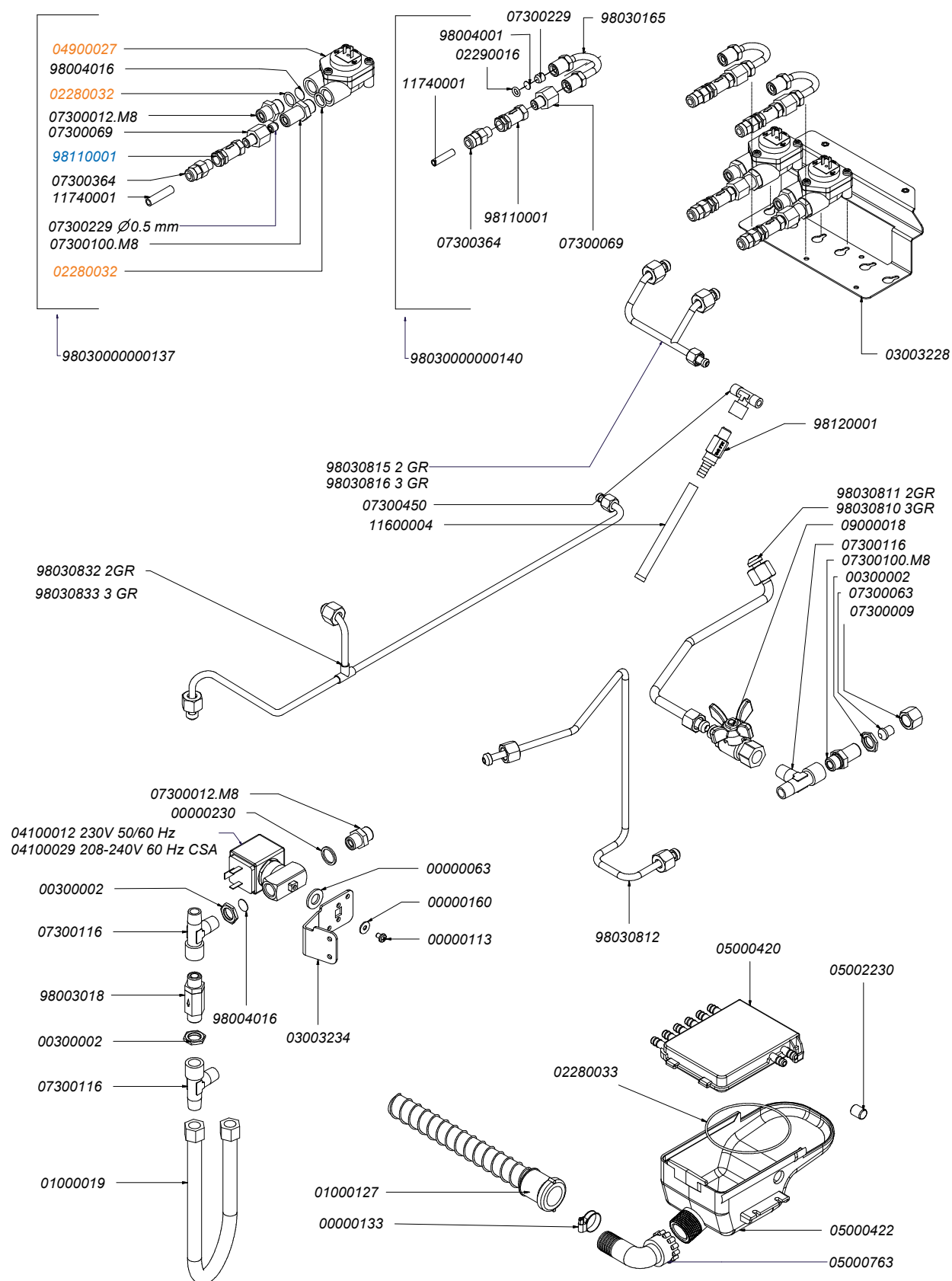
03003225



98030821



14.9 HYDRAULIC GROUP COMPONENTS UNTIL 17-03-2016

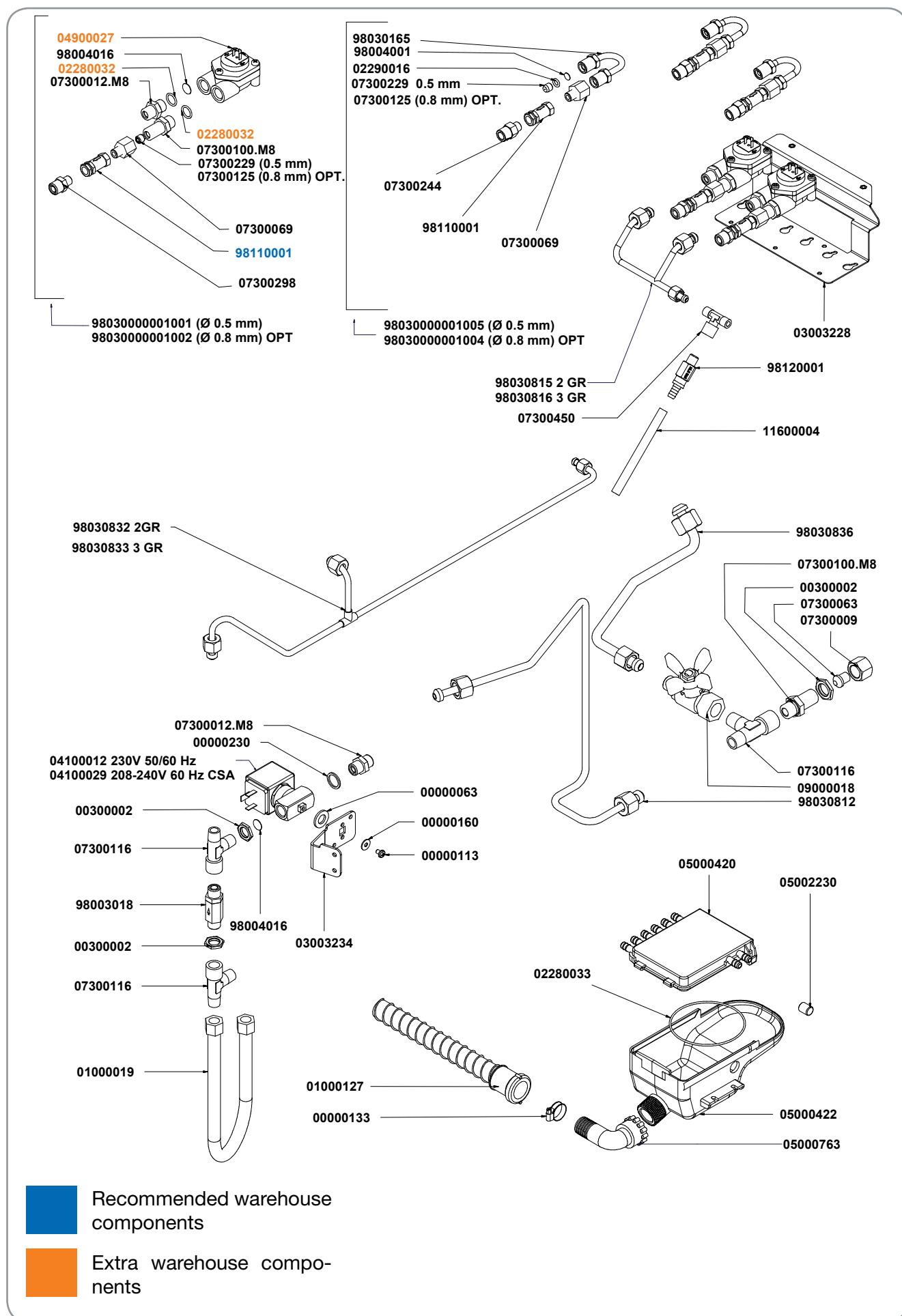


Recommended warehouse components

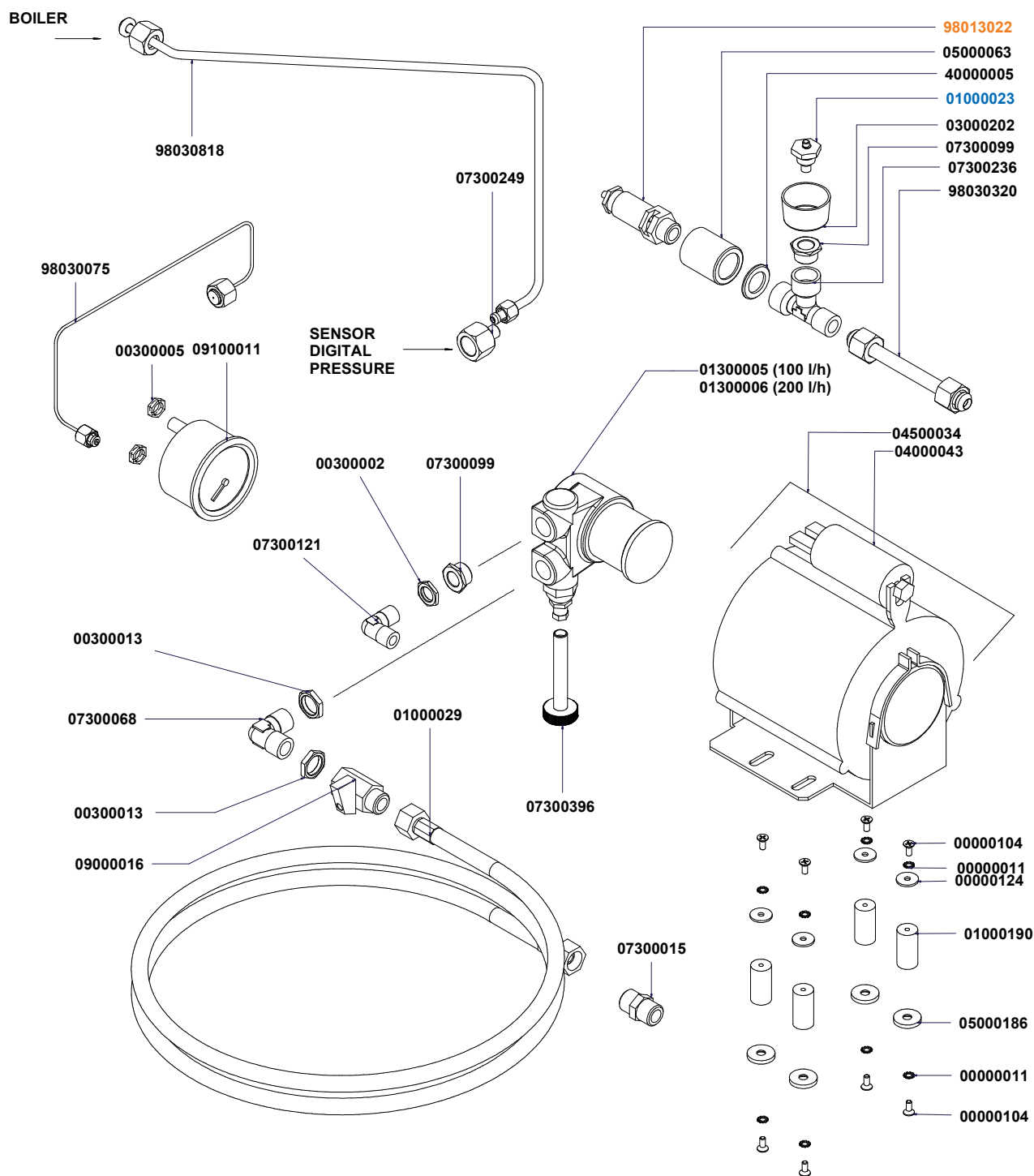


Extra warehouse components

14.10 HYDRAULIC GROUP COMPONENTS COPPER FROM 18-03-2016



14.11 PUMP GROUP COMPONENTS



Componenti idraulici carico Hydraulic Components load		
Codice	Descrizione	Description
01000029	Tubo fless. inox 3/8 FF L=1500	Stainless steel hose 3/8 FF L= 1500
01000030	Tubo fless. inox 3/8 FF L=500	Stainless steel hose 3/8 FF L= 500

