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EN

**Washing machines  
&  
Washer-dryers**

**Guide to diagnostics  
of electronic controls**

**ENV06**

**EWM25xx  
EWM35xx**



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# 1 INTRODUCTION

## 1.1 Purpose of this manual

The purpose of this Service Manual is to provide a simple and clear description of the procedure to be followed by service engineers when confronted by problems identified by the various alarm codes generated by appliances with the ENV06 electronic control system version EWM25xx and EWM35xx.











Depending on the configuration of the appliance, the alarm codes may be displayed partially or completely to the user (the alarm codes are generally displayed partially). The diagnostic system can be used by service engineers for the following purposes:

- ◆ To read the alarms
- ◆ To cancel alarm conditions stored in memory
- ◆ To test the operation of the appliance

## 1.2 Procedure



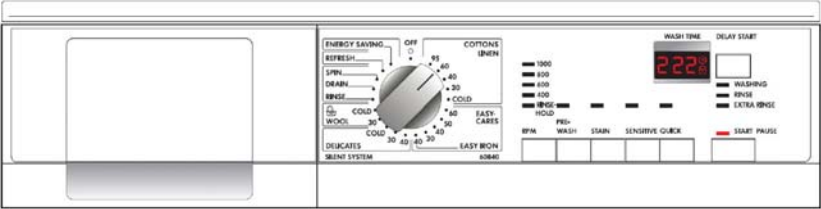
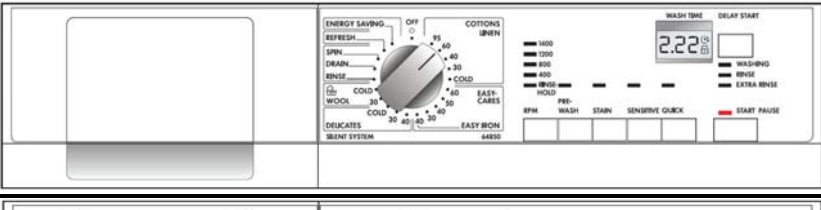

1. Identify the type of control system (**page 7/8**) and access the diagnostic cycle (**See page 9**).
2. Read the alarm code stored in memory (**page 13**) and refer to the instructions for the corresponding alarm code, (**page 17-21**).
3. Cancel the alarm stored in memory (**page 16**).
4. If access to the diagnostic cycle is not possible, refer to the section "Access to diagnostic system impossible" (**page 23**).
5. If the main PCB is replaced, check that there are no burned parts (**see page 119-120**).
6. After any repair, always check the operation of the appliance using the diagnostic cycle (**page 10**).
7. Cancel any alarms stored in memory during the diagnostic procedure (**page 16**).

## 2 EWM25xx APPLIANCES CONTROL PANELS

<b>ELECTROLUX</b>	TC4	
	TC3	
	TC2	
	TC3 ICON	
	TC2 ICON	
<b>SMART A</b>	A3 AF3- A4.2	
<b>SMART C</b>	C3 CF3	
<b>INPUT</b>	CI3	
	AI3&ZI3	
<b>SMART Z</b>	Z3	



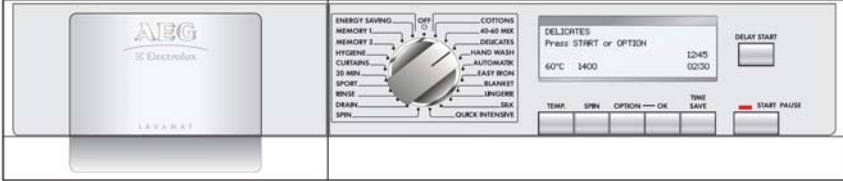
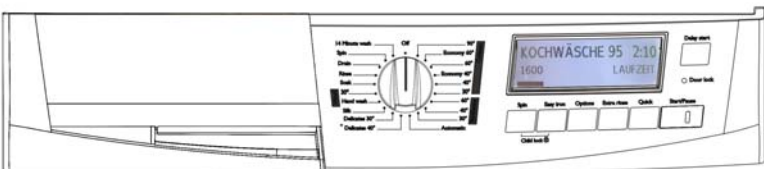
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<b>SMART K</b>	<b>K3</b>	
	<b>K2</b>	
<b>AEG</b>	<b>Serie 6 SPECIAL</b>	
	<b>Serie 6</b>	
	<b>Serie 7</b>	

### 3 EWM35xx APPLIANCES CONTROL PANELS

These are the available stylings at the moment in this Service Manual, in future some others could be developed.

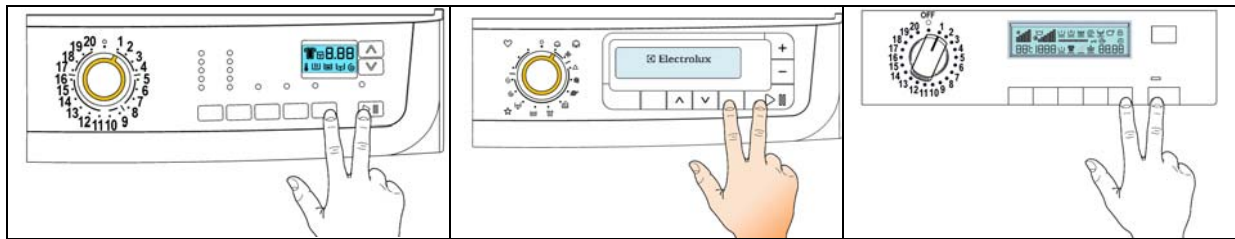
<b>ELECTROLUX</b>	<b>TC1</b>	
	<b>TC1 ICON</b>	
<b>AEG</b>	<b>Serie 8</b>	
<b>SMART C</b>	<b>CLUB DISPLAY</b>	



## 4 DIAGNOSTIC SYSTEM

### 4.1 ACCESS TO THE DIAGNOSTIC CYCLE

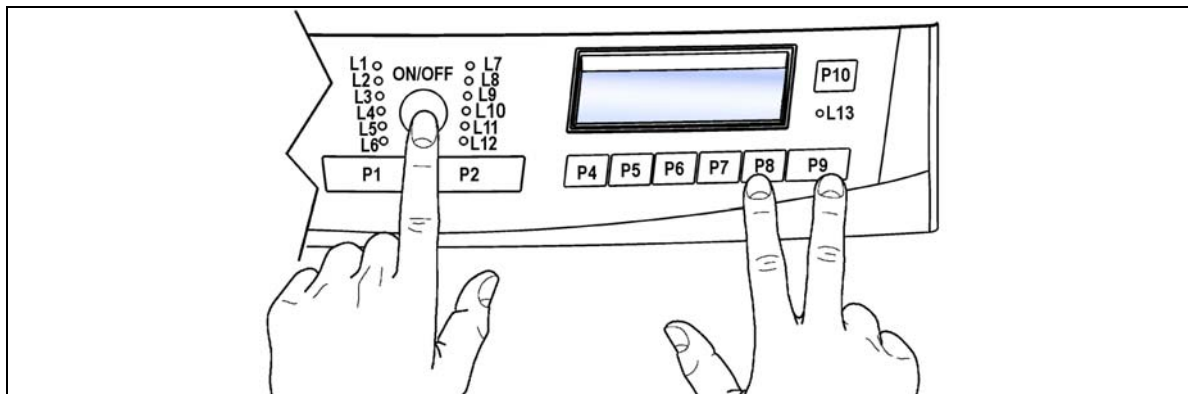
All versions



1. Switch off the appliance.
2. Press and hold down the **START/PAUSE** button and the nearest **OPTION** button simultaneously (as represented in figure).
3. Holding down both buttons, switch the appliance on by turning the programme selector **one position clockwise**.
4. Continue to hold down the buttons until the LEDs begin to flash (at least 2 seconds).

In the first position, the cycle tests the operation of the buttons and the relative LEDs. If the selector is turned **clockwise**, the cycle performs the diagnostics for the various components and reads the alarm codes.

**INPUT** Version



1. Switch off the appliance.
2. Press and hold down **START/PAUSE** button and the nearest **option** button (as represented in figure).
3. Holding down both buttons, switch the appliance on pushing button **ON/OFF**.
4. The test of the display board starts immediately.

Pushing sequentially button P1 positions from 2 to 10 are analysed in an increasing way, on the contrary push button P2.

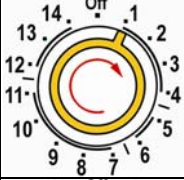
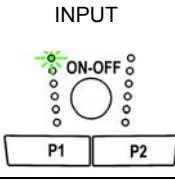

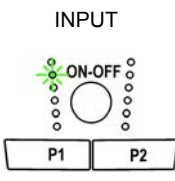
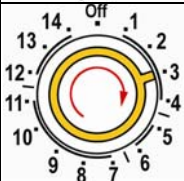
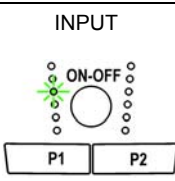
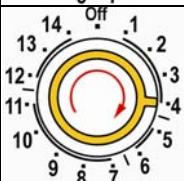
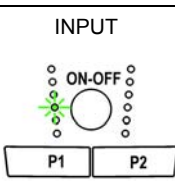
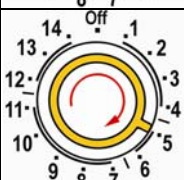
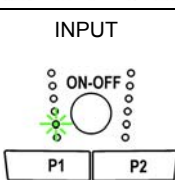
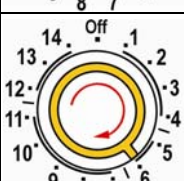
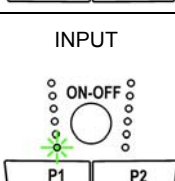
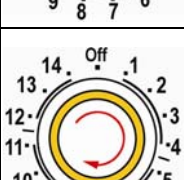
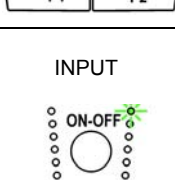
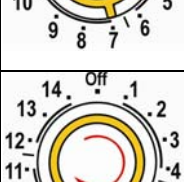
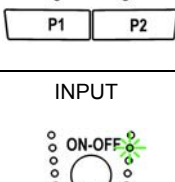
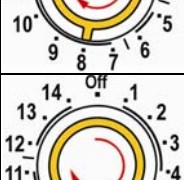
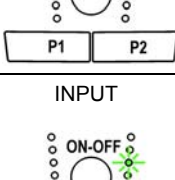
Each position is confirmed by the switching on of the corresponding LED.

### 4.2 Exiting diagnostics mode

→ To exit the diagnostics cycle, switch the appliance off, then on, and then off again.

### 4.3 PHASES OF THE DIAGNOSTIC CYCLE

Irrespective of the type of PCB and the configuration of the programme selector it is possible, after entering diagnostic mode, turning the programme selector **clockwise or pushing the buttons P1 or P2** (INPUT version), to perform diagnostics on the operation of the various components and to read the alarms. All the alarms are enabled during the diagnostic cycle.

Selector position		Components actioned	Operating conditions	Function checked	LCD	
1		INPUT 	- All the LEDs and symbols light in sequence. - When a button is pressed, the corresponding LED or symbol light.	Always activated	Operation of the user interface	All symbols are activated in sequence, the backlight lights up and then switches off.
2		INPUT 	- Door interlock - Wash solenoid	Door locked Water level below anti-flooding level Maximum time 5 minutes	Water ducted through washing compartment	Displays the water level in tub
3		INPUT 	- Door interlock - Pre-wash solenoid	Door locked Water level below anti-flooding level Maximum time 5 minutes	Water ducted through pre-wash compartment (bleach)	Displays the water level in tub
4		INPUT 	- Door interlock - Pre-wash and wash solenoids	Door locked Water level below anti-flooding level Maximum time 5 minutes	Water ducted through conditioner compartment	Displays the water level in tub
5		INPUT 	- Door interlock - Bleach/stains solenoids	Door locked Water level below anti-flooding level Maximum time 5 minutes	Water ducted through conditioner/ stains compartments	Displays the water level in tub
6		INPUT 	- Door interlock - Wash solenoid if the level of water in the tub does not cover the heater - Heating element - Recirculation pump - Weight sensor	Door locked Water level above the heater Maximum time 10 minutes or up to 90°C (*)	Heating Recirculation	Wash water temperature
7		INPUT 	- Door interlock - Wash solenoid if the level of water in the tub does not cover the heater - Motor (55 rpm clockwise, 55 rpm counter-clockwise, 250 rpm impulse)	Door locked Water level above the heater	Check for leaks from the tub	Displays the drum speed (the real value divided by ten)
8		INPUT 	- Door interlock - Drain pump - Motor up to 650 rpm then at maximum spin speed (**)	Door locked Water level lower than anti-boiling level for spinning	Drain and spin; control of congruence in closure of level pressure switches	Displays the drum speed (the real value divided by ten)
9		INPUT 	- Door interlock - Drain pump - Motor fan - Condensation solenoid valve - Drying heating element	Door locked Water level lower than anti-boiling level	Drying	Displays the air temperature

10		<p>INPUT</p> <p>ON-OFF</p>	- Reading/Cancellation of the last alarm	----	----	
----	--	----------------------------	--	------	------	--

- (\*) In most cases, this time is sufficient to check the heating. However, the time can be increased by repeating the phase without draining the water: pass for a moment to a different phase of the diagnostic cycle and then back to the heating control phase (if the temperature is higher than 80°C, heating does not take place).
- (\*\*) The check at the maximum speed occurs without control of the FUCS and no clothes have to be inserted inside the appliance.

## 5 ALARMS

### 5.1 Displaying the alarms to the user

The alarms displayed to the user are listed below:

- ↵ **Door open**
- ↵ **Drain difficulty (dirty filter)**
- ↵ **Water fill difficulty (closet tap)**

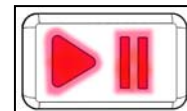
#### **AEG Version**

The alarms are represented through the flashing of the yellow LED, which is above the START-PAUSE button, and can be solved directly by the end user;



#### **Other versions**

The alarms are represented through the flashing of the red LED, which is inside the START-PAUSE button its shape depends on the styling) and can be solved directly by the user;



The alarm listed below:

- ↵ **EF0 – Water leakage (Aqua Control System)**  
for its solution it is necessary the intervention of the Service.

#### **While for the alarm:**

- ↵ **EH0 – Voltage or frequency out of nominal values**  
**It is necessary to wait that the voltage and/or the frequency of the electric line reset the nominal conditions.**

The alarms are enabled during the execution of the washing programme, with the exception of alarms associated with configuration and the power supply (voltage/frequency), which are also displayed during the programme selection phase.

The door can normally be opened (except where specified) when an alarm condition has occurred on condition that:

- The level of the water in the tub is below a certain level.
- Water temperature lower than 55°C.
- Motor stopped.

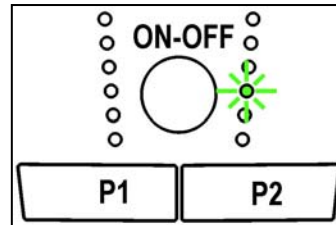
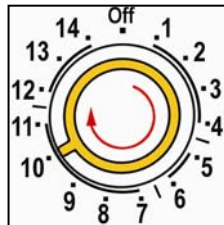
Certain alarm conditions require that a drain phase be performed before the door can be opened for safety reasons:

- Cooling water fill if the temperature is higher than 65°C.
- Drain until the analogue pressure switch is on empty, during a max. 3-minute time.

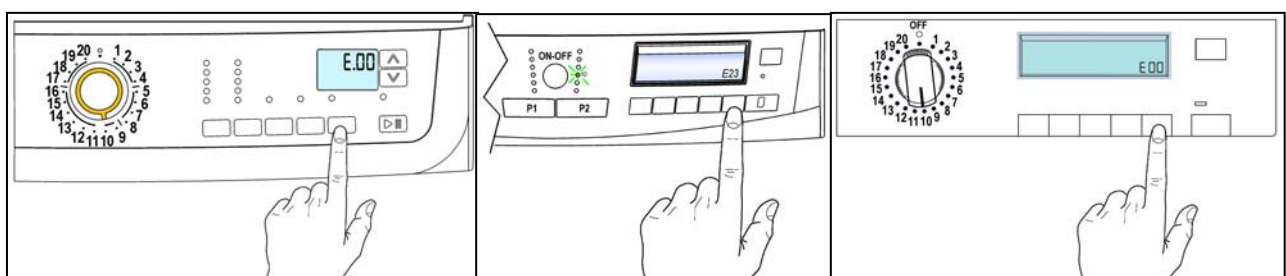
## 5.2 Reading the alarm codes

It is possible to display the last three memorised alarms in the FLASH memory of the electronic board:

- Enter diagnostic mode (par. 4.1)
- Irrespective of the type of PCB and configuration: turn the programme selector **clockwise** (version with knob) pushing button **P1** (version INPUT) to the **tenth position**.

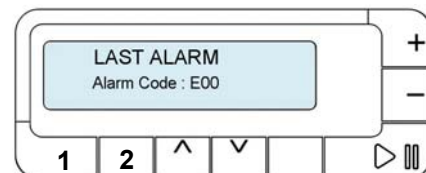


- The last alarm is displayed.

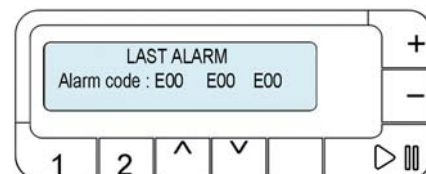


- To display the previous alarms, press sequentially the left button of the START/PAUSE button (as represented in figure).

### Appliances with functionality EWM35xx



- After having displayed the last alarm (position 10 of the selector).
- To display the previous ones, press button TEMPERATURE (P1 or 1) or SPIN (P2 or 2).



## 5.2.1 Alarm displaying

### AEG Version:

The alarm is displayed by a repeated flashing sequence of the LED placed above the button START / PAUSE with yellow and red light (0.5 seconds on, 0.5 seconds off with a 2.5 second pause between the sequences).

- LED indicator START / PAUSE with yellow light → indicates the first digit of the alarm code (family).
- LED indicator START / PAUSE with red light → indicates the second digit of the alarm code (internal number of the family).

These two LEDs are featured in all models.

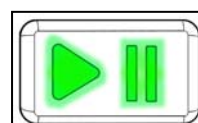
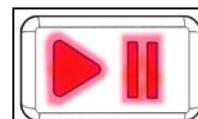


### Other versions:

The alarm is displayed by a repeated flashing sequence of the START / PAUSE button with red and green light (0.5 seconds on, 0.5 seconds off with a 2.5 second pause between the sequences).

- LED indicator START / PAUSE with red light → indicates the first digit of the alarm code (family).
- LED indicator START / PAUSE with green light → indicates the second digit of the alarm code (internal number of the family).

These two LEDs are featured in all models.



































### Notes:

- The first letter of the alarm code “E” (Error) is not displayed, since this letter is common to all alarm codes.
- The alarm code “families” are shown in hexadecimal; in other words:
  - **A** is represented by **10** flashes
  - **B** is represented by **11** flashes
  - ...
  - **F** is represented by **15** flashes
- Configuration errors are shown by the flashing of all the LEDs, placed inside or above the button START/PAUSE.

## 5.2.2 Examples of alarm display

Example: Alarm E43 (problems with the door interlock Triac) will display the following:

- the sequence of four flashes of the START / PAUSE button with red light (version AEG LED yellow light), indicates the first number E**4**3;
- the sequence of three flashes of the START / PAUSE button with green light (version AEG LED red light), indicates the second number E4**3**;

Button/LED - START / PAUSE red/yellow light				Button/LED - START / PAUSE red/green light			
ON/OFF	On/Off (Ver. AEG)	Time (Sec.)	Value	ON/OFF	On/Off (Ver. AEG)	Time (Sec.)	Value
		0.5	1			0.5	1
		0.5				0.5	
		0.5	2			0.5	2
		0.5				0.5	
		0.5	3			0.5	<b>3</b>
		0.5				0.5	
		0.5	<b>4</b>			2.5	Pause
		0.5					
		1.5	Pause				

### 5.2.3 Operation of alarms during diagnostics

All alarms are enabled during the components diagnostic phase.

### 5.3 Rapid reading of alarm codes

The last three alarm codes can be displayed even if the programme selector is not in the tenth position (diagnostics) or if the appliance is in normal operating mode (e.g. during the execution of the washing programme):

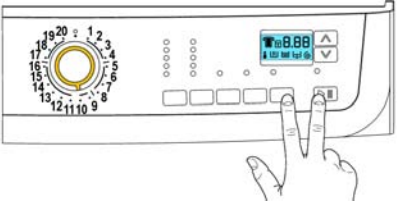
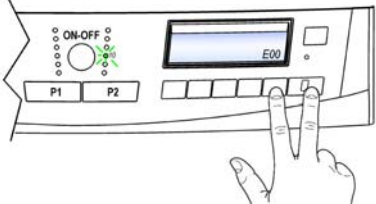
- Press and hold down **START/PAUSE** and the nearest **option button** (as to enter the DIAGNOSTICS), for at least two seconds: the LEDs initially switch off, and then display the flashing sequence indicating the last alarm.
- The alarm continues to be displayed for the amount of time required, and then the display returns to its normal operation.
- The alarm reading system is as described in paragraph 5.2.
- While the alarms are displayed, the appliance continues to perform the cycle or, if in the programme selection phase, maintains the previously-selected options in memory.

### 5.4 Cancelling the last alarm

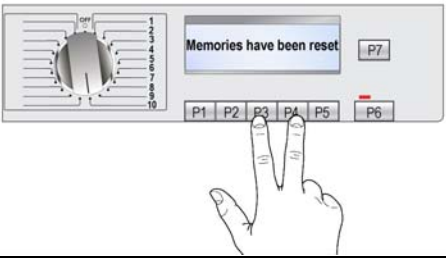
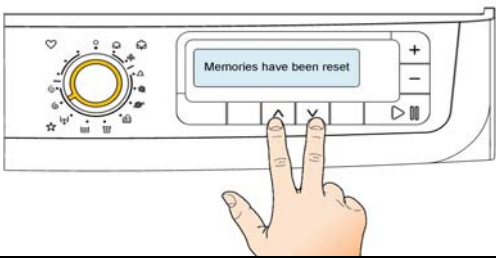
It is good practice to cancel the last alarm:

- after reading the alarm code, to check whether the alarm re-occurs during diagnostics.
- after repairing the appliance, to check whether it re-occurs during testing.

#### EWM25xx

	
<ol style="list-style-type: none"> <li>1. Select diagnostic mode.</li> <li>2. Turn the selector (version with knob) or push button <b>P2</b> (version INPUT) to the <b>tenth</b> position (reading of alarm).</li> <li>3. Press and hold down <b>START/PAUSE</b> and the nearest <b>option button</b> (as represented in figure).</li> <li>4. Hold down the buttons till the LEDs stop to flash (at least 5 seconds).</li> </ol>	

#### EWM35xx

	
<ol style="list-style-type: none"> <li>1. Start diagnostic mode, rotate the selector dial to the <b>tenth</b> position (reading the alarm: the LCD screen only displays the last alarm that was triggered. Press the TEMPERATURE or CENTRIFUGE key to display the history of the last three alarms).</li> <li>2. Press the <b>START/PAUSE</b> button and the <b>OK</b> button simultaneously (as shown in the figure).</li> <li>3. Hold down the buttons (at least 5 seconds) until "E00" appears on the LCD display (as first display option) and "E00 E00 E00" appears as second display option.</li> </ol>	

N.B. With this operation all the memorised alarms are deleted.



## 5.5 TABLE OF ALARMS

Alarm	Possible fault	Action/machine status	Reset	Alarm	Page
<b>E00</b>	No alarm	-----	-----	-----	-----
<b>E11</b>	Difficulties in water fill for washing	Tap closed or water pressure too low; Drain tube improperly positioned; Water fill solenoid valve is faulty; Leaks from water circuit on pressure switch; Pressure switch faulty; Wiring faulty; PCB faulty.	Cycle is paused with door locked	START/RESET	24
<b>E12</b>	Difficulties in water fill for drying	Tap closed or water pressure too low; Drain tube improperly positioned; Water fill solenoid valve is faulty; Leaks from water circuit on pressure switch; Pressure switch faulty; Wiring faulty; PCB faulty.	Cycle is paused with door locked	START/RESET	26
<b>E13</b>	Water leakage	Drain hose incorrectly positioned; mains pressure insufficient; water fill solenoid faulty; leakage/blockage of pressure switch hydraulic circuit; pressure switch faulty.	Cycle is paused with door locked	START/RESET	28
<b>E21</b>	Difficulties in draining for washing	Drain tube kinked/clogged/improperly positioned; Drain filter clogged/dirty; Drain pump faulty; Pressure switch faulty; Wiring faulty; PCB faulty.	Cycle is paused (after 2 attempts)	START/RESET	30-32
<b>E22</b>	Difficulties in draining for drying	Drain tube kinked/clogged/improperly positioned; Drain filter clogged/dirty; Drain pump faulty; Pressure switch faulty; Wiring faulty; PCB faulty;	Cycle is paused	START/RESET	34-36
<b>E23</b>	Drain pump triac faulty	Drain pump faulty; Wiring faulty; PCB faulty.	Safety drain cycle - Cycle stops with door unlocked	RESET	38-39
<b>E24</b>	Fault in "sensing" circuit of drain pump triac (wrong input signal to microprocessor)	PCB faulty.	Safety drain cycle - Cycle stops with door unlocked	RESET	40
<b>E31</b>	Electronic pressure switch circuit faulty (frequency of pressure switch signal out of limits)	Electronic pressure switch; Wiring; PCB faulty.	Cycle blocked with door closed	RESET	40
<b>E32</b>	Incorrect calibration of electronic pressure switch (The electronic pressure switch generates a signal with instable frequency during the drain phase)	Drain tube kinked/clogged/improperly positioned; Drain filter clogged/dirty; Drain pump faulty; Leaks from water circuit on pressure switch; Pressure switch; Wiring faulty; PCB faulty.	Cycle is paused	START/RESET	41
<b>E35</b>	Water overflow	Water fill solenoid faulty; Leaks from water circuit on pressure switch; pressure switch faulty; wiring faulty; PCB faulty.	Cycle blocked. Safety drain cycle. Drain pump always in operation (5 minutes on, 5 minutes off etc.)	RESET	42
<b>E38</b>	Pressure chamber blocked (water level does not vary for at least 30 sec. during drum rotation)	Motor drive belt broken; Hydraulic circuit pressure switch clogged.	Heating phase skipped	ON/OFF RESET	43

Alarm	Possible fault	Action/machine status	Reset	Alarm	Page
<b>E3A</b>	Heating elem. relay sensing faulty (input signal to microprocessor always 0V or 5V)	PCB faulty.	Cycle blocked with door closed	RESET	43
<b>E41</b>	Door open (after 15 sec.)	Door interlock faulty; wiring faulty; PCB faulty.	Cycle paused	START/RESET	44-46
<b>E42</b>	Problems of door closure	Door interlock faulty; wiring faulty; PCB faulty.	Cycle paused	START/RESET	48-50
<b>E43</b>	Interlock power supply triac faulty	Door interlock faulty; wiring faulty; PCB faulty.	(Safety drain cycle) Cycle blocked	ON/OFF RESET	52-53
<b>E44</b>	Door interlock sensing circuit triac faulty	PCB faulty.	(Safety drain cycle) Cycle blocked	ON/OFF RESET	54
<b>E45</b>	Door interlock sensing circuit triac faulty (wrong input signal to microprocessor)	PCB faulty.	(Safety drain cycle) Cycle blocked	ON/OFF RESET	55
<b>E52</b>	No signal from motor tachometric generator	Motor faulty; wiring faulty; PCB faulty.	Cycle blocked, door locked (after 5 attempts)	RESET	56-58
<b>E57</b>	Inverter is drawing too much current (>15A)	Motor-Inverter wiring faulty; Inverter board faulty, Motor faulty.	Cycle blocked, door locked (after 5 attempts)	RESET	60
<b>E58</b>	Inverter is drawing too much current (>4.5A)	Motor abnormal operation (overloaded); Motor-Inverter wiring faulty; Motor faulty; Inverter board faulty.	Cycle blocked, door locked (after 5 attempts)	RESET	62
<b>E59</b>	No signal from tachometric generator for three seconds	Motor-Inverter wiring faulty; Inverter board faulty, Motor faulty.	Cycle blocked, door locked (after 5 attempts)	RESET	64
<b>E5A</b>	Overheating for heat dissipator for Inverter	Overheating caused by continuous operation or ambient conditions (let appliance cool down); Inverter board faulty. NTC open (on the Inverter board).	Cycle blocked, door locked (after 5 attempts)	RESET	66
<b>E5H</b>	Input voltage is lower than 175V	Wiring faulty; Inverter board faulty.	Cycle blocked, door locked (after 5 attempts)	RESET	67
<b>E5C</b>	Input voltage is too high	Input voltage is too high (measure the masters voltage); Inverter board faulty.	Cycle blocked, door locked (after 5 attempts)	RESET	68
<b>E5d</b>	Data transfer error between Inverter and main board	Line interference; Wiring faulty; Main board or Inverter faulty.	-----	RESET	69
<b>E5E</b>	Wrong communication between main board and Inverter	Main board-Inverter wiring faulty; Inverter board faulty; Main board faulty.	Cycle blocked (after 5 attempts)	ON/OFF	70
<b>E5F</b>	Inverter board does not start the motor	Wiring faulty; Inverter board faulty; Main board faulty.	Cycle blocked, door locked (after 5 attempts)	RESET	70
<b>E61</b>	Insufficient heating during washing	NTC sensor faulty; heating element faulty; wiring faulty; PCB faulty.	The heating phase is skipped	START/RESET	71
<b>E62</b>	Overheating during washing (temperature higher than 88°C for a time higher than 5 min.)	NTC sensor faulty; heating element faulty; wiring faulty; PCB faulty.	Safety drain cycle – Cycle stopped with door open.	RESET	72-73

Alarm	Possible fault	Action/machine status	Reset	Alarm	Page
<b>E66</b>	<b>Heating element power relay faulty (incongruence between sensing and relay)</b>	PCB faulty.	Safety drain cycle – Cycle stopped with door open	RESET	74-75
<b>E68</b>	<b>Current dispersion to earth (value of mains voltage different from main value)</b>	Current dispersion between between heating element and earth.	Cycle blocked with door open	RESET	76-77
<b>E69</b>	<b>Heating element interrupted</b>	Wiring faulty; Heating element for washing interrupted (thermofuse open); Main board faulty.	-----	START/RESET	78-79
<b>E71</b>	<b>Washing NTC sensor faulty (short-circuited or open)</b>	Wiring faulty; Washing NTC sensor faulty; PCB faulty.	The heating phase is skipped	START/RESET	80
<b>E72</b>	<b>Drying condenser NTC sensor faulty (voltage value out of limits, sensor short-circuited or open)</b>	Wiring faulty; Drying NTC sensor (condenser) badly positioned or faulty; WD board faulty.	The drying heating phase is skipped	START/RESET	81
<b>E73</b>	<b>Drying duct NTC sensor faulty (voltage value out of limits, sensor short-circuited or open)</b>	Wiring faulty; Drying NTC sensor (duct) badly positioned or faulty; WD board faulty.	The drying heating phase is skipped	START/RESET	82
<b>E74</b>	<b>Washing NTC sensor badly positioned</b>	Wiring faulty; Washing NTC sensor badly positioned; NTC sensor faulty; PCB faulty.	The heating phase is skipped	START/RESET	83
<b>E82</b>	<b>Error in selector reset position</b>	PCB faulty (Wrong configuration data).	-----	RESET	84
<b>E83</b>	<b>Error in selector reading</b>	PCB faulty (Wrong configuration data).	Cycle cancelled	START/RESET	84
<b>E91</b>	<b>Communication error between PCB and display board</b>	Wiring faulty; Control/display board faulty; PCB faulty.	-----	RESET	85
<b>E92</b>	<b>Communication incongruence between main PCB- display board (versions not compatible)</b>	Wrong control/display board; Wrong PCB (do not correspond to the model).	Cycle interrupted	OFF/ON	85
<b>E93</b>	<b>Incorrect configuration of appliance</b>	PCB faulty; (Incorrect configuration data).	Cycle interrupted	OFF/ON	85
<b>E94</b>	<b>Incorrect configuration of washing cycle</b>	PCB faulty; (Incorrect configuration data).	Cycle interrupted	OFF/ON	85
<b>E95</b>	<b>Communication error between microprocessor and EEPROM</b>	PCB faulty.	Cycle interrupted	RESET	85
<b>E97</b>	<b>Incongruence between programme selector and cycle configuration</b>	Faulty PCB (Wrong configuration data).	Cycle interrupted	RESET	85
<b>E98</b>	<b>Communication error between main board - Inverter</b>	Incompatibility between main board and Inverter.	Cycle interrupted	OFF/ON	86
<b>E9H</b>	<b>Communication error between microprocessor and FLASH memory</b>	Display board.	-----	OFF/ON RESET	87

Alarm	Possible fault	Action/machine status	Reset	Alarm	Page
<b>E9C</b>	<b>Machine configuration error</b>	Display board.	-----	OFF/ON RESET	87
<b>E9d</b>	<b>Clock faulty</b>	Display board.	-----	OFF/ON RESET	87
<b>E9F</b>	<b>Communication error between PCB and remote devices</b>	Wiring between PCB and Inverter faulty; PCB faulty; Inverter faulty.	Cycle interrupted	OFF/ON	88
<b>EA1</b>	<b>Drum positioning (DSP) faulty</b>	Motor belt broken; Wiring faulty; PCB faulty; DSP sensor faulty.	Positioning phase skipped	ON/OFF RESET	89
<b>EA6</b>	<b>DSP door opening faulty</b>	Motor belt broken; Wiring faulty; Drum cover open. Motor faulty; PCB faulty.	Cycle paused	ON/OFF RESET	90
<b>EC1</b>	<b>Solenoid valve blocked with flowmeter working</b>	Wiring faulty; Solenoid valve faulty/blocked, PCB faulty.	Cycle blocked with door closed. Drain pump always works (5 min., then it stops for 5 min. ecc.)	RESET	95
<b>EC3</b>	<b>Problems with Weight sensor (no signal or out of limits)</b>	Wiring faulty; Weight sensor faulty; PCB faulty.	-----	START/RESET	96
<b>Ed1</b>	<b>Data communication error between WD board and PCB</b>	Wiring faulty between PCB and WD board; WD board faulty; PCB faulty.	Cycle interrupted	OFF/ON	97
<b>Ed2</b>	<b>Drying heating element relay 1 faulty</b>	Wiring faulty between WD board and thermostats; thermostats faulty; WD board faulty, PCB faulty.	Cycle blocked with door open	RESET	98
<b>Ed3</b>	<b>Drying heating element relay 2 faulty</b>	Wiring faulty between WD board and thermostats; thermostats faulty; WD board faulty, PCB faulty.	Cycle blocked with door open	RESET	101
<b>Ed4</b>	<b>Relay which commutates power between washing heating element and drying (in the WD board)</b>	Wiring faulty; WD board faulty; PCB faulty.	Cycle blocked with door open	RESET	102
<b>Ed6</b>	<b>No communication between PCB and display board (INPUT)</b>	Wiring faulty between PCB and programme display board; PCB faulty.	-----	OFF/ON	104
<b>EF1</b>	<b>Drain filter blocked (drain phase too long)</b>	Drain tube blocked/kinked/too high; Drain filter dirty/blocked.	Warning displayed at the end of cycle (specific LED)	START/RESET	94
<b>EF2</b>	<b>Excessive detergent dosing (excessive foam during draining)</b>	Excessive detergent dosing; drain tube kinked/blocked; Drain filter dirty/blocked.	Warning displayed after 5 attempts or by the specific LED	RESET	94
<b>EF3</b>	<b>Aqua control intervention</b>	Water leaks onto base frame; water control system defective.	Water drain	ON/OFF RESET	94
<b>EF4</b>	<b>Water fill pressure low, no signal of flowmeter and solenoid valve open</b>	Tap closed; water fill pressure low.	-----	RESET	94
<b>EF5</b>	<b>Unbalanced load</b>	Final spin phases skipped.	-----	RESET	94
<b>EF6</b>	<b>Reset</b>	-----	No action to be performed, if continues replace the PCB	-----	94

Alarm	Possible fault	Action/machine status	Reset	Alarm	Page
<b>EH1</b>	<b>Frequency power of appliance out of limits</b>	Power supply problems (incorrect / disturbance); PCB faulty.	Wait for frequency nominal conditions	OFF/ON	92
<b>EH2</b>	<b>Voltage too high</b>	Power supply problems (incorrect / disturbance); PCB faulty.	Wait for frequency nominal conditions	OFF/ON	92
<b>EH3</b>	<b>Voltage too low</b>	Power supply problems (incorrect / disturbance); PCB faulty.	Wait for frequency nominal conditions	OFF/ON	92
<b>EHE</b>	<b>Incongruence between safety relay (in the PCB) and the safety “sensing” circuit</b>	Wiring faulty; PCB faulty.	Safety drain cycle – Cycle stopped with door open	RESET	93
<b>EHF</b>	<b>Safety “sensing” circuit faulty (input voltage to microprocessor wrong)</b>	PCB faulty.	Safety drain cycle – Cycle stopped with door open	RESET	93

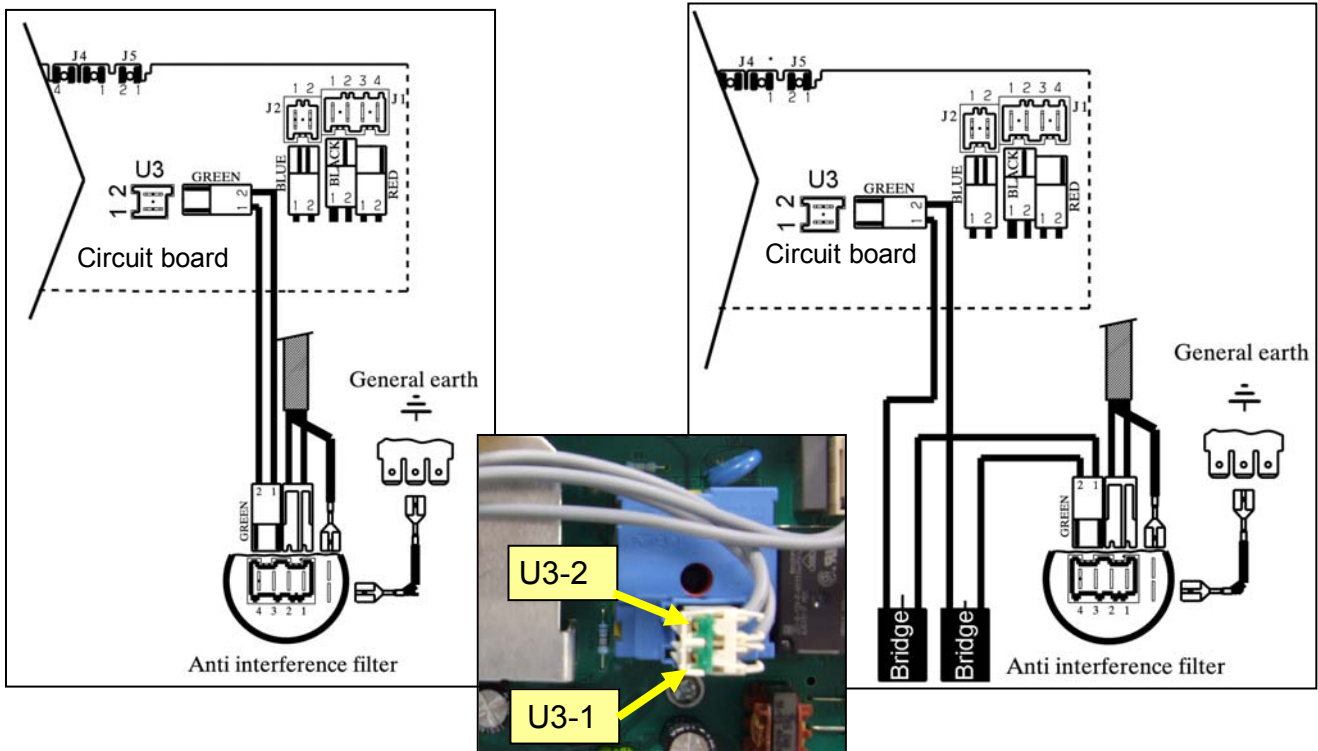
## 5.6 Notes concerning certain alarm codes

- **Configuration alarms E93:** If this alarm is generated (when the appliance is switched on), operation of the appliance is blocked, the LEDs placed above or inside the START/PAUSE button start to flash displaying the complete codification (family plus alarm), the display shows the alarm code on condition that the configuration part of the display is ok.  
The diagnostic procedure cannot be accessed; the only option is to switch the appliance OFF.
- **Configuration alarm E94:** all LEDs placed above or inside the START/PAUSE button start to flash displaying the complete codification (family plus alarm) and the code is displayed.  
It is not possible to enter the diagnostics or to use the mode "rapid displaying of the alarm".
- **Alarms EH1(Eb1)-EH2(Eb2)-EH3(Eb3):** In the event of problems with the mains power supply, the appliance remains in alarm mode until the mains frequency or voltage are restored to the correct value or the appliance is switched off (programme selector on "0"). The family of alarm "**b or H**" only is displayed if the problem occurs during the normal operation of the appliance, while the family plus the alarm are displayed if the problem occurs at the switching on, through the flashing of the LEDs placed above or inside the START/PAUSE button. At the same time the code is represented also in the display.  
It is not possible to enter the diagnostics or to use the mode "rapid displaying of the alarm": the complete alarm can be read only when the abnormal situation has terminated.
- **Alarms E51- E52:** During the diagnostic test, all the alarms are displayed. Normally, when the programme selector is turned from one test phase to another, the appliance exits the alarm condition and performs the phase selected. This does not take place in the case of alarms E51 (power triac on motor short-circuited) and E52 (no signal from the tachometric generator on the motor): in these cases, the only option to exit the alarm condition is to switch the appliance OFF by turning the selector to position "0" (reset) or pushing the ON/OFF button (INPUT styling).

## 6 THE DIAGNOSTIC PROGRAMME CANNOT BE ACCESSED

### 6.1.1 All LEDs on the circuit board are switched off

Are the power cable and connection OK?	No →	Replace or repair the power cable, check the connector.
Yes ↓		
Does the suppressor function correctly?	No →	Replace the suppressor.
Yes ↓		
Is the wiring from the suppressor to the circuit board (connectors U3.1-U3.2) OK?	No →	Replace or repair the wiring.
Yes ↓		
Does the programme selector function correctly?	No →	Replace or repair the knob or knob spindle.
Yes ↓		
Replace the circuit board and perform the diagnostic programme.		



### 6.1.2 Some of the LEDs of the circuit board light

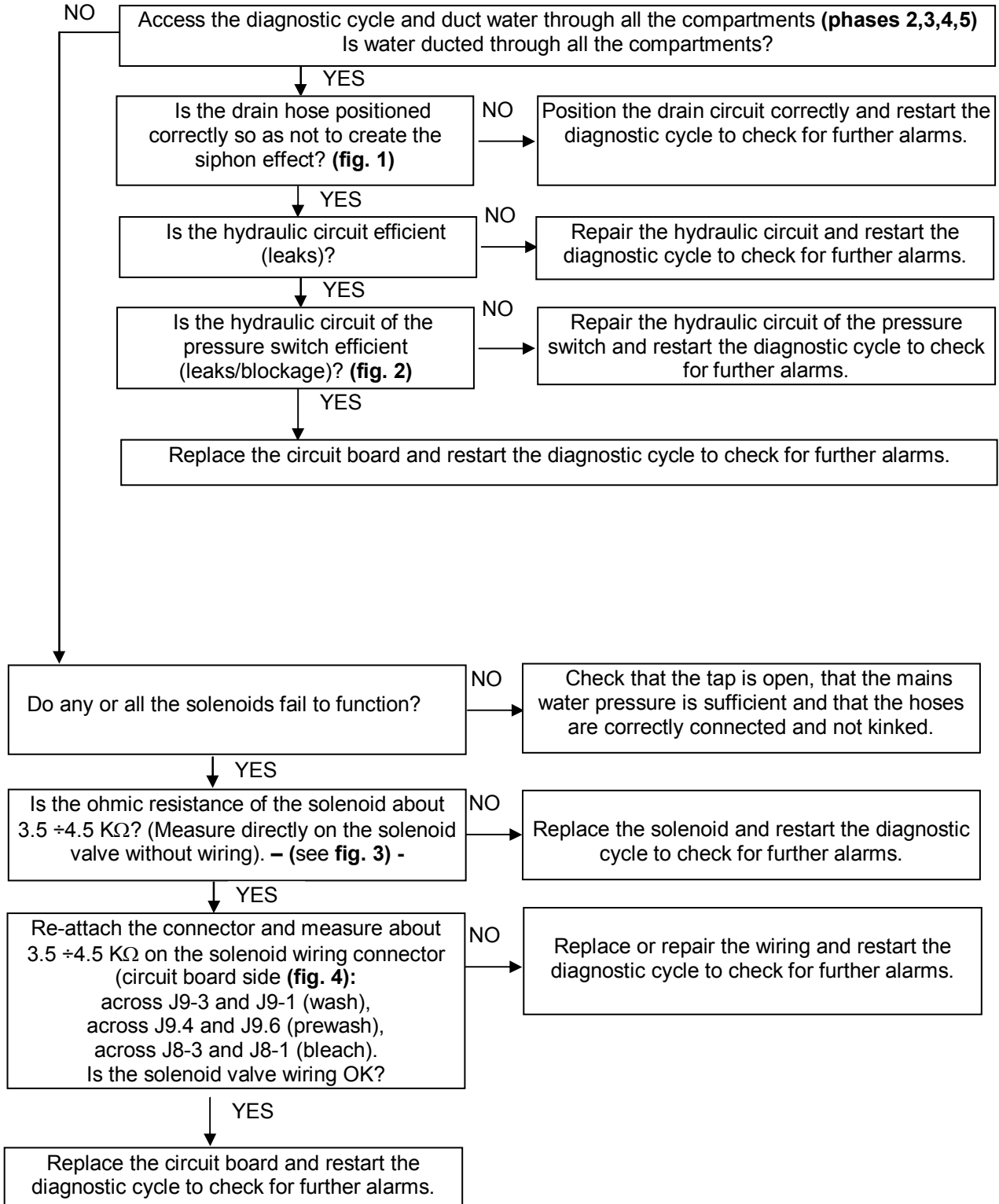
Do the keys move without hindrance in the housings in the control panel and correctly action the corresponding buttons?	No →	Solve the mechanical problems (control panel / keys / spindles).
Yes ↓		
Replace the circuit board and perform the diagnostic programme.		

*If there are traces of burning on the circuit board, refer to pages 119-120.*

## 7 TROUBLESHOOTING ACCORDING TO ALARM CODES

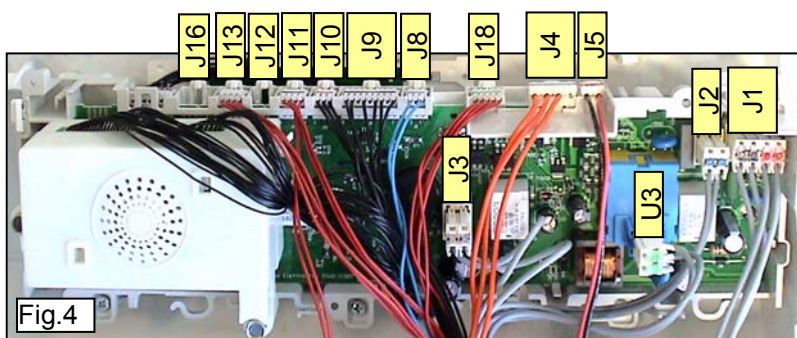
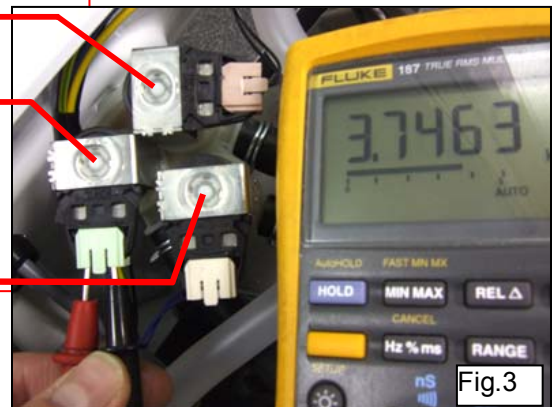
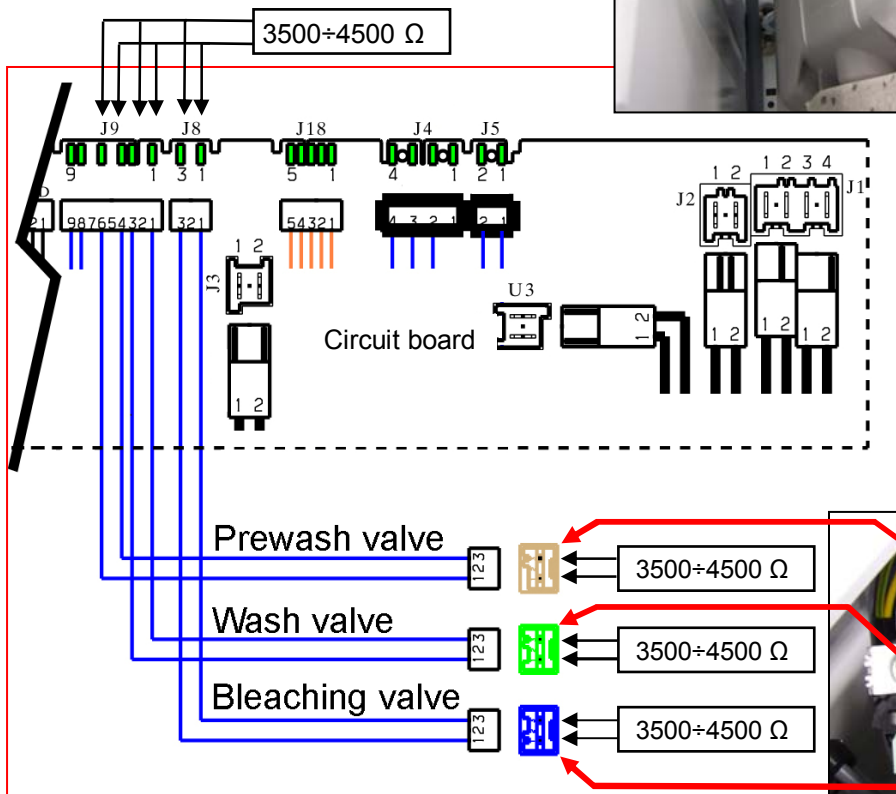
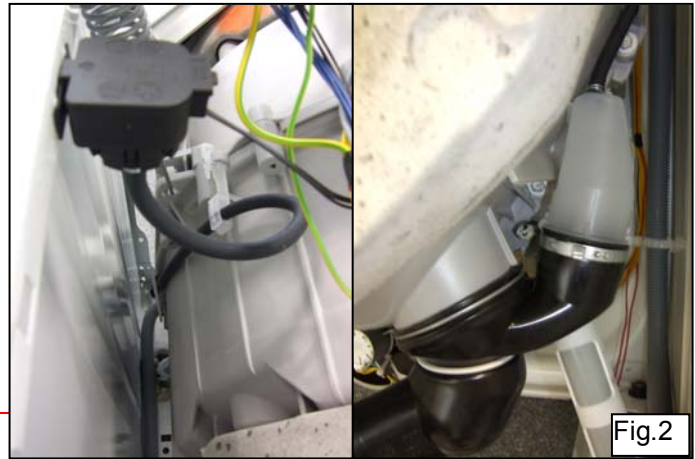
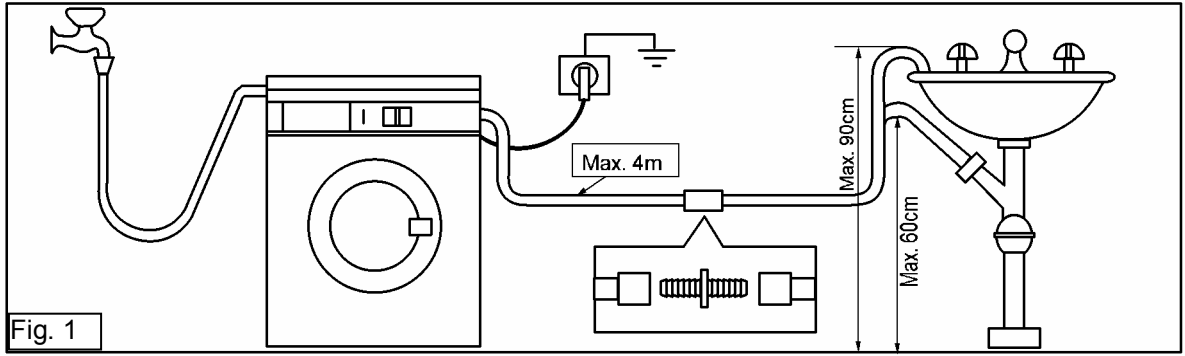
<b>E11</b>	<b>E11: Difficulty in filling water during washing phase</b>	<b>E11</b>
	Maximum water fill time for each pressure switch level (this time is reset to zero each time the level is reached)	

