SOGEDIS
ELECTROMENAGER

Manuel de service

pour

Série DL

Table of Contents

1. Safety Precautions

Important:

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Warning:

Before any disassembly/repair operation make sure appliance is unlplugged water tap is closed and heating elements are cooled down. There is electrical shock, burning and flood risk.

Warning:

Please replace whole cable group even in case there is any minor failure with cables / terminals / sockets. Never try to repair nor to solder cable group. It may cause smoke, ignition and there is major risk of electrical shock.

Important:

Always use insulator gloves to prevent injury by metal edges or to prevent electrical shock during electrical tests.

Work with uniforms having long sleeves to protect your arms from metal edges.

Always use original spare parts. You may harm appliance, end user, environment or yourself using untested and unapproved 3rd party spare parts.

Use right tools to prevent any wear or damage to components during assembly/disassembly.

2. Specifications

Here you will find descriptions of generic specifications for the range specified for this service manual. Please refer to product fiche and user manual for detailed technical specifications.

***Twinjet System:**

Twinjet system is designed to obtain a better washing performance by directly injecting water with detergent using a recirculation system and two nozzles connected to it. With twinjet system, water consumption is decreased by 30%, energy consumption is decreased by 10% and washing time is decreased by 15%

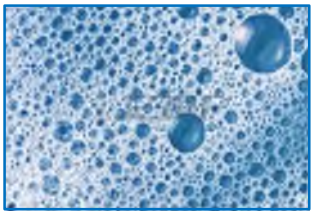
Twinjet system is valid for all programs except spin and drain mode. The system dos not function during Water inlet, heating, spinning, drain phases.

Even with a large load of 8 kg. the washing machine will have the minimum energy consumption by the help of Twinjet system.

Washing machines with Twinjet system are very environment-friendly by having maximum washing performance with minimum water consumption.

Eco-Logic System:

Half load detection system, thus using less water and power accordingly. This system is available for cotton programs only.

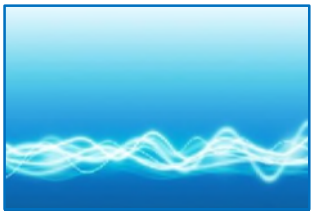


Foam Protection System:

Foam Protection System is a safety algorithm that interrupts normal program flow and reduces foam level by taking water and draining. This algorithm protects machine and environment avoiding over foaming inside tub in case any customer misuse such as detergent overdose or use of foamy cleaning agents.

Overflow Protection System:

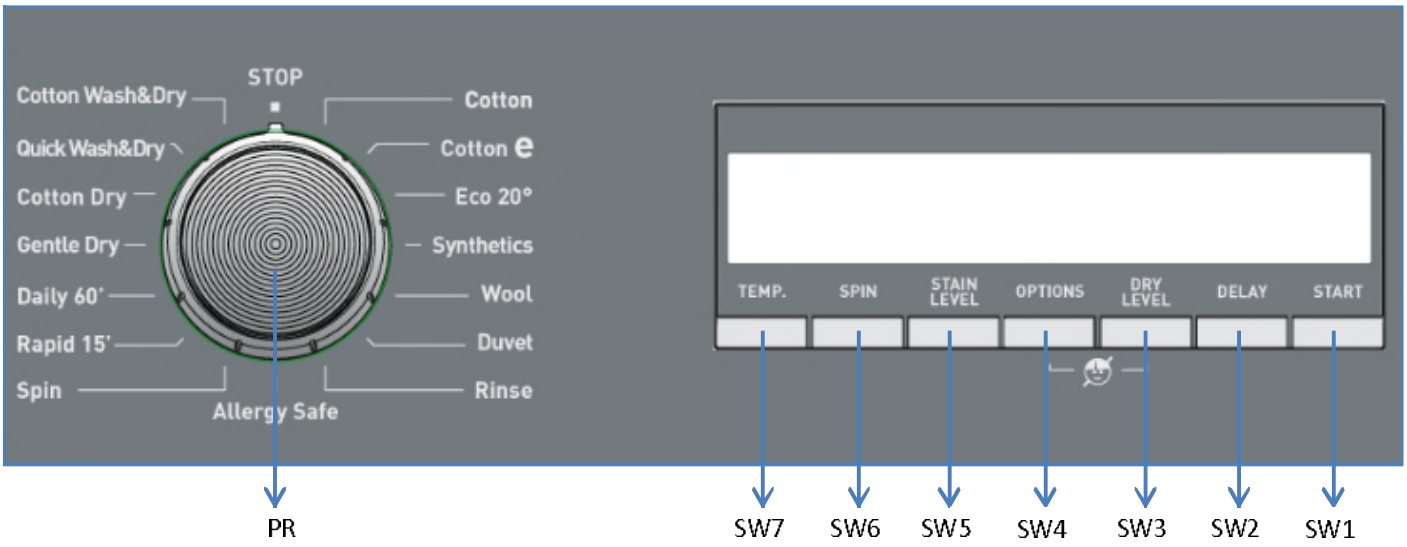
Overflow protection is another safety algorithm in case of a flood risk. If there is more water in tub than expected by algorithm, it will start to the drain routine giving E04 failure code. For example this may happen in case of a valve failure and the machine constantly takes water. This algorithm will keep drain routine, keeps water leveled and protects environment and machine avoiding any flood risk.



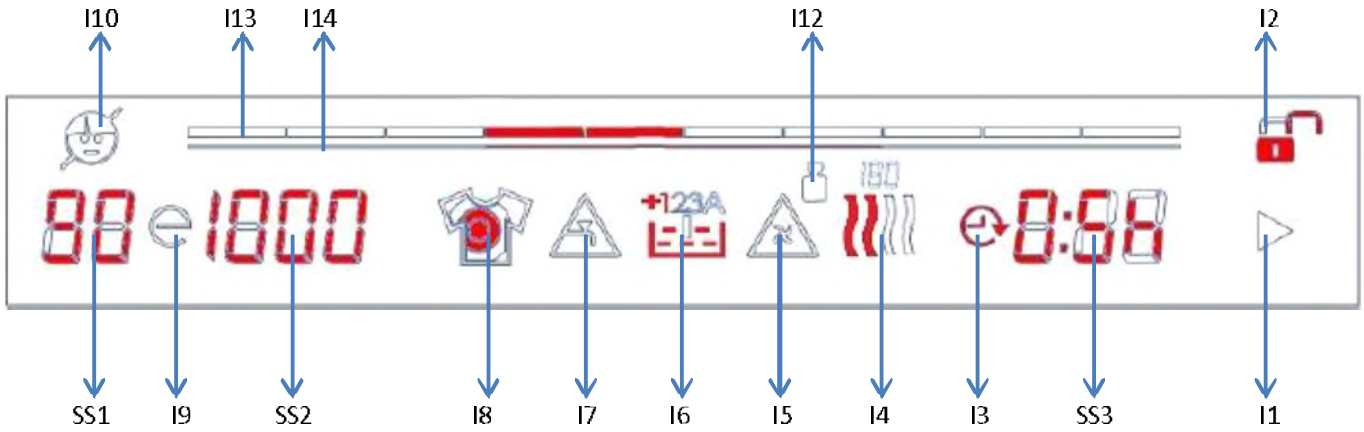
Unbalanced Load Detection and Control System:

Unbalance Control System is another safety algorithm that protects the machine and environment avoiding machine movement due to vibration during spinning profile. The algorithm tries to balance load by a special balancing agitation, postponing spin profile till it is balanced. This avoids spinning while load is unbalanced and prevents any possible physical harm both to the appliance and to surroundings.

3. Control Panel and Acronyms



PR	Program selector 16 programs including off position
SW1	Touch button 1, Start / Pause
SW2	Touch button 2, Delay Timer Option
SW3	Touch button 3, Dry Level Option
SW4	Touch button 4, Options (Single button for Extra Rinse/Anti Allergic and Prewash options)
SW5	Touch button 5, Stain Level Option
SW6	Touch button 6, Max. Spin Speed Option
SW7	Touch button 7, Temperature Option



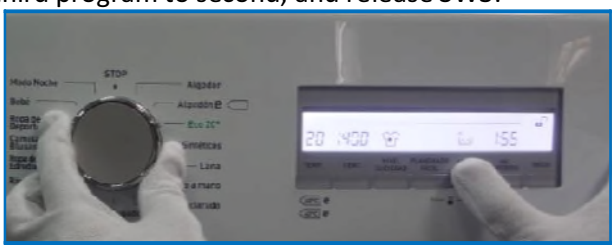
SS1	7 Segment LCD for Temperature Display	I8	Stain Level Symbol
SS2	7 Segment LCD for Spin Speed Display	I9	Eco Symbol
SS3	7 Segment LCD for Remaining Time	I10	Child Lock Symbol
I1	Start/Pause Symbol	I11*	Load Percentage Symbol
I2	Door Lock Symbol	I12*	Overload Symbol
I3	Delay Symbol	I13*	Program Proceeding Zone / Load Bar
I4	Drying Level Symbol	I14*	Program Proceeding / Load Line
I5	Pump Failure Symbol	Slow Blink	ON 0.5 sec, OFF 0.5 sec, ON 0.5 sec
I6	Extra Rinse/Allergy Safe & Prewash Symbol	Fast Blink	ON 0.10 sec, OFF 0.10 sec, ON 0.10 sec
I7	Lack of Water Symbol		

4. Test Mode

4.1. Autotest

Set PR to 3rd position

While pressing SW3 change position of the PR from third program to second, and release SW3.