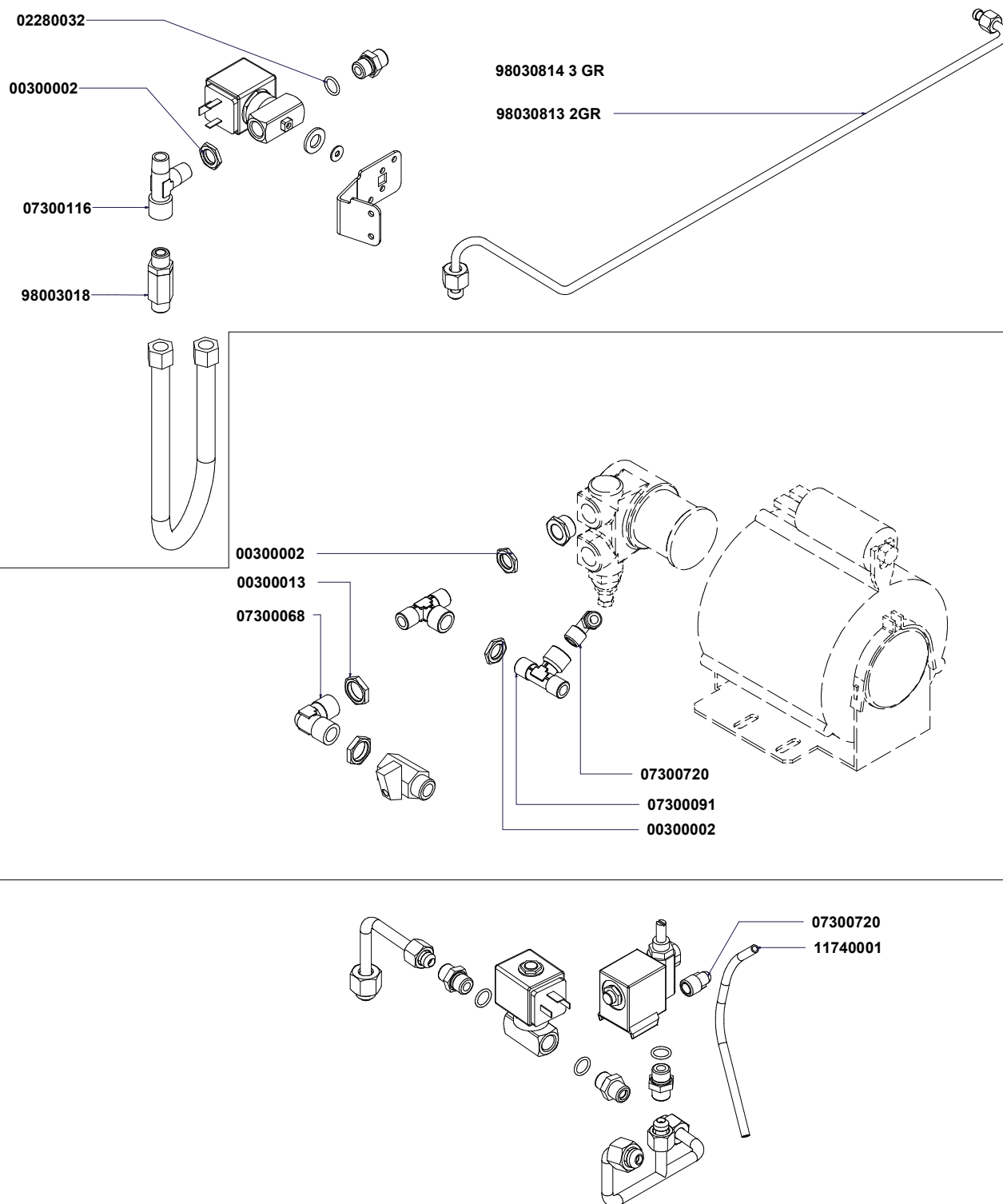


Recommended warehouse components

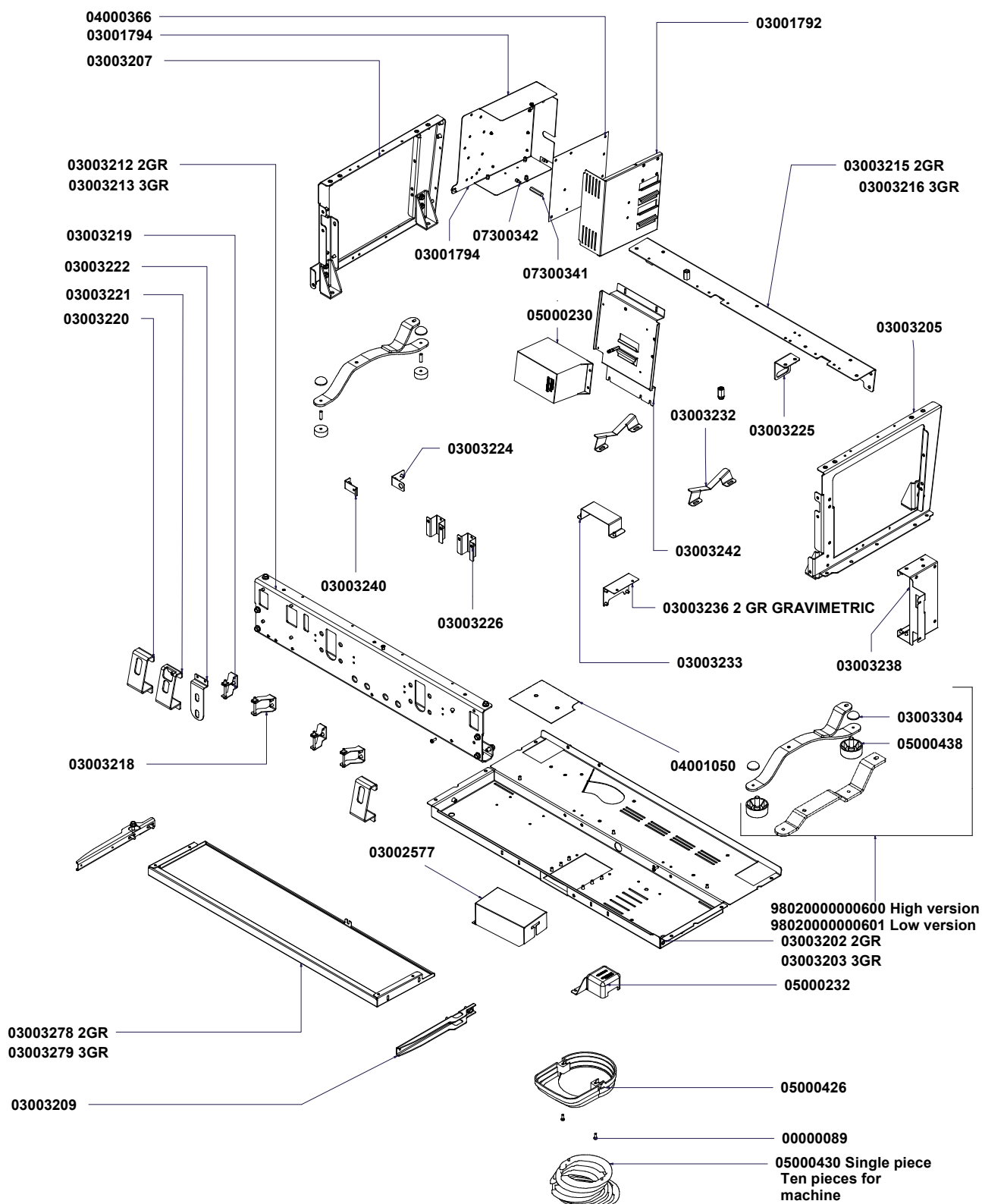


Extra warehouse components

14.12 OLD HYDRAULIC SYSTEM COMPONENTS (AS OF 04/12/2014)

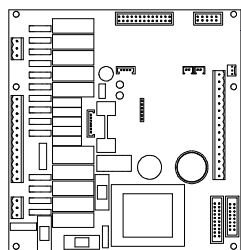


14.13 EXTERNAL SURFACE COMPONENTS 2-3 GROUPS



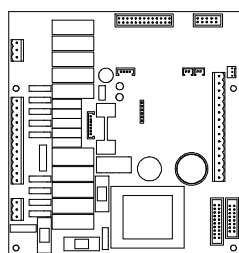
14.14 ELECTRIC AND ELECTRONIC COMPONENTS

VOLUMETRIC

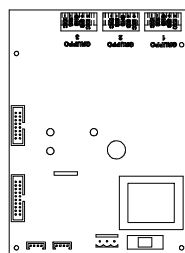


49001152
FINO AL 14/07/2015
UNTIL 14/07/2015
04901153 REMOTE CONTROL

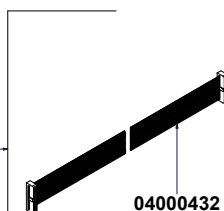
GRAVIMETRIC



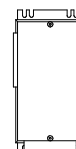
04901151
FINO AL 09/06/2016
UNTIL 09/06/2016
04901167 REMOTE CONTROL



04901150 (Scale)



04000432



04900990



04000431 N° 1 2-3GR

04000436 N°1 3GR

04200098 - 2GR
04200099 - 3GR

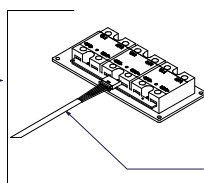


04000244

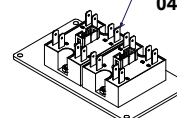
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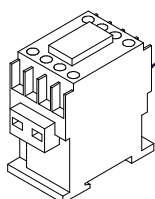
09200018



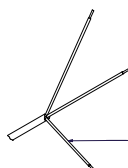
04000440



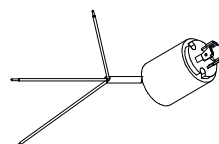
04200057



04200070 2GR (32A)
04200072 3GR (45A)



04000548 230V
04000543 380V



04060013 CSA



05000089

Tabella		
Colonna 1 CODICE	Colonna 2 DESCRIZIONE	Colonna 3 DESCRIPTION
040000343.S	SUPPLEMENTO CABLAGGIO ELETTRICO	ELECTRICAL WIRE SUPPLEMENT
04001038-GRAVIMETRIC	CAVO PIATTO COLLEGAMENTO CENTRALINE	FLAT CABLE CONNECTION UNIT
04001040-GRAVIMETRIC	CAVO ALIMENTAZIONE SCHEDA BILANCIA	CABLE POWER BALANCE SHEET
04000400	CABLAGGIO 2GR. SENZA FUNZIONE VAPORE	ELECTRICAL CABLING 2GR. WITHOUT STEAM FUCTION
04000401	CABLAGGIO 3-4GR. SENZA FUNZIONE VAPORE	ELECTRICAL CABLING 3GR. WITHOUT STEAM FUCTION
04000406	SUPPL. CABLAGGIO T3 2GR.	ADD. CABLING T3 2GR.
04000408	SUPPL. CABLAGGIO T3 3GR.	ADD. CABLING T3 3GR.
04000404	SUPPL. CABLAGGIO DOSATORI 2GR.	ADD. FLOWMETER CABLE FOR 2GR.
04000405	SUPPL. CABLAGGIO DOSATORI 3-4GR.	ADD. FLOWMETER CABLE FOR 3GR.
04000386	CABLAGGIO SCALDATAZZE 1 TEMP. 2GR. DIGIT-T3	CUP WARMER CABLING T3 2GR.
04000387	CABLAGGIO SCALDATAZZE 1 TEMP. 3GR. DIGIT-T3	CUP WARMER CABLING T3 3GR.
04000340	PONTICELLO TRASF. ALIMENTAZ. DA 380V A 230V	BRIDGE TRANS. POWER. A 230V TO 380V
04000381	CABLAGGIO CSA PRESSOSTATO RELE	CSA PRESSURE SWITCH WIRING RELAY

