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**Condenser
dryers with
electronic control**

ENV06 AEG CRM

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1 INTRODUCTION

1.1 Purpose of this Manual


The purpose of this Service Manual is to provide service engineers who already have the basic knowledge necessary to repair dryers with information concerning condenser dryers with electronic control systems.

The electronic control consists of a main board having an integrated selector and on some models a LCD display, supplied already mounted and tested by the building factory.

This Service Manual describes the following aspects:

- General characteristics.
- Control panel and drying programmes.
- Description of operation.
- Drying circuit.
- Electrical components and wiring diagram.
- Diagnostics guide.
- Alarms.
- Accessibility.

1.2 Important

	<ul style="list-style-type: none">- Repairs to electrical appliances must be carried out only by qualified service engineers- Before touching internal components, always remove the plug from the power socket.
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1.3 Installation

- The appliance must be installed on a perfectly level surface in order to ensure that the condensed water flows correctly into the tank.
- The feet must NOT be removed. The gap between the bottom of the dryer and the floor is essential to prevent overheating.

2 TECHNICAL CHARACTERISTICS

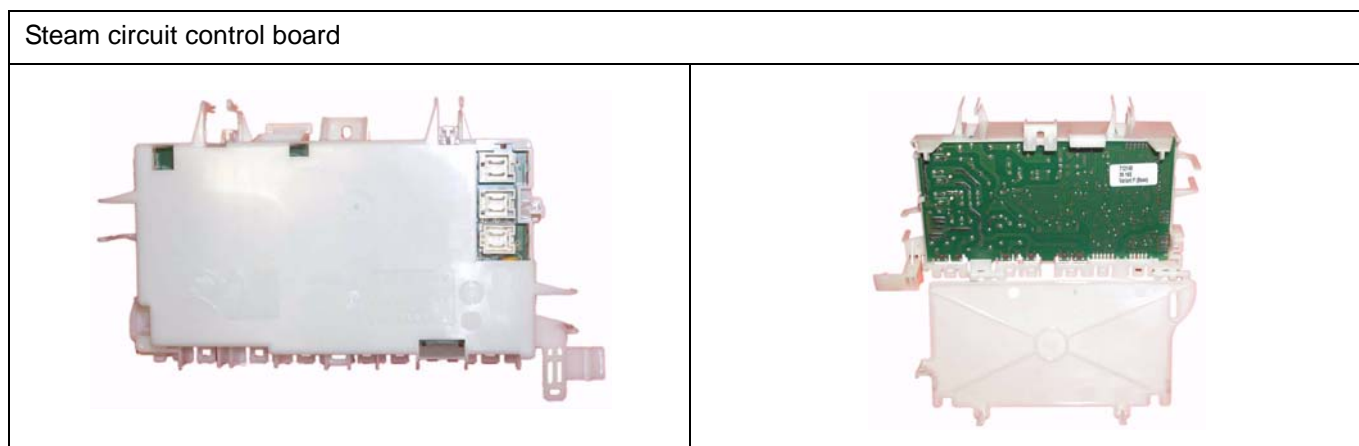
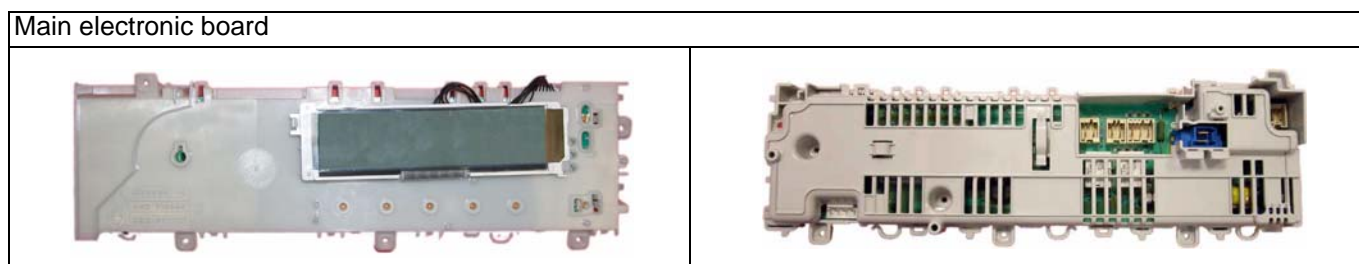
2.1 Technical data

Dimensions of appliance	Height: Width: Depth:	85 cm 60 cm 58 cm
Power supply	Volt: 220 - 240 Hz. 50 / 60	
No. Buttons	7	
No. LEDs	1	
Type of display	alphanumeric LCD	
Buzzer	Buzzer incorporated in the PCB.	
Serial port	DAAS-EAP protocol up to 230400 baud.	
Programme selector	20 positions with integrated ON/OFF switch	
Drying system	Condensation of humidity by heat exchanger.	
Humidity control	Conductimetric sensor.	
Motor	No. 2 single-phase asynchronous motors with capacitor.	
Power of heater unit	Version 220 - 240 V 2200 W 1400 W + 800W	
Steam generator group power	220 - 240 V 1500 W	
Temperature control	NTC sensor.	
Capacity of condensation canister	About 4l.	
Capacity of pro steam canister	About 1,2l	
Canister fill pump	Synchronous motor.	

2.2 Electronic boards

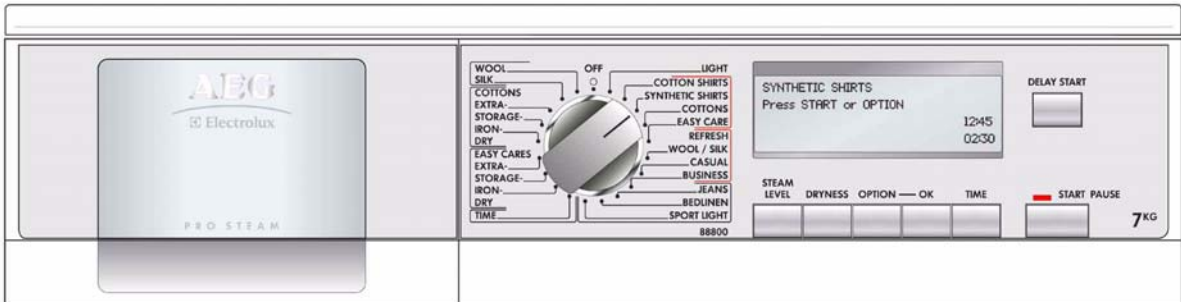
The electronic control consists of a main board having an integrated selector and on some models a LCD display, supplied already mounted and tested by the building factory.

The pictures of the boards can differ slightly from the ones mounted on the appliances.



3 CONTROL PANEL

3.1 Stylings



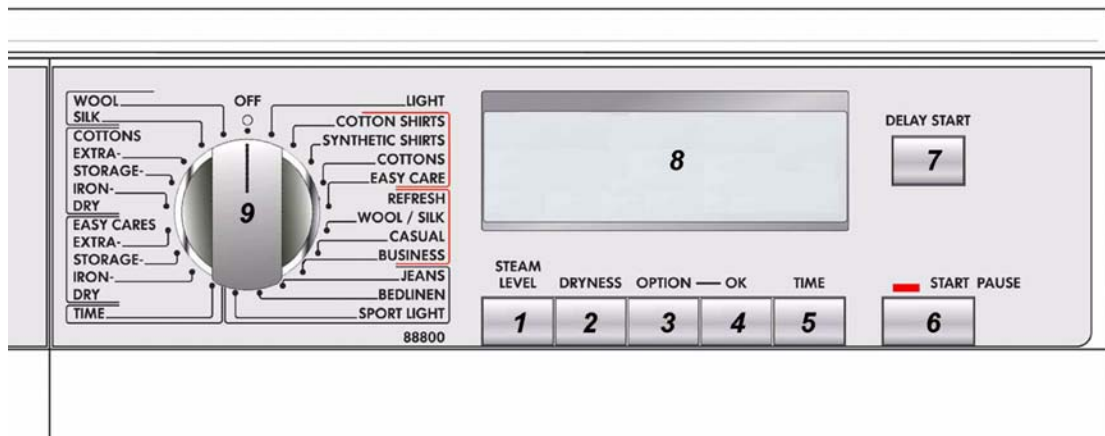
3.2 Programme selector

The 21-position selector has an incorporated ON / OFF switch and it is part of the board.

The symbols represent the various drying types for the different fabrics LIGHT, IRON AIDS, COTTON, SYNTHETICS, SILK, WOOL and TIMER. All positions are configurable depending on the model



3.3 Pushbuttons



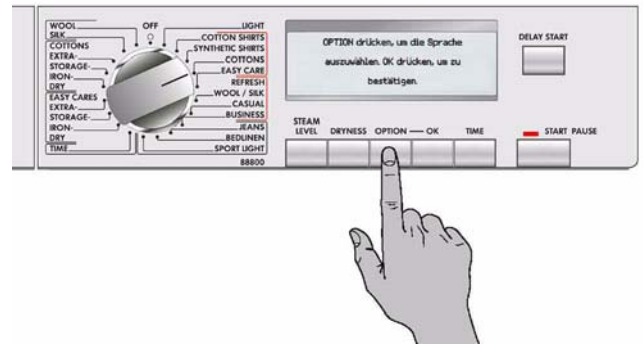
- 1. Configurable pushbutton
- 2. Configurable pushbutton
- 3. Configurable pushbutton
- 4. Configurable pushbutton
- 5. Configurable pushbutton

- 6. Start / pause pushbutton
- 7. Delayed start pushbutton
- 8. LCD
- 9. Programme selector

3.4 First start

At the first start of a programme and each time you exit the diagnostic test, the display shows a message in German language, which asks you if you want to maintain the current settings (German language and time displayed) or if you want to change them.

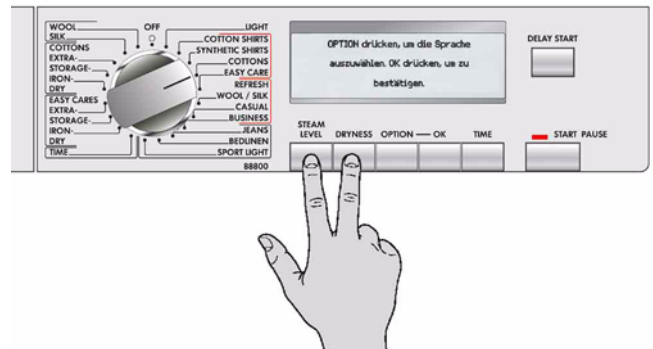
If you want to maintain the current settings, push the OK button, otherwise push the OPTION button repeatedly until the desired language is displayed. Push the OK button to confirm the modification.



If you select, by mistake, an understandable language and you don't know in which menu you are, you can go back to the LANGUAGE menu pushing simultaneously the STEAM LEVEL and DRYING DEGREE buttons for 5 seconds.

Push the OPTION button repeatedly until the desired language is displayed.

Push the OK button to confirm the modification.



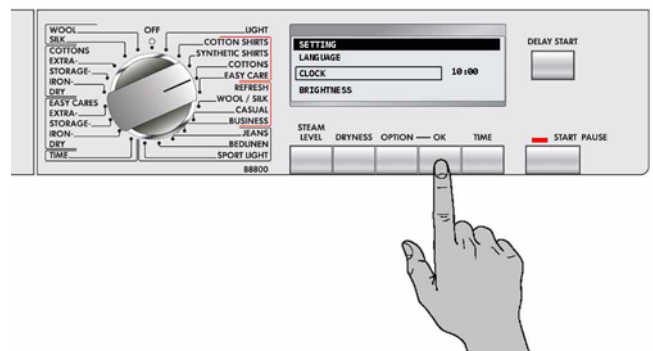
After selecting the desired language you are asked to set the time.

Push the OK button to confirm.

Push the OPTION button to select the hours or the minutes.

Push the OK button to confirm the choice.

Change the time pushing repeatedly the OPTION button and save the modifications pushing the OK button.

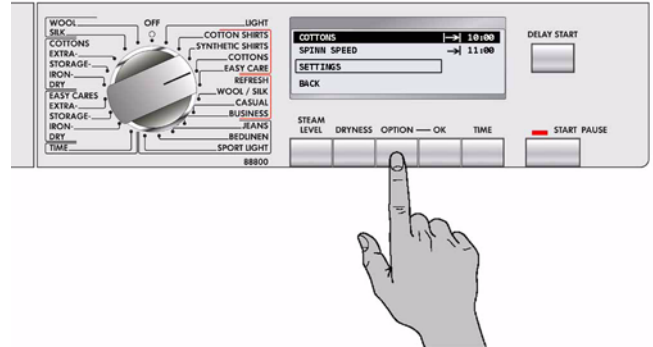


3.5 Settings

The settings menu is set by the user at the first switching on of the appliance and remains memorized also after the appliance has been switched off or unplugged; in any case the settings can be modified at any time.

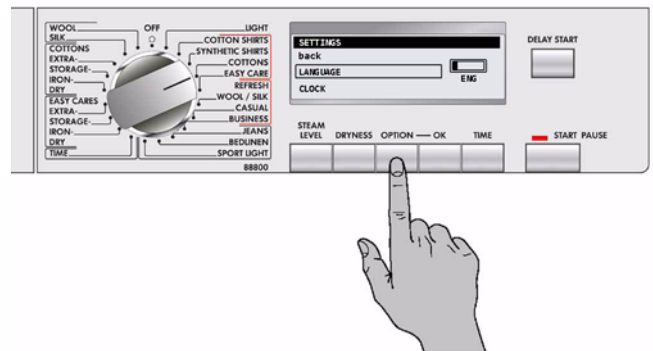
The writings on the display vary according to the set language.

- Turn the selector knob and select any programme.
- Push the OPTION button repeatedly until SETTINGS is highlighted.
- Push the OK button to confirm the choice.
- At this point it is possible to regulate the settings.



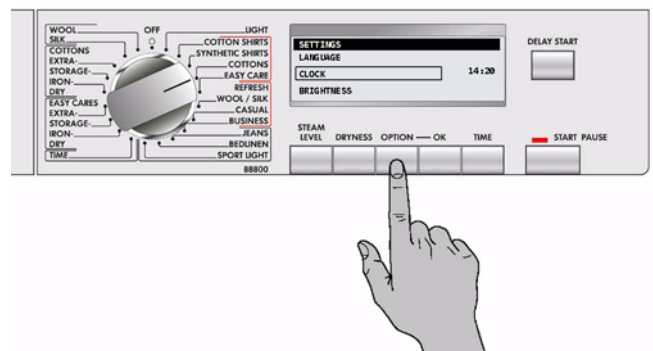
3.5.1 Setting the language

- Select the SETTINGS menu.
- Push the OPTION button until LANGUAGE is highlighted.
- Push OK to confirm the choice.
- Push the OK button to modify the language.
- Push the OK button to confirm the choice.



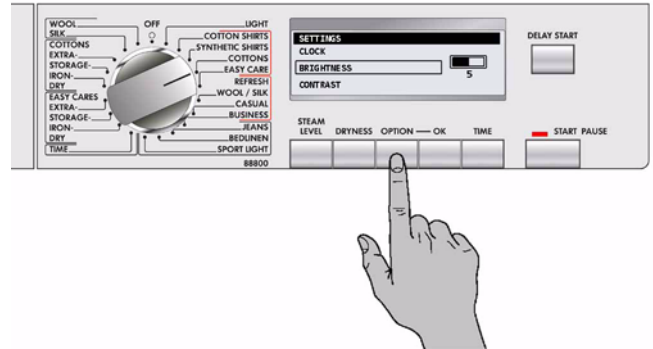
3.5.2 Setting the time

- Select the SETTINGS menu.
- Push the OPTION button until CLOCK is highlighted.
- Push OK to confirm the choice, the hours will start to flash.
- Push the OPTION button to modify the hour.
- Confirm the choice pushing the OK button, and now the minutes will start to flash.
- Push OK to confirm the choice.



