

TECHNICAL INSTRUCTION

ZLH



Published in
JULY 2003



Z.I., 4^{ème} Rue – B.P. 425
06515 CARROS Cedex 1
FRANCE

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I PRESENTATION

The ZI model is the latest model of our injection range. Each unit is controlled by an electronic box equipped with an off-line microprocessor, which enables to program up to 6 espresso coffee doses. Each unit is also equipped with the DOSAMAT system that validates the set filter holder, allowing the use of the machine in SELF mode.

The ZI model is available with 2, 3 and 4 units.

Technically speaking, the ZI coffee machine is a direct injection machine.

The infusion pressure is set by a rotary pump (the infusion pressure and the water pressure of the supply network are separate) and doses are measured with the help of a water dosing device or volumeter.

RECOMMENDATIONS TO USERS

A. MACHINE LOCATION

A coffee machine is a tool whose location must be carefully chosen and its accessories (coffee box or coffee mill, grounds' collecting dish, saucers, spoons, sugar, milk, cocoa powder, individual trays) must be easy to reach.

A well-organized place makes coffee service more efficient in time and improves its quality.

- Always serve a coffee of good quality. If you do, customers will come back.
- Use high-standard and freshly ground coffee.
- Check that the steam pressure is properly set and leave filter holders permanently on in order for coffee to be always at the right temperature.
- Warm cups, prior to use, by putting them on the cup warmer.

Be careful not to block air outlets with pieces of cloth. Do not put unwiped cups to drain in the coffee machine either.

- In order to prevent scale deposits, use softened water and check that the water softener works properly.

II INSTALLATION

A. SITE PREPARATION

- Install the machine on an horizontal surface.
- Leave a 5 cm space around the machine and do not block the vents located on the upper part of the machine.
- Power supply must match the machine voltage and a water intake along with a drainage system must be set up.

1. Power Supply (according to type of machine)

Electrically-driven machine	ZI - 2	ZI - 3	ZI - 4
200 V mono	3,6 kW - 18 A		5,2 kW - 26 A
220 V mono - 380 V tri + N	4,3 kW - 19,5 A - 6,5 A		6,3 kW - 29 A - 10 A
230 V mono - 400 V tri + N	4,6 kW - 20 A - 7 A		6,8 kW - 30 A - 10 A
240 V mono - 415 V tri + N	5,1 kW - 21 A - 7 A		7,5 kW - 31 A - 10,5 A

- Set up a selector and a socket near the machine

⇒ **EARTH CONNECTION IS COMPULSORY**

2. Water Intake

- Pressure ranging from 0 to 10 bar
- Connection : 3/8 gas female socket (male plug on machine)
- Pipe with a minimum 8 mm internal diameter
- Stop valve to be set up.

3. Drainage

- Connection : 3/4 gas female socket (male plug on machine)
- Pipe with a minimum 12 mm internal diameter.

B. MACHINE PREPARATION

The machine is delivered in a cardboard box screwed onto a wooden pallet.

1. Unpack the machine

- Cut the tightening strap with shears.
- Open the cardboard box and take the accessories' container out.
- Make screws loose by slightly inclining the cardboard box.
- Take the machine out of the cardboard box and put it on wooden blocks.
- Remove screws and washers used for transport.

2. Install the machine.

- Put the machine in its final place and level it up with the help of rubber washers, as necessary.

Set up cup racks after making adjustments.

C. HYDRAULIC CONNECTIONS

When it comes to setting up hydraulic connections, it is necessary to remove the overflow tray in order to have access to the supply connection located on the front part and right of the machine and to the drain connection located on the front part and in the centre of the machine.

INSTRUCTIONS FOR USE

- ① Remove the overflow tray (see on p. 13).
- ② Connect the supply pipe to **C** that is the 3/8 gas male connector (located on the right).
Connect the drain pipe to **D** that is the 3/4 gas male connector (located in the centre).
Do not forget to use gaskets that match connections' diameters and incline the drain pipe downwards.
- ③ Open the stop valve and check for leaks before reassembling the overflow tray including its upper part.

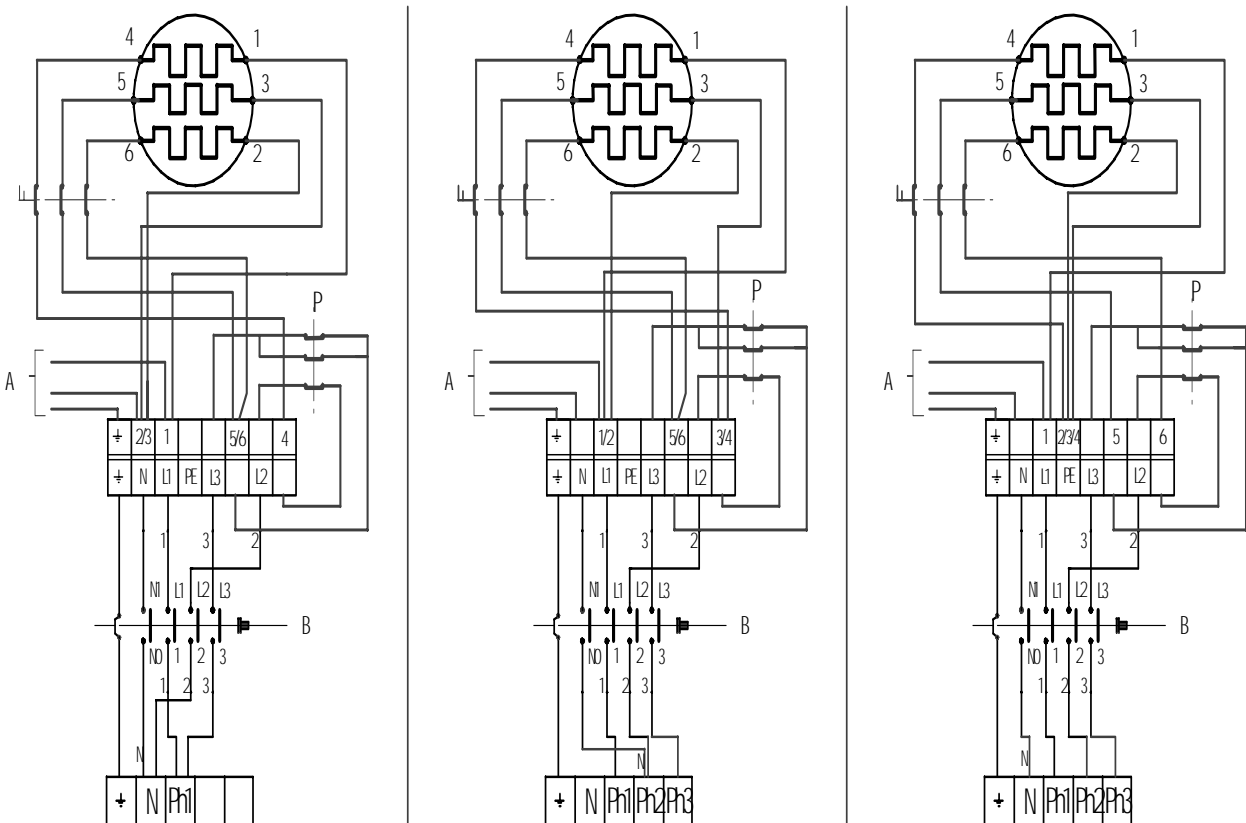
D. POWER CONNECTIONS



Set the machine switch to Position .


The machine is delivered with a cable consisting of 5 numbered wires. Make sure that the machine connection matches the available voltage network (see wiring diagrams hereunder). Bring the necessary modifications into the supply cable and the plug located near the electrically-driven pressurestat.


WIRING DIAGRAMS




A : Electronic box

B : Switch

200 - 220 - 240 V mono+ 

200 - 220 - 240 V tri + 

380 V tri + N + 

**IN ALL CASES, THE GREEN/YELLOW WIRE
MUST BE EARTHED**

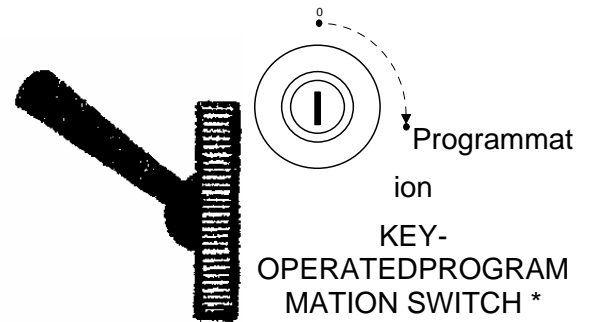
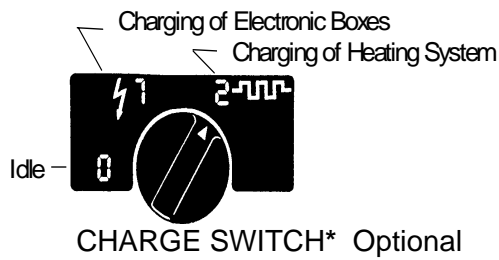
III HOW TO OPERATE THE MACHINE

A. SWITCH AND ELECTRONIC BOXES



AUTOMATIC WATER INTAKE

COFFEE UNIT



NEON SWITCH

B. HOW TO OPERATE THE MACHINE The machine is now installed and hydraulic, electric and gas connections have been set up by skilled staff members :

1. Charging

- Set the charge switch to Position 1. Do not set the charge switch to Position 2 until the boiler has been filled.
The charge indicator lights up and the boiler level is automatically adjusted. When the boiler gets filled, the water intake indicator flashes.

2. Heating

- When the water intake indicator stops flashing and the water level is half-way the height of the level glass, set the switch to Position 2 to get the heating process started.
- When the regulating temperature is reached, the steam pressure is 1 bar approximately.






























C. USE OF COFFEE UNITS




For each unit, you can get up to 6 different coffee volumes (that can be programmed) in 2 modes :

Instructions for use :

	<p>Press MAN to select SELF</p> <p>the mode of your choice</p>	<p>Green Red </p> <p>MANUEL SELF</p> <p>DISPLAY</p>
	<p>Press to select "large cup" or "small cup"</p>	<p></p> <p></p>
	<p>Insert the filter holder into Unit</p> <ul style="list-style-type: none"> • SELF Mode : the cycle gets started after the cups have been installed • MANUAL Mode : <p>Press to start the cycle</p>	<p></p> <p></p> <p></p>
	<p>Cup selection (from to and reverse) can be notified by pressing </p>	<p></p> <p></p>
	<p>Dosage (determination of amount) is automatic but can be instantaneously stopped by pressing </p>	<p></p>
	<p>Press to have a continuous infusion process</p> <p>However, dosage being no longer automatic, press again to stop the cycle</p>	<p></p> <p></p>
<p>If the validation system of the filter holder fails, you can make a manual selection of the wanted cycle (1,2 or 3 cups).</p> <p>For such a purpose:</p> <p>Press MAN SELF</p> <p>Then Press to start the selected cycle</p>		<p></p> <p></p> <p></p> <p></p>
<p>In SELF mode, if you want to leave a filter holder without any coffee on a unit, insert the filter holder into the said unit the Press </p>		

D. PROGRAMMATION

1 Turn the programming key to the right*		
2 Press MAN SELF green indicator to select MANUAL mode		
3 PROGRAMMATION OF UNIT 1 		
4 TRANSFER OF DIGITAL VALUES TO OTHER UNITS 		
CALCULATED PROGRAMMATION		
1  Selection of C (or C)	1  Selection of C (or C)	
2 Insert the filter holder into the unit (incl. coffee)	2 MAN SELF 3 Sec. Display of 	
3 Install cups	3  Display of memorized digital value	
4 MAN SELF 3 Sec. Display of 	4  Increase value  Reduction value	
5 MAN SELF Display of 	5 MAN SELF Validation of displayed value	
6 MAN SELF Display of 	6 Repeat operation for C (or C)	
7  Infusion starts	7 Repeat operation for other units	
8  Infusion (dosage) stops. Display of the corresponding digital value	6 MODIFICATION OF DOSE: Ex: 2c 	
9 MAN SELF Validation of displayed value	MANUAL PROGRAMMATION	
10 Repeat operation for C (or C). The other doses are automatically calculated and memorized	1  Selection of C	2 Set the 2-cup filter holder (incl. coffee)
5 SELF TIME PROGRAMMATION 		3 Install cups
1 MAN SELF 3 sec. Display of 	4 MAN SELF 3 sec. Display of 	5 MAN SELF Display of 
2 MAN SELF Display of 	6 MAN SELF Display of 	7 MAN SELF Display of 
3  Example: 	8  Infusion starts 	9  Infusion (dosage) stops
4  + 0 to 9 seconds  -	CAUTION: The manual programming (Pr) of a dose does not modify the other doses. But any new digital (Pn) or (Pc) programming cancels all previous programmed values.	
5 MAN SELF Validation of displayed time	7 Remove the programming key* * Optional	
NOTE: Self time programming and other programming operations are separate.		