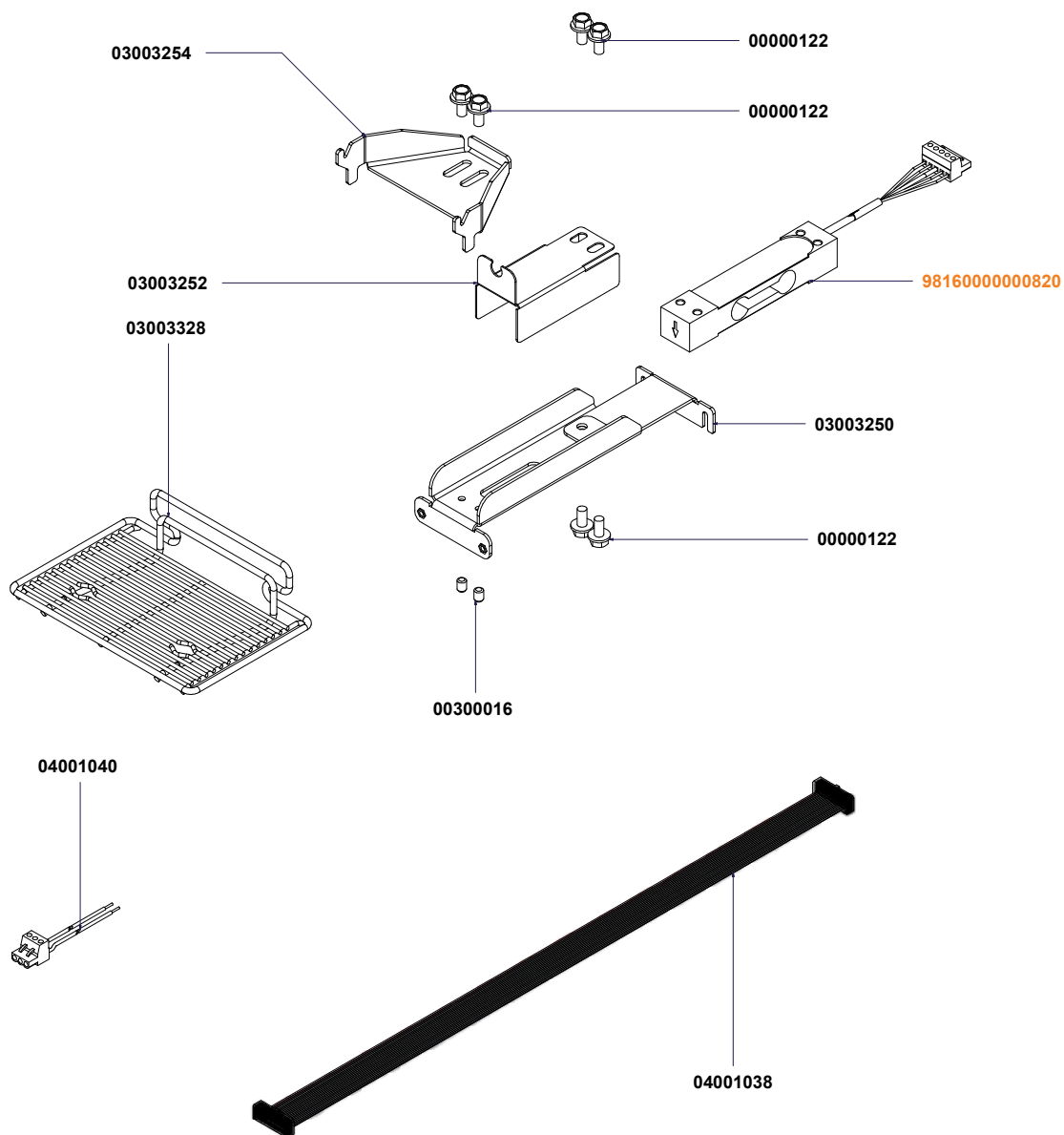
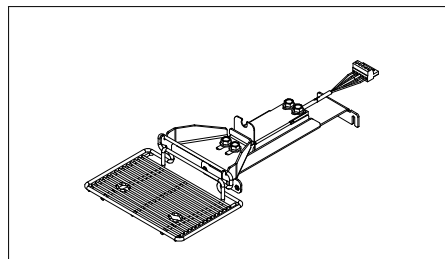


Recommended warehouse components



Extra warehouse components

14.15 GRAVIMETRIC SCALE COMPONENTS

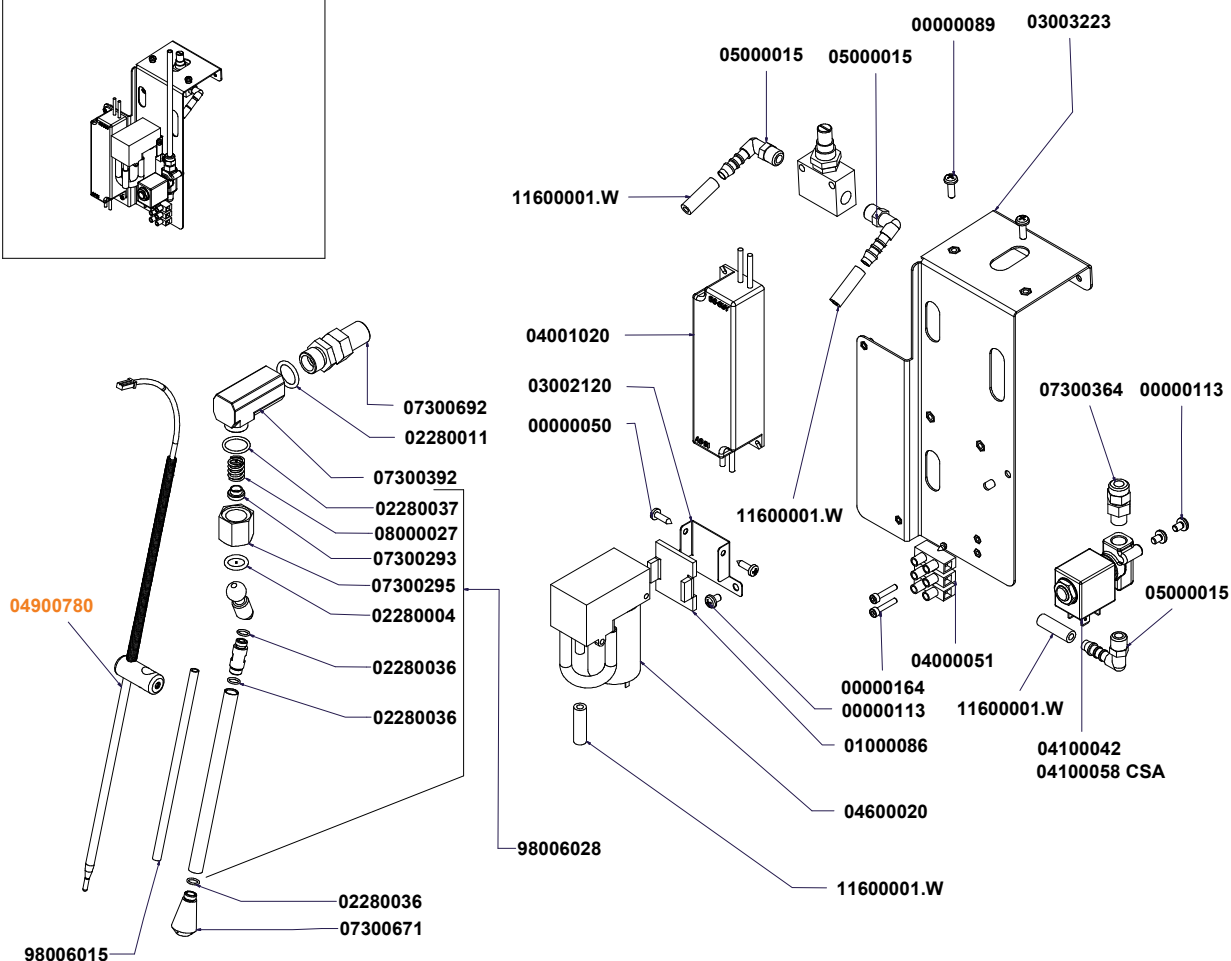
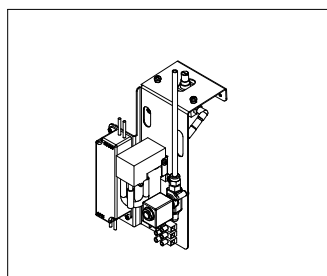


Recommended warehouse components

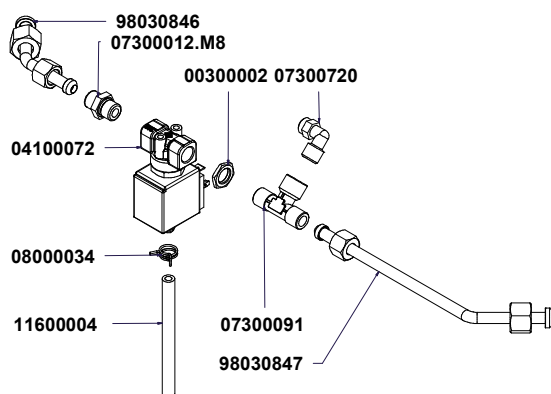


Extra warehouse components

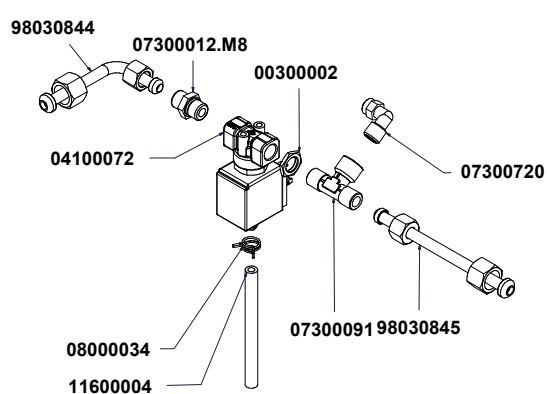
14.16 EASY CREAM COMPONENTS



980600000003220000 (SX)



980600000003210000 (DX)