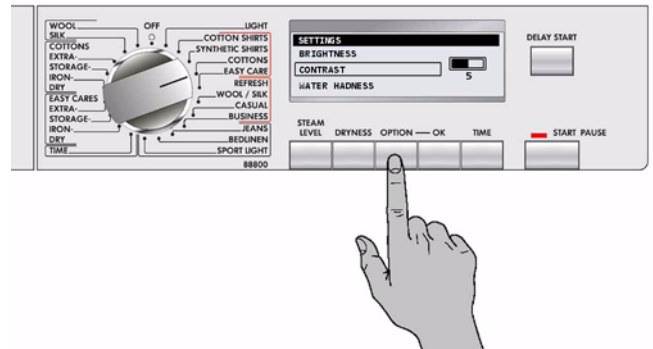
3.5.3 Setting the display brightness (LCD)

- Select the SETTINGS menu.
- Push the OPTION button until BRIGHTNESS is highlighted.
- Push OK to confirm the choice, the bar indicator will start to flash.
- Push the OPTION button until the desired brightness level is selected.
- Push the OK button to confirm the choice.



3.5.4 Setting the display contrast (LCD)

- Select the SETTINGS menu.
- Push the OPTION button until CONTRAST is highlighted.
- Push OK to confirm the choice, the bar indicator will start to flash.
- Push the OPTION button until the desired contrast level is selected.
- Push the OK button to confirm the choice.

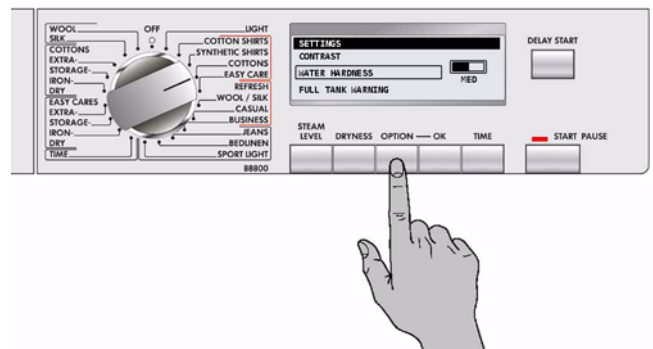


3.5.5 Setting water hardness

- Select the SETTINGS menu.
- Push the OPTION button until WATER HARDNESS is highlighted.
- Push OK to confirm the choice, the bar indicator will start to flash.
- Push the OPTION button until the desired level is selected.

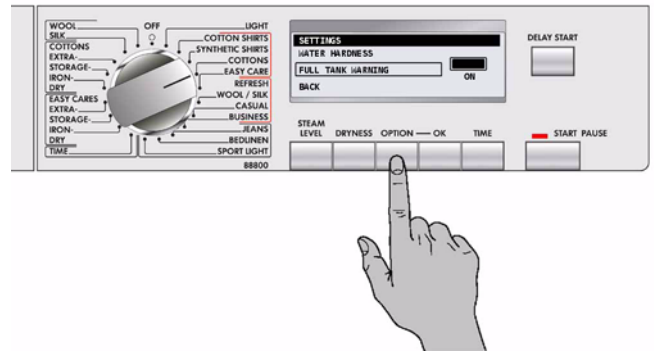
MIN low hardness $\leq 300 \mu\text{s}/\text{cm}$
 MED medium hardness between 300 and 600 $\mu\text{s}/\text{cm}</math>
 MAX high hardness $>600 \mu\text{s}/\text{cm}</math>$$

- Push the OK button to confirm the choice.



3.5.6 "Canister full" ON/OFF alarm

- Select the SETTINGS menu.
- Push the OPTION button until FULL TANK WARNING is highlighted.
- Push OK to confirm the choice, the bar indicator will start to flash.
- Push the OPTION button to select ON or OFF.
- Push the OK button to confirm the choice.

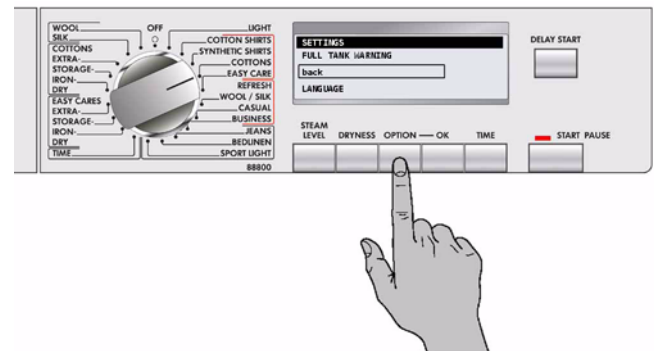


3.5.7 Exiting the SET-UP programme

- To exit the SET-UP programme, push the OPTION button till BACK is highlighted.
- Push OK to confirm, the display will show the drying programme previously selected.

Another way to exit the SET-UP programme is to wait 15 seconds.

If you use this way, pay attention to push OK after having modified the parameter, otherwise the modification will not be memorized.



3.6 Setting the drying programmes

The various drying programmes can be modified adding the different options compatible with the chosen programme.

These options are displayed through some icons.



1. Programme name and remaining time.
2. End of cycle time.
3. Selected option icon.
4. Other functions.




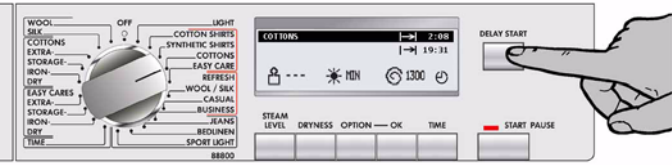
3.6.1 Programme options from the OPTION menu

	Delicate	<ul style="list-style-type: none"> • Turn the selector knob and select the desired programme. • Push the OPTION button repeatedly until DELICATE is highlighted. • Push OK to confirm the choice.
	Sensitive	<ul style="list-style-type: none"> • Turn the selector knob and select the desired programme. • Push the OPTION button repeatedly until SENSITIVE is highlighted. • Push OK to confirm the choice.
	Anti-crease	<ul style="list-style-type: none"> • Turn the selector knob and select the desired programme. • Push the OPTION button repeatedly until ANTI-CREASE is highlighted. • Push OK to confirm the choice.
	Buzzer	<ul style="list-style-type: none"> • Turn the selector knob and select the desired programme. • Push the OPTION button repeatedly until BUZZER is highlighted. • Push OK to confirm the choice.
	Child Safety	<ul style="list-style-type: none"> • Turn the selector knob and select the desired programme. • Push the OPTION button repeatedly until CHILD SAFETY is highlighted. • Push OK to confirm the choice.
	Spin speed (washing machine)	<ul style="list-style-type: none"> • Turn the selector knob and select the desired programme. • Push the OPTION button repeatedly until SPINNED LOAD is highlighted. • Push OK to confirm the choice. • Push OPTION to select the speed at which the clothes have been spinned. • Push OK to confirm the choice.

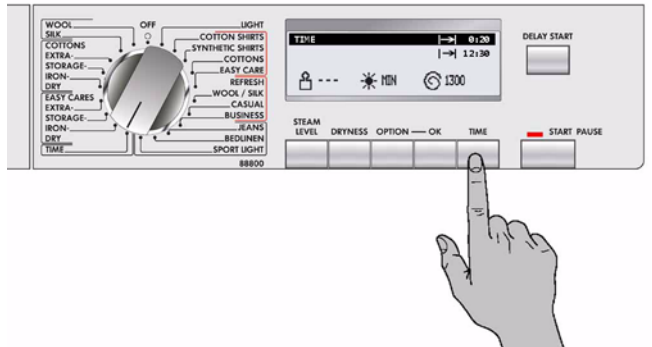
3.6.2 Programme options from the pushbutton panel

	<p>Drying degree</p>	<p>Push the DRYING button to select the desired drying level. Three different drying levels can be selected MIN - MED - MAX.</p>
	<p>Steam quantity</p>	<p>Push the STEAM LEVEL button to select the quantity of the desired level. Three different steam levels can be selected MIN - MED - MAX.</p>

3.6.3 Delayed start

	<p>Pushing DELAY START it is possible to postpone the delayed start of the selected programme. For the first two hours the time increases by half an hour, after by one hour till maximum 20 hours.</p>	
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3.6.4 Timer-controlled programme

<p>Selecting the timer-controlled programme, it is possible to set a customized drying regardless of the humidity level of the clothes. The time varies at intervals of 10 minutes, until maximum 3 hours.</p>	
--	--

4 PRO STEAM System

The PRO STEAM system is an innovative system which introduces into the drum at the end of the drying, if you are using a drying programme, or at the end of a refresh phase, a certain quantity of steam that eliminates creases and bad odours from the fabrics.

Before using this system, it is necessary to fill the water tank of the steam hydraulic circuit (PRO STEAM tank) with distilled water.

- Extract the water tank slightly.
- Open the PRO STEAM water tank nozzle.
- Fill the PRO STEAM tank with distilled water paying attention not to overcome the maximum level.

!! USE ONLY DISTILLED WATER !!



4.1 Water recirculation system

This system allows using automatically the condensation water coming from a drying cycle to fill the PRO STEAM water tank.

- Extract the water tank slightly.
- Turn the filter valve to ON position.

In this way the condensation water formed during the drying cycle goes directly into the PRO STEAM tank.

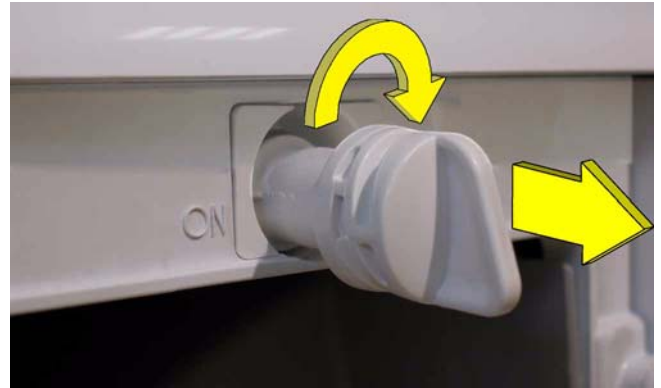
- Turn again the filter valve to OFF position so as to deactivate this function for the not STEAM PRO cycles.



4.2 Cleaning the PRO STEAM filter valve

- Extract the water tank.
- Turn the filter knob to OFF position.
- Extract the filter valve and wash it with running water.

PAYING ATTENTION
NOT TO DAMAGE THE FILTER



5 Description of operation

When the selector is turned from OFF to a drying programme, the icons or the LEDs corresponding to the phases of the drying light up, and the START/PAUSE LED begins to flash with green light.

In this phase it is possible to insert the various options and the relative icon lights up.

The display shows the maximum time of the drying cycle. If an incompatible option is selected with the chosen programme, the Buzzer sounds and the display shows Err. While the LEDs flash

Selecting one or more options, the display shows a time increase or decrease. If the programme selector is turned after selecting the options, but before pressing START/PAUSE, the options selected will be cancelled.

5.1 Cycle operation

A drying cycle starts after a programme has been selected using the selector, one option (if desired) and the START/PAUSE pushbutton has been pressed.

The LED corresponding to the START/PAUSE button remains lit with green light and, at the same time, the icon corresponding to the phase currently being performed lights up and the display shows the drying maximum time.

The phases of a drying cycle are:

- **DRYING**
If the cycle is automatic, its duration will be the time necessary to remove the humidity until the desired degree of final humidity is reached (maximum cycle time is 180 minutes for full power and 240 minutes for half power).
If the cycle is timer-controlled, the duration will be the time selected by the user.
- **PRO STEAM** (if a programme has been selected with this cycle)
The duration depends on the time necessary to dry the clothes, till the final humidity level which characterizes the chosen cycle, plus the time necessary to insert the desired quantity of steam.
- **COOLING**
For timer-controlled cycles, the maximum duration of the cooling phase is 10 minutes; for automatic cycles the duration depends on the temperature inside the drum.
- **ANTI-CREASE**
The duration of the anti-crease cycle is 30 minutes.

No modifications to the programmes can be entered after the drying programme has started

If the selector position is changed, the green LED of the START / PAUSE button starts to flash, the buzzer sounds to warn of the incompatibility of the operation and the display shows Err.

If any button is pushed, the green LED of the START / PAUSE button starts to flash, the buzzer sounds to warn of the incompatibility of the operation and the display shows Err.

The options allowed for each cycle can be set only after choosing a drying programme through the selector at the beginning of the cycle, or during a cycle after pushing the START/PAUSE button.

To cancel a drying cycle, it is necessary to turn the programme selector to OFF.

5.2 Operation in PAUSE mode

If a drying cycle is being executed, pushing the START / PAUSE button, the dryer interrupts the cycle, the green LED of the START / PAUSE button flashes and in the models with display the time to end of the cycle is displayed.

If the selector is turned, the buzzer warns of the incompatibility of the operation.

Certain options only may be modified while the appliance is in PAUSE mode, see tab. OPTIONS.

If a button is pushed with an option that cannot be selected, the buzzer sounds to warn of the incompatibility of the operation and the display shows Err. Press START/PAUSE again to resume the cycle from the point at which it was interrupted.

5.3 Operation in DELAYED START mode

After selecting a drying programme, pushing this button it is possible to access the delayed start option, and each time is pressed, the delayed time increases.

To reset the delay time either move the selector by one position or push the button till the display is reset. The start of the cycle is always determined by the START/PAUSE button.

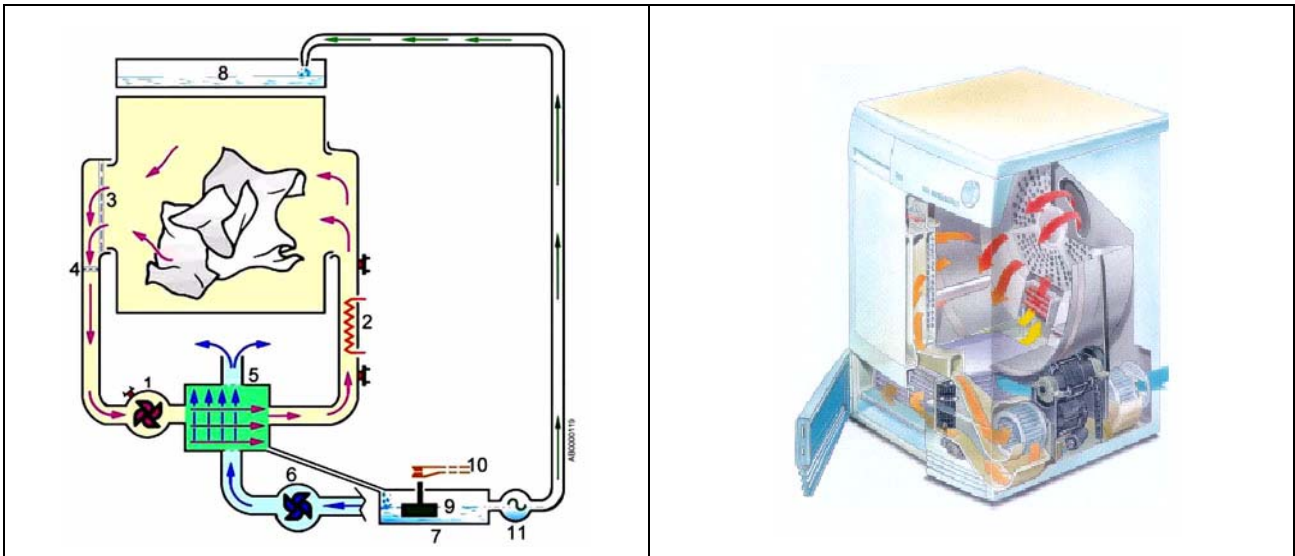
5.4 Power failure

The table below shows how the dryer behaves in the event of a power failure during a drying cycle.

Before the power failure	After power is restored
Selection (set-up)	Selection (set-up)
Drying cycle	Pause
Cycle paused	Pause
Anti-crease phase	End of cycle
Delayed-start cycle	Delayed-start cycle paused
Delayed-start cycle paused	Delayed-start cycle paused
End of cycle	End of cycle
"Canister full" alarm	"Canister full" alarm

6 CONSTRUCTIONAL FEATURES

6.1 Drying circuit



There are two air circuits inside the dryer:

- the first is a warm-air circuit, which is sealed within the appliance
- the second is an open cold-air circuit, which circulates air from the ambient through certain sections of the appliance

In the sealed warm-air circuit, the air circulates inside the appliance:

The fan (1), ducts the air through a heat exchanger (5), and then to the heater unit (2). The heater unit heats the air, which is then ducted into the drum through the perforations in the rear flange of the drum. The warm, dry air passes through the wash load, which is agitated by the rotation of the drum, and removes the humidity from the fabrics; the air, which is now warm and humid, then passes through the front aperture of the drum via the fluff filter (3) and the lower filter (4), then the air is ducted by the fan (1) to the heat exchanger (5), where the humidity is condensed. The air coming from the heat exchanger is now dry and the cycle continues as described above.