Dose programmation In the case of a digital programmation  ,  is the value corresponding to a 2,5-centilitre dose per cup. As a result, no lighter dose can be programmed except in Manual Mode .

E. CAPPUCCINO PREPARATION

- Use a narrow and high vessel or container that is half filled with low-fat cold milk.
- Hold the steam pipe end at the surface while moving the vessel horizontally in circles.
CAUTION : Do no boil the milk.
- When the operation is over, clean the steam pipe with a wet cloth and press the steam tap in order to dispose of the milk left inside the pipe.

F. MAINTENANCE

1. Coffee Machine Coffee Unit

- Carry out 2 or 3 infusion cycles (without any coffee) in order to clean the unit and the filter holder gasket (loose filter holder).
- Wash the filter holders and the filters in a sink with some detergent.

Machine Body

- Use a soft cloth and spirit to clean stainless steel parts and a non abrasive detergent to wash painted parts.

2. Water Softener

The machine water softener must be regularly regenerated according to the volume and the degree of hardness of the water used to make coffee.

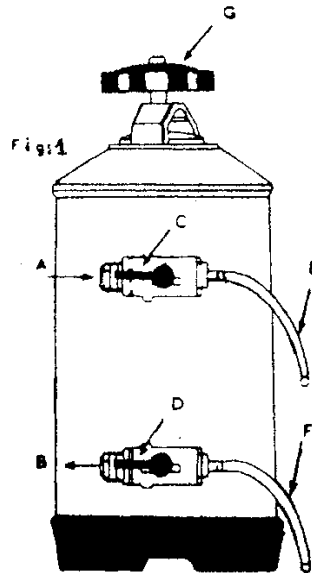
Technical Features

MODÈL	DIAMETER	HEIGHT	RÉSIN	SALT	MAX FLOW	SOFTENED WATER
CN 97	185 mm	600 mm	16 litres	2 kg	400 l-hour	20° - 2 500 litres 30° - 2 100 litres 40° - 1 800 litres 60° - 1 400 litres 80° - 1 000 litres
DV 50	185 mm	400 mm	8 litres	1 kg	300 l-hour	20° - 1 200 litres 30° - 1 000 litres 40° - 900 litres 60° - 700 litres 80° - 500 litres

How to operate : see on next page.

Water Softener Regeneration : how ?

- A - Water intake
- B - Water outlet
- C - Intake tap
- D - Outlet tap
- E - Discharge pipe
- F - Regenerating pipe
- G - Lid wheel

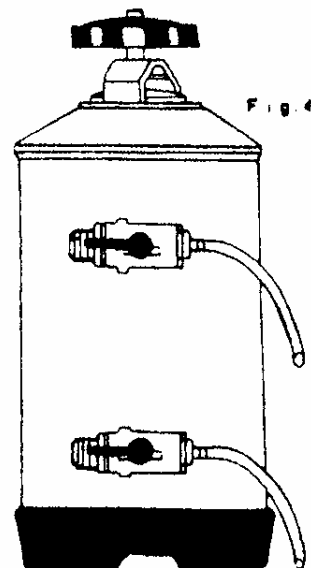
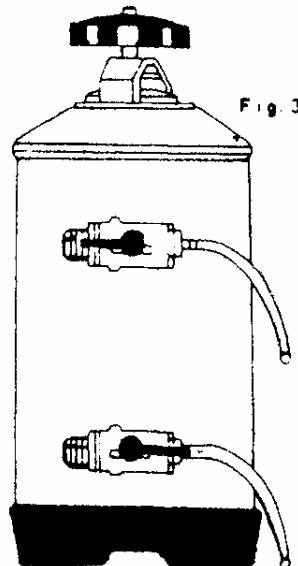
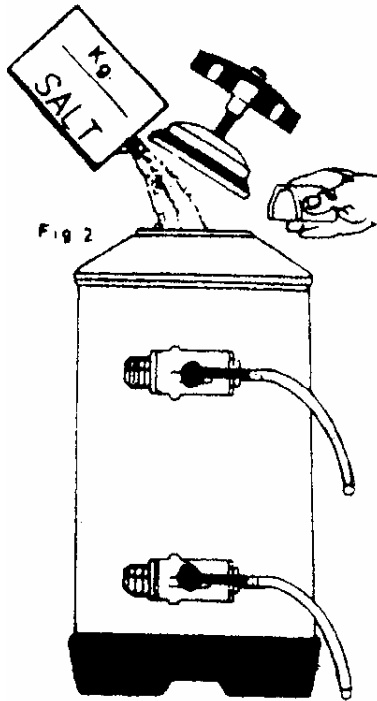


Use 1 kg of salt when the softener is 400 mm high.

Use 2 kg of salt when the softener is 600 mm high.

INSTRUCTIONS FOR USE :

① Install an empty vessel with a 2-litre capacity under Pipe E.



② Turn Handles C and D from the left to the right. Unscrew G to remove the lid. Insert salt.

③ Restore the lid to its initial position. Turn Handle C from the right to the left

④ Turn Handle D from the right to the left

Let the salted water run through Pipe F until it gets soft.

Water Softener Regeneration : when ?

Example :

Daily amount of used coffee : 3 kg
 Number of 7-centilitre cups : 420
 Daily water consumption : 30 litres
 Daily number of 20-centilitre cups of tea : 150
 Daily water consumption : 30 litres.

Conclusion :
 - Total daily water consumption is 60 litres
 - Water hardness is 30°TH.

See 30° Column and line 60 of Table hereunder.

- DV 50 Water softener must be regenerated every 2 weeks.
- CN 97 Water softener must be regenerated every 5 weeks.

CN 97 Model Height : 600 mm Diam. : 185 mm Resin : 16 litres Salt : 2 kg										
Water hardness °TH		20°	25°	30°	40°	50°	60°	80°	Dailyconsumption	
Softened water → CN 97 Model		2500	2350	2100	1800	1600	1400	1000	Water in litres	Coffee in kg
		36	34	30	26	22	20	14	10	1
1	10	17	16	14	13	11	10	7	20	2
1,5	15	11	10	9	9	7	7	5	30	3
2	20	9	8	7	6	5	5	4	40	4
2,5	25	7	6	6	5	4	4	3	50	5
3	30	6	5	5	4	4	3	2	60	6
3,5	35	5	4	4	4	3	3	2	70	7
4	40	4	4	4	3	3	2	2	80	8
4,5	45	4	3	3	3	2	2	2	90	9
5	50	3	3	3	3	2	2	1	← NUMBER OF WEEKS BETWEEN 2 REGENERATING TREATMENTS ACCORDING TO FLOW CAPAC. & WATER °TH.	
6	60	3	3	2	2	2	2	1		
6,5	65	3	2	2	2	2	1	1		
7	70	2	2	2	2	1	1	1		
7,5	75	2	2	2	2	1	1	1		
8	80	2	2	2	2	1	1	1		
Coffee in kg	Water in litres	1200	1100	1000	900	760	700	500	Softened water DV 50 Model	
Daily consumption		20°	25°	30°	40°	50°	60°	80°	Water hardness °TH	
DV 50 Model Height : 400 mm Diam. : 185 mm Resin : 8 litres Salt : 1 kg										

IV SETTING OPERATIONS

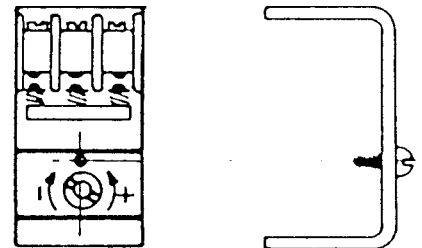
A. TEMPERATURE SETTING

Setting the temperature means setting the steam boiler pressure by adjusting the screw of the electric or gas pressurestat

Setting Value : 1 bar (red scale manometer) that is about 120°C.
 The electrically-driven pressurestat is located at the back and on the left of the machine.

Dry Contact Pressurestat :

- . Remove the pressurestat lid.
- . Adjust the screw as explained on the pressurestat.



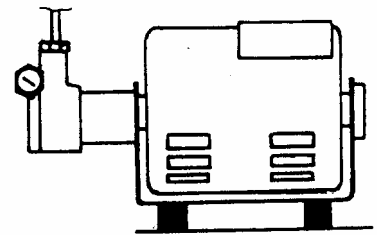
Dry Contact Pressurestat

B. PUMP PRESSURE SETTING

- ① Disassemble the right lateral part of the machine (see drawing on p. 13)
- ② Adjust the set-screw of the pump by-pass with the help of a screwdriver

- . SCREW to INCREASE the pressure.
- . UNSCREW to REDUCE the pressure.

Setting Value : betw. 9 and 10 bar during the infusion process.

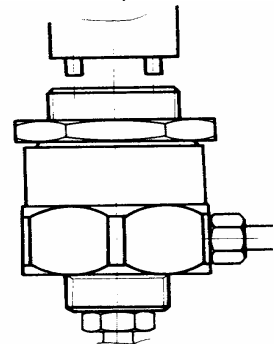


B. HIGH PRESSURE VALVE SETTING

The high pressure valve is located at the end of the coffee unit water feeding manifold. To get to the valve, disassemble the cup warmer (see on p. 13). The valve will be opened when reaching a 13- bar pressure in order to limit the expansion pressure (green scale of manometer).

- * **UNSCREW, if the valve is opened, when pressure is >13 bar.**
- * **SCREW, if the valve is opened, when pressure is <13 bar.**

For such a purpose, use a pin wrench.



D. ESPRESSO COFFEE GRIND SETTING

- Wait until the machine has reached the set temperature (from 0,9 to 1 bar).
- The coffee grind determines the time necessary for the hot water to pass through the ground coffee.
- Infusion time is normally controlled by using a 2-cup filter and 2 doses of ground coffee.
- Average infusion time for 2 cups (from 5 to 7 centilitres per cup) ranges from 30 to 35 seconds
 - * **If infusion time is SHORTER, USE A FINER grind.**
 - * **If infusion time is TOO LONG, USE A COARSER grind.**
- In order to get a good coffee, use a 6 g minimum amount of ground coffee for one cup.

V HOW TO DISASSEMBLE BODY PARTS

A. OVERFLOW TRAY

- ① Remove the overflow tray central grid in order to reach the assembly screw
- ② Unscrew (A)
- ③ Remove the overflow tray.

B. SIDES

- ① Remove the side cup rack
- ② Unscrew (F) (upper screw)
- ③ Lift up the machine side and remove it.

C. CUP-WARMER

- ① Remove both sides of the machine
- ② Unscrew (F) and (G)
- ③ Remove the front part
- ④ Remove the cup-warmer.

CAUTION : To reassemble the machine parts, proceed the other way round and fix up the machine sides, prior to screwing (F) and (G) . Do not forget to fix up the special washers and the gasket.