- Recommended warehouse components
- Extra warehouse components

CODICE	DESCRIZIONE		DESCRIPTION	DATA FINE VALIDITA'
00000011	RONDELLA INOX M4 ZIGRINATA UNI 8842/A	*KB*	STAINLESS STEEL KNURLED WASHER D4	
00000044	VITE AQ M4x10 TC T.CR. ZINC		SCREW M4x10 AQ TC T.CR. ZINC	
00000048	VITE AUTOF 2,9x4,5 TC/T.CR.		SELF-THREADING SCREW 2.9x4.5 TC/T.CR.	
00000050	VITE AUTOF 3,5x12 TC/T.CR. TRUCIOLARE	*KB*	SCREW 3,5x12 TC/T.CR.	
00000054	DADO AQ M4 ALTO ZINCATO		NUT M4 HIGH GALVANISED NUT	
00000060	DADO AQ M3 MEDIO ZINCATO		NUT M3 MEDIUM GALVANISED NUT	
00000063	RONDELLA AQ D 10x21x2 ZN		WASHER AQ D 10X21X2 ZN	
00000089	VITE INOX M4x12 TC TCR DIN7985		SS CROSS HEAD CAP SCREW M4x12	
00000094	VITE INOX M8x20 TE. 5739		STAINLESS STEEL HEX CAP SCREW M8x20	
00000104	VITE INOX M4x10 TSP TCR DIN965		SS CROSSHEAD COUNTERSUNK SCREW M4x10	
00000113	VITE INOX M4x6 TC T.CR. 7985		SS CROSSHEAD CAP SCREW M4x6	
00000118	VITE INOX M4x12 TCEI 5931		SS HEX SOCKET CAP SCREW M4x12	
00000122	VITE AQ 8.8 M6x12 TE FLANG. ZIGR. ZINC. BIANCO		GALV. FLANGED KNURLED HEX CAP SCREW 8.8 M6x12	
00000124	RONDELLA AQ D4.3x16x1.5 ZINC.		GALVANISED WASHER D4 3x16x1.5	
00000131	VITE AUTOF INOX 3,9x16 TC /TCR		SS SELF-TAPPING CROSS-HEAD CAP SCREW 3.9X16	
00000133	FASCETTA INOX WD12 16-25 C7 W2		STAINLESS STEEL GIRDLE WD12 16-25 C7 W2	
00000160	RONDELLA INOX D4x12x1 UNI 6593		STAINLESS WASHER D4X12	
00000164	VITE INOX M3x16 TCEI ISO 4762	*KB*	STAINLESS STEEL SCREW M3x16 TCEI ISO 4762	
00000168	VITE INOX M6x35 TCEI 5931		STAINLESS STEEL HEX SOCKET CAP SCREW M6x35	
00000181	VITE TCTCR 3x8 DOPPIA ELICA HILO ZINC. UNI9707		GALVANISED CROSS HEAD CAP SCREW 3x8 DOUBLE SPIRAL	
00000192	VITE INOX M4x8 TE UNI 5739		STAINLESS STEEL SCREW M4x8 TE UNI 5739	
00000197	VITE INOX M6x8 TCEI ISO 4762		STAINLESS HEX SOCKET CAP SCREW M6x8	
00000213	VITE AUTOF 4,2x16 TC T.CR. ZIN		SELF-TAPPING CROSS HEAD CAP SCREW 4,2x16	
00200011	RONDELLA AQ M16 17X30X3 ZINC		GALVANISED WASHER M16 17x30x3	
00300002	DADO OT 1/4 SPESS.3 CH18 AGG. 22.07.96		BRASS NUT 1/4 SPESSOR 3	
00300005	DADO OT 1/8 GAS AGG.22.07.96 SPESS.4 CH13		BRASS NUT 1/8 GAS SPESSOR 4	
00300012	DADO OT 3/8 GAS CH22 SPESS.6		BRASS NUT 3/8 GAS SPESSOR 6 HEX 22	
00300013	DADO OT 3/8 GAS SPESS.4 CH20		BRASS NUT 3/8 GAS SPESSOR 4	
00300016	GRANO INOX M6x8 5923		SS GRUB SCREW M6x8 5923	
00300021	VITE INOX M6x18 TSP TC DIN963		SS SLOTTED COUNTERSUNK SCREW M6X18 DIN963	
00300038	GRANO INOX M10x35 PUNTA PIANA		FLAT TIP SCREW INOX M10x35	
01000019	TUBO FLESS. INOX 1/4 F.F. L=500		SS HOSE 1/4 FF L= 500	
01000023	VALVOLINA SFIATO		ANTI VACUUM VALVE	
01000029	TUBO FLESS INOX 3/8 FF L=1500		TUBO FLESS INOX 3/8 FF 1500 ALFILLING TUBE	
01000030	TUBO FLESS INOX 3/8 FF L=500		STAINLESS STEEL FLEXIBLE TUBE 3/8 F-F L.500	
01000086	ROTOLO MOUSSE ADESSIVO 3x45mm (1 ROTOLO -> L=10mt)		MOUSSE ROLL ADHESIVE 3x45 mm (1 ROLL -> L = 10 m)	
01000087	TUBO SCARICO 18x24,4		DRAINING TUBE 18x24,4	
01000127	TUBO SCARICO CON MANICOTTO DIRITTO D.19 L= 2 m		DRAIN HOSE WITH ELBOW D.19 L= 2M	
01000184	ISOLANTE GRUPPO EROGAZIONE ADONIS		INSULATOR BREWING GR. ADONIS	
01000190	ANTIVIBRANTE CD15x30 M4 FF		VIBRATION DAMPER 15x30 M4 FF	
01000218	ISOLANTE CALDAIA D80 155x252,7		BOILER INSULATION D.80 115 x 253	
01000220	ISOLANTE SUPER. D.80 CALDAIA		BOILER UPPER INSULATION D.80	
01000222	ISOLANTE INFER. D.80 CALDAIA		BOILER LOWER INSULATION D.80	
01000232	ISOLANTE CALDAIA 2GR AURELIAII T3		BOILER INSULANT 2GR AURELIA II T3	
01000233	ISOLANTE CALDAIA 3GR AURELIAII T3		BOILER INSULANT 3GR AURELIA II T3	
01000235	ISOLANTE D.180 DX CALDAIA AURELIA II T3		RIGHT BOILER INSULANT AURELIA II T3	
01000237	ISOLANTE D.180 SX CALDAIA AURELIA II T3		LEFT BOILER INSULANT AURELIA II T3	
01000239	ISOLANTE GRUPPO EROG. AURELIA II T3		GROUP INSULANT AURELIA II T3	
01000264	GUARNIZIONE TRAFILATO ARMATO		TREATED SEAL ARMED FOR VA388 DRAIN PLATE	
01300005	POMPANTE VOLUMETRICO 100 lt/h OT-57		VOLUMETRIC PUMP 100 L/h	
01300006	POMPANTE VOLUMETRICO 200 lt/h OT-57		VOLUMETRIC PUMP 200 L/h	
02060015	GUARNIZIONE PTFE 067x054x2		GASKET FOR HEATING ELEMENT 067x054x2	
02280004	GUARN. OR 115 D.17 EP856 SNODO LANCIA	*KB*	GASKET OR 115 D17 EP 856 x SWIVEL STEAM PIPE	
02280011	GUARN. OR R11 D19 EP 851		GASKET O RING R11 D19 EP 851	
02280012	GUARN. OR 2093 D.27 VITON DF 801		GASKET O RING 2093 D.27 EP851	
02280014	GUARN. OR D7 AN2/OR102 SILICON 7XL1715		GASKET O RING D.7 AN2/OR102 SILICON	
02280032	GUARN. OR 114 D.15 EP 851		GASKET O RING 114 D.15 EP 851	
02280033	GUARN. OR 75.92x1,78 NBR XP70 2300		GASKET O RING 75.92x1.78 NBR XP70	
02280036	GUARN. OR x BECCO LANCIA VAP. DI 6x1.2 EPDM70		GASKET OR x STEAM WAND NOZZLE	
02280037	GUARN. OR CHIUSURA SNODO 16x2 NBR70		GASKET OR JOINT LOCK 16x2	
02290016	GUARN. OR D 9,5 R5 SILICONE R.		GASKET OR D 9,5 R5 SILICON RED	
02600004	GUARN. OR 15,2x10,2x2,5 TEFLONx SFERA LANCIA VAPORE		GASKET OR - 15,2 x 9,9 x 2,6 TEFLON	
03000004	STAFFA SINGOLA x TERMOSTATO		STEEL HOLDER FASTOM FOR THERMOSTAT	
03000004.1	STAFFA DOPPIA x TERMOSTATO		DOUBLE BRACKET FOR THERMOSTAT	
03000066	DOCCIA INOX 56x5,5x 6 SALDATA Aisi304		SHOWER INOX 056X05,5X6	
03000072	FILTRO 1 CAFFE' ALTO 7 gr.		FILTER ONE COFFEE HIGH	REPLACE 03000321
03000073	FILTRO 2 CAFFE' ALTO 14 gr.		FILTER TWO COFFEE HIGH	REPLACE 03000322
03000107	FILTRO CIECO		BLIND FILTER	
03000202	VASCHETTA RACC.CONDENSE MASTER		CONDENSATION TRAY MASTER	
03001792	CHIUSURA CENTRALINA AURELIA		CONTROL BOARD COVER	
03001794	CONTENITORE CENTRALINA AURELIA		CONTROL BOARD CASE AURELIA	
03002532	PIASTRINA SENSORE TEMPERATURA SCALDATAZZE		CUPWARMER TEMPERATURE SENSOR SUPPORT	
03002577	LAMIERA COPERTURA RELE' GR. CALDAIE CAFFE'		COVER FOR COFFEE BOILER CONTACTOR	
03003202	BASAM. PORTANTE 2GR. VA388		BASE 2GR VA388	
03003203	BASAM. PORTANTE 3GR. VA388		BASE 3GR VA 388	
03003205	FIANCO TELAIO DX VA388		RIGHT SIDE FRAME VA388	
03003207	FIANCO TELAIO SX VA388		LEFT SIDE FRAME VA388	
03003209	LAMIERA GUIDA PIATTO VA388		SUPPORT DRAIN TRAY VA388	
03003212	PARETE PORTAGRUPPI 2GR. VA388		GROUP SUPPORT 2 GR VA388	
03003213	PARETE PORTAGRUPPI 3GR. VA388		GROUP SUPPORT 3 GR VA388	
03003215	LAMIERA SUPER. POSTERIORE 2GR. VA388		UPPER BACK SIDE PLATE 2 GR VA388	
03003216	LAMIERA SUPER. POSTERIORE 3GR. VA388		UPPER BACK SIDE PLATE 3 GR VA388	
03003218	LAMIERA DX SUPP. COPRIGRUPPO VA388		RIGHT SUPPORT COVER GROUP VA 388	
03003219	LAMIERA SX SUPP. COPRIGRUPPO VA388		LEFT SUPPORT COVER GROUP VA 388	
03003220	LAMIERA SUPP. RUBINETTO VAPORE VA388		HOT WATER ARM SUPPORT VA388	
03003221	LAMIERA SUPP. ATTACCO LANCIA ACQUA CALDA VA388		HOT WATER WAND SUPPORT VA 388	
03003222	LAMIERA SUPP. MANOMETRO VA388		PRESSURE GAUGE SUPPORT VA388	
03003223	LAMIERA SUPPORTO COMPRESSORE VA388		COMPRESSOR SUPPORT VA388	
03003224	LAMIERA SUPP. PRESSOSTATO DIGIT VA388		PRESSURE TRANSDUCER SUPPORT VA 388	
03003225	LAMIERA SUPP. PRESSOSTATO MECCANICO VA388		SAFETY PRESSOSTAT SUPPORT VA388	
03003226	LAMIERA SUPP. CALDAIETTE VA388		COFFEE BOILER SUPPORT VA388	
03003228	LAMIERA SUPP. DOSATORI VA388		FLOW METER SUPPORT VA388	
03003230	STAFFA FISSAGGIO CALDAIA VA388		MAIN BOILER BRACKET VA388	
03003232	LAMIERA SUPP. CALDAIA VA388		SUPPORT MAIN BOILER VA388	
03003233	LAMIERA PROTEZIONE TUBO CARICO VA388		SAFETY PROTECTION SHEET INLET PIPE VA388	
03003234	LAMIERA SUPP. EV LIVELLO VA388		LEVEL VALVE SUPPORT VA388	