The cold-air circuit (the air circulates in one side of the appliance) is not sealed:

the fan (6) draws in air through an air intake on the rear of the appliance, and ducts the air to the heat exchanger (5), cooling it, after which the air is expelled on the opposite side of the heat exchanger dissipating inside the appliance and exiting from the venting grille in the plinth.

The warm and cold air circuits cross inside the heat exchanger (5), which results in a thermal exchange which condenses the humidity contained in the warm air.

The condensation water, which forms in the heat exchanger, is collected in a sump (7) which contains a float (9):

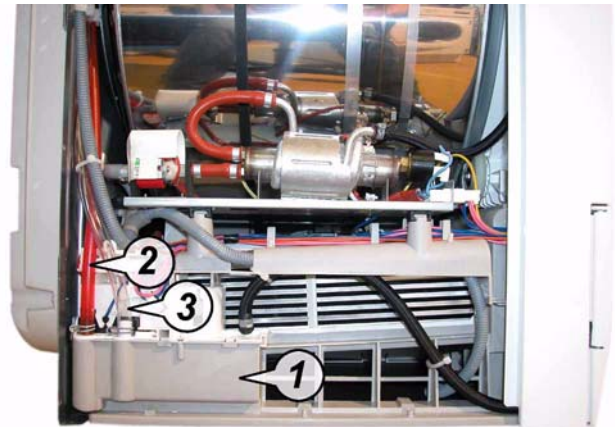
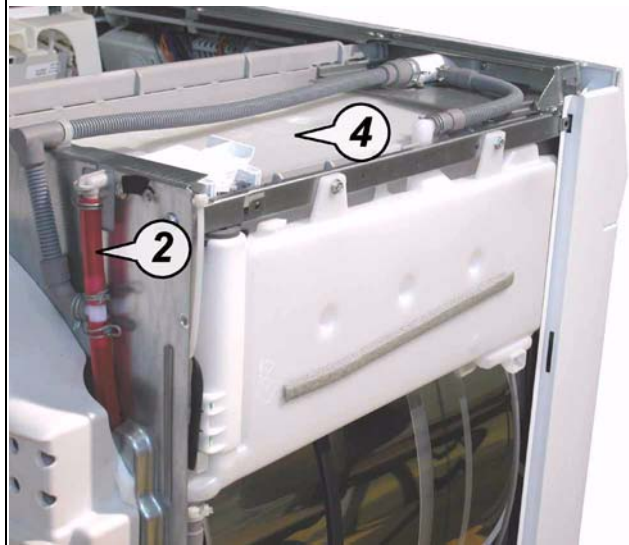
A pump (11) ducts the water from the sump (7) to the canister (8). When the canister is full, any overflow is collected in the canister support and returned through a tube (not shown in the figure) into the sump (7). This causes the float (9) to rise, thus actioning the microswitch (10)

The electronic control system detects the closure of the microswitch, cuts off the power to the appliance and warns the user that the canister is full.

The tank capacity is about 4 lt., which is sufficient for one drying cycle.

6.2 Condensation water hydraulic circuit

1. Pump immersed in the sump
2. Water drain hose to canister (red)
3. Overflow drain hose (transparent)
4. Canister



The condensation water is ducted from the sump (1) to the tank (4) by the pump immersed in the sump via the hose (2). When the canister is full the overflow is collected in the canister support and ducted to the sump through the hose (3).

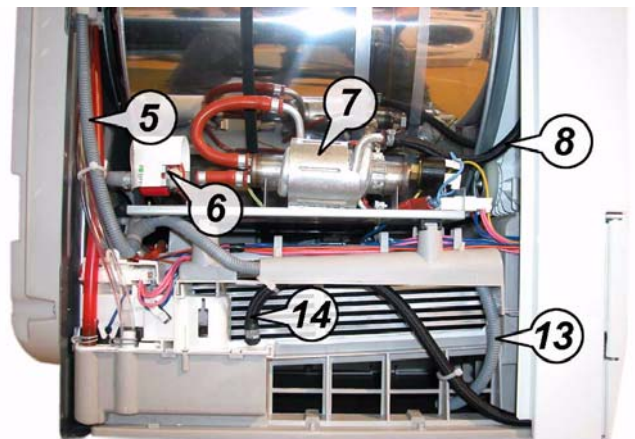
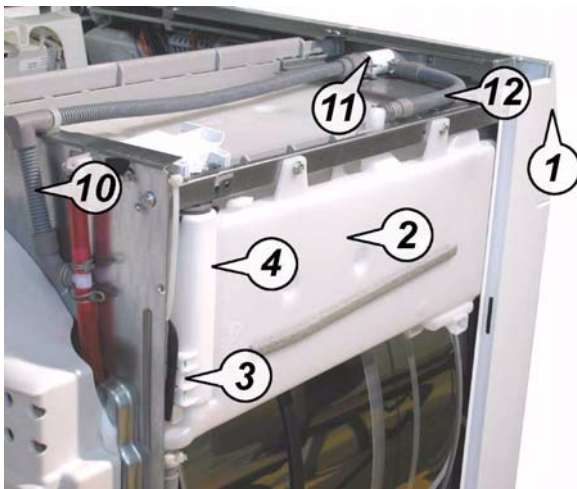
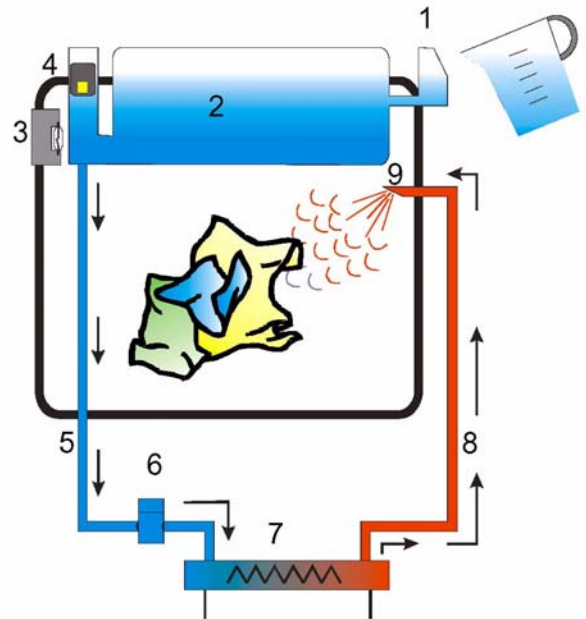
6.3 Steam hydraulic circuit

The appliances with PRO STEAM system feature a steam generator composed by a mini boiler (7) powered by pulses a pump (6) necessary to fill the boiler. If you wish to use the PRO STEAM programmes, firstly it is necessary to fill the tank (2) with distilled water through the fill nozzle (1) up to the MAX level about 1,3 litres. This allows the float (4) to go away from the magnetic sensor (3) and so to eliminate the alarm in the display. As soon as the drying cycle has terminated, the membrane pump (6) which operates also as steam non-return valve, starts to suck in water through the hose (5) and pump it inside the boiler (7). The water heated up and become steam goes up through the hose (8) and is introduced into the hole through the nozzle (9).

The steam quantity that can be selected by the STEAM LEVEL button, changes the time during which the pump and the boiler operate.

If you position the filter valve (11) to ON, the condensation water passes through the hose (10 and 12) and fill the tank (2) automatically.

The hose (13) empties the tanks (2) completely, while the hose (14) recovers possible water drops not vaporized inside the drum.



6.4 Steam generator

The steam generator consists of two parts, a pump and a membrane which operates also as a non-return valve and a boiler with incorporated heater with 1500W

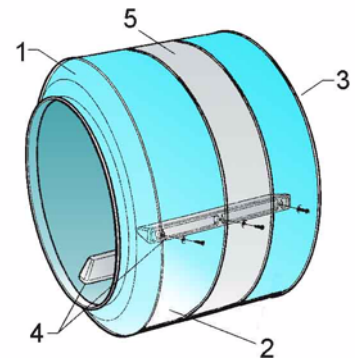


6.5 Drum

The drum consists of a drum housing where the two flanges are crimped, the rear one with a hole that allows the air to flow through and the other open to allow the insertion of the clothes.

Inside the drum there are 3 drum lifters which during the normal operation let the clothes move around.

Externally there is a metallic band, where the brush wipes, electrically isolated from the drum by means of an isolating band



1. Front flange
2. Drum housing
3. Rear flange
4. Drum lifters
5. Brush contact band

6.6 Air seals and drum shaft supports

Rear air seal

1. Rear seal (fitted to the rear panel)
2. Drum
3. Rear panel

Rear drum support

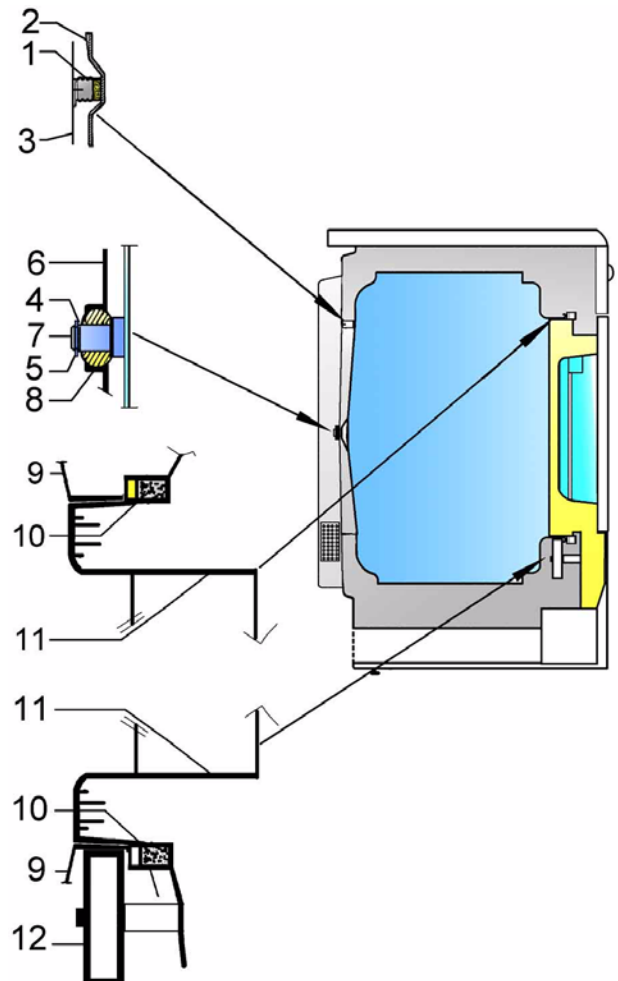
4. Anti-clutching washer
5. Fixing ring (Benzing)
6. Rear panel
7. Drum spindle
8. Support with bushing (fitted to the rear panel)

Front drum support and air seal

9. Drum
10. Felt ring with tubular support
11. Duct

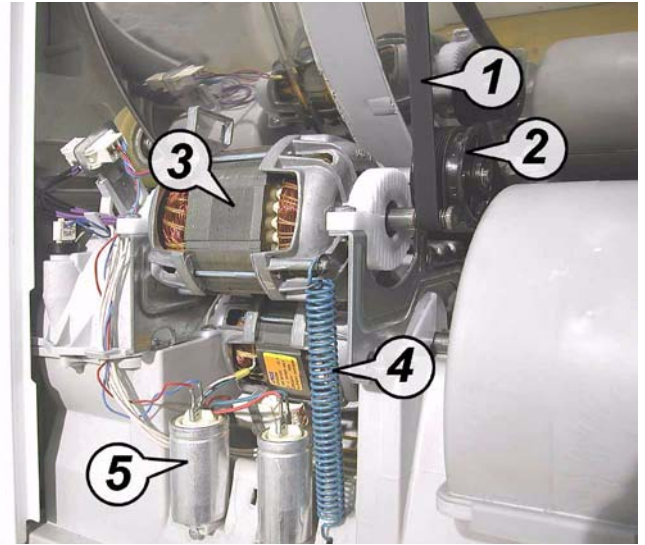
Lower drum support

9. Drum
10. Felt ring with tubular support
11. Duct
12. Drum support roller



6.7 Drum rotation principle

1. Drive belt
2. Belt tensioner
3. Drum rotation motor
4. Belt tensioner spring
5. Running capacitor



The drum is rotated by a belt (1), which is driven by the pulley of the drum motor (3) fitted to the base; on the bearing shield there is a belt tensioner (2), which has the function of increasing the winding angle of the belt to the drum and works in conjunction with the belt tensioner spring (4).

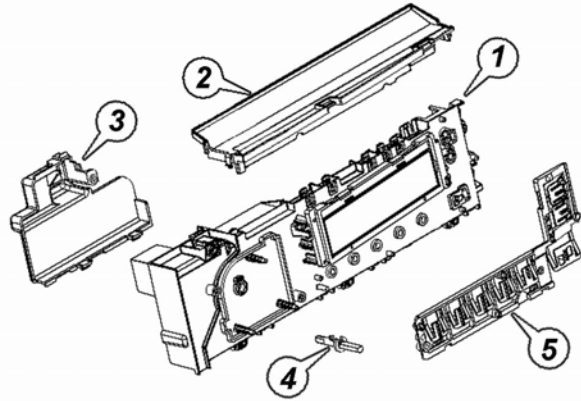
Bidirectional operation of the drum rotation is determined by the electronic board which inverts the motor power direction for brief periods. Reversal of the direction of rotation allows the clothes to unroll. During these short periods, the heater unit is switched off.

7 ELECTRICAL COMPONENTS

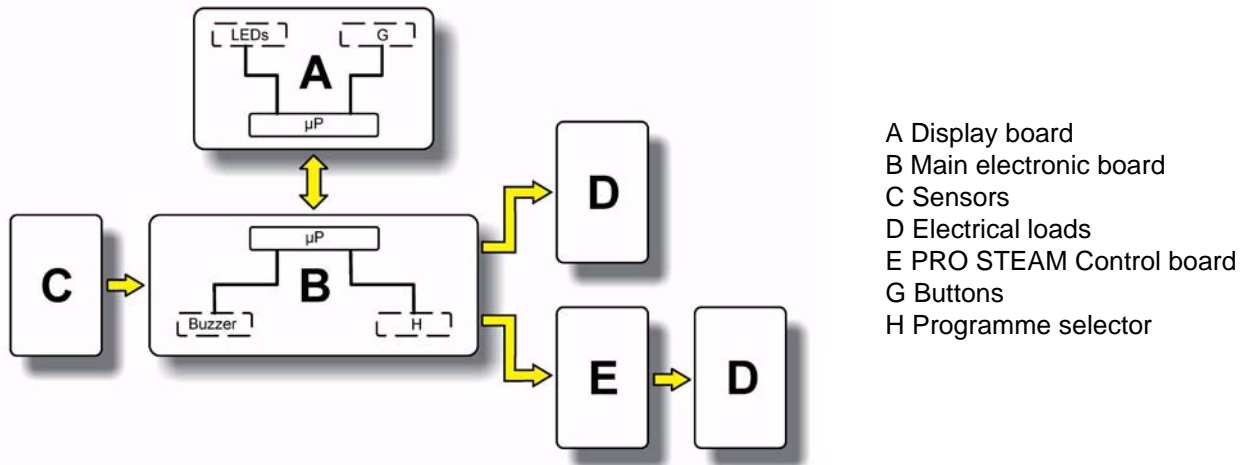
7.1 Electronic control units

The electronic control consists of a main electronic board fitted into a plastic container, fixed behind the control support. In the models with LCD there is also the display board mounted on this container.