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

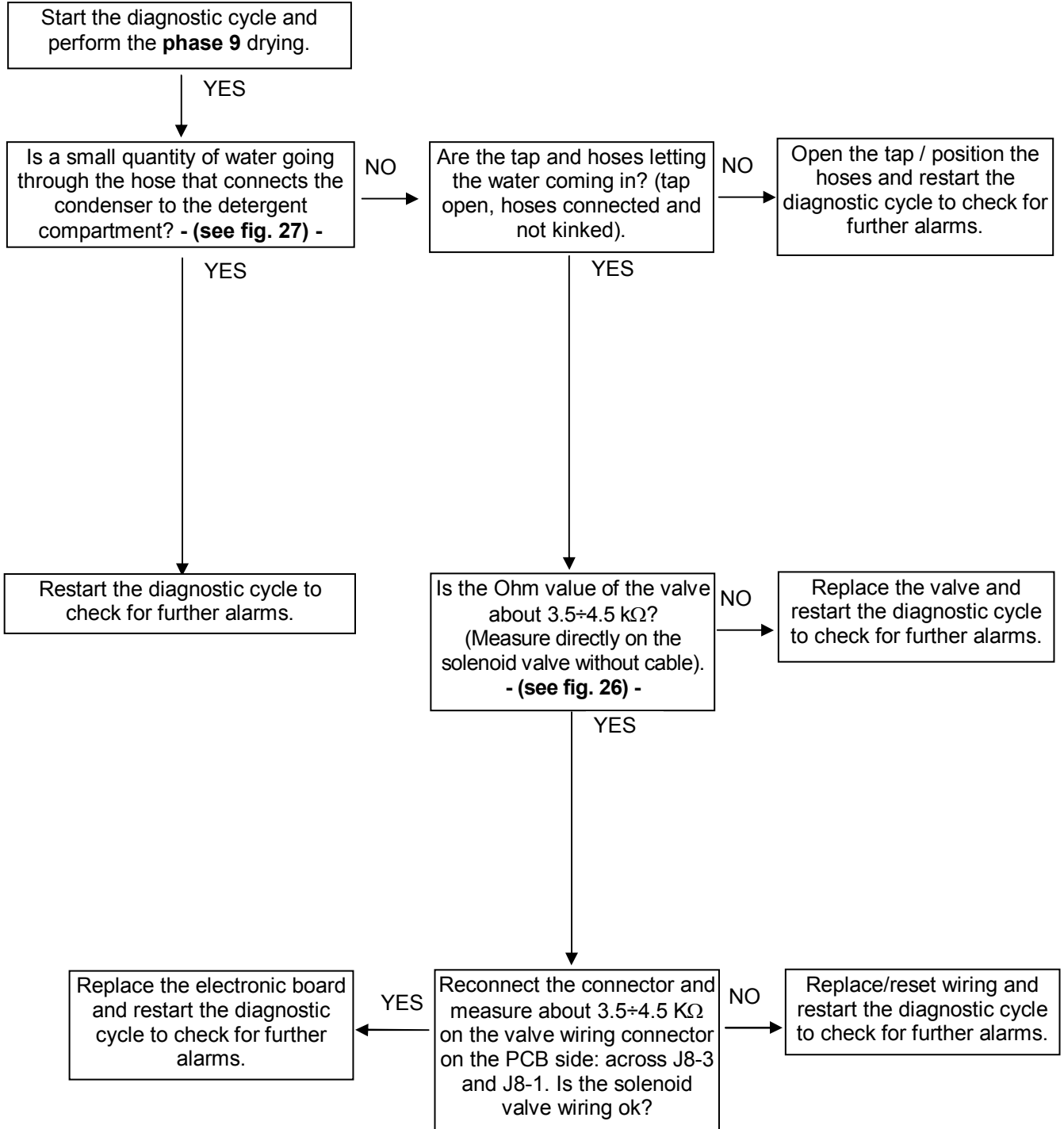


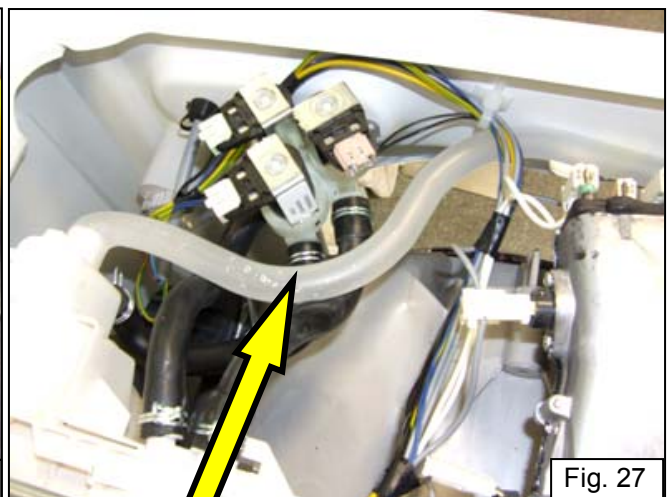
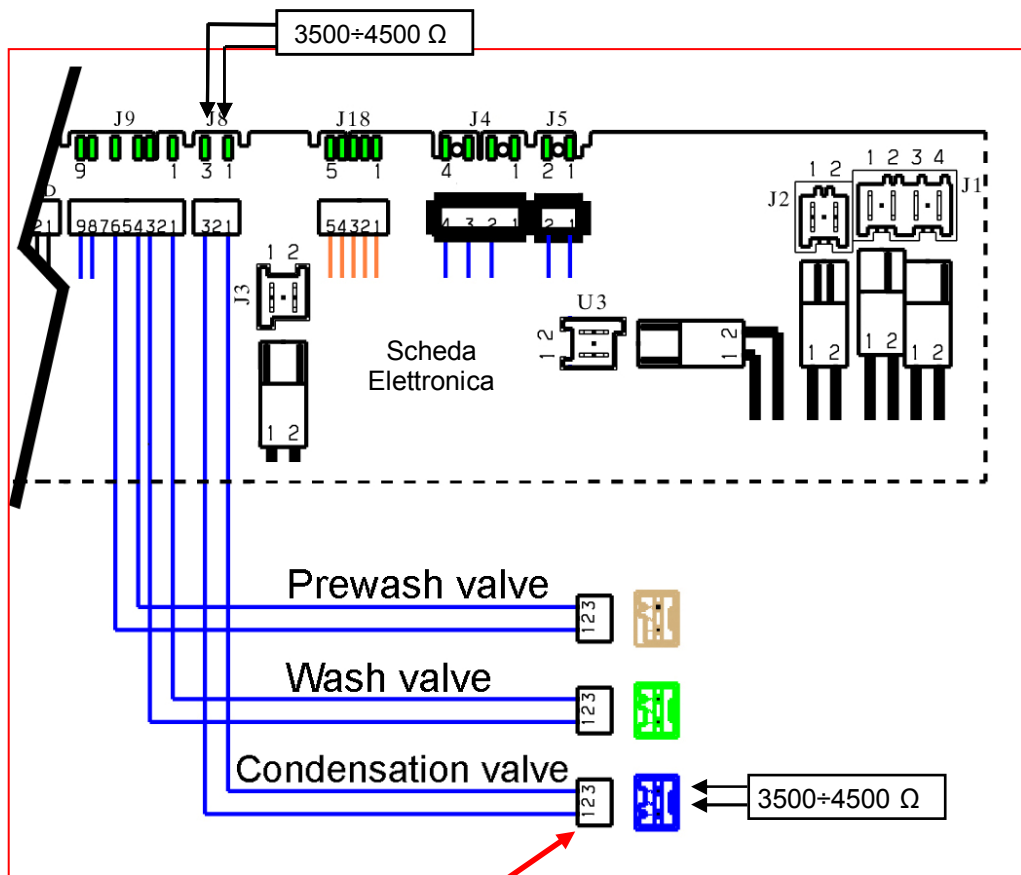


*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E12: Difficulty in filling water during drying phase</b>		
<b>E12</b>	To check if the condensation valve is working, machine measures the increasing water level at the beginning of the drying phase. (Alarm appears after 10 min. of filling without reaching the level).	<b>E12</b>

*Checks to perform: Check that all the connectors are inserted correctly*





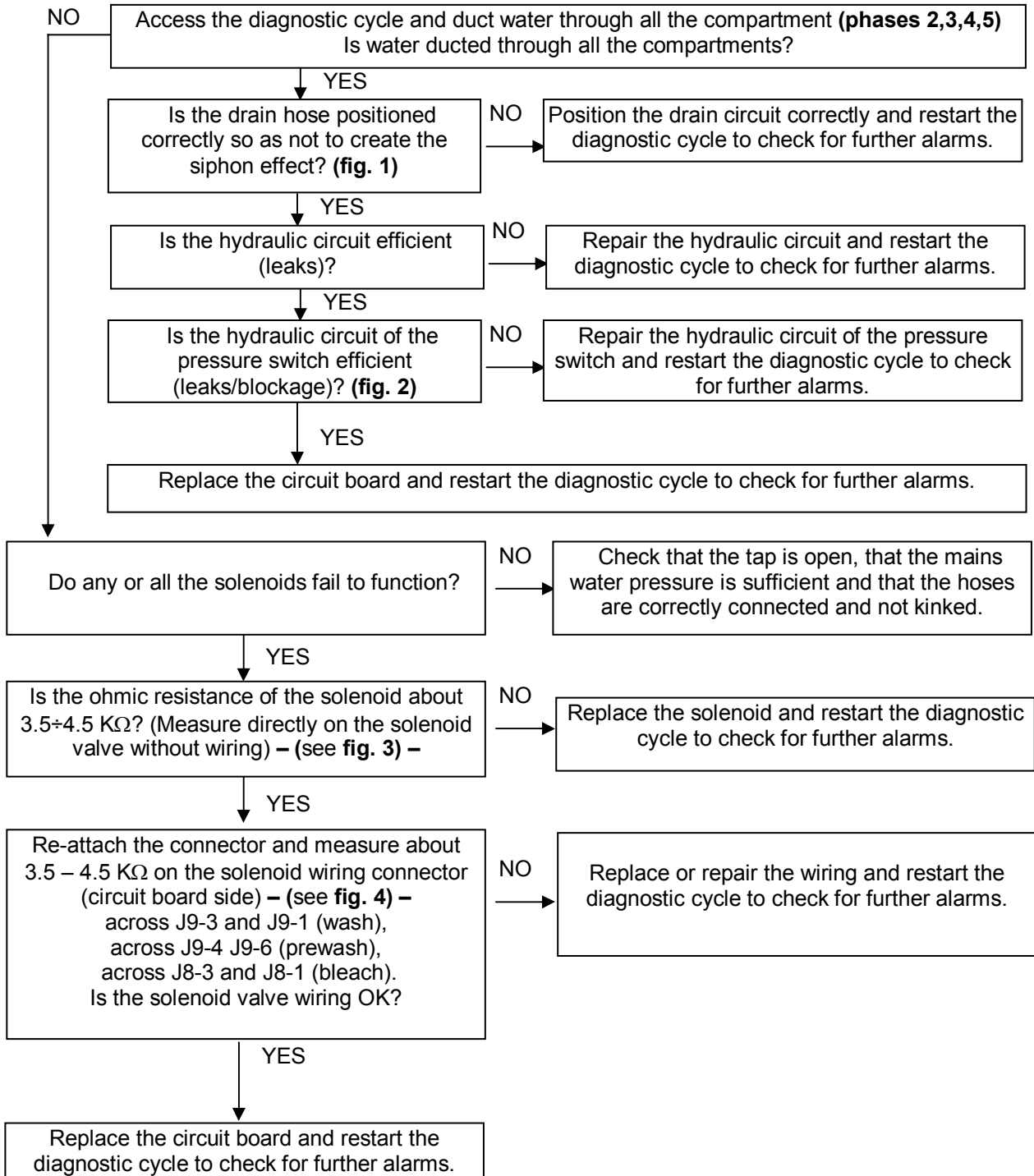
Little hose which connects the condenser to the detergent compartment.

*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E13</b>	<b>E13: Water leakage</b>	<b>E13</b>
	Overall maximum water fill time exceeded (the sum of all the water fills between one drain phase and the next, to avoid exceeding the maximum volume).	

*Checks to perform: Check that all the connectors are inserted correctly*

**Warning!!!!**  
**This alarm could appear during a normal washing cycle with towels.**



*If there are traces of burning on the circuit board, refer to pages 119-120*

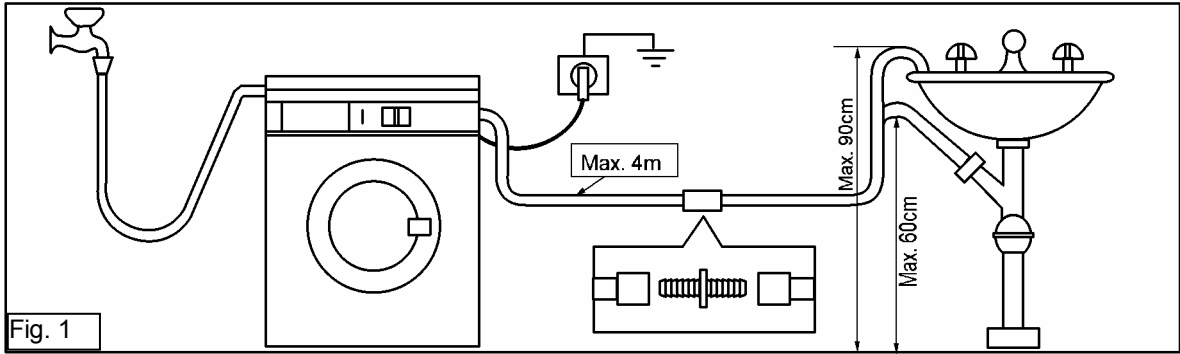


Fig. 1



Fig.2

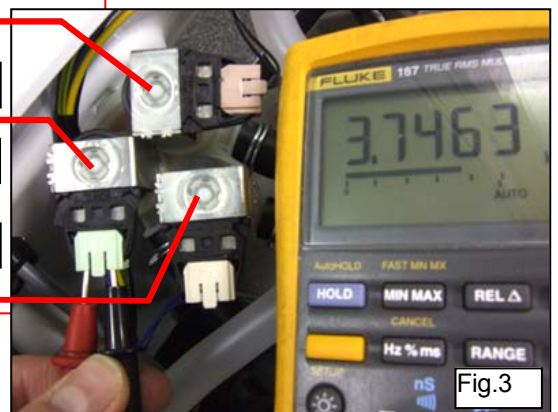
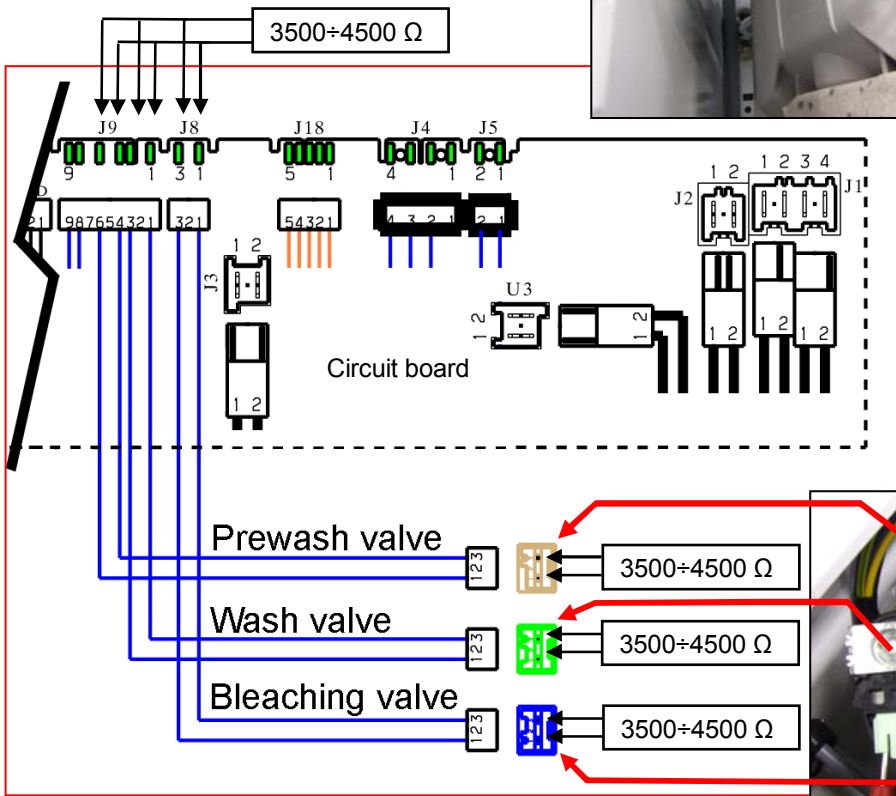


Fig.3

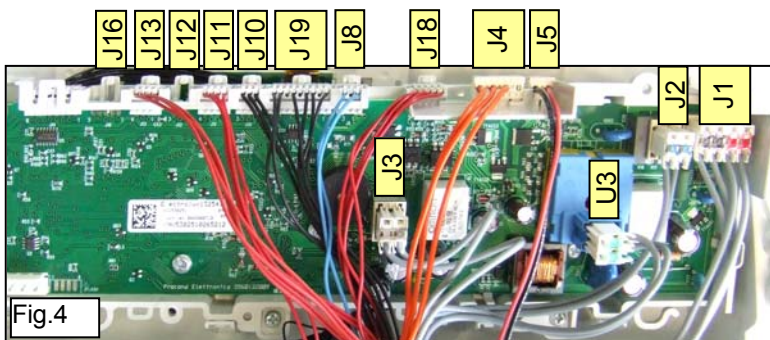
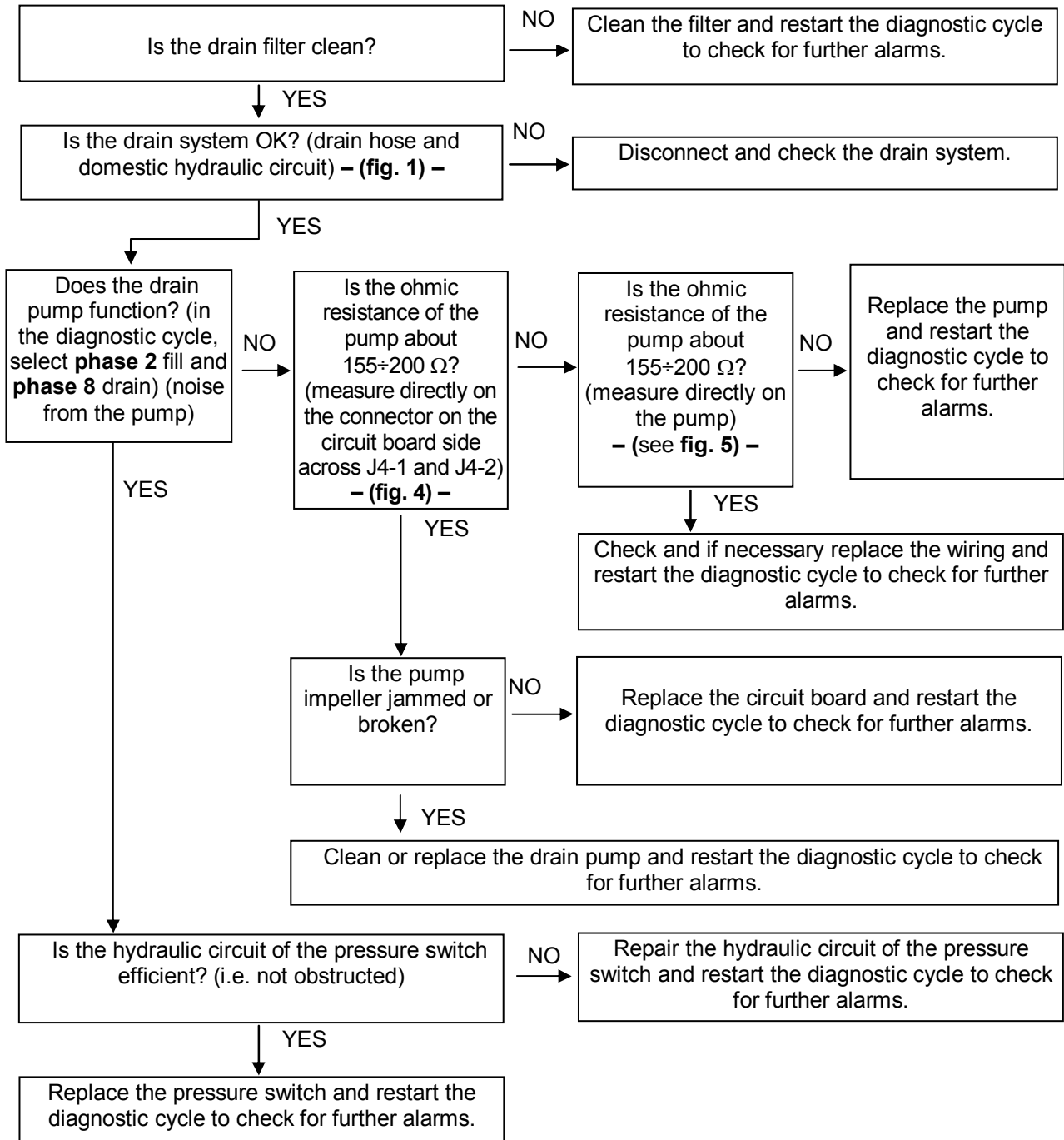


Fig.4

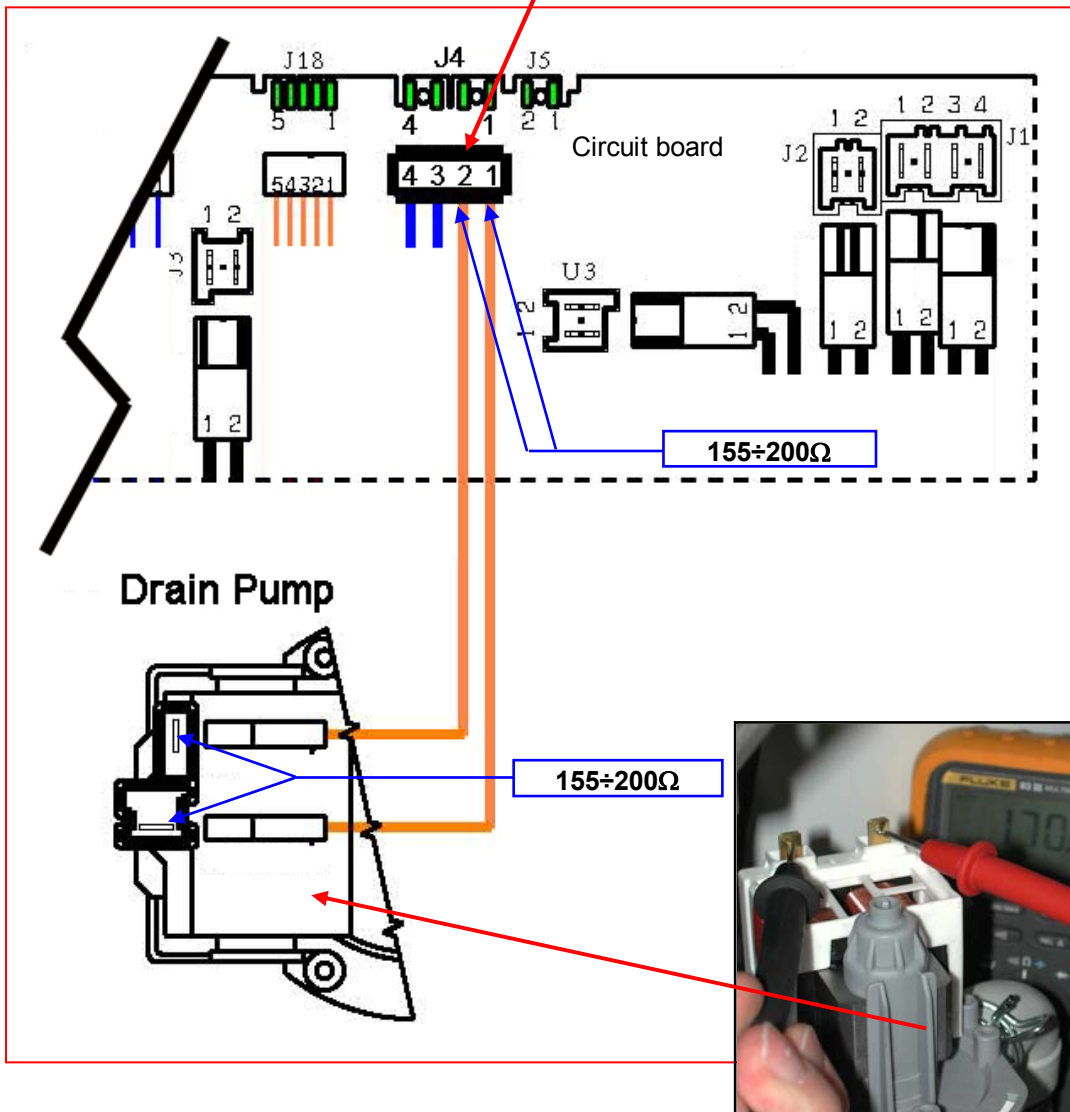
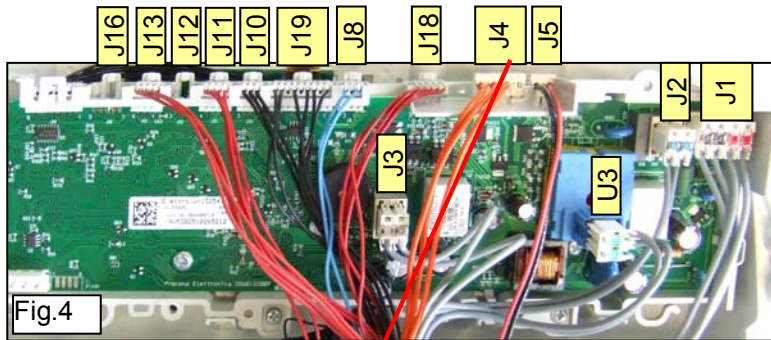
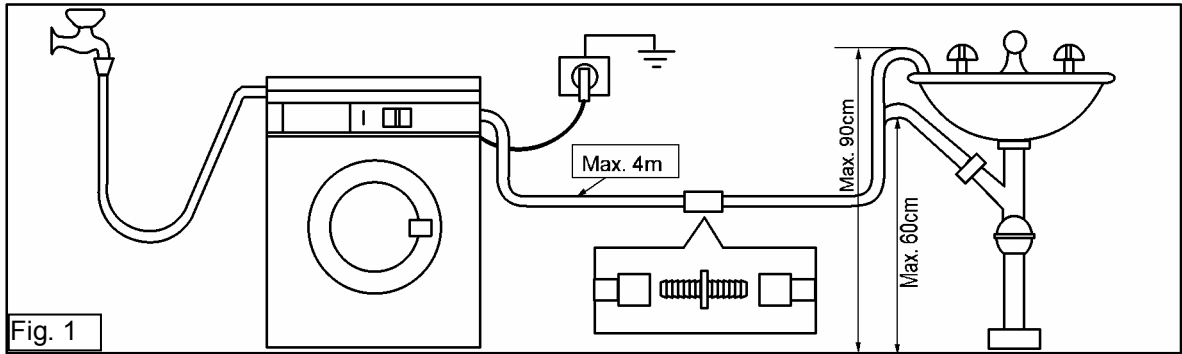
*If there are traces of burning on the circuit board, refer to page 119-120*

<b>E21</b>	<b>E21: Difficulty in draining</b>	<b>E21</b>
	Maximum drain time exceeded (measured for each phase of the cycle)	

*Checks to perform: Check that all the connectors are inserted correctly*

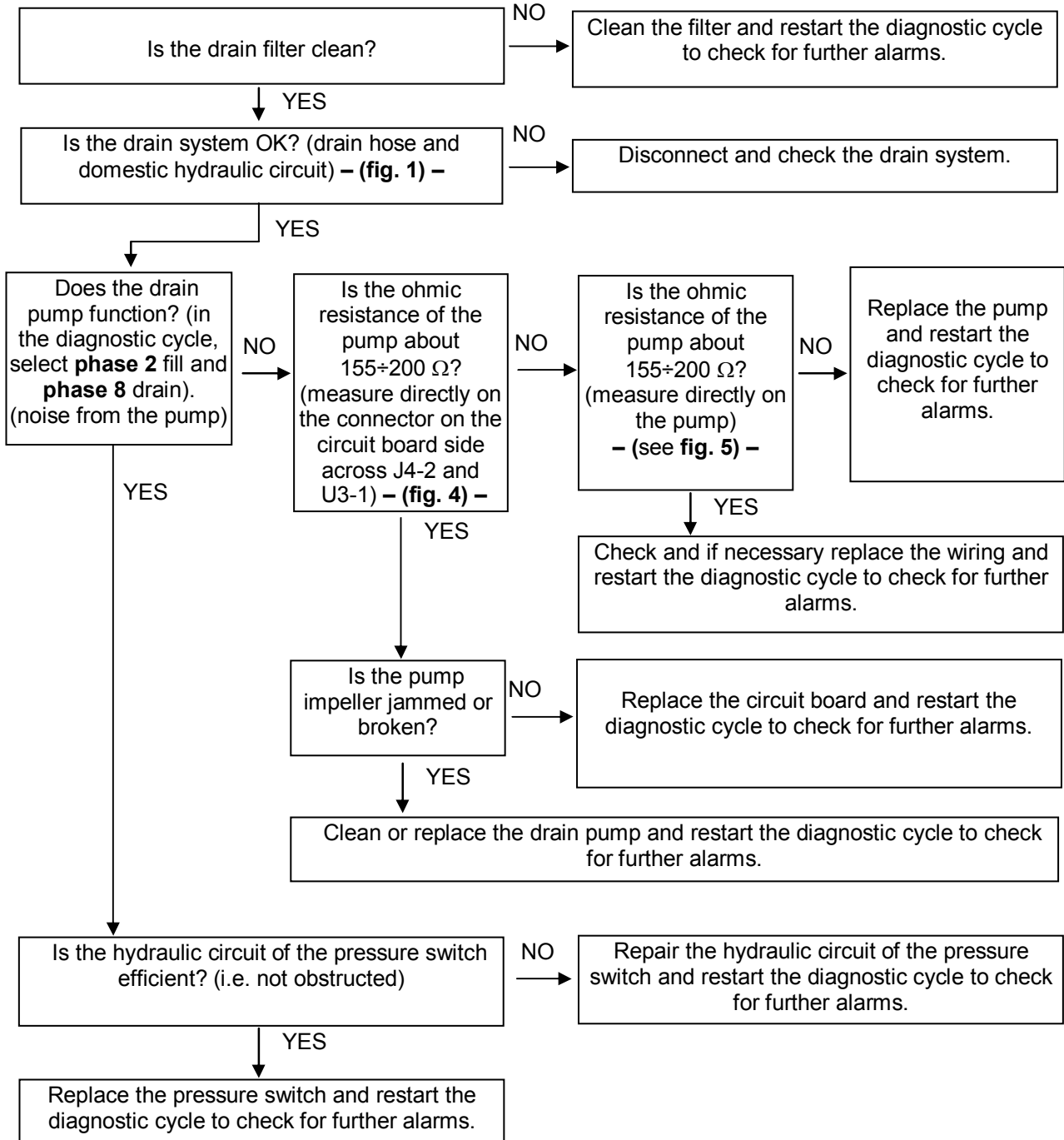


*If there are traces of burning on the circuit board, refer to page 119-120*



<b>E21</b>	<b>E21: Difficulty in draining (with Aqua Control device)</b>	<b>E21</b>
	Maximum drain time exceeded (measured for each phase of the cycle)	

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to page 119-120*



# E21 (with Aqua Control device)

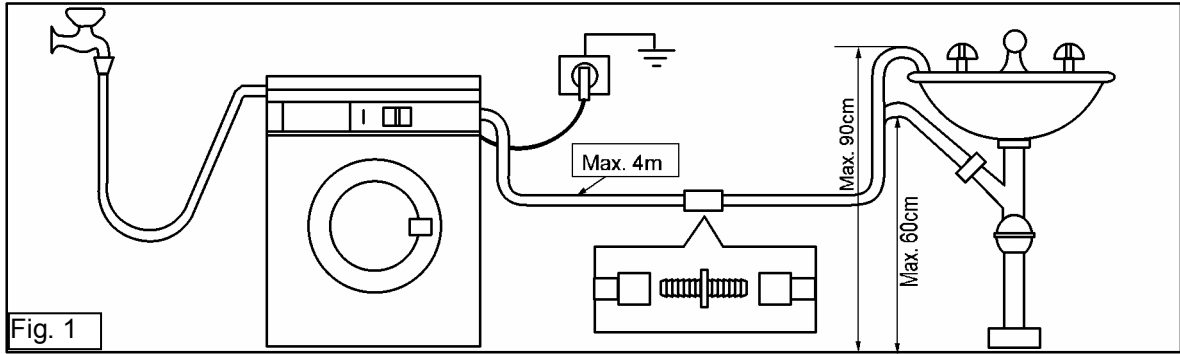


Fig. 1

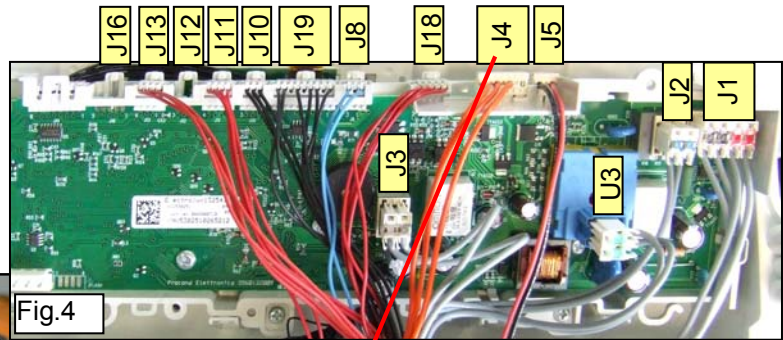


Fig. 4

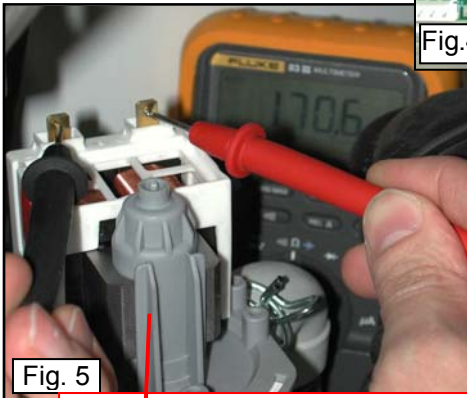
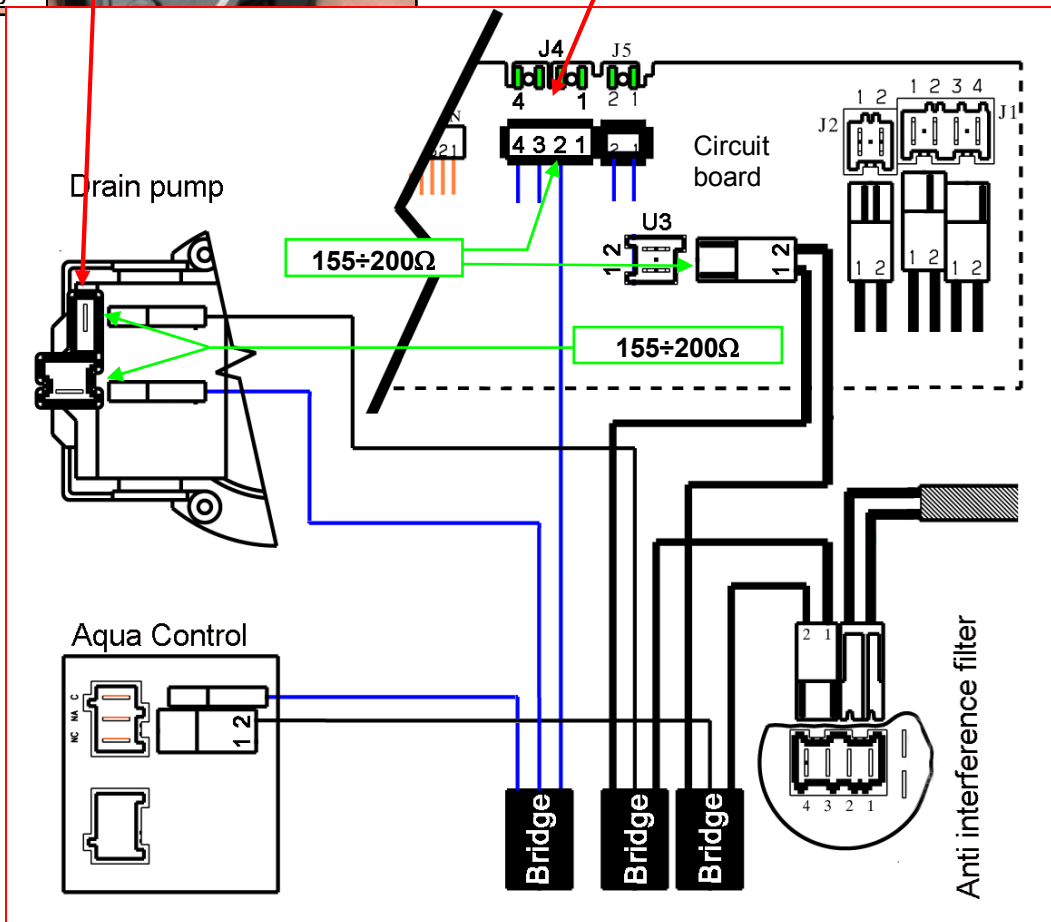
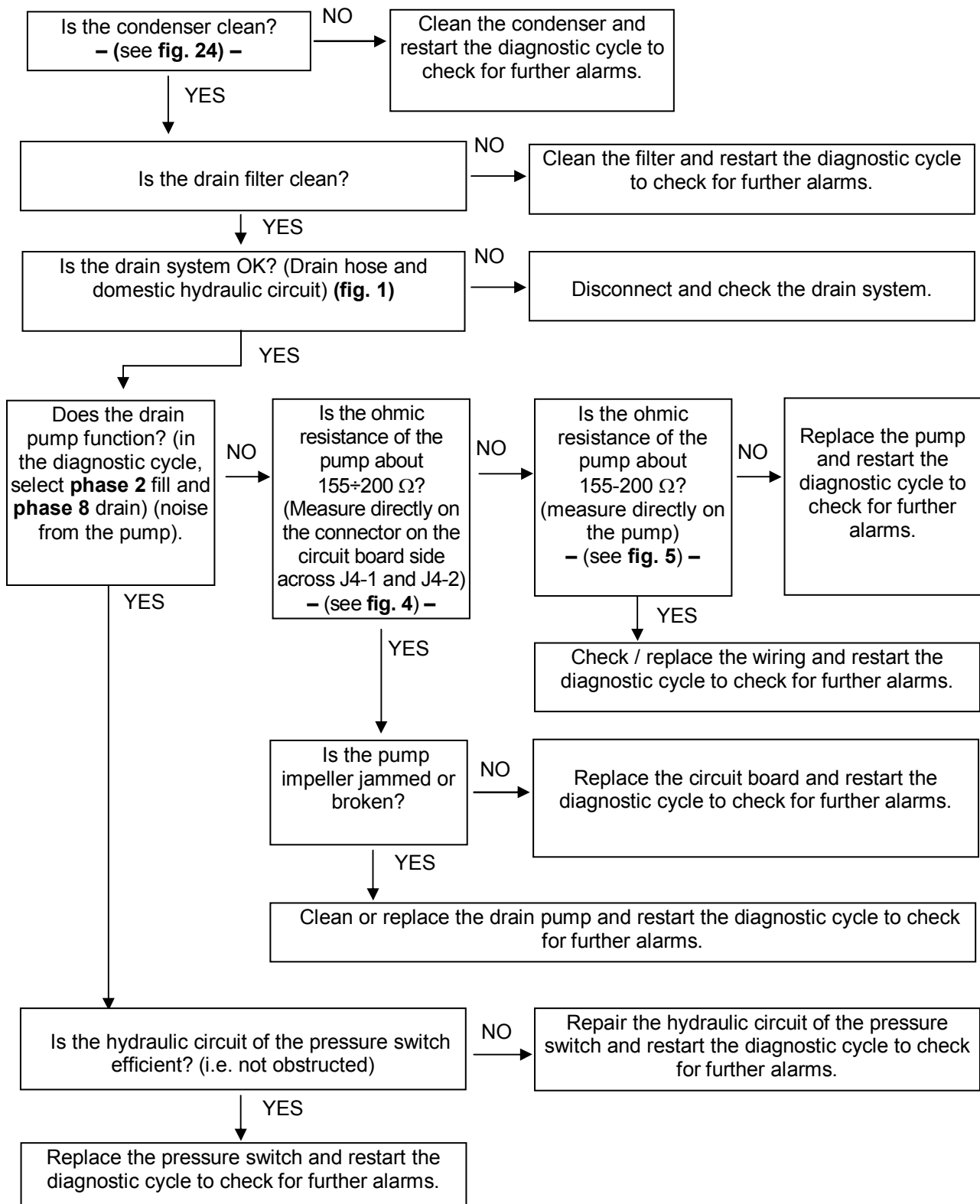


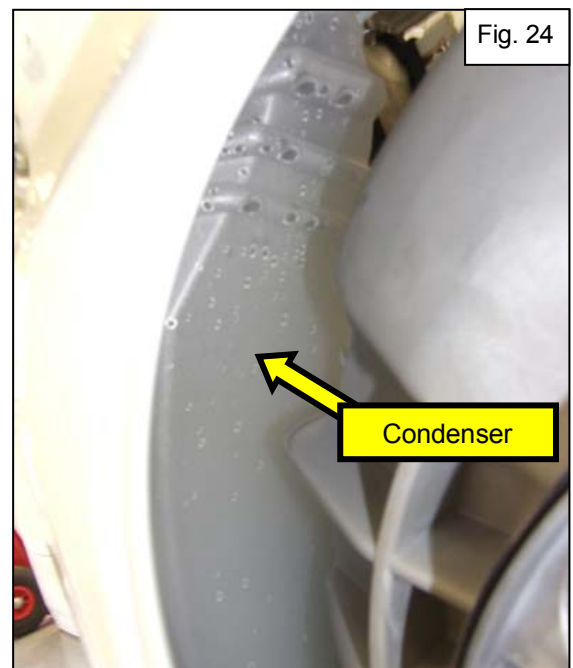
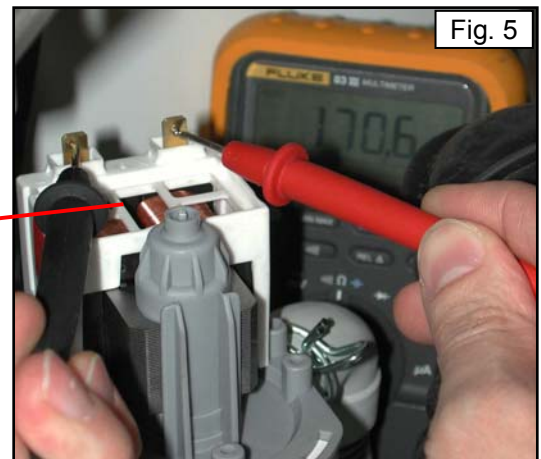
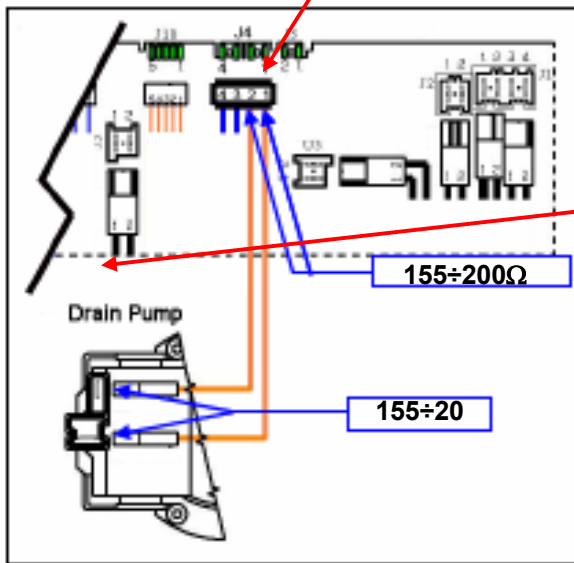
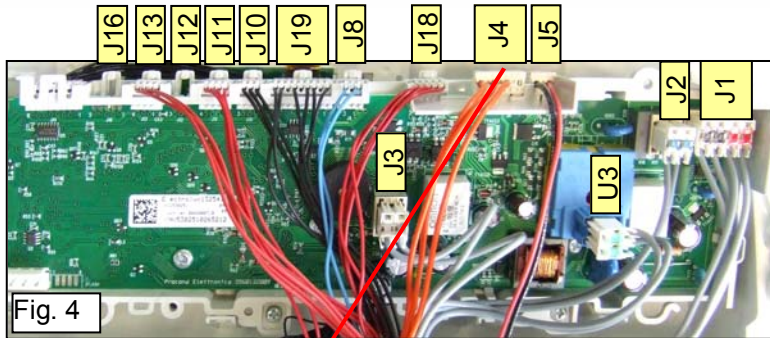
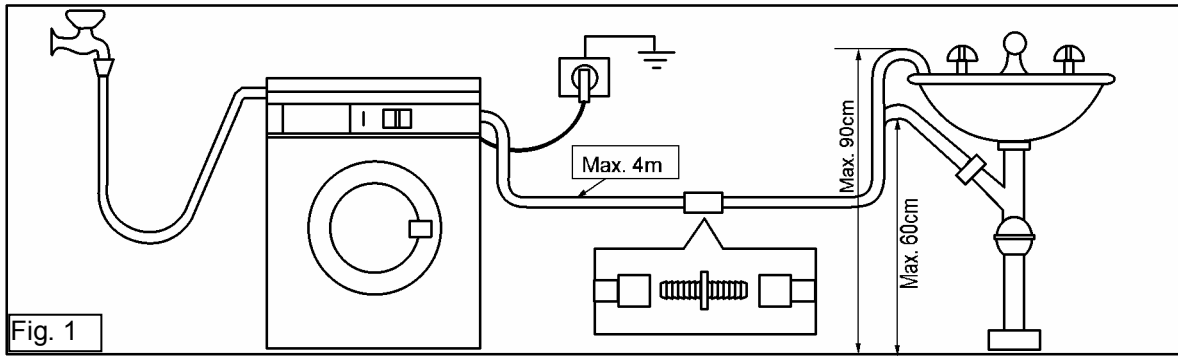
Fig. 5



Checks to perform: Check that all the connectors are inserted correctly

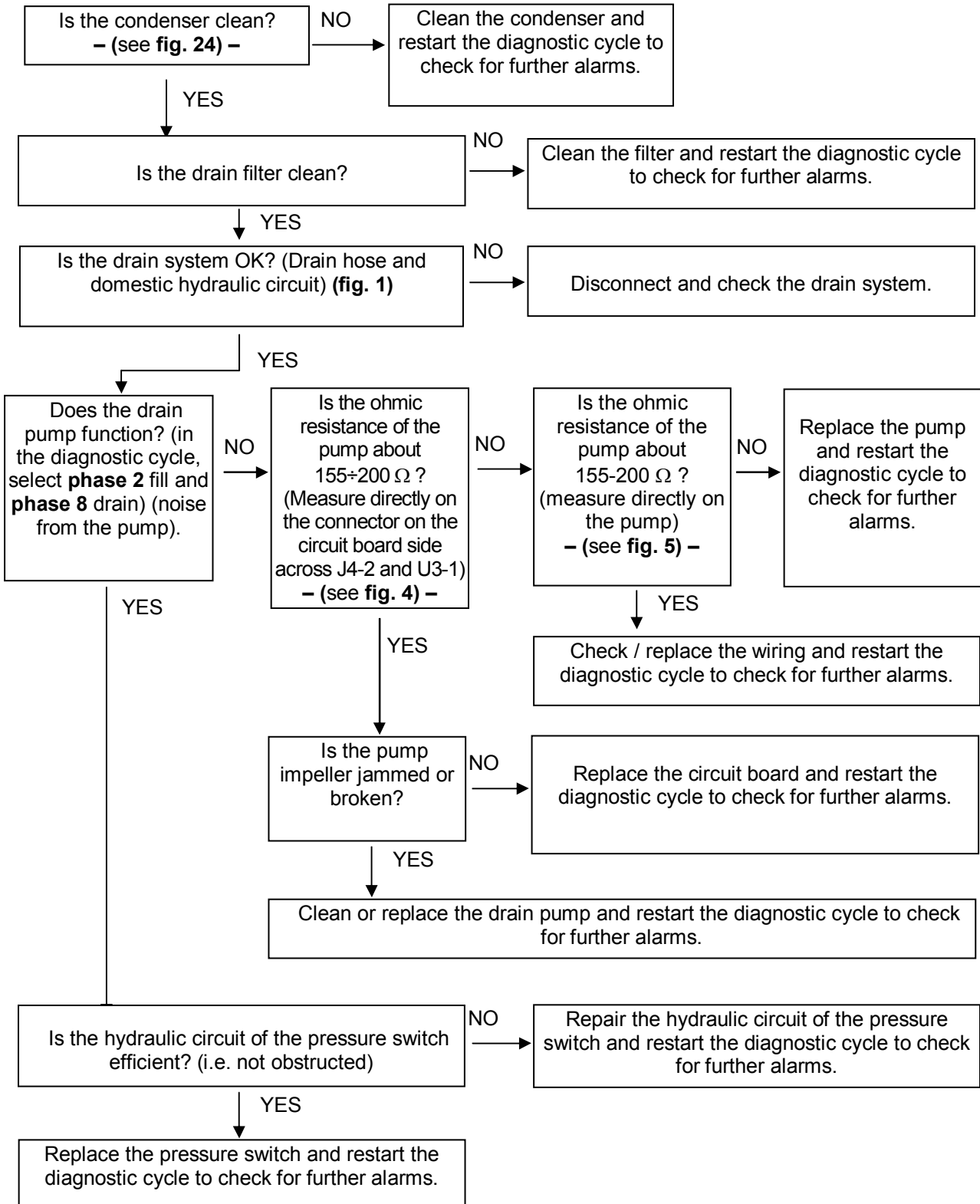


*If there are traces of burning on the circuit board, refer to page 119-120*



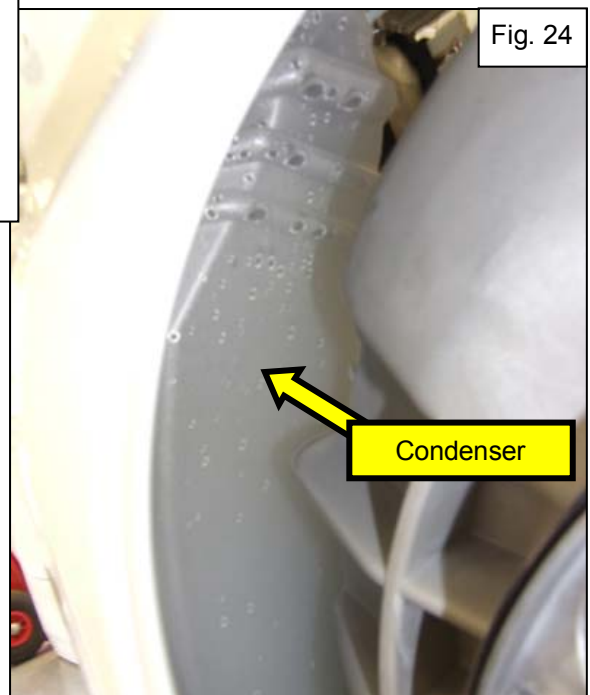
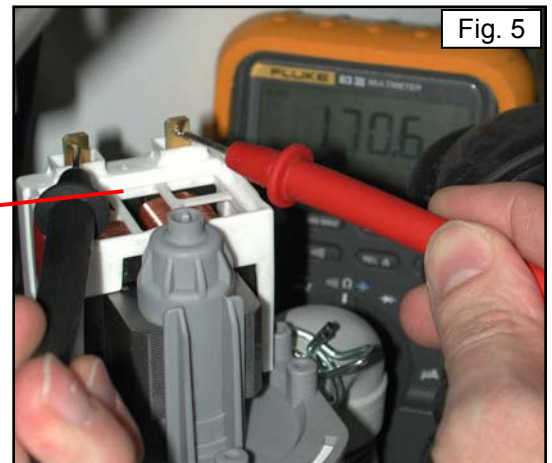
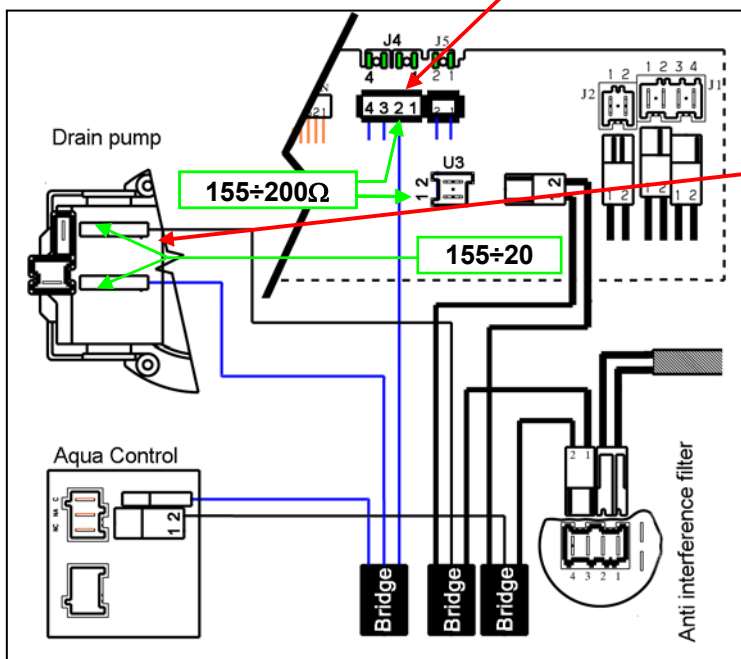
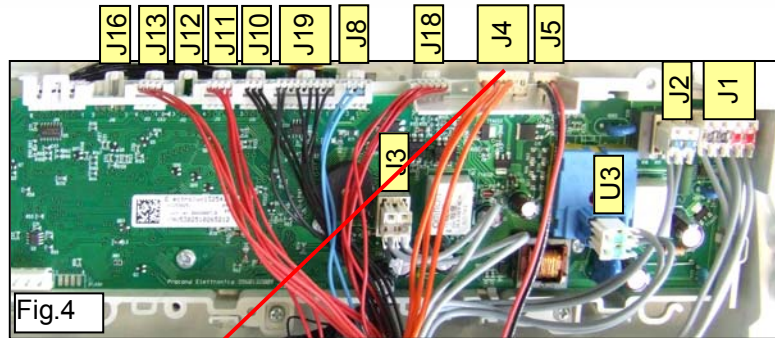
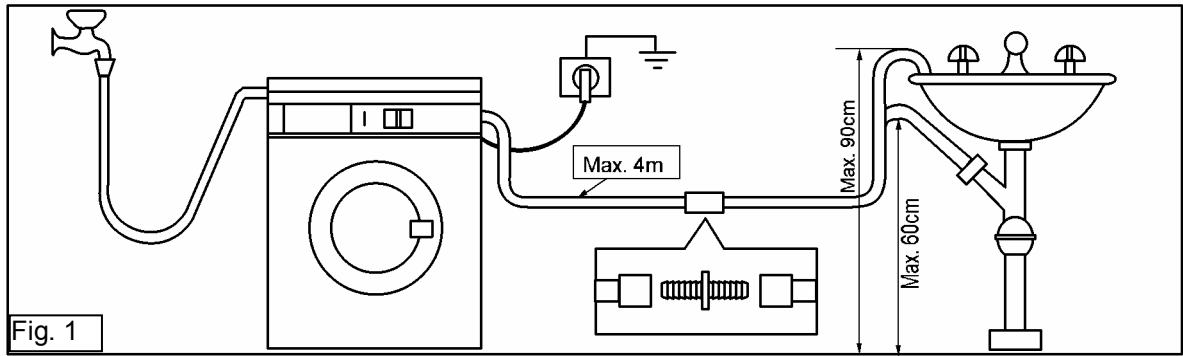
<b>E22</b>	<b>E22: Difficulty in draining water during drying phase (with Aqua Control device)</b>	<b>E22</b>
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*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to page 119-120*

# E22 (with Aqua Control device)



*Checks to perform: Check that all the connectors are inserted correctly*

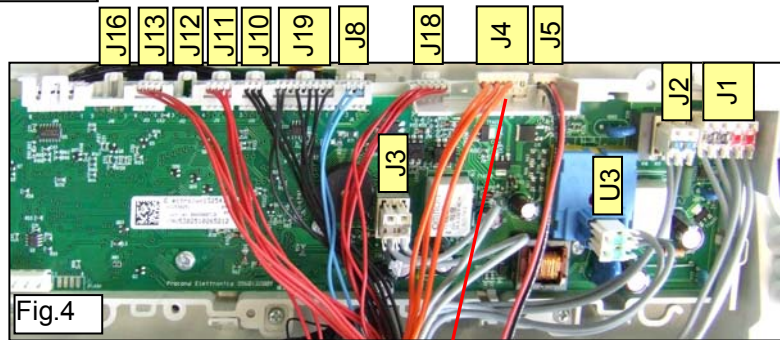
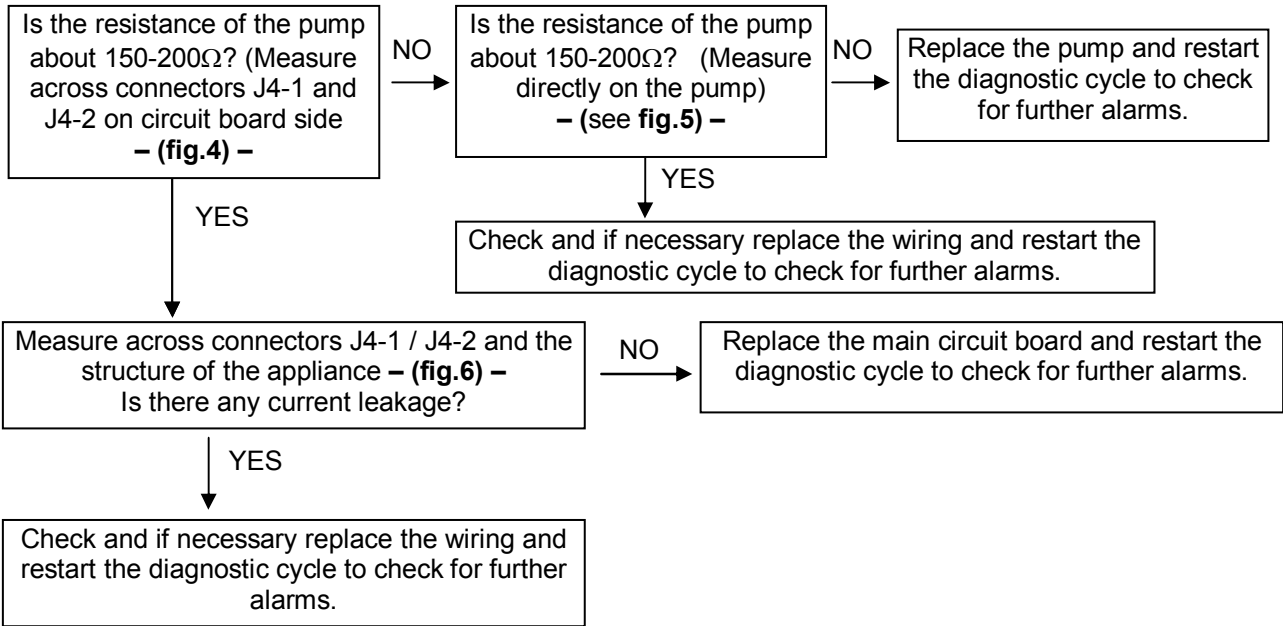


Fig.4

*If there are traces of burning on the circuit board, refer to pages 119-120*



Fig. 6

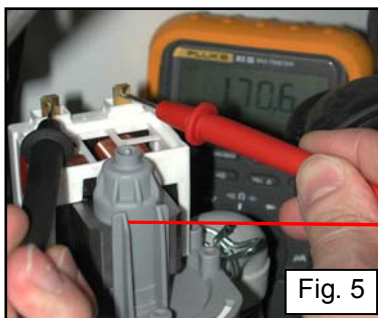
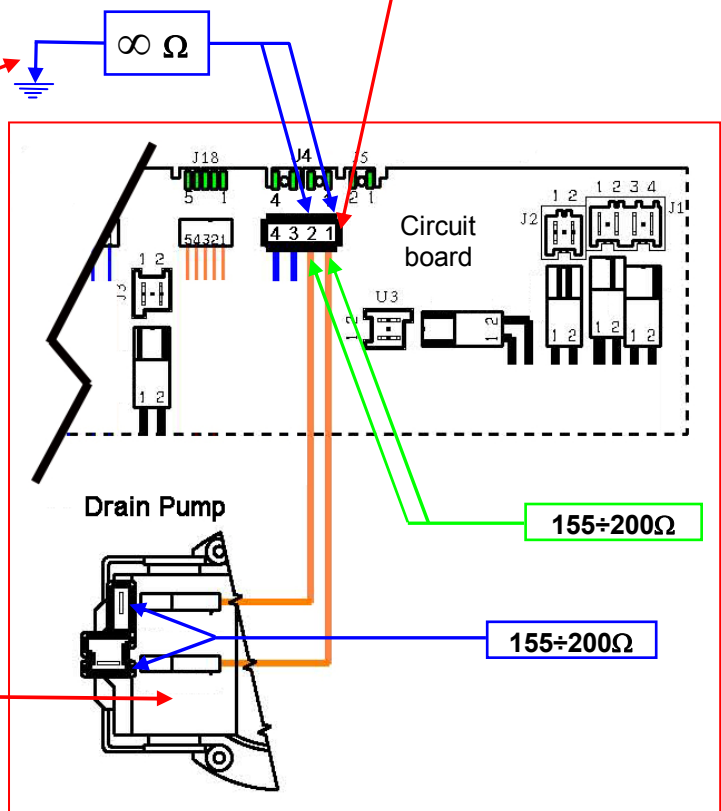


Fig. 5



E23

**E23: Malfunction of the component (triac) that controls the drain pump (with Aqua Control device)**

E23

Checks to perform: Check that all the connectors are inserted correctly

Is the resistance of the pump about 150-200Ω? (Measure across connectors J4-2 and U3-1 on circuit board side - (fig. 4) -

NO

Is the resistance of the pump about 150-200Ω? (Measure directly on the pump) - (see fig. 5) -

NO

Replace the pump and restart the diagnostic cycle to check for further alarms.