D. UPPER FRONT PANEL

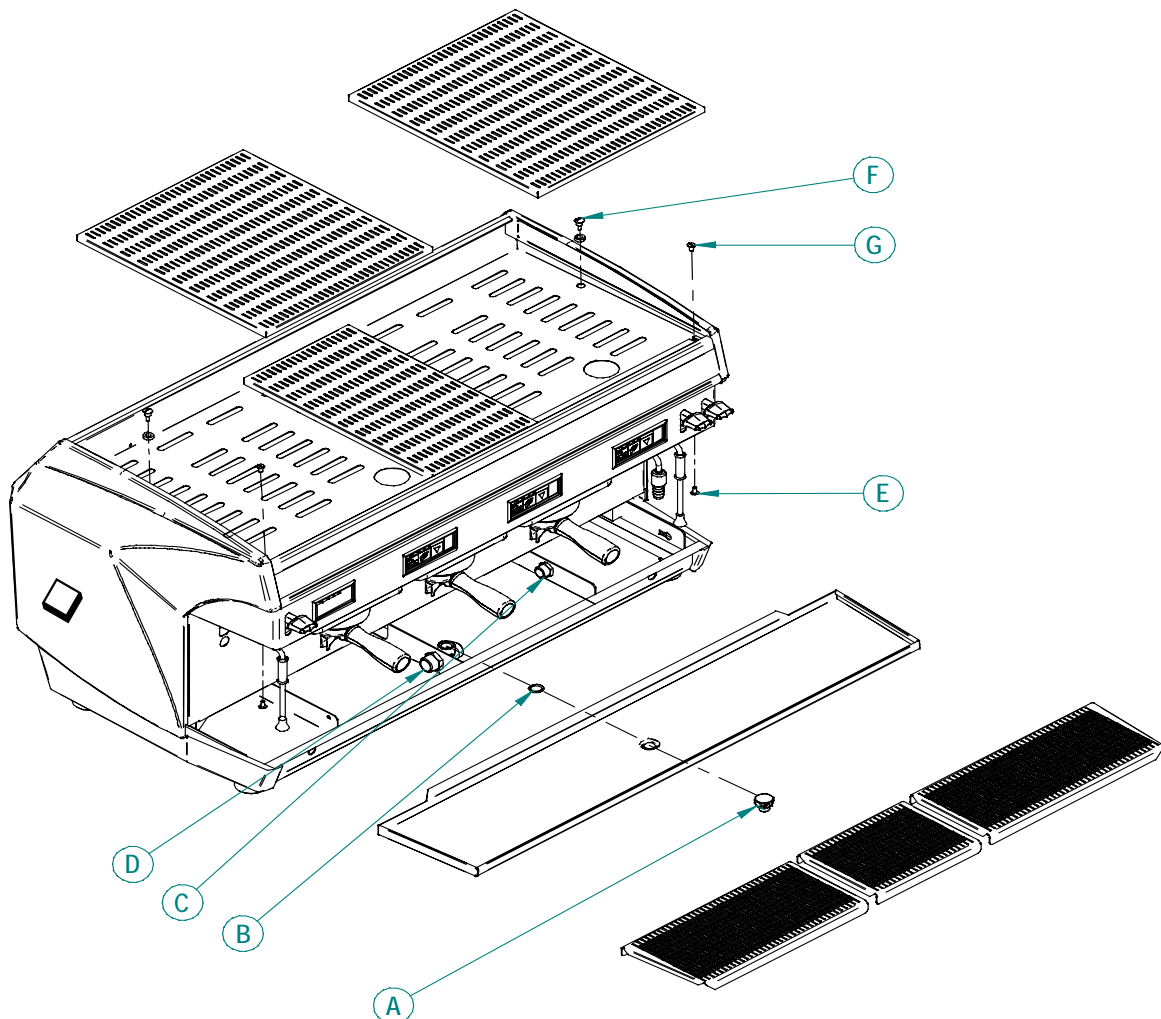
- ① Remove both sides of the machine
- ② Remove the tap handles
- ③ Unscrew (E) (the two lower side screws)
- ④ Push the upper front panel downwards and remove it
- ⑤ Disconnect the cable, as necessary.

CAUTION : To reassemble the machine parts, proceed the other way round and fix up the machine sides, prior to screwing (E) .

E. FRONT PANEL

- ① Remove both sides of the machine
- ② Remove the upper front panel
- ③ Remove the front part
- ④ Remove the neon self-adhesive support downwards

CAUTION : To reassemble the machine parts, proceed the other way round and fix up the machine sides, prior to screwing (F) and (G) .



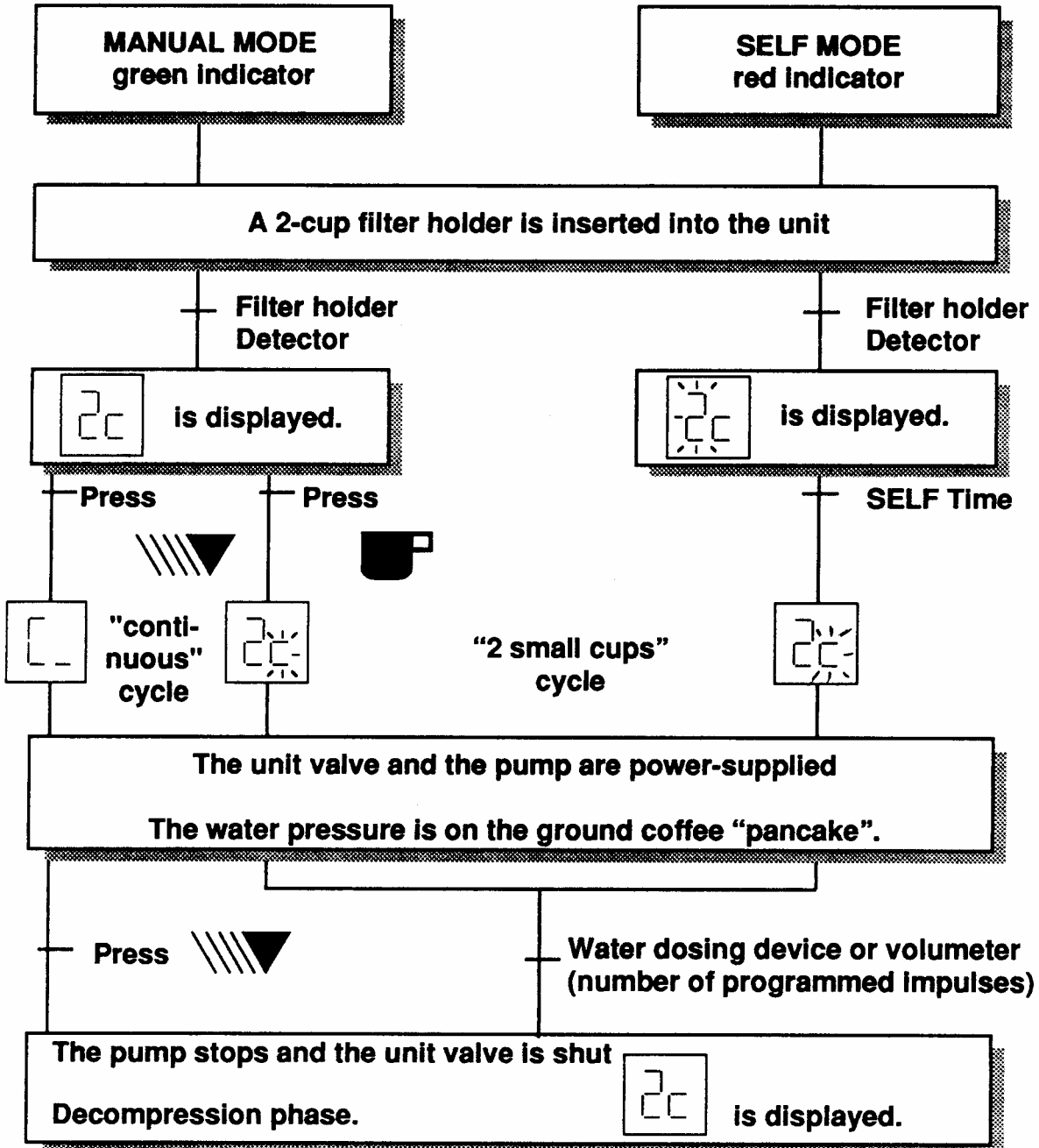
VI TECHNICAL DATA

MEASUREMENTS in cm	ZI-2	ZI-3	ZI-4
Width	80	102	124
Height	54	54	54
Depth	55	55	55
Base	70 x 40	92 x 40	114 x 40
WEIGHT in kg	68	81	94
WATTAGE	ZI-2	ZI-3	ZI-4
200 V mono	3,6 kW - 18 A		5,2 kW - 26 A
220 V mono - 380 V tri + N	4,3 kW - 19,5 A - 6,5 A		6,3 kW - 29 A -10 A
230 V mono - 400 V tri + N	4,6 kW - 20 A - 7 A		6,8 kW - 30 A -10 A
240 V mono - 415 V tri + N	5,1 kW - 21 A - 7 A		7,5 kW-31 A-10,5 A
Temperature	from 118 to 120° C		
Steam Pressure	from 0,9 to 1 bar		
Pump Pressure	from 9 to 10 bar		
H.P. Valve.	13 bar		
L.P. valve.	3,2 bar		
PROGRAMMATION :	6 doses per unit - SELF Time		
UNIT :			
Ground Coffee Dose	7 g		
Water Dose	from 5 to 7 centilitres		
Infusion Time	from 15 to 20 seconds		

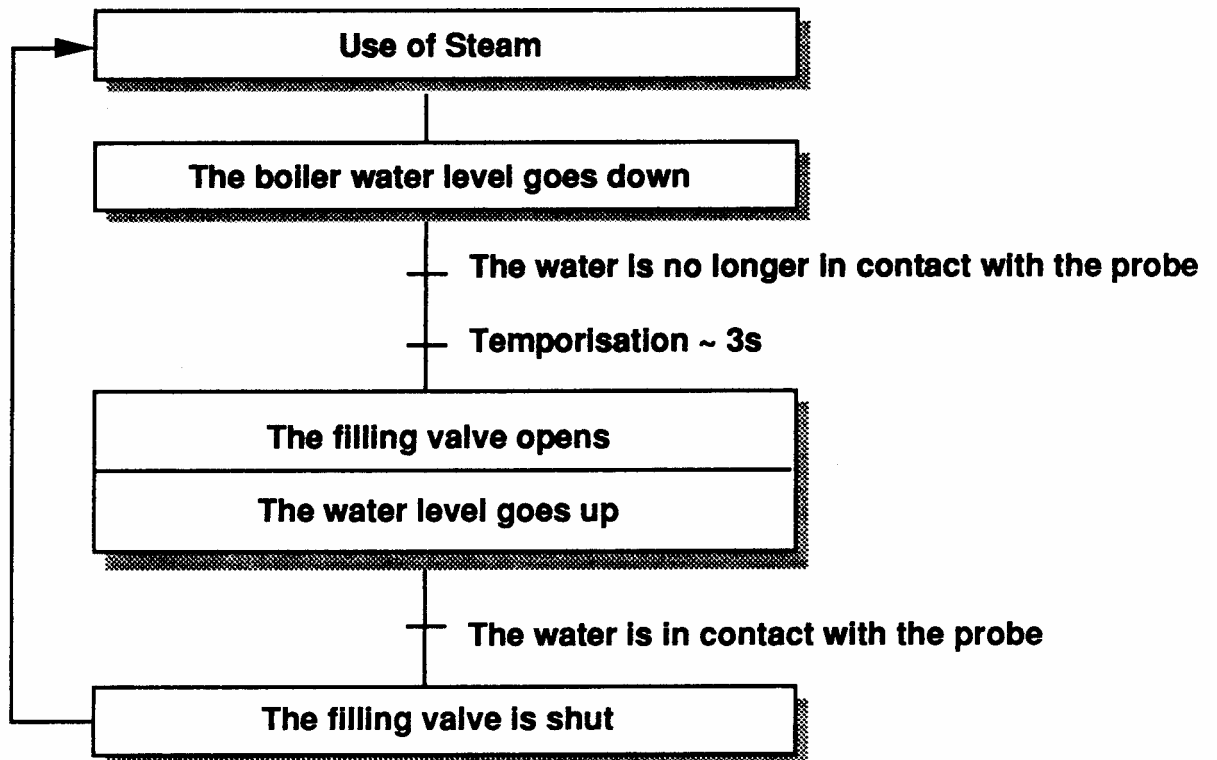
VII HOW DOES THE MACHINE WORK

DESCRIPTION OF CYCLES

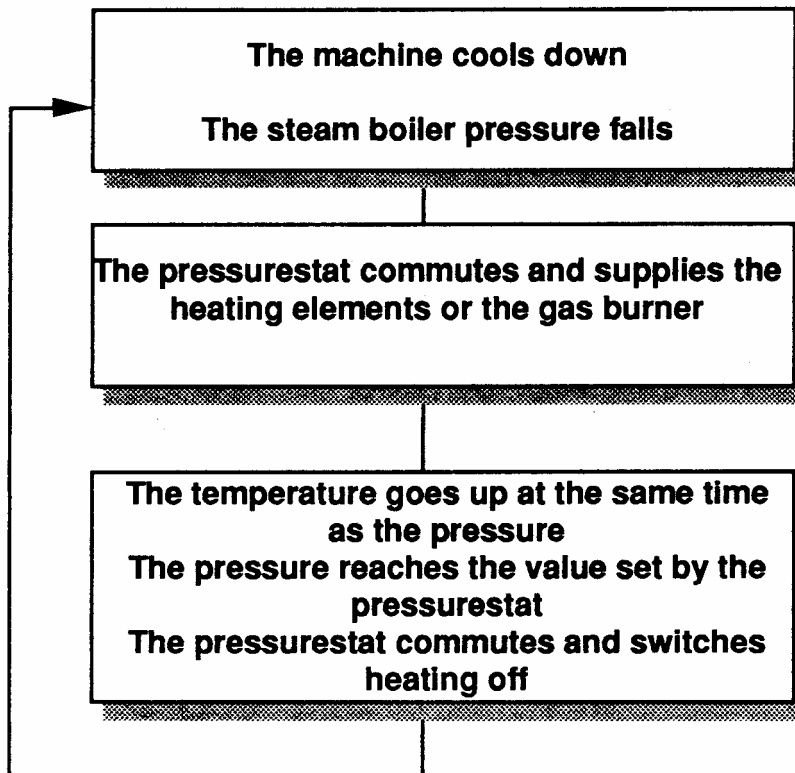
1. Espresso coffee Cycle



2. Level Regulation

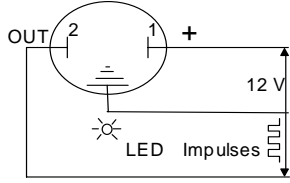


3. Temperature regulation



B. DOSAGE AND DETECTION OF FILTER HOLDERS

1. Volumeter or water dosing device



When the machine is charged, the power supply of the volumeter or dosing device is 12 V.