1. Main electronic board casing
2. Cover for connectors
3. Cover for selector
4. Programme selector spindle
5. Button springing system



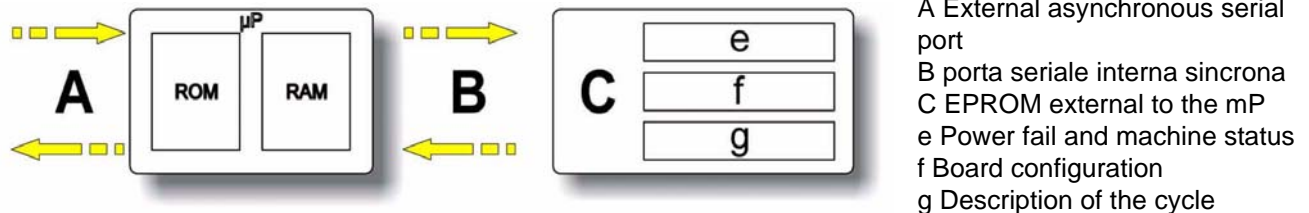
7.1.1 Electronic board functions



- The electronic board receives the controls relative to the drying cycle setting.
- The various buttons to select the options of the drying cycle are on this board and the warning LEDs.
- The electronic board powers the main components: drum motor, fan motor, pump, heater unit and door lock.
- The board also controls the door interlock, the temperature of the air inside the dryer (using an NTC sensor), the level of humidity of the washing (using a conductimetric sensor) and the level in the canisters.
- The programme selector and the buzzer are incorporated in the main board.

7.1.2 Memory of the electronic control: general structure

The main PCB features an EEPROM, positioned externally to the microprocessor, which memorizes the configuration data, the description of the cycle, the status of the appliance in case of a power failure, and the alarms.



ROM

This area of the memory contains the "firmware" code including the functionalities of the appliance

- Control of electrical loads (motor, pump, heater).
- Control of the sensors (NTC, conductimetric sensor, door switch status).
- Control of the user interface.
- Control of the serial port.
- Control of power failures and alarms.
- Alarms.

In standard-production appliances, this area is a Read-Only Memory, and thus cannot be modified.

RAM

This memory contains the variables, i.e. all the dynamic information used during execution of the programme:

- Machine status.
- Cycle selected.
- Alarms.

The contents of this memory are cancelled each time the appliance is disconnected (by switching off or in the event of a power failure).

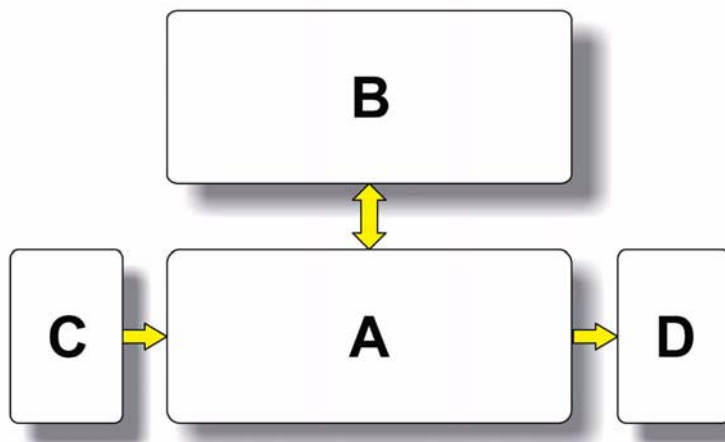
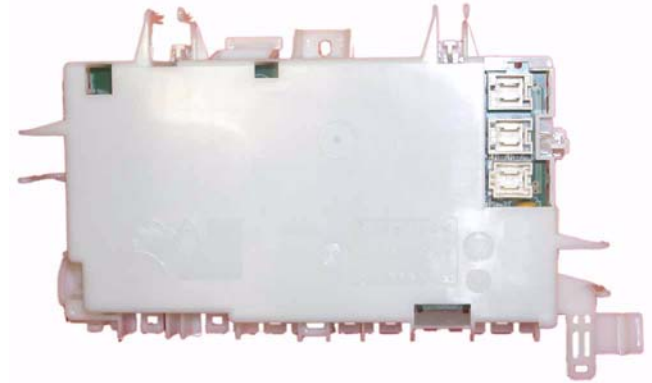
The contents can be read using a computer connected via a DAAS interface.

EEPROM

The EEPROM contains data of various types:

- Power failure and machine status, i.e. the information necessary to resume operation of the appliance after a power failure.
- Configuration of the drying cycle: this file describes the various steps in the drying cycle for each family of appliances (vented, condenser etc.)
- Machine configuration: the data contained in this area of memory define the configuration of the individual appliance, and are interpreted by the functional software. These files define the following:
 - Programmes.
 - Number of buttons and their functions.
 - Operation of the LEDs.
 - Operation of the buzzer.
 - Operational limits (voltage/frequency)
 - Identification of the appliance (PNC + ELC + serial number)
 - Heater unit power.
 - Preferential direction of motor rotation.

7.1.3 PRO STEAM board functions



A PRO STEAM unit control board
B Main electronic board
C Sensors
D Electric loads

- The PRO STEAM control board receives the controls relative to the drying cycle setting with PRO STEAM function, from the electronic board.
- It powers the main components of the PRO STEAM unit: water drain pump, heater unit and drum fan motor.
- It controls the PRO STEAM water tank level.
- It sends again the values coming from the sensors to the main board.

7.2 Conductimetric sensor

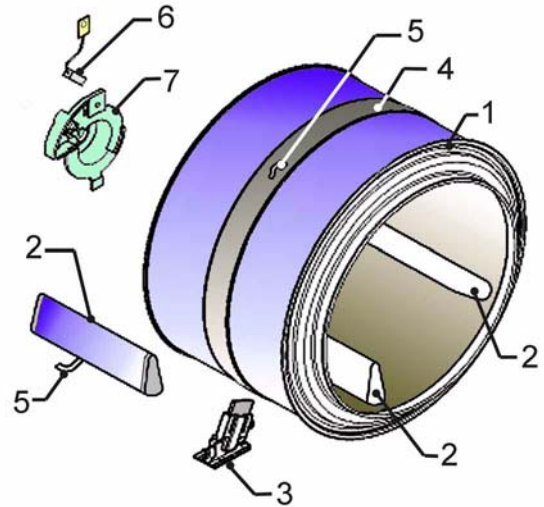
This electronic features a conductimetric sensor which consists of an electronic circuit (positioned inside the power board) and a section located externally to the board which consists of the wiring, two brushes, the two drum lifters and the drum.

The measurement of the resistance value occurs between the drum (1) and the isolated drum lifters (2). This value varies according to the wash load, the type of fabric and the degree of humidity.

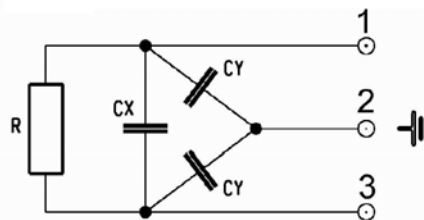
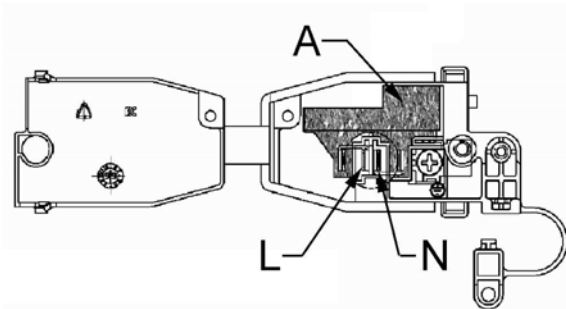
The brush (3) is in contact with the drum lifters by means of the contacts (5) fitted to the contact band (4) which is isolated from the drum by an insulating band.

The carbon brush (6) in contact with the drum pin is inserted into the drum pin protection (7).

This sensor is connected to the electronic circuit via the cabinet, which represents the mass of the appliance's electronic circuit. When the drum is empty, the impedance between the drum band and the sensor positioned on the drum lifters is infinite. The impedance value becomes measurable as soon as humid clothes are inserted. This value is between about 1M ÷ 25M and is converted into an oscillation of between about 260Hz and 0Hz; when processed by the electronic circuit (fuzzy logic), this value determines the duration of the cycle and the final humidity.



7.3 Terminal block with incorporated suppressor



A Suppressor
L Phase
N Neutral

The suppressor, which is incorporated in the terminal block, prevents radio disturbance generated by the dryer from entering the power lines.

This device functions correctly only if the appliance is grounded.

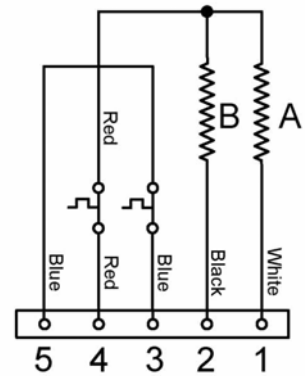
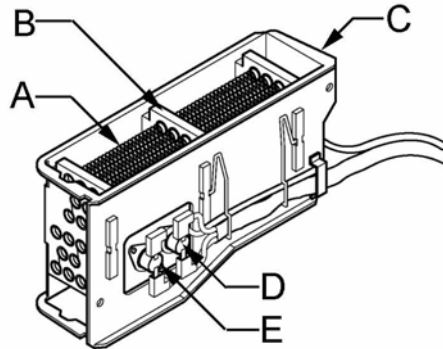
Checking for efficiency:

Use a tester to measure the resistance across the following terminals:

- 1 - 2 = ∞
- 2 - 3 = ∞
- 1 - 2 = ~2M€Ω

7.4 Heater unit

- A Filament heating element
- B Ceramic supports
- C Sheet metal casing
- D TH2 Safety thermostat
- E TH1 Safety thermostat



The heater unit consists of two wire heating elements with different powers. The two heating elements are fitted to ceramic supports, and the entire assembly is housed in a sheet metal casing.

Two safety thermostats (normally closed) are positioned to one side of the casing:

- TH1 automatic reset (4) intervenes at a temperature of $92 \pm 3^\circ\text{C}$, and disconnects both heating elements
- Thermostat TH2 (5) intervenes at 160°C ; when the contact opens, it remains open, permanently disconnecting all the electrical components in the appliance.

The heater unit is powered via two relays fitted to the board.

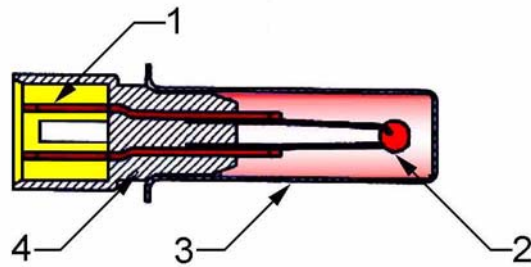
HEATER UNIT VERSIONS					
Type	Total power (-2 + 8%) W Rated voltage V	2400 240	2400 230	2000 240	2200 240
Branch A	Power(-2 + 8%) W Resistance Ω	1400 36	1400 33	1400 36	1400 36
Branch B	Power(-2 + 8%) W Resistance Ω	1000 51	600 78	600 85	800 72

Warning: In the event of a thermostat failure, the entire heater unit must be replaced!

7.5 NTC Sensor

The NTC sensor is fitted to the hot air fan duct. This sensor consists of a resistor contained in a metallic capsule. Its resistance decreases as the temperature increases. The electronic circuit reads the resistance (which varies with the temperature inside the dryer); when this resistance falls below a certain value, the heater unit is switched off. As the air cools, the resistance increases; when it reaches a given value, the electronic circuit re-connects the heater unit to the power supply. This occurs each time the temperature inside the dryer exceeds a given value, which varies according to the drying cycle that has been selected.

1. Terminals
2. NTC Resistor
3. Metallic capsule
4. Plastic casing



TEMPERATURE (°C)	RESISTANCE (Ω)		
	Rated value	Maximum value	Minimum value
20	6050	6335	5765
60	1250	1278	1222
80	640	620	660

7.6 Canister fill pump

The pump is actioned by a synchronous motor with a power of about 17W.

The function of the motor is to pump the condensation water from the sump to the canister.

Also the pump is powered through a triac. The resistance of the stator winding is about 750 W.



7.7 Motors

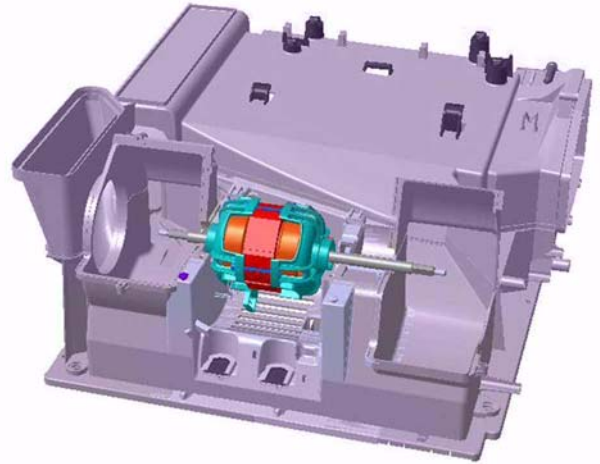
7.7.1 Fan rotation motor

The motor unit consists of two fans respectively for the cold air circuit and the hot air circuit fitted to the motor shaft through nuts and of the single-phase asynchronous motor with 32mm stack and 44W power with a thermal protector (thermistor).

The motor supply is performed by the electronic board which controls the CRM group by means of a relay and a triac

Attention:

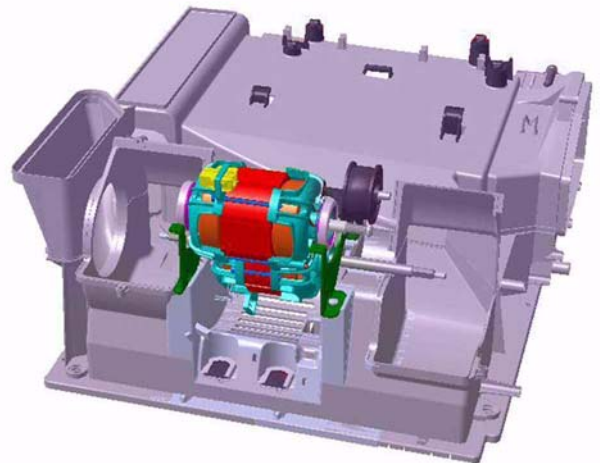
while assembling the fans to the motor do not invert them, otherwise there will be some air circulation problems inside the dryer



7.7.2 Drum rotation motor

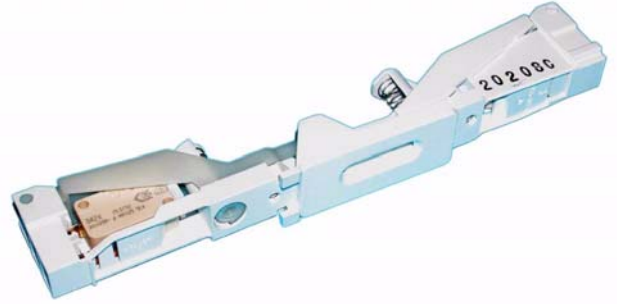
The motor unit is fitted above a steel bracket and consists of a belt tensioner and by a single-phase asynchronous motor with 50mm stack and 110W power with a thermal protector. The motor supply is performed by the electronic board by means of a relay (which determines that rotation direction) and a triac

The motor is powered by the electronic board via a relay (which determines the direction of rotation) and a triac



7.8 Door switch

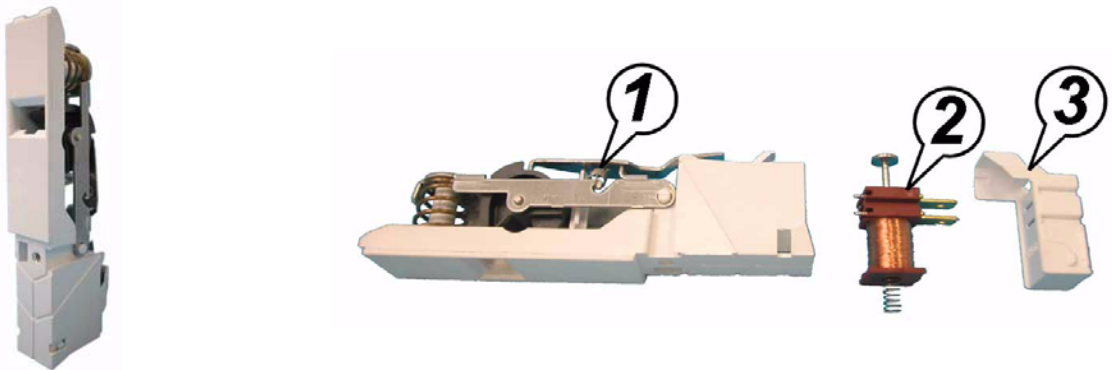
The door switch allows the electronic board to power the electrical components only if the door is closed, if a programme has been chosen and the ON/OFF button has been pushed.
The switch is positioned centrally and above the front opening and it is actioned by a catch placed on the door.