YES

YES

Check and if necessary replace the wiring and restart the diagnostic cycle to check for further alarms.

Measure across connectors J4-2 / U3-1 and the structure of the appliance - (fig. 6) - Is there any current leakage?

NO

Replace the main circuit board and restart the diagnostic cycle to check for further alarms.

SI

Check and if necessary replace the wiring and restart the diagnostic cycle to check for further alarms.

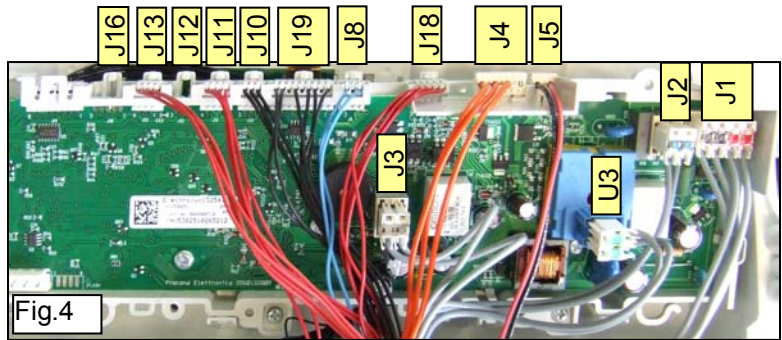


Fig.4

If there are traces of burning on the circuit board, refer to pages 119-120

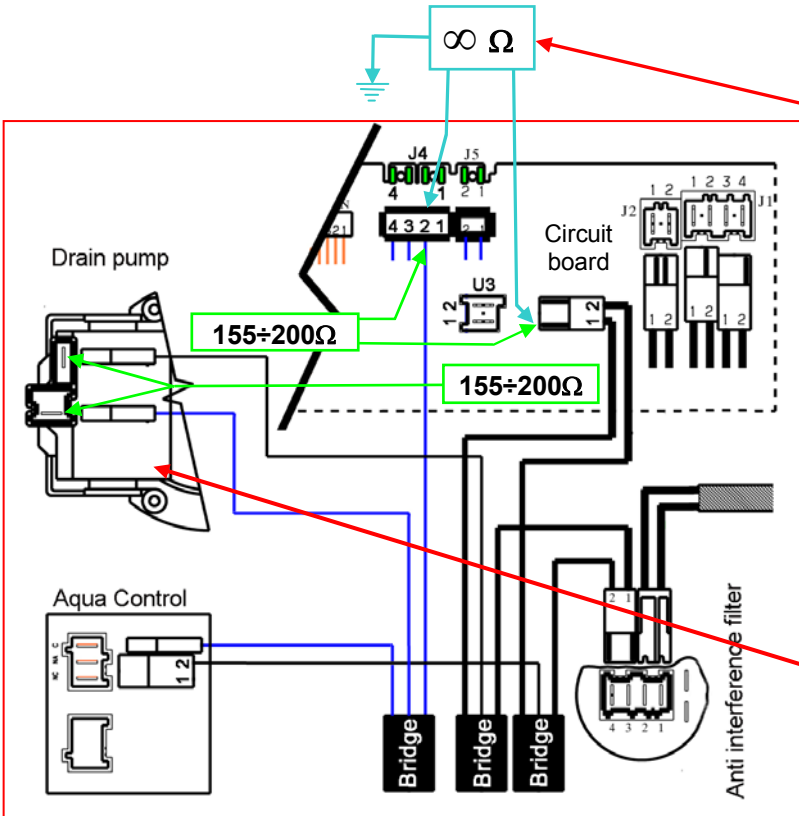


Fig. 6

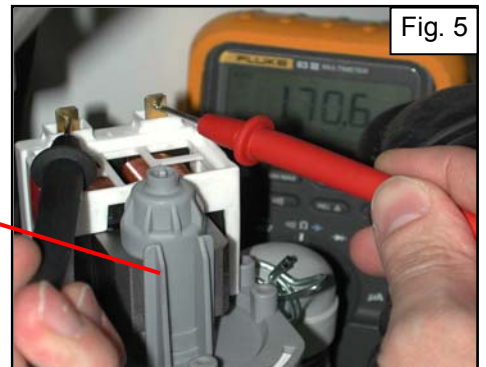


Fig. 5

<b>E24</b>	<b>E24: «Sensing» circuit of the component (triac) that controls the drain pump faulty</b>	<b>E24</b>
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Replace the circuit board and restart the diagnostic cycle to check for further alarms.

If there are traces of burning on the circuit board, refer to pages 119-120

<b>E31</b>	<b>E31: The analogic pressure switch is giving to the main board a signal outside the range</b>	<b>E31</b>
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*Checks to perform: Check that all the connectors are inserted correctly*

Measure a close circuit across J10-1, J10-2, J10-3 and the connector on analogic pressure switch (they are 3 independent connections (see fig. 7)).  
Is the cable between main board and analogic pressure switch OK and connected correctly on both sides?

NO →

Reconnect and/or replace the cable and restart the diagnostic cycle to check for further alarms.

YES ↓

Replace the analogic pressure switch and restart the diagnostic cycle to check for further alarms. Does the appliance display the alarm code again?

YES ↓

Replace the main circuit board and restart the diagnostic cycle to check for further alarms.

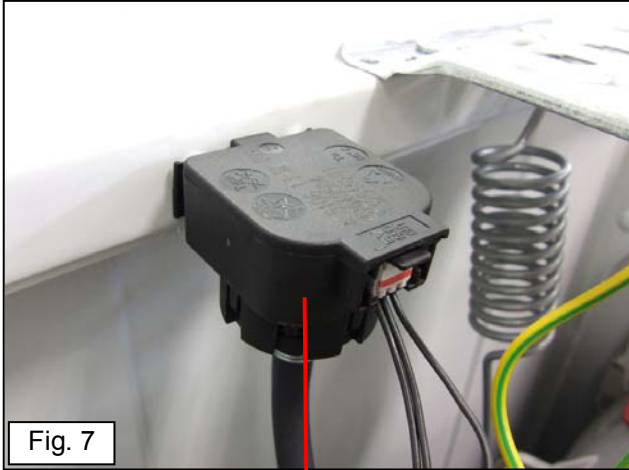
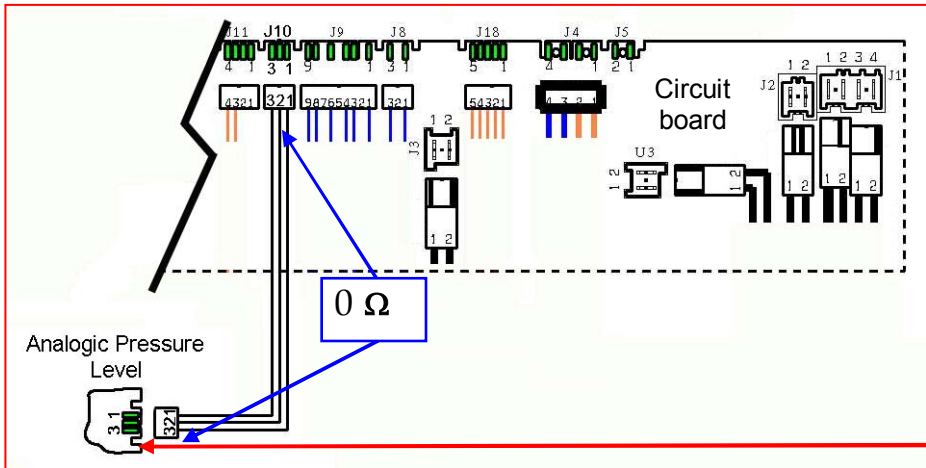


Fig. 7

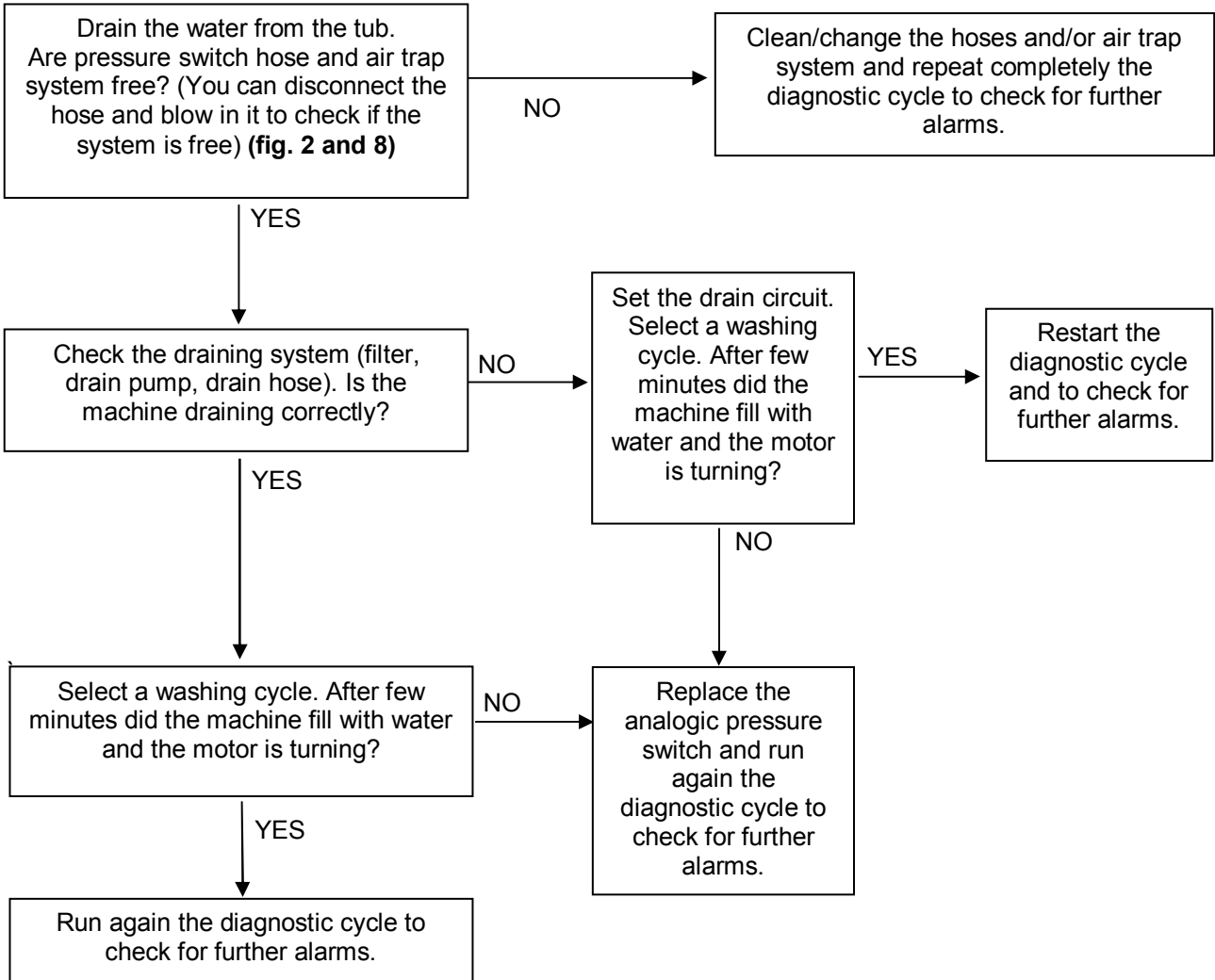


If there are burn marks on electronic board, see pages 119-120

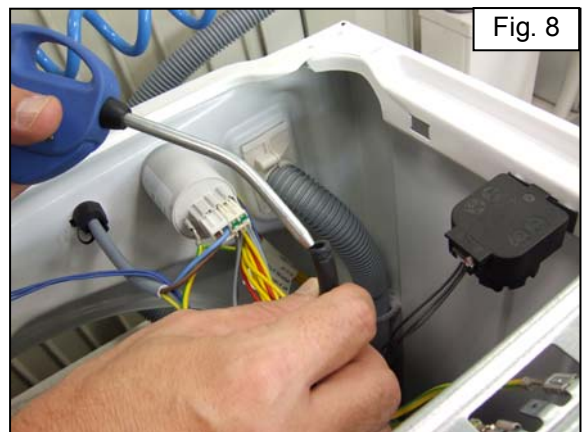


<b>E32</b>	<b>E32: The analogic pressure switch is giving an error during the calibration phase</b> (At the beginning of each cycle the appliance drain to empty the tub and create a 0 level to verify the calibration of the analogic pressure switch)	<b>E32</b>
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*Checks to perform: Check that all the connectors are inserted correctly*

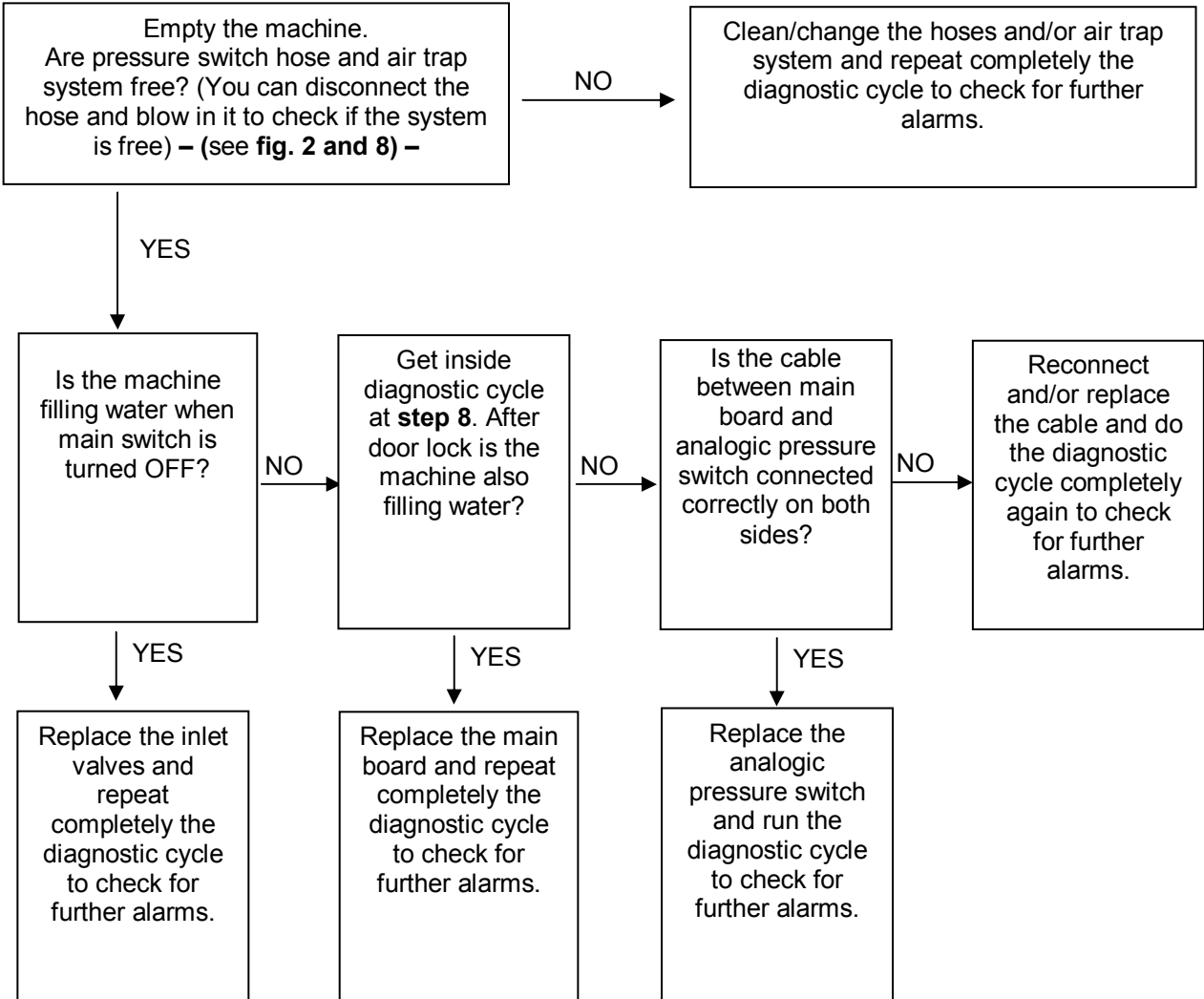


*If there are traces of burning on the circuit board, refer to pages 119-120*

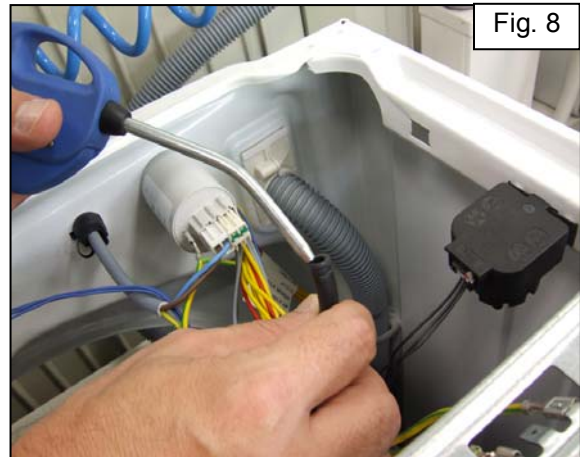


<b>E35</b>	<b>E35: Water level too high</b>	<b>E35</b>
	The electronic board measures a water level from analogic pressure switch higher then 300 mm for more then 15 seconds.	

*Checks to perform: Check that all the connectors are inserted correctly*

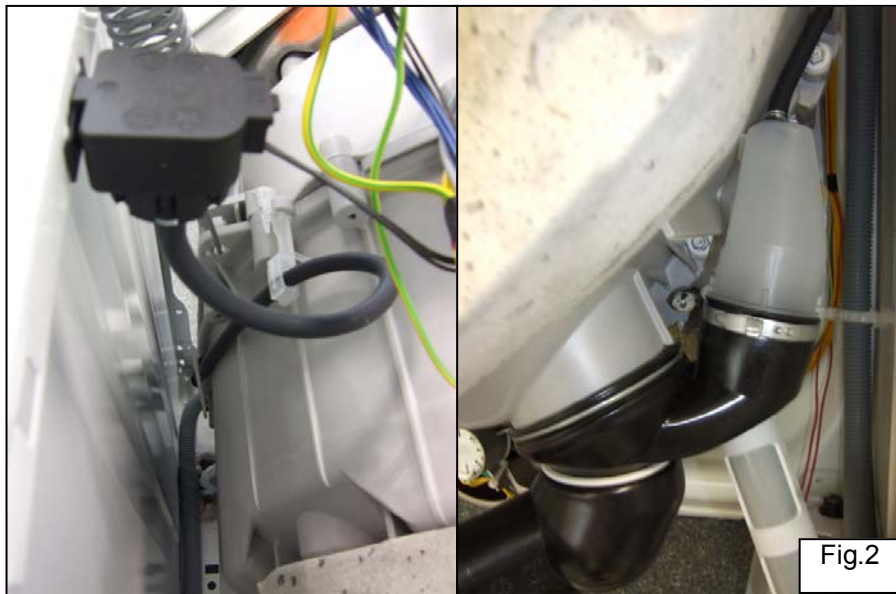
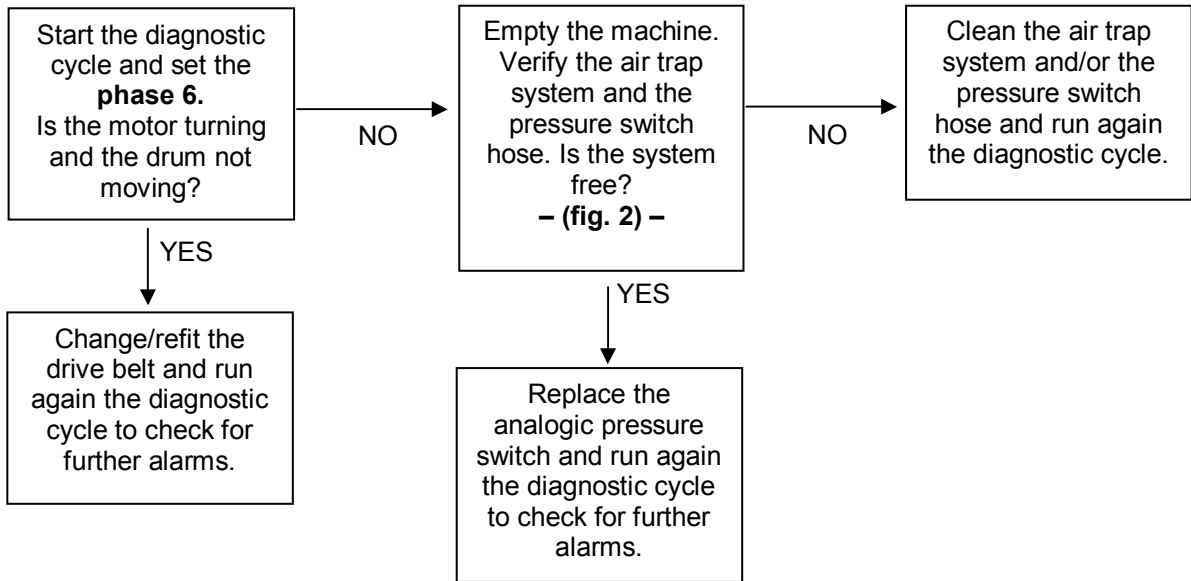


*If there are traces of burning on the circuit board, refer to pages 119-120*



<b>E38</b>	<b>E38: Pressure chamber blocked</b>	<b>E38</b>
	The analogic pressure switch is not able to measure any variation of the water level for at least 30-sec. during drum movement.	

*Checks to perform: Check that all the connectors are inserted correctly*



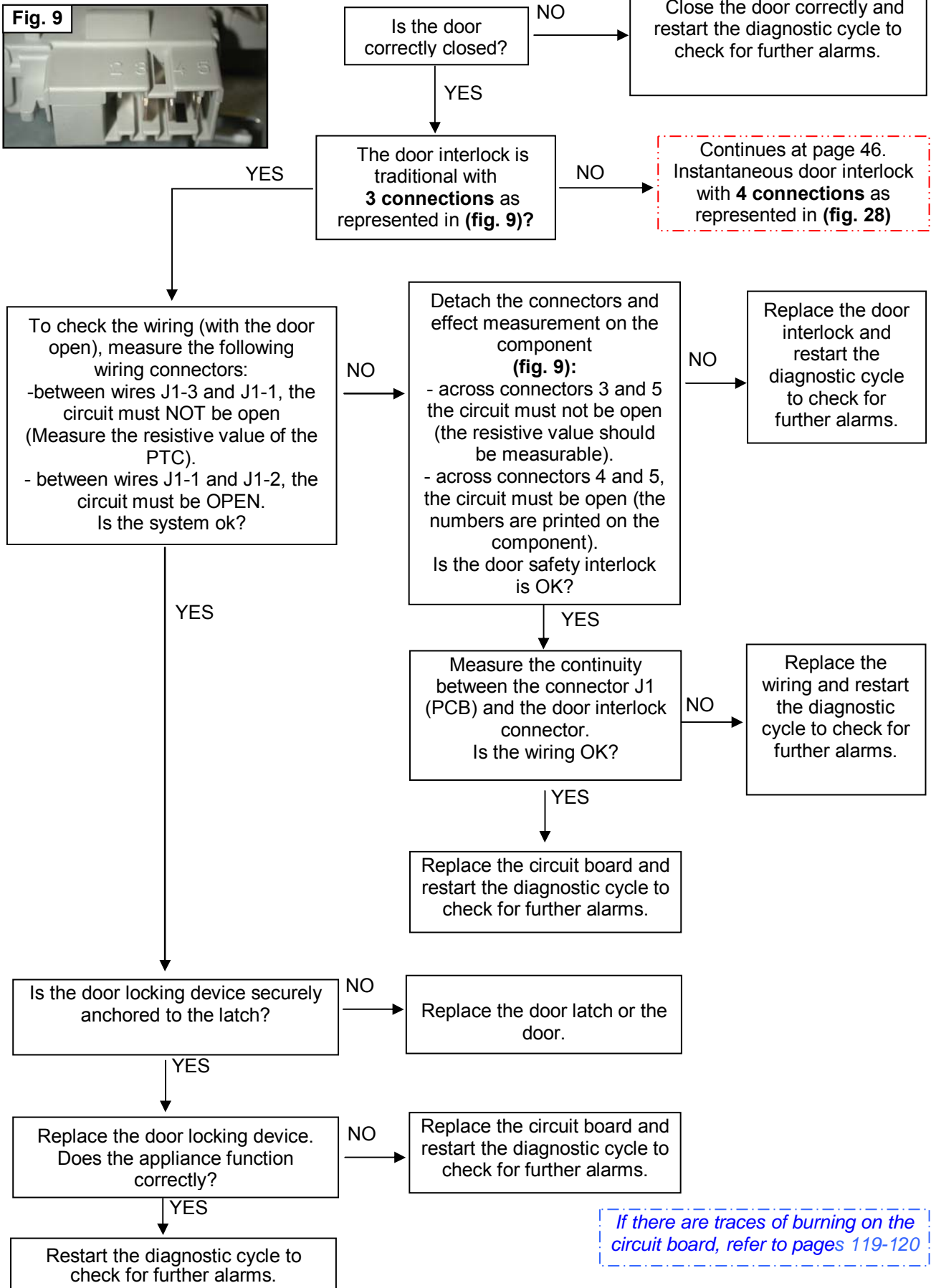
<b>E3A</b>	<b>E3A: Problems with “Sensing” circuit of the heating element relay</b>	<b>E3A</b>

*Checks to perform: Check that all the connectors are inserted correctly*

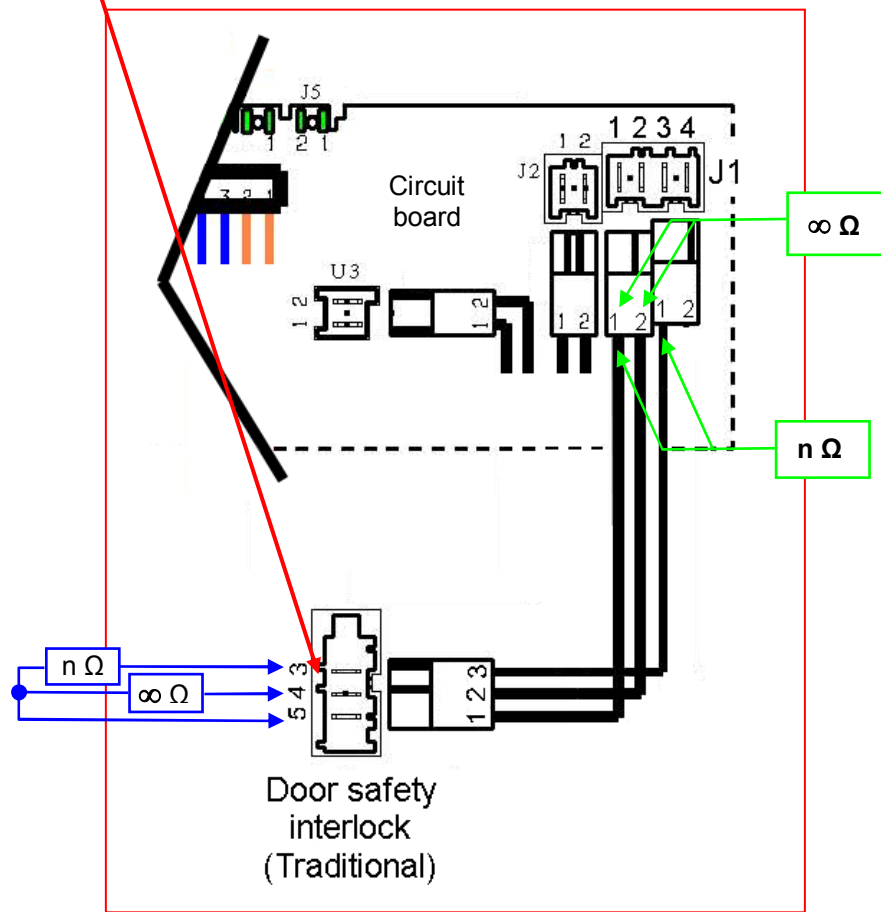
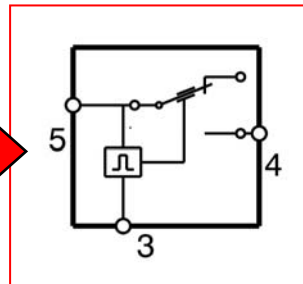
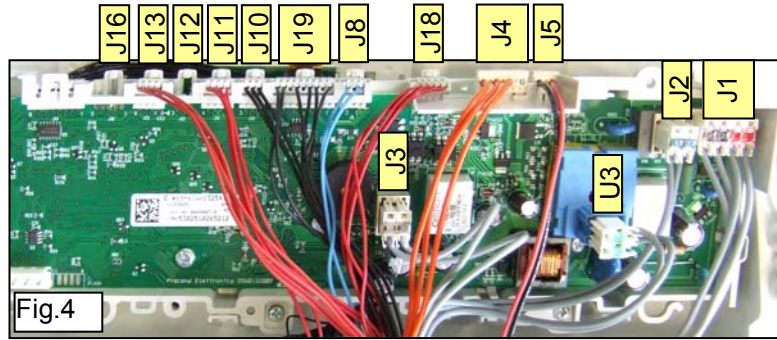
Replace the circuit board and run the diagnostic cycle again to check for further alarms.

<b>E41</b>	<b>E41: Door open (3-contact device)</b>	<b>E41</b>
	Maximum time exceeded (PTC = 15 seconds)	

Checks to perform: Check that all the connectors are inserted correctly



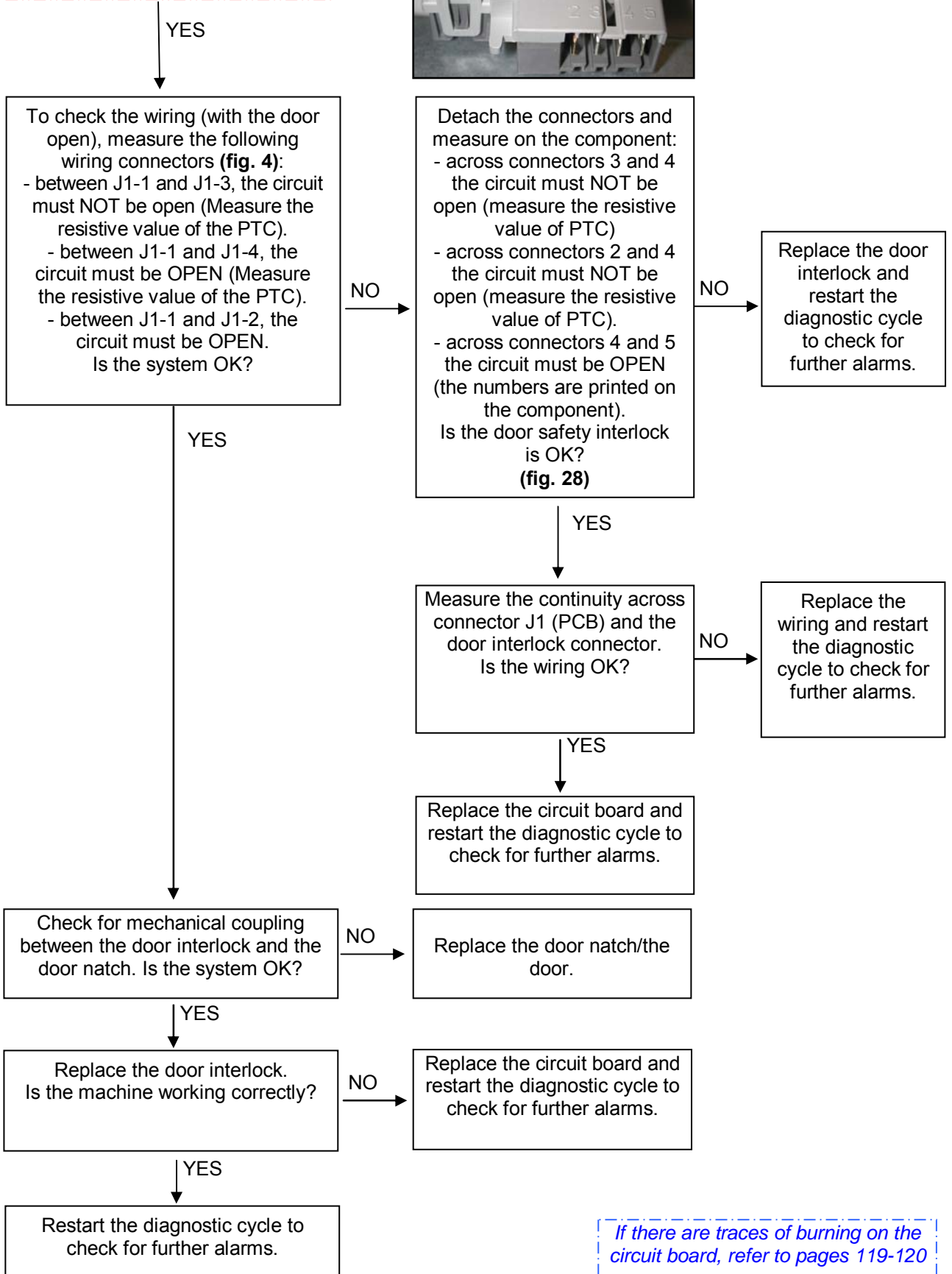
**E41 (3-contact device)**



*If there are traces of burning on the circuit board, refer to pages 119-120*

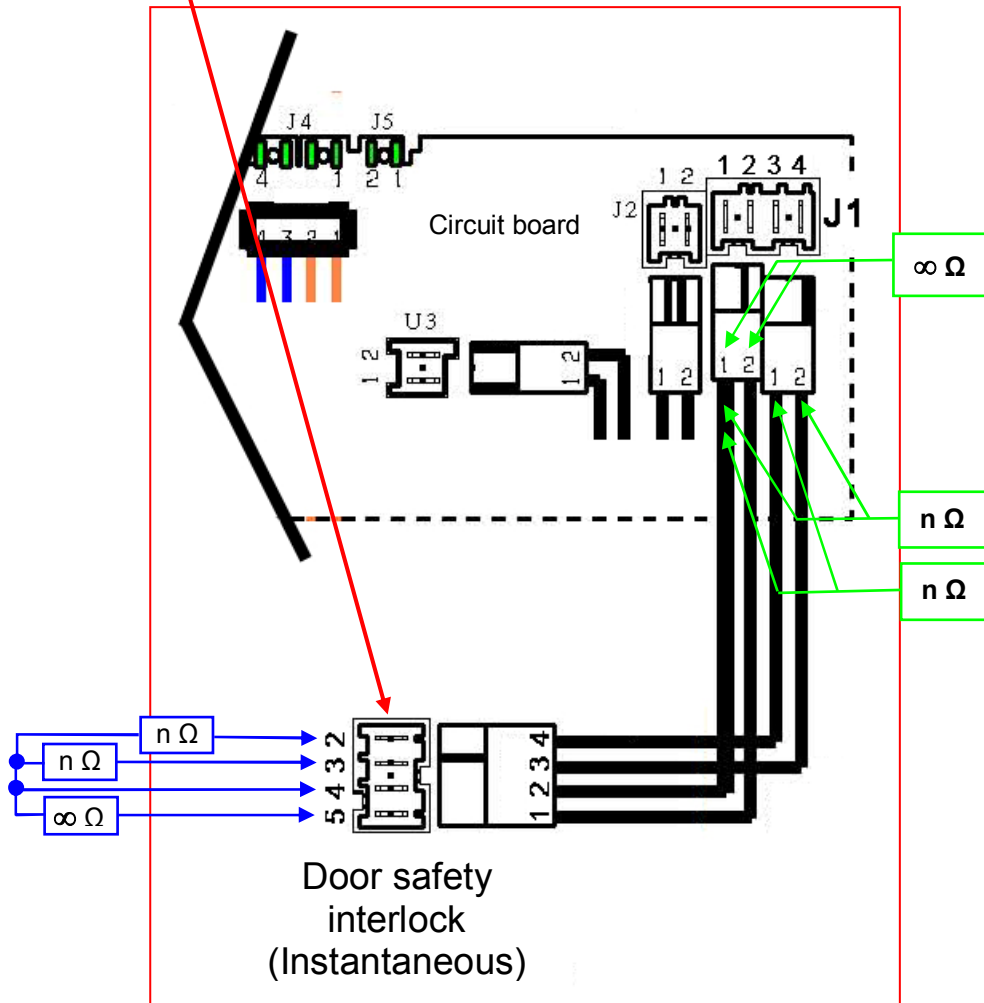
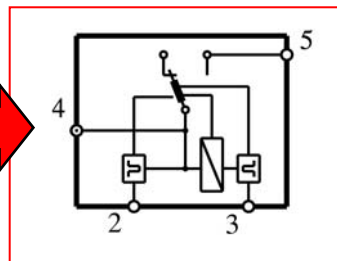
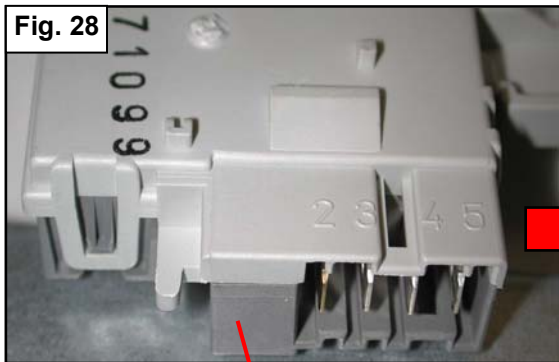
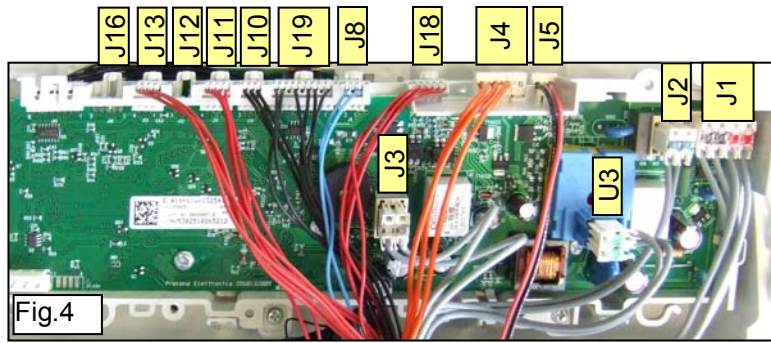
<b>E41</b>	<b>E41: Door open (4-contact device)</b>	<b>E41</b>
	Maximum time exceeded (5 pulses for instantaneous)	

Instantaneous door interlock with **4 connections.**  
- (fig. 28) -



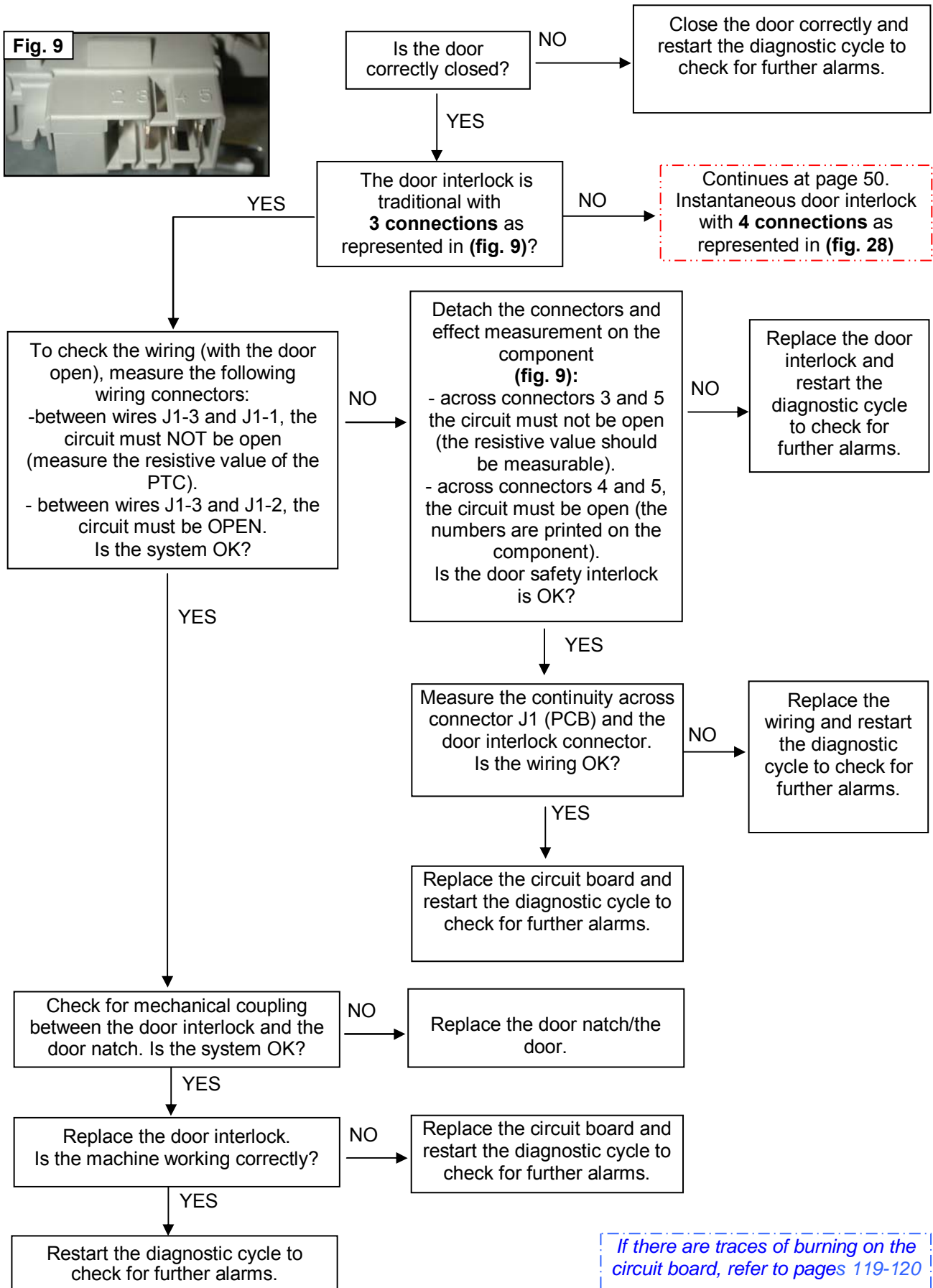
*If there are traces of burning on the circuit board, refer to pages 119-120*

E41 (4-contact device)



*If there are traces of burning on the circuit board, refer to pages 119-120*

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*



**E42 (3-contact device)**

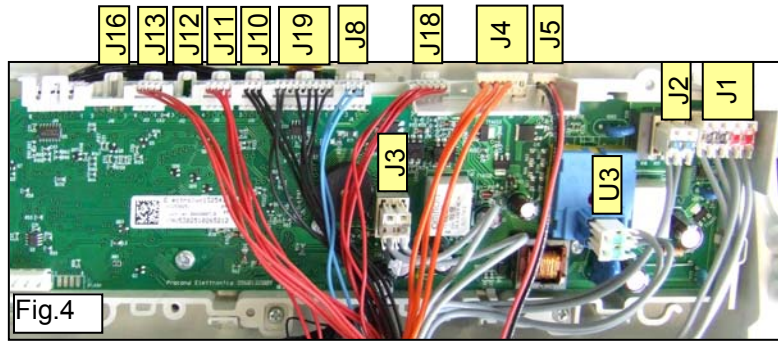
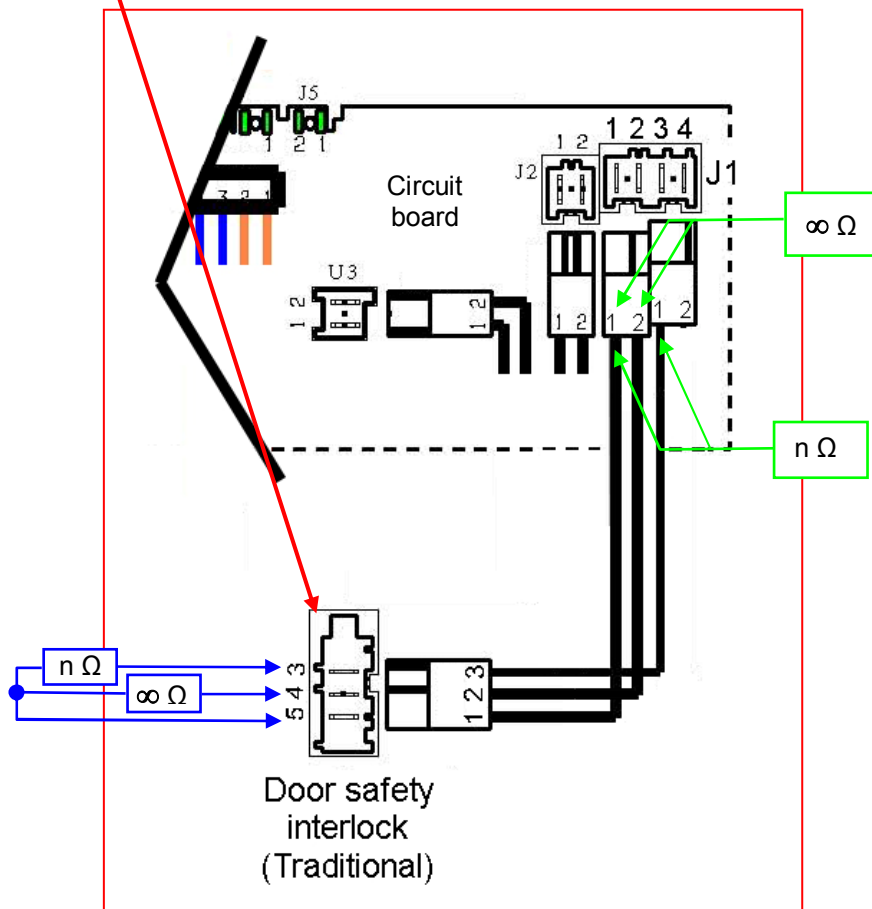
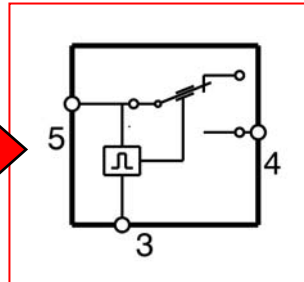


Fig.4

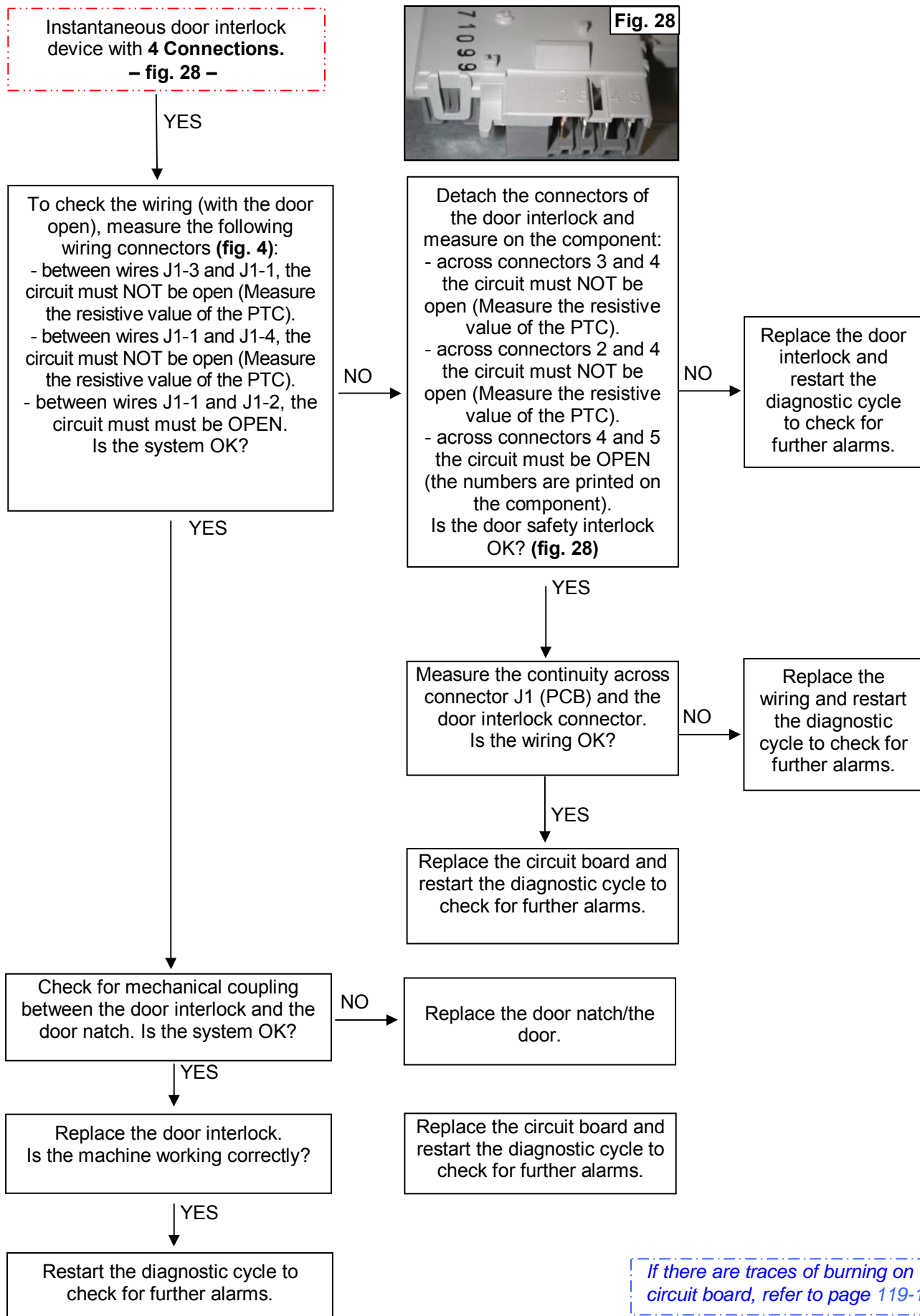


Fig. 9



*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E42</b>	<b>E42: Problems with door aperture (4- contact device)</b>	<b>E42</b>
	Maximum time exceeded (5 pulses for instantaneous)	



E42 (4-contact device)

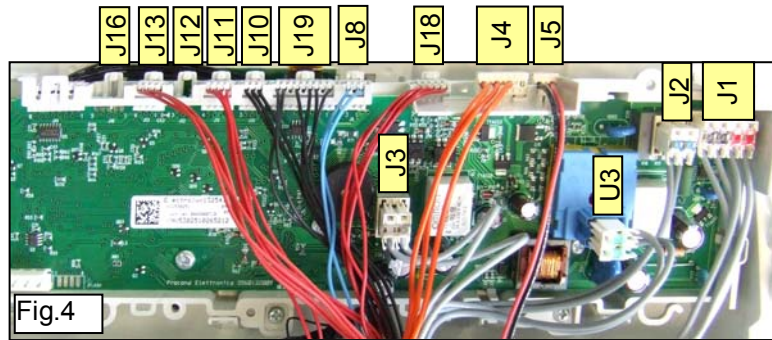


Fig.4

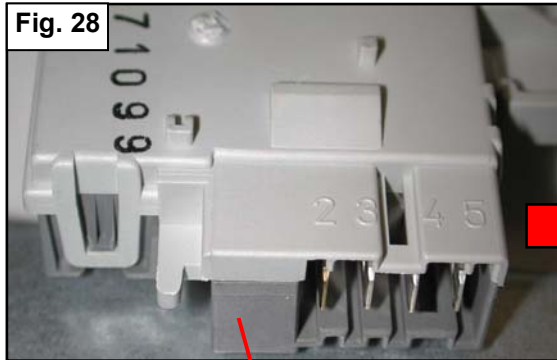
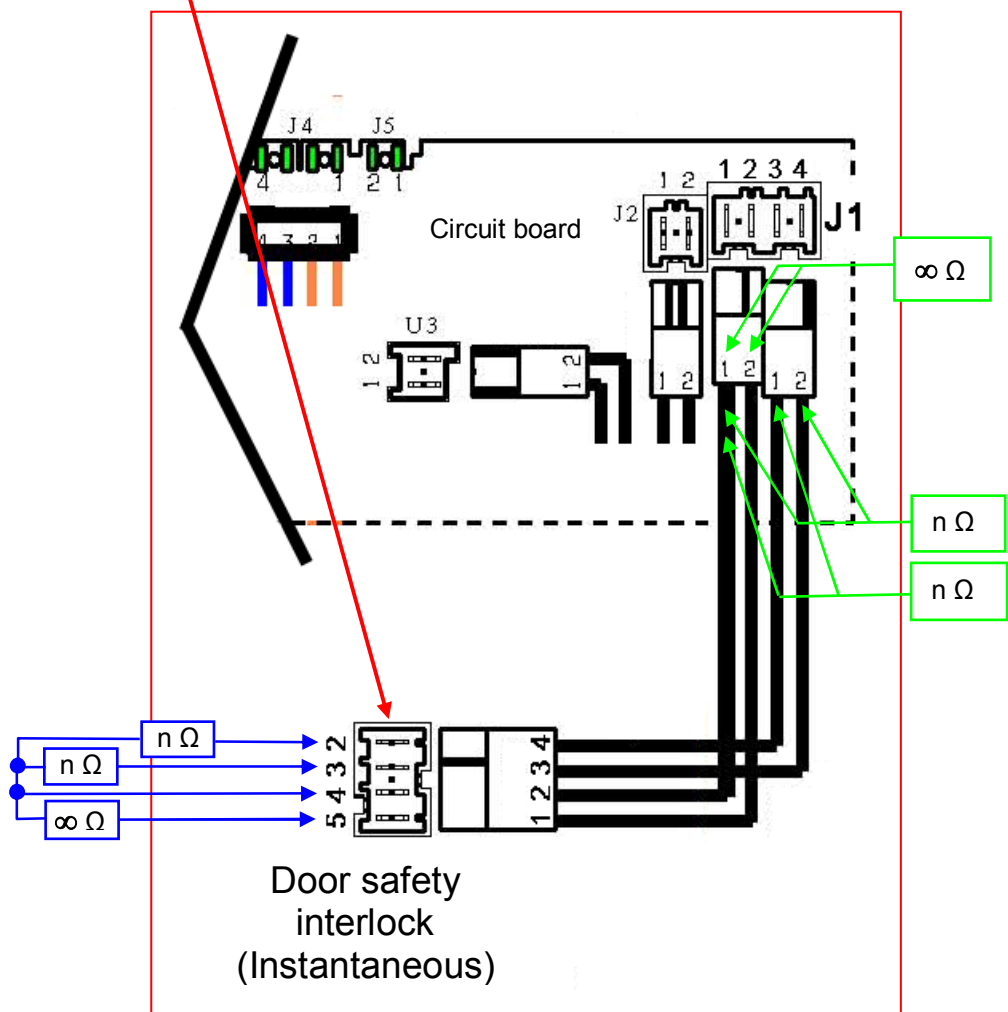
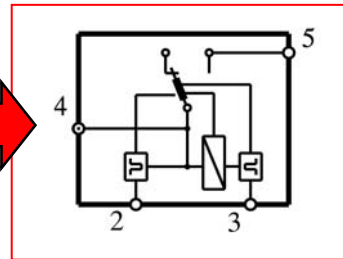