Autotest starts.

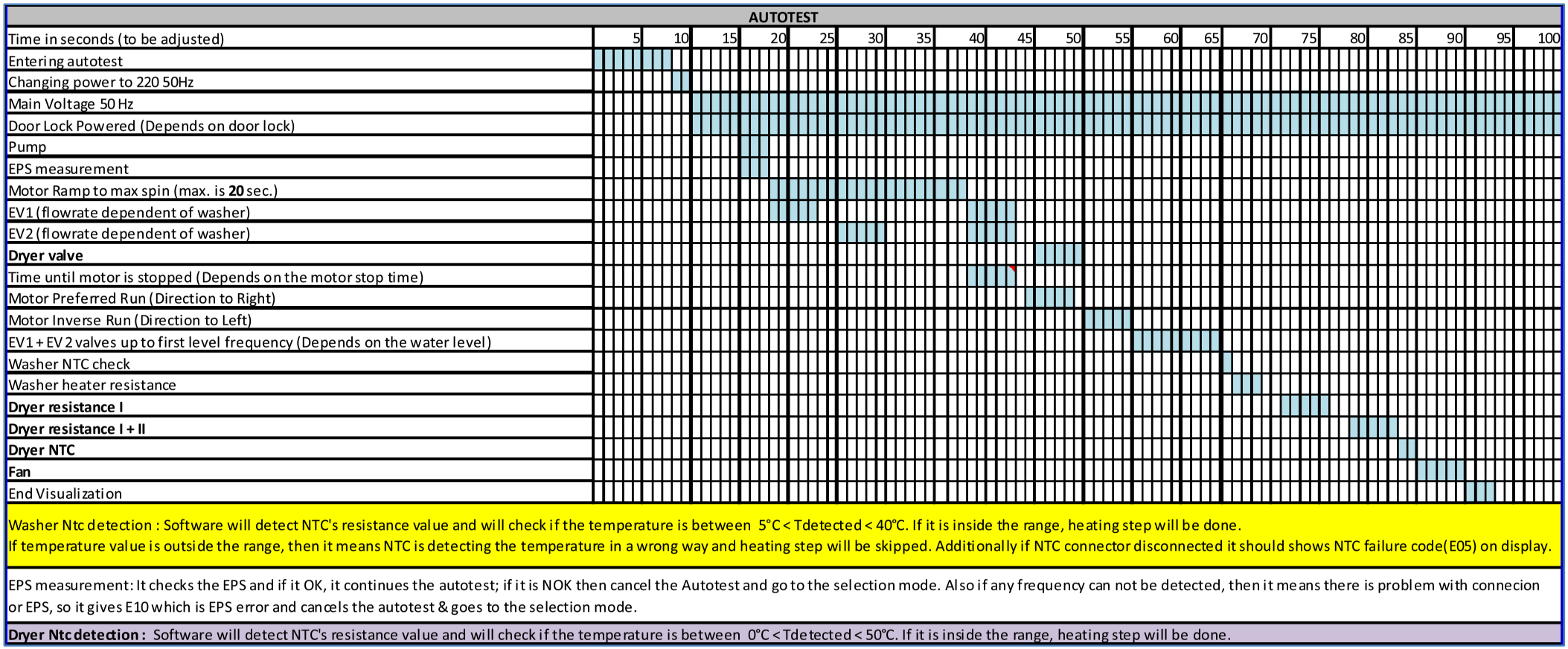
4.1.1. Autotest Steps

Autotest follows a predefined flowchart in order. Unlike service autotest, autotest automatically skips to next step upon completing one. The steps of the test are as follows:

Step1:
The drain pump is checked.
Step2:
Motor ramps to max spin speed while valves are activated in order.
Step3:
Motor stops, both valves are activated simultaneously.
Step4:
The motor turns to right. Also, dryer valve is activated.
Step5:
The motor turns to left.
Step6:
Both valves are activated. (Water intake for heating)
Step7:
Washer NTC is checked.
Step8:
Washer Heater is checked.
Step9:
Dryer resistance I and I&II are checked.
Step10:
Dryer NTC is checked for 2sec.
Step11:
Fan is checked.

In case of no failure test ends after this step and “End” is displayed. In case of an error detection EXX and error definition will pop up on display. (where XX is the error number 1 to 10)

Please see following autotest chart for details.



Washer Ntc detection : Software will detect NTC's resistance value and will check if the temperature is between 5°C < Tdetected < 40°C. If it is inside the range, heating step will be done.
If temperature value is outside the range, then it means NTC is detecting the temperature in a wrong way and heating step will be skipped. Additionally if NTC connector disconnected it should shows NTC failure code(E05) on display.

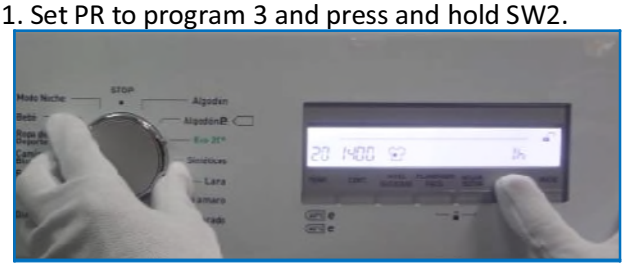
EPS measurement: It checks the EPS and if it OK, it continues the autotest; if it is NOK then cancel the Autotest and go to the selection mode. Also if any frequency can not be detected, then it means there is problem with connecion or EPS, so it gives E10 which is EPS error and cancels the autotest & goes to the selection mode.

Dryer Ntc detection : Software will detect NTC's resistance value and will check if the temperature is between 0°C < Tdetected < 50°C. If it is inside the range, heating step will be done.

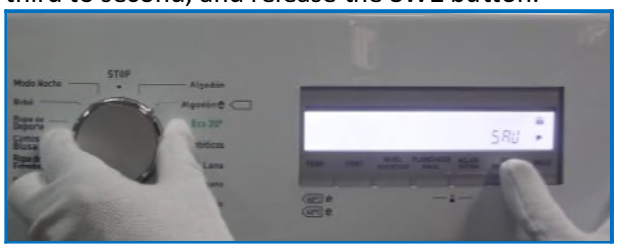
5. Service Mode

5.1. Service Autotest

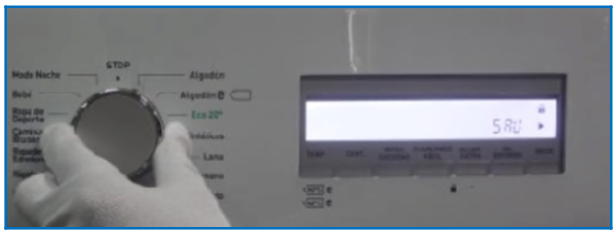
1. Set PR to program 3 and press and hold SW2.



2. While pressing the SW2, change PR position from third to second, and release the SW2 button.



3. Bring PR to desired test step (1st ,2nd or 3rd program position) as soon as “SAU” is displayed on LCD.



LCD Display status:
I1 -> Fixed On
I2 -> Fixed on
SS3 -> “SAU”

	Step1	Step 2	Step 3
	PR Position: Program 1	PR Position: Program 2	PR Position: Program 3
	HEATER ON	PUMP ON	TEST PROGRAM ON (Rapid 12’*/15’)
Comments :	When entering in service test, door will be locked.		Test is over Door will be unlocked, machine will go to END state.

5.1.1. Service Autotest Steps

If you turn knob position to other program between 1st to 3rd it will skip current test and start the selected one. It is recommended not to skip any steps for a detailed checkup. Unlike autotest, service autotest starts next test step manually by rotating program selection knob.

Step1:
There will be a certain amount of water intake and then washer heater is activated for 8 minutes. Washer NTC values are checked in this period. In case of a washer heater/NTC failure, it pops up E05 error displaying “E05” on SW3.

At the end of heating, "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 2nd position to continue with step2.

*During this step if EPS detects high water level, overflow algorithm is applied and E04 is released.

Step2:
Drain pump is activated; in case of a pump failure it pops up E03 error.

At the end of pump activation, "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 3rd position to continue with step3.

Step3:
Dryer Heater I and fan is activated. After 3 mins if there will be no temperature change (ΔT< 10°C), it will release E14 failure.

If temperature increases accordingly (ΔT > 10°C), "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 4th position to continue with step4.

Step4:
Dryer Heater II and fan is activated. After 3 mins if there will be no temperature change (ΔT< 10°C), it will release E14 failure.

If temperature increases accordingly (ΔT > 10°C), "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 5th position to continue with step5.