7.9 Door interlock

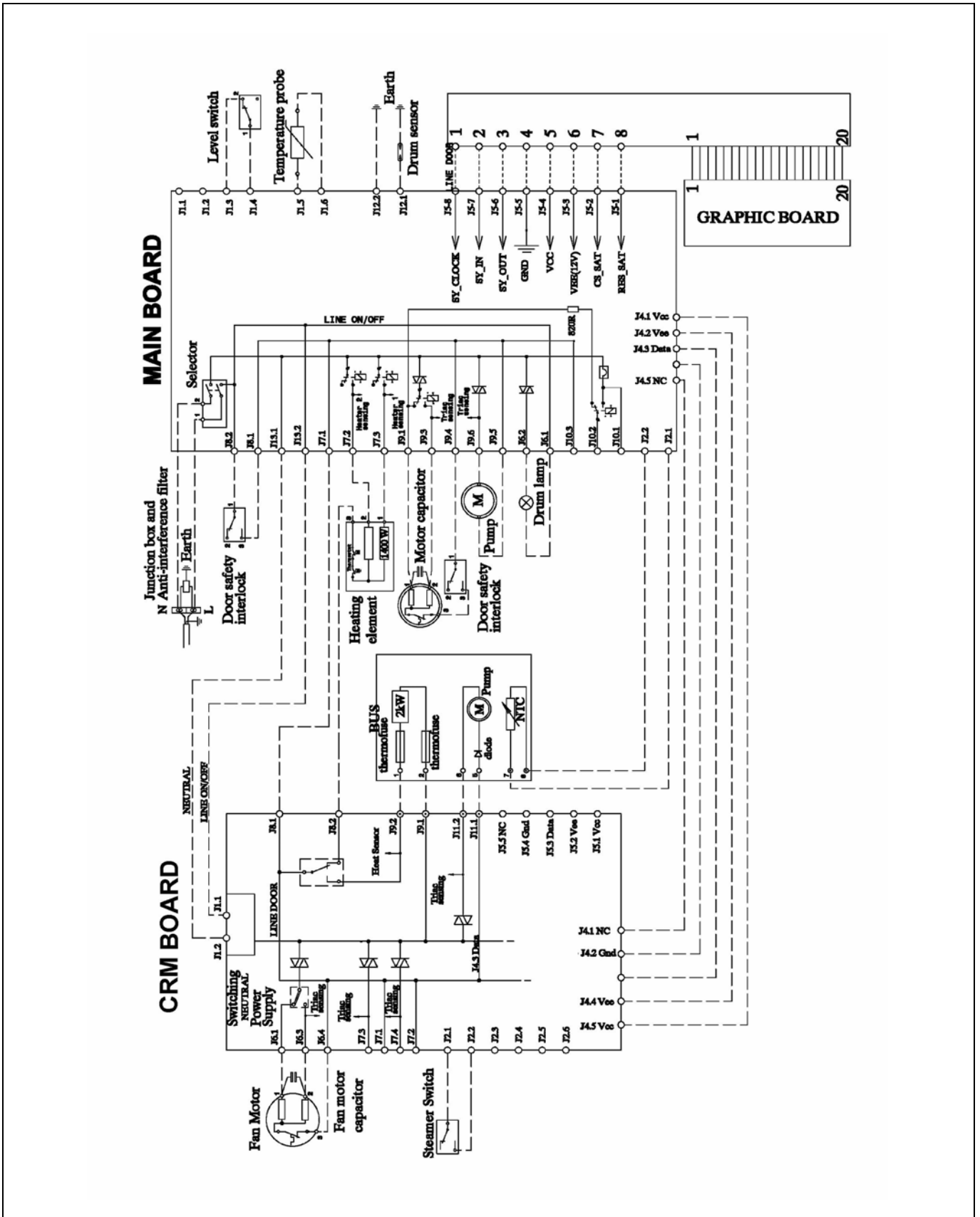
Depending on the versions, the door interlock can be mechanical with manual door opening or electronic with door opening by pushing a button. In the latter case, the door is opened by an electromagnetic coil which unlocks the door catch by means of a lever.

The interlock features a child safety device so that, in case of necessity, the door can be opened by pressing from inside the appliance.



1. Catch door lever
2. Coil (in versions with automatic opening)
3. Coil protection

7.10 Electrical circuit

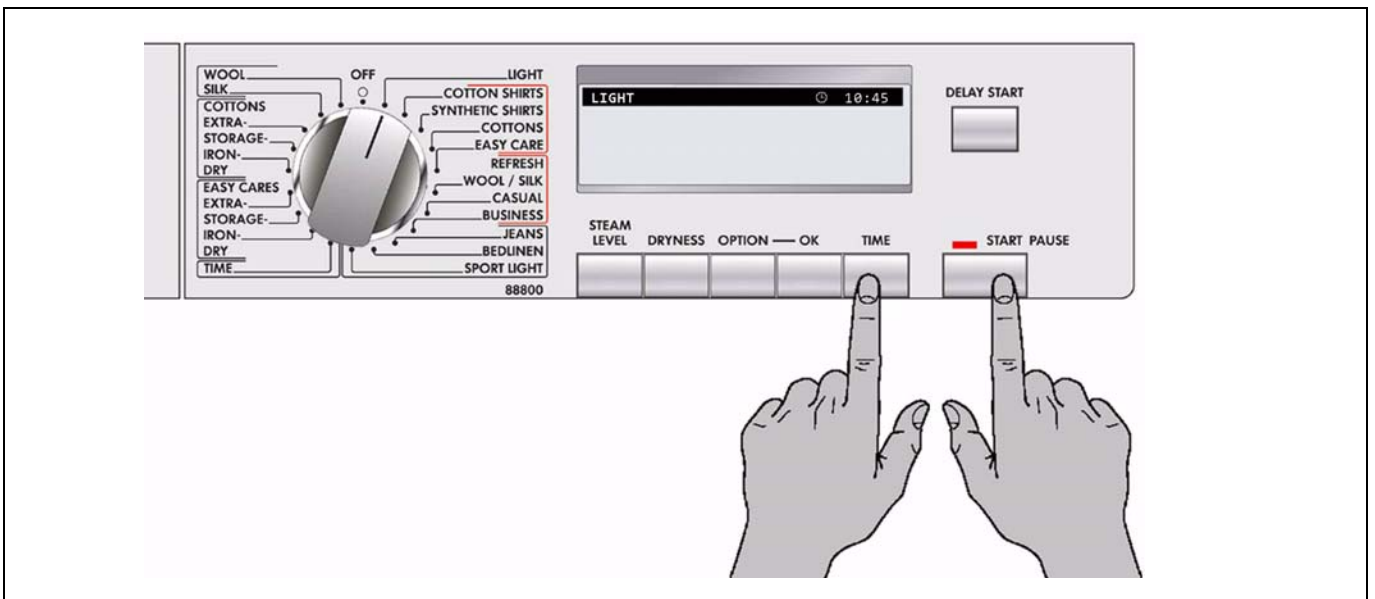


8 DIAGNOSTICS SYSTEM

In diagnostic mode, it is possible to check the operation of the appliance and to read the alarm codes.

8.1 Access to diagnostics

1. The appliance must be switched OFF.
2. Switch the appliance ON by turning the programme selector knob one position clockwise.
3. Wait till the LEDs switch on and the “beep” of the buzzer, then push the buttons simultaneously depending on the model.
ATTENTION THIS OPERATION MUST BE CARRIED OUT WITHIN 5 SECONDS
4. Continue to hold down the buttons until the LEDs begin to flash and the buzzer sounds.



ATTENTION

- The alarms remain active during component diagnostics testing. If an alarm should be displayed, turn the programme selector to the first position to exit the alarm situation, then continue the testing cycle (if the alarm is not repeated).
- In order to check for correct operation of the floating switch and the pump the sump is filled with approximately 0.7 litres of water.
- For correct control of the conductimetric sensor in a condition of short-circuit (position 8), remove the cover and create a short-circuit between the two half-shells of the drum or between the front shell and ground. After entering this phase, the time available for creation of the short circuit is just one second; therefore, prepare the short circuit before turning the programme selector knob to position seven (it is advisable to do this in a position in which the drum is stationary, then pass quickly to this position). If the short circuit is not performed correctly, the electronic board will display alarm E32 (sensor frequency too low). To exit the alarm condition, turn the programme selector knob to the first position.
- Open the condenser access panel and check that the switch operates correctly: the buzzer will emit four "beeps" (in different tonalities), repeated every 7 seconds.

8.2 Exiting the diagnostic system

To exit the diagnostic system, turn the programme selector knob to zero, then switch the appliance ON and OFF again.

8.3 Selector positions for diagnostics on conductimetric appliances



ATTENTION

When the various functions in the diagnostic mode are entered, in the LCD models, in the right lower part of the display some writings appear (ex. C7 - C5 etc.). These represent the codification of the selector and are not relevant for the test being executed.

Position Selector	Active components	Operating conditions	Function checked
1	All the LEDs and digits light in sequence. Pushing a button, the number of the corresponding key is displayed.	Always active.	Operation of the user interface.
2	Condensation canister level sensor. Condensation canister fill pump. PRO STEAM canister level sensor. Steamer heater. Steamer NTC.	Door closed. Sump full with about 0,7 litre water.	Operation of the floating switch, of condensation canister fill pump and steamer. The display shows the temperature read by the NTC.
3	Steamer pump. Steamer heater.	Door closed. Maximum time 10 minutes	Steamer and junctions seal general control. The display shows the temperature read by the NTC.
4	Clockwise drum rotation motor.	Door closed max time 10 minutes.	Control of counter-clockwise drum rotation.
5	Clockwise drum rotation motor. Half-power fan motor.	Door closed. Maximum time 10 minutes.	Control of correct direction of drum motor and fan motor. The drum motor turns by pulses.
6	Half-power heating element. Clockwise drum rotation motor. Full-power fan motor.	Door closed. Maximum time 10 minutes.	Half-power heater unit operation control.
7	Both heating elements are powered. Clockwise drum rotation motor. Full-power fan motor.	Door closed. Maximum time 10 minutes.	Full-power heater unit operation control.
8	Conductimetric sensor with drum short-circuited. The check lasts 4 sec., 1 sec. to create the short circuit. The phase/warning LEDs flash during this period: if the result is correct at the end, the LEDs switch off; if not, the LEDs flash and alarm E32 is displayed.	Door closed. Short circuit between the drum sensors (shells and drum).	Control of the conductimetric sensor when short-circuited.

9	Conductimetric sensor. This check has a duration of 4 sec. The phase/warning LEDs flash during this period: if the result is correct at the end, the LEDs remain lit; if not, the LEDs flash continuously.	Door closed.	Control of the conductimetric sensor when the circuit is open.
10	Floating switch. Canister fill pump: with switch closed.	Door closed. Maximum time 30 sec.	Operation of floating switch (sump empty).
11	Water canister floating switch.	Door closed. Maximum time 30 sec.	Operation of floating switch.
12	Reading/cancellation of the last alarm code. Turn the knob till position 10, paying attention not to stop to position 7, otherwise error 32 may occur.		

9 ALARMS

9.1 Displaying the alarms to the user

Operation of the alarms is configurable according to the model. Some or all of the alarms may be displayed to the user.

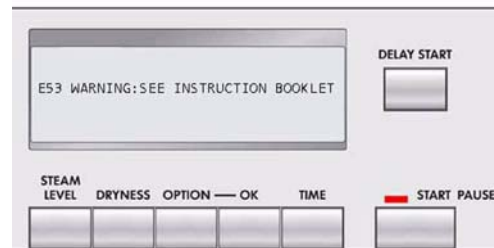
When an alarm condition occurs, the drying cycle may be interrupted or paused; in some cases, for the sake of safety, a forced cooling cycle is performed. In this case, the electronic board, if possible, disconnects the power relay from the heater unit and powers the motor of the drum cooling fan. The cycle remains active until the user switches off the appliance.

9.1.1 Alarm display during normal operation

On models with LCD the family of the current alarm is displayed to the user.

In the event of, for example, alarm E53 (problems with the motor triac), the code will be displayed as follows

- First digit: letter "E" (error)
- Second-third digit: the number "5 3", corresponding to the alarm



9.2 Reading the alarm codes

To read the last alarm code memorized in the EEPROM of the electronic board, proceed as follows:

- Access diagnostic mode (see paragraph).
- Turn the programme selector clockwise to the twelfth position, paying attention not to stop in the other positions, because error 32 may occur.

9.3 Cancelling the last alarm memorized

It is good practise to cancel the alarm code from memory:

- After reading the alarm, to check whether it is repeated during the diagnostics cycle.
- After effecting repairs to the appliance, to check whether it is repeated during testing.

1. Activate the diagnostic mode.
2. Turn the programme selector knob clockwise to the twelfth position.
3. Push simultaneously the button (start/pause) and its nearest left button.
4. Hold down the buttons for about 5 seconds.
5. Once the alarm has been cancelled, E00 is displayed.

9.4 Notes concerning certain alarm codes

- Configuration alarm E93: When configuration alarms are displayed (when the appliance is switched on), the appliance is inoperative and all the LEDs light: it is not possible to access diagnostics mode; the only possible operation is that of switching off the appliance (selector knob on position "0").
- Alarms EH1-EH2-EH3: In the event of problems with the power supply, the appliance remains in alarm mode until the voltage and frequency are restored to normal values or the appliance is switched off (selector knob on position "0"). Alarm family "H" is displayed and it is not possible to access diagnostic mode nor to use the "rapid alarm display" function: the complete alarm can be read only when the abnormal condition has terminated.