When water runs through the device, the turbine starts turning. The rotary movement of the turbine generates impulses recorded by the microprocessor. Each impulse corresponds to a precise volume of water, which allows a cup precise dosage.

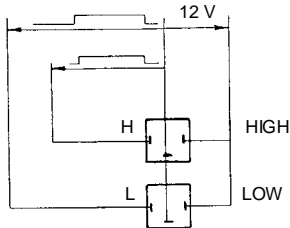
You can check that the device works all right by looking at the LED located on the upper part of the device.

Such a LED will light up, whenever an impulse is generated and, during the infusion process, you must see it flash.

2. Filter holder detectors

Each unit is equipped with a detector consisting of 2 Hall-effect pick ups in charge of reading the code number written on each filter holder with the help of magnets.

Hall-effect pick ups as a filter-holder validation system



When the machine is charged, the power supply of Hall-effect pick ups is 12 V.

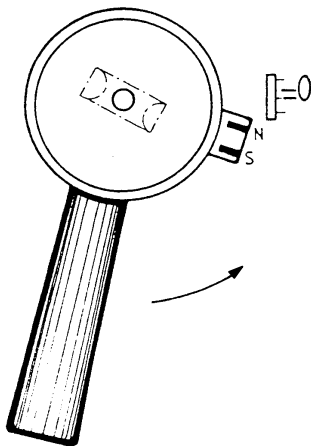
A pick up is actually composed of two H and L Hall-effect circuits allowing four different codes.

Detection of filter holders by Hall-effect pick ups :- When the machine is charged, the status of all Hall-effect pick-ups is 0, whether a filter holder is set or not.- When the southern part of a magnet goes in front of a Hall-effect pick up, the pick up status is 1, whatever its previous status.

- When the northern part of a magnet goes in front of a Hall-effect pick up, the pick up status is 0, whatever its previous status.

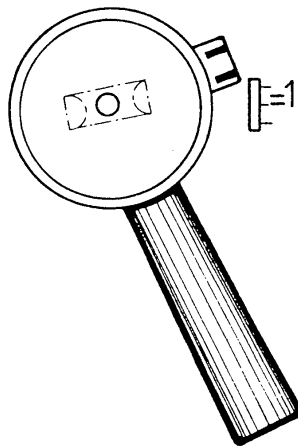
The position of magnets generates four different codes allowing the detection of the filter holder and of its type.

No filter holder :
H = 0
L = 0



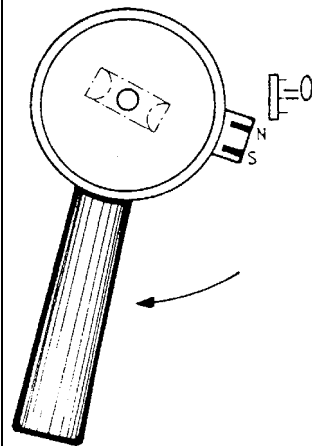
is displayed
The filter holder is set.

1-cup filter H = 1
 L = 0
2-cup filter H = 0
 L = 1
3-cup filter H = 1
 L = 1



The pick up reads the code written on the filter, displays it and the cycle does or doesn't get started, depending on the mode (MANUAL or SELF).

No filter holder
H = 0
L = 0



Remove the filter holder. The pick up status is back to 0 ("northern" magnet).

is displayed.

* "Southern" magnets inscribe the filter holder code when the filter holder is set.

* "Northern" magnets erase the filter holder code when the filter holder is removed.

VIII CONNECTION TO A COMPUTER SYSTEM OR A UNIC METER

A. GENERALITIES

1. Connection to a computer system (HARTWALL, WALLA, REMENCO, ...)

The coffee machine informs the computer (in real time) about the number of cups of coffee and tea (made with temporized hot water). The computer is in charge of the management of the collected coffee machine data.

Each barman has got a coded badge that gives him permission to use the coffee machine and directly charge the served drinks.

2. UNIC Meter

With such a meter, the number of cups of coffee and tea (made with temporized hot water) can be reckoned up for each Zi machine (max. 3) and for each barman (max. 9) and results can be cumulated.

Each barman has got a (from 1 to 9) numbered key that enables him to use the coffee machine and directly charge the served drinks.

B. MACHINE PREPARATION

Prior to being connected to a computer system or a UNIC meter, an Zi coffee machine must be modified as follows :

1. Ref. NM 122 electronic boxes must be replaced by Ref. NM 162 boxes equipped with an extra connector.

2. Hot water and steam taps must be replaced by electrically-driven valves operated by push-buttons.

The following equipment is also supplied :

3. An interface box that records impulses coming from units and hot water outlets and transmit them to the UNIC meter or the computer.

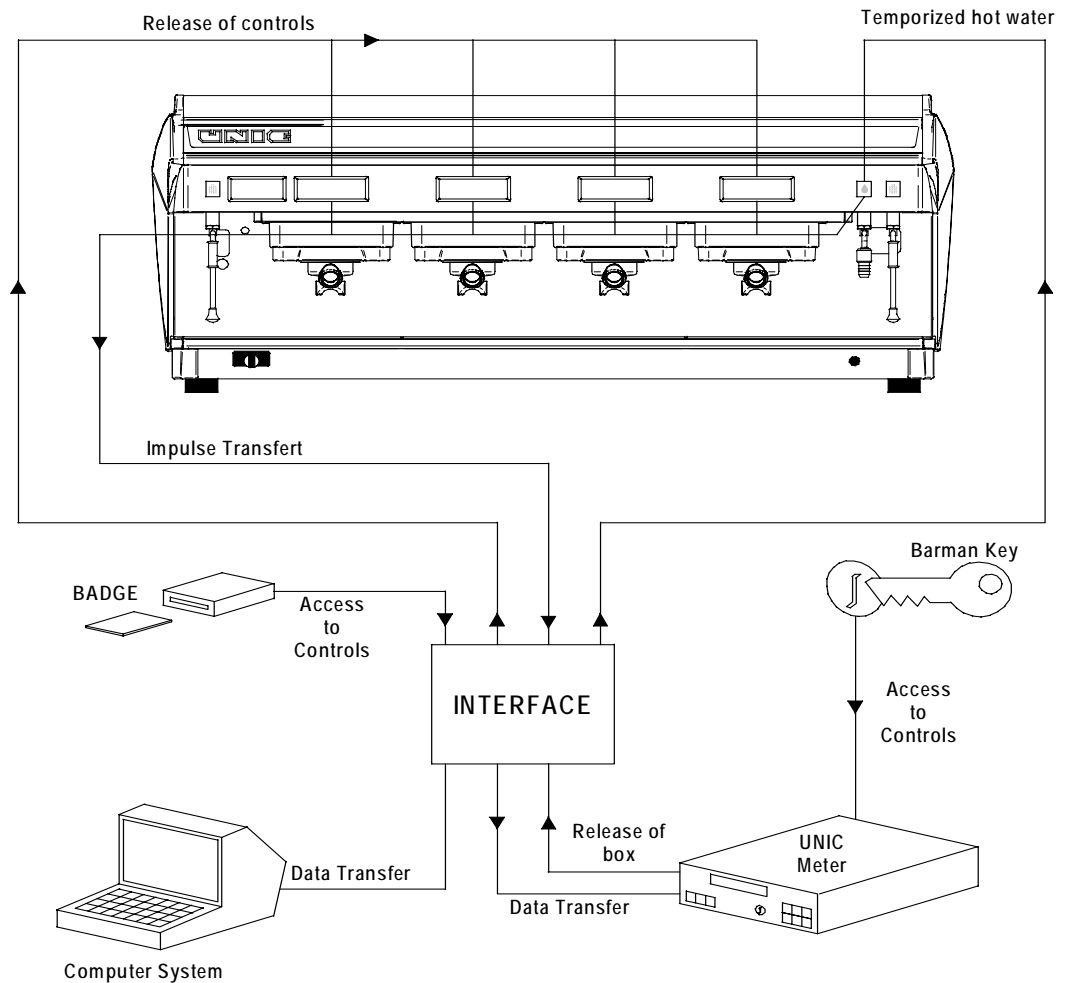
4. The cables connecting the interface to the coffee machine.

If the coffee machine is connected to a UNIC meter :

5. An electronic "lock" intended for the coded keys held by barmen must be installed on the machine and directly connected to the meter.

6. The meter and the meter-interface cables will also be supplied.

C. DIAGRAM



IX SEARCH FOR FAILURES

A. INTRODUCTION

1. **Main Rules**① READ the previous pages in order to understand well how the machine works under normal circumstances.
- ② OBSERVE and FIND OUT anomalies.
- ③ ANALYSE anomalies by comparison with the normal functioning of the machine.
- ④ TAKE ACTION by referring to the following pages.

**A LITTLE THOUGHT OFTEN SAVES TIME
AND MONEY !!! ...**

2. *Everything is fine*

The machine normally works as follows :

- Switch is on Position 2.
- Indicator ⚡ 1 is on.
- On each unit box :
 - . the green or red indicator is on, depending on previous selection,
 - . if a filter holder is set to the unit, the figure corresponding to the type of filter holder is displayed.
- Steam pressure is approximately 1 bar.
- Water pressure is lower than 15 bar (valve setting).

3. *Prior to any action*

Check all settings :

- Infusion pressure ==> Pump
- Expansion pressure ==> HP Valve
- Steam Pressure ==> Pressurestat.

For such a purpose, use a calibrated manometer connected to the steam outlet (steam pressure test) and to the unit (pump pressure and expansion pressure tests).

- Grind ==> Infusion time.

Some failures are often the result of an improper setting.