Step5:
Rapid 12’*/ 15’ program algorithms is run to test all washing components, the only difference is error codes are displayed which normally are not displayed to end user.

If no error found in test program ”SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 6th position to continue with step6.

Step6:
A 5 mins drying program is run to test all drying components.

In case of no error service autotest ends and "End" is displayed.

-If user changes the selector position, machine will do what is defined for the new selected position. It is recommended to run all programs in order to wholly check the appliance properly.

5.2. Failure Codes

Error Indication	Error Number	Indication in UI	Indication in SI
Door/Door Lock Failure	E01	A	A
Lack of water	E02	A	A
Pump failure	E03	A	A
Overflow	E04	A	A
NTC or Heater Failure	E05	NA	A
Motor Failure	E06	NA	A
Configuration Failure	E07	NA	A
Motor Triac Failure	E08	NA	A
Voltage Error	E09	A	A
Electronic Pressure Sensor	E10	NA	A
Dryer Board Connection Failure	E11	NA	A
Communication failure 3D Sensor	E12	NA	A
LCD card Failure	E13	NA	A
Dryer Thermostat Failure	E14	NA	A
Twinjet Failure	E15	NA	A
Dryer Overheated Failure	E16	NA	A
Flowmeter Failure	E17	NA	A
Dryer NTC Failure	E18	NA	A

6. Critical Torque Values

	Assembly Location	Bolt/Nut/Screw	Torque Min. (Nm)	Torque Nom. (Nm)	Torque Max. (Nm)	Air Pressure Wrench Speed (rpm)
*	Transport Screw Assembly	Transport Screws	6.50	6.50	7.00	1000
*	Motor Assembly	Motor Screws	6.00	6.50	7.50	800
*	Front Concrete Weight - Front Tub Assembly	Front Counterweight Screws	14.00	14.50	14.75	600
*	Upper Counter Weight Assembly	Upper Counterweight Screws	25.00	27.50	30.00	440
*	Pulley – Drive Shaft – Washing Group Assembly	Pulley – Drive Shaft Assembly Bolt	39.50	40.00	40.50	440
*	Washer Heater Assembly	Heater Assembly Nut	3.85	4.00	4.00	970

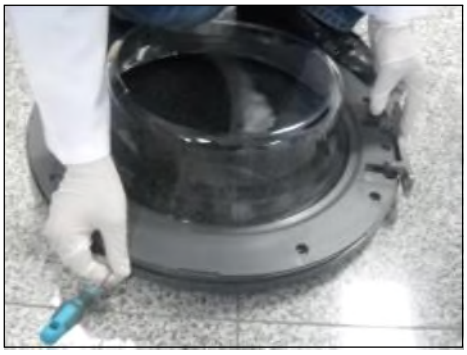
The bolts/nuts above are important for product safety purposes. Please tighten screw, bolts and nuts according to the torque values given in table above.

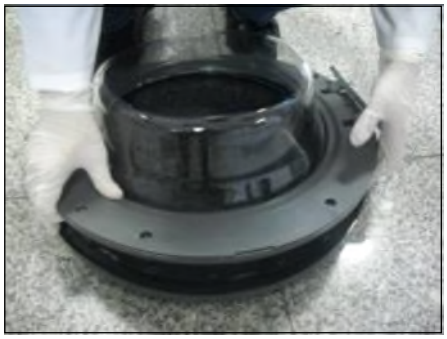
7. Disassembly and Assembly Instructions

7.1. Top Plate

1		2	
	Remove two screws that fix the top-plate at the back.		Push the top-plate back and pull it up.

7.2. Door

11	   T25	2	
	Remove two screws that fix the door. (by using T25 tool)		Pull the door up.
3		4	
	Remove screws that fix the door group.		Put the door outside plastic with helping screwdriver.

5		**6**	
	Remove the door inside plastic.		Remove six screws that fix the door hinge.
7		**8**	
	Remove the door handle.		Remove the door handle pin.

7.3. Spring Wire

1		**2**	
	First remove the spring wire fixing the tub bellows seal by using the small size screw driver. Pull the tub bellows seal.		Remove the tub bellows seal-body fixing spring.

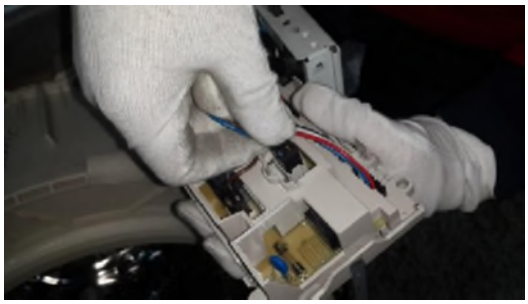
7.4. Detergent Drawer

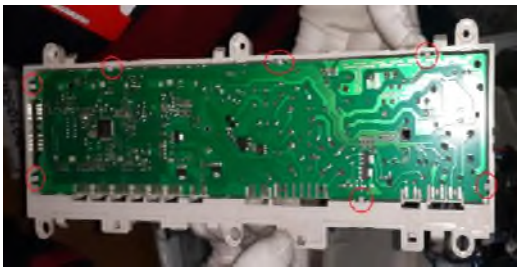
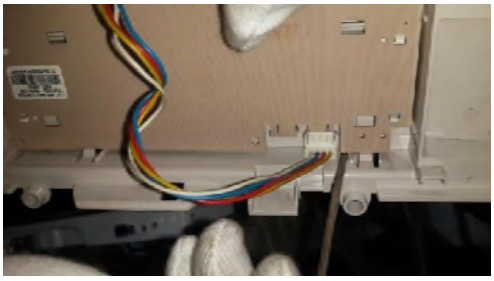
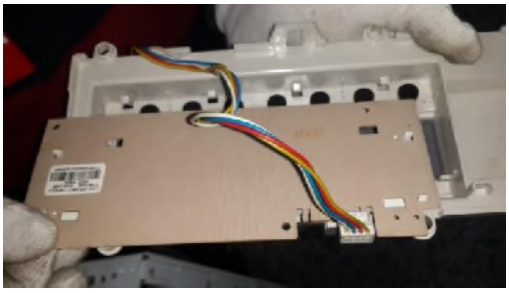
1		**2**	
	Gently pull the detergent drawer.		While pressing siphon cover keep pulling drawer to remove it.

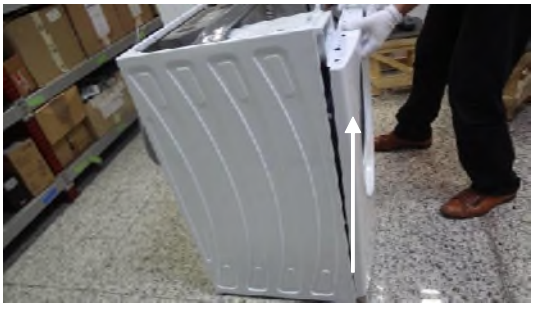
7.5. Control Panel

1		2	
	Remove the screw which fixes the control panel to the front panel.		Remove two screws fixing control panel.
3			
	Pull the control panel out		

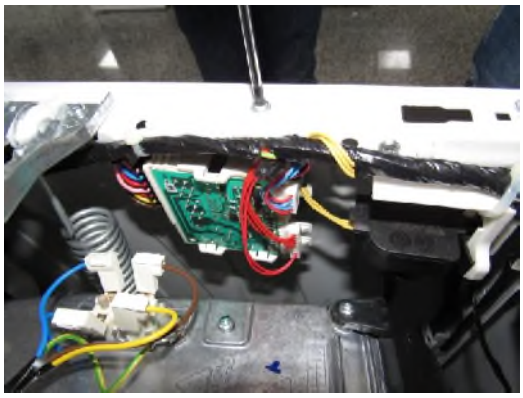
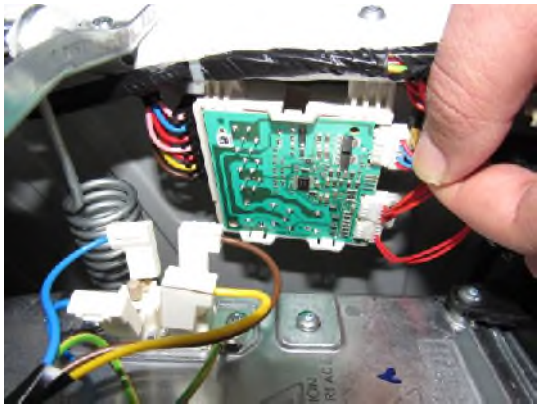
7.6. Electronic Card

1		2	
	Depress the taps fixing the card by using a screwdriver		Release the socket fixing plastic by depressing the taps with the help of a screwdriver
3		4	
	Remove the card out off panel		Remove the sockets on the card.