CODICE	DESCRIZIONE	DESCRIPTION	DATA FINE VALIDITA'
03003236	LAMIERA SUPP. RELE' PER 2GR. VA388 CON BILANCE	VA388 SCALE 2GR RELE' SUPPORT	14/07/2015
03003238	LAMIERA SUPP. CENTRAL. CALDAIE VA388	EXTENTION CONTROL BOARD SUPPORT VA388	
03003240	LAMIERA FISS. SCATOLA CENTRAL. VA388	MAIN BOARD SUPPORT VA388	
03003242	LAMIERA SUPP.TELERUTTORE VA388	CONTACTOR SUPPORT VA388	
03003250	LAMIERA SUPPORTO BILANCIA VA388	SCALE SUPPORT VA388	
03003252	LAMIERA PROTEZIONE BILANCIA VA388	SCALE SENSOR PROTECTION VA388	
03003254	LAMIERA SUPPORTO RETINA BILANCIA VA388	SCALE GRILL SUPPORT VA388	
03003270	MOSTRINA SUP. FIANCO DX VA388	RIGHT UPPER LATERAL FRAME VA 388	
03003271	MOSTRINA SUP. FIANCO SX VA388	LEFT UPPER LATERAL FRAME VA 388	
03003272	PARETE FRONTALE INF. 2GR VA388	LOWER FRONT PANEL 2 GR VA 388	
03003276	PARETE FRONTALE SUP. 3GR VA388	UPPER FRONT PANEL 3 GR VA 388	
03003278	LAMIERA SOTTOPIATTO 2GR. VA388	LOWER DRAIN TRAY PLATE 2 GR VA 388	
03003279	LAMIERA SOTTOPIATTO 3GR. VA388	LOWER DRAIN TRAY PLATE 3 GR VA 388	
03003292	PIATTO RACCOGLIACQUA 2GR VA388	DRIP TRAY 2 GR VA388	
03003293	PIATTO RACCOGLIACQUA 3GR VA388	DRIP TRAY 3 GR VA388	
03003295	RETINA PIANO LAVORO 2GR. VA388	DRIP TRAY GRID 2 GR VA388	
03003296	RETINA PIANO LAVORO 3GR. VA388	DRIP TRAY GRID 3 GR VA388	
03003298	PORTATAZZE SUPER. DX VA388	RIGHT PART CUP PANEL/CUP WARMER VA 388	
03003299	PORTATAZZE SUPER. SX VA388	LEFT CUP PANEL/CUP WARMER VA 388	
03003300	PORTATAZZE SUPER. CENTR. VA388	CENTRAL PART CUP PANEL/CUP WARMER VA 388	
03003304	BORCHIA PIEDE MACCHINA VA388	COVER FEET VA 388	
03003312	PIATTO RACCOGLIACQUA PROFONDO 2GR. VA388	DEEP DRAIN TRAY 2GR. VA388	
03003313	PIATTO RACCOGLIACQUA PROFONDO 3GR. VA388	DEEP DRAIN TRAY 3GR. VA388	
03003315	RETINA PIANO LAVORO PROFONDO 2GR. VA388	WORK GRILL DEEP DRAIN TRAY 2 GR VA388	
03003316	RETINA PIANO LAVORO PROFONDO 3GR. VA388	WORK GRILL DEEP DRAIN TRAY 2 GR VA388	
03003322	PARETE FRONTALE INF. 2GR VA388 PER BILANCE	BOTTOM COVER PANEL 2 GR VA388 SCALE	
03003323	PARETE FRONTALE INF. 3GR VA388 PER BILANCE	BOTTOM COVER PANEL 3 GR VA388 SCALE	
03003325	RETINA PIANO LAVORO PROFONDO 2GR. VA388 PER BILANCE	WORK GRILL DEEP DRAIN TRAY 2 GR VA388 SCALE	
03003326	RETINA PIANO LAVORO PROFONDO 3GR. VA388 PER BILANCE	WORK GRILL DEEP DRAIN TRAY 3 GR VA388 SCALE	
03003328	RETINA BILANCIA VA388	SCALE GRILL VA388	
04000043	CONDENS.10microF x 04500034 UL	CAPACITOR 10mF x 04500034	
04000051	MORSETTO 3 POLI	PA 67/3 TERMINAL	
04000198	PRESA LAMELLARE M 6.3 d4.2 45°	FOIL HOLDER M 6.3 D 4.2 45°	
04000244	CAVO COLL.3P RAST 2.5/MOLEX L. 800mm	3 POLE CONNECTING CABLE RAST for PRESSURE SWITCH TRANSDUCER	
04000332	CAVALLOTTO L=85 + FASTON F-F	CABLE CONNECTION CABLE 85 MM + 90° FASTON F-F AWG18	
04000340	PONTICELLO TRASF. ALIMENTAZ. DA 380V A 230V	380V/230V TRANSFORMER BRIDGE - AURELIA, APPIA	
04000366	PROTEZIONE PVC CENTRALINA AURELIA	PVC SWITCHBOARD PROTECTION AURELIA	
04000380	CAVO COLL. Sonda SCALDATAZZE AURELIA L=100cm	CUP WARMER SENSOR CONNECTING CABLE - AURELIA L=100 M	
04000381	CABLAGGIO AURELIA 09 CSA PRESSOSTATO-RELE'	SUPPLY WIRING AURELIA DIGIT CSA	
04000386	CABLAGGIO SCALDATAZZE 1 TEMP. 2GR.	CUPWARM WIRING 1 TEMP 2GR.	
04000387	CABLAGGIO SCALDATAZZE 1 TEMP. 3GR.	CUPWARM WIRING 1 TEMP 3GR.	
04000400	CABLAGGIO AURELIA II 2GR. SENZA FUNZIONE VAPORE	AURELIA II 2GR NO STEAM FUNCTIONS WIRINGS	
04000401	CABLAGGIO AURELIA II 3-4GR. SENZA FUNZIONE VAPORE	AURELIA II 3-4GR NO STEAM FUNCTIONS WIRINGS	
04000404	SUPPL. CABLAGGIO DOSATORI AURELIA II 2GR	FLOWMETER ADDITIONAL WIRING 2GR.	
04000405	SUPPL. CABLAGGIO DOSATORI AURELIA II 3-4GR	FLOWMETER ADDITIONAL WIRING 3-4GR.	
04000406	SUPPL. CABLAGGIO AURELIA II T3 2GR.	EXTRA WIRING AURELIA II 2GR T3	
04000408	SUPPL. CABLAGGIO AURELIA II T3 3GR.	EXTRA WIRING AURELIA II 3GR T3	
04000409	CABLAGGIO TERMOSTATO CALDAIA 'CAFFE' AURELIA II T3	SAFETY THERMOSTAT MAIN BOILER WIRING AURELIA II T3 CSA	
04000410	CAVO COLL. TERRA "DISPLAY A COLORI" AURELIA II	GROUND CONNECTION CABLE AURELIA II 3-1 GR	
04000430	CAVO 10 VIE COLL. CENTRALINA - "DISPLAY A COLORI"	FLAT CABLE 10 WAYS CONTROL BOARD-TFT DISPLAY	
04000431	CAVO 10 VIE COLL.RELE' CALDAIE - CENTRALINA 2-3GR	FLAT CABLE 10 WAYS CONTROL BOARD-BOILERS SOLID STATE RELAY 2-3GR	
04000432	CAVO 26 VIE COLL. CENTR.-CENTR. CALDAIE "DISPLAY A COLORI"	FLAT CABLE 26 WAYS CONTROL BOARD -PID BOARD	
04000436	CAVO 10 VIE COLL.RELE' CALDAIE - CENTRALINA 3GR	FLAT CABLE 10 WAYS CONTROL BOARD-BOILERS SOLID STATE RELAY 3GR	
04000440	CABLAGGIO COLLEG. RELE' CALDAIA L=1900	WIRING FOR BOILER SOLID STATE RELAY L=1900	
04000547	CAVO ELETTR. FROR 5x6 L=2mt	CABLE 5x6 L=2mt	
04000548	CAVO ELETTR. 3x6 H07RN-F 2mt CB -> ICEL -	POWER SUPPLY CORD 3x6 H07RN-F 2 mt CB -ICEL-	
04001020	TRASF.CENTRALINA IN 90/264 VAC OUT:24 VDC LPV-20-24	TRANSFORMER IN 90/264 VACOUT:24 VDC LPV 20-24	
04001030	CAVO 6 VIE VAPORE-ACQUA CALDA VA388	CABLE HOT WATER / STEAM	
04001032	CAVO 16 VIE DISPLAY GRUPPI VA388 2GR	16 WAYS FLAT CABLE GROUP DISPLAY VA 388 2 GR	
04001033	CAVO 16 VIE DISPLAY GRUPPI VA388 3GR	16 WAYS FLAT CABLE DISPLAY GROUPS VA388 3 GR	
04001035	CAVO 16 VIE PULSANTIERE VA388 2GR	16 WAYS FLAT CABLE THREE BUTTONS DELIVERY UNIT 2 GR VA388	
04001036	CAVO 16 VIE PULSANTIERE VA388 3GR	16 WAYS FLAT CABLE THREE BUTTONS DELIVERY UNIT 3 GR VA388	
04001038	CAVO 20 VIE CENTRALINA-CENTR. BILANCE VA388	20 WAYS FLAT CABLE POWER BOARD - SCALE BOARD VA388 SCALE	
04001040	CAVO ALIMENTAZIONE CENTRALINA BILANCE VA388	SCALE CONTROL BOARD POWER CONNECTION VA388	
04001050	PROTEZIONE PVC MORSETTIERA VA388	PVC PROTECTION TERMINAL BLOCK VA 388	
04060013	CAVO ALIM. AWG3x10 SJOOW 90°C UL/CSA	POWER CABLE AWG3x10 + PLUG 50A	
04100012	E.V. NC 2VIE 1/4-1/4 220-230V 50/60HZ VITON F1.5 CEPI	EV 2W 1/4 1/4 220-230V 50/60HZ VITON F1,5 CE	
04100017	E.V. NC 3VIE BASETTA SCAR. 1/8220-230V 50/60Hz	EV 3W DOWNL.1/8 220-230V 50/60HZ RUBY F1,5 CE	
04100022	E.V. NC 2VIE 1/4-1/4 220-230V 50/60Hz	2 WAYS SOLENOID 1/4 F.3 220/230V 50/60Hz	
04100024	E.V. NC 2VIE 1/4 REGOLAT. 90° 230V 50/60Hz F.3	2 WAYS EV WITH REGULATOR	
04100027	E.V. NC 3VIE BASETTA SCAR. 1/8 208-240V 60Hz	EV 3W DRAIN 1/8 208-240V 60Hz RUBY D1,3 UL	
04100029	E.V. NC 2VIE 1/4-1/4 208-240V 60Hz VITON F1.5 UL	E.V. 2VIE AL 220/240 50/60 UL	
04100030	E.V. NC 2VIE 1/4-1/4 208-240V 60Hz RUBY F3 UL	2 WAYS SOLENOID 1/4 F.3 208-240V 60HZ UL	
04100033	E.V. NC 2VIE 1/4 REGOLAT. 90° 220V 60Hz F3 UL CANOT.	EV 2 WAYS 1/4 REGULATING 90° 220V 60Hz D3 UL	
04100042	E.V. NC 2VIE 1/8-1/8 220-230V 50/60Hz VITON F2 CE	2 WAYS VALVE 1/8-1/8 220-230V 50/60Hz VITON F2 CE FIL. 1xM4	
04100058	E.V. NC 2VIE 1/8-1/8 208-240V 60Hz VITON F2 UL PIEDINO	2-WAYS S.V. 1/8-1/8 208-240V 60Hz VITON F2 UL	
04100072	E.V. NC 3VIE 1/4-1/4 SCAR.1/8 208/240V 50/60Hz F5 INOX	3-WAYS S.V 1/4-1/4 SCAR 1/8 208/240 V 50/60 Hz F5 INOX	
04200057	INTERRUT. ACCENSIONE BIPOL. GRANDE 10A UL 22x19 "AURELIA"	ON/OFF SWITCH 10A UL 22x19	
04200070	CONTATTORE QUADRIPOLORE 32A CE/UL BOBINA 230V	QUADRIPOLORE CONTRACTOR 32 A CE/UL COIL 230V	
04200072	CONTATTORE QUADRIPOLORE 45A CE/UL BOBINA 230V	CONTACTOR 45 A CE/UL 230 V	
04200095	RELE' STATICO 25A -250V 3 pz. ASSEMBLATI + CAVO COLL.	STATIC CONTACTORS ASSEMBLY 25A - 250V	
04200098	RELE' STATICO 25A 280V 1relè ASSEMBLATI AURELIA II T3 2 GR	ASSEMBLED STATIC RELAY 25 A 280V AURELIA II T3 2 GR	
04200099	RELE' STATICO 25A 280V 2relè ASSEMBLATI AURELIA II T3 3GR	ASSEMBLED STATIC RELAYS 25 A 280V AURELIA II T3 3 GR	
04500034	MOTORE ELETTRICO 230V 50/60Hz 165W	ELECTR. MOTOR 230 V 50/60 HZ	
04600020	MICROCOMPRESSORE x EASY CREAM TALENTO / AURELIA II	MICROCOMPRESSOR "TALENTO CMK"	
04900027	DOSATORE VOLUMETRICO OTT. 1/4-1/4GAS -ATT. TEST. 2,8x0,5	FLOWMETER 1/4-1/4GAS -ATT. TEST. 2,8x0,5	
04900775.1	SONDA TEMPERATURA 150° NTC ATT.1/8 INOX 4x20 Lcavo=500	TEMPERATURE PROBE 150°NTC ATT.1/8 SS 4X20	
04900780	SONDA PT1000 x LANCIA VAPORE "TURBO CREAM" D06 + SUPPL	PROBE PT1000 X STEAM WAND "TURBO CREAM" D06	
04900808	SONDA TEMPERATURA SCALDATAZZE AURELIA	CUP WARMER TEMPERATURE SENSOR - AURELIA	
04900990	CENTR. GESTIONE SONDE AURELIA II T3 "DISPLAY A COLORI"	PROBES CONTROL BOARD AURELIA II T3 TFT	
04900991	SONDA TEMPERATURA PT1000 GR. AURELIA II "DISPLAY A COLORI"	GROUP TEMPERATURE PROBE PT1000 FOR AURELIAII TFT	
04901150	CENTRALINA BILANCE VA388 AVRSCALE3 220V	SCALE CONTROL BOARD VA388 AVRSCALE3 220V	
04901151	CENTRALINA VA388 T3 SEM GRAV. AVRVASCALE220V	POWER CONTROL BOARD VA388 SEM GRAV. AVRVASCALE220V	
04901152	CENTRALINA VA388 T3 VOL	CONTROL BOARD VA388	
04901153	CENTRALINA VA388 T3 VOL REMOTE CONTROL	CONTROL BOARD VA388 VOL R.C.	
04901154	SCHEDA DISPLAY GRUPPO EROG. VA388 VADISP	POURING GROUP DISPLAY CARD	