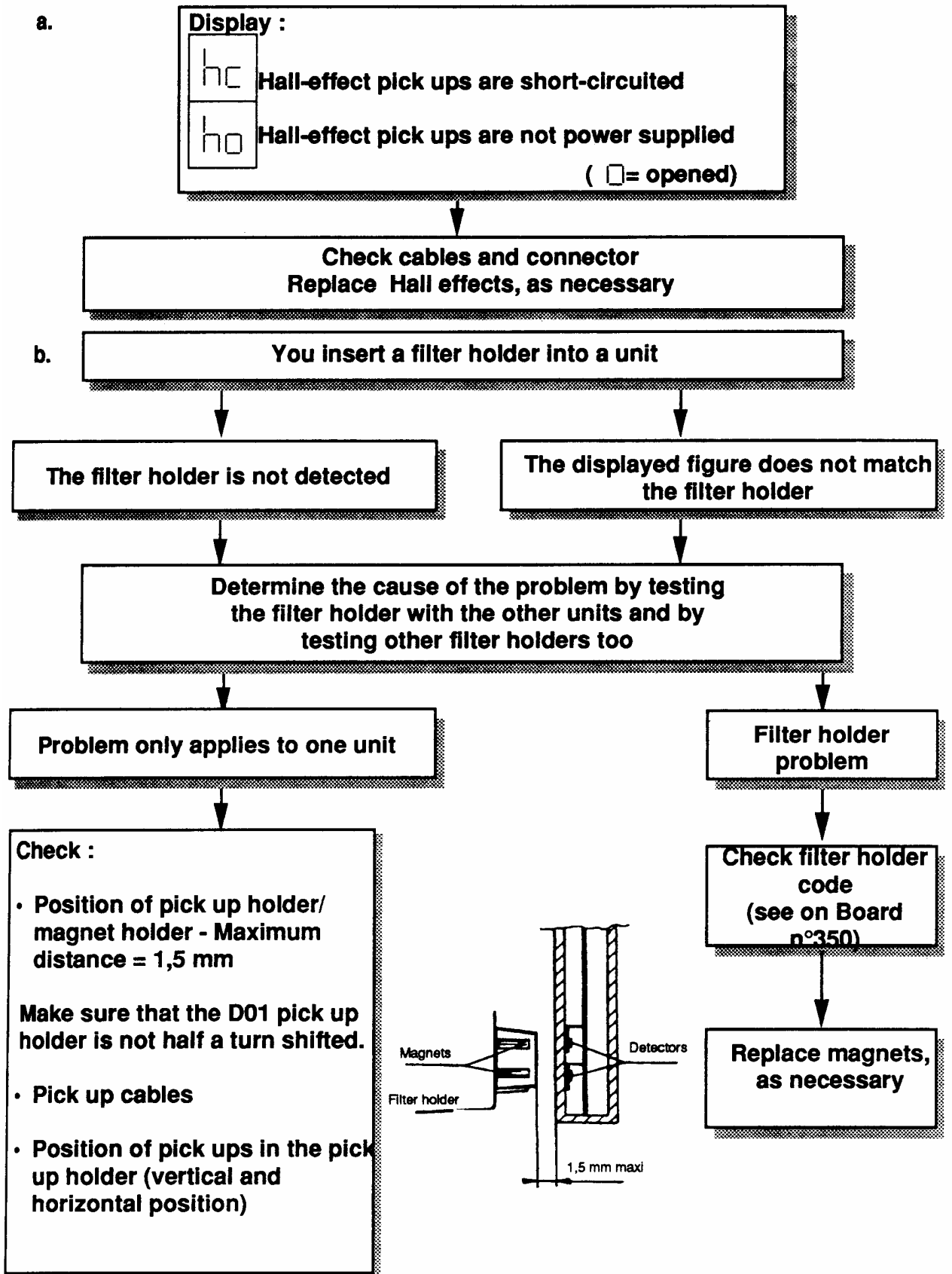
4. Precautions

- ① Switch the machine to an idle position, prior to any action on electric circuits.
- ② Cool the machine and make pressures fall, prior to any action on the hydraulic circuit.

A. DISPLAYED FAILURES

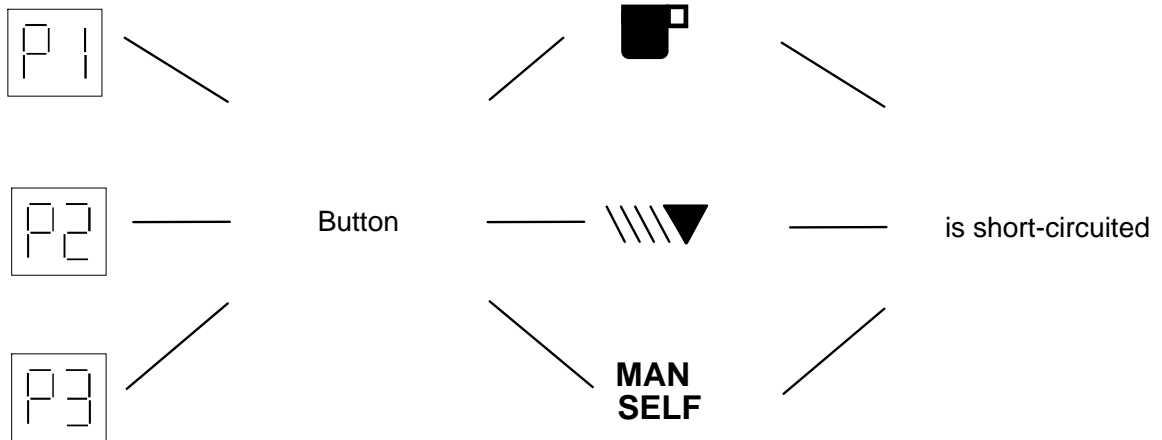
	Short circuit Hall effect	See on p.21	
	Opened Hall effect		
	Push Button 1	See on p.22	
	Push Button 2		
	Push Button 3		
	Fuse	See on p.23	
	Time	See on p.24	
	Metering + time	See on p.25	
	Dosage Metering	See on p.25	
	Short circuit Metering	See on p.26	
	Opened Metering		

1. Problems in connection with filter holder detectors



2. Problems in connection with the electronic boxes' control buttons


Display :




Solution :

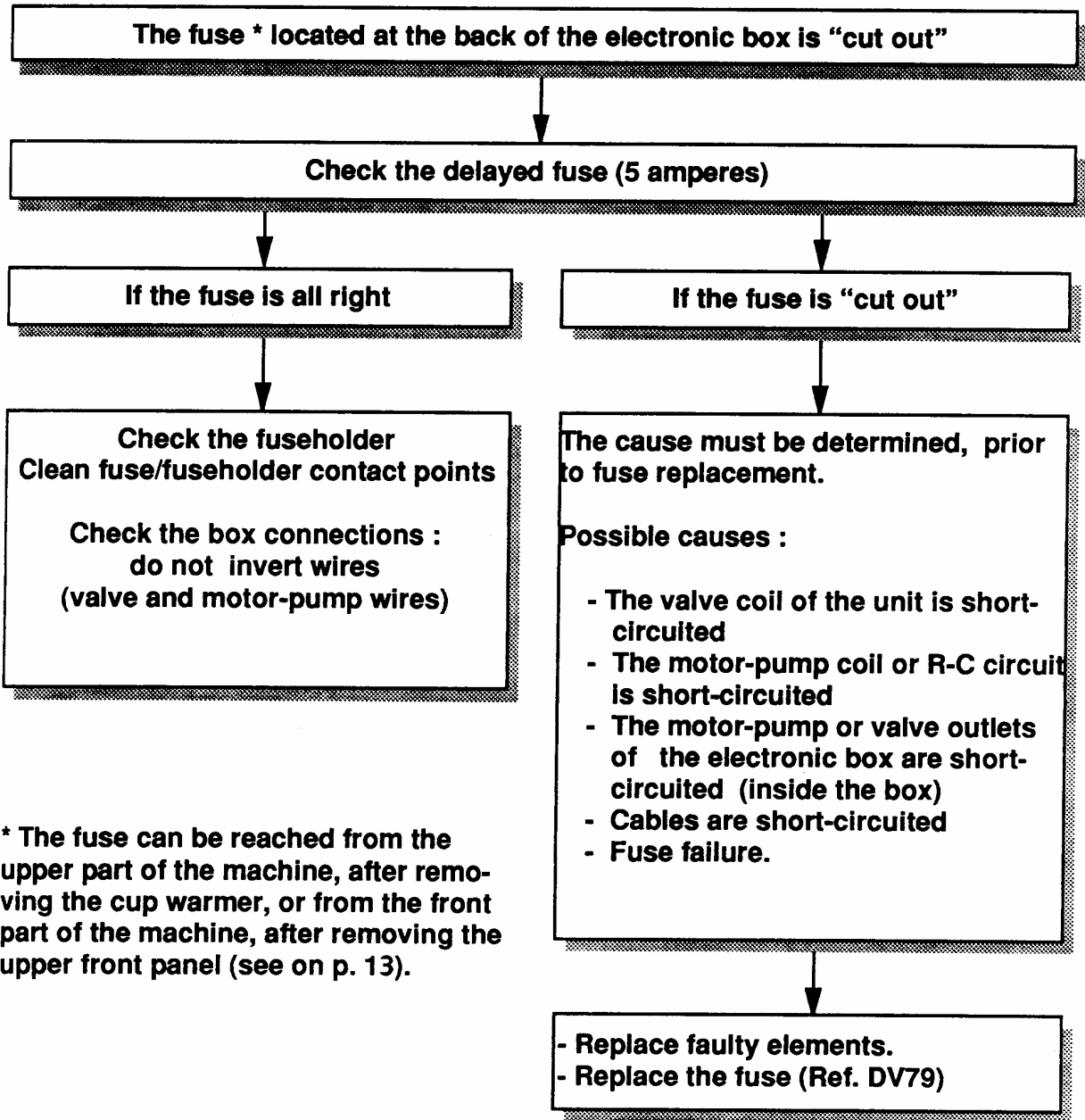
- Make sure that the face is not distorted.
- Replace the electronic box, as necessary.

COMMENTS :

- The display of Failure **P1** or **P3** automatically switches the machine over to SELF mode. It is no longer possible to set the machine to PROGRAMMATION mode.
 - The display of Failure **P2** cancels the possibility to stop the operated cycle. SELF Time can still be programmed but decrementation is systematic and immediate.
- If you press , incrementation has the priority. Immediately press **MAN SELF** in order to validate the operation

3. Fuse Problems

 is displayed




* The fuse can be reached from the upper part of the machine, after removing the cup warmer, or from the front part of the machine, after removing the upper front panel (see on p. 13).

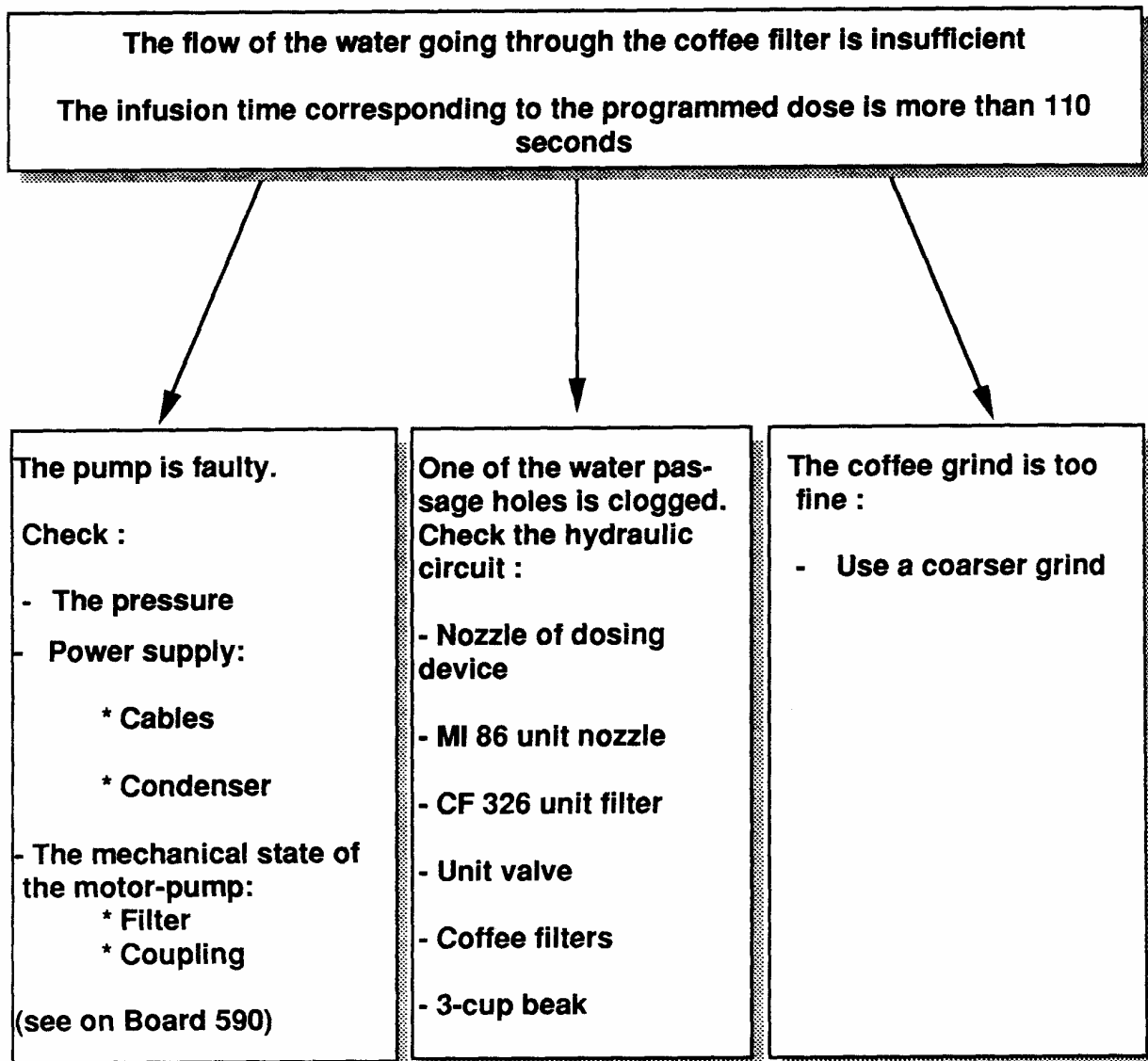
4. Dosage Problems




a. 110-second safety system of the coffee unit

Thanks to such a safety system, the maximum infusion time is reduced and ranges from 1 minute to 45 seconds. As a result, the infusion process automatically stops, if the dosing device no longer works or if the flow capacity is insufficient so that the motor-pump and the valve of the unit are better protected.