Fig. 28



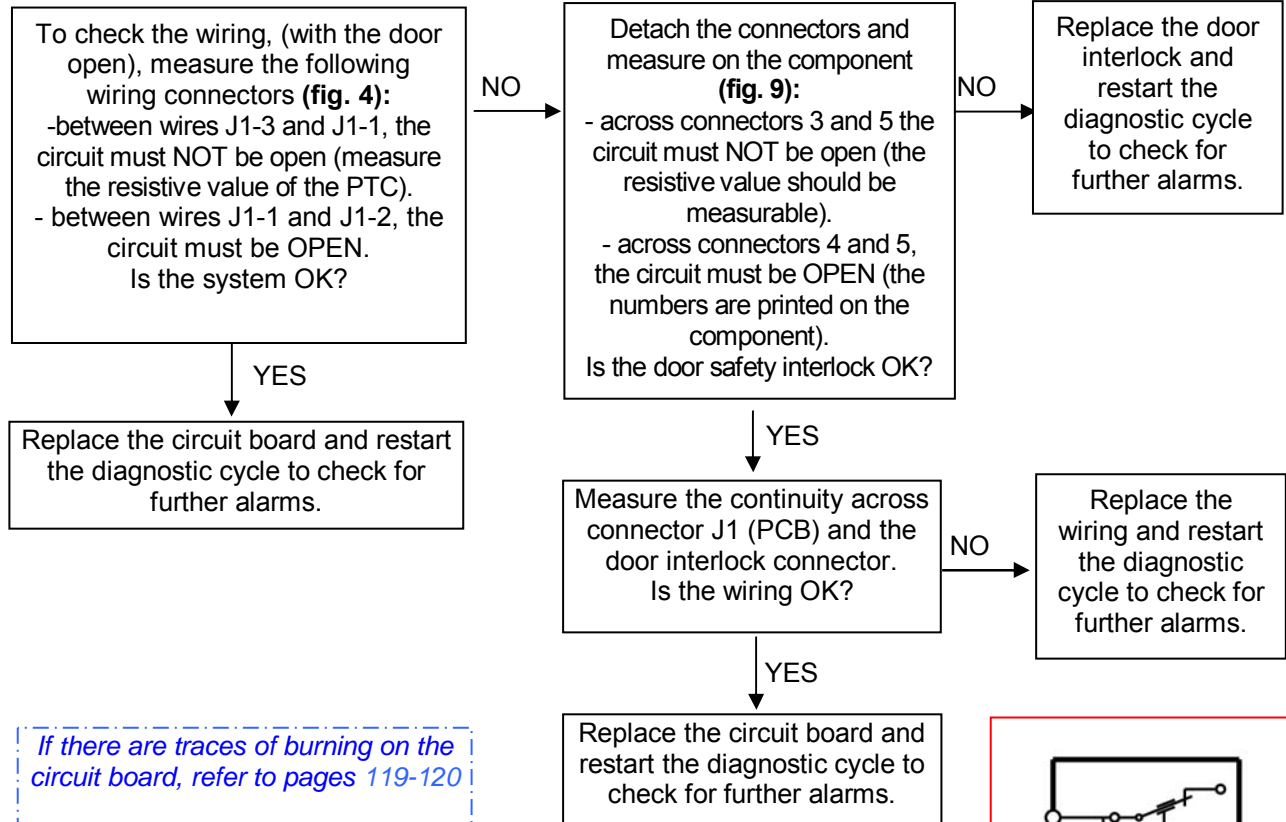
*If there are traces of burning on the circuit board, refer to pages 119-120*

E43

### E43: Problems with the component (triac) which actions the door interlock (3-contact device)

E43

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

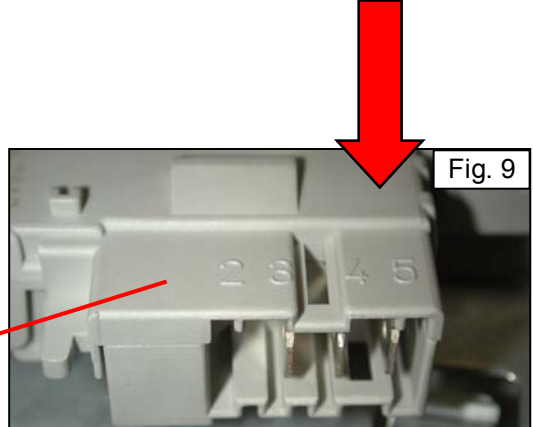
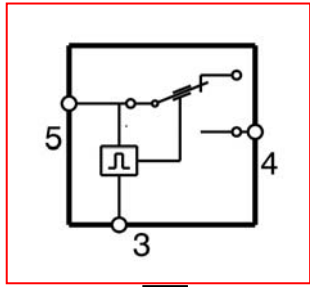


Fig. 9

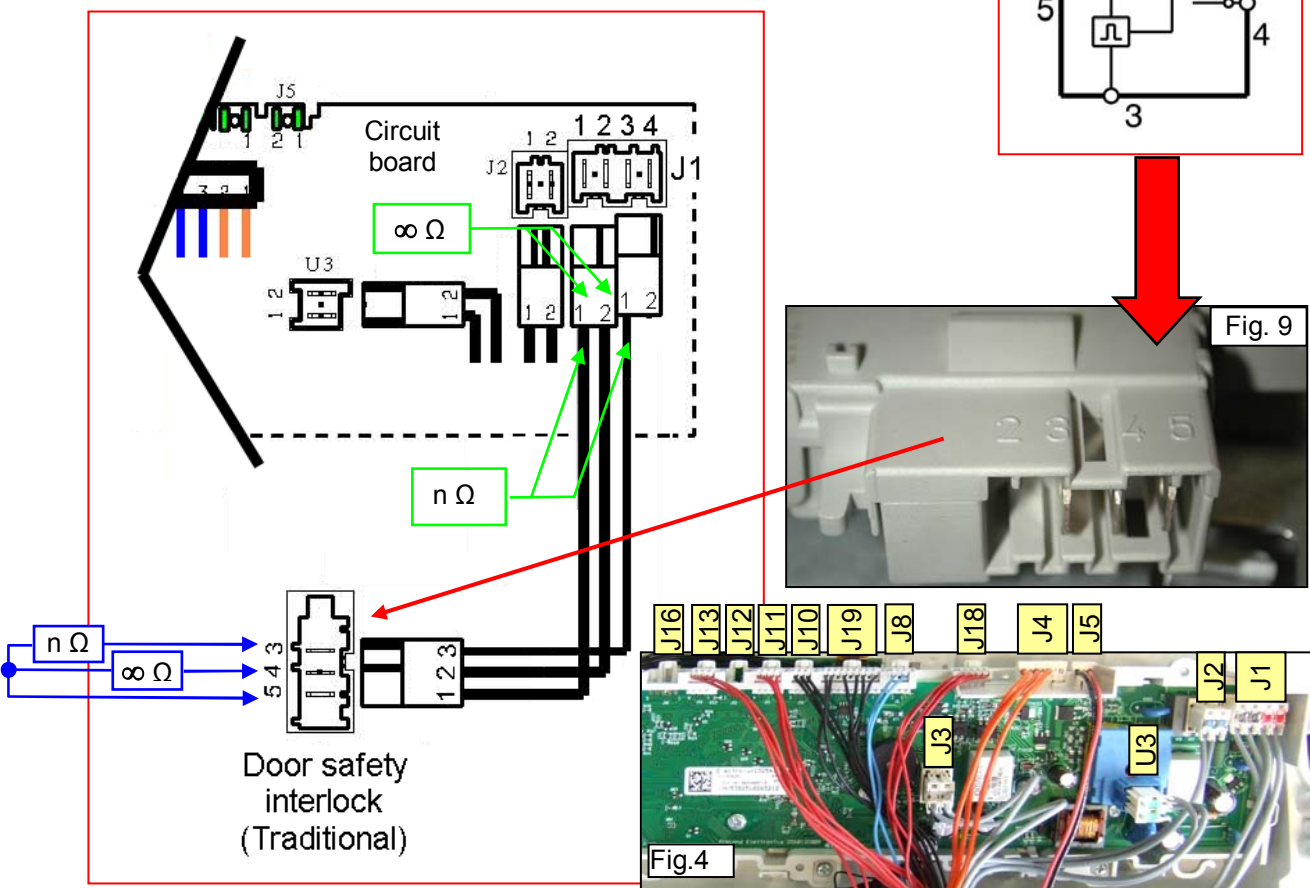
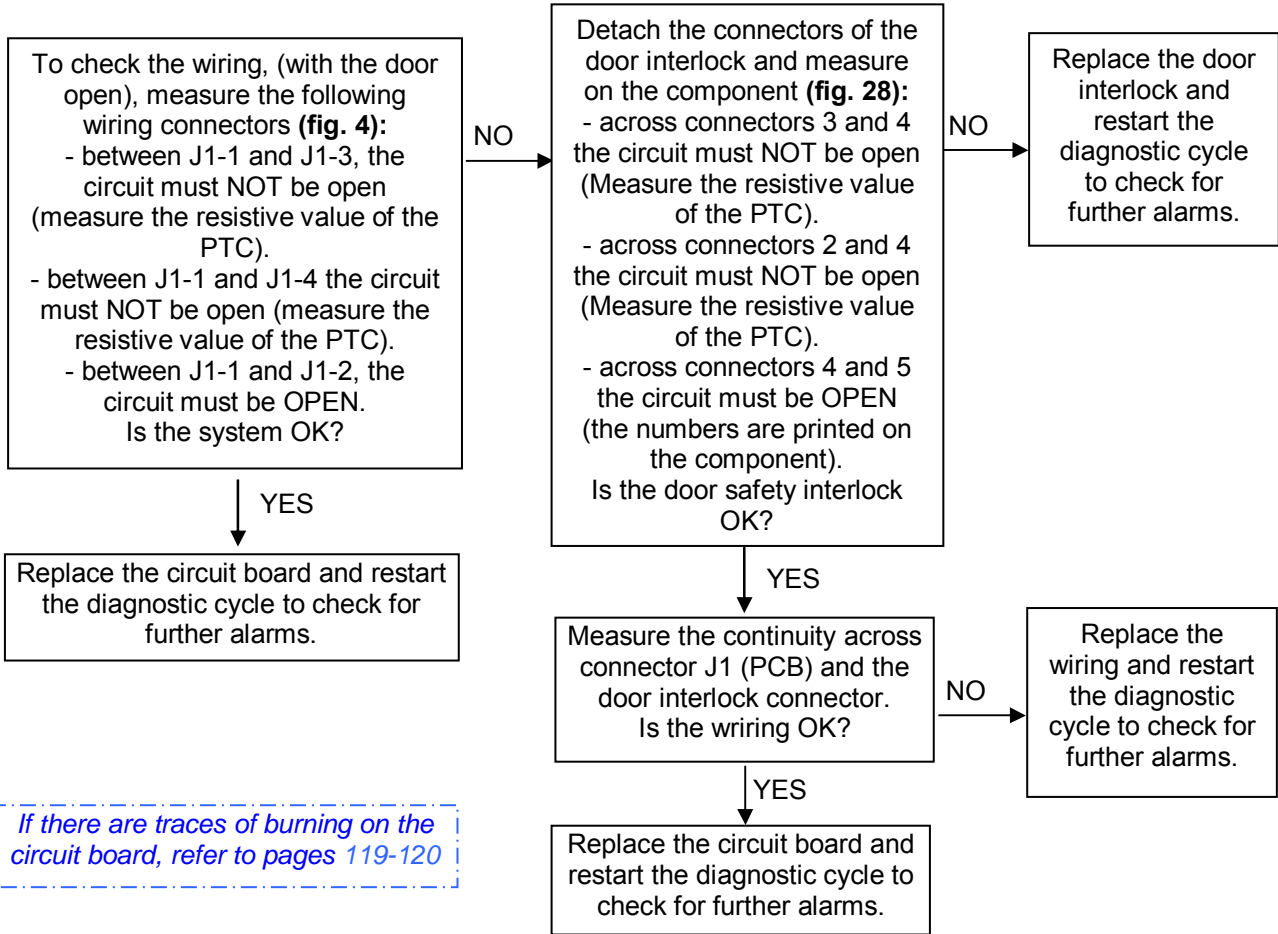


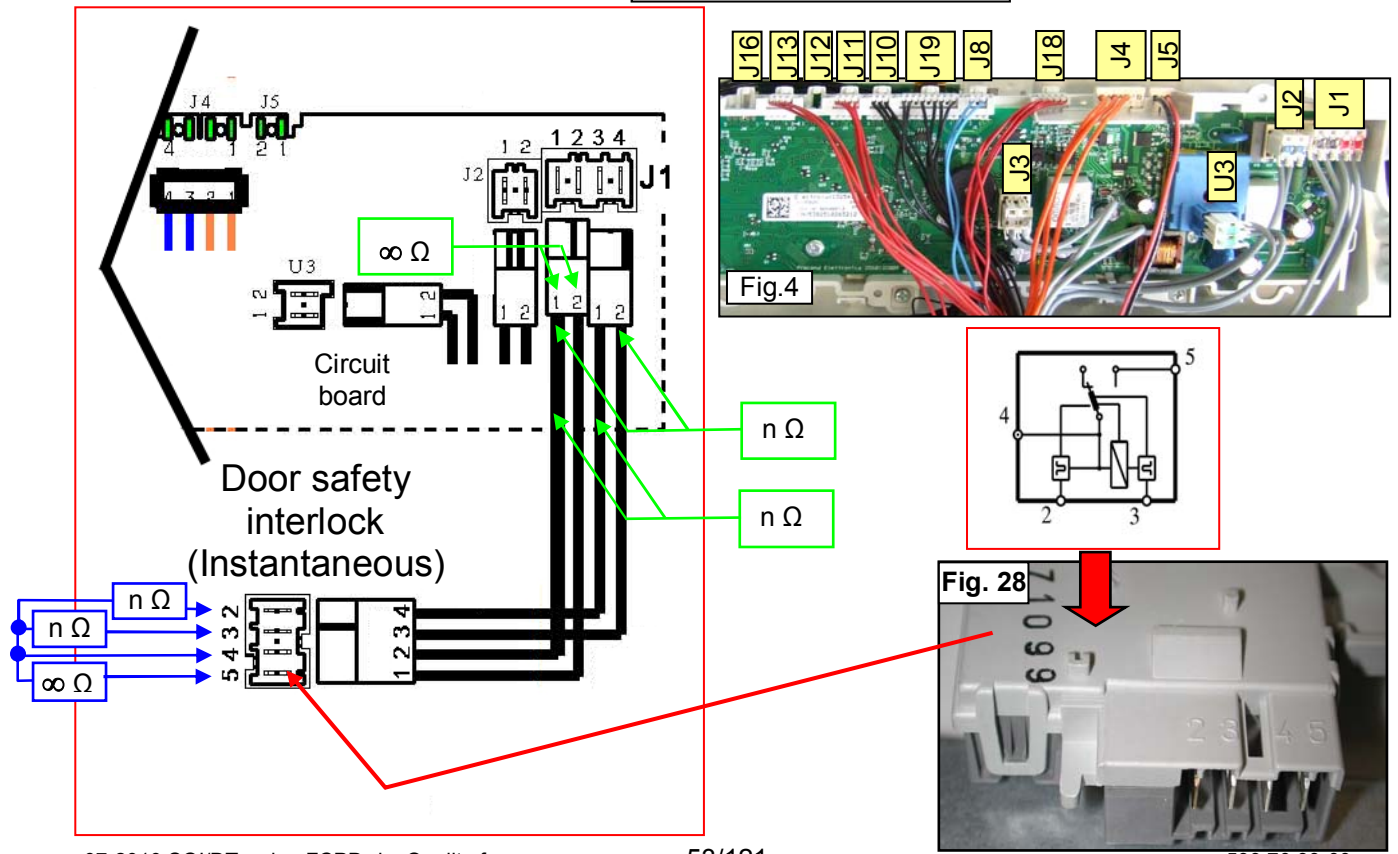
Fig. 4

<b>E43</b>	<b>E43: Problems with the component (triac) which actions the door interlock (4-contact device)</b>	<b>E43</b>
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*Checks to perform: Check that all the connectors are inserted correctly*



If there are traces of burning on the circuit board, refer to pages 119-120



**E44**

**E44: Door closure «sensing» circuit faulty**

**E44**

*Checks to perform: Check that all the connectors are inserted correctly*

Replace the circuit board and restart the diagnostic cycle to check for further alarms.

*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E45</b>	<b>E45: Problems with the «sensing» circuit of the triac that actions the door interlock</b>	<b>E45</b>
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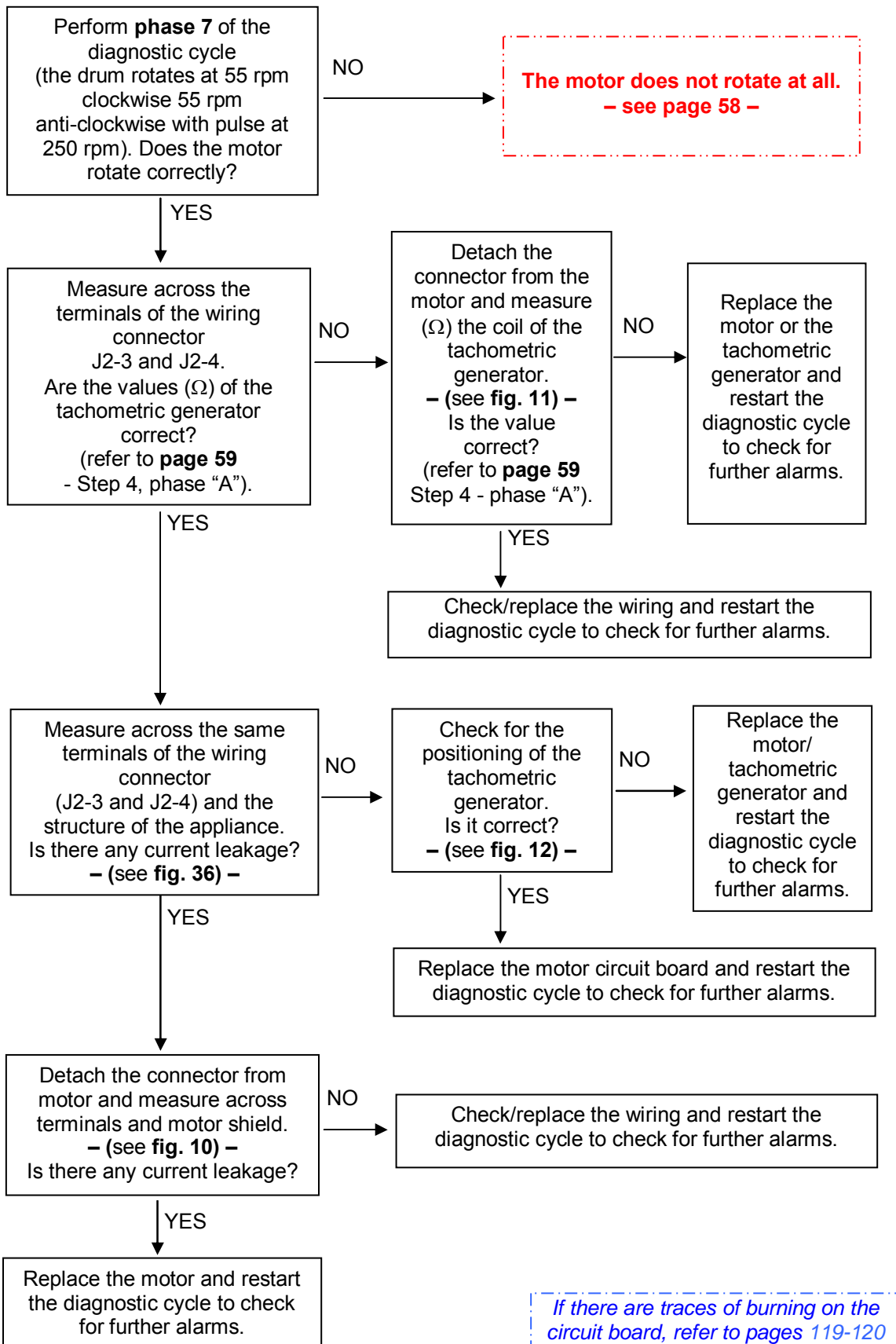
*Checks to perform: Check that all the connectors are inserted correctly*

Replace the circuit board and restart the diagnostic cycle to check for further alarms.

*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E52</b>	<b>E52: No signal from the motor tachometric generator (<i>first part</i>)</b>	<b>E52</b>
	Cycle blocked after 5 attempts during the cycle or immediately if detected at the start or during diagnostics.	

*Checks to perform: Check that all the connectors are inserted correctly*





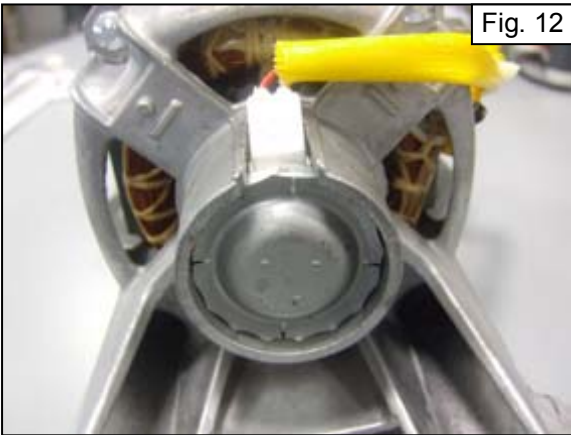


Fig. 12

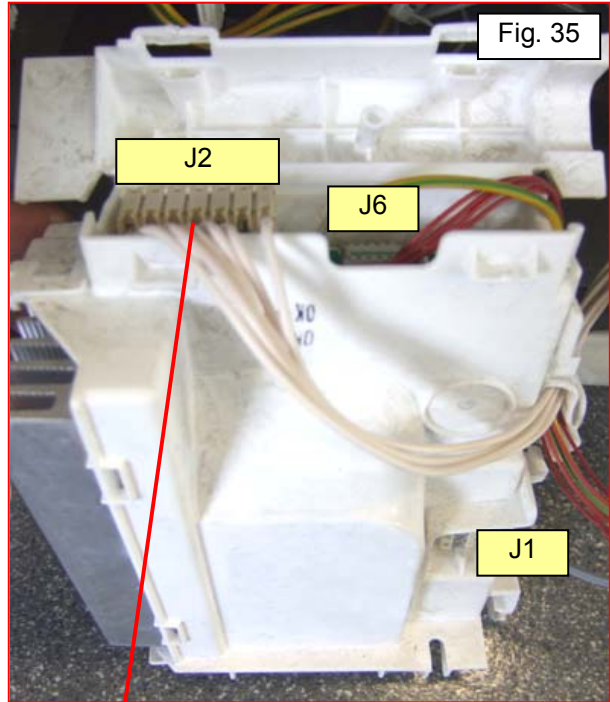


Fig. 35

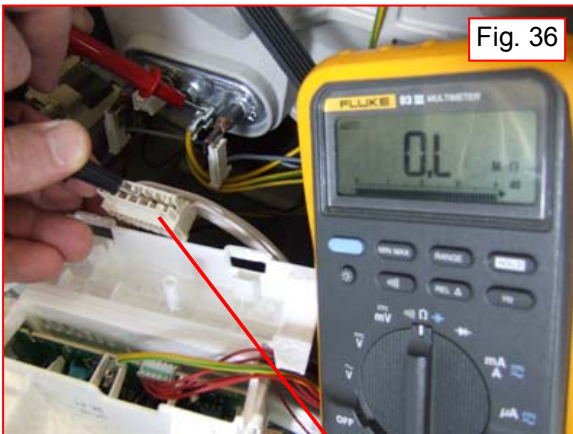


Fig. 36

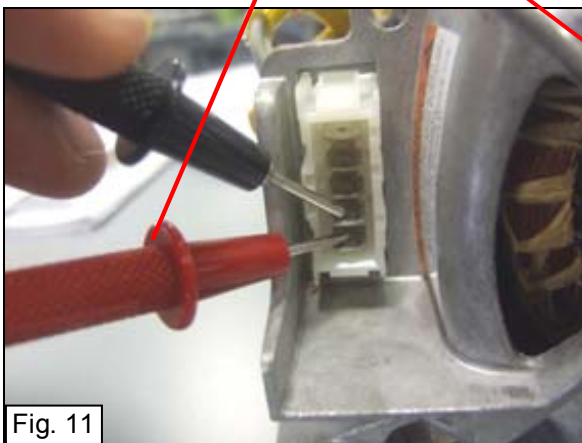
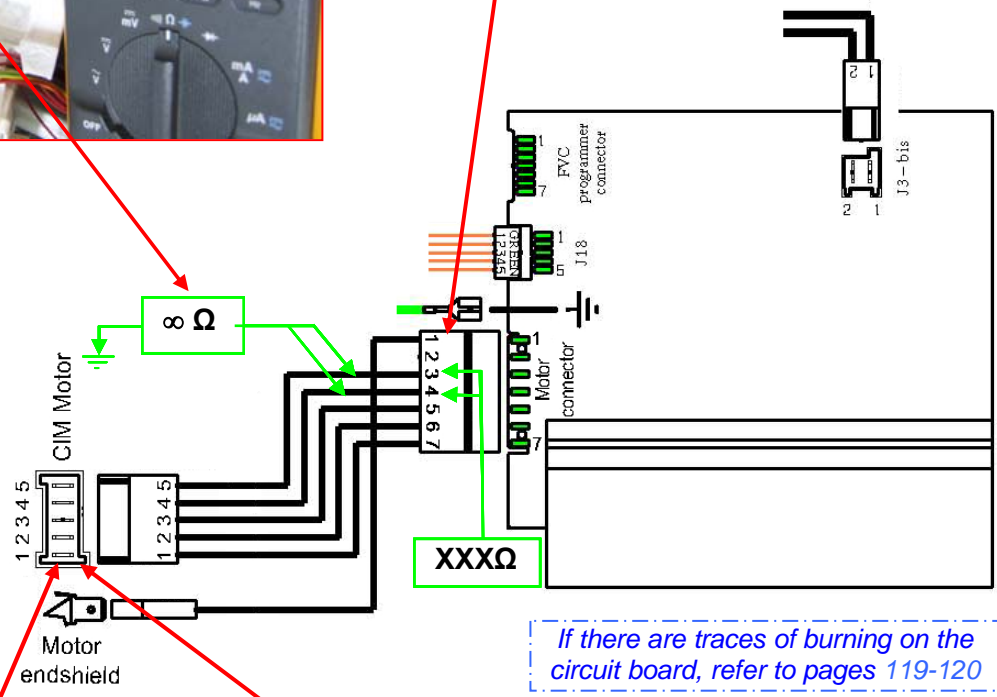


Fig. 11

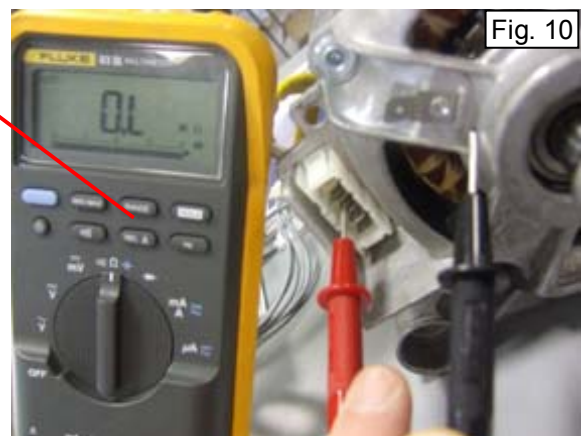


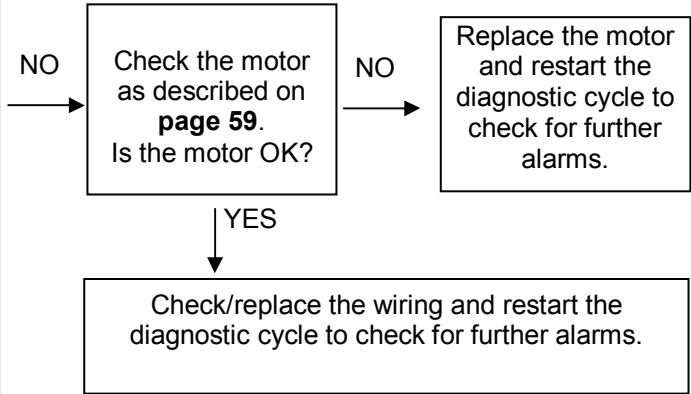
Fig. 10

<b>E52</b>	<b>E52: No signal from the motor tachometric generator (second part)</b> Cycle blocked after 5 attempts during the cycle or immediately if detected at the start or during diagnostics.	<b>E52</b>
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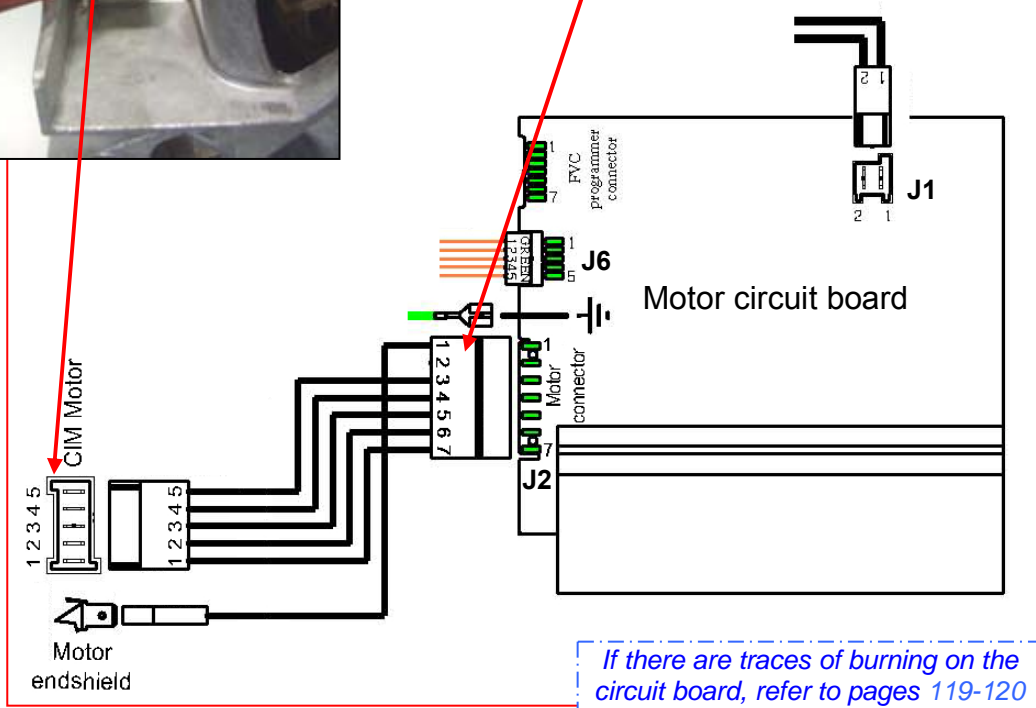
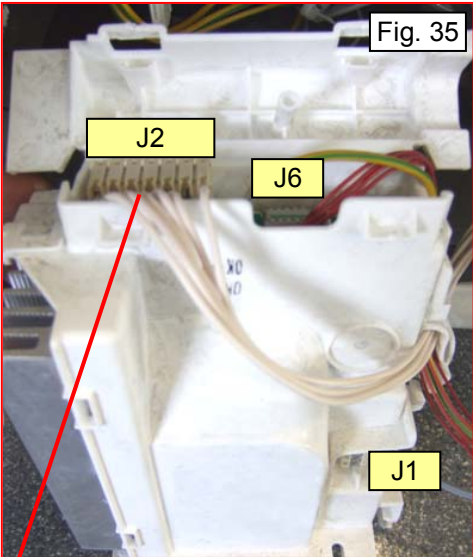
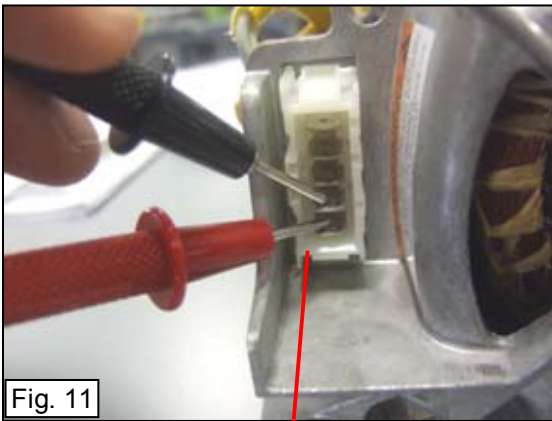
Checks to perform: Check that all the connectors are inserted correctly

**The motor does not rotate at all**

To check the wiring, measure ( $\Omega$ ) across the following terminals of the circuit board connector (**fig. 35**) and compare with the correct values.  
(see **page 59**: step 4 – motor parameters)  
- across J2-6 and J2-7, the value must be as in 4 - **B** (stator)  
- across J2-5 and J2-6, if present, the value must be as in step 4 - **C** (stator)  
- across J2-5 and J2-7, the value must be as in step 4-**D** (stator).  
Are these values correct?

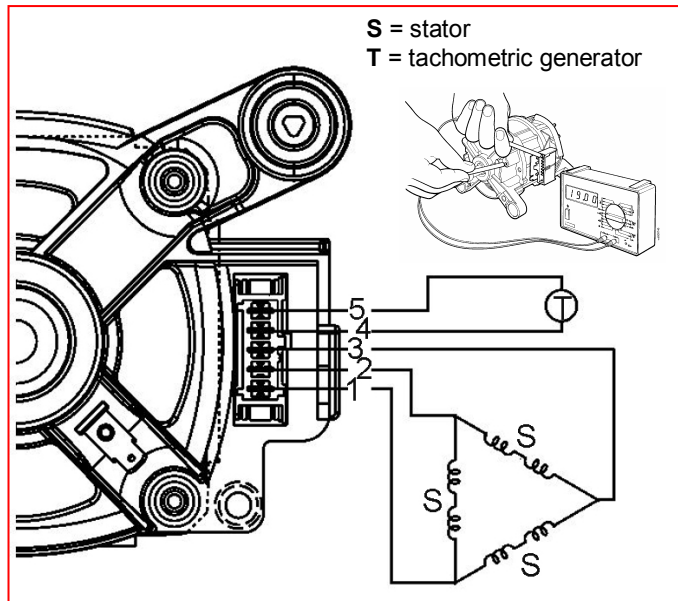


YES  
Replace the motor circuit board and restart the diagnostic cycle to check for further alarms.

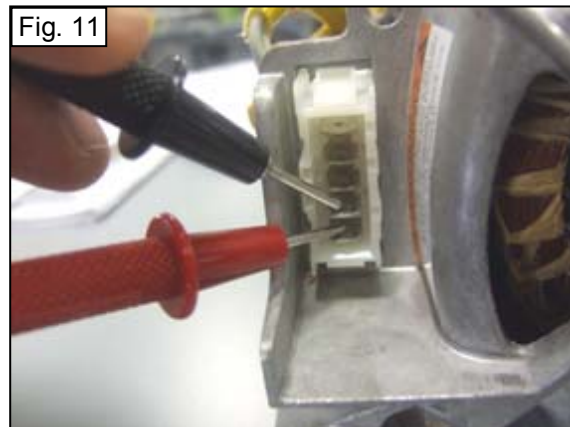
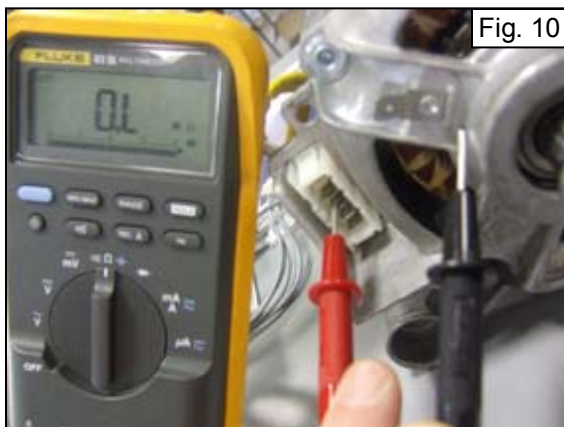


## Procedure for checking the Inverter motors

- 1) Check the connector blocks (wiring) and check for detached or bent terminals.
- 2) Check for traces, residue or deposits of water or detergent on the motor and identify the source.
- 3) Check for windings or other parts that may be grounded or poorly insulated. Use a tester with a minimum scale of 40 M $\Omega$ : between each terminal and the casing, this should read  $\infty$  (fig. 10).
- 4) Check each winding against the values shown in the table below (fig. 11).



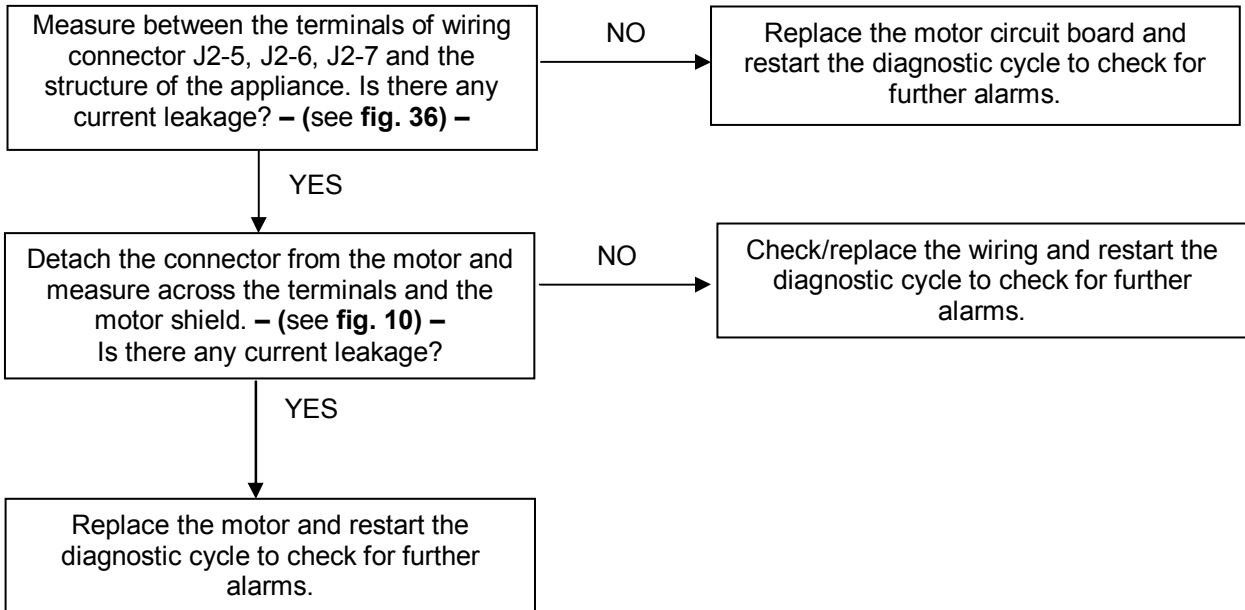
	TERMINALS ON MOTOR TERMINAL BLOCK	CHECKS:	MOTORS		
			C.E.SET.	ACC (SOLE)	ECM
<b>A</b>	<b>4-5</b>	Winding of tachometric generator	108÷133	169÷207	85÷98
<b>B</b>	<b>1-2</b>	Stator winding	5.0÷5.8	5.0÷5.8	5.0÷5.8
<b>C</b>	<b>2-3</b>	Stator winding	5.0÷5.8	5.0÷5.8	5.0÷5.8
<b>D</b>	<b>3-1</b>	Stator winding	5.0÷5.8	5.0÷5.8	5.0÷5.8

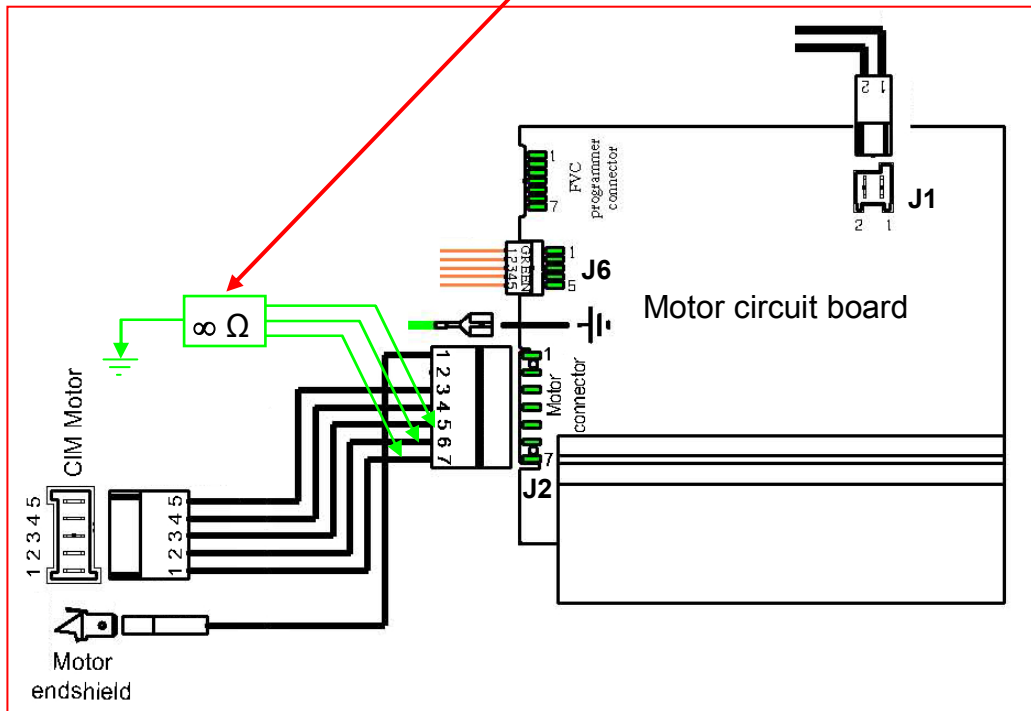
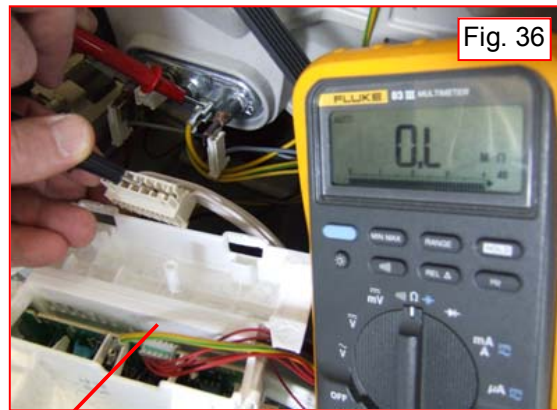
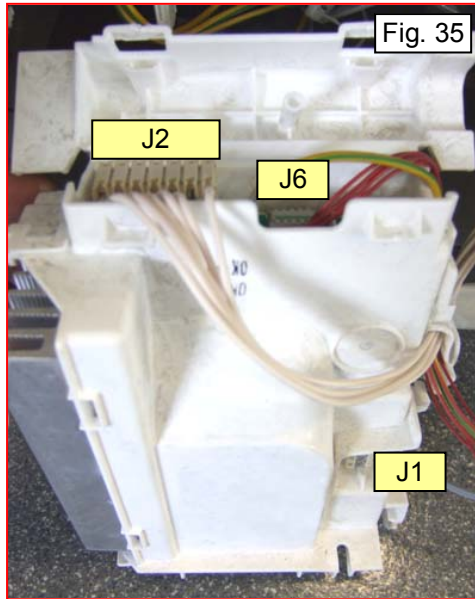


*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E57</b>	<b>E57: The current requested by the Inverter board is higher than 16A</b>	<b>E57</b>
	Abnormal power absorption by the motor	

*Checks to perform: Check that all the connectors are inserted correctly*

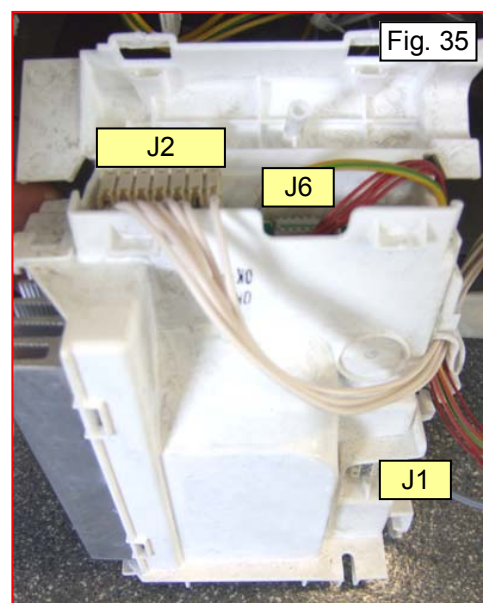
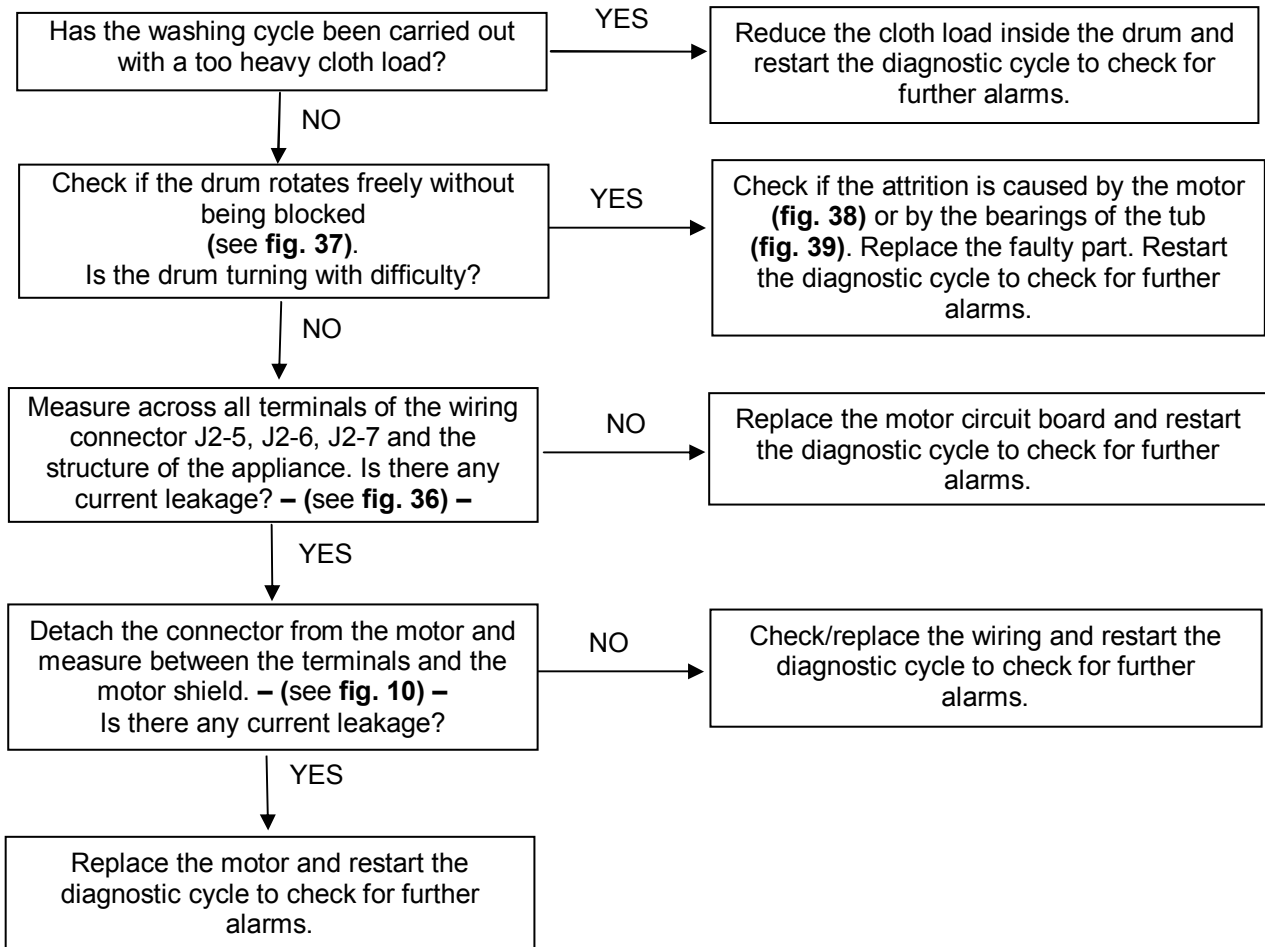




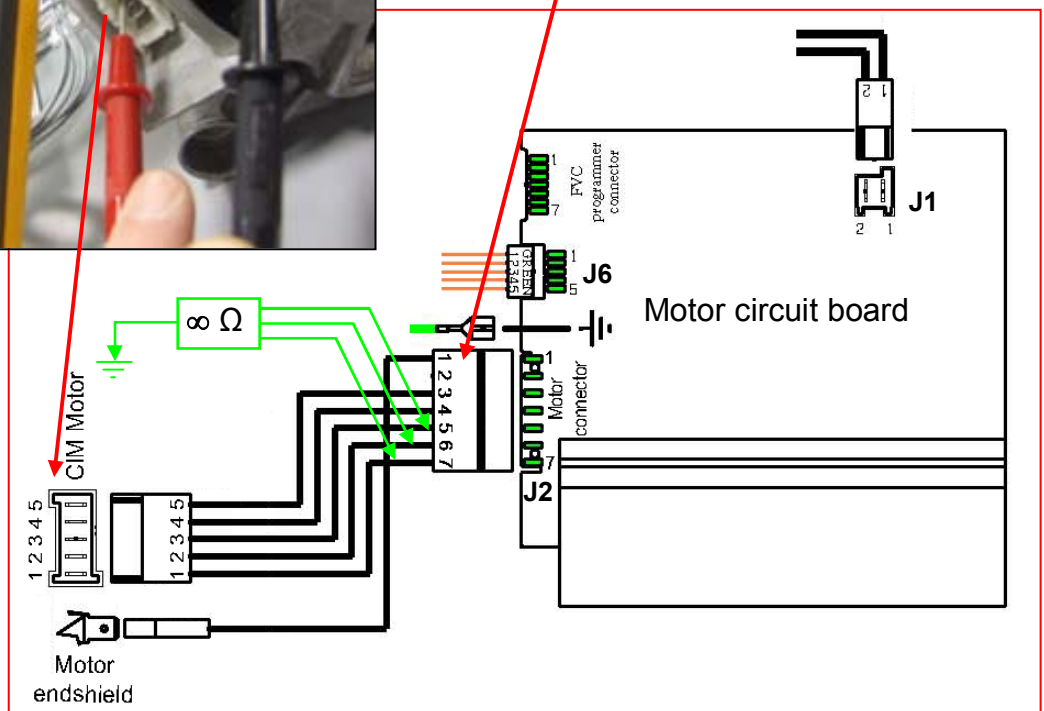
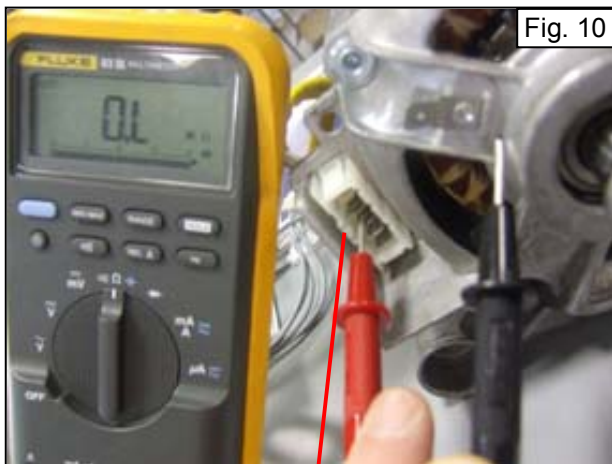
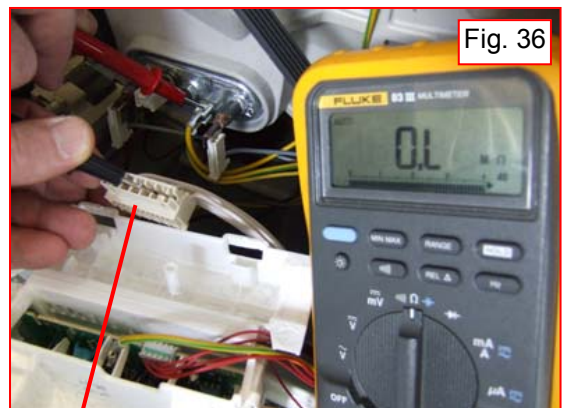
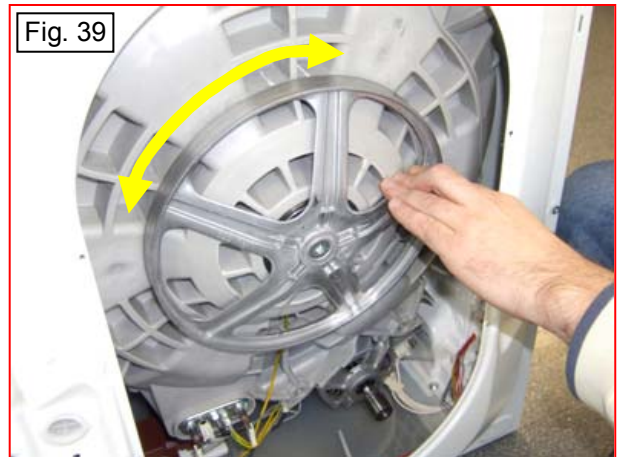
*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E58</b>	<b>E58: The current requested by the Inverter board is higher than 6A</b>	<b>E58</b>
Abnormal power absorption by the motor		