9.5 Table of alarms

Alarm	Description	Possible fault	Action/machine status	Reset command
E00	No alarm	---	---	---
E21	Canister fill pump triac faulty	Wiring faulty Electronic board faulty	Cycle interrupted	OFF
E22	Triac "sensing" circuit for the canister fill pump faulty	Electronic board faulty	Cycle interrupted	OFF
E31	Sensor signal frequency too high	Electronic board faulty	Alarm activated only during diagnostics	---
E32	Signal frequency of the sensor too low	Wiring faulty Damaged brushes / faulty Electronic board faulty	Cycle interrupted	OFF
E33	Appears in the displaying of the last alarm, if position 8 is NOT OK	Wiring faulty Damaged brushes / faulty Electronic board faulty	Alarm activated only during diagnostics	---
E45	Door closure sensor	Door interlock faulty Wiring faulty Electronic board faulty	Cycle interrupted	OFF
E51	Motor power triac short-circuited	Motor faulty Wiring faulty Electronic board faulty	Cycle interrupted	OFF
E52	Intervention of motor overheating safety cut-out	Motor faulty Intervention of overheating safety cut-out Wiring faulty Electronic board faulty	Power to the heater unit and reversal of the direction of rotation are interrupted. If the problem does not re-occur, the alarm is memorized and the cycle continues; If, after several attempts to restore power (about 35 min.), the fault persists, alarm E51 is generated	OFF
E53	Motor triac "sensing" circuit faulty	Electronic board faulty	Cycle interrupted	OFF
E54	Motor inoperational	Excessive wash load Voltage too low Motor/transmission system inoperative	Cycle paused after several attempts at powering the motor	Start
E61	Insufficient heating (maximum time exceeded)	Heater unit faulty Wiring faulty NTC sensor faulty/out of place Electronic board faulty	Cycle paused	Start
E62	Power relay to heater unit faulty	Heater unit faulty Wiring faulty Electronic board faulty	Forced cooling circuit	OFF

E63	Intervention of auto-reset thermostat on the heater unit	Thermostat faulty Heater unit faulty Wiring faulty Electronic board faulty	Disconnects the power supply to the heater unit. If the problem does not re-occur, the alarm is memorized and the cycle continues. If the fault persists after several attempts to supply power, alarm E62 is generated	OFF
E64	Heater thermostat	Thermostat faulty Wiring faulty Electronic board faulty	---	---
E65	Fan motor Triac faulty	Fan motor wiring disconnected Motor faulty Triac faulty	---	---
E66	Fan motor thermal cut-out	Fan motor wiring disconnected Motor faulty Triac faulty	---	---
E67	Triac control faulty	Fan motor wiring Electronic board faulty		
E71	NTC1 sensor faulty	TC1 sensor faulty Wiring faulty Electronic board faulty	Forced cooling circuit	OFF
E72	NTC2 sensor faulty	NTC2 sensor faulty Wiring faulty Electronic board faulty		OFF
E82	Selector in OFF position faulty	Board wiring Electronic board faulty		
E83	Wrong selector positions	Board wiring Electronic board faulty		
E93	Appliance configuration error	EEPROM configuration incorrect Electronic board faulty	Cycle interrupted	OFF
E94	Error in the configuration of the drying cycle	EEPROM configuration incorrect Electronic board faulty	Cycle interrupted	OFF
E97	Incongruency between selector and cycles	Error in the configuration	Cycle interrupted	OFF
EA1	CRM board communication faulty	Board wiring Board faulty		
EA2	CRM board protocol inconsistent	Wrong software CRM board faulty		
EA3	Board selector faulty	Electronic board faulty	Cycle interrupted	OFF
EA4	Selector protocol wrong	Electronic board faulty	Cycle interrupted	OFF
EH1	Power frequency to appliance out of limits	Problems with the power supply Electronic board faulty	Cycle interrupted. If a stable power supply is restored before the timeout has elapsed, the cycle resumes	OFF
EH2	Voltage too high	Problems with the power supply Electronic board faulty	Cycle interrupted	OFF

EH3	Voltage too low	Problems with the power supply Electronic board faulty	Cycle interrupted. If a stable power supply is restored before the time-out has elapsed, the cycle resumes	OFF
EC1	Inconsistent voltage between boards	Problems with the power supply (incorrect/interference) CRM board faulty		
EC2	Inconsistent frequency between the boards	Problems with the power supply (incorrect/interference) CRM board faulty		
EC3	CRM heater out of limit time (only in diagnostics)	CRM unit disconnected CRM unit faulty		
EC4	CRM heater relay	CRM unit disconnected CRM unit faulty Relay on board faulty		
EC5	CRM thermostat faulty	CRM unit disconnected CRM unit faulty		
EC6	CRM control faulty	CRM board faulty		
EC7	Pump triac	Pump wiring disconnected Pump faulty; Triac faulty		
EC8	CRM pump diode	Diode on wiring short-circuited		
EC9	CRM pump control	CRM board faulty		
ECA	Water canister empty	Canister level sensor wiring Canister level sensor faulty Water hose clogged		

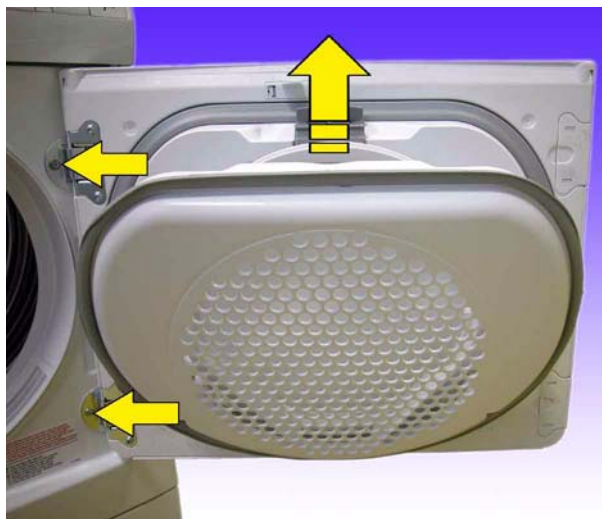
10 ACCESSIBILITY TO COMPONENTS

10.1 Door

To remove the door, remove the screws which secure it to the hinge.

Fluff filter

Open the filter support pushing the relative button, lift out and clean it at the end of each cycle



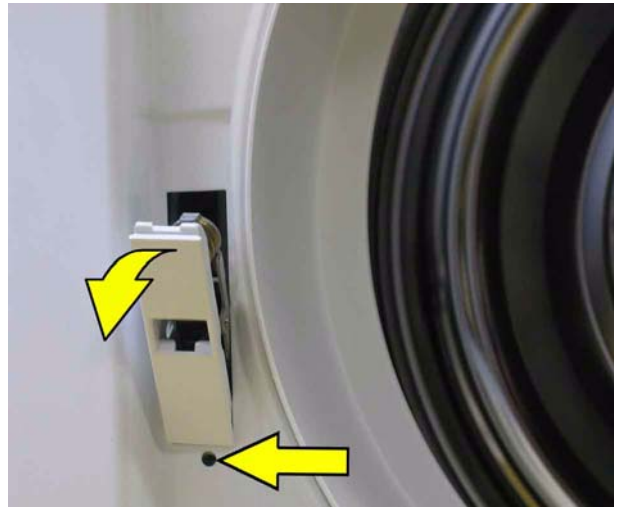
10.2 Lower fluff filter

Remove by lifting from its seat and clean it at the end of each cycle.



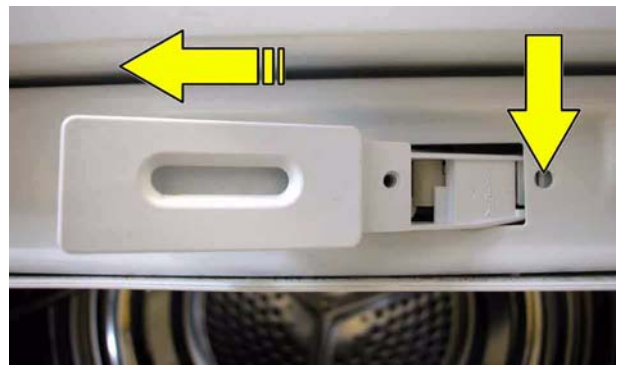
10.3 Door interlock

Remove the screw which fits it, lower it slightly spinning it forward.

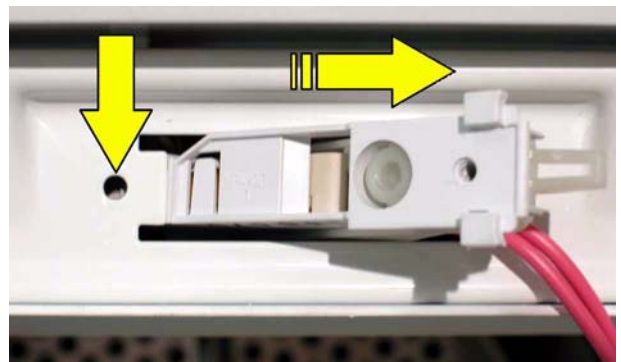


10.4 Microswitch door

Remove the right screw, extract slightly the first half of the microswitch and move it towards left till to reach the connector.
Detach the connector and fix it with some adhesive tape on the front side so as to avoid losing it inside the appliance.



Unscrew the left fixing screw, move the second half of the door microswitch towards right till to free the two guides.
Remove it and detach the connector.
Fix the free cable with some adhesive tape on the front side so as to avoid losing it inside the appliance.



10.5 Door interlock catch and micro door catch

To remove the micro door catch and the door interlock catch push with a screwdriver on the hook and rotate them as indicated by the arrows.



10.6 Drum light

The bulb can be replaced from inside the drum.

Remove the two screws which secure the bulb cover
Unscrew the bulb from the bulb-holder.
When replacing the cover, ensure that the sealing ring is correctly positioned in its seat.



10.7 Canister

Extract the canister paying attention not to drop the water remained inside on electrical parts.



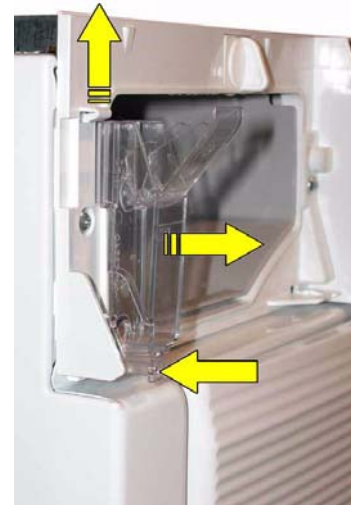
10.8 Work top

To remove the work top, first remove the screws which secure the top to the rear edge of the appliance and remove it pushing it towards the rear side.



10.9 Control panel support and control panel assembly

Remove the canister.
Remove the screw which secures the water fill nozzle to the control panel.
Lift up the upper clip which locks the water fill nozzle and pull it forwards horizontally.

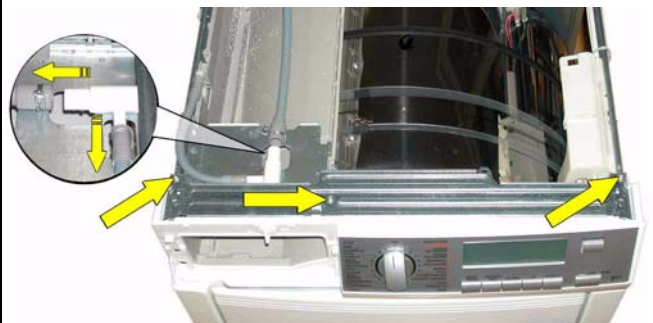


Remove the two screws which secure the control panel to the canister support.

Remove the screws which secure the control panel crossmember.

Loosen the hose clamps and remove the two PRO STEAM water fill hoses

Turn forward the crossmember and the control panel.



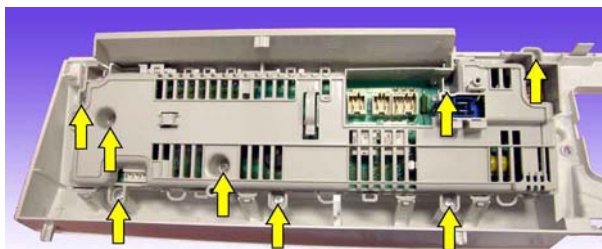
10.10 Main electronic board

Removing the electronic board

To remove the electronic board:

Remove the 8 screws which secure the electronic board to the control panel.

Push moderately on the fixing clips and remove the board.

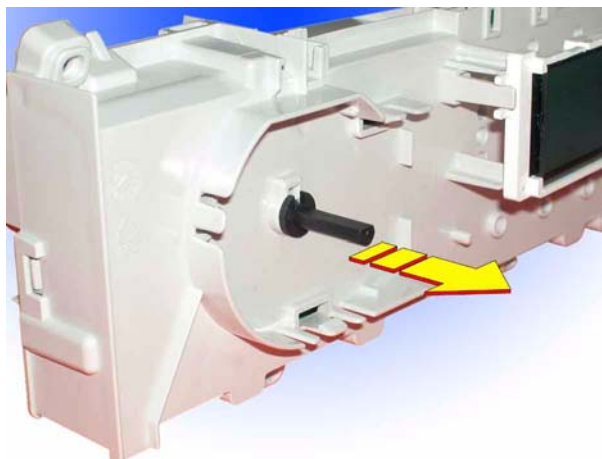


Removing the selector pin

After removing the main board it is possible to remove the selector pin positioning it to OFF and pulling it forward.

ATTENTION

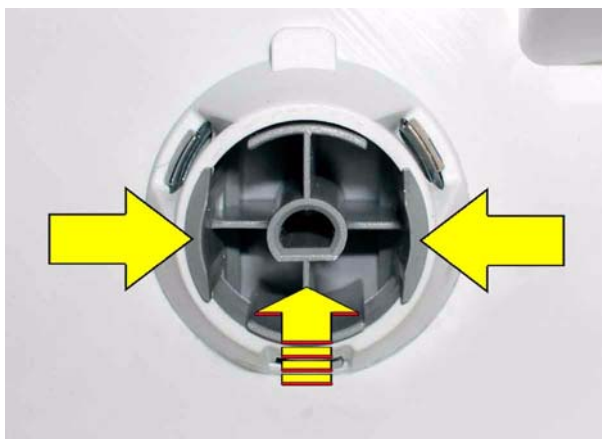
Should the pin not come out, check if it is in OFF position.



Removing the selector knob

After removing the main board it is possible to remove the selector knob.

Push the long side parts toward the centre and simultaneously push the knob externally.



Button springing system

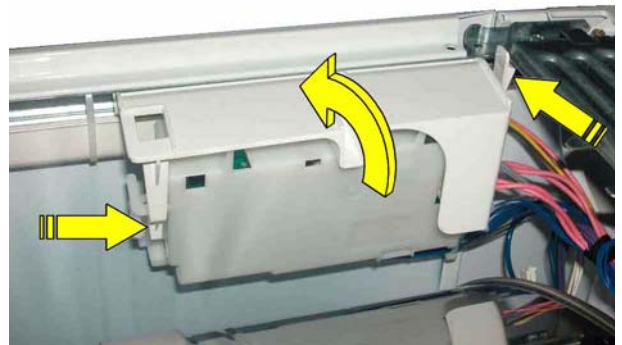
The button springing system remains hooked to the main board support by means of the side clips.

10.11 PRO STEAM Electronic board

To remove the PRO STEAM Control board

Remove the protection releasing the fixing clips.

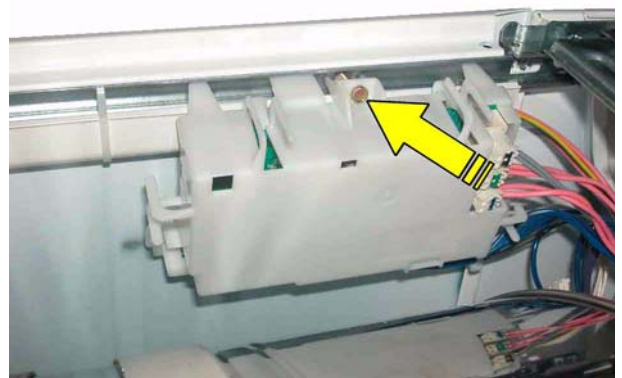
Turn and remove it



Remove the screw which secures the board to the crossmember

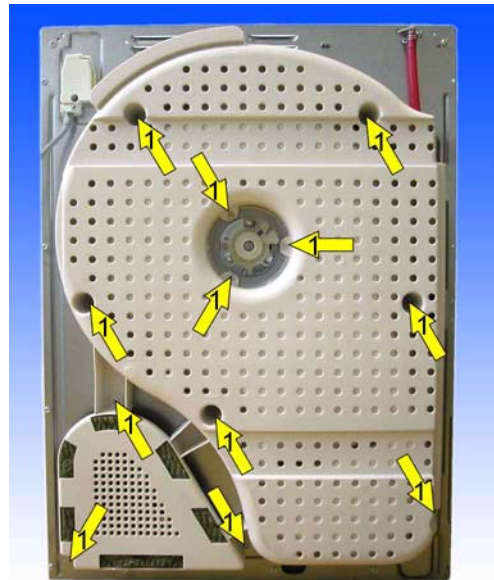
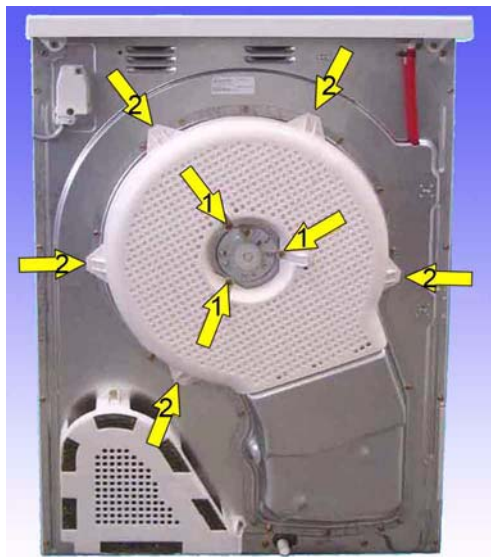
Incline and lift it up

Detach the cables



10.12 Rear panel cover

Remove the screws (1) which secure the plastic rear panel cover (in the centre of the panel) and release the anchor tabs (2) from around the external perimeter using a screwdriver.