When the safety system is on,  is displayed.





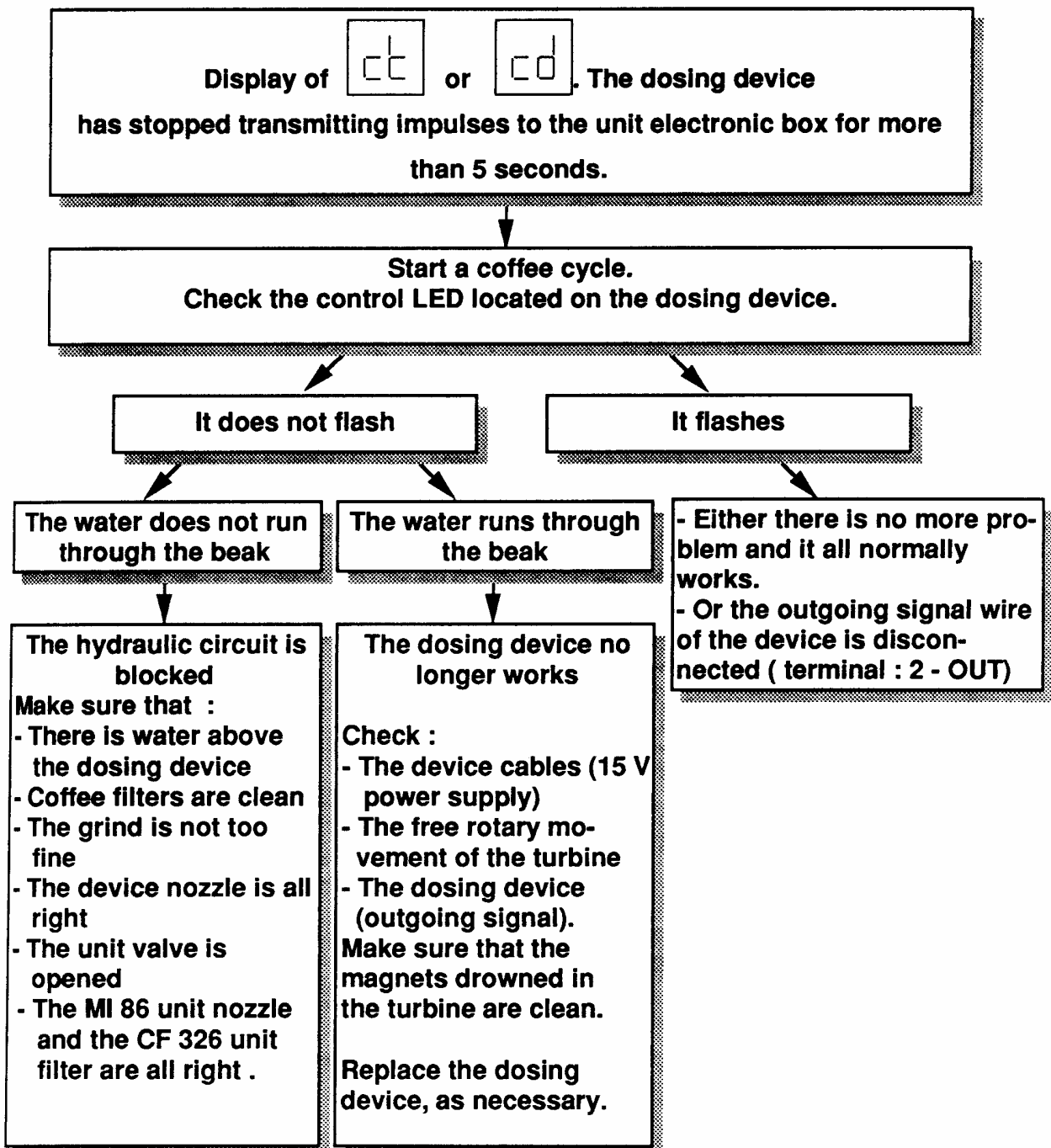
b. Metering safety system

During the infusion process,  is displayed. This means that the dosing device has been no longer transmitting impulses to the unit electronic box for 5 seconds.

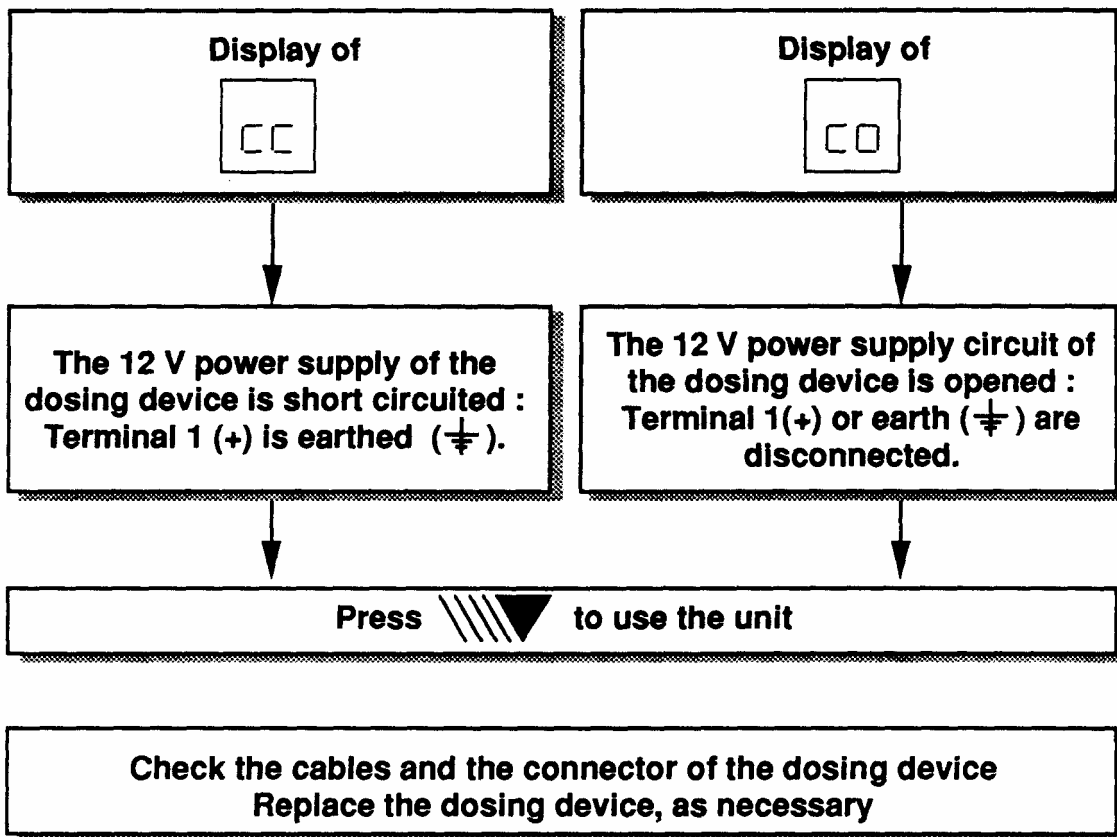
If the metering interruption is only temporary, the infusion cycle will stop as soon as the number of metered impulses matches the number of programmed impulses. Obviously the obtained dose will be heavier.

If the metering interruption is permanent, the infusion will stop automatically 110 seconds after the cycle's has started and  sign is displayed.

Or stop manually by pressing  Display of .