CODICE	DESCRIZIONE	DESCRIPTION	DATA FINE VALIDITA'
04901158	SCHEDA SERVIZI 3 TASTI VA388	SCHEDA SERVIZI 3 TASTI VA388 SERVICE CARD 3 BUTTONS	
04901160	SCHEDA EROGAZ. 3 TASTI VA388	SCHEDA EROGAZ. 3 TASTI VA388 POURING CARD 3 BUTTONS	
04901160.G	GUARNIZIONE PER SCHEDA EROGAZ. 3 TASTI VA388	GASKET FOR THREE BUTTONS DELIVERY UNIT VA 388	
04901164	SCHEDA EROGAZ. 1 TASTO ACQUA CALDA VA388	POURING CARD	
04901167	CENTRALINA VA388 T3 SEM GRAV. AVRVASCALE220V REMOTE	MAIN BOARD VA388 T3 SEM GRAV AVRVASCALE220V REMOTE CONTROL	
05000001	GOMMINO PROTEZIONE LANCIA D. 10	STEAM ARM RUBBER GRIP	
05000015	RACCORDO PORTATUBO WES 6R 1/8	WES 6R 1/8 HOSE FASTENING	
05000047	COPRI RESISTENZA QUADRATA V0	HEATING ELEMENT COVER	
05000063	COPRI VALVOLA SICUREZZA PA6	SAFETY VALVE COVER	
05000089	PRESSACAVO TEC-S M25 CON DADO	STRAIN BELIEF TEC-S M25	
05000186	INSERTO NYLON GR. OSCAR h3 D.6,3/20 NERO	H2 NYLON INSERT OSCAR GROUP	
05000230	COPRI TELERRUTTORE	ELECTRONIC RELAY COVER	
05000232	COPRI INTERRUPTORE QUADRATO	SWITCH COVER	
05000408	CHIUSURA PORTA USB VA388	USB COVER VA 388	
05000410	POMELLO ROTARY SWITCH VA388	ROTARY SWITCH HANDLE VA 388	
05000412	CHIUSURA SCHEDA DISPLAY+ROTARY VA388	TFT DISPLAY BOARD COVER VA388	
05000414	CHIUSURA DISPLAY GR.EROGAZIONE VA388	DISPLAY GROUP COVER VA388	
05000416	PROTEZIONE CAVO DISPLAY GRUPPO VA388	SLEEVE PROTECTION DISPLAY CABLE VA 388	
05000418	PROTEZIONE 1 TASTO VA388	ONE BUTTON COVER VA388	
05000420	VASCHETTA SOTTO PIATTO TAPPO VA388	DRAIN TRAY VA388	
05000422	VASCHETTA SOTTO PIATTO VA388	COVER DRAIN TRAY + CONNECTION EXHAUST PIPES	
05000424	MANOPOLA VAPORE VA388	STEAM TAP HANDLE VA 388	
05000426	ANELLO VERTEBRA SUPER. CARICO/ SCARICO VA388	UPPER CABLES COVER VERTEBRA VA388	
05000430	ANELLO VERTEBRA CARICO/SCARICO VA388	CABLES COVER VERTEBRA VA389	
05000436	PIEDINO MACCHINA VA388 M10 F Aisi304 Sh.55 50x21	FEET VA388 M10 F AISI304 SH.55 50X21	
05000438	PIEDE MACCHINA BICOMPONENTE D.50 H=240 INSERTO M10 M	BICOMPONENT MACHINE FEET D.50 H=240 CONNECTION MALE M10	
05000440	LOGO POSTERIORE VA388 COMPLETO DI SUPPORTO	VA 388 EMBLEM REAR PANEL	
05000763	RACCORDO ATT. 3/4"x19 90° x TUBO DI SCARICO	CONNECTION 3/4 90° F x DRAINING TUBE	
05000842.NO	CHIUSURA MANOPOLA PORTAFILTRO 2003 VERN. NERO	FILTER HOLDER KNOB LOCK 2003 MATT BLACK	
05001224.C	MOSTRINA MANOMETRO AURELIA II CROMATA	WATER MANOMETER CHROMED FRAME AURELIA II	
05001250	VESTRINO PROTEZIONE DISPLAY A COLORI AURELIA II	DISPLAY PLASTIC COVER AURELIA II TFT	
05002212	PROTEZIONE DISPLAY ADONIS	DISPLAY PROTECTION ADONIS	
05002230	TAPPO GOMMA SCARICO x 05002228	DRAIN RUBBER PLUG	
05002239	COPRI RUBINETTO SUP. ANTERIORE CROMATO APERTURA	CHROMED UPPER STEAM WAND COVER	
05002240	COPRI RUBINETTO INF. ANTERIORE CROMATO APERTURA	CHROMED LOWER STEAM WAND COVER	
06100100	COPRIGRUPPO CROMATO VA388	CHROMED COVER GROUP VA388	
06100106	COPRI RUBINETTO SUP. VAPORE CROMATO VA388	CHROMED UPPER COVER STEAM ARM VA388	
06100108	COPRI RUBINETTO INF. VAPORE CROMATO VA388	CHROMED LOWER COVER STEAM ARM VA388	
06100110	COPRI RUBINETTO ACQUA CALDA CROMATO VA388	CHROMED COVER HOT WATER VA388	
06100112	CARTER DISPLAY CROMATO VA388	CHROMED COVER TFT DISPLAY VA388	
06100114	CARTER CHIUSO CROMATO CON LOGO VA388 3GR.	CHROMED FRONTAL COVER WITH VA EMBLEM	
06100116	LOGO CIRCOLARE VA388	VA388 CIRCULAR LOGO	
06200008	BECCO DUE VIE OPEN	TWO WAYS SPOUT	
06200081	ANELLO GRUPPO +SEDE OR CROMATO OT-58	CHROME GROUP RING AURELIA	
07300009	DADO RACCORDO 1/4 GAS	NUT CONNECTION 1/4 GAS	
07300012.M8	RACC. 1/4 1/4 GAS CON OR F.M8 OT-57 USA	CONNECTION 1/4 1/4 W/OR HOLE M8	
07300015	RACCORDO 3/8 3/8 GAS	3/8 3/8 GAS CONNECTION ADD. 26.06.96	
07300063	TERMINALE CHIUSO D.11	TERMINAL D 11 CLOSED	
07300067	DADO RACCORDO 3/8 GAS D11 AGG. 15.11.84	NUT CONNECTION 3/8 GAS D11	
07300068	RACCORDO L 3/8 M-M CILIN. OT-58 NICHELATO	CONNECTION L 3/8 M-M CYLIN 459	
07300069	RACCORDO 1/8"M 1/4"F	1/8" M 1/4" F CONNECTION ADD. 02.03.88	
07300091	RACCORDO T 1/4 M-F-M CILIN.	T FITTING MFM 1/4	
07300092	BECCO UNA VIA CURVO OPEN	SINGLE SPOUT	
07300097	TERMINALE CHIUSO D 14	TERMINAL D.14	
07300099	RIDUZIONE 3/8-1/4 ES.20	VACUUM RELIEF VALVE ADAPTER	
07300100.M8	ATTACCO SCAR. 1/4-1/4 + INT M8	FITTING 1/4"M-1/4"M INT. M8	
07300116	RACCORDO T 1/4 M-M-F OT-58 NICHELATO	JOINT T1/4 M-M-F 465	
07300121	RACCORDO L 1/4 M-M CILINDRICO	CONNECTION L 1/4 M-M CYLIN. 459	
07300128	TAPPO 1/4 GAS	CAP 1/4 GAS	
07300129	TAPPO 1/8 GAS	CAP 1/8 GAS	
07300166	FLANGIA CHIUSURA BLOCCHETTO PORTA ELETTROV.	BLOCK LOCK FLANGE SOLENOID VALVE HOLDER	
07300183.N	PADIGLIONE GRUPPO PREMIER2002 h=3 NANOTECH	NANOTECH COATED PAVILLON H=3 PREMIER GROUP	
07300183.T	PADIGLIONE GRUPPO PREMIER2002 h=3 TEFLONATO	TEFLON COATED PAVILLON H=3 MM PREMIER GROUP	
07300221	ASTA INOX RUBINETTO VAPORE	STEAM VALVE INOX SCREW	
07300229	GIGLEUR M8x8 F.0,5	GIGLEUR M8X8 F.0.5	
07300236	RACCORDO A T 3/8 M-F-F	T CONNECTION 3/8 M-F-F 466	
07300249	RACCORDO 1/8M L=12 3/8F	UNION 1/8M L = 12 3/8F	
07300293	BUSSOLA SNODO OTT.	BRASS BUSHING	
07300295	DADO RACC. 3/8 LANCIA SNODATA OTTONE NICHELATO	WAND NUT 3/8	
07300341	PERNO BLOCC. CENTRAL. VIP INOX NICHELATO L=35	CENTRAL LOCK VIP NICKEL PLATED L=35	
07300342	PERNO SUPPORTO CENTRAL. VIP NICHELATO	NICKEL PLATED CONTROL UNIT SUPPORT PIN	
07300354	CORPO RUB. VAPORE x LANC. SNOD OTTONE OT-58	STEAM KNOB BODY X FLEXIBLE WAND	
07300355	FORCELLA RUBINETTO '99 OTTONE OT-58	TAP FORK	
07300362	RACCORDO DIR. 1/4 M-CALZ.6 340	STRAIGHT FITTING 1/4	
07300364	RACCORDO DIR. 1/8 M CON. - CALZAM.6 340	STRAIGHT FITTING 1/8 SHEATH TYPE D.6	
07300392	ATTACCO RUB. ACQUA CALDA VA388 OT-58	HOT WATER TAP CONNECTION VA388 OT-58	
07300394	PROLUNGA RUBINETTO ACQUA CALDA VA388	HOT WATER TAP EXTENTION VA 388	
07300396	POMELLO REGISTRO POMPANTE VA388	EXTERNAL PRESSURE HANDLE VA388	
07300450	RACCORDO T 1/8 M-F-M	COUPLING T 1/8	
07300552	RONDELLA GRANDE PTFE RUBINETTO APERTURA A LEVA	BUSHING PTFE TAP LEVER OPENING	
07300553	RONDELLA PICCOLA PTFE RUB. APERTURA A LEVA	SMALL BUSHING PTFE TAP LEVER OPENING ADONIS	
07300601	INSERTO MANOPOLA PORTAFILTRO 2003 INOX (Aisi303)	FILTER HOLDER KNOB INSERTION 2003 STAINLESS	
07300613	INSERTO CAMERA PRE-INFUSIONE GR. AURELIA OT-57	PRE INFUSION CHAMBER CAP	
07300647	RONDELLA INOX ROMPIGOCCIA MANOPOLA PORTAFILTRO	PROTECTION BACK DRIP FILTER HANDLE	
07300649	ANELLO+GRANO PER PORTAFILTRO BECCO ORIENTABILE	ADJUSTABLE RING + GRUB SCREW	
07300671	ATTACCO RUB. ACQUA CALDA VA388 OT-58	HOT WATER TAP CONNECTION VA388 OT-58	
07300692	TAPPO PORTAMOLLA RUB. VAP. ADONIS	SPRING HOLDER PLUG STEAM WAND ADONIS	
07300714	RACCORDO L 1/8 M - CALZAM.6	L FITTING 1/8 SHEAT TYPE D6	
07300720	RACCORDO L 1/4 M - CALZAM.	L FITTING 1/4 M SHEAT TYPE	
07300810	SPINOTTO RUB.VAPORE AURELIA II	SPINOTTO RUB.VAPORE AURELIA II REPLACE 07300104	
07300862	TAPPO 1/8 GAS Aisi303 + OR	CAP 1/8 GAS AISI303 + OR	
08000005	MOLLA 6 ST 11,5X8,5X25 RUB.VAPORE	STEAM VALVE SPRING	
08000015	ANELLO SEEGER TIPO RS 5 INOX UNI7434	SEEGER RING RS 5 STAINLESS STEEL	
08000017	MOLLA BLOCCA FILTRO ACC.INOX	FILTER HOLDER SPRING INOX	
08000027	MOLLA PER LANCIA SNODATA	WAND SPRING	
08000034	FASCETTA STRINGITUBO D12	HOSE CLAMPS D12	