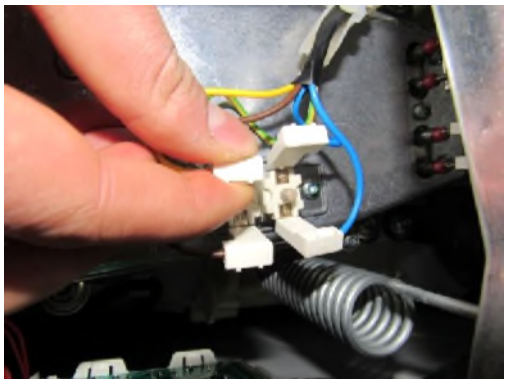
5		**6**	
	After releasing sockets, remove PCB box from its housing around the box.		Disassemble the PCD box and its cover.
7		**8**	
	Remove the PCB card by depressing the taps that fix it		Remove the connector that fix the LCD screen.
9		**10**	
	Remove the card from its housing and unplug its connector.		Remove the LCD screen by depressing the taps by using a screwdriver.
7.7. Front Panel			
1		**2**	
	Remove the screw fixing the front panel at the bottom		Remove two screws fixing the door lock

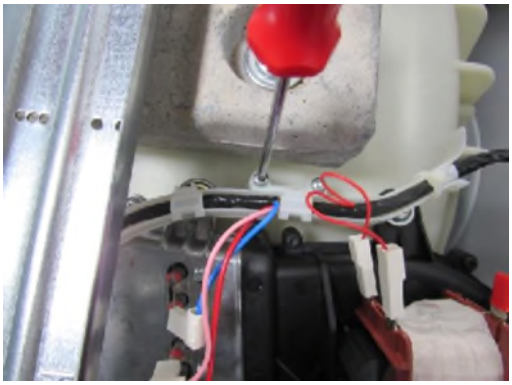
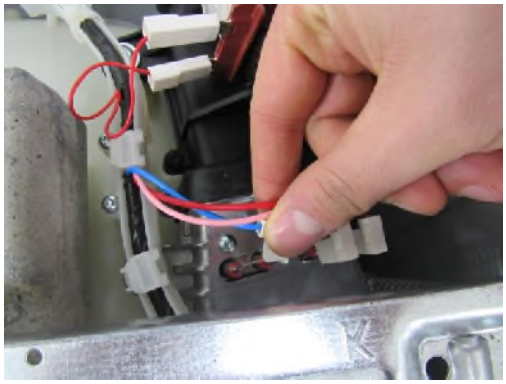
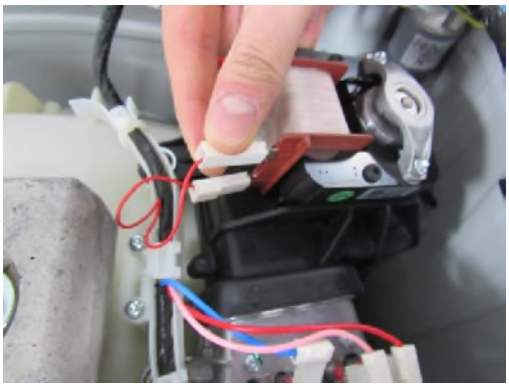
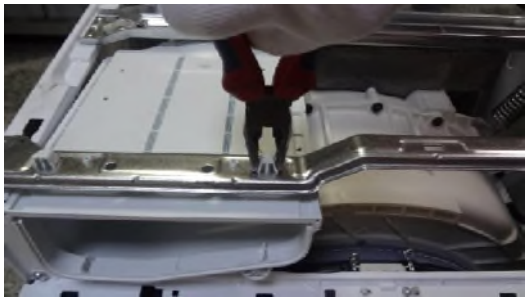
3		**4**	
			Remove the tub bellows seal.
5		**6**	
	Remove two screws fixing front panel to body		Remove the screw fixing twinjet elbow
7		**8**	
	Remove the screw that fixes the pump filter cover.		Release the holder of the pump filter cover.
9		**10**	
	Pull front panel up		Remove front panel

7.8 Dryer Card

1		2	
	Remove the screws that fixes the dryer card		Remove the sockets.

7.9 Dryer Unit

1		2	
	Remove the screws that fixes the heater unit of the dryer		Remove the sockets of the heater unit
2		3	
	Remove the screws that fix the fan group.		Release the cable group by cutting the cable connection.

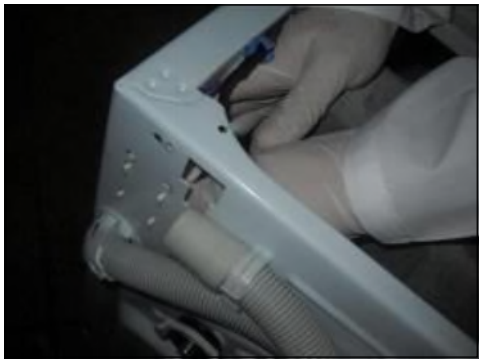
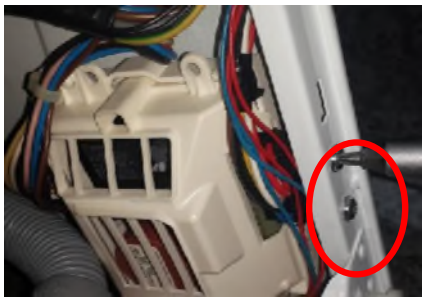
4		5	
	Remove the Cable group of the dryer unit		Remove the sockets of the heater group
6		7	
	Remove the sockets of the fan group.		Remove the screws that fix the fan group.
8		9	
	Cut the connection plastic of the dryer unit.		Cut the cable connection of the dryer NTC and remove the sockets.
7.10 Support Bracket			
1		Remove two clips fixing detergent drawer housing to upper support bracket	

7.11 Detergent Drawer Housing

1		**2**	
	Remove the tub bellow hose by releasing the holder extensions of bellow hose		Unplug connectors from feed valve
3		**4**	
	Slightly turn the feed valve counter-clockwise to remove		Remove the detergent drawer housing assembly

7.12 Power Cable Group and EMI Filter

1		**2**	
	Remove the five conectors that is connected to the EMI filter		Remove two screws fixing EMI filter.

3		**4**	
	Pull the power cable group up		Remove EMI filter
7.13 Electronic Pressure Switch (EPS)			
1		**2**	
	Unplug EPS connector		Pull EPS up
		7.14 Door Lock	
3		1	
	Remove clamp from EPS hose		Unplug door lock connector
7.15 DC CARD			
1		2	
	Remove the bolts that fix DC card by using a screwdriver(T25)		Remove the card after releasing it from its connector.

7.16 Drain Pump

1		2	
	Remove clamp holding drain hose by using a plier		Remove clamp fixing tub outlet hose
3		4	
	Unplug drain pump connector		Remove screws holding drain pump

7.17 Front Counterweight

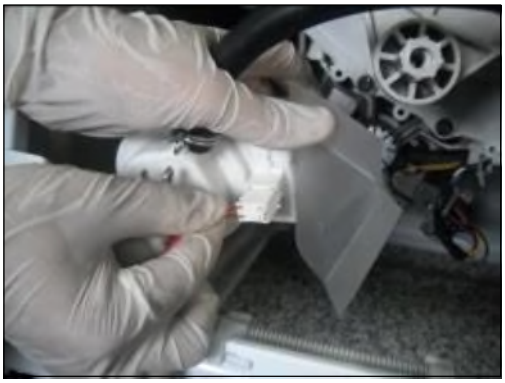
1		2	
	Remove three screws on the front counterweight. (Wrench size 13 mm)		Gently pull counterweight out

7.18 Heater

1		2	
	Unplug heater connectors		Remove nut (8 mm) fixing the heater
3			
	Pull heater out gently holding both sides.		

7.19 Twinjet System

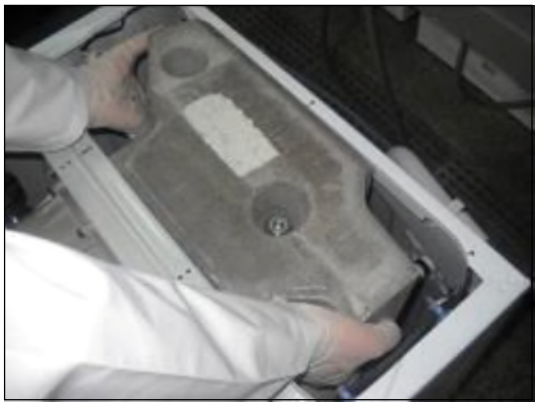
1		2	
	Remove twinjet hoses from tub bellow seal pulling them up		Remove screw fixing circulation pump

3		**4**	
	Lay the appliance down and press on ratchet holding circulation pump		Remove circulation pump
5		**6**	
	Remove cable connector		Remove hose connecting circulation pump to drain pump
7.20 Tub Bellow Seal			
1		**2**	
	Remove the tub gasket clip by using small screwdriver		Hold the tub bellows seal and gasket-body fixing spring together, and pull them out.

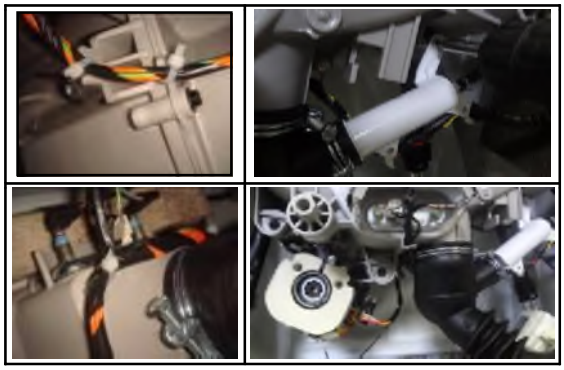
7.21 Transport Screw

1		2	
	Remove four transport screws		Hold the transport screw and pull it out.