Remove all the perimetral screws which secure the rear panel cover and remove it.



10.13 Heater unit

Remove the left side panel (viewing the appliance from the front).

Remove the screw which secures the side panel to the cross-member (after removing the canister).

When replacing the side panel, replace the screws in their original positions, otherwise the continuity of the earth circuit will be broken.



Remove the screws which secure the side panel to the rear panel, lift and remove.

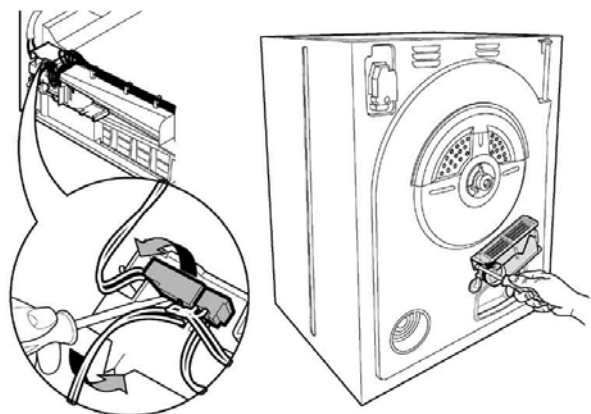


The terminal block for the heater unit is located inside the microswitch support, and secured in position by an anchor tab.

Insert a screwdriver, move the hook and extract the junction box, remove the wire ties that secure the wiring to the base and extract the wiring.

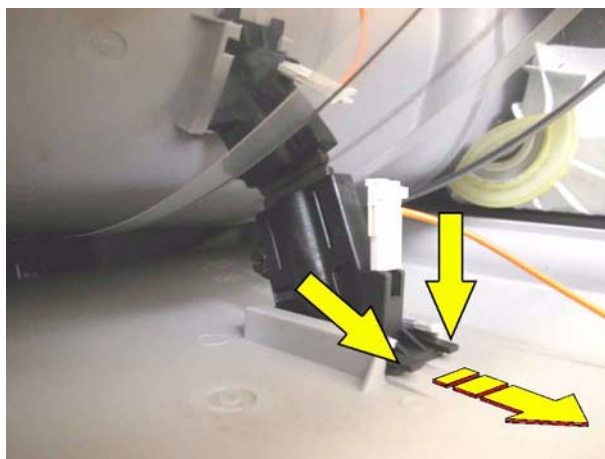
Remove the two screws which secure the heater unit to the rear panel. The right-hand screw of the heater unit also secures a deflector.

Before replacing the heater unit, be sure to re-position the wiring in its original position



10.14 Lower brush conductimetric sensor

To access the lower brush of the conductimetric sensor detach the connector (faston). Push downward the two fixing clips and simultaneously extract the brush assembly.

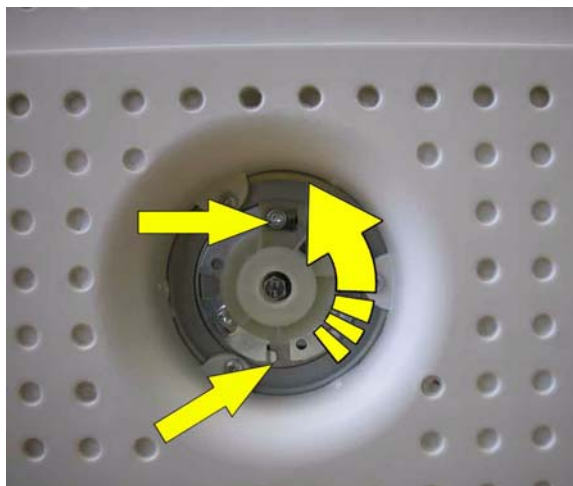


10.15 Rear brush conductimetric sensor

Remove the screw which secures the drum spindle cover.

Rotate the drum spindle cover until it is released from the anchor in the lower section.

The brush is located inside the protective cover.



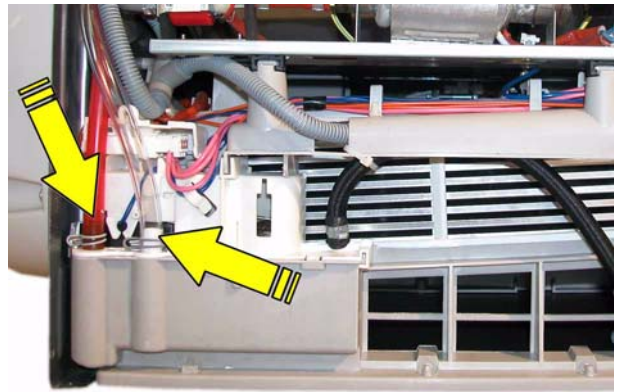
10.16 Floating microswitch

Remove the work top (see above).

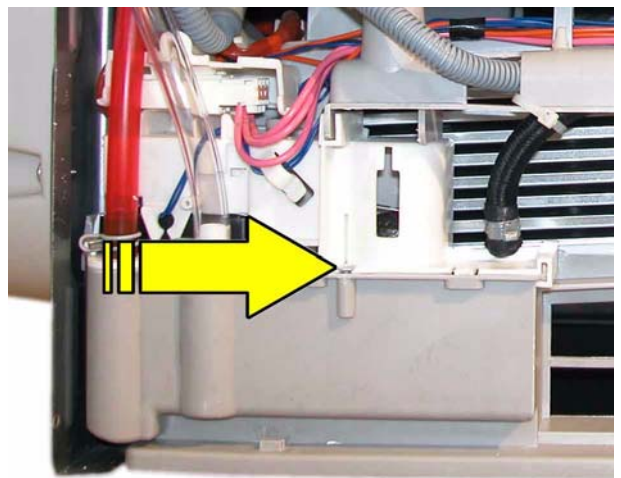
Remove the screws which secure the side panel and remove it (see above).

In the rear section of the base, the sump contains the pump, the floating microswitch and the float.

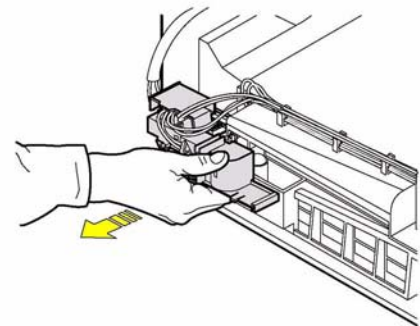
Remove the two tubes from their couplings (the red tube which fills the canister, and the transparent tube through which water overflow is ducted back to the sump when the canister is full).



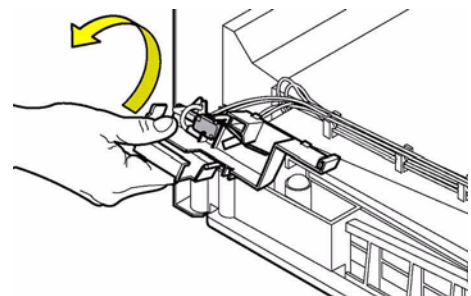
Remove the screw which secures the microswitch support and insert a screwdriver into the two anchor tabs which secure it to the sump.



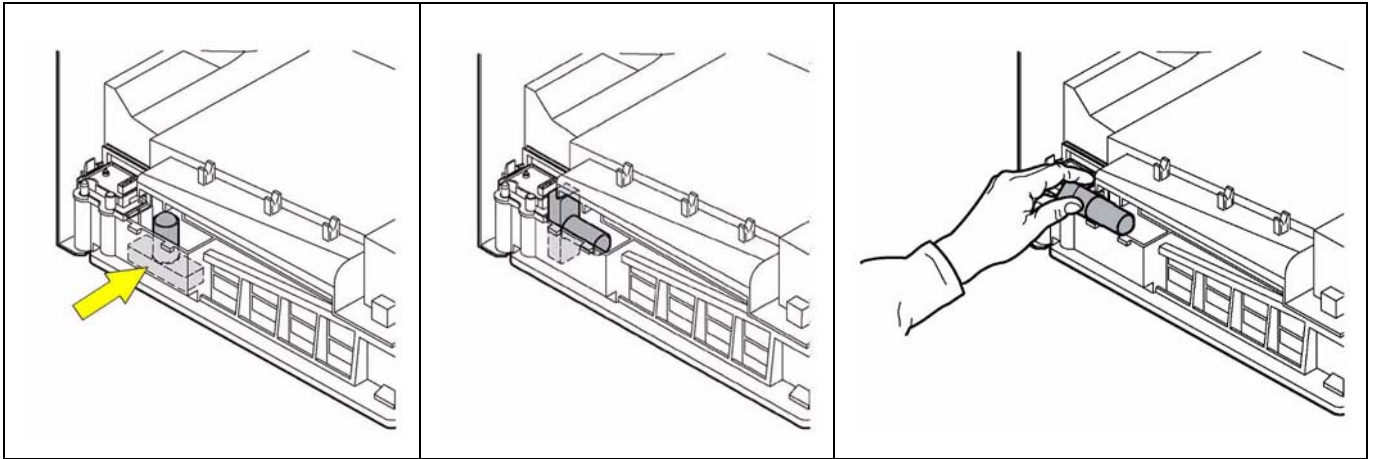
Lift both parts simultaneously and slide the microswitch support outwards.



Turn the support upside-down to access the floating microswitch.



10.17 Float



Inside the pump there is the float.

To remove the float, turn it 90° clockwise as shown in the figure.

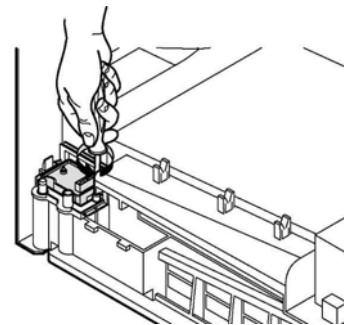
Lift the float, rotate outwards, and remove it.

To replace the float, repeat this procedure in reverse sequence.

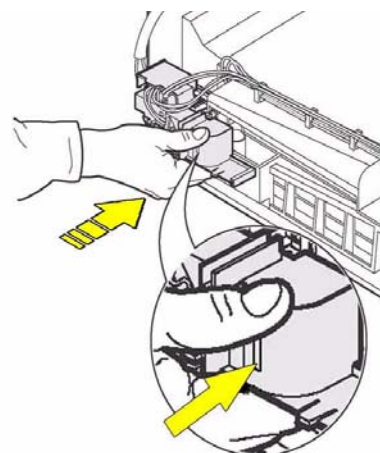
10.18 Pump

The pump, which ducts the water from the sump to the canister in the upper section is located next to the sump containing the float.

To remove the pump from its seat, it is necessary to disconnect the wiring connectors, remove the screw and release the anchor tab (shown by the arrow) which secures the pump to the sump. Remove the pump.



When re-assembling the pump, the float and the canister microswitch, repeat the procedure described above in reverse sequence. When replacing the microswitch support, insert a screwdriver into the gap (shown by the arrow) in order to lift the microswitch lever and place it against the top of the float. If this procedure is not performed, the microswitch lever will remain alongside the float and become bent. In this case, the two components will not function correctly.



10.19 Steam generator group

Remove the two screws which secure steam generator unit to the base.

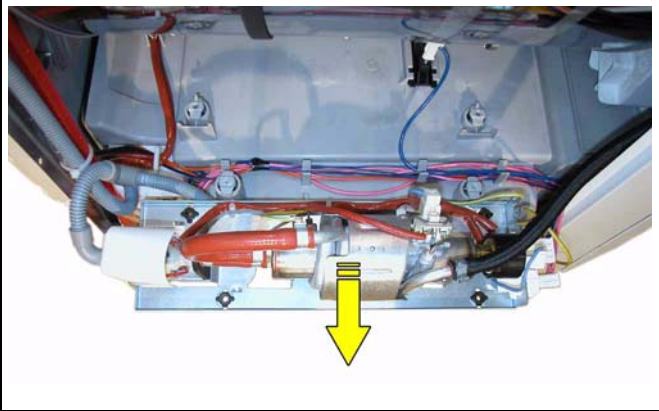
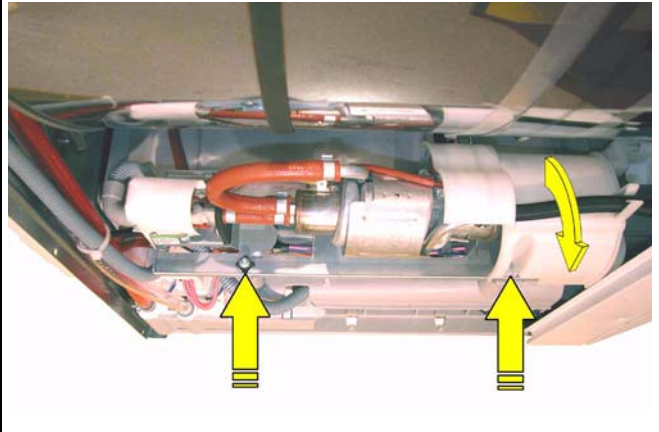
Release the black steam hose from the fixing clip

Remove the connector protection

Remove outwards the whole steam generator unit

ATTENTION

Once the clamps of the steam generator have been opened, they have to be replaced.



10.20 Motor capacitor

Remove the work top (see above).

Remove the right-hand side panel, unscrewing the screw which secures it to the cross-member.

When replacing the side panel, replace the screws in their original positions, otherwise the continuity of the earth circuit will be broken.

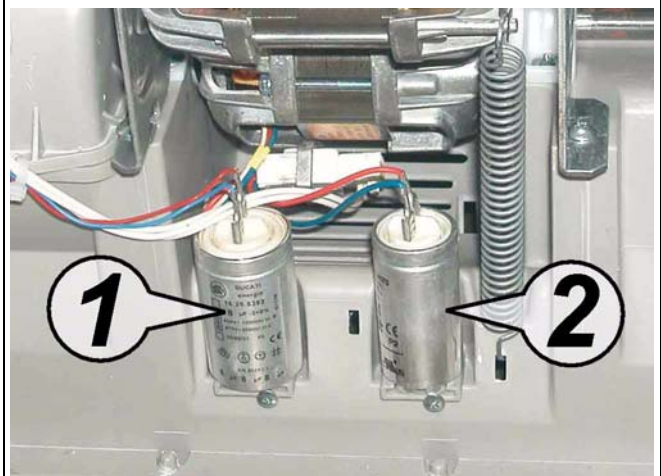
Remove the screws which secure the side panel to the rear panel.

Lift and remove the panel.



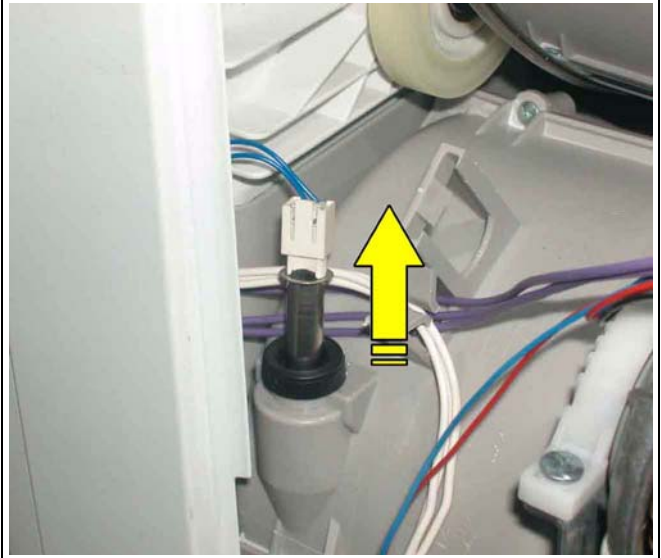
Detach the connectors and the screws which secure them and extract them.

- 1) Drum motor capacitor.
- 2) Fan motor capacitor.



10.21 NTC sensor

Remove the sensor from the seal and detach the connector.



10.22 Drum rotation motor

Detach the connector.

Cut the clamp which fix the capacitor and detach it.