*Checks to perform: Check that all the connectors are inserted correctly*

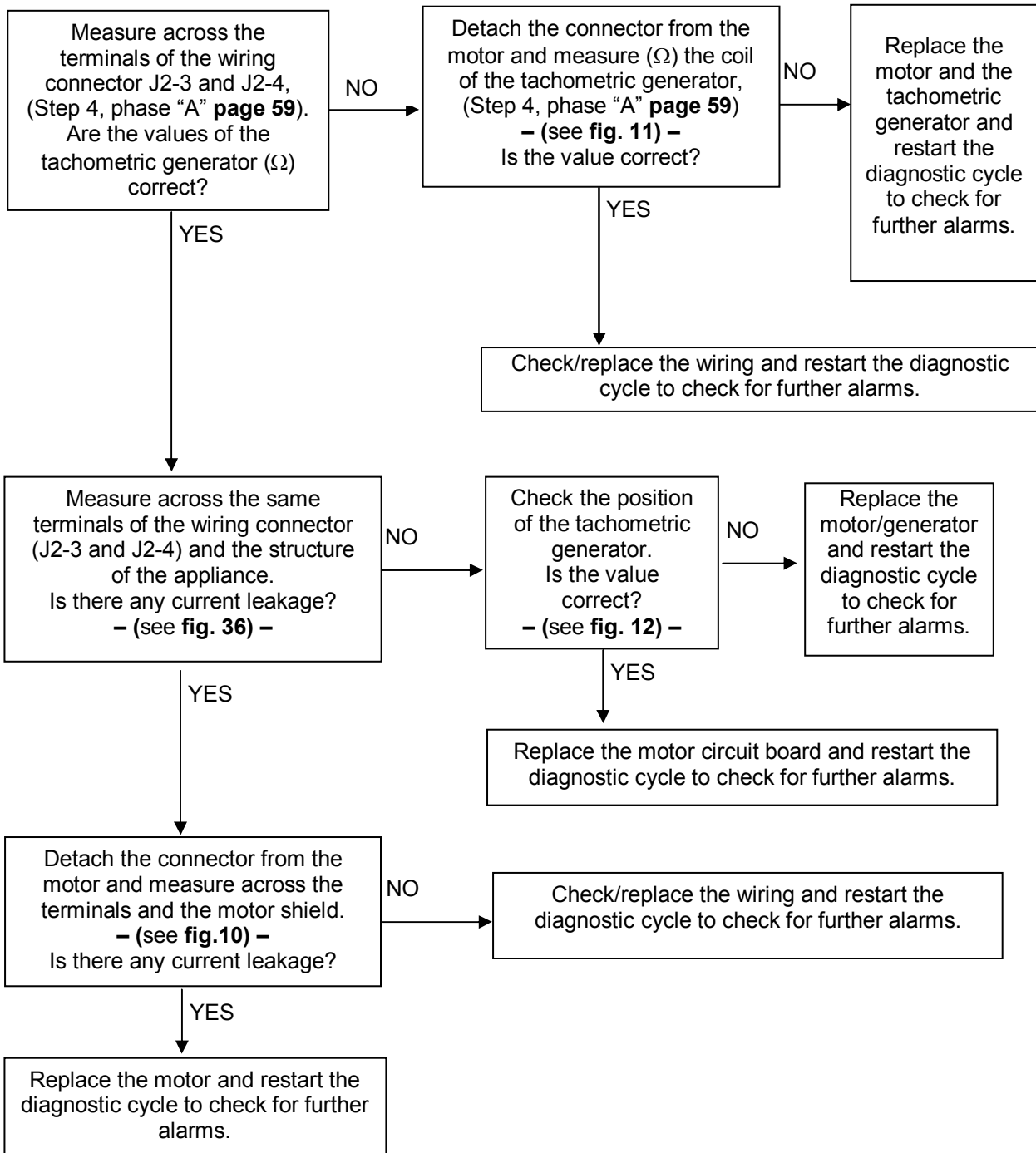


*If there are traces of burning on the circuit board, refer to pages 119-120*



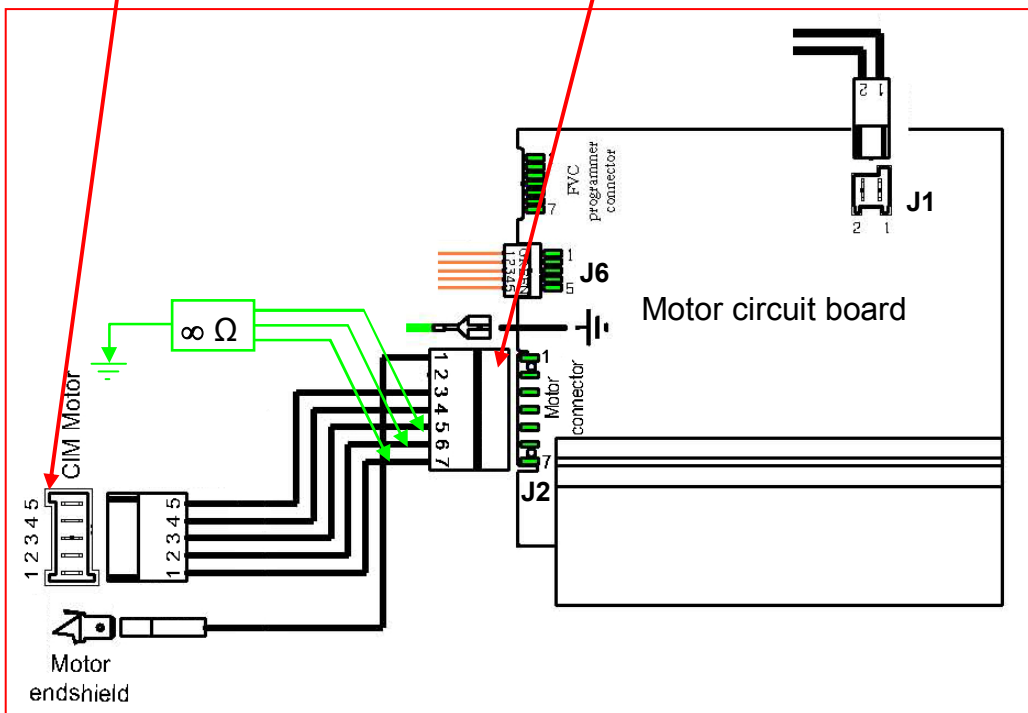
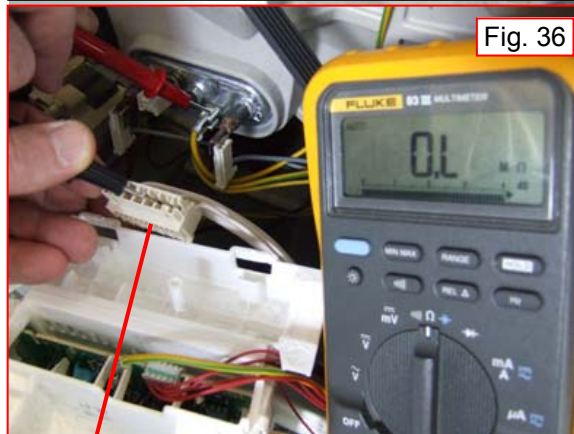
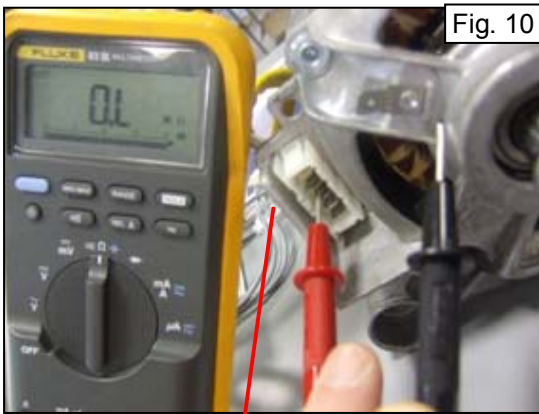
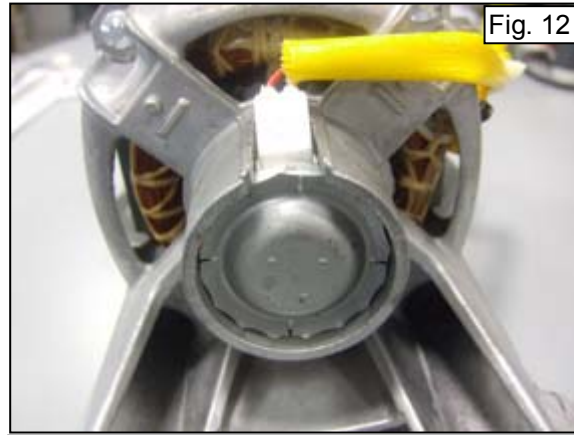
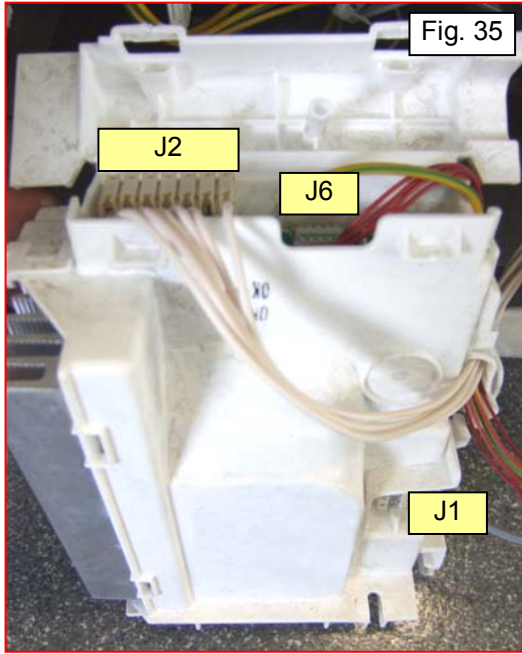
<b>E59</b>	<b>E59: No signal from the tachometric generator</b>	<b>E59</b>
	The absence of the signal must last at least 3 seconds	

*Checks to perform: Check that all the connectors are inserted correctly*



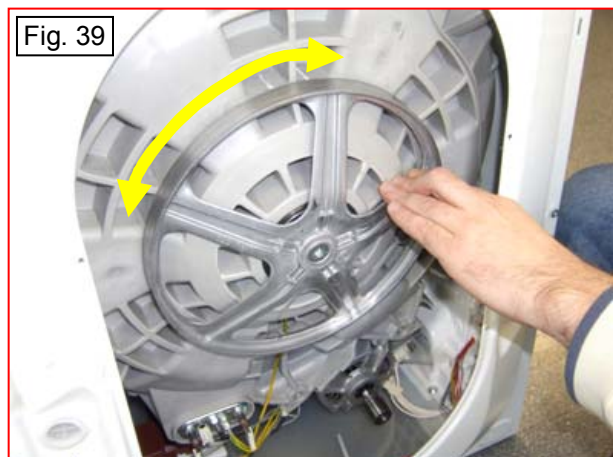
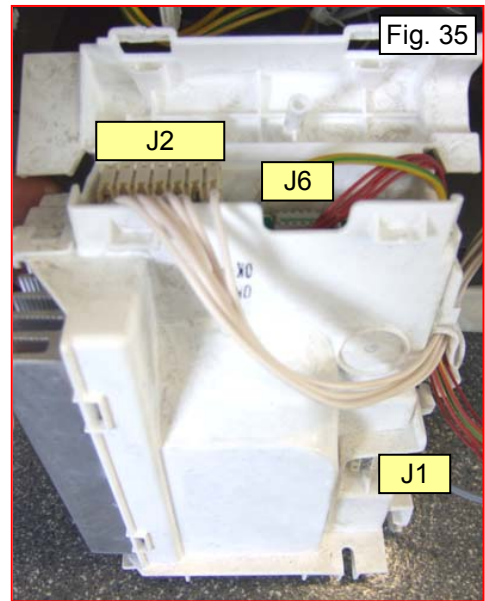
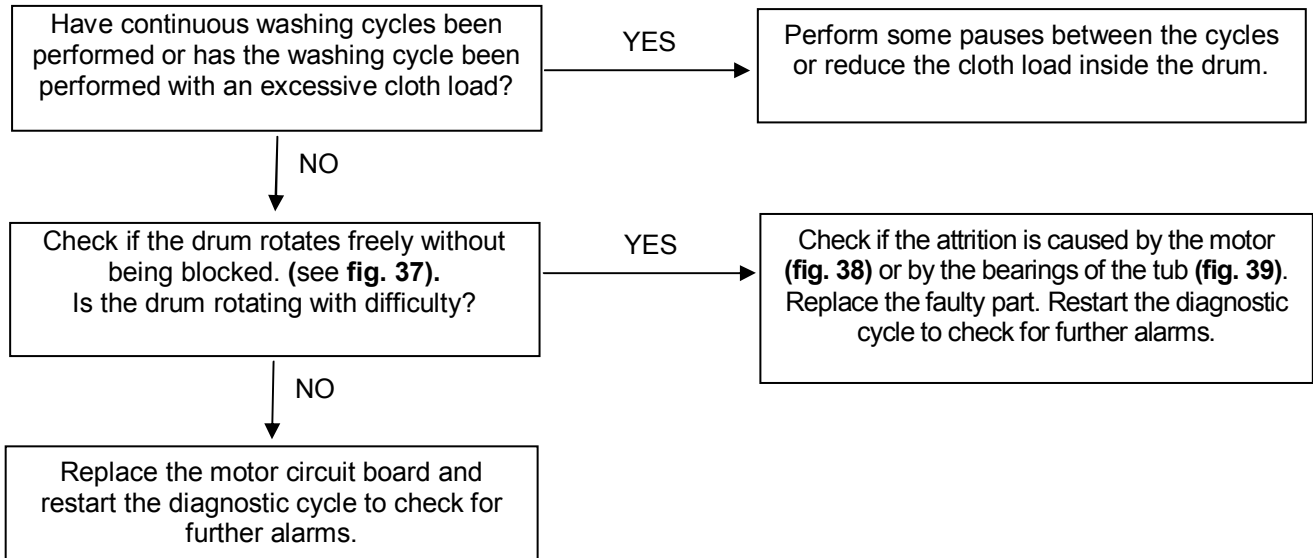
*If there are traces of burning on the circuit board, refer to pages 119-120*





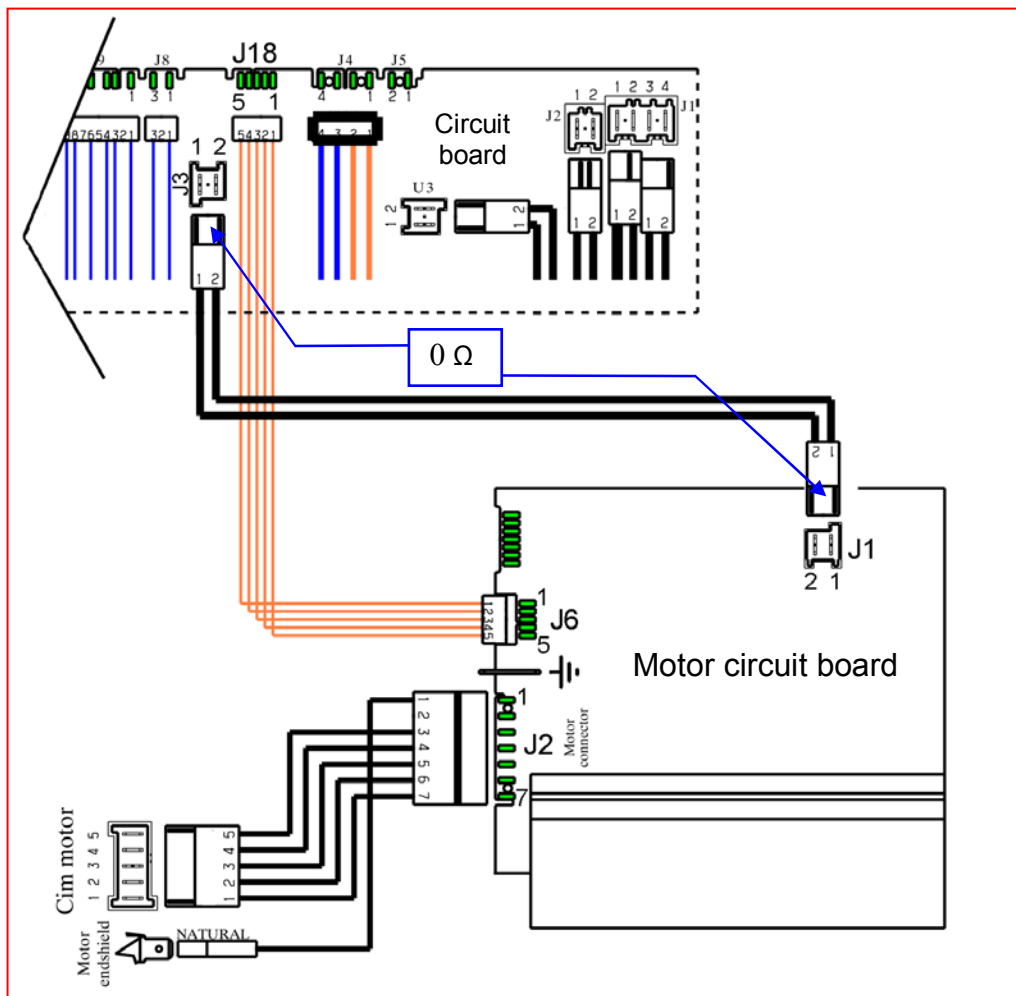
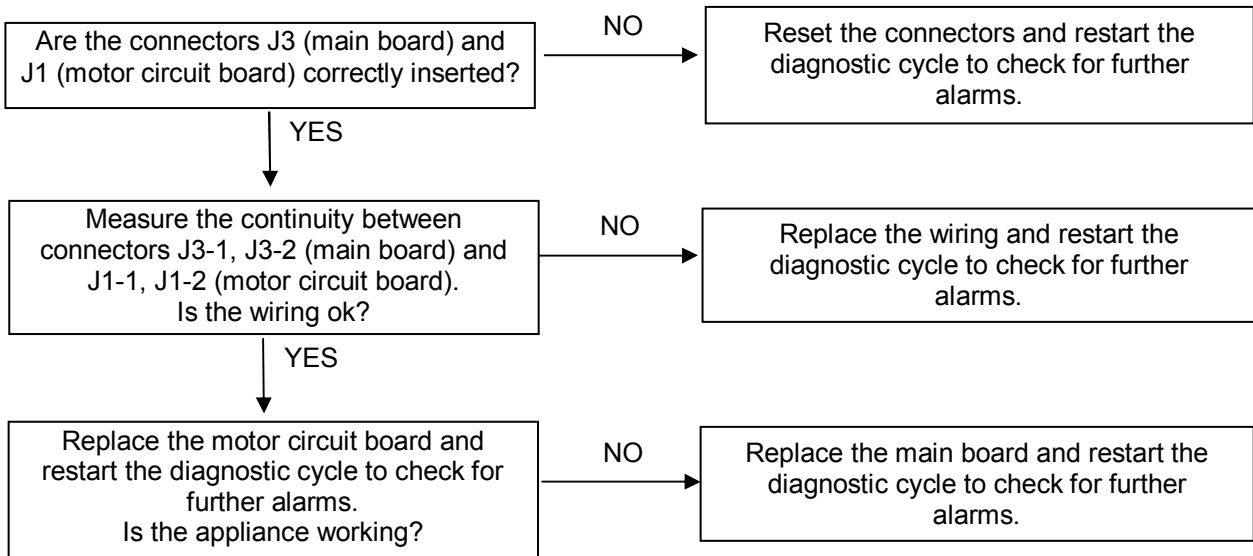
<b>E5A</b>	<b>E5A: Overheating of the Inverter dissipator</b>	<b>E5A</b>
	The dissipator exceeds the temperature of 88°C	

*Checks to perform: Check that all the connectors are inserted correctly*



<b>E5H</b>	<b>E5H: The power supply of the Inverter board is too low (lower than 175V)</b>	<b>E5H</b>
	The voltage must remain under 175V for at least 5 seconds	

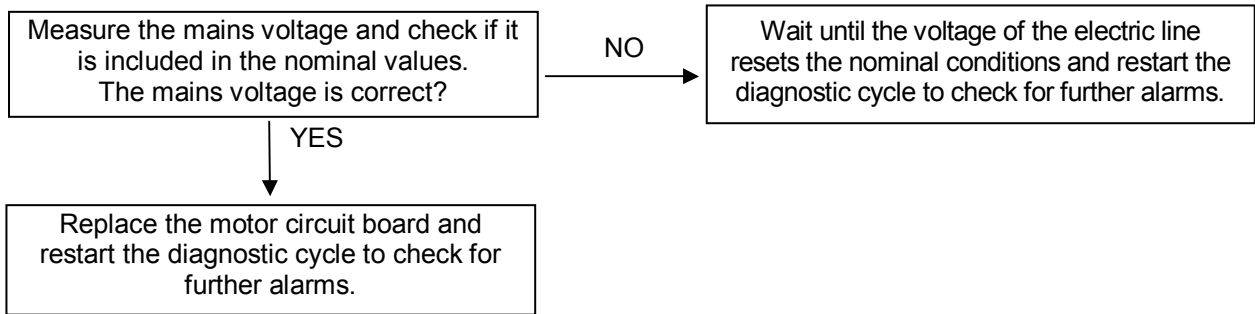
*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

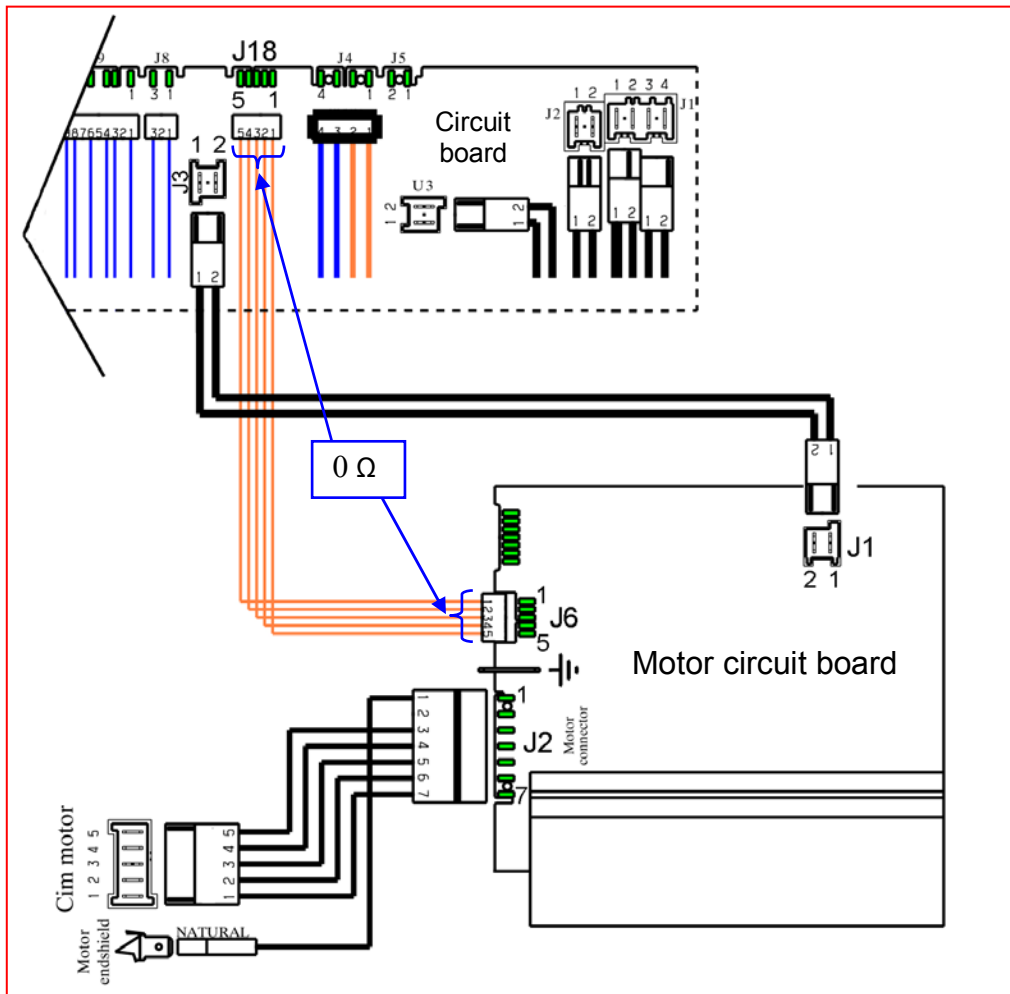
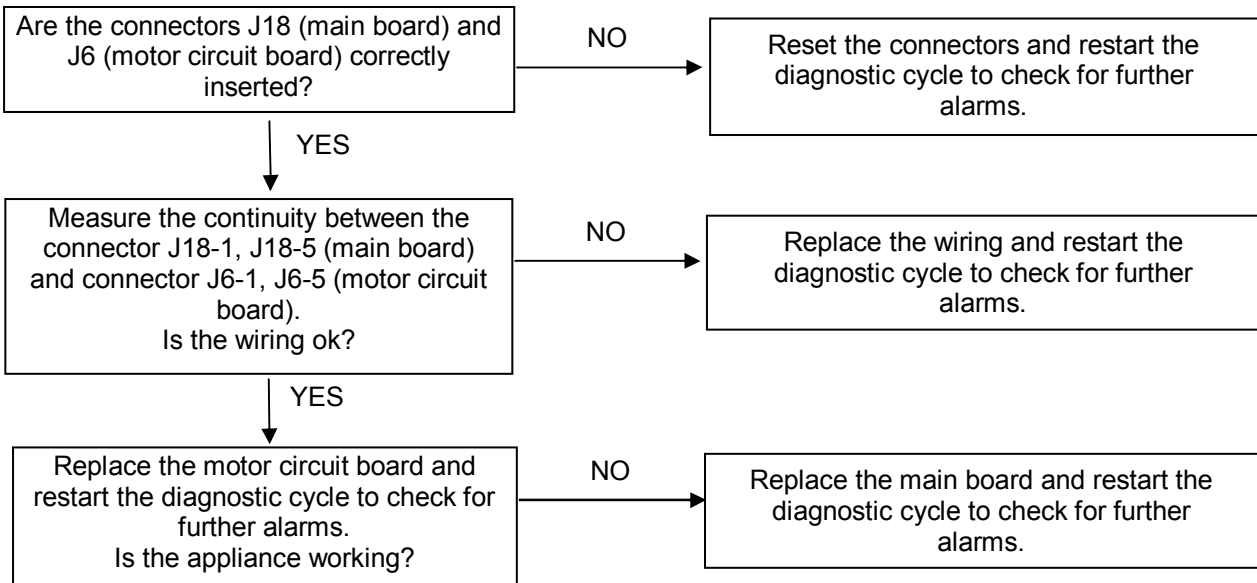
<b>E5C</b>	<b>E5C: The power supply of the Inverter board is too high (higher than 430V)</b>	<b>E5C</b>
	The voltage must remain above 430V for at least 5 seconds	

*Checks to perform: Check that all the connectors are inserted correctly*



<b>E5d</b>	<b>E5d: Data transfer error between Inverter board and main board</b>	<b>E5d</b>
	The failed transfer must last at least 2sec.	

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E5E</b>	<b>E5E: Wrong communication between Inverter board and main board</b>	<b>E5E</b>
	Communication protocol between the two boards not aligned	

*Checks to perform: Check that all the connectors are inserted correctly*

Replace the motor circuit board and restart the diagnostic cycle to check for further alarms.

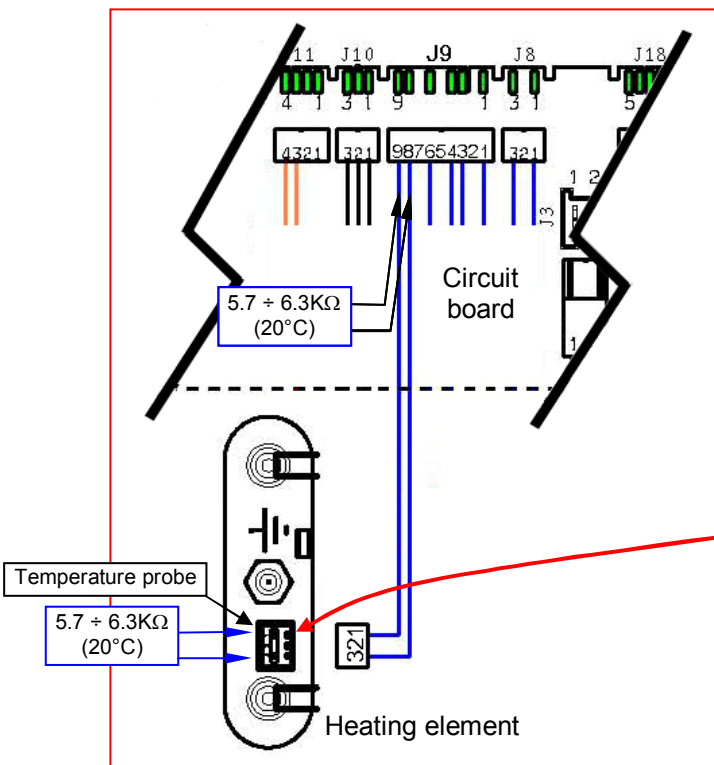
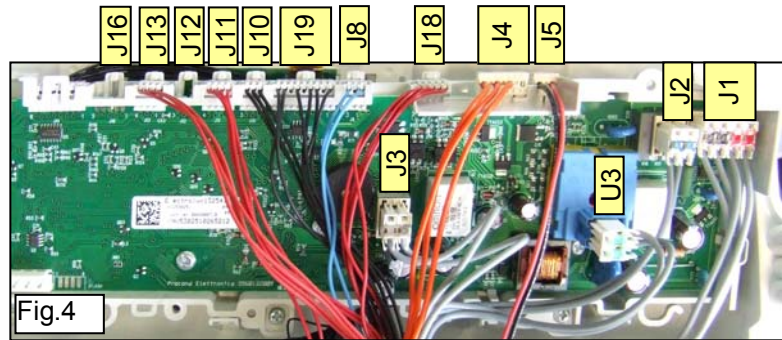
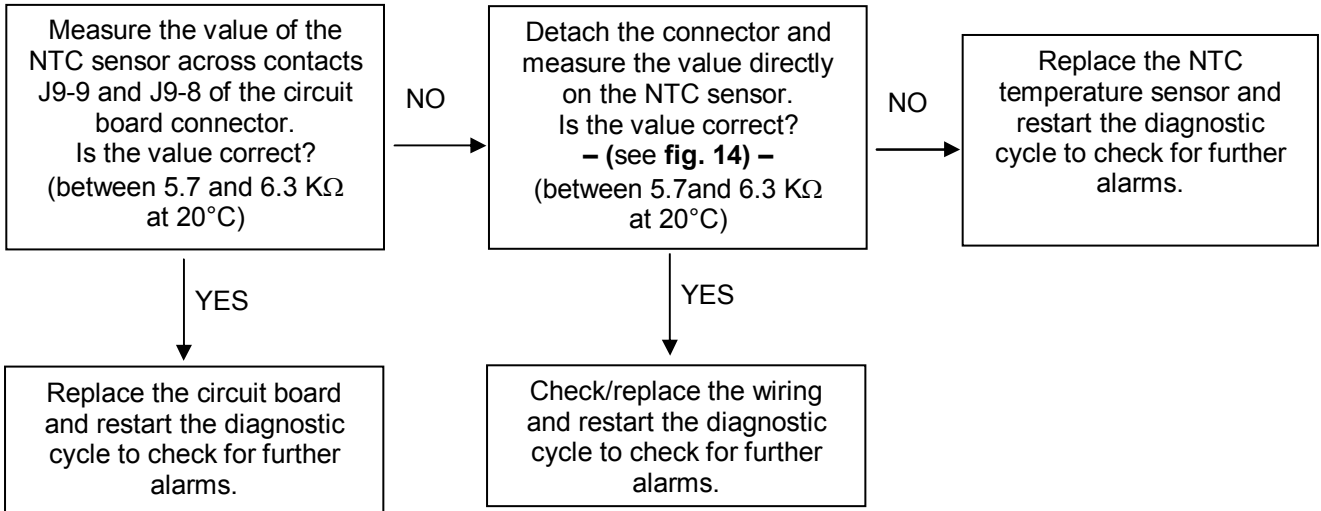
<b>E5F</b>	<b>E5F: The Inverter board does not start the motor</b>	<b>E5F</b>

*Checks to perform: Check that all the connectors are inserted correctly*

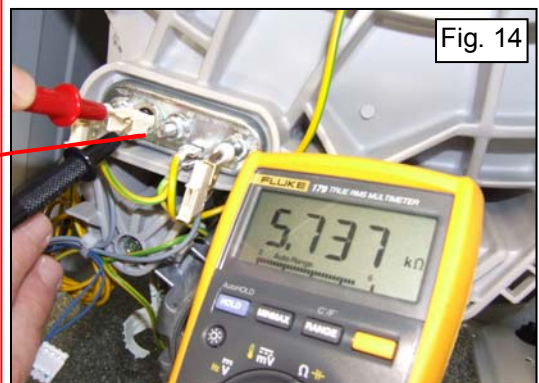
Replace the motor circuit board and restart the diagnostic cycle to check for further alarms.

<b>E61</b>	<b>E61: Insufficient heating during washing</b>	<b>E61</b>
	Maximum heating time exceeded ➔ <b>SOMETIMES THE ALARM CAN BE CAUSED BY THE POWER VOLTAGE TOO LOW!</b>	

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*



<b>E62</b>	<b>E62: Overheating during washing (version WM)</b>	<b>E62</b>
	The temperature of the NTC sensor exceeds 88°C for more than 5 minutes.	

**Checks to perform:** Check that all the connectors are inserted correctly

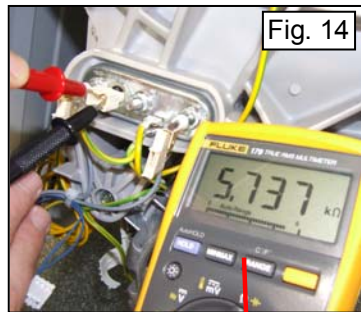
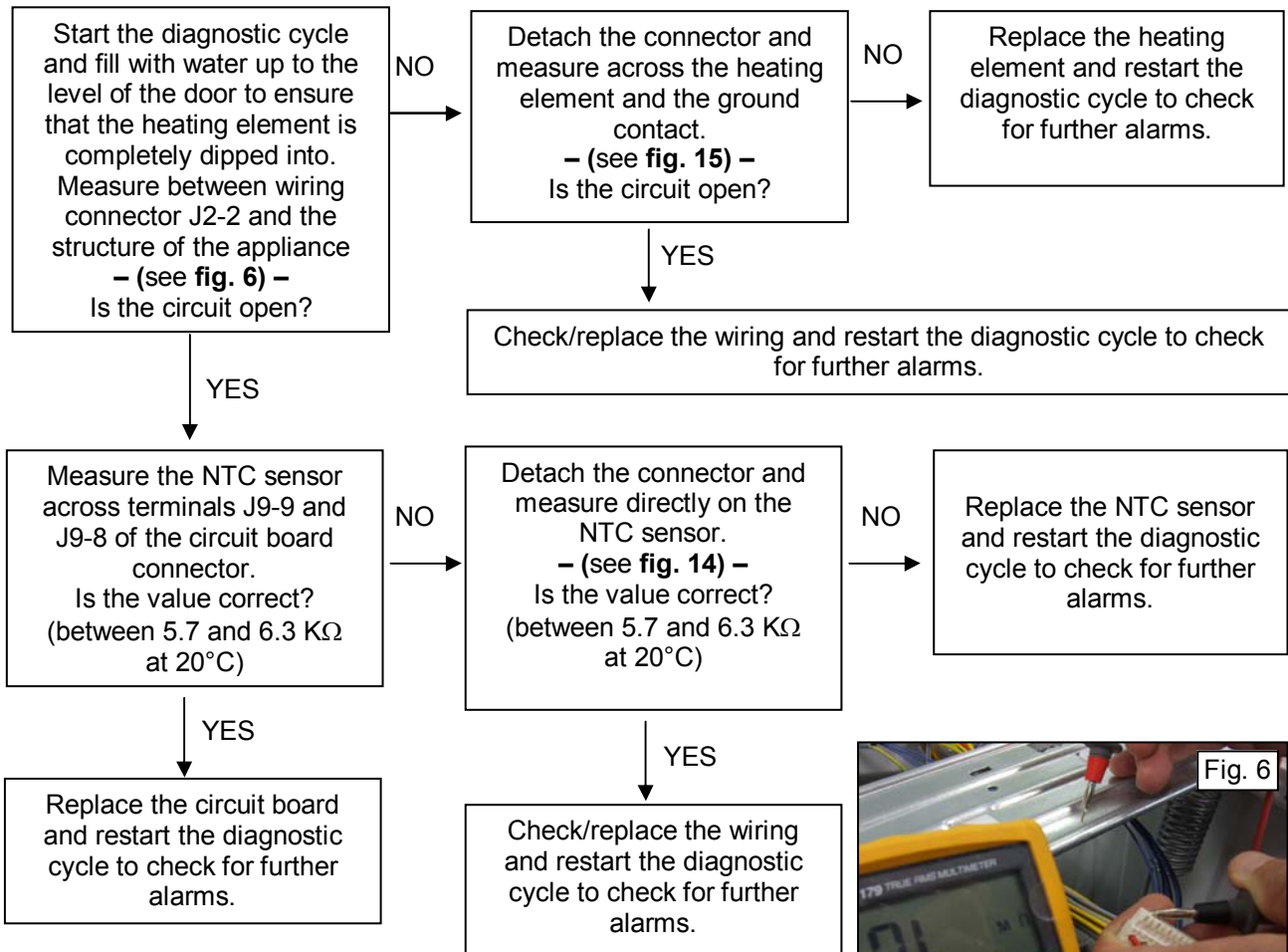


Fig. 14

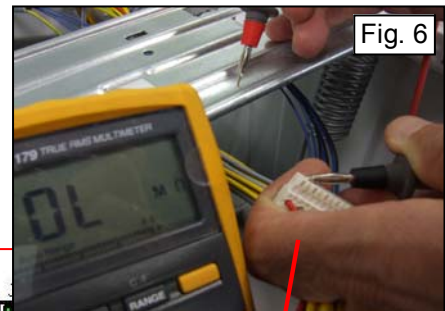
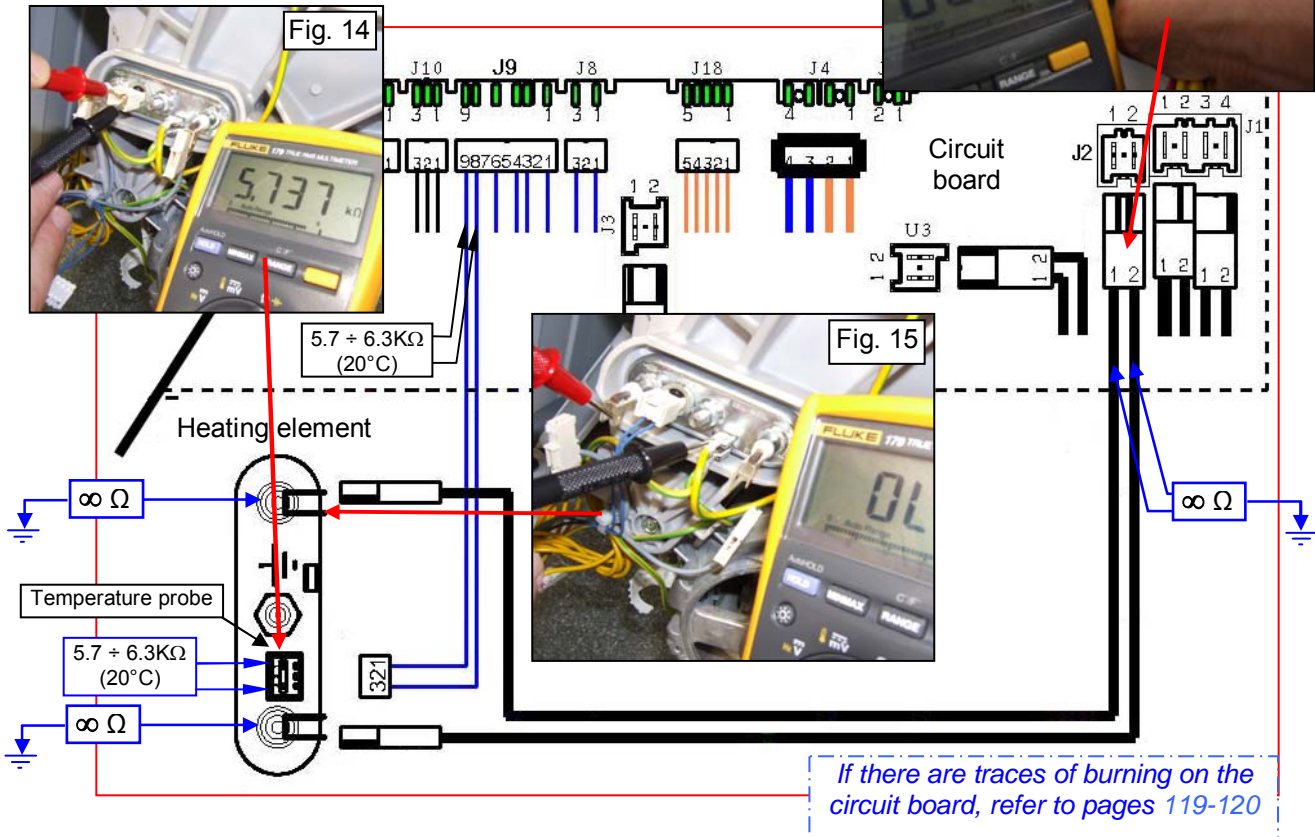


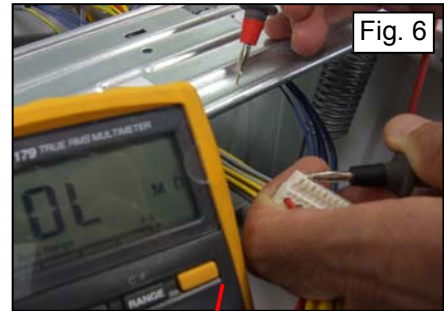
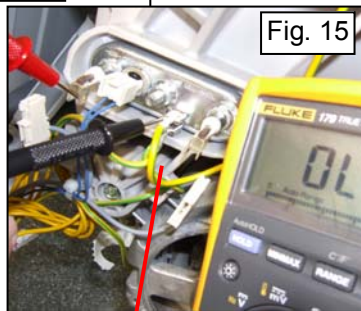
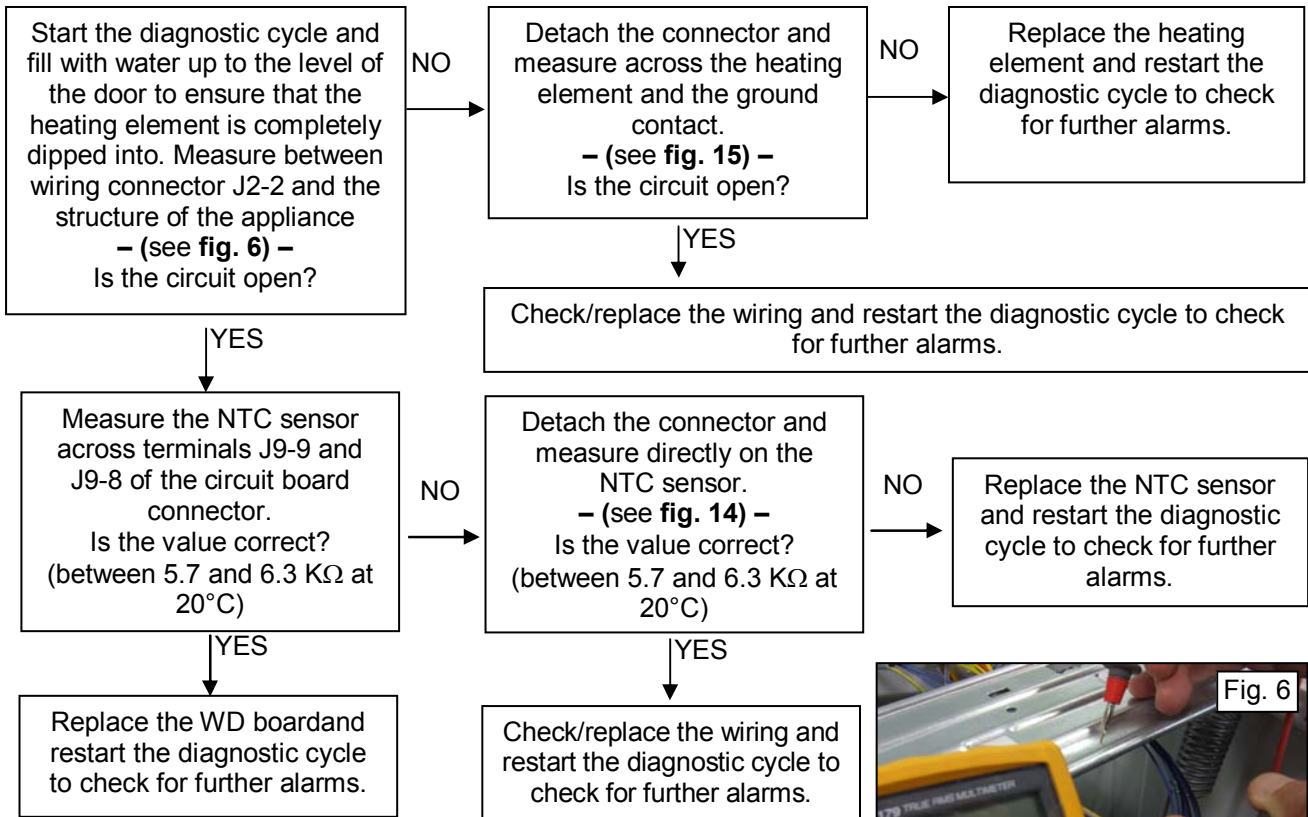
Fig. 6



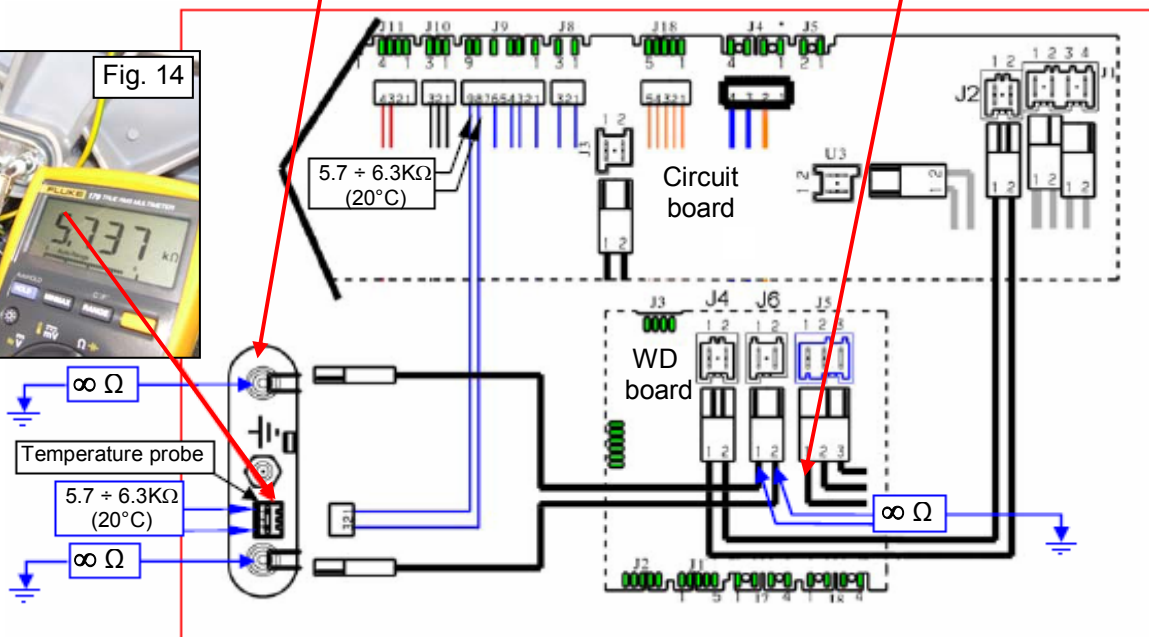
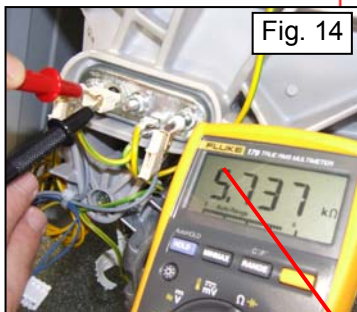


<b>E62</b>	<b>E62: Overheating during washing (version WD)</b>	<b>E62</b>
	The temperature of the NTC sensor exceeds 88°C for more than 5 minutes.	

**Checks to perform:** Check that all the connectors are inserted correctly



*If there are traces of burning on the circuit board, refer to page 119-120*



E66

**E66: The contacts of the heating element power relay are always closed (version WM)**

E66

*Checks to perform: Check that all the connectors are inserted correctly*

Measure across connector J2-1/J2-2 on the circuit board and the structure of the appliance. **(Fig. 6)** Is there any current leakage?

NO

Replace the circuit board and restart the diagnostic cycle to check for further alarms.

YES

Detach the connector and measure across the heating element and the ground contact. **– (fig. 15)** – Is the circuit open?

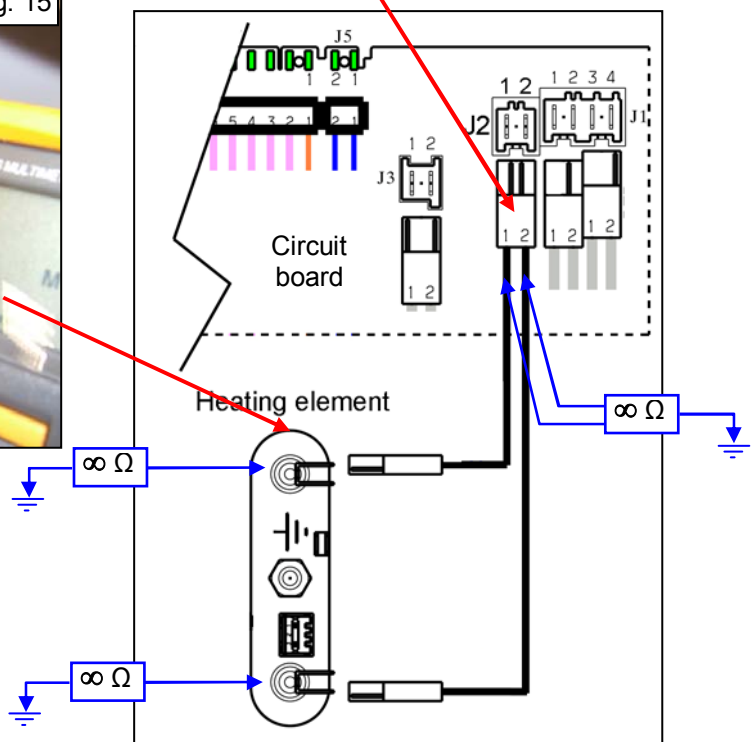
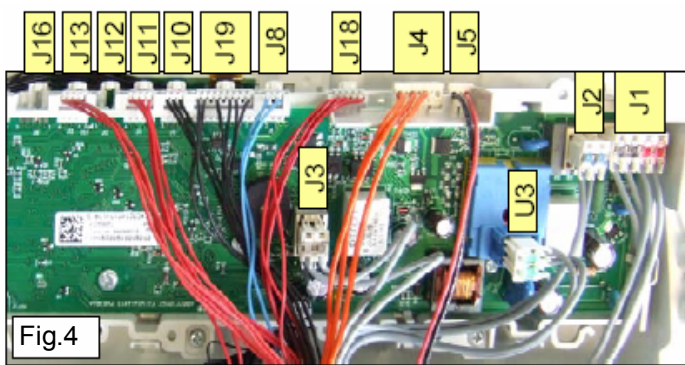
NO

Replace the heating element and restart the diagnostic cycle to check for further alarms.

YES

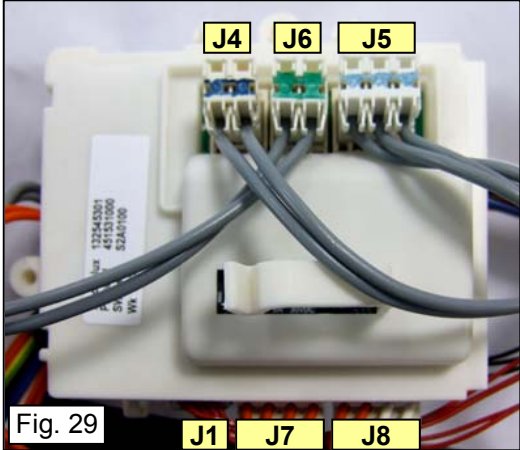
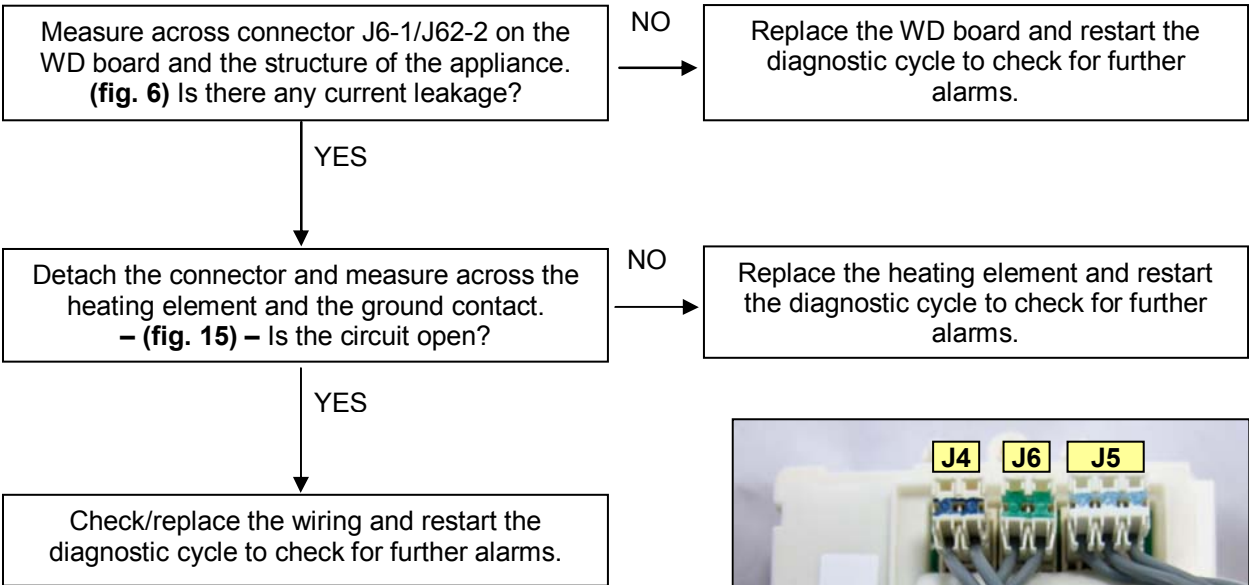
Check/replace the wiring and restart the diagnostic cycle to check for further alarms.