7.22 Upper Counterweight

1		2	
	Remove two screws fixing the upper counterweight by using box wrench size 13 mm		Hold and carry upper-counterweight out.

7.23 Washing Group

1		2	
	Unplug motor connectors		Cut all the cable ties which fix cable group

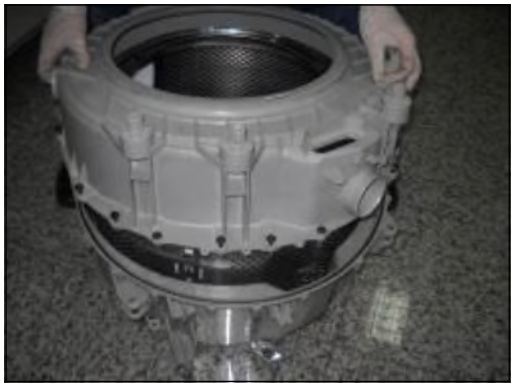
3		4	
	Remove the screws fixing hanger bracket		Remove the washing group carrying it out through front side
7.24 Shock Absorber Pin		**7.25 Driven Pulley**	
1		1	
	Remove shock absorber pins squeezing the ratchet by a pliers		Remove the belt rotating the driven pulley
7.26 Driven Pulley			
1		1	
	Remove the bolt at the center of pulley by tucking a wooden bar avoids rotation		Remove pulley

7.27 Motor

1		2	
	Remove two screws holding motor by using box wrench		Pull motor up

7.28 Washer Group

1		2	
	Remove tub inlet bellow hose loosening the clamp squeezing it by using a pliers		Remove screw holding EPS reservoir
3		4	
	Remove tub outlet bellowed hose loosening screwed-clamp		Remove 19 screws around tub using box wrench size 8 mm

5		**6**	
	Remove front tub		Remove drum

8. Component Specifications

8.1 Drain Pump

Drain pump is both a mechanical and electrical component which is used to drain water inside the washing machine. It has an synchronous motor inside. For better performance maintenance, pump filter should be cleaned regularly.

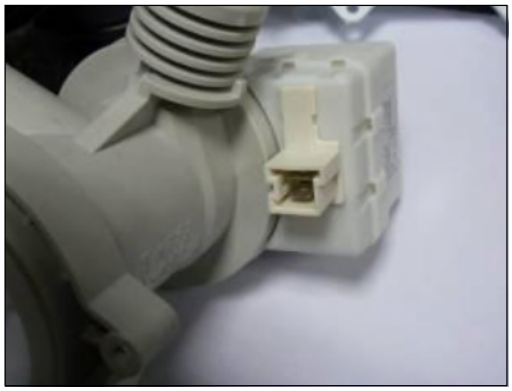
Drain pump

Technical features

Nominal voltage	220-240 V	Resistor (coil)	125 Ω (±5%)
Nominal current	0.28 A (±10 %)	Water flow	17 L/min(to 1 m height)
Nominal power	30 W (±20 %)		
Frequency	50 Hz	Thermal protector	YES

Testing component

Check the resistance value on the component with multimeter as shown below.
Resistance value should be between 125 Ω (±5%)



8.2 Circulation Pump*

The component is used for circulation of water inside the drum in order to increase washing performance.

Circulation Pump

Technical features

Nominal voltage	220 - 240 V
Frequency	50 Hz
Coil resistance	169,5 Ω (±5%)

Testing component

Check the resistance value on the component with multimeter as shown below.
Resistance value should be between 160- 180 Ω

You can determine the ohm value by measuring from the red cable at 5th and red cable at 12th position in the small socket (refer wiring diagram in section 12) as shown below figure. Resistance value should be between 160- 180 Ω

8.3 Heater

Heating element (Resistance) is a component which is desingned to regulate temperature of water inside the drum. It has three connections: Phase, notral and ground connections.

Resistance

Technical features

Heater type	Tubular heating element with NTC – sensor	Nominal power	2000 W ±5%
		Resistance	26.4 Ω ±5%
Nominal voltage	230 V	Termal fuse	2 sided

Testing component

Check the resistance value on the component with multimeter as shown below.
Resistance value should be between 26.4 Ω ±5%

8.4 Washer NTC

The component which sends signals to PCB about the water temperature inside the tub. The resistance value of the NTC decreases as the temperature increases.

NTC

Technical features

Temp. (°C)	R min (kΩ)	R max (kΩ)
-10	54.9	62.6
-5	43.0	48.6
0	33.9	38.1
5	27.0	30.1
10	21.6	23.9
15	17.4	19.1
20	14.1	5.4
25	11.5	12.5
30	9.4	10.2
35	7.8	8.3
40	6.4	6.9
45	5.4	5.7

Temp. (°C)	R min (kΩ)	R max (kΩ)
50	4.5	4.7
55	3.8	3.9
60	3.2	3.3
6	2.7	2.8
70	2.3	2.4
75	1.9	2.0
80	1.7	1.8
85	1.4	1.5
90	1.2	1.3
95	1.1	1.1
100	0.9	1.0

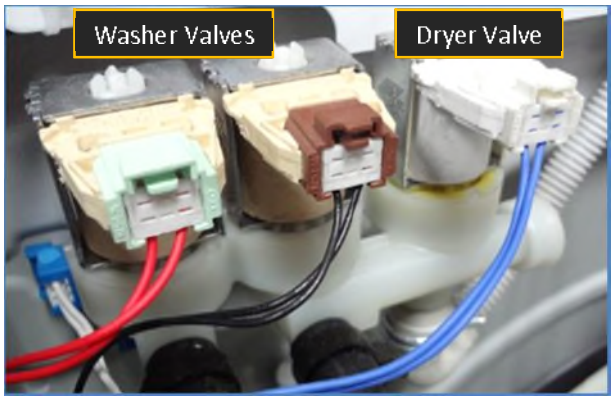
NTC Resistance vs. NTC Temperature

Testing component

Check the resistance value on the component with multimeter as shown below.

8.5 Valve

Valve is an electrical and mechanical component which is designed to take water from network system into the washing machine. It is operated by PCB card.



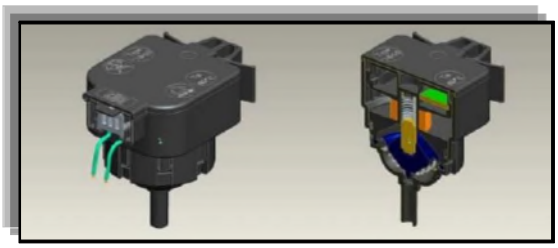
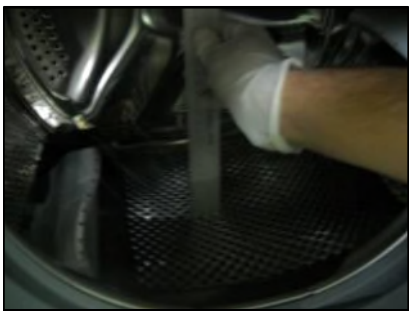
Valves

Technical features

Nominal voltage	220-240 V	Flow rate (washer valves)	7 L/min (±15 %)
Frequency	50-60 Hz	Flow rate (dryer valve)	1.2 L/min (±15 %)
		Operating water pressure	1-10 bar

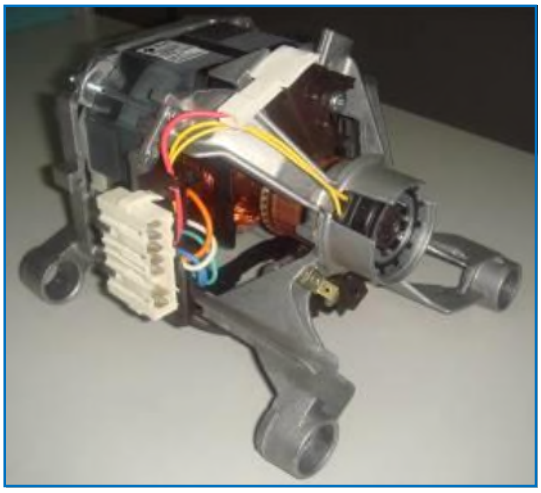
Testing component

Check the resistance value on the component with multimeter as shown below. Washer valves' water flow rate should be 7 L/min ±15%. Dryer valve's water flow rate should be 1.2 L/min ±15%. Washer valves' coil resistance values should be 3750Ω ±10%. Dryer valve's coil resistance value should be 5190Ω ±10%.