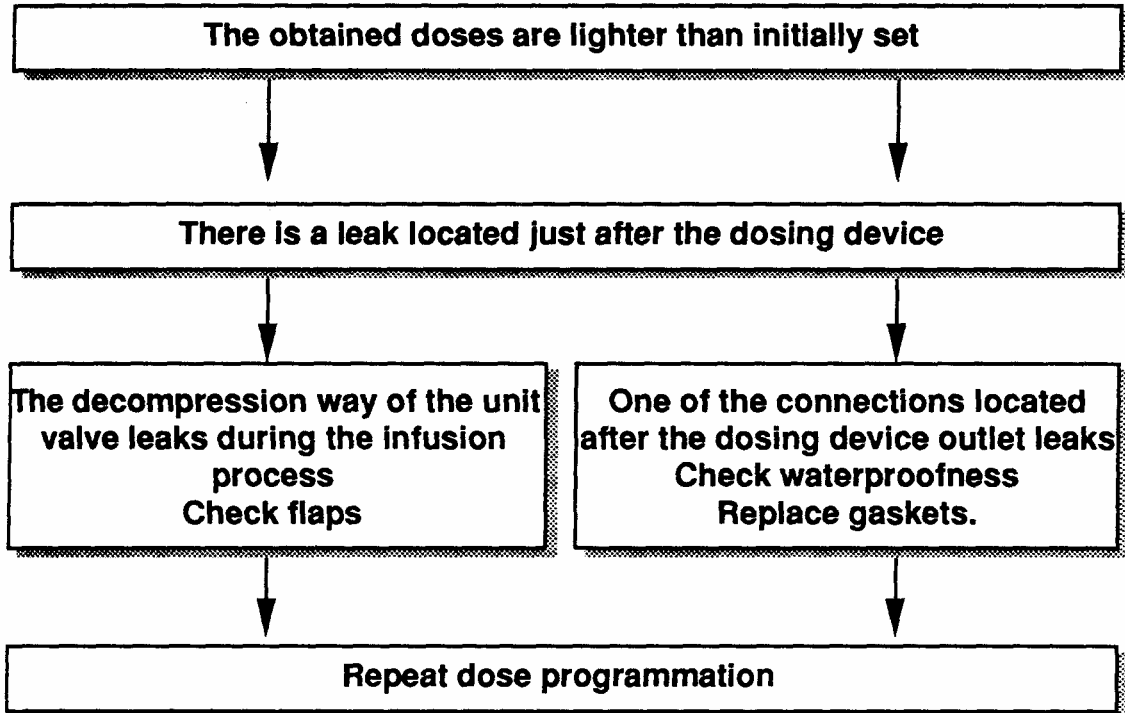
c. Dosing device safety system



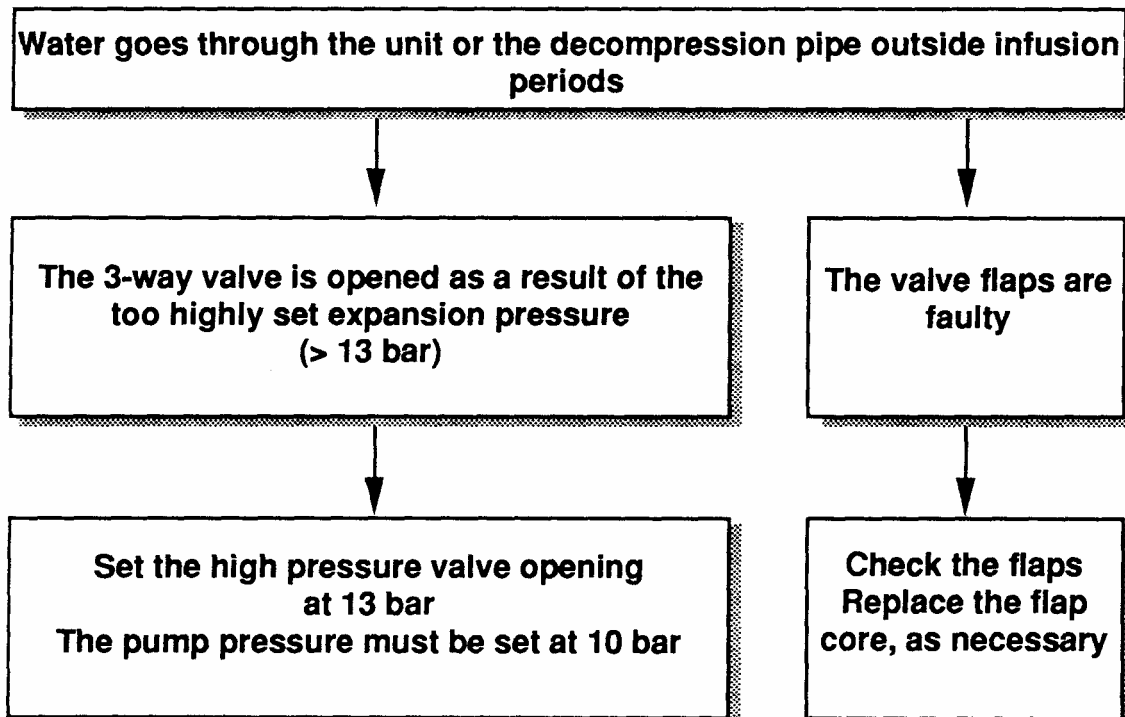
A. OTHER FAILURES

1. Hydraulic Problems of the coffee unit

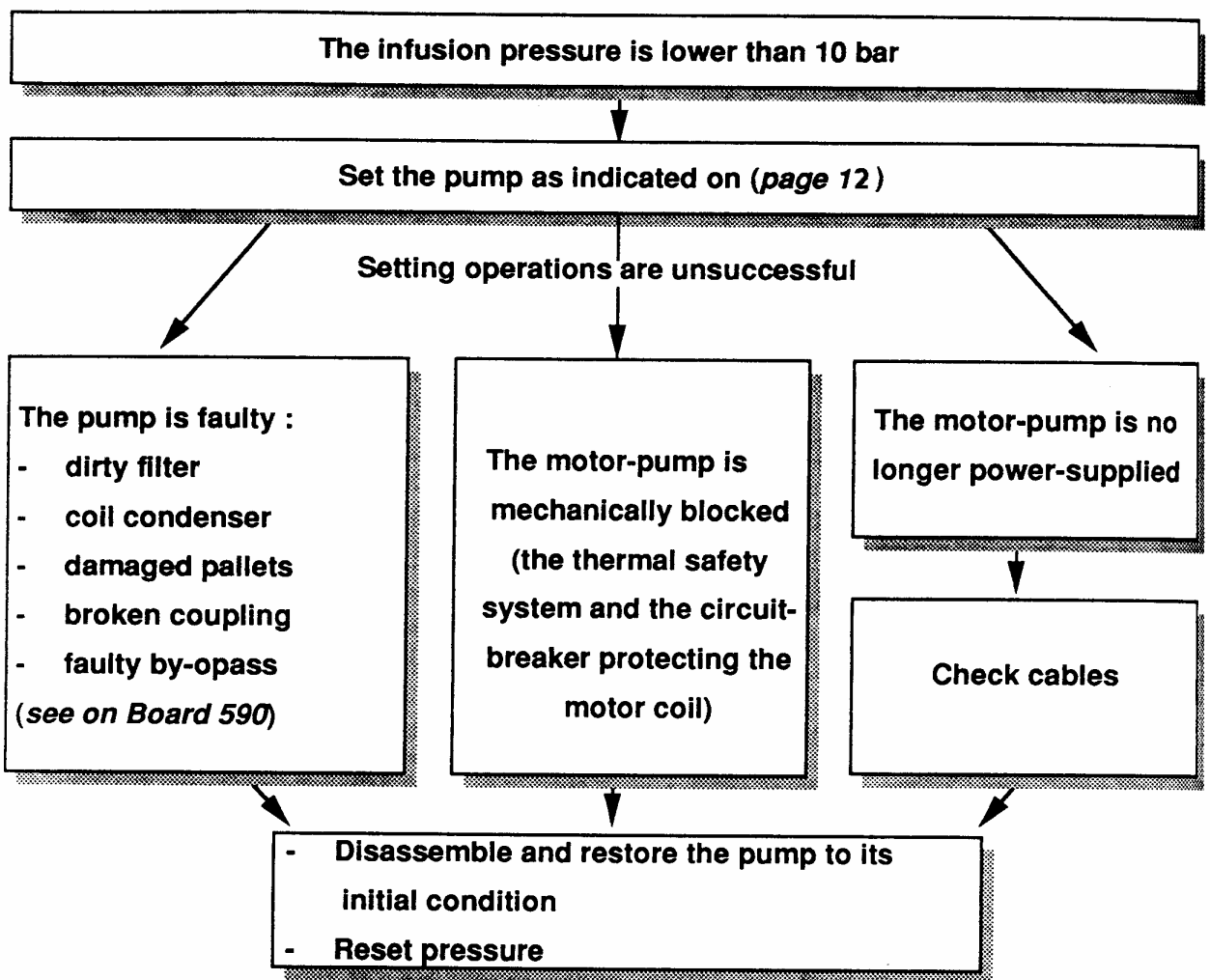
a. Doses lighter than initially set



b. Dripping outside infusion periods

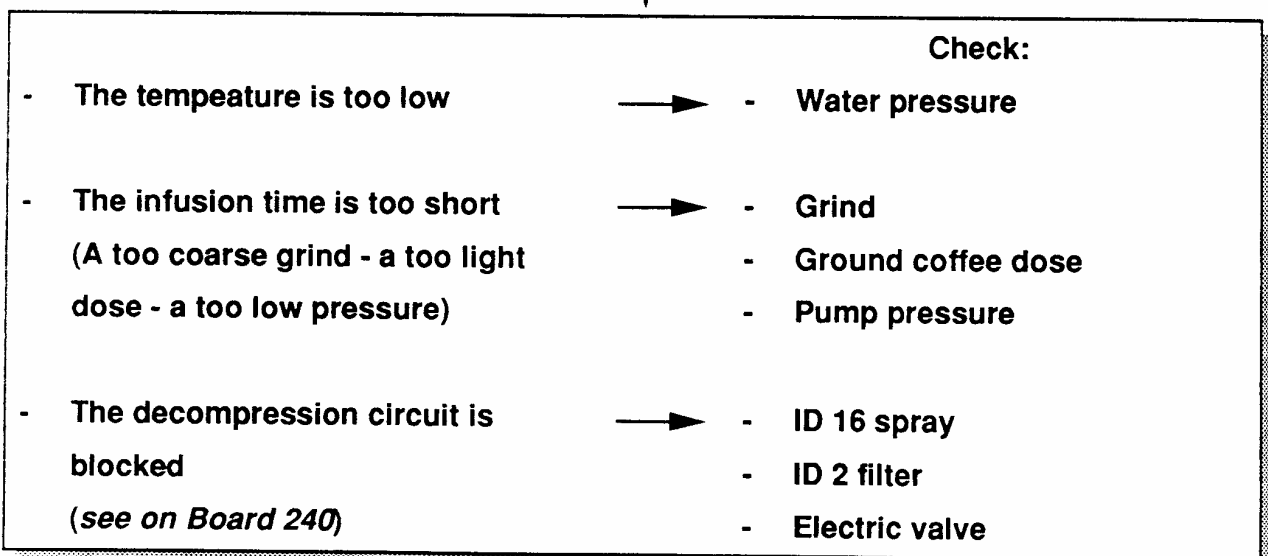


c. An insufficient infusion pressure



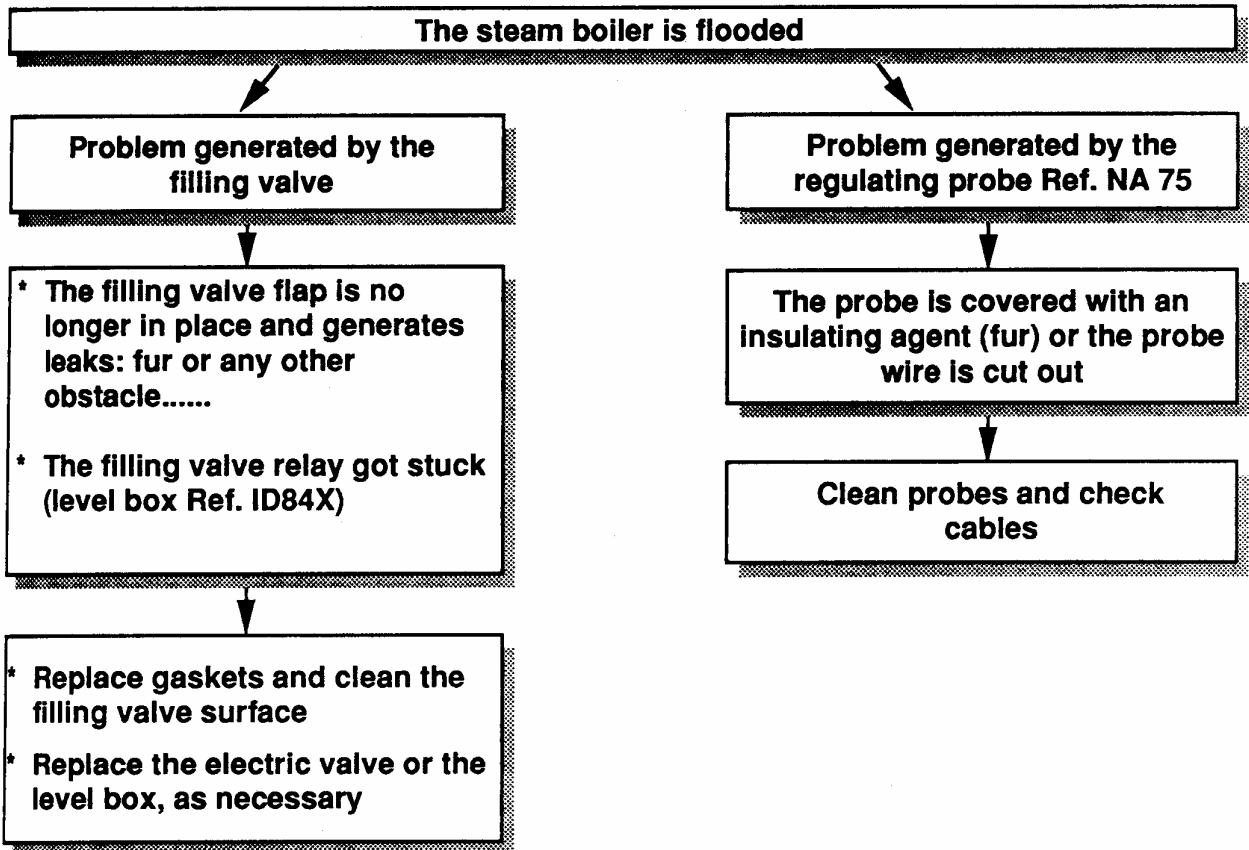
d. A wrong decompression process

When the infusion process is over, you remove the filter holder and you notice that the grounds pancake is wet



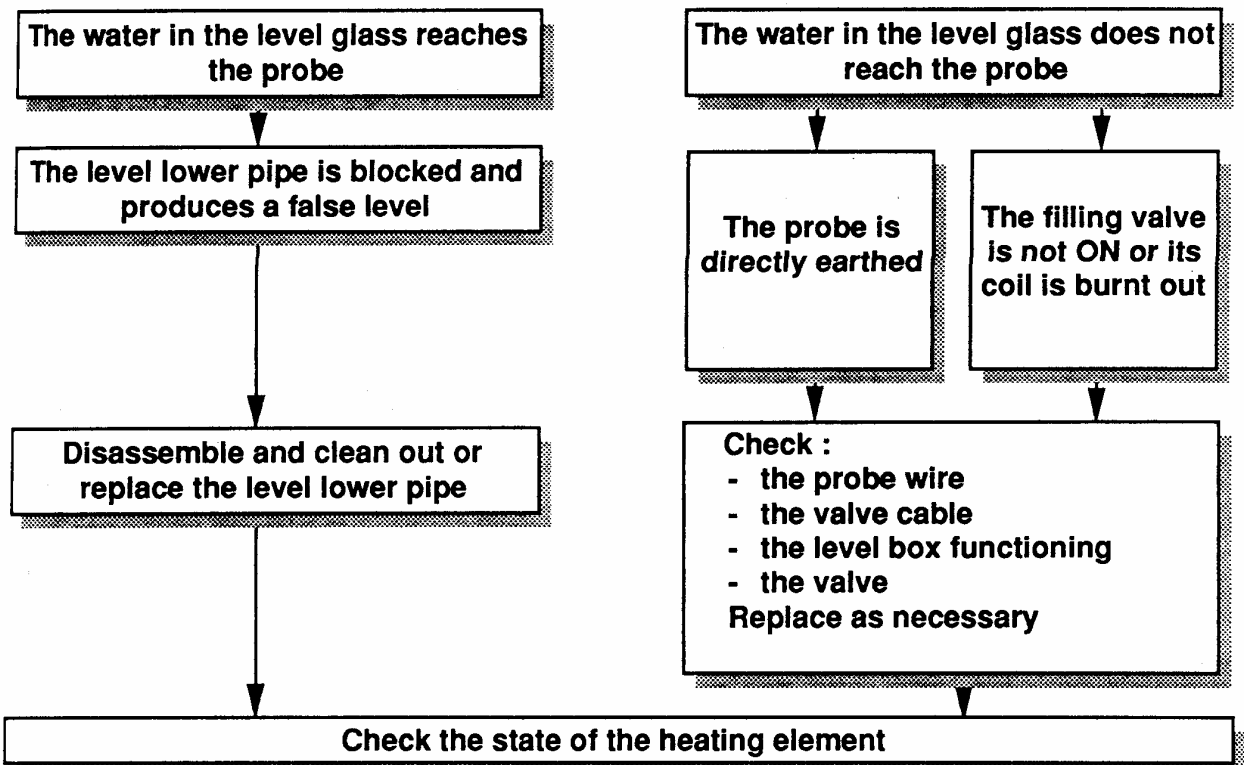
2. Problems in connection with the level regulation