*If there are traces of burning on the circuit board, refer to page 119-120*

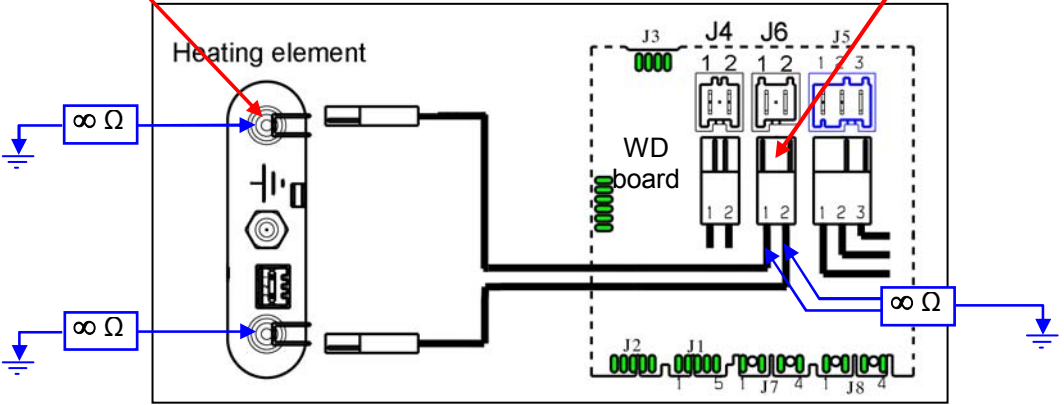
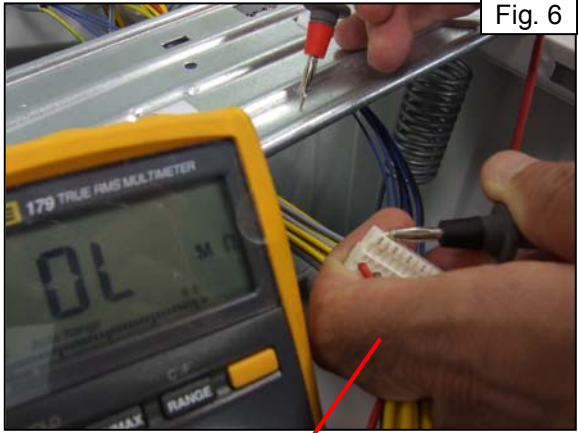
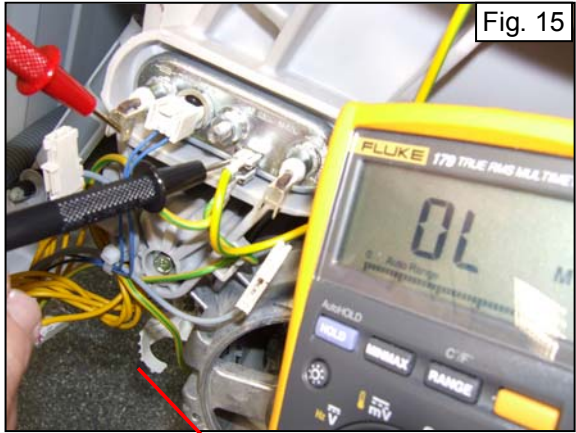


<b>E66</b>	<b>E66: The contacts of the heating element power relay are always closed (version WD)</b>	<b>E66</b>
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*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*



Checks to perform: Check that all the connectors are inserted correctly

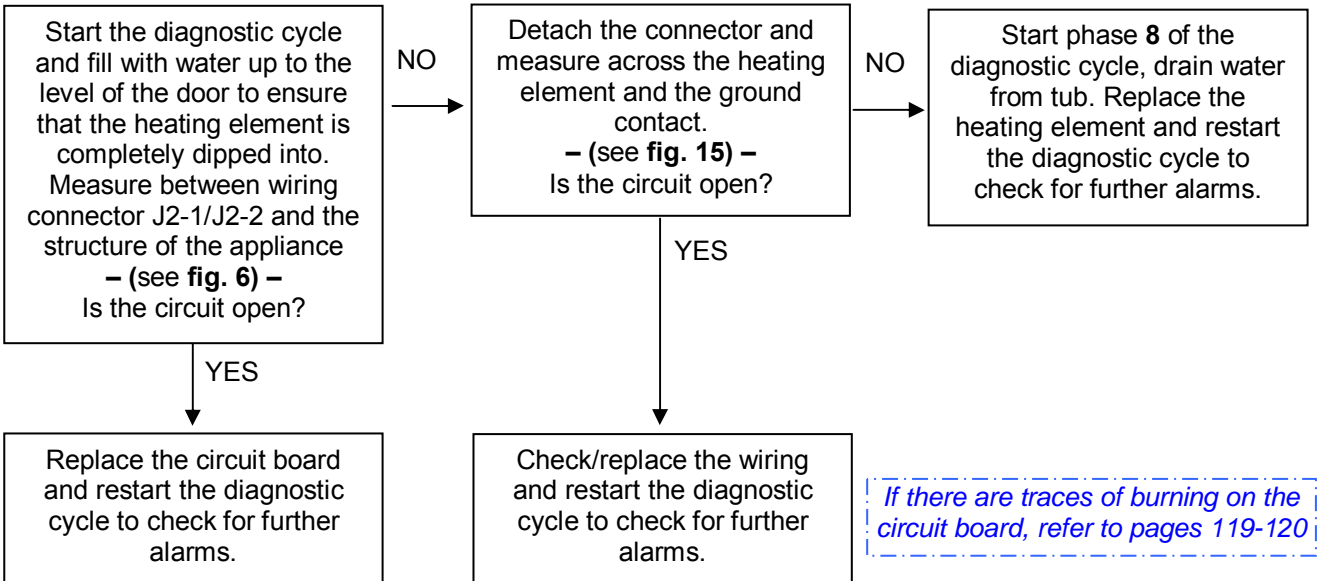


Fig. 6

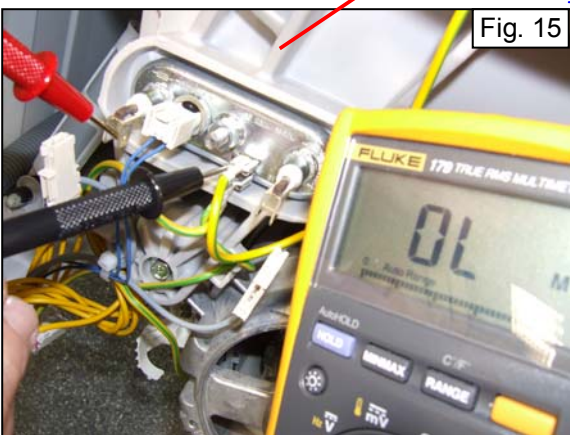
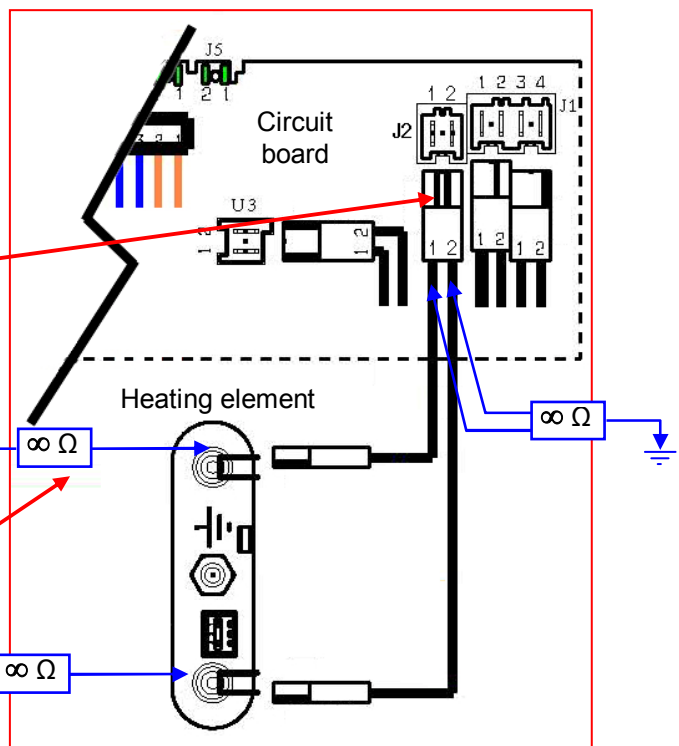


Fig. 15

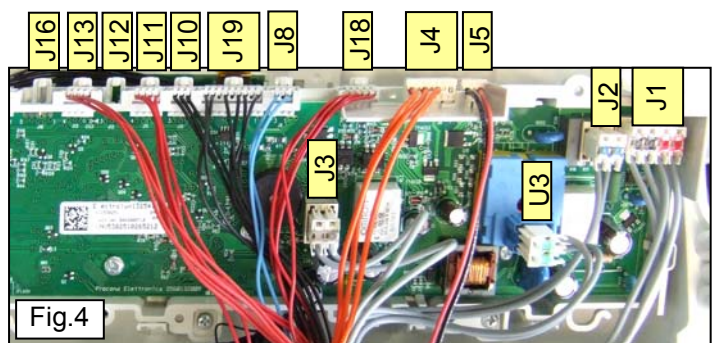
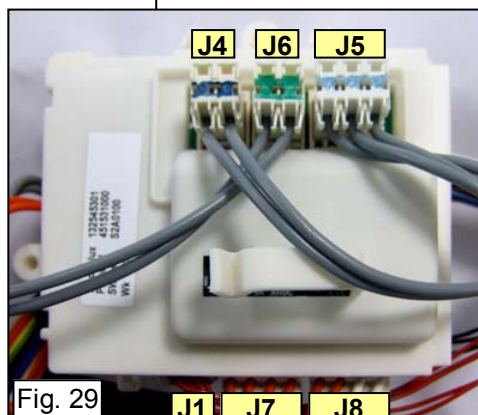
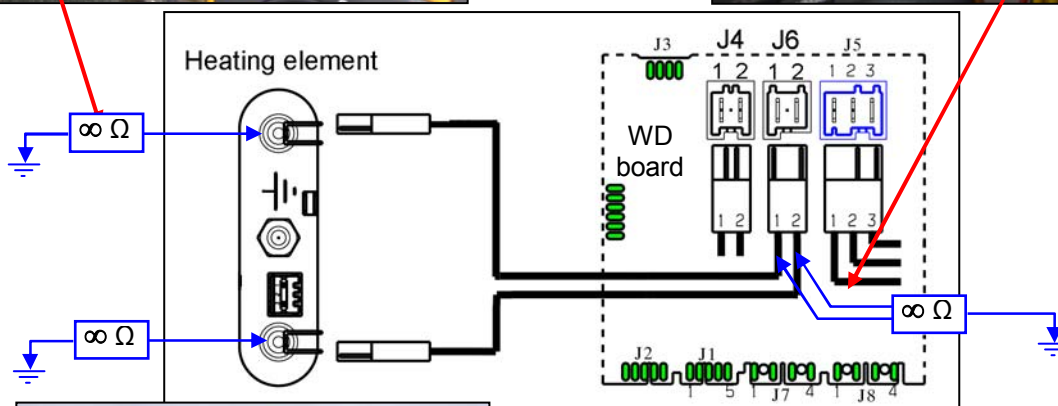
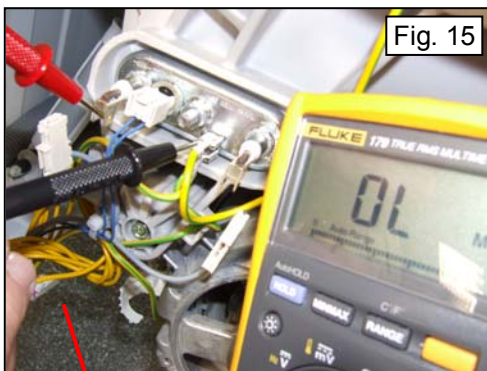
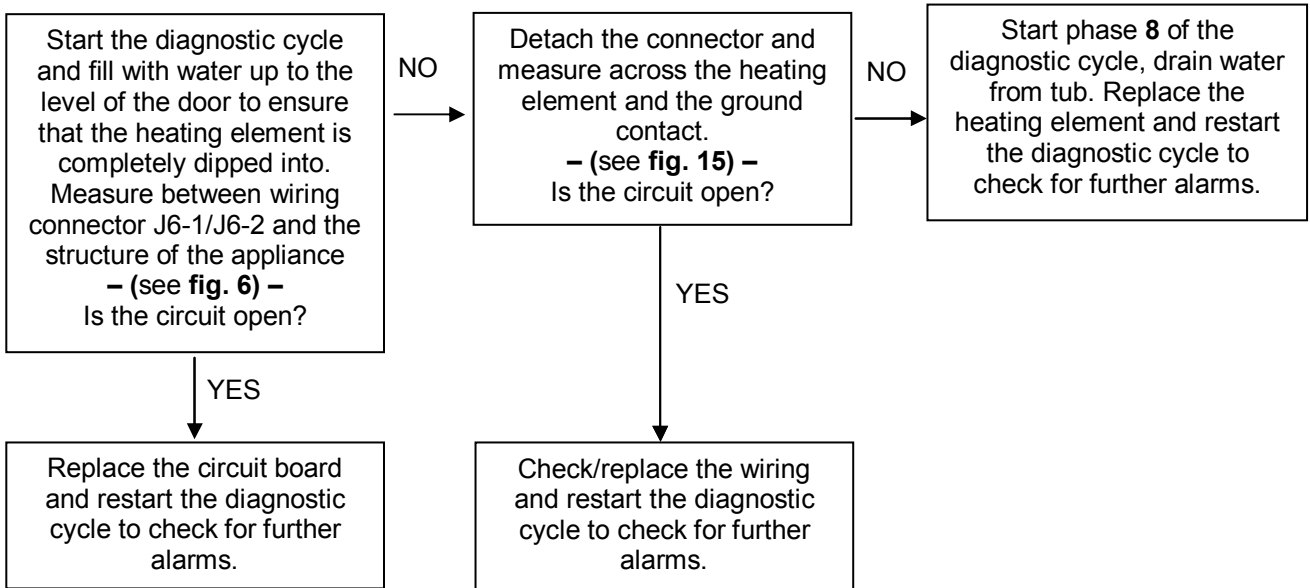


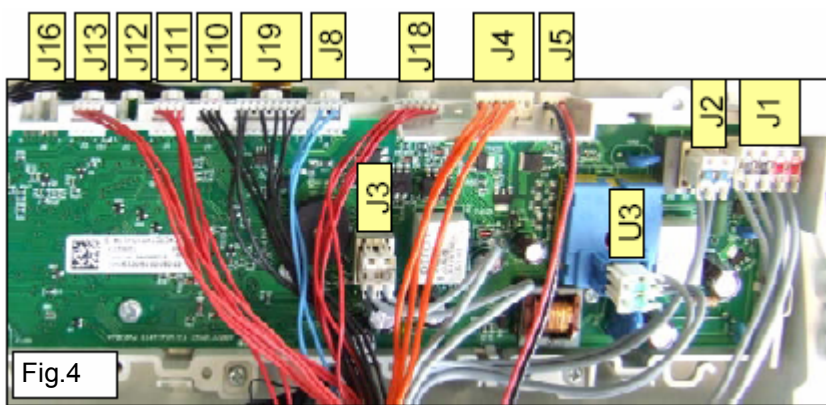
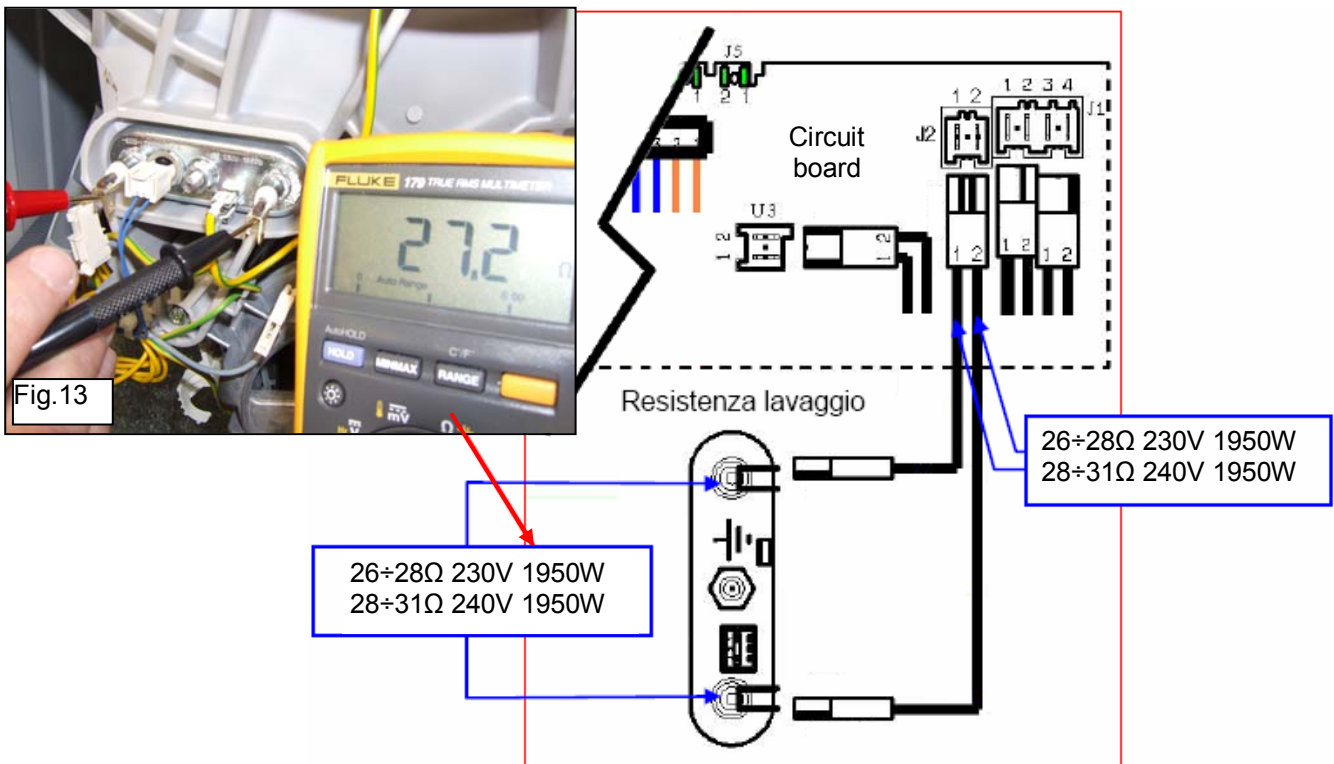
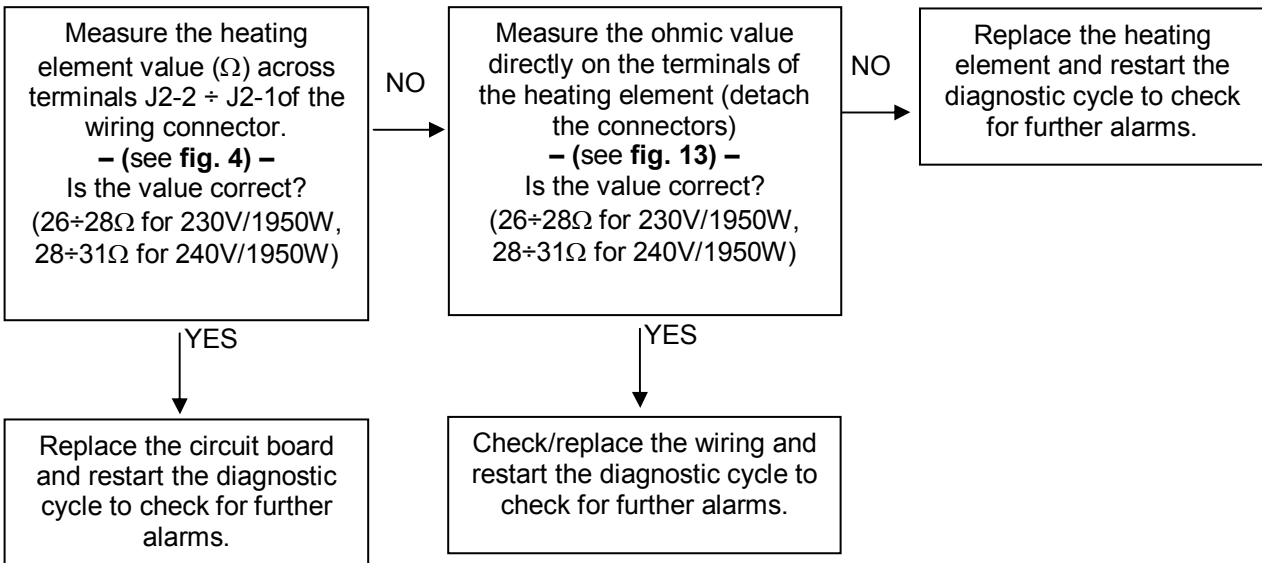
Fig.4

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

Checks to perform: Check that all the connectors are inserted correctly



*If there are traces of burning on the circuit board, refer to page 119-120*

*Checks to perform: Check that all the connectors are inserted correctly*

Measure the heating element value ( $\Omega$ ) across terminals J6-2 ÷ J6-1 of the wiring connector.  
 – (see **fig. 4**) –  
 Is the value correct?  
 (26÷28 $\Omega$  for 230V/1950W,  
 28÷31 $\Omega$  for 240V/1950W)

NO

Measure the ohmic value directly on the terminals of the heating element (detach the connectors)  
 – (see **fig 13**) –  
 Is the value correct?  
 (26÷28 $\Omega$  for 230V/1950W,  
 28÷31 $\Omega$  for 240V/1950W)

NO

Replace the heating element and restart the diagnostic cycle to check for further alarms.

YES

Replace the WD board and restart the diagnostic cycle to check for further alarms.

YES

Controllare/sostituire il cablaggio e riavviare il ciclo diagnostico per verificare ulteriori possibili allarmi.

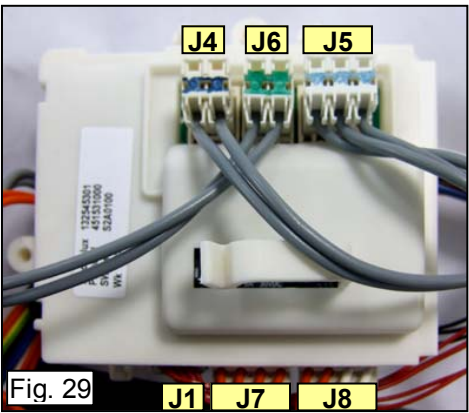


Fig. 29



Fig.13

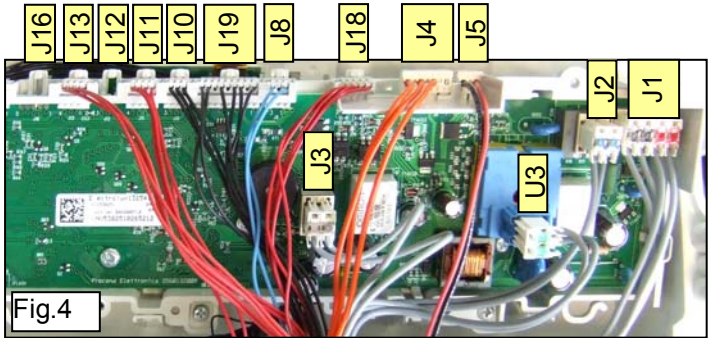
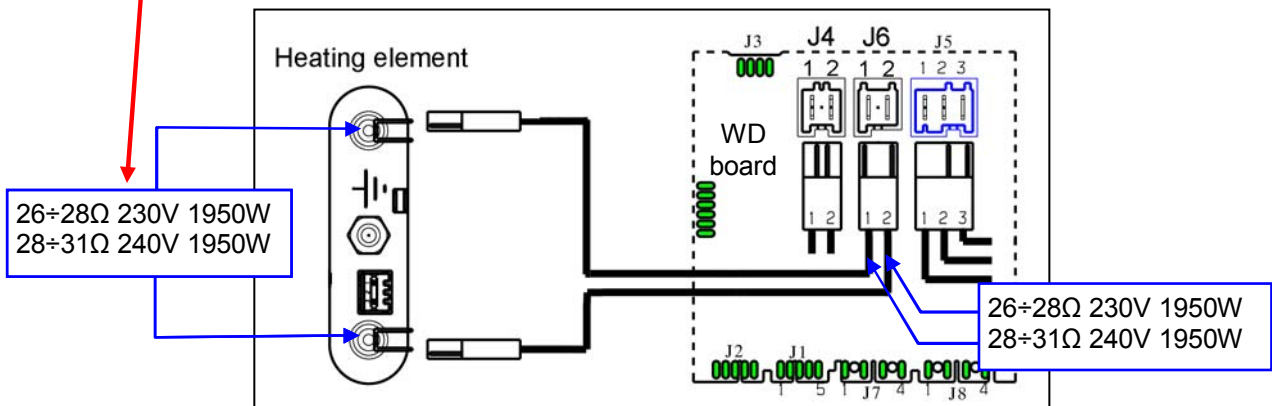


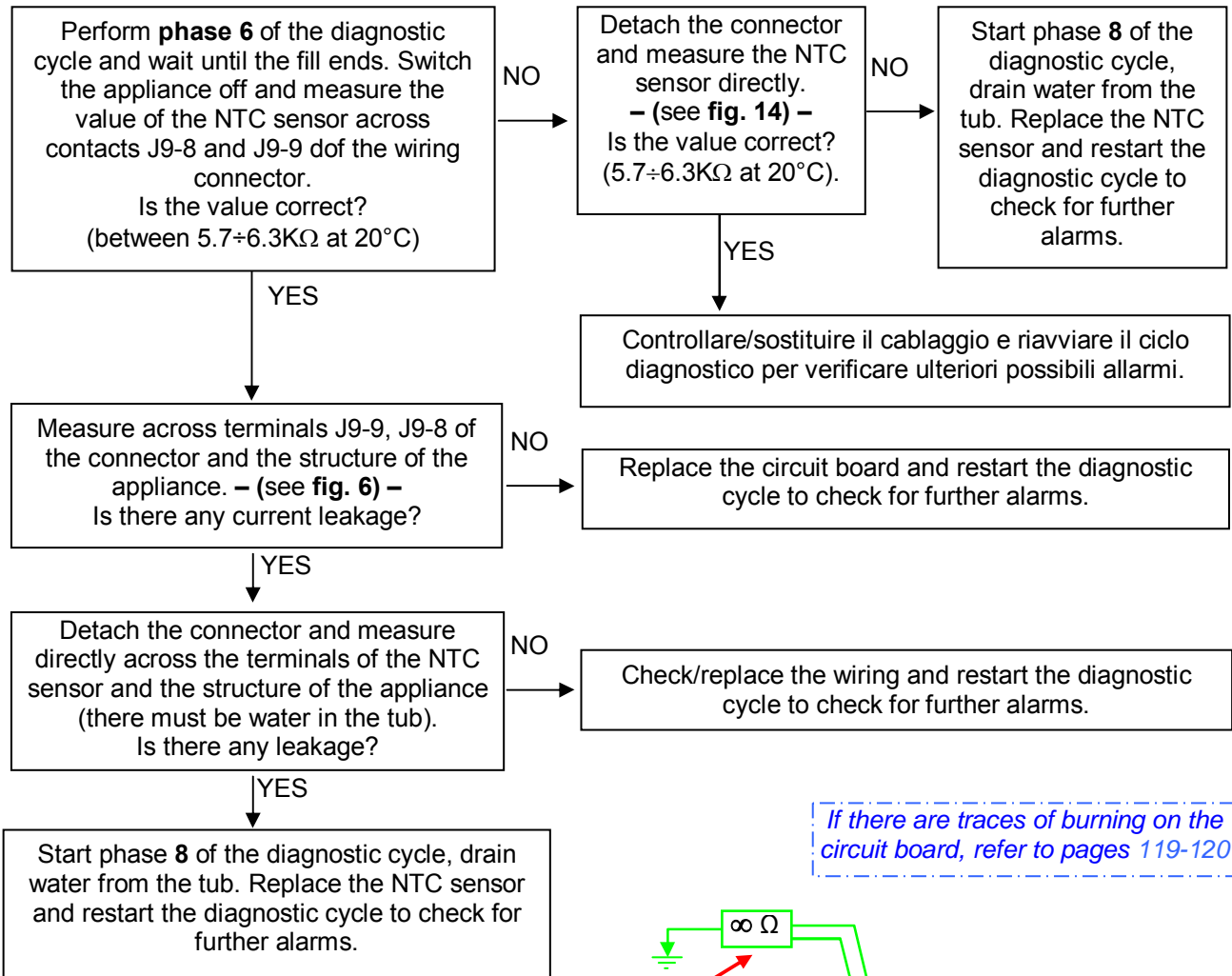
Fig.4



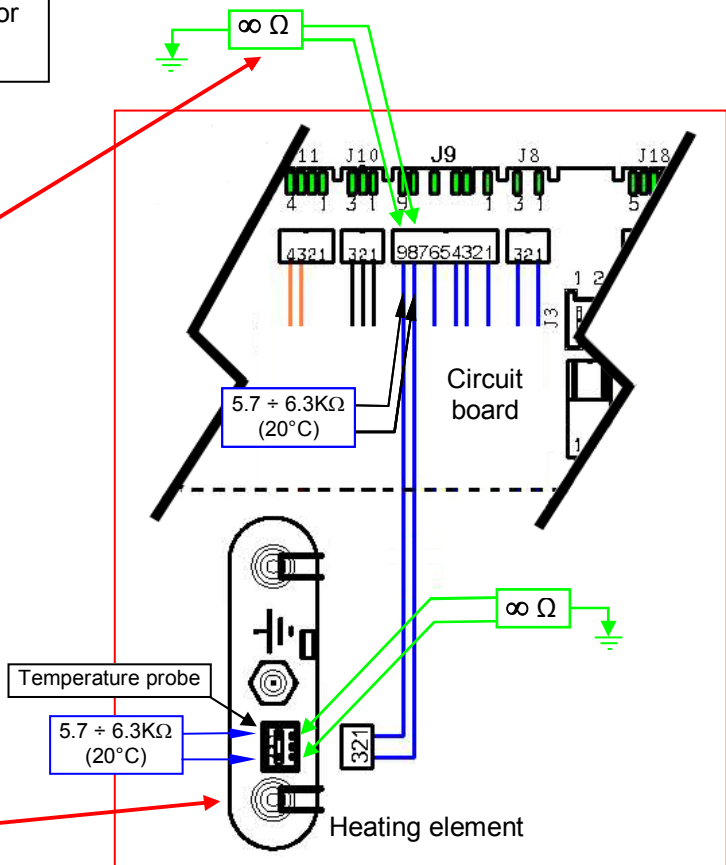
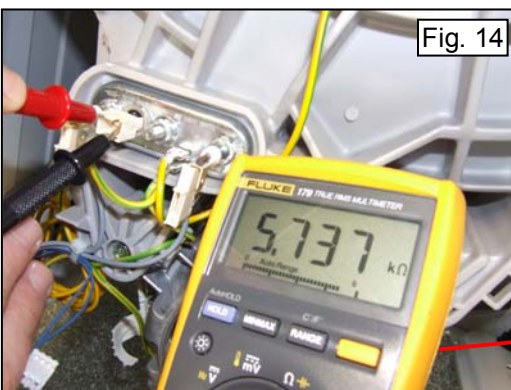
If there are traces of burning on the circuit board, refer to pages 119-120

<b>E71</b>	<b>E71: NTC washing sensor faulty</b>	<b>E71</b>
	Voltage not within limits (short-circuited or open)	

**Checks to perform:** Check that all the connectors are inserted correctly



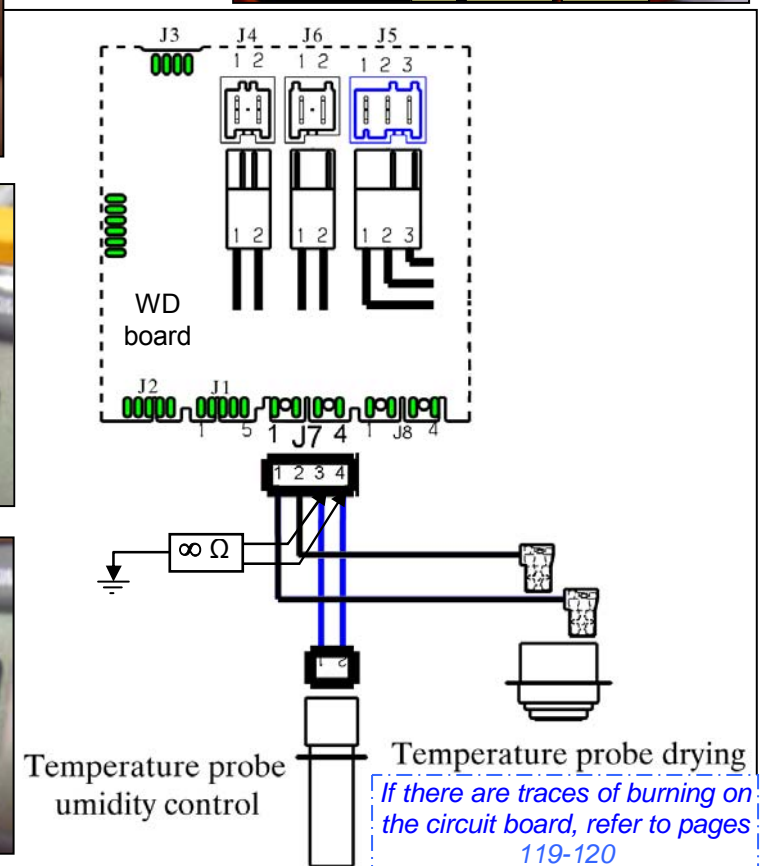
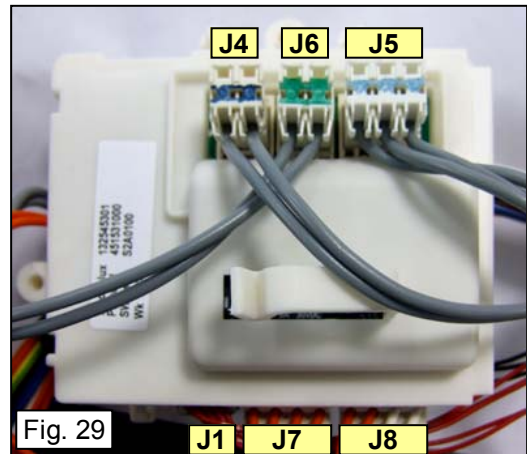
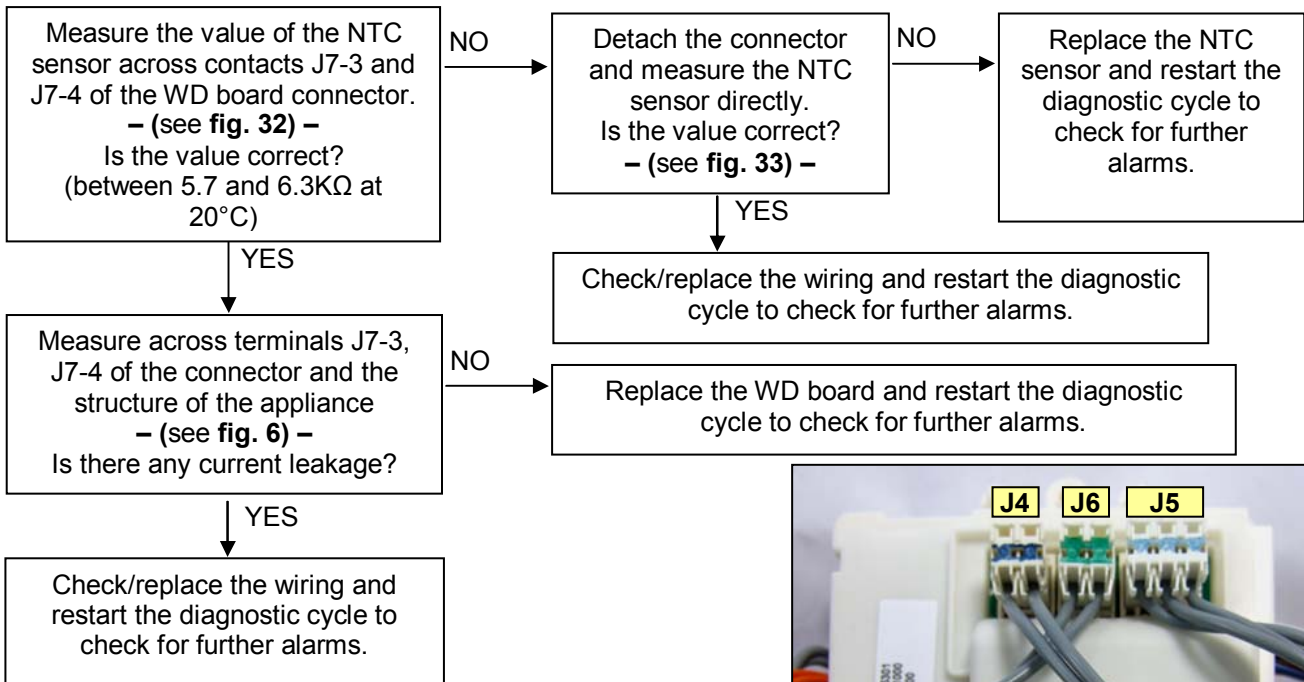
*If there are traces of burning on the circuit board, refer to pages 119-120*





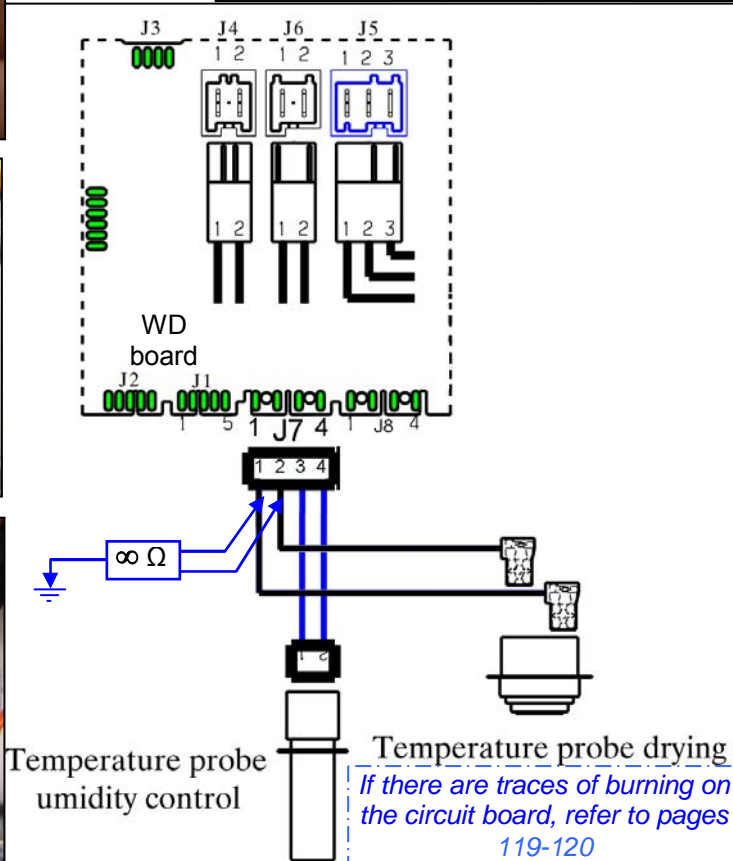
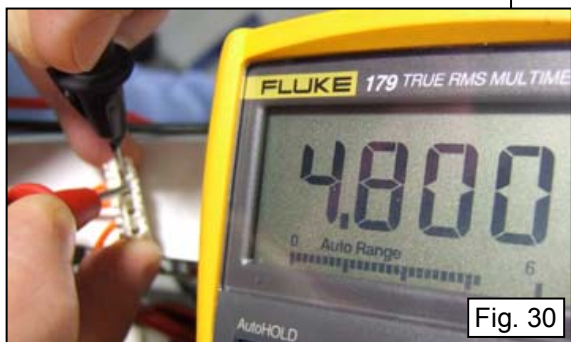
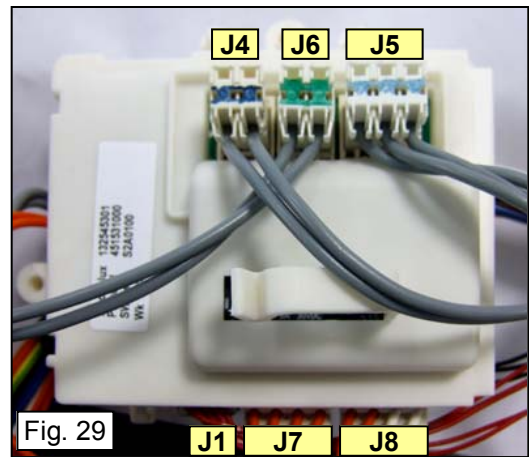
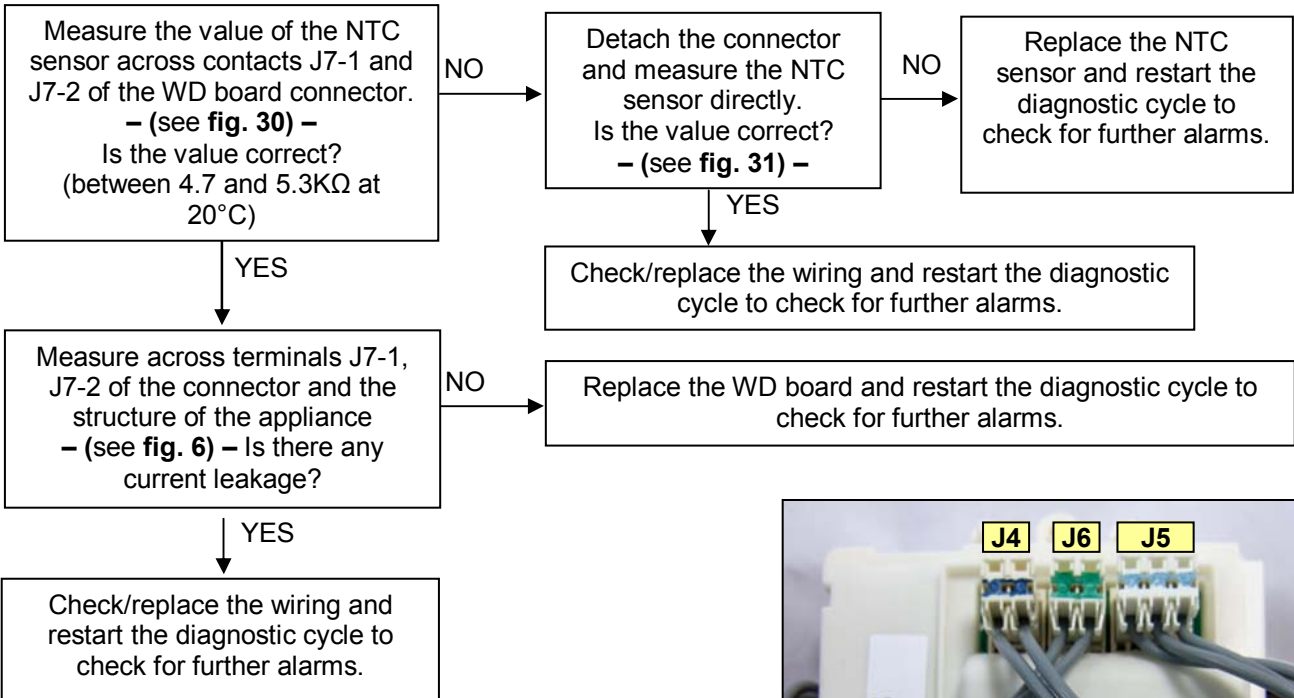
<b>E72</b>	<b>E72: Drying NTC sensor on condenser faulty</b>	<b>E72</b>
	Ohm value of the NTC out of limits	

**Checks to perform:** Check that all the connectors are inserted correctly

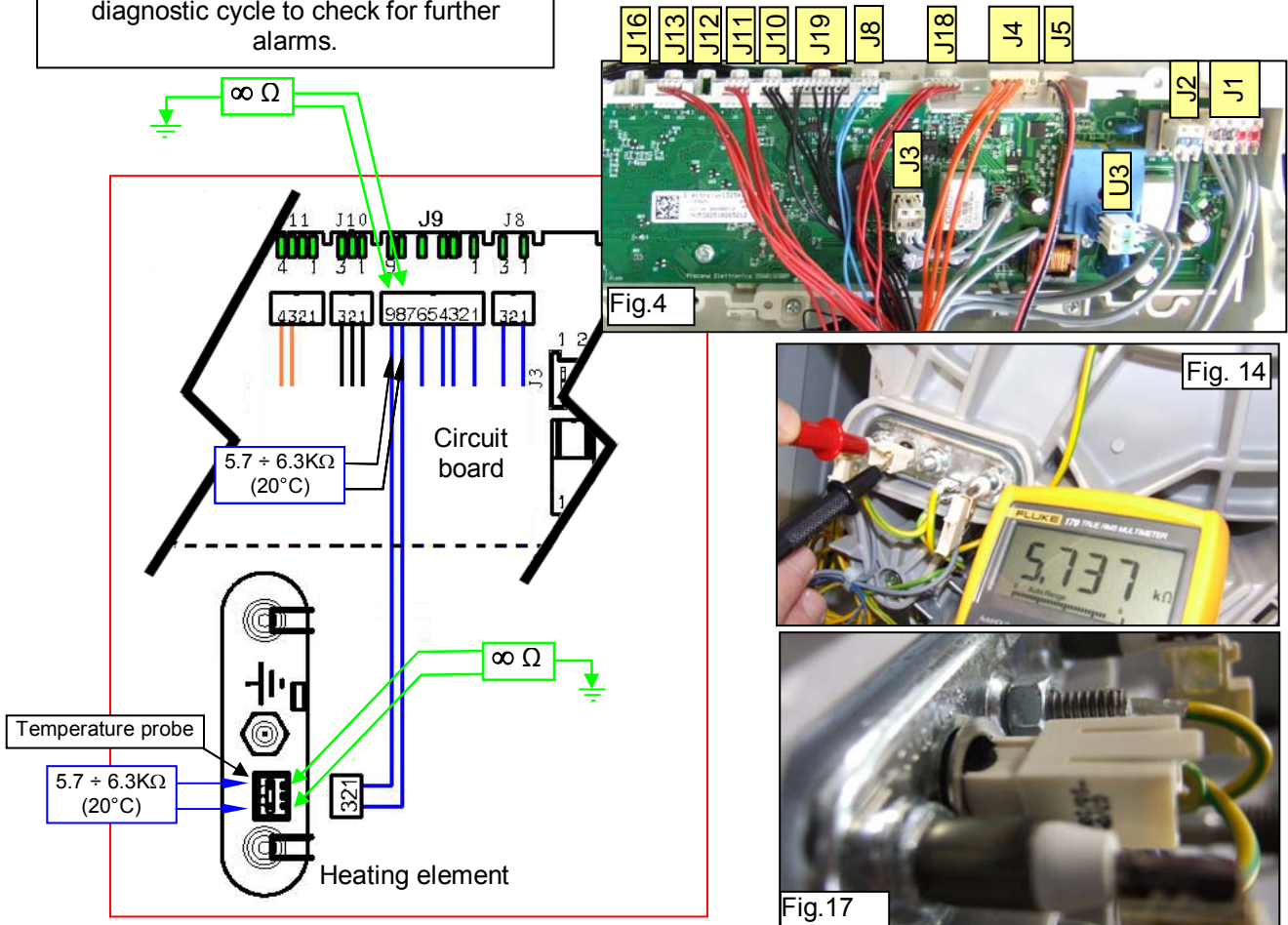
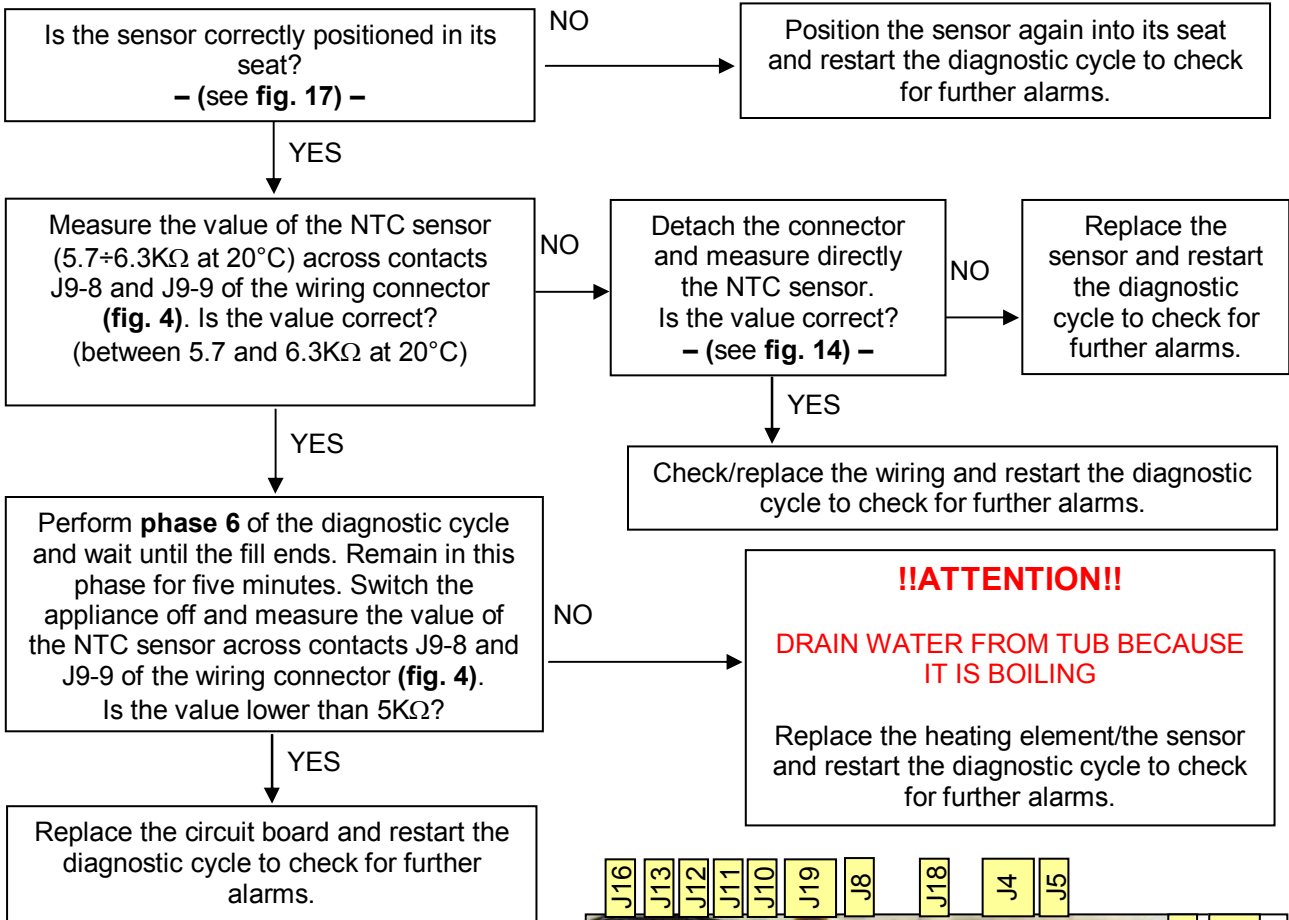


<b>E73</b>	<b>E73: NTC sensor on drying duct faulty</b>	<b>E73</b>
	Ohm value of the NTC out of limits	

**Checks to perform:** Check that all the connectors are inserted correctly

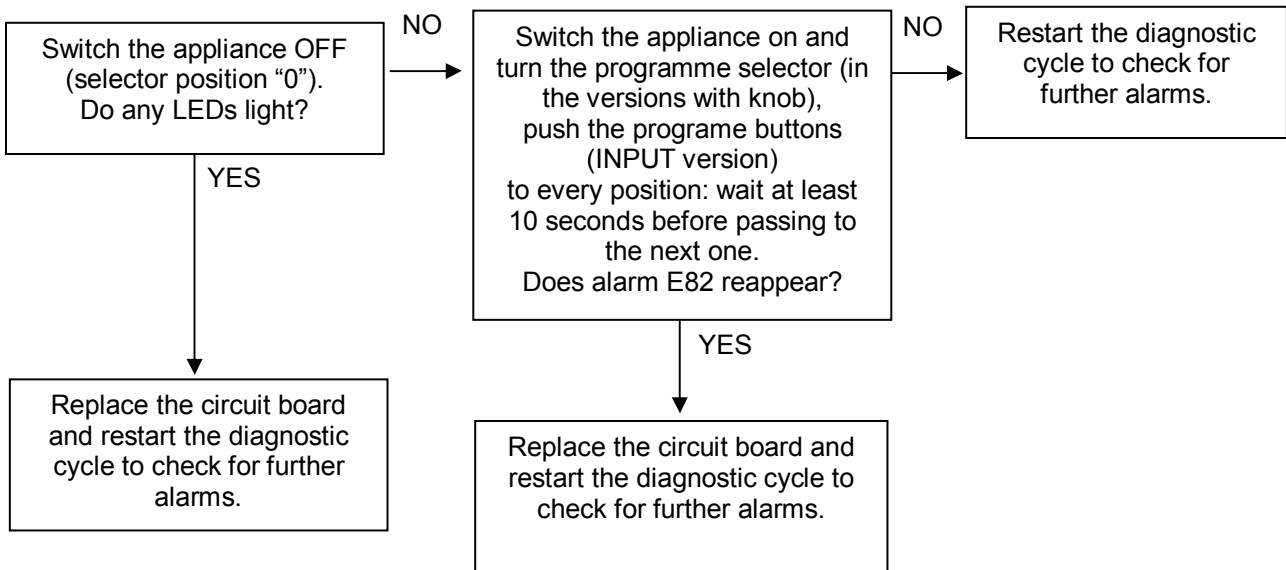


Checks to perform: Check that all the connectors are inserted correctly



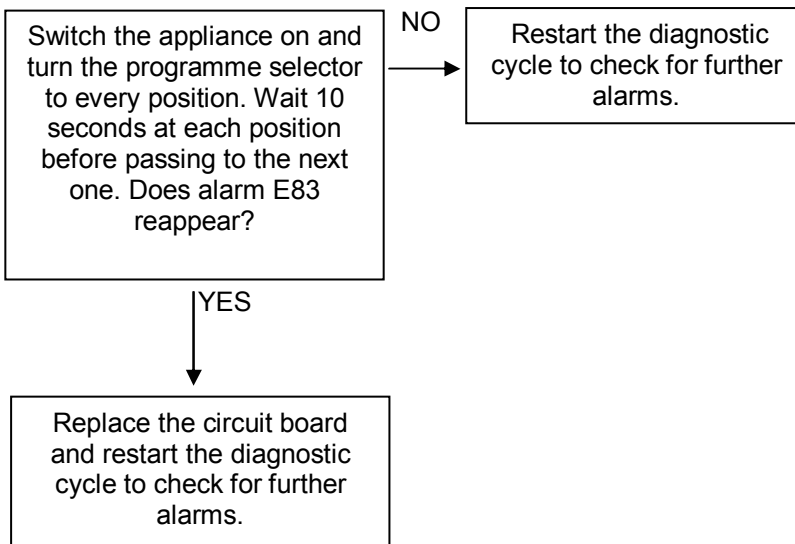
<b>E82</b>	<b>E82: Error in reading the RESET/OFF position of the programme selector</b>	<b>E82</b>
	Reading of position "0" of the selector when the appliance is switched on, or configuration error	

*Checks to perform: Check that all the connectors are inserted correctly*



<b>E83</b>	<b>E83: Error in reading the programme selector code</b>	<b>E83</b>
	Code for the position of the selector not included in configuration data or configuration error	

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>E91</b>	<b>E91: Communication error between user interface and main board</b>	<b>E91</b>
	Incongruence of configuration values at the switching on of the appliance	

*Checks to perform: Check that all the connectors are inserted correctly*

*Possible configuration error*  
Replace the circuit board and restart the diagnostic cycle to check for further alarms.

<b>E92</b>	<b>E92: Protocol incongruence</b>	<b>E92</b>
	Incongruence of configuration values at the switching on of the appliance	

*Checks to perform: Check that all the connectors are inserted correctly*

*Possible configuration error*  
Replace the circuit board and restart the diagnostic cycle to check for further alarms.

<b>E93</b>	<b>E93: Appliance configuration error</b>	<b>E93</b>
	Incongruence of configuration values at the switching on of the appliance	

*Checks to perform: Check that all the connectors are inserted correctly*

*Possible configuration error*  
Replace the circuit board and restart the diagnostic cycle to check for further alarms.

<b>E94</b>	<b>E94: Washing cycle configuration error</b>	<b>E94</b>
	Incongruence of configuration values at the switching on of the appliance	

*Checks to perform: Check that all the connectors are inserted correctly*

*Possible configuration error*  
Replace the circuit board and restart the diagnostic cycle to check for further alarms.

<b>E95</b>	<b>E95: Communication failed between EEprom and Microprocessor</b>	<b>E95</b>
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*Checks to perform: Check that all the connectors are inserted correctly*

Replace the circuit board and restart the diagnostic cycle to check for further alarms.

<b>E97</b>	<b>E97: Incongruence between version of the control selector and configuration data</b>	<b>E97</b>
	Incongruence between configuration data of the programmes and those of the selector	

*Checks to perform: Check that all the connectors are inserted correctly*

*Possible configuration error*  
Replace the circuit board and restart the diagnostic cycle to check for further alarms.

<b>E98</b>	<b>E98: Communication error between main board and Inverter board</b>	<b>E98</b>
	Incompatibility between main board and Inverter board	

*Checks to perform: Check that all the connectors are inserted correctly*

*Possible configuration error*  
Replace the main board / Inverter board and restart the diagnostic cycle to check for further alarms.

<b>E9H</b>	<b>E9H: Communication error between microprocessor and Flash memory</b>	<b>E9H</b>
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*Checks to perform: Check that all the connectors are inserted correctly*

Replace the main board and restart the diagnostic cycle to check for further alarms.

<b>E9C</b>	<b>E9C: Appliance configuration error</b>	<b>E9C</b>
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*Checks to perform: Check that all the connectors are inserted correctly*

Replace the main board and restart the diagnostic cycle to check for further alarms.