8.6 Electronic Pressure Sensor (EPS)*	
Electromagnetic field occurs due to movement of pressurized membrane. The coil moves vertically by nucleus due to electromagnetic field. The water level is regulated according to the frequency changes of the coil by electronic card.	 EPS
Testing component	
Push the door lock slider with screwdriver	
Select the 1st program and start the machine	
Unplug power cable when as soon as water intake finishes and drum begins to rotate.	
Check the water level inside the drum with ruler. It should be 10 cm ±1.	

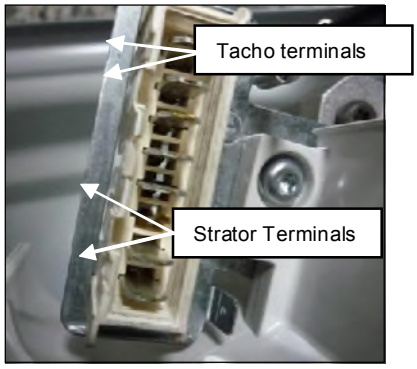
8.7 Motor

The washing machine has an asynchronous motor. It is controlled by the PCB. It is essential to check the motor for correct diagnosis and quick servicing. In the below picture, socket points on the motor is shown to measure with multimeter.



Motor

Motor socket terminals



MOTOR CODE	BRAND	STATOR (FULL) (ohm)	TACHO (ohm)	STATOR (HALF) (ohm)	TEMPERATURE
32016201	NIDEC	2.70-/+ 7%	184-/+7%	0.98-/+7%	20 °C

8.8 DC Module Board

Contains the circuit elements which build up the DC part of the washer board. It is separate, because:

* Gives space for the main board
* Functions in a cooler environment than before

DC Module Card

8.9 Door Lock*

Door lock is activated at the beginning of the program in order to prevent the door from opening. Locking is generated by supplying power to PTC-bimetal, after max 6sec (220V), the bimetal will be warm and ready to close the contacts. Thus the first impulse to the solenoid will allow the contact to close and consequently the slider will be locked by the pin of the sliderlock. The second impulse causes no electrical and mechanical modifications. It can be unlocked by the third impulse; the contact is opened even if the PTC-bimetal remains energized.

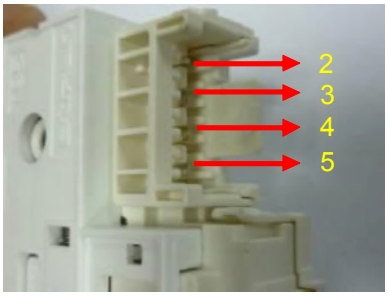
Door lock

Technical features

Nominal voltage	250 V
Nominal amperage	16 (4) A

Testing component

Check the resistance value on the component with multi-meter as shown in below figures. Resistance value on the (PTC overload + solenoid) should be 240Ω ±20% at 25 °C. That resistance value can be measured from terminal 3-4 (refer to section12 Wiring Connection Diagram).



This socket shows the connection between terminal 3-4 (See wiring diagram below). The resistance read from terminal 3-4 is the resistance of PTC overload plus resistance of solenoid.

8.10 Fan Group

Air pump component for drying cycle. Pumps dry cold air from condenser to dryer heater.

Fan group

Technical features

Nominal voltage	230 V	Resistance @ 20°C	82.7Ω ±3Ω
Frequency	50 Hz	Motor speed	1300 RPM
Rated Power	34 W	Air Flow Rate	70 m^3/h

Testing component

Check the resistance value on the component with multi-meter as shown in below figures. Resistance value should be 82.7Ω ±3Ω at 20 °C.

8.11 Dryer Heater

Air heater unit consist of two separate resistance with nickel diffusion technology.

Dryer Heater

Technical features

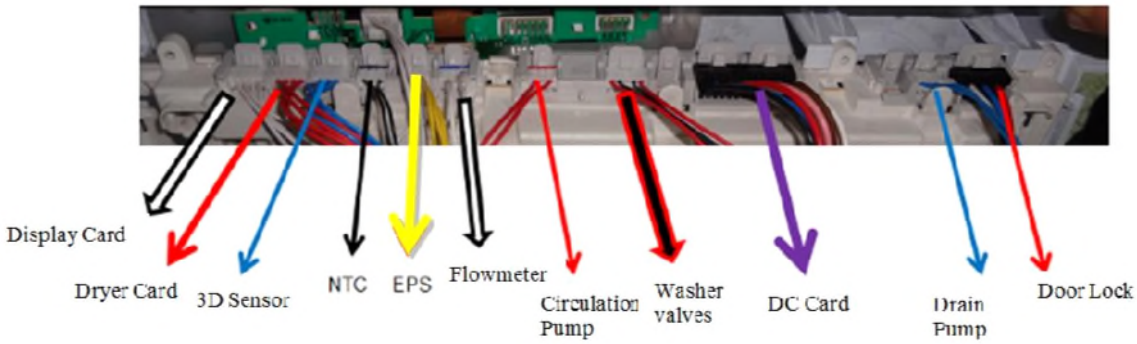
Nominal voltage	230 V	Resistance @ 20°C	65.5 – 72.6 Ω
Rated power (Heater I)	750 W		
Rated power (Heater II)	750 W		

Testing component

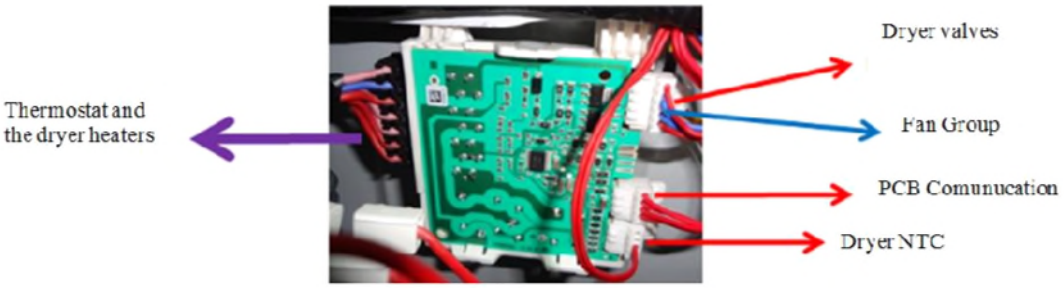
Check the resistance value on the component with multi-meter as shown in below figures. Resistance value should be in 65.5 – 72.6 Ω range.

8.12 Component Control on PCB

Sockets on the PCB

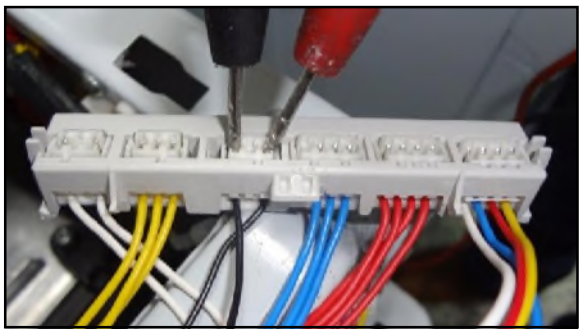


Scokets on the Dryer Board



8.12.1 Washer NTC

NTC resistance values are checked (black cables) as shown.
Refer to the relevant table for the NTC resistance values..



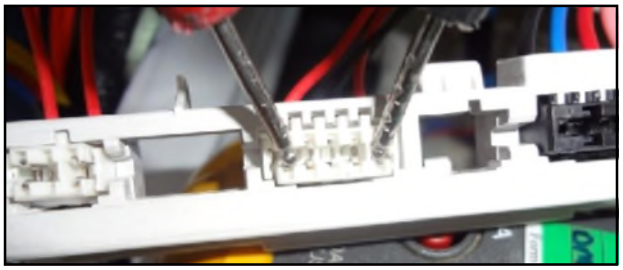
8.11.2 Circulation Pump

Resistance values are checked (red cables) as shown.

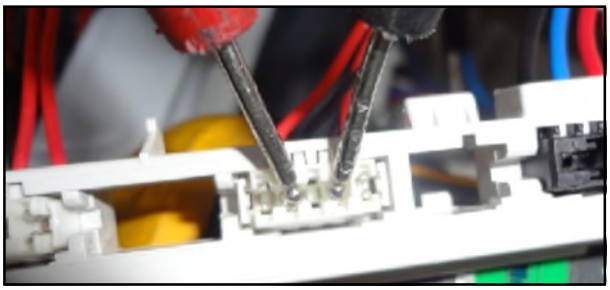
8.11.3 Washer Valves

Valve resistance value is checked with a multimeter as shown.
Washer valves resistance values : 3750 Ω +10%

Pre-Wash Valve:
Check the red cables

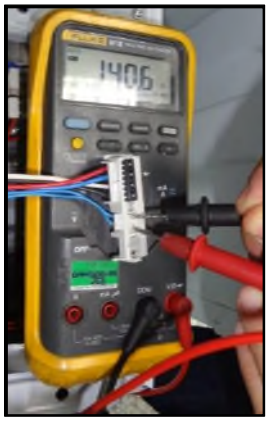


Main Wash Valve:
Check the black cables



8.11.4 Drain Pump

Check the blue-blue cables
Drain Pump resistance value: 125 - 140 Ω



8.12.5 Door Lock

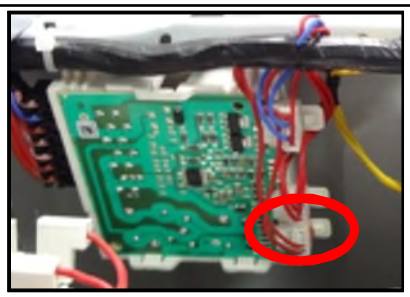
Resistance value is checked with a multimeter as shown.