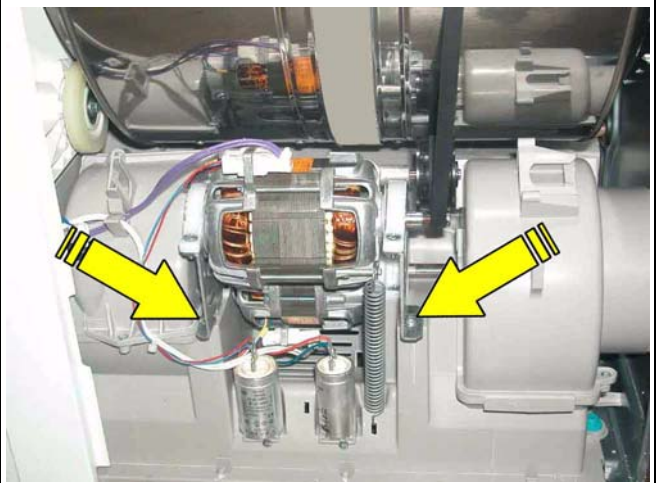
Remove the belt tensioner spring.

Free the belt.

Remove the two screws which secure the motor support to the base.

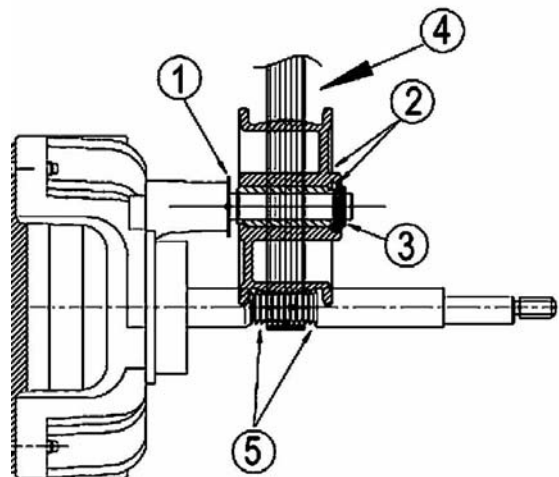
Lift it up and extract the motor support unit and the motor still assembled.

Remove the screws which secure the brackets and remove the motor.



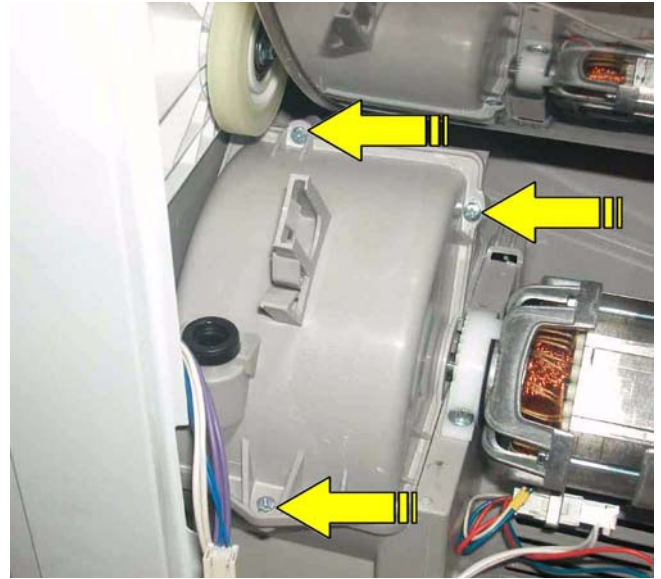
Note for replacing the belt tensioner roller / drive belt

1. Spacer.
2. Belt tensioner roller with with incorporated spacer.
3. Elastic ring.
4. Belt in central position.
5. Leave two grooves free on each side of the pulley.



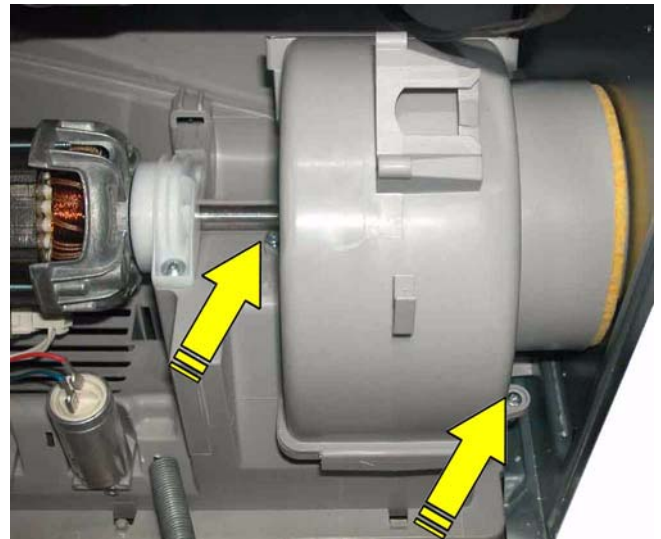
10.23 Front air duct cover (hot air circulation)

Remove the drum rotation motor support unit.
Remove the NTC sensor
Remove the three screws which secure it to the base and remove.



10.24 Rear air duct cover (cold air circulation)

Remove the drum rotation motor support unit.
Remove the two screws and detach the duct cover from the three anchor tabs (two upper lateral tabs, one lower tab) which secure it to the base.



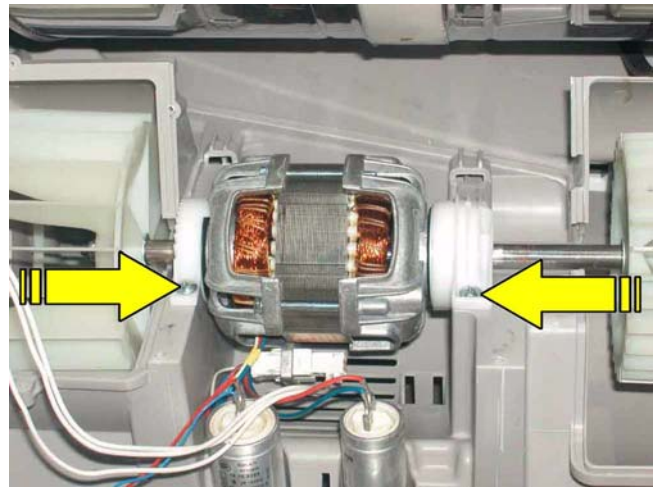
10.25 Fan rotation motor

After removing the covers from the two ducts, it is possible to access the motor.

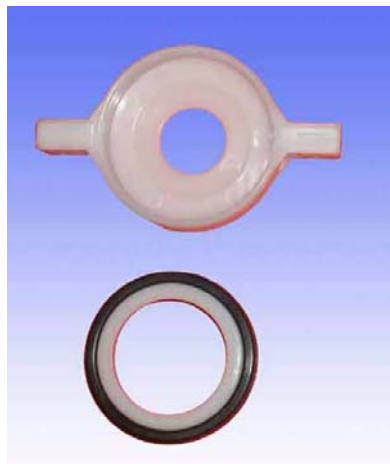
Remove the motor support unit and drum rotation motor as described above.

Remove the screws which secure the front and rear motor support brackets, rotate upwards and remove.

Detach the motor and remove it.



Drum rotation motor bush



Fan rotation motor bush



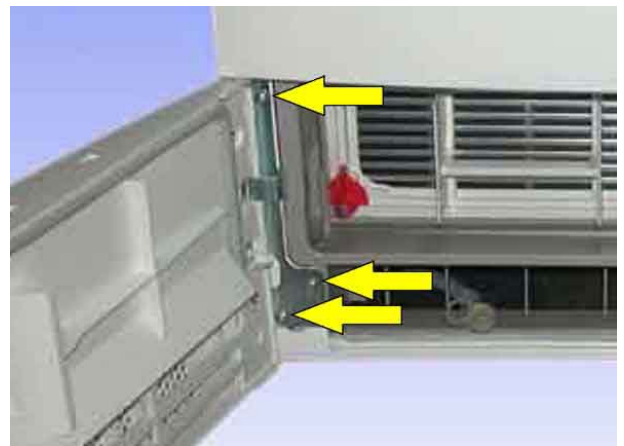
10.26 Capacitor (heat exchanger)



Open the door, turn the two anchor tabs and extract the heat exchanger pulling it externally.

10.27 Front panel

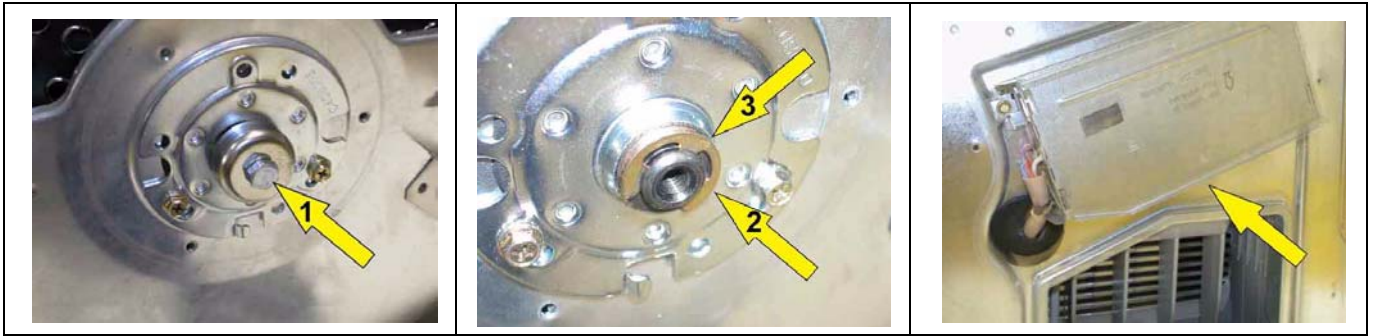
Remove the screws which secure the panel to the front panel. Pull the sealing ring from its seat. To access the aperture button, remove the screws from inside the panel and release the three upper anchor tabs



When replacing the panel in its housing, first ensure that the three anchor tabs are correctly positioned in their seats, and only then tighten the screws.

Check that the panel latch, when closed, actions the lever of the microbox, otherwise the dryer will not be powered.

10.28 Rear panel



Remove the work top.

Remove the screw which secures the canister support.

Remove the left- and right-hand side panels.

Remove the rear air protection.

Remove the rear brush.

Remove the screw which secures the bush (1).

Remove the Benzing ring (2) and remove the spacing washer (3).

Disconnect the terminal block from the heater unit.

Detach the connectors from the junction box.

Remove the screws which secure the rear panel to the cross-members and to the base.

Under the heater unit there is a screw which secures the rear panel to the base.

10.29 Drive belt

Remove the work top.

Remove the side panels.

Remove the belt tensioner spring

Cut the damaged belt

Remove the rear panel.

Remount the new belt paying attention to remount it centrally considering the motor shaft (see chapter)

10.30 Duct

Remove the work top.

Remove the rear panel.

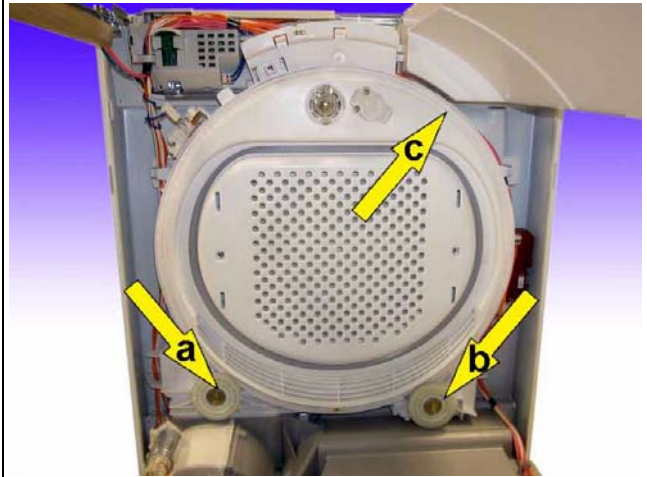
Remove the drum.

Remove the screws which secure the drum to the hinges and to the hinge masking plates.

Remove the duct.

10.31 Duct rollers

Remove the work top.
Remove the rear panel.
Remove the drum.
Remove the screws (a) and (b) which secure them to the duct.



10.32 Front and rear seals

Slide the front seal (C) from its seat.

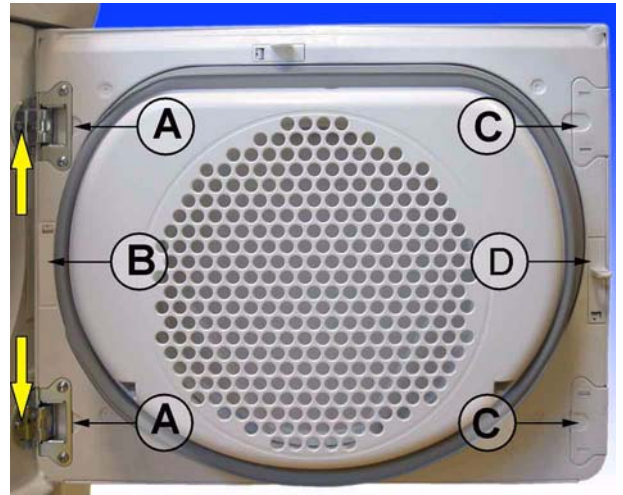
The rear seal can be simply pulled away from the ring fitted to the rear panel.

Notes for replacement of the rear drum seal

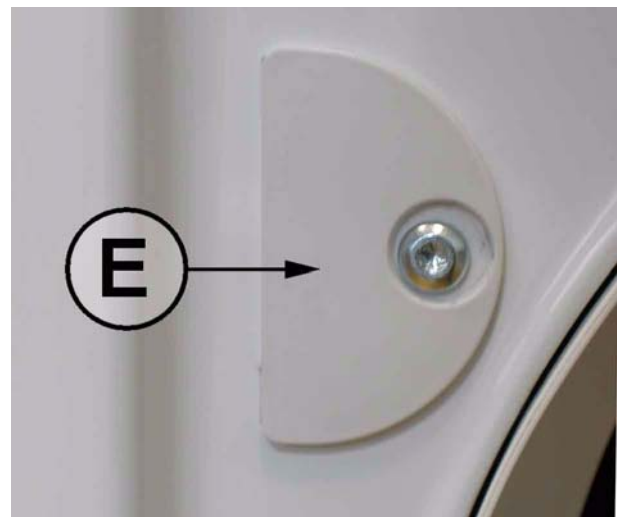
A technical drawing of the rear drum seal joint. It shows a cross-section of the drum and the seal. Two points are labeled with circled numbers: '1' points to the top edge of the seal, and '2' points to the bottom edge. Dimensions are indicated: '30mm ± 5' for the height of the seal, and '20°' for the angle of the seal's lip.	A technical drawing showing a cross-section of the drum seal and the rear panel. A yellow arrow points down to a hole in the rear panel, labeled as the compensation hole.	A technical drawing of the rear drum seal and the rear panel. A circular callout shows a small amount of lubricant being applied to the inner felt surface of the seal.
<p>Position of the joint in the seal.</p>	<p>Position of the compensation hole.</p>	<p>After replacing the rear drum seal, apply lubricant uniformly over the entire inner felt surface using 1 gr of silicone oil part no. 5023 72 70-00/9.</p>

11 Reversibility of the door

- Open the door
- Remove the door unscrewing the 2 screws which secure the hinges (A) to the appliance.
- Remove the masking plates (B) and (C) pushing them with a subtile screwdriver.
- Remove the door interlock catch (D) pushing it with a screwdriver and reuse it on the opposite side turned by 180° (upside-down).
- Remove the hinges (A) and reuse them on the opposite side turned by 180°
- Remount the masking plates (B) and (C) on the opposite side turned by 180° so as to cover the remaining holes.



- Remove the 2 masking plates (E), turned them by 180° and remount them on the opposite side



- Remove the door latch (F), push it downwards and remove it turning it down.
- Push the anchor tab of the cover (G) and simultaneously push it downwards.
- Position the door (F) on the opposite side of the appliance and fix it with the screw previously removed.
- Position the cover (F) on the opposite side of the appliance paying attention that the anchor tab enters the hole.
- Remount the door with the hinges on the opposite side, fix the screws and check the correct operation.