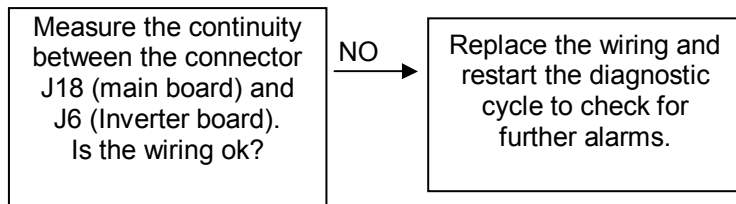
<b>E9d</b>	<b>E9d: Clock faulty</b>	<b>E9d</b>
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*Checks to perform: Check that all the connectors are inserted correctly*

Replace the main board and restart the diagnostic cycle to check for further alarms.

<b>E9F</b>	<b>E9F: Communication error between main board and Inverter board</b>	<b>E9F</b>
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*Checks to perform: Check that all the connectors are inserted correctly*

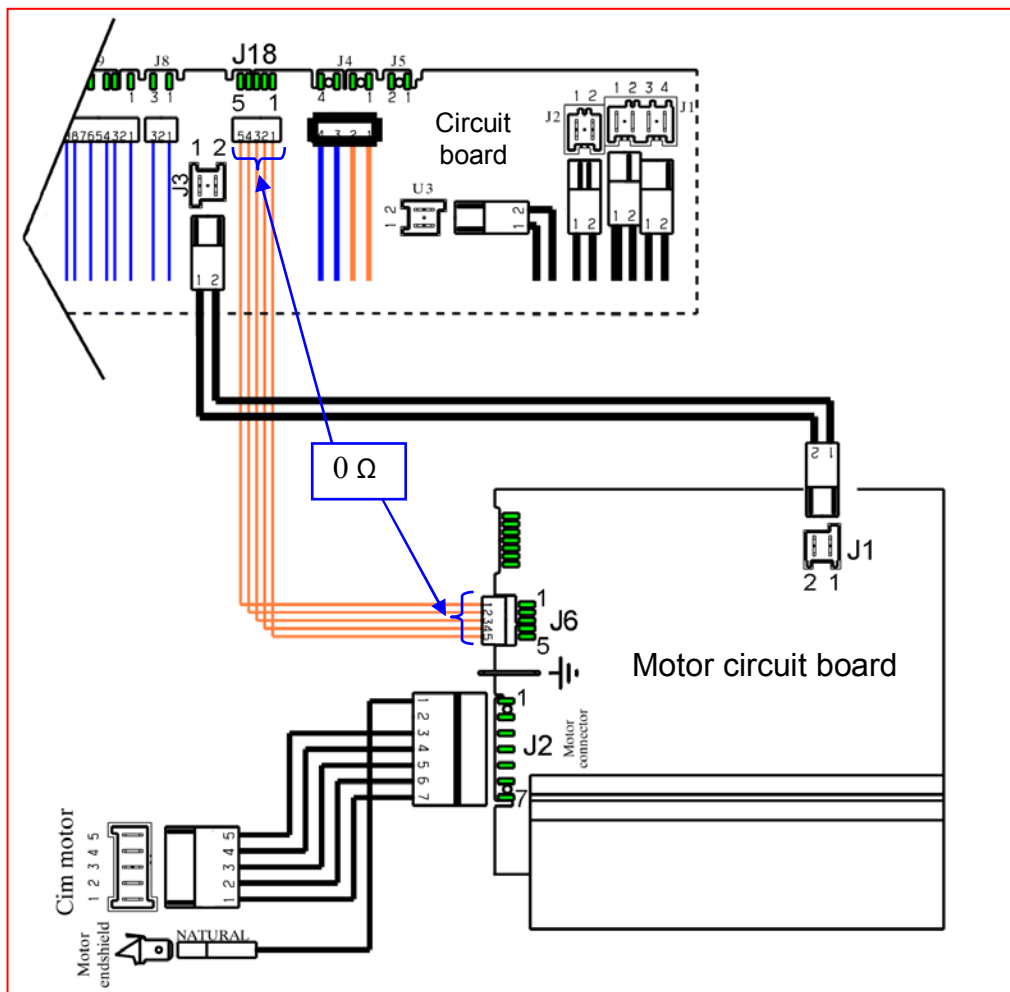


Replace the Inverter board and restart the diagnostic cycle to check for further alarms.



If the alarm appears again, replace the main board and restart the diagnostic cycle to check for further alarms.

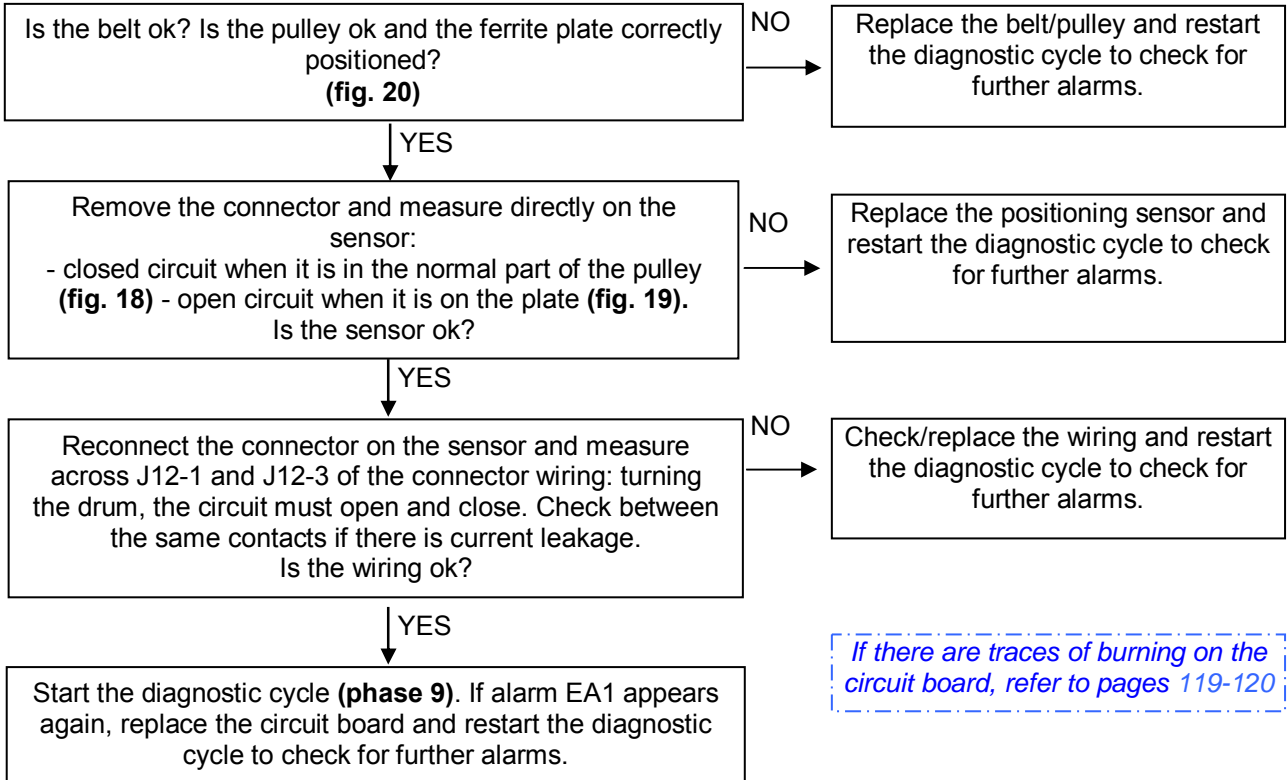
*If there are traces of burning on the circuit board, refer to pages 119-120*



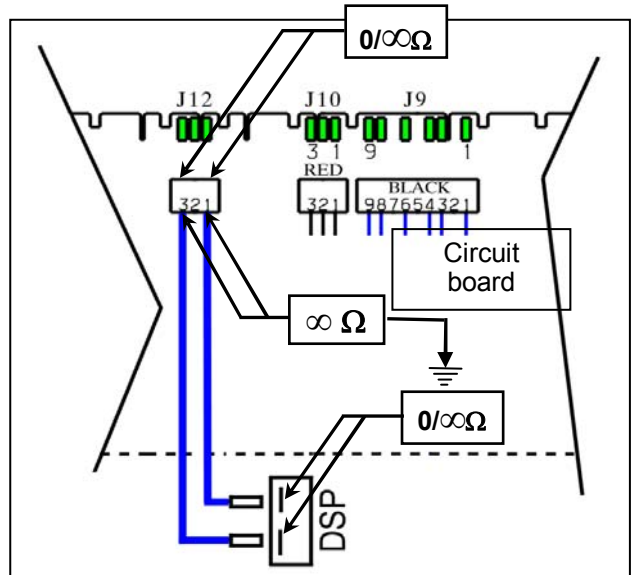
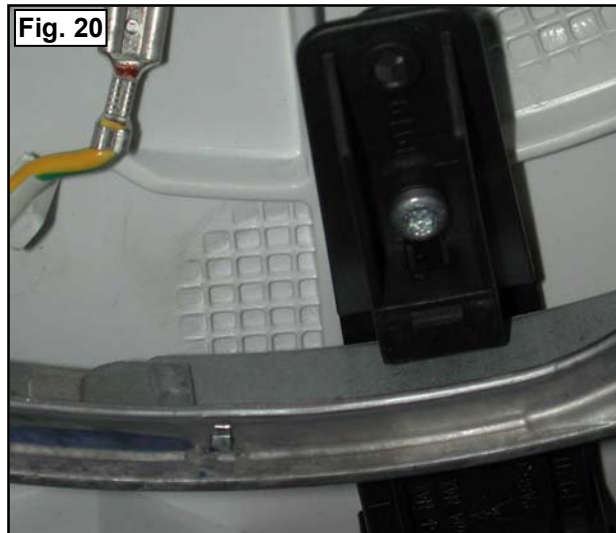


<b>EA1</b>	<b>EA1: Drum positioning system faulty (top-loaders)</b>	<b>EA1</b>
	No signal or discontinuous signal from the sensor for more than 10 seconds during actioning of the motor to position the drum	

**Checks to perform:** Check that all the connectors are inserted correctly

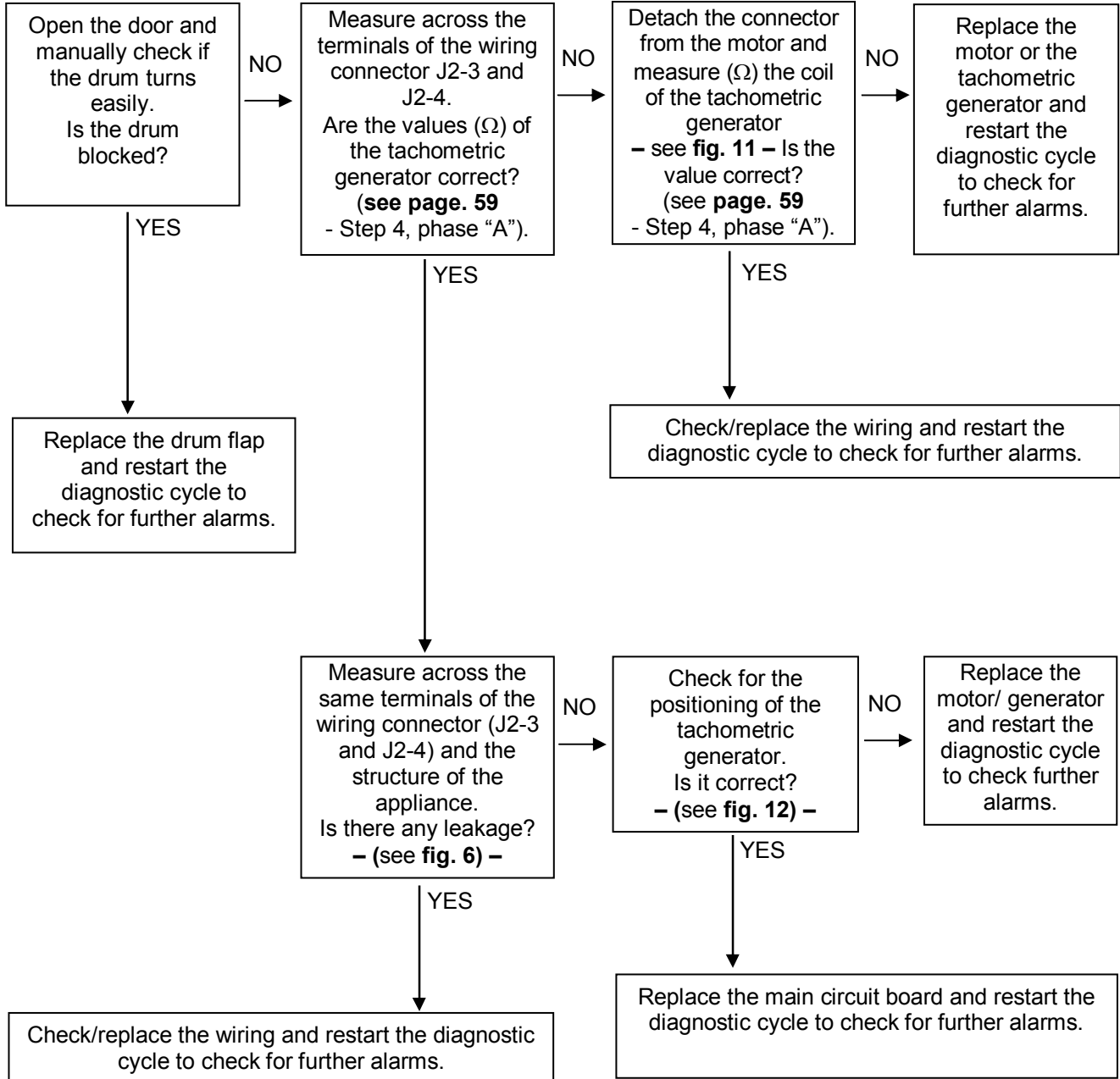


*If there are traces of burning on the circuit board, refer to pages 119-120*

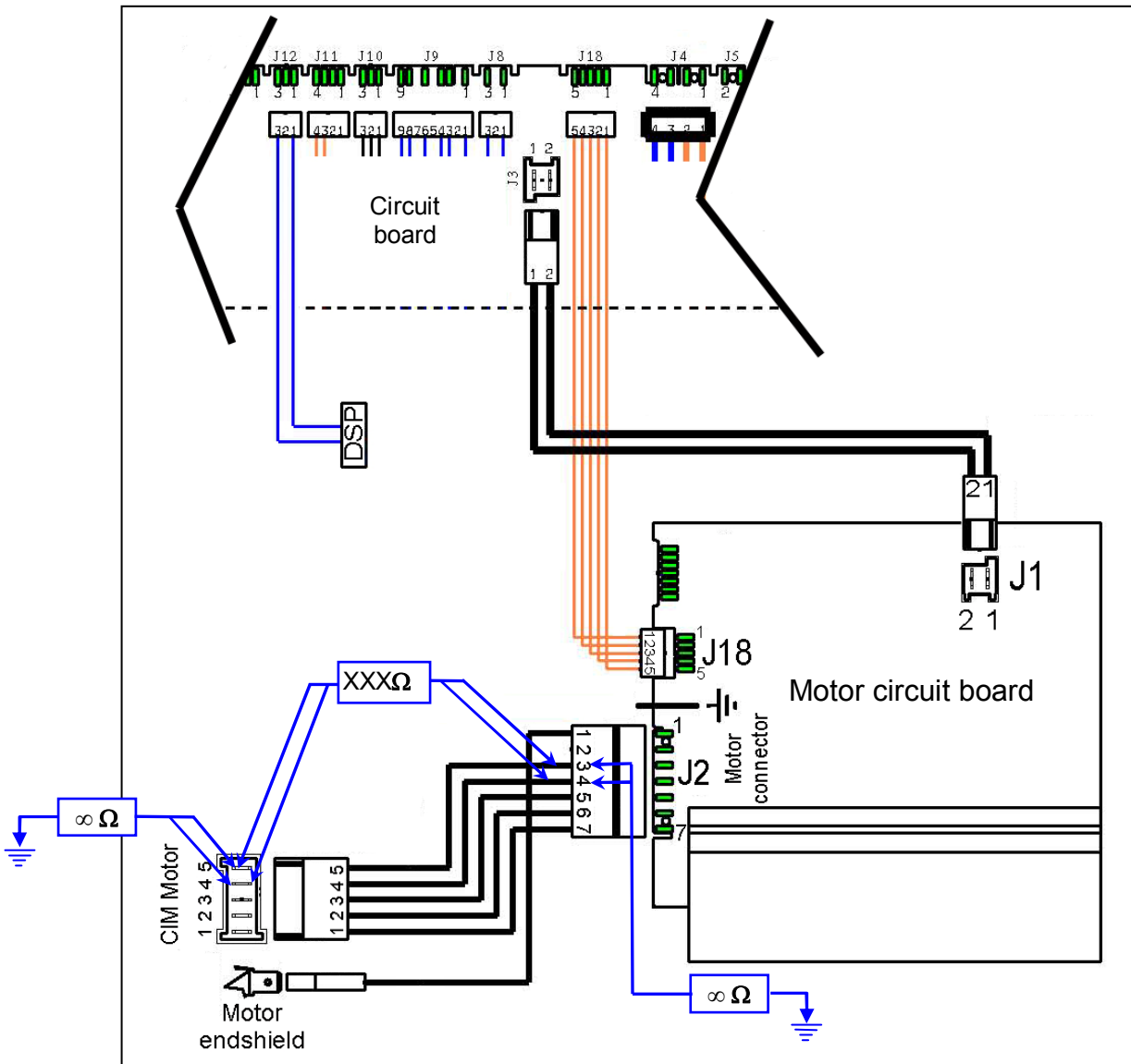
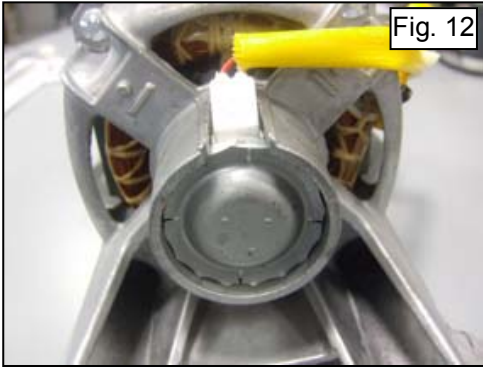
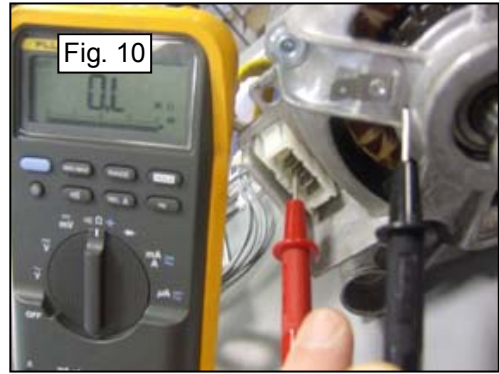
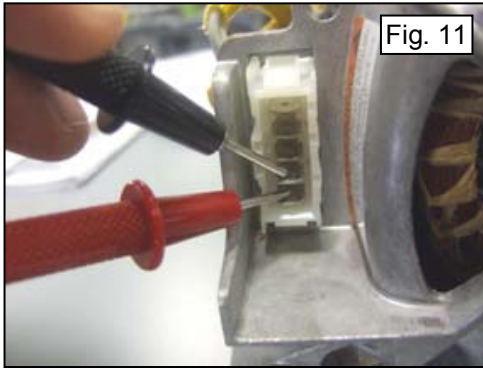


<b>EA6</b>	<b>EA6: Drum flap faulty (top-loaders)</b>	<b>EA6</b>
	Cycle immediately blocked if a not correct tachometric signal is identified for at least 3 seconds	

*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

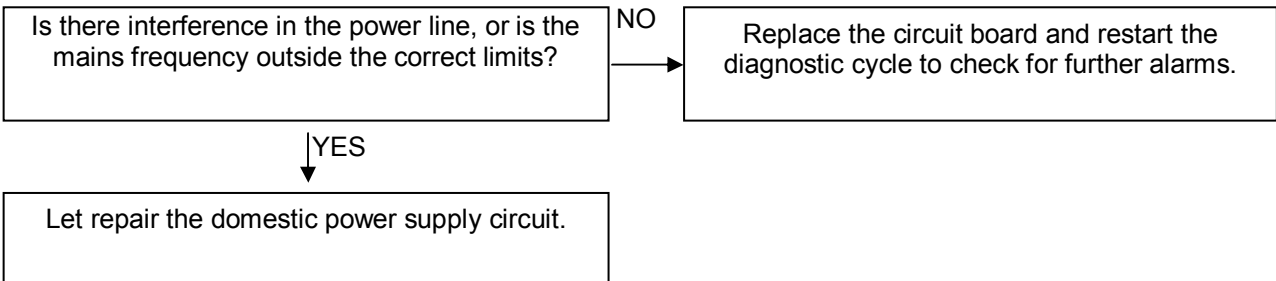


<b>EH1</b>	<b>EH1: Incorrect mains frequency</b>	<b>EH1</b>
	The power supply frequency is not within the configured limits	

*Checks to perform: Check that all the connectors are inserted correctly*

**Important!**

The appliance remains in alarm mode until the frequency returns to the correct value or the appliance is switched off (programme selector on "0"). Only the family of the alarm is displayed, and the diagnostic cycle cannot be started. The complete alarm can be read only when the alarm condition has ceased.

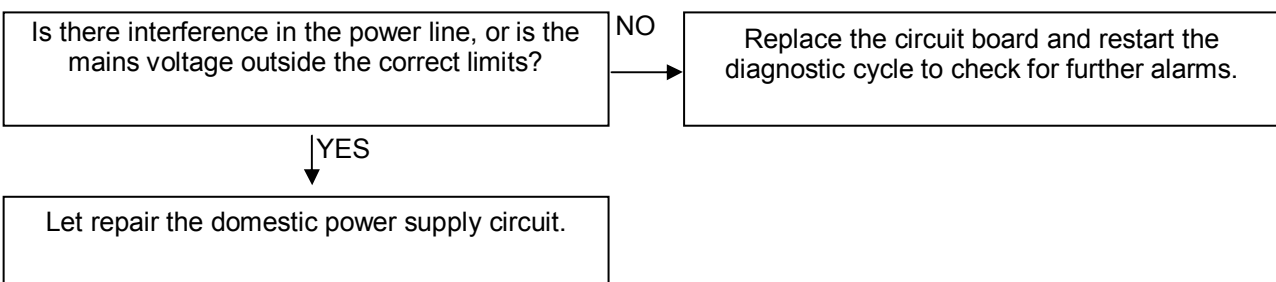


<b>EH2</b>	<b>EH2: Mains voltage too high</b>	<b>EH2</b>
	Mains voltage higher than configured voltage (for more than 10 seconds)	

*Checks to perform: Check that all the connectors are inserted correctly*

**Important!**

The appliance remains in alarm mode until the frequency returns to the correct value or the appliance is switched off (programme selector on "0"). Only the family of the alarm is displayed, and the diagnostic cycle cannot be started. The complete alarm can be read only when the alarm condition has ceased.

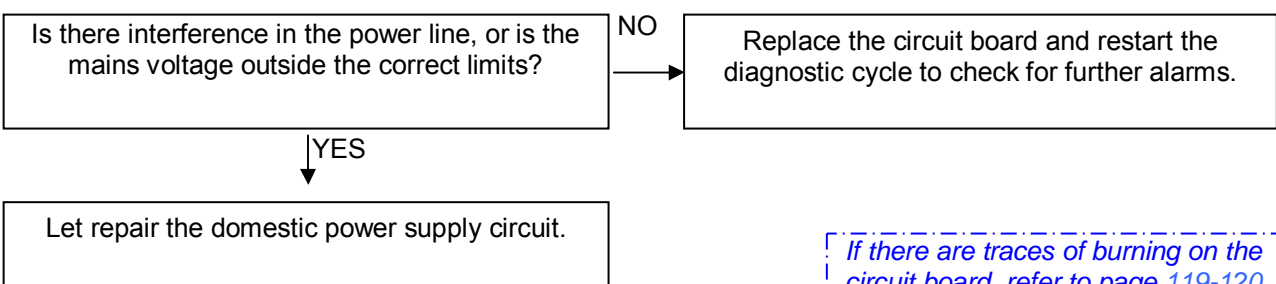


<b>EH3</b>	<b>EH3: Mains voltage too low</b>	<b>EH3</b>
	Mains voltage lower than configured voltage	

*Checks to perform: Check that all the connectors are inserted correctly*

**Important!**

The appliance remains in alarm mode until the frequency returns to the correct value or the appliance is switched off (programme selector on "0"). Only the family of the alarm is displayed, and the diagnostic cycle cannot be started. The complete alarm can be read only when the alarm condition has ceased.



*If there are traces of burning on the circuit board, refer to page 119-120*

<b>EHE</b>	<b>EHE: Incongruence between the safety relay (main board) and safety “sensing” circuit</b>	<b>EHE</b>

*Checks to perform: Check that all the connectors are inserted correctly*

Replace the main board and restart the diagnostic cycle to check for further alarms.

<b>EHF</b>	<b>EHF: Safety “sensing” circuit faulty</b>	<b>EHF</b>
	Input voltage to microprocessor wrong	

*Checks to perform: Check that all the connectors are inserted correctly*

Replace the main board and restart the diagnostic cycle to check for further alarms.

<b>EF1</b>	<b>EF1: Drain hose blocked/throttled/too high; drain filter dirty/blocked</b>	<b>EF1</b>
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It is a warning that appears only at the end of the cycle. The machine has detected long draining phases during the cycle (Es. More then 20 seconds during draining after rinsing phase). Check/clean the drain filter.

<b>EF2</b>	<b>EF2: Overdosing of detergent; drain hose blocked/throttled; drain filter dirty/blocked</b>	<b>EF2</b>
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Overdosing of detergent. The system has detected an over foaming during draining phases. Advice Customer to use the right quantity of detergent and verify that drain filter and drain system are clean.

<b>EF3</b>	<b>EF3: Intervention of Aqua Control device</b>	<b>EF3</b>
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It warns about the presence of water at the bottom of the appliance. Check for any possible water leaks and the correct positioning of the float of the Aqua Control device.  
It can also be caused by excessive overheating of the drain pump. Check for any items which may obstruct the normal operation of the rotor.

<b>EF4</b>	<b>EF4: Low water fill pressure and solenoid open</b>	<b>EF4</b>
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It is a warning of water pressure too low. If water pressure is correct check the wiring of the flowmeter and the flowmeter.

<b>EF5</b>	<b>EF5: Load too unbalanced, skipping of spin phases</b>	<b>EF5</b>
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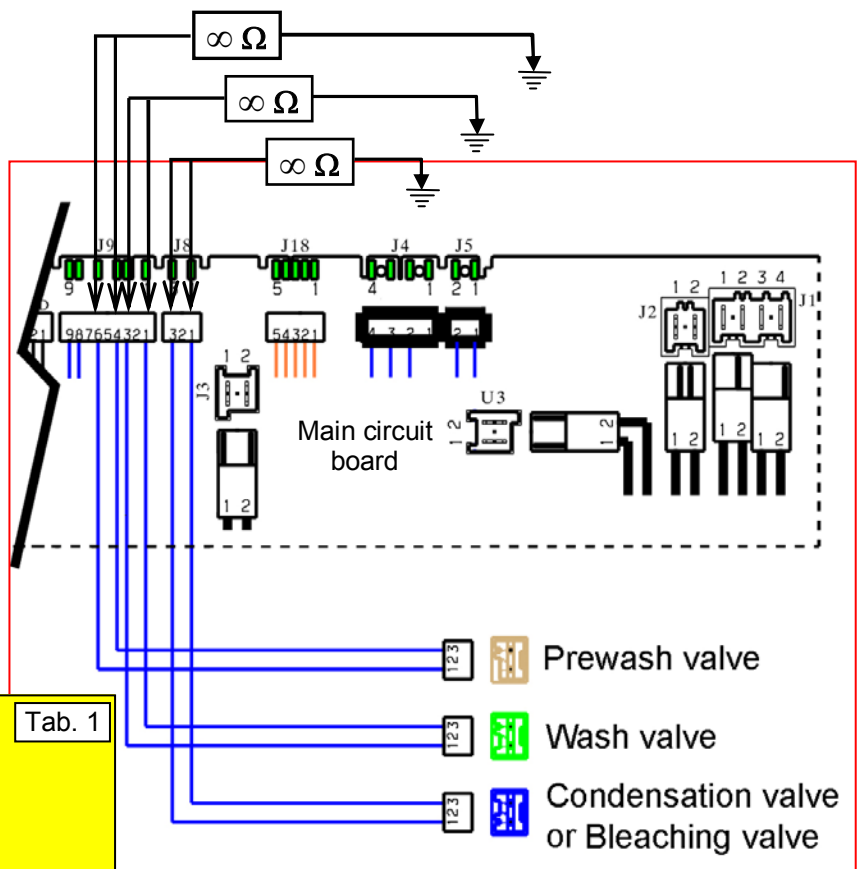
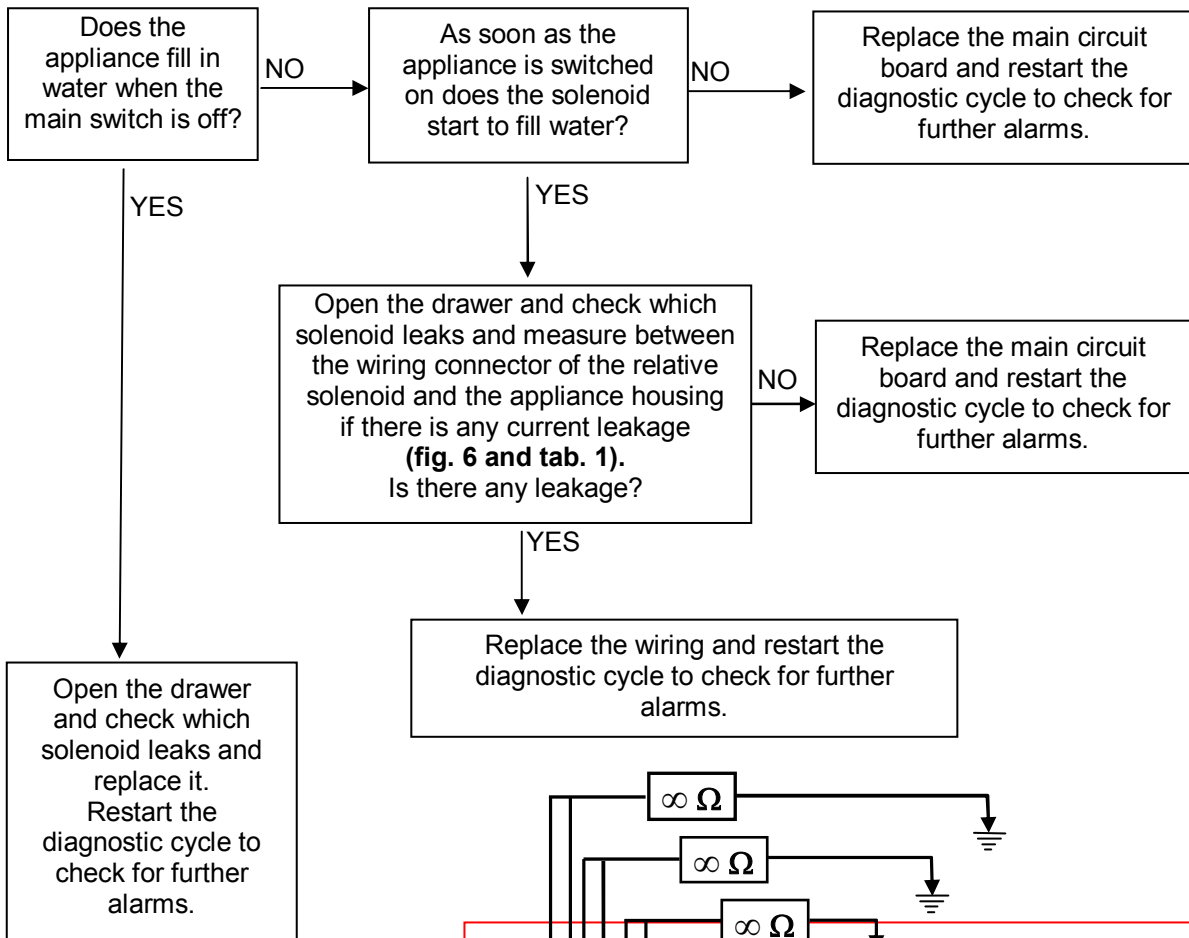
It is a warning of load too unbalanced. During the spin phases the load is excessively unbalanced. Tell the user to load more clothes in the drum and not single clothes.

<b>EF6</b>	<b>EF6: Appliance reset</b>	<b>EF6</b>
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No action to be carried out, if it does not disappear, replace the circuit board.

<b>EC1</b>	<b>EC1: Water fill solenoids blocked</b>	<b>EC1</b>
	The flowmeter detects water filling even if the solenoid is not controlled	

*Checks to perform: Check that all the connectors are inserted correctly*



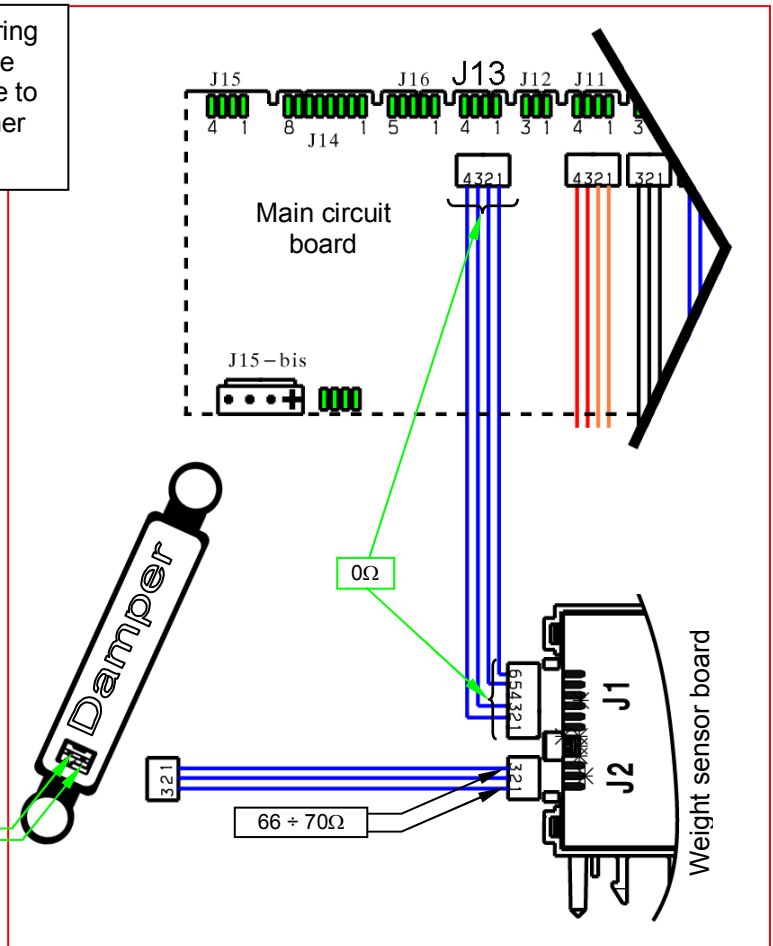
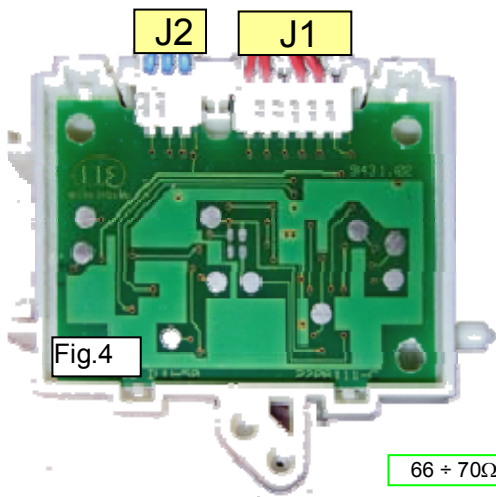
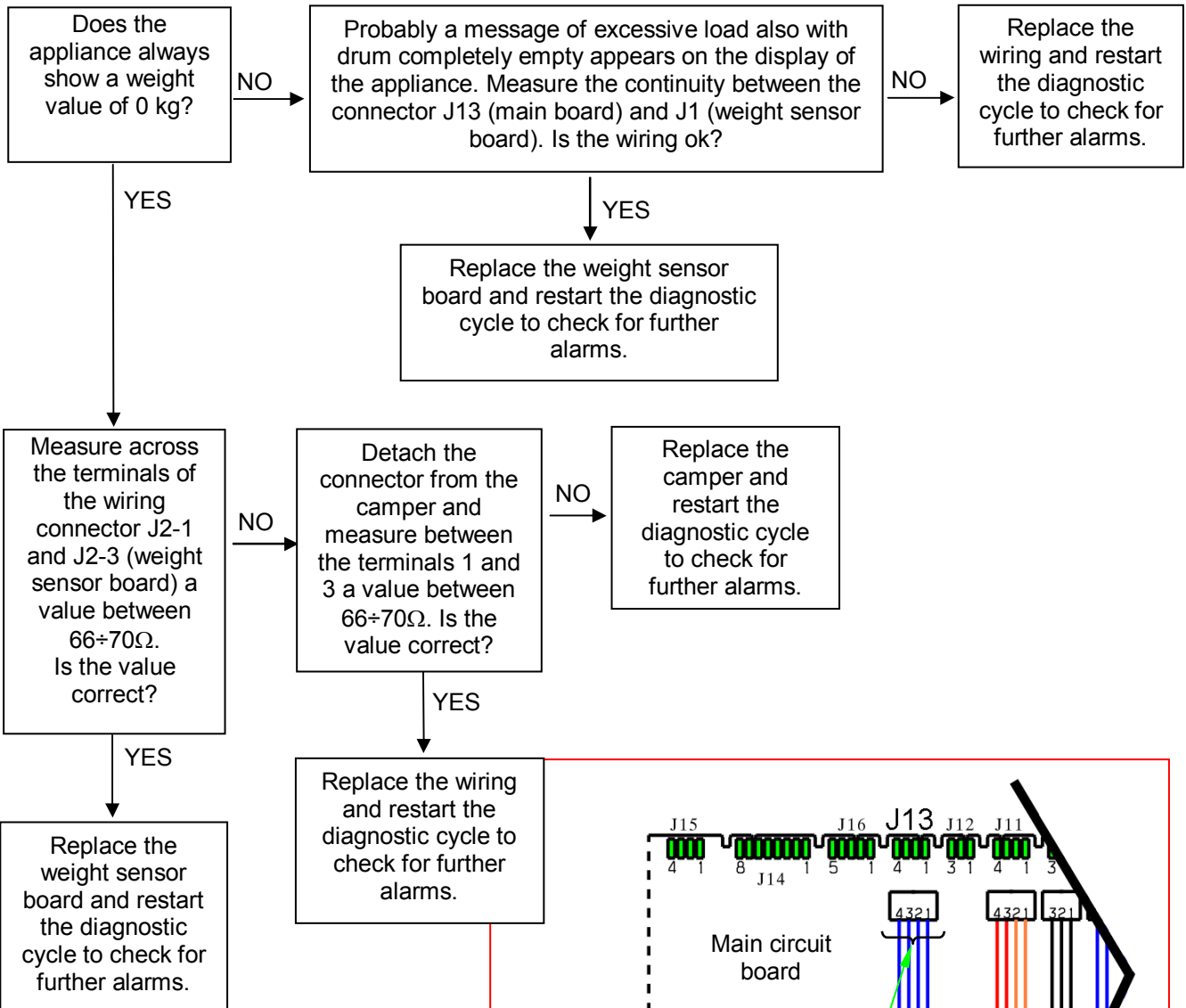
**Version WM**  
 Across J8-1 and J8-3 bleach solenoid  
 Across J9-1 and J9-3 wash solenoid  
 Across J9-4 and J9-6 prewash solenoid

**Version WD**  
 Across J8-1 and J8-3 condensation solenoid  
 Across J9-1 and J9-3 wash solenoid  
 Across J9-4 and J9-6 prewash solenoid

*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>EC3</b>	<b>EC3: Problem with the weight sensor</b>	<b>EC3</b>
	Missing signal or out of the limits	

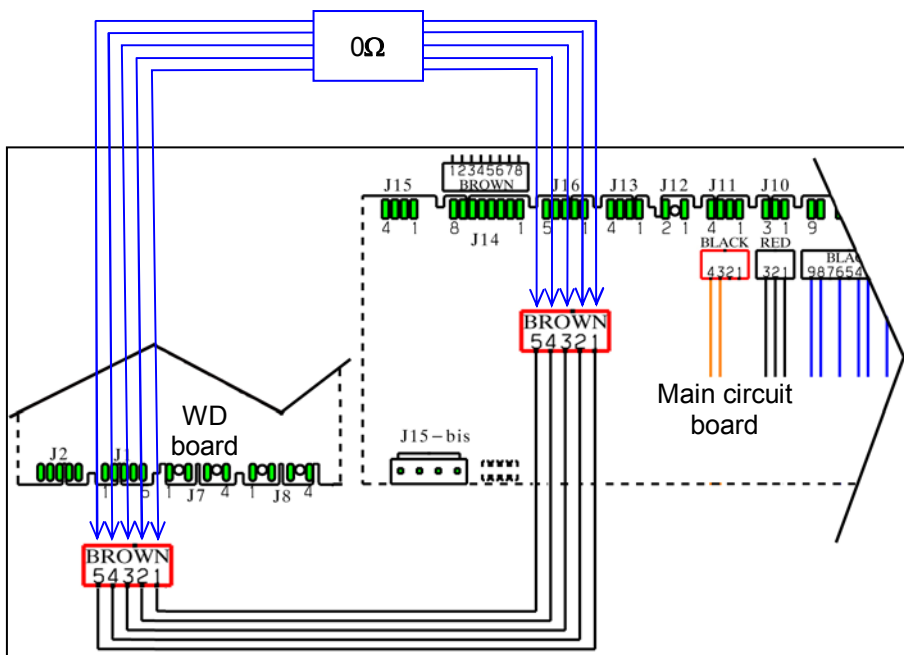
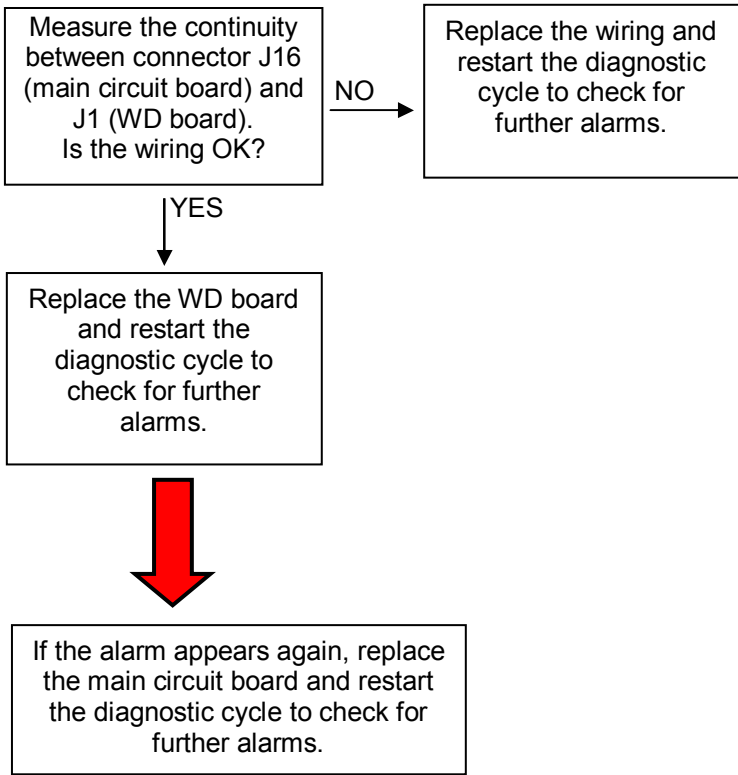
**Checks to perform:** *Check that all the connectors are inserted correctly*





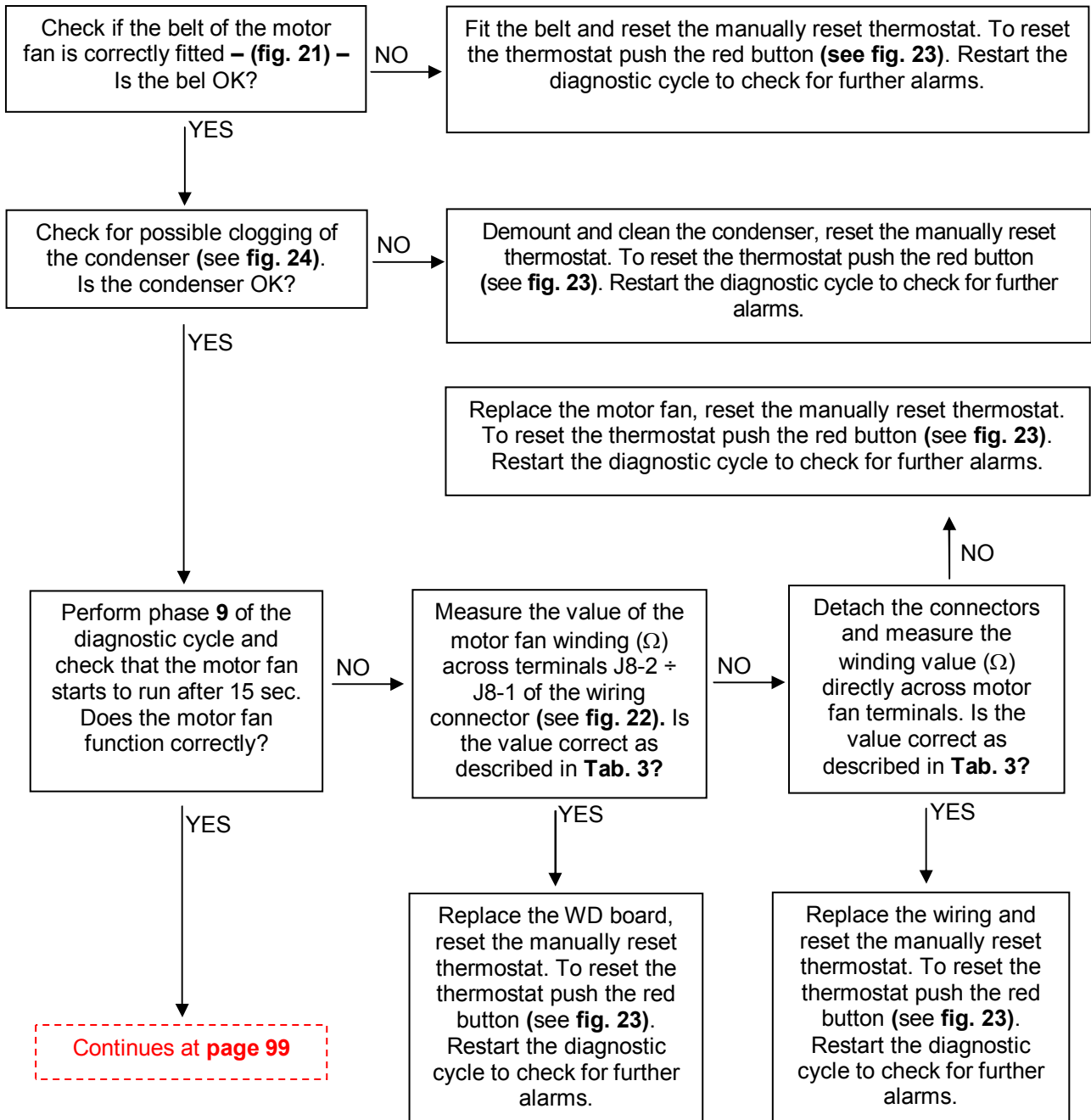
<b>Ed1</b>	<b>ED1: Communication problems between main circuit board and WD board</b>	<b>Ed1</b>
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*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*

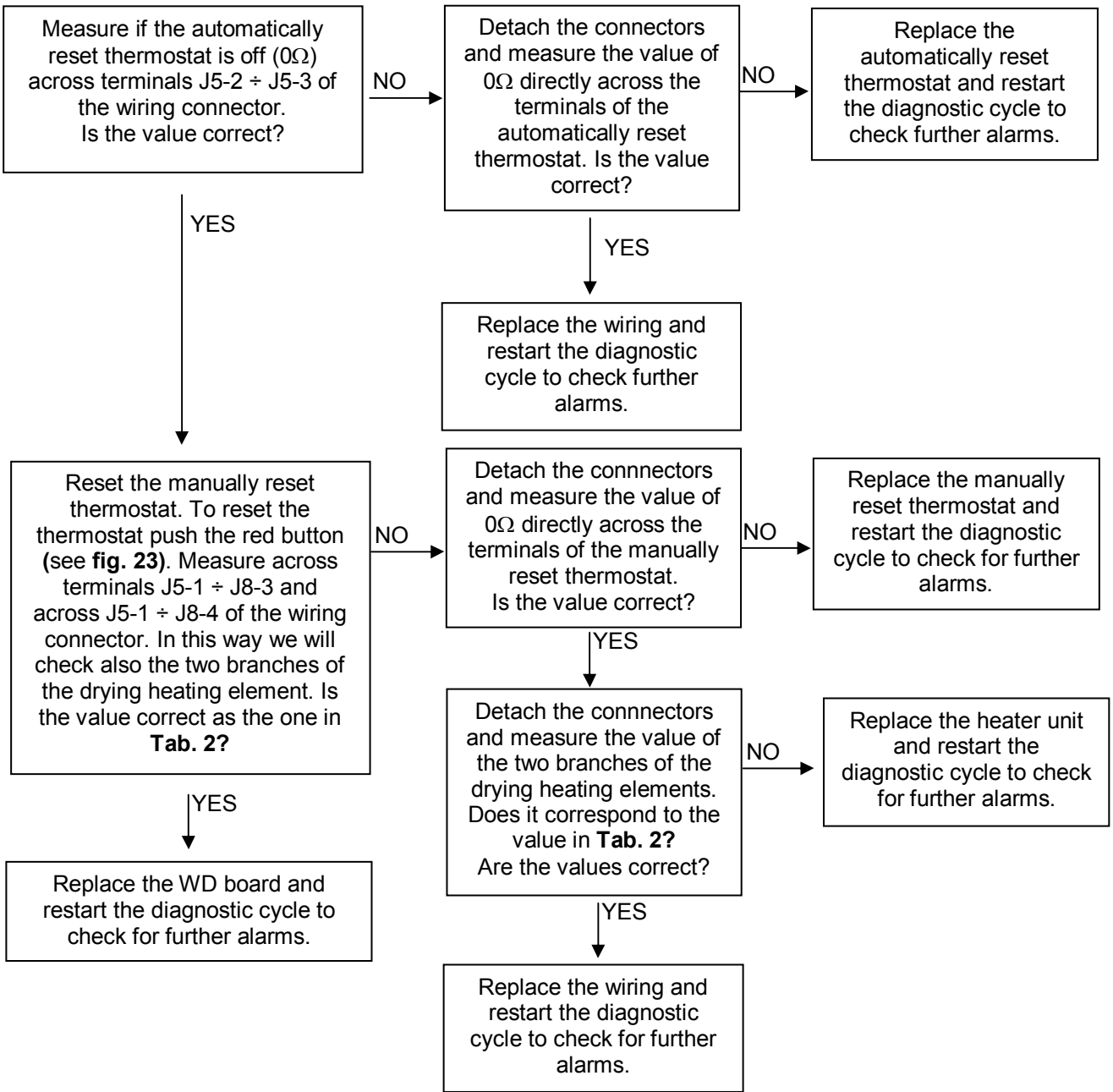
**Checks to perform:** Check that all the connectors are inserted correctly



*If there are traces of burning on the circuit board, refer to page 119-120*

**Ed2**

Follows page 98



**Tab. 2**

**Drying heating element**

**Branch A**  
 Across J5-1 and J8-3 measure a value between:  
 $51.5\Omega \div 69\Omega$ .

**Branch B**  
 Across J5-1 and J8-4 measure a value between:  
 $51.5\Omega \div 69\Omega$ .

**NOTE: The measurements must be carried out with a room temperature of 25°C.**

**Tab. 3**

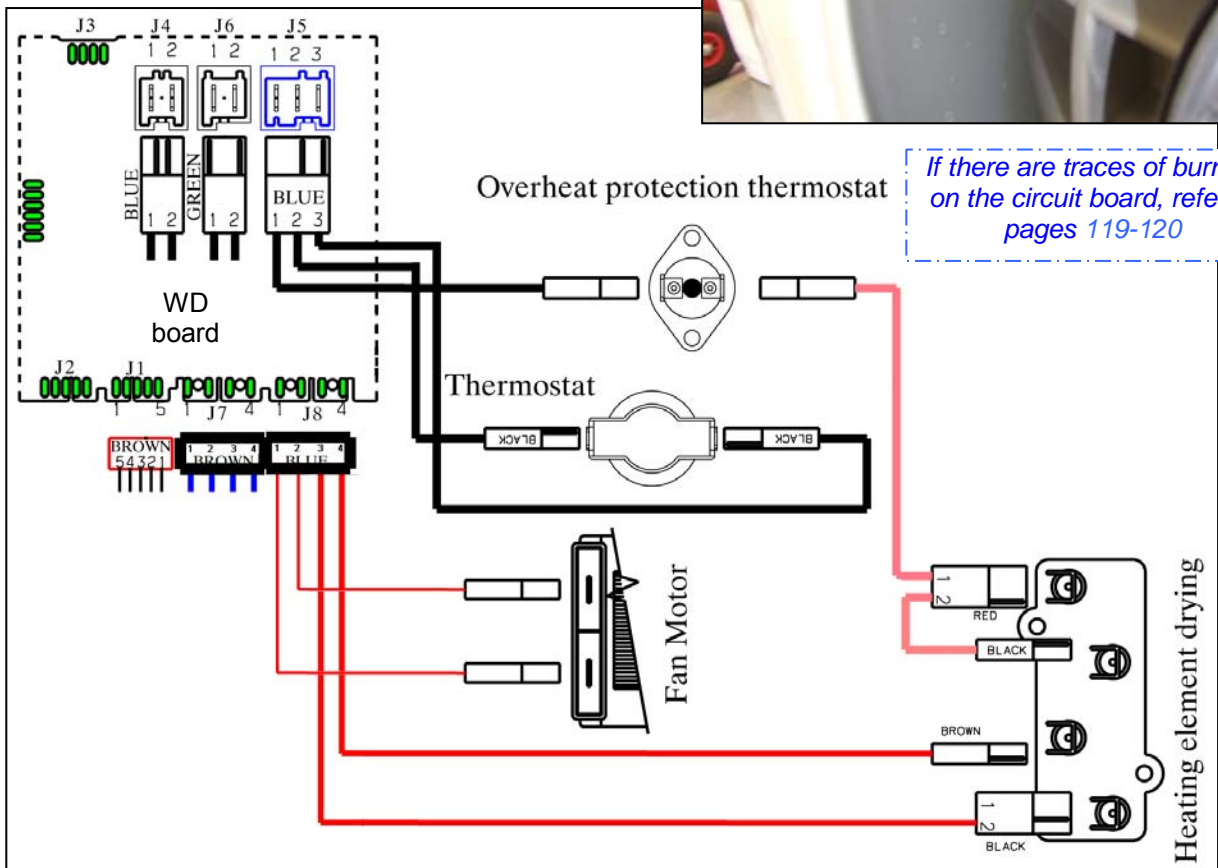
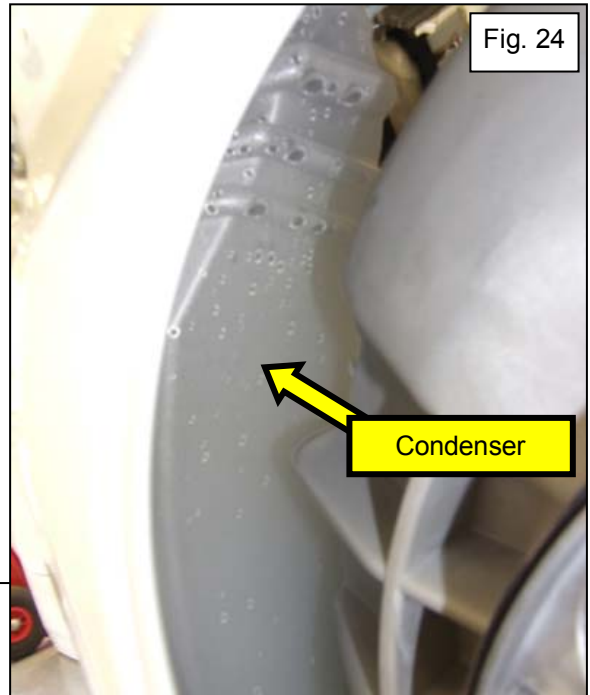
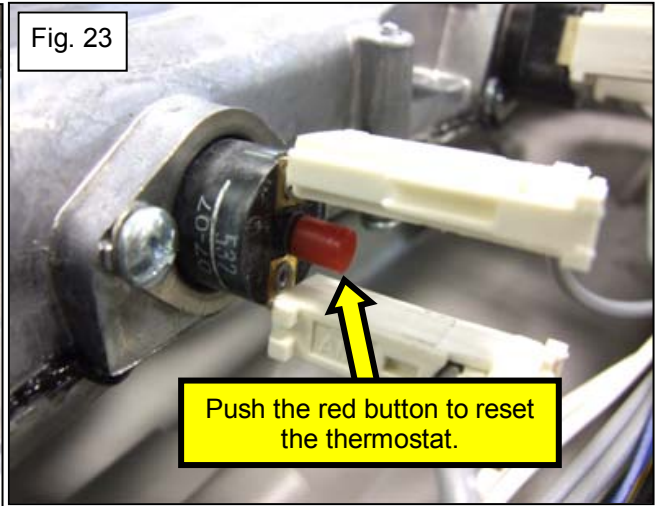
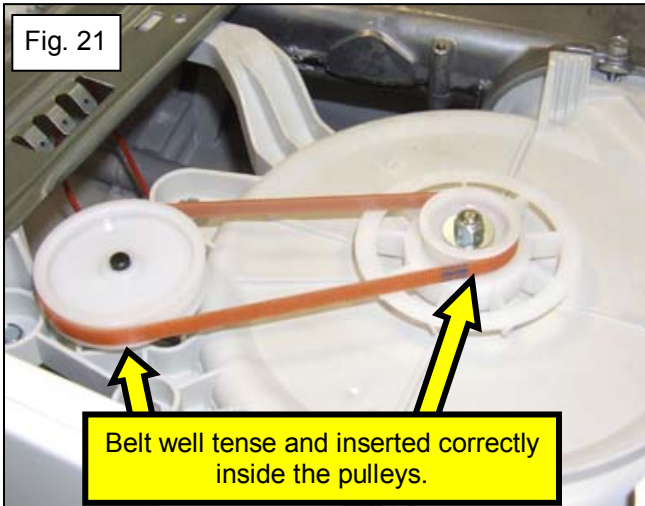
**Motor fan**