Check the white and blue cables

Resistance values 240Ω ±20% (25 °C)

8.12.6 Dryer NTC

Component Control :
Check the socket at the bottom of the dryer board as shown.



T°C	R(KΩ) MIN	R(KΩ) CEN	R(KΩ) MAX
25	19.40	20.00	20.60
30	15.56	16.11	16.67
40	10.19	10.64	11.10
50	6.819	7.176	7.544
60	4.653	4.933	5.225
70	3.246	3.466	3.697
80	2.322	2.495	2.679
90	1.688	1.825	1.972
100	1.244	1.353	1.471
110	0.9296	1.017	1.112
120	0.7042	0.7747	0.8516
130	0.5404	0.5976	0.6603
140	0.4198	0.4665	0.5180
150	0.3296	0.3681	0.4107
160	0.2614	0.2932	0.3286
170	0.2092	0.2357	0.2653
180	0.1690	0.1912	0.2161

8.13 Dryer NTC

The component which sends signals to PCB about the flowing air temperature just after dryer heater. The resistance value of the NTC decreases as the temperature increases.

Dryer NTC

Technical features

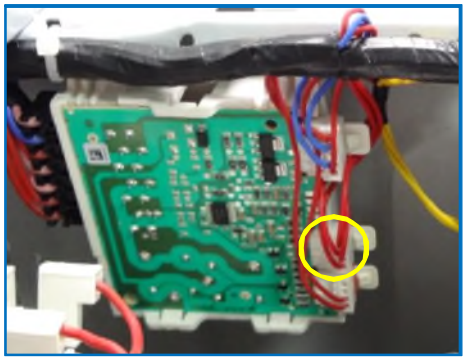
Temp. (°C)	R min (kΩ)	R max (kΩ)
25	19.40	20.60
30	15.56	16.67
40	10.19	11.10
50	6.82	7.54
60	4.65	5.23
70	3.25	3.70
80	2.32	2.68
90	1.69	1.97
100	1.24	1.47

Temp. (°C)	R min (kΩ)	R max (kΩ)
110	0.93	1.11
120	0.70	0.85
130	0.54	0.66
140	0.42	0.52
150	0.33	0.41
160	0.26	0.32
170	0.21	0.25
180	0.17	0.20

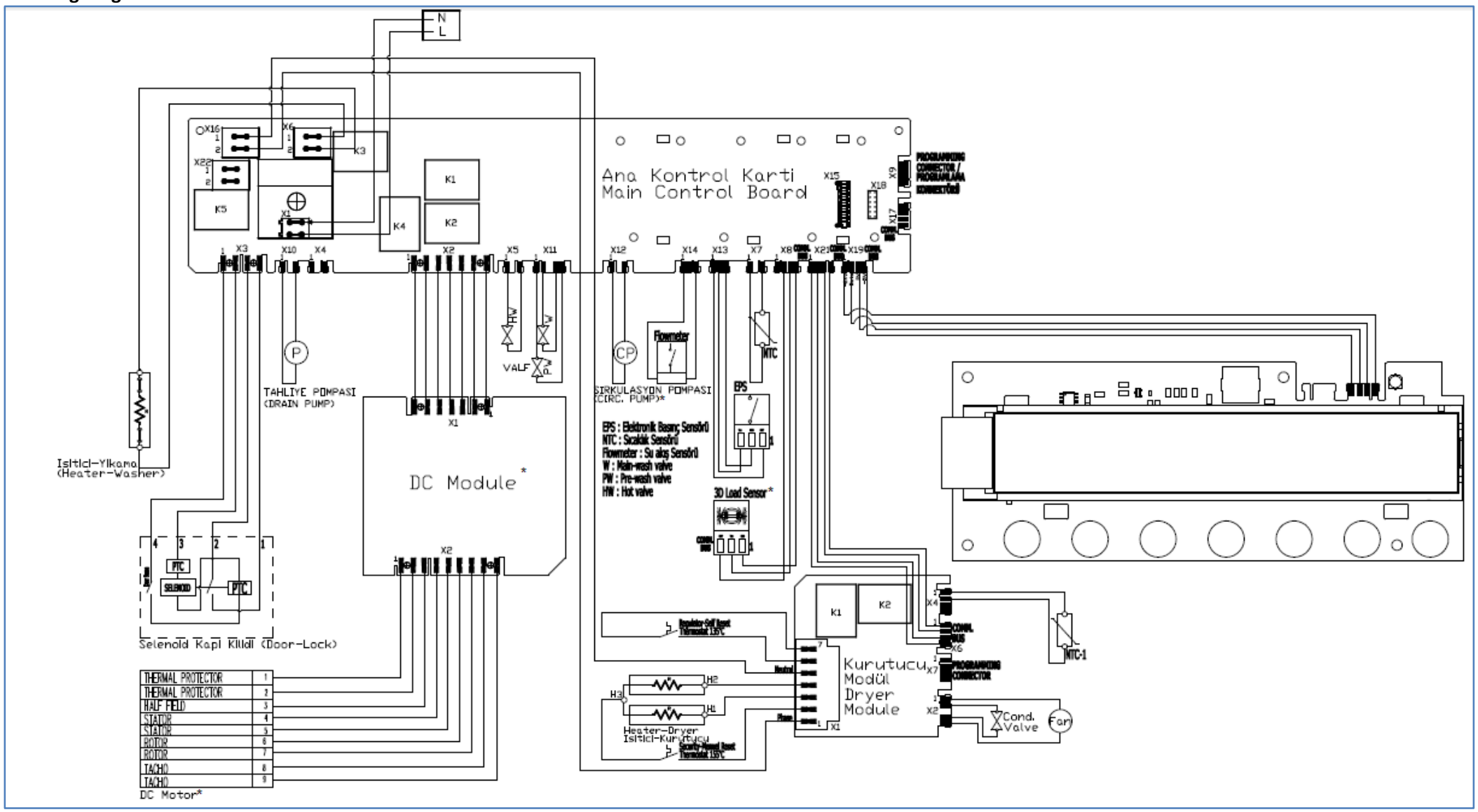
NTC Resistance vs. NTC Temperature

Testing component

Check the resistance value on the component with multi-meter as shown in below figures.