CODICE	DESCRIZIONE	DESCRIPTION	DATA FINE VALIDITA'
08000093	MOLLA FISSAGGIO ISOLANTE GR. EROGAZ. AURELIA II	INSULATION SHEET SPRING DELIVERY GROUP AURELIA II	
09000016	RUBINET. SFERA ALLACCIO RETE 3/8 M-F	TAP CONNECTION SUPPLY 3/8 M-F	
09000018	RUBINET. SFERA DISTRIBUTORE 1/4 M-F	DISPENSER TAP 1/4 M-F	
09100011	MANOMETRO SCALA 0-16 BAR VA388	PRESSURE GAUGE 0-16 BAR VA 388	
09200006	PRESSOSTATO MACCHINA CE/UL TRIF. 30A 400V	PRESSOSTAT	
09200018	TRASDUTTORE DI PRESSIONE R1	PRESSURE TRANSDUCER R1 WITHOUT LEAD	
09500002	TERMOSTATO RIARMO AUTO. 125°C	AUTOMATIC RESET THERMOSTATE 125°	
09500004	TERMOSTATO R.MAN. 135°C	AUTOMATIC THERMOSTAT 135°C	
09500014	TERMOPROTETTORE x RESISTENZA G5 167°C 16A 250V	THERMO PROTECTOR	
11600001.W	RACC. 1/4 1/4 GAS CON OR F.M8 OT-57 USA	CONNECTION 1/4 1/4 W/OR HOLE M8	
11600004	TUBO SILICONE 5x9 60Sh PEROX BIANCO SEMITRASPA	SILICON PIPE WHITE 5x9 60Sh SEMI-TRANSPARENT	
11740001	TUBO TEFLON 6/4	TEFLON PIPE 4X6	
14100011	RESISTENZA 3000W PR/ 2 GR.	HEATING ELEMENT 3000W	
14100012	RESISTENZA 5000W PR/3-4 GR.	HEATING ELEM. 5000W	
14100031	RESISTENZA 4500W 220/380 L350	HEATING ELEMENT 4500W	
14100043	RESISTENZA SCALDATAZZE L=303 150W 230V	CUPS WARMER RESISTOR L=303 150W 230V	
14100044	RESISTENZA SCALDATAZZE L=188 100W 230V	CUPS WARMER RESISTOR L=188 150W 230V	
14100066	RESISTENZA A CARTUCCIA D10x115 300W 230V	CARTRIDGE WARMER D10x115	
40000005	RONDELLA OT 27x17x2 GREZZA	BRASS BUSHING	
40200004	GUARNIZ. SOTTOCOPPA CONICA 82/84 ShA	GROUP BAR GASKET	
40200008	GUARNIZIONE VETRO LIVELLO	LEVEL GLASS SEAL 10 MM	
48000010	TUBO EROGAZIONE GRUPPO VENUS 2-3 GRUPPI	POURING PIPE VENUS 2-3 GR	
75006038.1	BECCO VAPORE M8,65x0,75 F. 1,2 ESAG.12	STEAM TIP 1.2	
75006038.2	BECCO VAPORE M8,65x0,75 F. 1,5 ESAG.12	STEAM NOOZLE M8,65x0,75 F. 1,5 ESAG.12	
82007003	ROMPIGETTO ACQUA CALDA D.23,5 F1/8"	HOT WATER DISPERSION NUT D.23,5	
98003018	VALVOLA RITEGNO 98 ES.16	RETAIN VALVE 98 ES.16	
98004001	FILTRO INOX DIAM. 8	FILTER INOX DIAM. 8	
98004016	FILTRO INOX DIAM. 12	STAINLESS FILTER DIAM. 12	
98005021.PN	PORTAFILTRO TEFLONATO COMP. 1 VIA N.S. IN PELLE N	COMPLETE TEFLON FILTER HOLDER 1 WAY N.S. IN BLACK LEATHER	
98005022.PN	PORTAFILTRO TEFLONATO COMP. 2 VIE N.S. IN PELLE N	COMPLETE TEFLON FILTER HOLDER 2 WAY N.S. IN BLACK LEATHER	
98005024.PN	CORPO PORTAFILTRO TEFLONATO + MANOPOLA	TEFLON FILTERHOLDER WITH LEATHER HANDLE	
98006015	TUBO SILICONE 5x9 60Sh PEROX BIANCO SEMITRASPA	SILICON PIPE WHITE 5x9 60Sh SEMI-TRANSPARENT	
98006028	TUBO TEFLON 4x6 INTERNO LANCIA VAPORE L=147 mm	TEFLON TUBE 4X6 INSIDE STEAM WAND L=147 MM.	
98006070	LANCIA VAPORE FREDDA COMPLETA	COOL TOUCH STEAM WAND FOR AURELIA	
98007025	KIT LANCIA ACQUA C. INOX VA388	COMPLETE HOT WATER WAND INOX VA388 (82007003 INCLUDED)	
98008004	PISTONCINO CHIUSURA COMPLETO	COMPLETE STEAM VALVE PISTON	
980100000006000001	ASSIEME FIANCO DX VA388 STEELUX	RIGHT PANEL ASSEMBLY VA388 ANODIZED	
980100000006000002	ASSIEME FIANCO DX VA388 NERO OPACO	RIGHT PANEL ASSEMBLY VA388 BLACK	
980100000006000003	ASSIEME FIANCO DX VA388 BIANCO PERLA	RIGHT PANEL ASSEMBLY VA388 WHITE	
980100000006010001	ASSIEME FIANCO SX VA388 STEELUX	LEFT PANEL ASSEMBLY VA388 STEELUX	
980100000006010002	ASSIEME FIANCO SX VA388 NERO OPACO	LEFT PANEL ASSEMBLY VA388 BLACK	
980100000006010003	ASSIEME FIANCO SX VA388 BIANCO PERLA	LEFT PANEL ASSEMBLY VA388 WHITE	
980100000006050001	ASSIEME RETRO VA388 2GR. STEELUX	REAR PANEL 2GR. VA388 STEELUX	
980100000006050002	ASSIEME RETRO VA388 2GR. NERO OPACO	REAR PANEL 2GR. VA388 BLACK	
980100000006050003	ASSIEME RETRO VA388 2GR. BIANCO PERLA	REAR PANEL 2GR. VA388 WHITE	
980100000006060001	ASSIEME RETRO VA388 3GR. STEELUX	REAR PANEL 3GR. VA388 STEELUX	
980100000006060002	ASSIEME RETRO VA388 3GR. NERO OPACO	REAR PANEL 3GR. VA388 BLACK	
980100000006060003	ASSIEME RETRO VA388 3GR. BIANCO PERLA	REAR PANEL 3GR. VA388 WHITE	
980100000006080001	ASSIEME RETRO INFERIORE VA388 2GR.	LOWER REAR PANEL 2GR. VA388	
980100000006090001	ASSIEME RETRO INFERIORE VA388 3GR.	LOWER REAR PANEL 3GR. VA388	
980100000006100001	ASSIEME FIANCO DX VA388 GRAVIMETRICA STEELUX	RIGHT PANEL ASSEMBLY VA388 GRAVIMETRIC STEELUX	
980100000006110001	ASSIEME FIANCO SX VA388 GRAVIMETRICA STEELUX	LEFT PANEL ASSEMBLY VA388 GRAVIMETRIC STEELUX	
980100000006170001	ASSIEME RETRO VA388 3GR. "WBC" NERO OPACO	REAR PANEL 3GR. VA388 "WBC SEATTLE"	
98011002	PRESSA CAFFE' ANOD.BIANCO BRILLANTE V.A. '09	BRILLIANT WHITE ANODISED COFFEE TAMPER - V.A. '09	
98110001	VALVOLA RITEGNO COMPL. 1/8 F-F	RETAIN VALVE 1/8 F-F	
98120001	VALVOLA NEPLAX VITON 16,5 BAR 1/8	NEPLAX VITON 16,5 BAR VALVE 1/8 HOSE CLAMP	
98120005	VALVOLA NEPLAX VITON 12BAR 1/8	NEPLAX VITON 12 BAR VALVE 1/8 HOSE CLAMP	
98013022	VALVOLA SICUREZZA C10 1,8 BAR 3/8" VITON	C10 3/8 SAFETY VALVE SET TO 1.8 BAR 97/23/EC	
980200000006000	ASSIEME PIEDE ALTO VA388	HIGT FEET ASSEMBLY VA388	
980200000006001	ASSIEME PIEDE BASSO VA388	LOW FEET ASSEMBLY VA388	
980300000001300001	ASSIEME CALDAIA CAFFE' CE	ASSEMBLED COFFE BOILER - CE -	
980300000001300002	ASSIEME CALDAIA CAFFE' ETL/CSA	ASSEMBLED MAIN BOILER - ETL/CSA -	
980300000001310001	ASSIEME CALDAIA CAFFE' T3 GRUPPO DX CE	ASSEMBLED COFFE BOILER T3 GR - CE -	
980300000001310002	ASSIEME CALDAIA CAFFE' T3 GRUPPO DX ETL/CSA	ASSEMBLED COFFE BOILER T3 GR - ETL/CSA -	
9803000000013100137	ASSIEME DOSATORE AURELIA II T3 GIGLER F.0,5	FLOW METERS ASSEMBLY AURELIA II T3 + GIGLEUR 0.5	
98030000000140	ASS. TUBO COLL. GR.IDRAULICO - CALDAIA AURELIA II	ASSEMBLY CONN. BOILER HEAT EXCH. -STOP VALVE- GIGLER F0.5	
980300000000982	ASSIEME CALDAIA VA388 2GR.	ASSEMBLED MAIN BOILER VA388 2 GR	
980300000000983	ASSIEME CALDAIA VA388 3GR.	ASSEMBLED MAIN BOILER VA388 3 GR	
980400000000470001	ASSIEME GR. EROGAZ. VA388 TFT T3 CE	TFT - T3 GROUP HEAD ASSEMBLED VA388 - CE -	
980400000000470002	ASSIEME GR. EROGAZ. VA388 TFT T3" CSA	TFT - T3 GROUP HEAD ASSEMBLED VA388 - CSA -	
98030075	TUBO CAPILLARE 1/8-1/4	CAPILLARY TUBE 1/8-1/4 0,9X2X400 MANOM.-PUMP	
98030165	TUBO 1/4 1/4 MODIFICA SEMIAUT APPIA 1-2-3 GR.	TUBE 1/4 1/4 SEM CHANGE APPIA 1-2-3 GR	
98030308	CALDAIA SALD. ACCIAIO Aisi316 MICROBAR 08 230V	BOILER MICROBAR 08 230V	
98030320	TUBO 8x10 T CALDAIA T VALVOLA SICUREZZA 3/8 3/8	TUBE 8X10 T BOILER T SAFETY VALVE 3/8 3/8	
98030500	LANCIA VAPORE "EASYCREAM" INCLINATA DADO BAS	EASY CREAM WAND LOW INCLINE NUT	
98030501	TUBO TEFLON INTERNO CALDAIA CAFFE' AURELIA II	INNER COFFEE TANK TEFLON PIPE AURELIA II T3	
98030502	CALDAIA SALDATA 2GR D.180 Lt11 AURELIA II T3	WELDED BOILER 2 GR D.180 Lt11 AURELIA II T3 TESTED	
98030503	CALDAIA SALDATA 3GR D.180 Lt17 AURELIA II T3	WELDED BOILER 2 GR D.180 Lt11 AURELIA II T3 TESTED	
98030810	TUBO CARICO CALDAIA VA388 3GR.	INLET PIPE MAIN BOILER VA388 3 GR	
98030811	TUBO CARICO CALDAIA VA388 2GR.	INLET PIPE MAIN BOILER VA388 2 GR	
98030812	TUBO E.V. LIVELLO - RUBINETTO VA388	LEVEL VALVE - TAP PIPE VA388	
98030813	TUBO E.V. LIVELLO - CROCIERA VA388 2GR.	LEVEL VALVE - CROSSPIECE PIPE VA388 2 GR	
98030814	TUBO E.V. LIVELLO - CROCIERA VA388 3GR.	LEVEL VALVE - CROSSPIECE PIPE VA388 3 GR	
98030815	CROCIERA COLLEGAMENTO DOSATORI VA388 2GR.	CONNECTION PIPE FLOWMETER VA388 2 GR	
98030816	CROCIERA COLLEGAMENTO DOSATORI VA388 3GR.	CONNECTION PIPE FLOWMETER VA388 3 GR	
98030818	TUBO CALDAIA-PRESSOSTATO DIGIT VA388	MAIN BOILER - DIGITAL PRESSOSTAT PIPE VA388	
98030820	TUBO CALDAIA - PRESSOSTATO VA388	MAIN BOILER - PRESSOSTAT PIPE VA388	
98030821	TUBO CALDAIA - PRESSOSTATO VA388 DOPPIA COPP	MAIN BOILER - PRESSOSTAT PIPE VA388 "FULL COPPER BODY" ONLY CSA	
98030822	TUBO LANCIA VAPORE DX VA388	RIGHT STEAM ARM PIPE VA388	
98030824	TUBO LANCIA VAPORE SX VA388	LEFT STEAM ARM PIPE VA388	
98030826	TUBO CALDAIA-E.V. ACQUA CALDA VA388	MAIN BOILER . HOT WATER VALVE PIPE VA388	
98030828	TUBO E.V. MISCELATORE - LANCIA ACQUA CALDA	HOT WATER ECONOMIZER - HOT WATER WAND PIPE VA388	
98030832	TUBO UNICO E.V. LIVELLO/POMPA - CROCIERA	PIPING AUTOREFILL VALVE/PUMP VA388 2GR	
98030833	TUBO UNICO E.V. LIVELLO/POMPA - CROCIERA	PIPING AUTOREFILL VALVE/PUMP VA388 3GR	
98030836	TUBO CARICO CALDAIA VA388 2-3 GR. DOPPIA COPP	INLET PIPE MAIN BOILER VA388 2-3 GR "FULL COPPER BODY"	
98030840	TUBO LANCIA VAPORE DX VA388 DOPPIA COPPA	RIGHT STEAM ARM PIPE VA388 "FULL COPPER BODY"	