a. The steam boiler is flooded



b. The boiler is empty

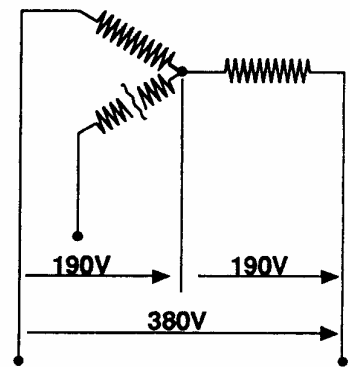
RISK TO RUIN THE HEATING ELEMENT



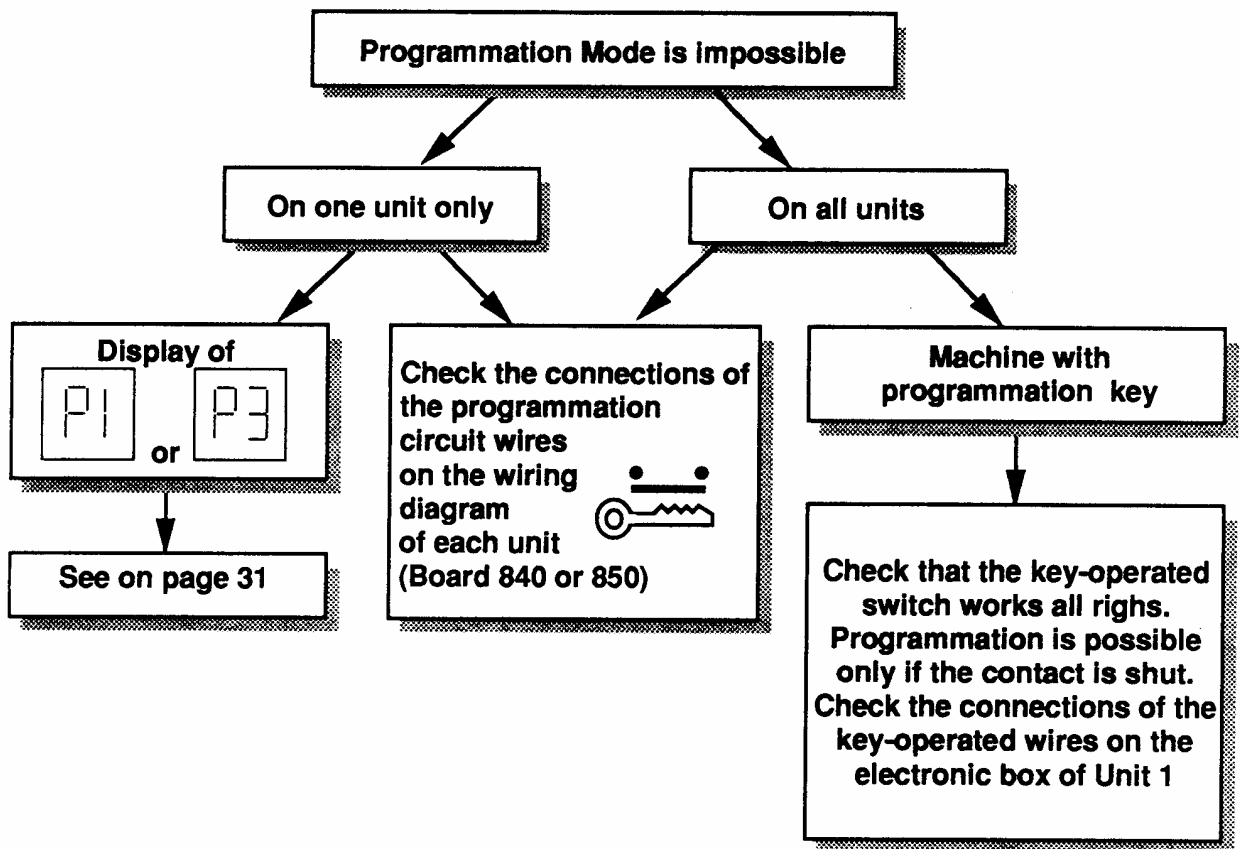
3. Insufficient or no heating process

- After getting a few cups of coffee, the machine gets cold.
- Check the infusion time and adjust the grind accordingly.
- Make sure that each pin of the heating element works.

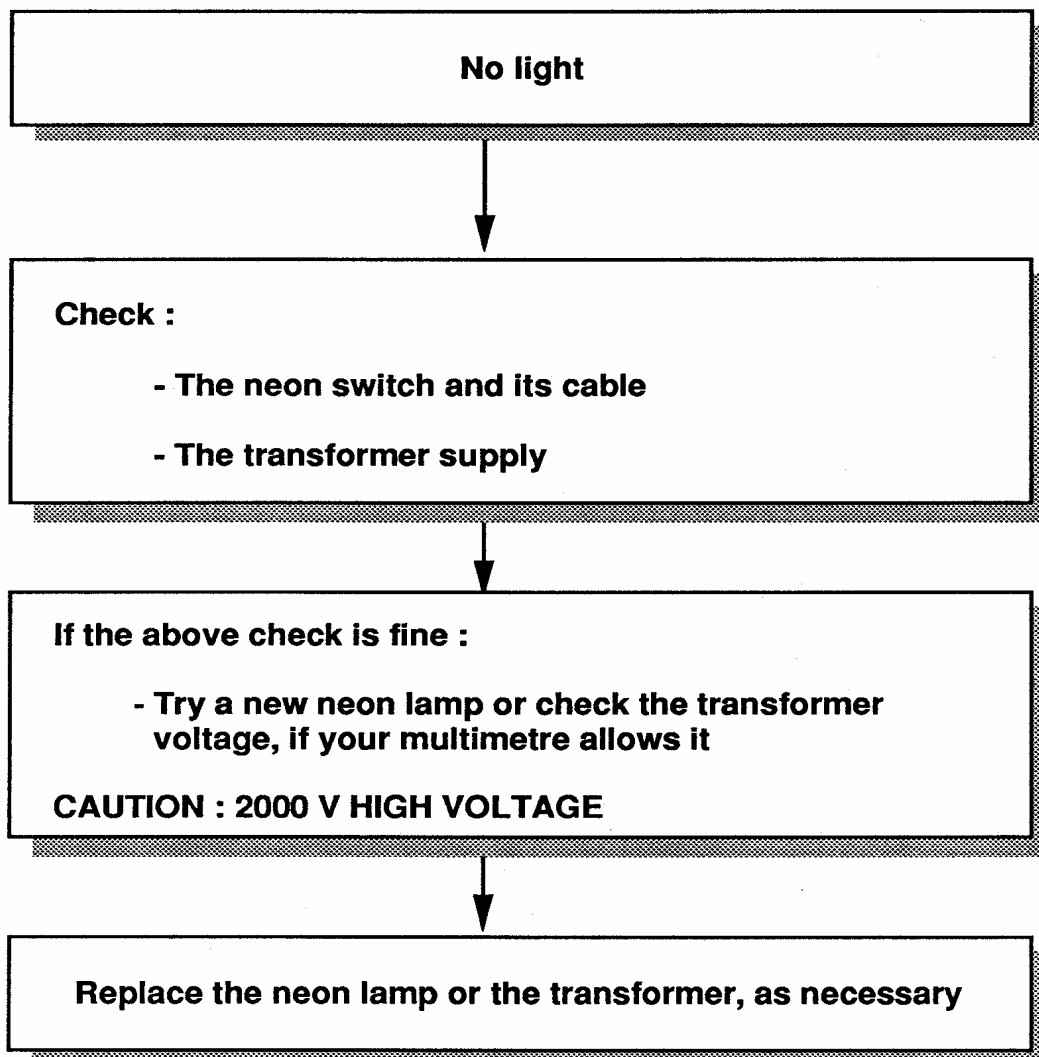
As a matter of fact, if one element of a 380 V TRI machine is "cut out", the voltage gets down to 190 V (instead of 220V) at the terminals of each remaining element. As a result, total heating power is cut by 50%. If two elements are cut out, there is no heating at all.



2. Setting the machine to PROGRAMMATION mode is impossible



3. Neon lamp does not work all right






The neon lamp lights up only if the charge switch is on Position 1.




X CONFIGURATION OF THE XI UNIT BOX

DESCRIPTION OF THE 4 POSSIBLE MODES

A) CHRONOMETER MODE

 is displayed on charging when this mode is activated, and  is displayed on the contrary.



– When the mode  is activated :


- After each infusion cycle, the duration of the infusion in seconds has been displayed for 3 seconds.
- Pressing the key  shows the last infusion time realized without starting the continu cycle.
To start the continu cycle, press the key  during 2 seconds, the cycle starts and also the timing which directly appears on display.
As the cycle is stopped by the key , the timing is stopped and the value obtained keeps displayed during 3 seconds.
- The other functions remain unchanged excepted if another mode has been initially activated.

– Use :




This permits to adjust the grinder in order to obtain a coffee grindind adapted and to control permanently the passing time without using an external chronometer.

B) 1 CUP MODE

 is displayed on charging when this mode is activated, and  is displayed on the contrary.

– When the mode  is activated :

- The system of filter-holder detection is not working and the unit is limited to 1 small cup or 1 large cup.



The selection and the cycle start is done manually by pressing  and  or  is displayed should a filter-holder be inserted or not.

- The other functions remain unchanged excepted if another mode has been initially activated.


– Use :

This permits to use portions of ground coffee if the machine is equipped with the accessories peculiar to this use (special unit and filter-holder).


C) CLEANING MODE

 is displayed on charging when this mode is activated, and  is displayed on the contrary.



– When the mode  is activated :


- The system of filter-holder detection and the timing function are neutralized when you use the key 


– Use :

This permits to control the unit by the key  with or without a filter-holder inserted on it, in order to clean this unit.

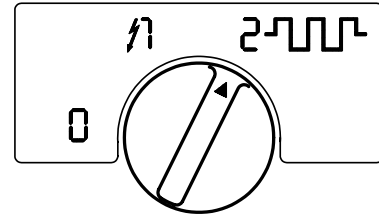
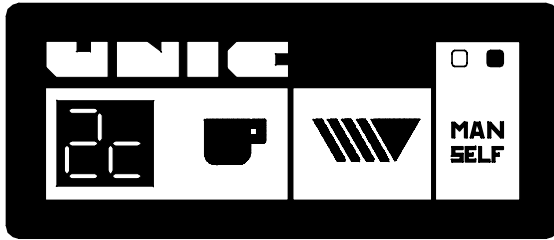
D) NORMAL DOSAGE OR "TORINO" MODE

 or  is displayed on charging, according to the type of unit which fits the machine.

The dosage  must be activated when the machine is equipped with standard units.

The dosage  must be activated when the machine is equipped with "TORINO" units (for italian coffees, 3 or 4 cl).
Indeed, as the filters depths are different, the parameters to be taken into account for the calculation of the doses must be changed to keep the accuracy of the dosage.

PROGRAMMING THE DIFFERENT CONFIGURATIONS OF THE ZI UNIT BOXES REF. "NM-122"



The programmed configuration appears on the display of each box on the charging of the machine, in the following order :

CO or CI then PI or PO then 00 or 01 then dn or dt then ☰

Instructions of operation to program a new configuration

1°) Put the main switch on the position 0

2°) Press simultaneously on the 3 keys of the keyboard | | **MAN SELF** and in the same time put the switch on the position . CO or CI is displayed according the configuration precedently programmed.

3°) Select the mode to be modify using the key **MAN SELF**

4°) Press the key to activate the selected mode :

Display of CI PI 01 or dt

Press the key to cancel the selected mode :

Display of CO PO 00 or dn

5°) Put again the switch on the position 0
The choosen modes are programmed.

6°) Procède in the same way for the other unit boxes.

7°) Put the switch on the position , be sure that the filling of the steam boiler is correct and put the switch on the position to start the heatin