The value of winding heating element is between:  
 $22\Omega \div 30.5\Omega$

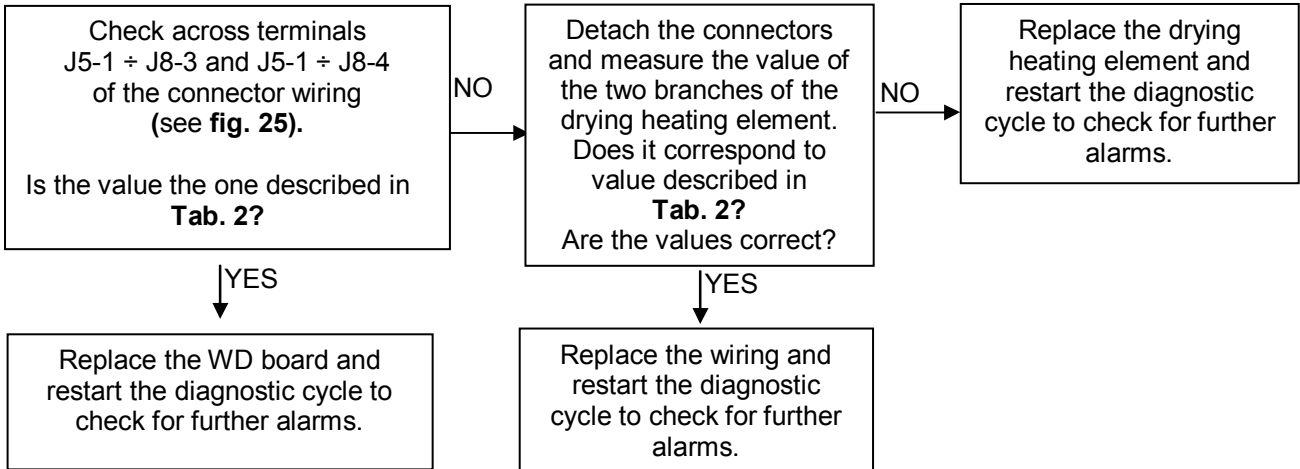
**NOTE: The measurements must be carried out with a room temperature of 25°C.**

If there are traces of burning on the circuit board, refer to page 119-120

**Ed2**



**Checks to perform:** Check that all the connectors are inserted correctly



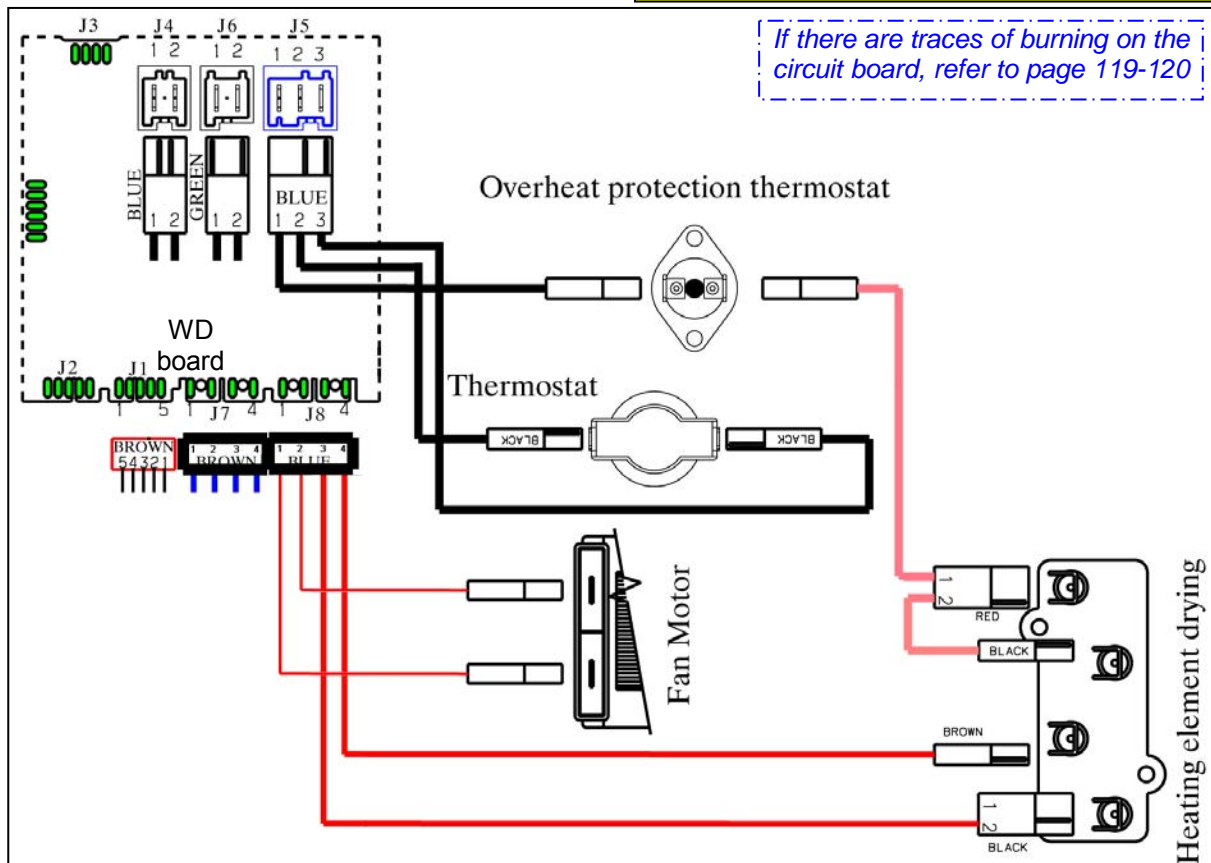
Tab. 2

**Drying heating element**

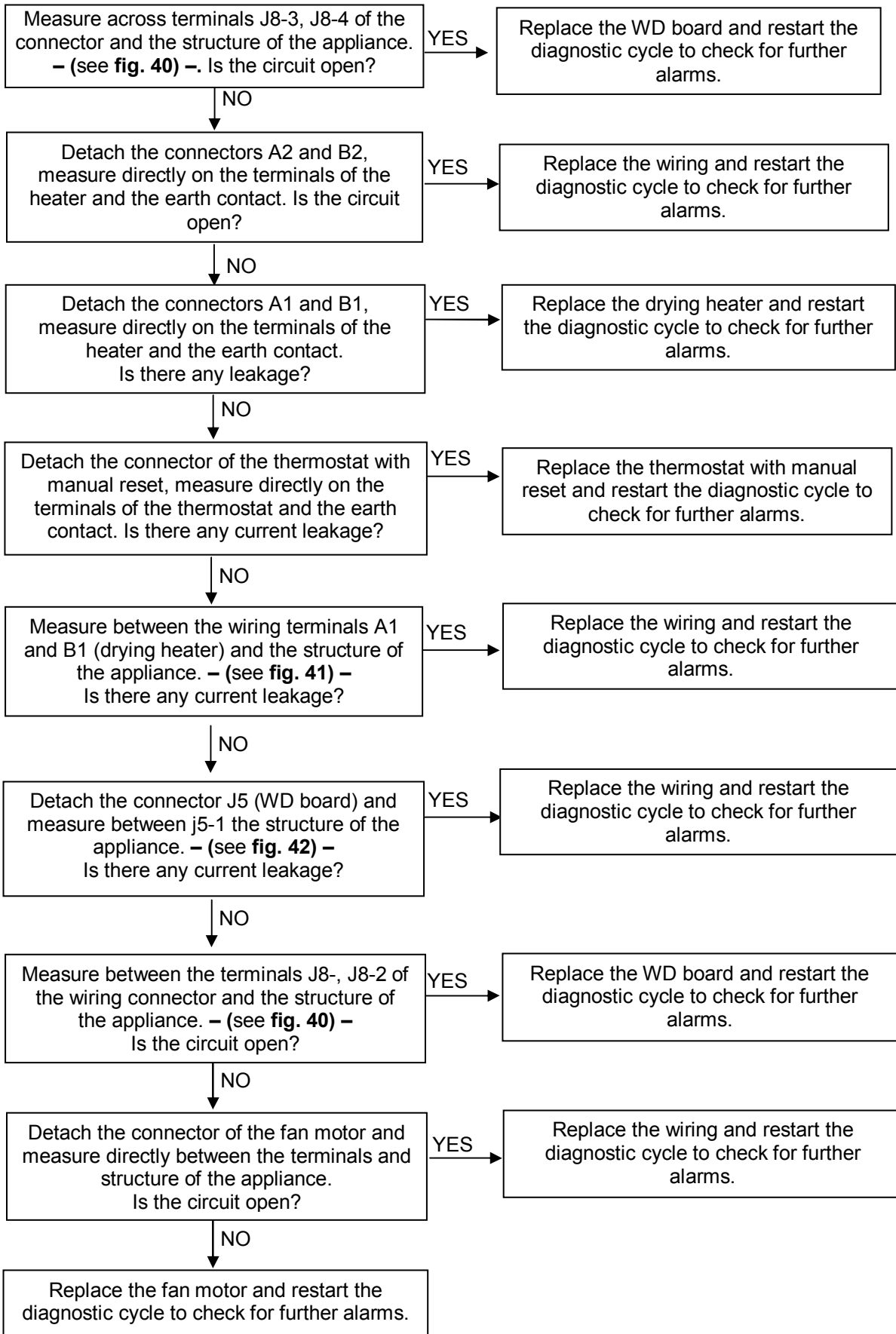
**Branch A**  
 Across J5-1 and J8-3 the value must be between:  
 51.5Ω and 69Ω.

**Branch B**  
 Across J5-1 and J8-4 the value must be between:  
 51.5Ω and 69Ω.

**NOTE:** The measurements must be carried out with a room temperature of 25°C.



*Checks to perform: Check that all the connectors are inserted correctly*



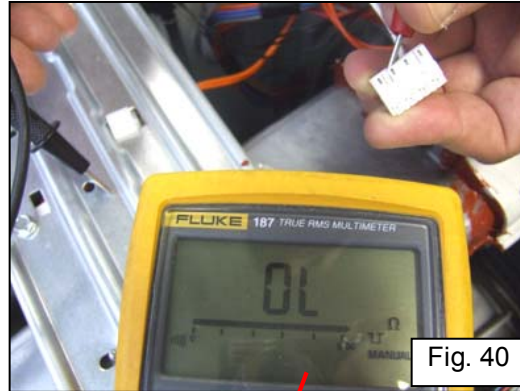


Fig. 40

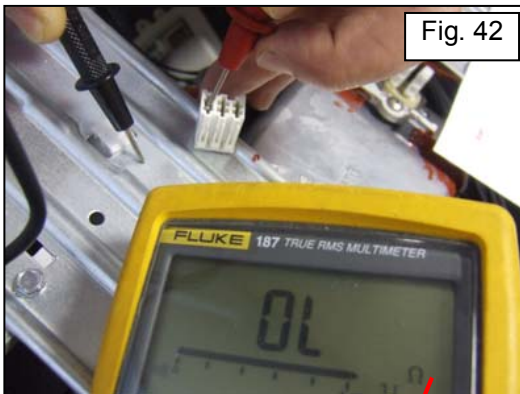


Fig. 42

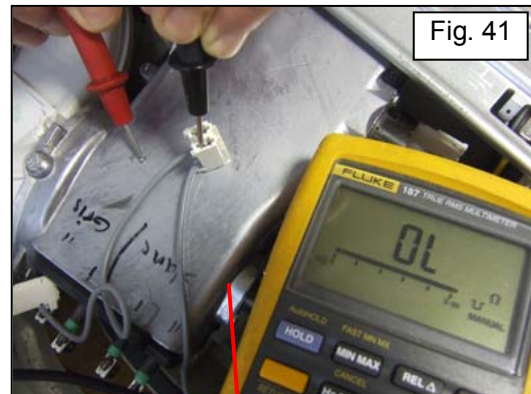
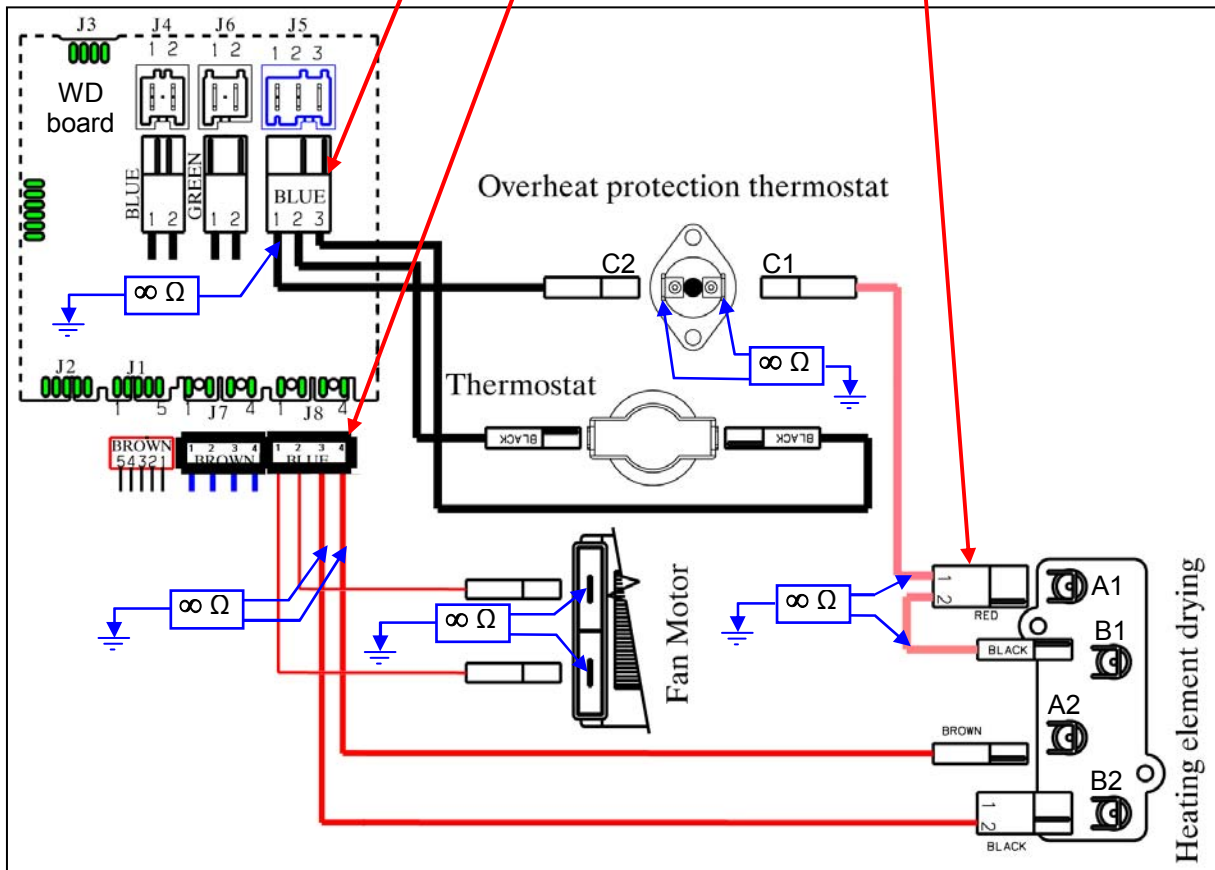


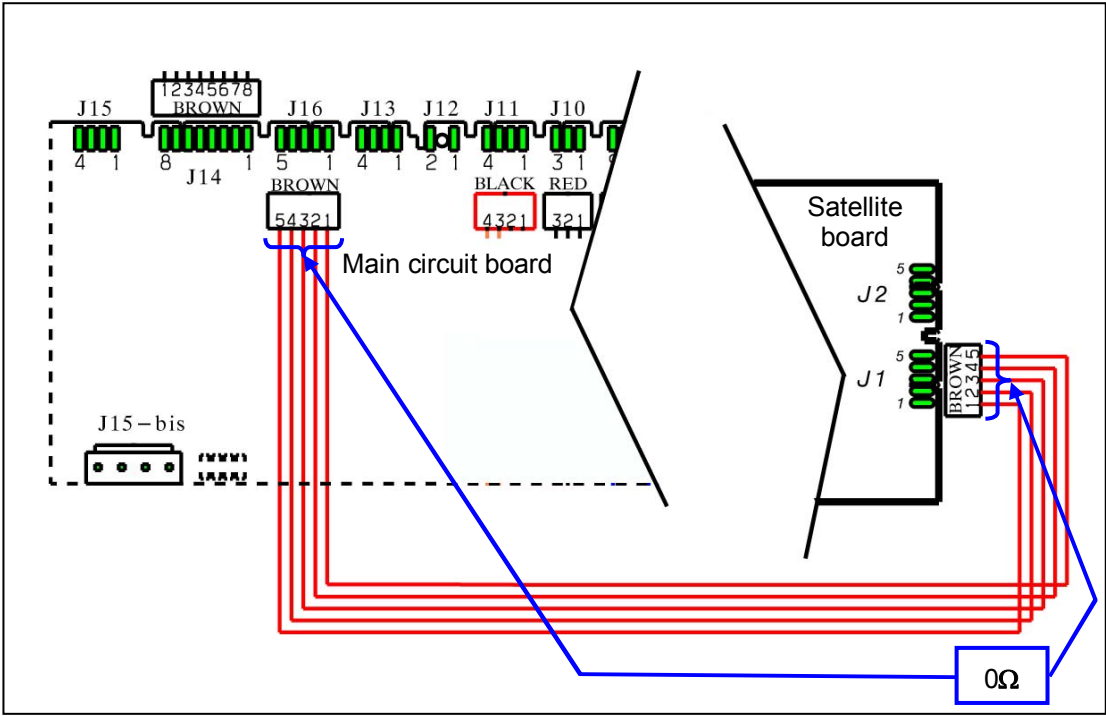
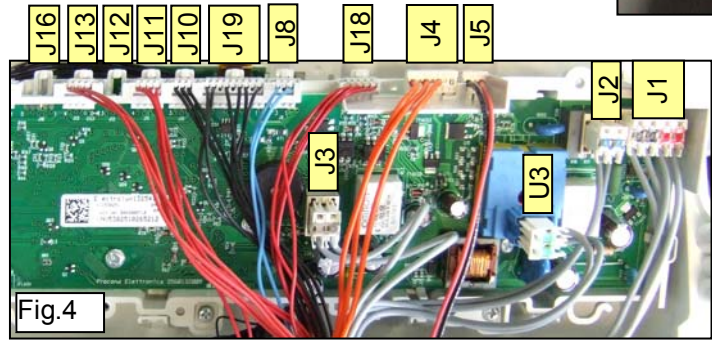
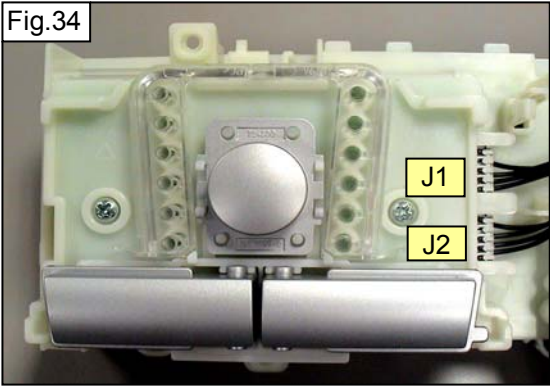
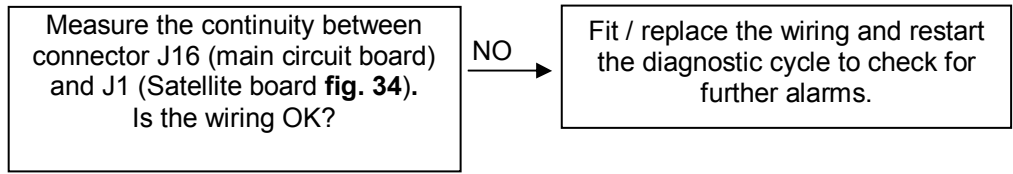
Fig. 41



*If there are traces of burning on the circuit board, refer to pages 119-120*

<b>Ed6</b>	<b>ED6: Communication failure between main circuit board and Satellite board (INPUT styling)</b>	<b>Ed6</b>
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*Checks to perform: Check that all the connectors are inserted correctly*



*If there are traces of burning on the circuit board, refer to pages 119-120*



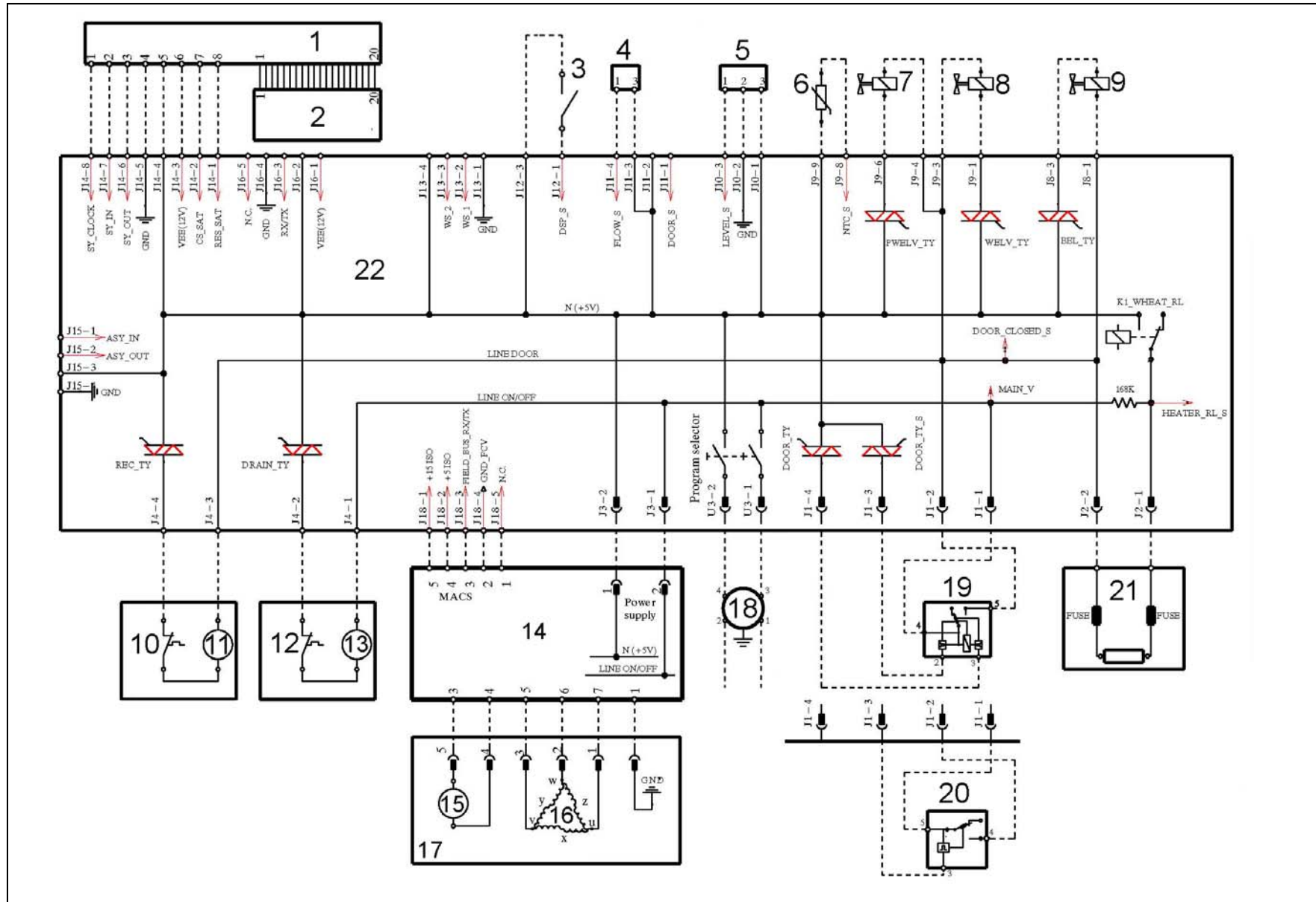




## 8.1 Key to circuit diagram EWM35xx with Aqua Control

Electrical components on appliance	Components on main board	
1. Circuit board for LCD (TC1)	DOOR_TY	Door interlock Triac
2. LCD Module	DRAIN_TY	Drain pump Triac
3. Damper with weight sensor	REC_TY	Triac circulation pump
4. Circuit board for weight sensor	K1	Heating element relay
5. Drum positioning sensor (DSP)	ON/OFF	Main switch (programme
6. Flowmeter	selector)	
7. Microswitch on door lock for drum light	PWELW_TY	Pre-wash solenoid Triac
8. Analogic pressure switch	WELV_TY	Wash solenoid Triac
9. Washing NTC temperature sensor	BEL_TY	Bleach solenoid Triac
10. Solenoid valve for prewash		
11. Solenoid valve for wash		
12. Solenoid valve for bleach		
13. Drum light		
14. Thermal cut-out (circulation pump)		
15. Pump circulation		
16. Motor control board (FCV)		
17. Interference filter		
18. Instantaneous door interlock		
19. Heating element (with thermal fuses)		
20. Thermal cut-out (drain pump)		
21. Drain pump		
22. Aqua control (water leaks device)		
23. Three-phase motor (induction)		
24. Tachometric generator (motor)		
25. Stator (motor)		
26. Main circuit board		

## 9 BASIC CIRCUIT DIAGRAM EWM35xx WITHOUT AQUA CONTROL



## 9.1 Key to circuit diagram EWM35xx without Aqua Control

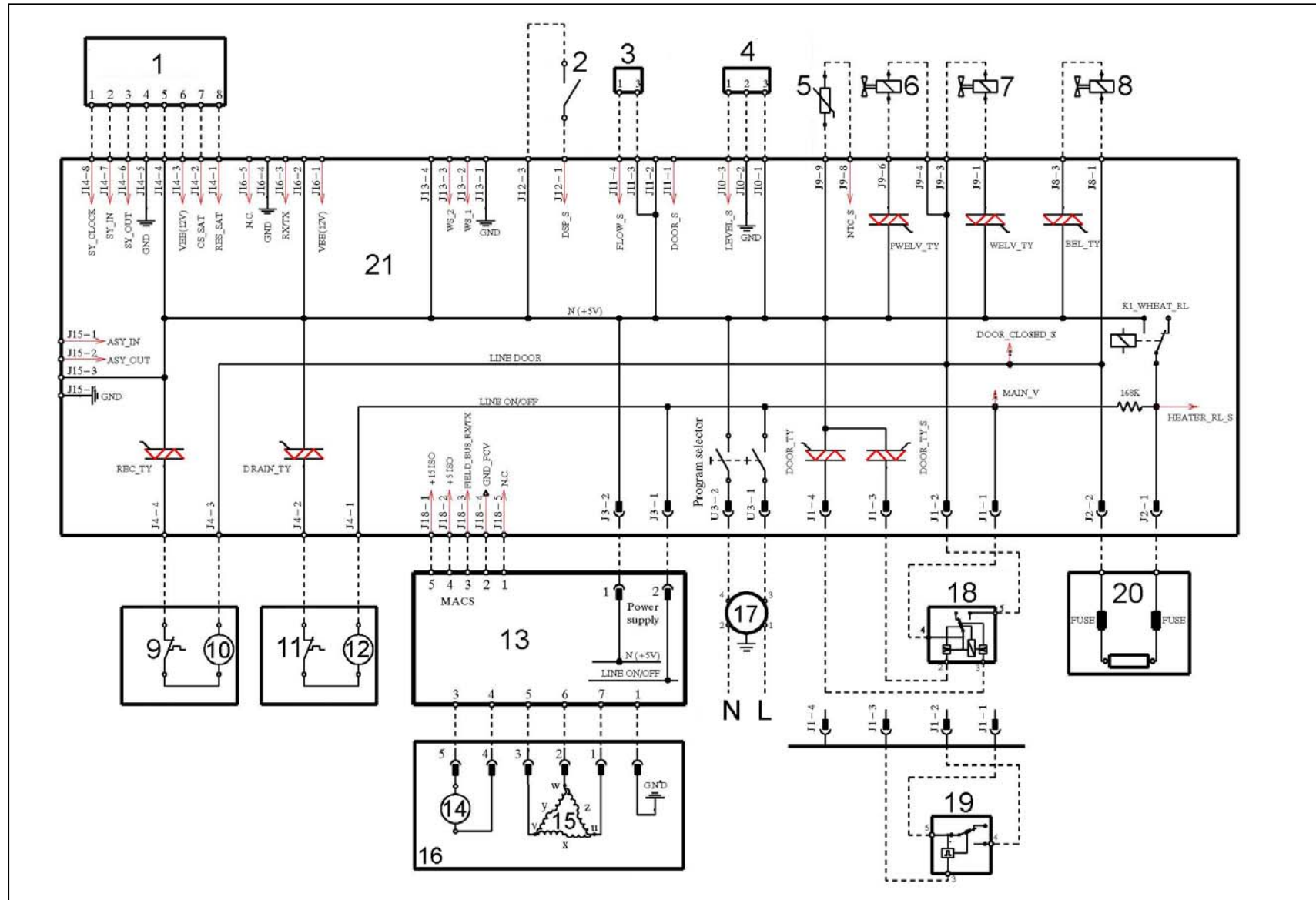
Electrical components on appliance	Components on main board	
1. Circuit board for LCD (TC1)	DOOR_TY	Door interlock Triac
2. LCD Module	DRAIN_TY	Drain pump Triac
3. Damper with weight sensor	REC_TY	Triac circulation pump
4. Flowmeter	K1	Heating element relay
5. Analogic pressure switch	ON/OFF	Main switch (programme selector)
6. Washing NTC temperature sensor	PWELW_TY	Pre-wash solenoid Triac
7. Solenoid valve for prewash	WELV_TY	Wash solenoid Triac
8. Solenoid valve for wash	BEL_TY	Bleach solenoid Triac
9. Solenoid valve for bleach		
10. Thermal cut-out (circulation pump)		
11. Pump circulation		
12. Thermal cut-out (drain pump)		
13. Drain pump		
14. Motor control board (FCV)		
15. Tachometric generator (motor)		
16. Stator (motor)		
17. Three-phase motor (induction)		
18. Interference filter		
19. Instantaneous door interlock		
20. Traditional door interlock		
21. Washing heating element (with thermal fuses)		
22. Main circuit board		



## 10.1 Key to circuit diagram EWM25xx with Aqua Control

Electrical components on appliance	Components on main board	
1. LCD Module	DOOR_TY	Door interlock Triac
2. Damper with weight sensor	DRAIN_TY	Drain pump Triac
3. Circuit board for weight sensor	REC_TY	Triac circulation pump
4. Drum positioning sensor (DSP)	K1	Heating element relay
5. Flowmeter	ON/OFF	Main switch (programme selector)
6. Miscroswitch on door lock for drum light	PWELW_TY	Pre-wash solenoid Triac
7. Analogic pressure switch	WELV_TY	Wash solenoid Triac
8. Washing NTC temperature sensor	BEL_TY	Bleach solenoid Triac
9. Solenoid valve for prewash		
10. Solenoid valve for wash		
11. Solenoid valve for bleach		
12. Drum light		
13. Thermal cut-out (circulation pump)		
14. Pump circulation		
15. Motor control board (FCV)		
16. Interference filter		
17. Instantaneous door interlock		
18. Heating element (with thermal fuses)		
19. Thermal cut-out (drain pump)		
20. Drain pump		
21. Aqua control (water leaks device)		
22. Three-phase motor (induction)		
23. Tachometric generator (motor)		
24. Stator (motor)		
25. Main circuit board		

# 11 BASIC CIRCUIT DIAGRAM EWM25xx WITHOUT AQUA CONTROL

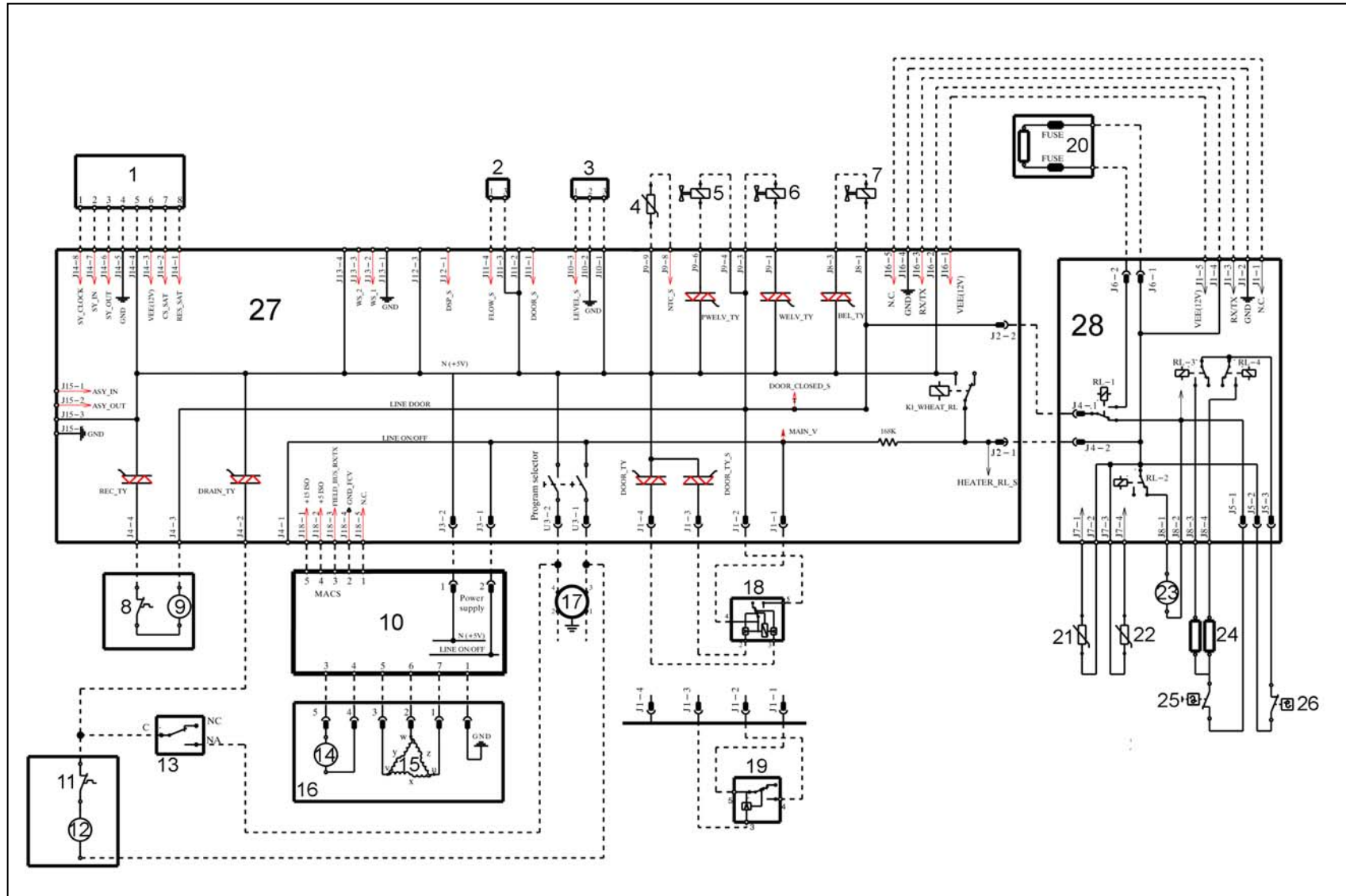




## 11.1 Key to circuit diagram EWM25xx without Aqua Control

Electrical components on appliance	Components on main board	
1. LCD Module	DOOR_TY	Door interlock Triac
2. Damper with weight sensor	DRAIN_TY	Drain pump Triac
3. Flowmeter	REC_TY	Triac circulation pump
4. Analogic pressure switch	K1	Heating element relay
5. Washing NTC temperature sensor	ON/OFF	Main switch (programme selector)
6. Solenoid valve for prewash	PWELW_TY	Pre-wash solenoid Triac
7. Solenoid valve for wash	WELV_TY	Wash solenoid Triac
8. Solenoid valve for bleach	BEL_TY	Bleach solenoid Triac
9. Thermal cut-out (circulation pump)		
10. Pump circulation		
11. Thermal cut-out (drain pump)		
12. Drain pump		
13. Motor control board (FCV)		
14. Tachometric generator (motor)		
15. Stator (motor)		
16. Three-phase motor (induction)		
17. Interference filter		
18. Instantaneous door interlock		
19. Traditional door interlock		
20. Washing heating element (with thermal fuses)		
21. Main circuit board		

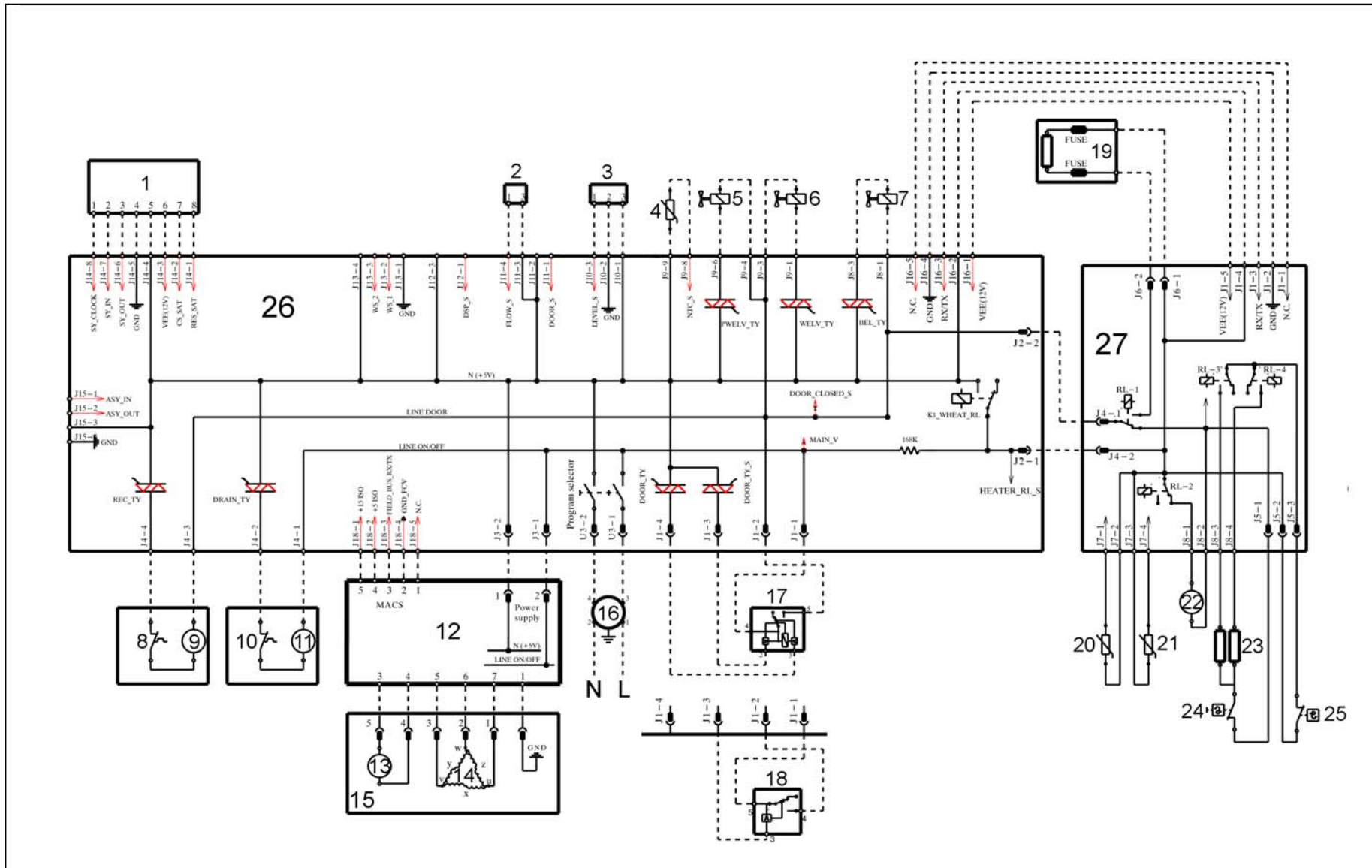
# 12 BASIC CIRCUIT DIAGRAM EWM25xx WD WITH AQUA CONTROL



## 12.1 Key to circuit diagram EWM25xx WD with Aqua Control

Electrical components on appliance	Components on main board	
1. LCD Module	DOOR_TY	Door interlock Triac
2. Flowmeter	DRAIN_TY	Drain pump Triac
3. Analogue pressure switch	REC_TY	Circulation pump Triac
4. NTC temperature sensor	K1	WD board supply relay
5. Solenoid valve for prewash	ON/OFF	Main switch (programme selector)
6. Solenoid valve for wash	PWELW_TY	Pre-wash solenoid Triac
7. Condensation solenoid valve	WELV_TY	Wash solenoid Triac
8. Thermal cut-out (circulation pump)	BEL_TY	Condensation solenoid Triac
9. Pump circulation		
10. Motor control board (FCV)		
11. Thermal cut-out (drain pump)		
12. Drain pump		
13. Aqua Control (water leaks device)		
14. Tachometric generator (motor		
15. Stator (motor)		
16. Induction motor		
17. Interference filter		
18. Instantaneous door interlock		
19. Traditional door interlock		
20. Heating element (with thermal fuses)		
21. Humidity temperature sensor		
22. Drying temperature sensor		
23. Fan motor		
24. Drying heaters		
25. Thermostat with manual reset		
26. Thermostat with automatic reset		
27. Main circuit board		
28. WD circuit board		

# 13 BASIC CIRCUIT DIAGRAM EWM25xx WD WITHOUT AQUA CONTROL

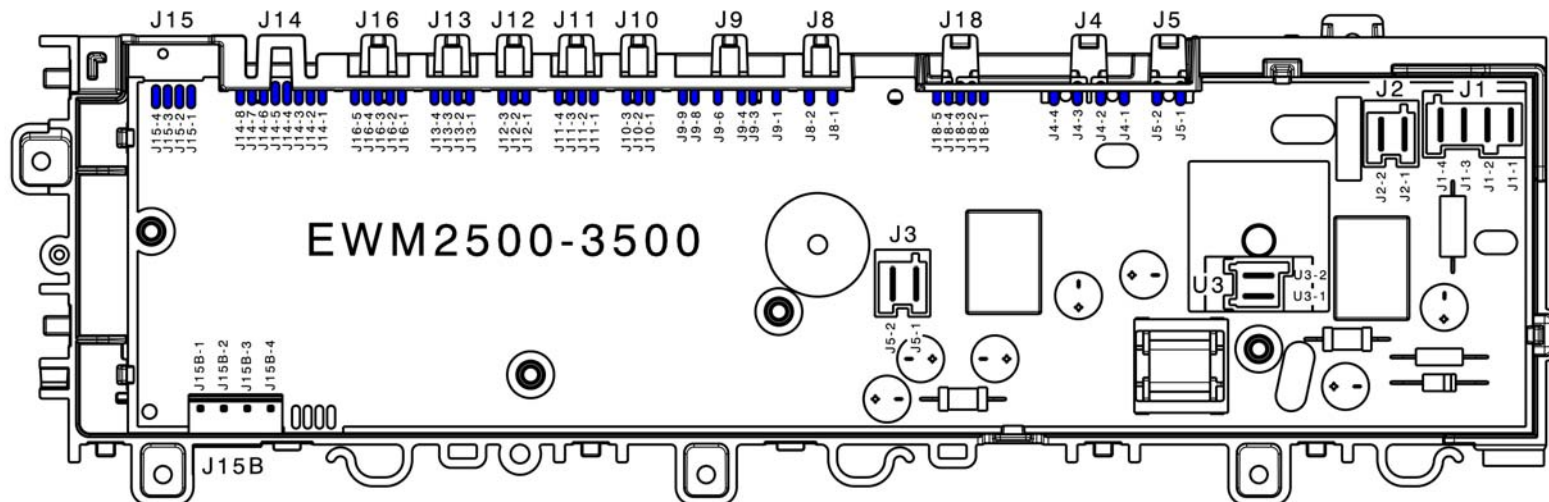


### 13.1 Key to circuit diagram EWM25xx WD without aqua control

Electrical components on appliance	Components on main board	
1. LCD Module	DOOR_TY	Door interlock Triac
2. Flowmeter	DRAIN_TY	Drain pump Triac
3. Analogue pressure switch	REC_TY	Circulation pump Triac
4. NTC temperature sensor	K1	WD board supply relay
5. Solenoid valve for prewash	ON/OFF	Main switch (programme selector)
6. Solenoid valve for wash	PWELW_TY	Pre-wash solenoid Triac
7. Condensation solenoid valve	WELV_TY	Wash solenoid Triac
8. Thermal cut-out (circulation pump)	BEL_TY	Condensation solenoid Triac
9. Pump circulation		
10. Thermal cut-out (drain pump)		
11. Drain pump		
12. Aqua Control (water leaks device)		
13. Tachometric generator (motor)		
14. Stator (motor)		
15. Induction motor		
16. Interference filter		
17. Instantaneous door interlock		
18. Traditional door interlock		
19. Heating element (with thermal fuses)		
20. Humidity temperature sensor		
21. Drying temperature sensor		
22. Fan motor		
23. Drying heaters		
24. Thermostat with manual reset		
25. Thermostat with automatic reset		
26. Main circuit board		
27. WD circuit board		

## 14 CONNECTORS ON CIRCUIT BOARD WM/WD

J15/J15B	J16	J12	J9	J18	J2
Serial interface: <b>J15-1</b> ASY_IN <b>J15-2</b> ASY_OUT <b>J15-3</b> +5V <b>J15-4</b> GND	Communication with WD external board: <b>J16-1</b> Vee +12V <b>J16-2</b> +5V <b>J16-3</b> Rx/Tx <b>J16-4</b> GND <b>J16-5</b> N.C.	Drum positioning system DSP: <b>J12-1</b> signal <b>J12-2</b> N.C. <b>J12-3</b> +5V  <b>J11</b> <b>J11-3</b> Flowmeter (GND) <b>J11-4</b> Flowmeter (signal)	<b>J9-1</b> Washing solenoid (triac) <b>J9-3</b> Solenoids (line) <b>J9-4</b> Solenoids (line) <b>J9-6</b> Pre-wash solenoid (triac) <b>J9-8</b> NTC temperature sensor <b>J9-9</b> NTC temperature sensor	Communication with FCV board: <b>J18-1</b> VEE +12 <b>J18-2</b> +5V <b>J18-3</b> Signal <b>J18-4</b> GND <b>J18-5</b> N.C.	Heating element: <b>J2-1</b> Relay <b>J2-2</b> Line
J14	J13	J10	J8	J4	J1
LCD Module: <b>J14-1</b> RES_SAT <b>J14-2</b> CS_SAT <b>J14-3</b> Vee (12V) <b>J14-4</b> GND <b>J14-5</b> +5V <b>J14-6</b> SY_OUT <b>J14-7</b> SY_IN <b>J14-8</b> SY_CLOCK	Weight sensor: <b>J13-1</b> (GND) <b>J13-2</b> (WS-1) <b>J13-3</b> (WS-2) <b>J13-4</b> (+5V)	Analogic pressure switch: <b>J10-1</b> +5V <b>J10-2</b> GND <b>J10-3</b> signal	Beach/condensation solenoid: <b>J8-1</b> Line <b>J8-3</b> Tiac	<b>J4-1</b> N.C. <b>J4-2</b> Drain pump (triac) <b>J4-3</b> Drain pump (line) <b>J4-4</b> Circulation pump (triac)	Door lock device: <b>J1-1</b> Line (ON/OFF) <b>J1-2</b> Line (door) <b>J1-3</b> Line (sensing) <b>J1-4</b> Triac
				J5	U3
				Drum light: <b>J5-1</b> +5V <b>J5-2</b> GND	<b>U3-1</b> line <b>U3-2</b> line (neutral)



## 15 BURNING ON THE CIRCUIT BOARDS EWM25xx/35xx WM/WD

In case of burning on the main circuit board, check that the problem is not caused by another electrical component (short-circuits, poor insulation, water leakage). Refer to the figures below in order to identify the component that might have caused the burning according to the position of the burned area.

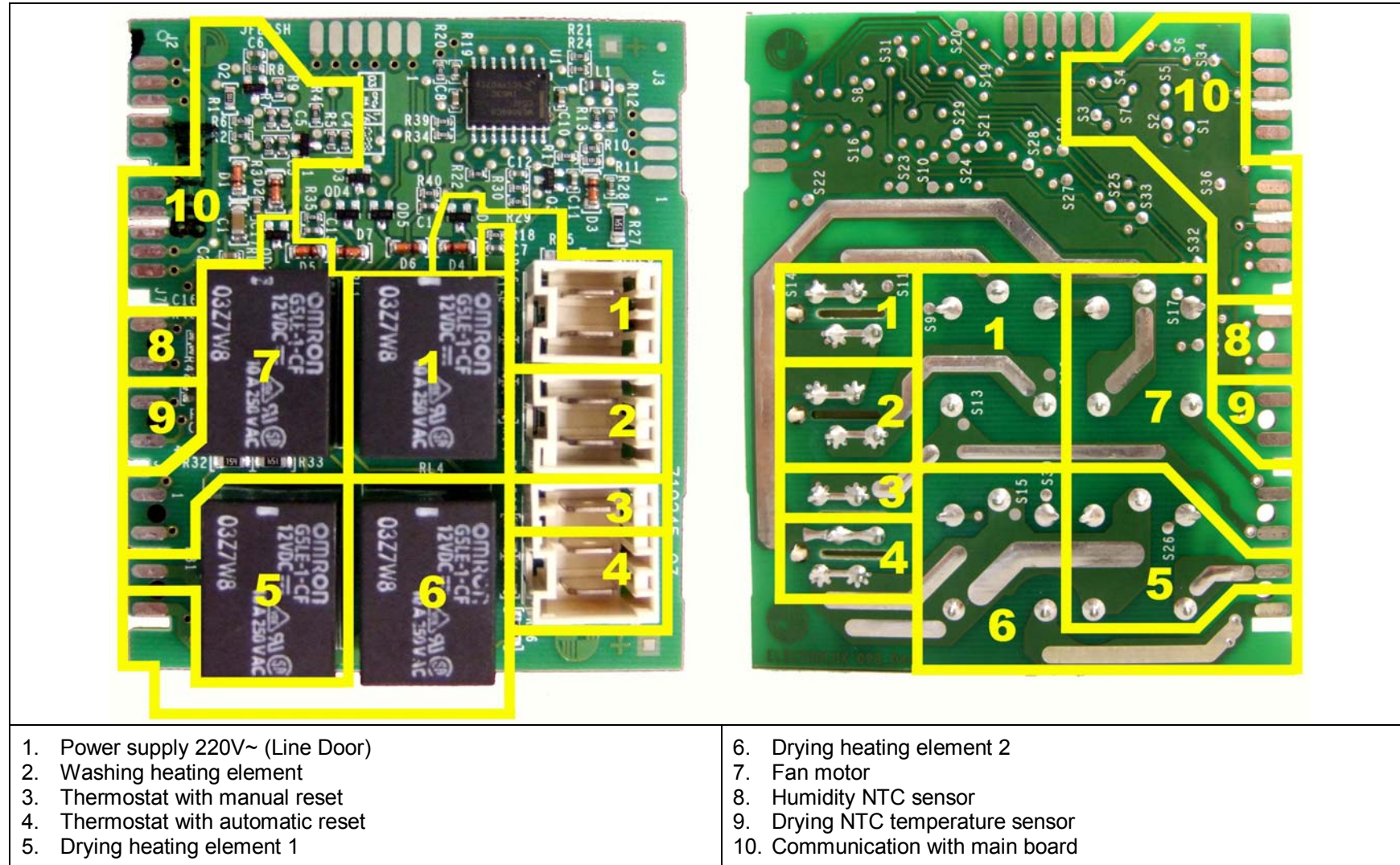
The circuit board shown below is the version with the greatest number of components: other boards may not feature all these components.

1. Power supply	6. Drum light circuit	11. Flowmeter
2. Relay FCV (motor)	7. Water inlet solenoids	12. Circulation pump and door switch
3. Heating element (WM) / WD board power supply	8. NTC temperature sensor washing	13. Communication FCV board
4. Drain pump	9. Analogic sensor	14. Weight sensor circuit
5. Door safety interlock	10. Drum positioning (top-loaders)	15. Communication WD board
		16. Communication LCD

## 16 BURNING ON THE CIRCUIT BOARD WD

In case of burning on the main circuit board, check that the problem is not caused by another electrical component (short-circuits, poor insulation, water leakage). Refer to the figures below in order to identify the component that might have caused the burning according to the position of the burned area.

The circuit board shown below is the version with the greatest number of components: other boards may not feature all these components.





## 17 APPENDIX

REVISION	DATE	DESCRIPTION
01	03/2009	Modification of Alarms E21-E22 page 17 / Alarm EF3 page 94
02	07/2010	<ul style="list-style-type: none"> <li>- Added control panels on pages 7/8</li> <li>- Added weight sensor to position 6 on page 10</li> <li>- Deleted last sentence on page 13</li> <li>- Deleted two sentences in the paragraph "Rapid reading of alarms" page 16</li> <li>- Substituted figures and descriptions "Cancellation of alarms EWM35xx" on page 15</li> <li>- The sentence:  "Checks to perform" has been substituted with  "Checks to perform ....." Check that all the connectors are correctly inserted.</li> <li>- Alarm EF3 on page 94: the words  "and if the intervention is caused by over heating of the water drain pump:  check for any objects that might be blocking the normal function of the pump rotor" have been restored.</li> </ul>