CODICE	DESCRIZIONE	DESCRIPTION	DATA FINE VALIDITA'
98030844	TUBO CALDAIA-E.V. EASY CREAM	TUBE MAIN BOILER - E.V. EASY CREAM DX VA388 2-3 GR	14/07/2015
98030845	TUBO E.V. EASY CREAM - LANCIA DX VA388	TUBE EASY CREAM WAND - E.V DX VA388	
98030846	TUBO CALDAIA-E.V. EASY CREAM SX VA388	TUBE MAIN BOILER - E.V. EASY CREAM SX VA388 2-3 GR	
98030847	TUBO E.V. EASY CREAM - LANCIA SX VA388	TUBE EASY CREAM WAND - E.V SX VA388	
98030848	TUBO DOSATORE - CALDAIA VA388 3GR.	FLOW METERS - MAIN BOILER PIPE VA388 3GR. GROUP 1	
98030849	TUBO DOSATORE - CALDAIA VA388 3GR.	FLOW METERS - MAIN BOILER PIPE VA388 3GR. GROUP 2	
98030850	TUBO DOSATORE - CALDAIA VA388 3GR.	FLOW METERS - MAIN BOILER PIPE VA388 3GR. GROUP 3	
98030851	TUBO CALDAIA-CALDAIETTA VA388	MAIN BOILER - COFFEE BOILER PIPE VA388 GROUP 1	
98030852	TUBO CALDAIA-CALDAIETTA VA388	MAIN BOILER - COFFEE BOILER PIPE VA388 GROUP 2	
98030853	TUBO CALDAIA-CALDAIETTA VA388	MAIN BOILER - COFFEE BOILER PIPE VA388 GROUP 3	
98030854	TUBO CALDAIETTA-GRUPPO VA388	COFFEE BOILER - GROUP PIPE VA388 GROUP 1	
98030855	TUBO CALDAIETTA-GRUPPO VA388	COFFEE BOILER - GROUP PIPE VA388 GROUP 2-3	
98030856	TUBO DOSATORE - CALDAIA VA388 2GR.	FLOW METERS - MAIN BOILER PIPE VA388 2GR. GROUP 1	
98030857	TUBO DOSATORE - CALDAIA VA388 2GR.	FLOW METERS - MAIN BOILER PIPE VA388 2GR. GROUP 2	
98050028	MANOPOLA PORTAFILTRO	BLACK LETHER SKIN FILTER HOLDER HANDLE	
98030000009880000	ASSIEME CALDAIA CAFFE' "TUBI RAME"	ASSEMBLY CAFFEE BOILER "VER COPPER PIPES" VA388	
98030000009890000	ASSIEME CALDAIA CAFFE' "TUBI RAME"	ASSEMBLY CAFFEE BOILER "VER COPPER PIPES"	
98030000000992	ASSIEME CALDAIA VA388 2GR.	ASSEMBLY MAIN BOILER VA388 2 GR. "FULL COPPER BODY"	
98030000000993	ASSIEME CALDAIA VA388 3GR.	ASSEMBLY MAIN BOILER VA388 3 GR. "FULL COPPER BODY"	
98030000001001	ASSIEME DOSATORE MACCHINE T3	FLOW METERS ASSEMBLY MACHINE T3 "VER COPPER PIPES"	
98030000001002	ASSIEME DOSATORE MACCHINE T3	FLOW METERS ASSEMBLY MACHINE T3 "VER COPPER PIPES"	
98030000001004	ASS. TUBO COLL. GR.IDRAULICO -CALDAIA T3	ASSEMBLY CONN. BOILER HEAT EXCH. -STOP VALVE- GIGLER F0,8	
98030000001005	ASS. TUBO COLL. GR.IDRAULICO -CALDAIA T3	ASSEMBLY CONN. BOILER HEAT EXCH. -STOP VALVE- GIGLER F0,5	
98060000000300	ASS. RUBINETTO VAPORE	ASSEMBLY STEAM ARM + COOL TOUCH STEAM WAND VA388	
98060000000302	ASSIEME LEVA PER RUBINETTO VAPORE	STEAM LEVA ASSEMBLY VA388	
980600000003210000	ASSIEME TUBO TEFLON INTERNO	ASSEMBLY TEFLON INNER PIPE COFFEE BOILERS T3	
980600000003220000	ASS. E.V. + TUBI EASY CREAM DX VA388	ASSEMBLY E.V + EASY CREAM TUBE DX VA388	
98070000000122	ASSIEME ATTACCO + LANCIA ACQUA CALDA	HOT WATER ARM + HOT WAND ASSEMBLY VA388	
98160000000803	ASS.DISPLAY TFT VA388 CON	TFT DISPLAY + SERVICE KEYS ASSEMBLY VA388	
98160000000806	ASS.DISPLAY TFT VA388 GRAV.	TFT DISPLAY + SERVICE KEYS ASSEMBLY VA388 SCALE	
98160000000815	ASS.DISPLAY TFT VA388 CON SCHEDA	TFT DISPLAY + SERVICE KEYS ASSEMBLY VA388 R.C.	
98160000000816	TFT VA388 GRAV. CON SCHEDA	ASS. TFT DISPLAY VA 388 GRAV. WITH REMOTE CONTROL BOARD	
98160000000820	ASSIEME CELLA DI CARICO VA388	SCALE SENSOR + CONNECTIONS VA388	
KPFPN001	PORTAFILTRO NANOTECH COMP.1 VIA	COMPLETE NANOTECH FILTER HOLDER 1 WAY IN BLACK LEATHER	
KPFPN002	PORTAFILTRO NANOTECH COMP. 2	COMPLETE NANOTECH FILTER HOLDER 2 WAY IN BLACK LEATHER	

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More info



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