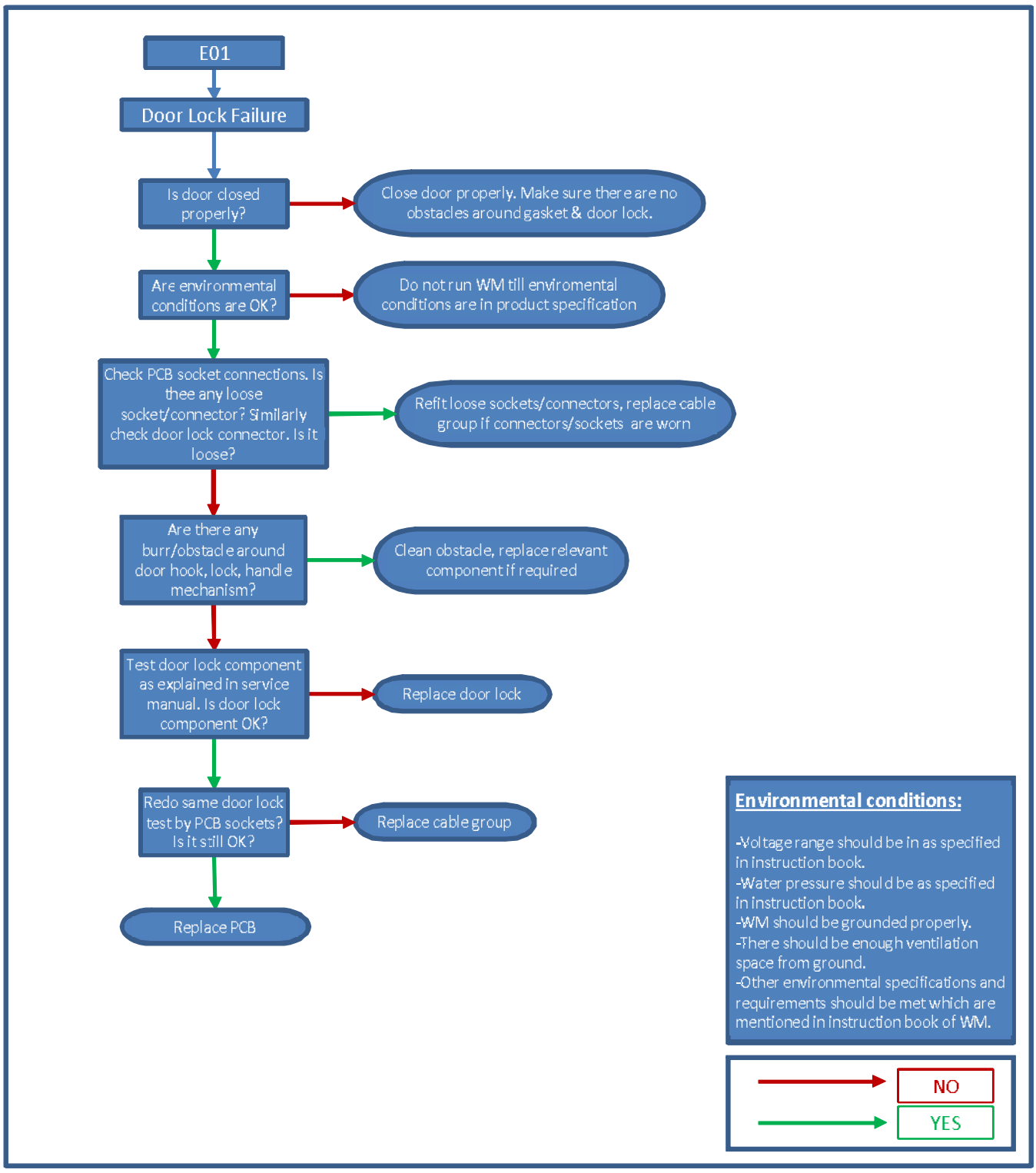


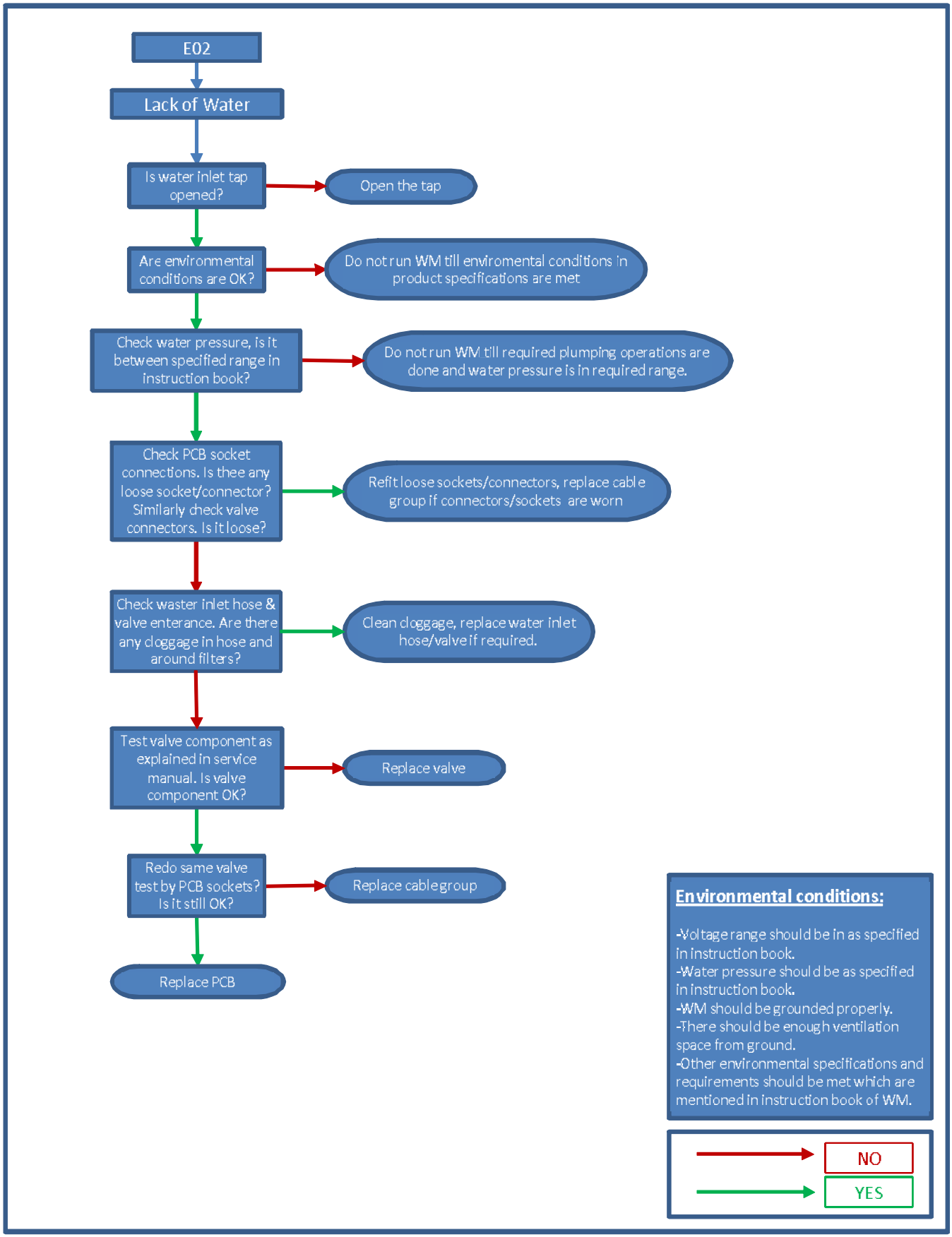
9. Wiring Diagram*

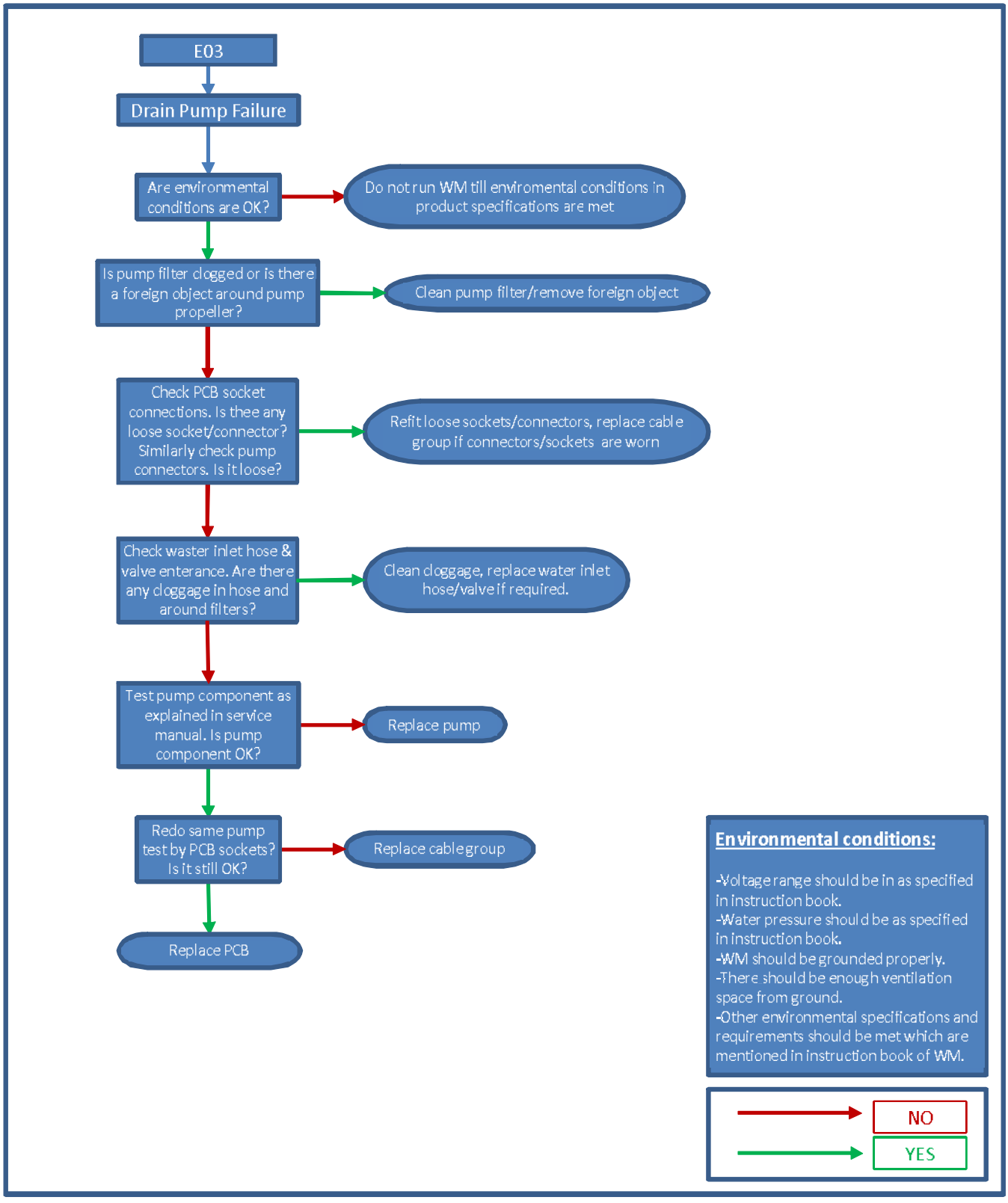


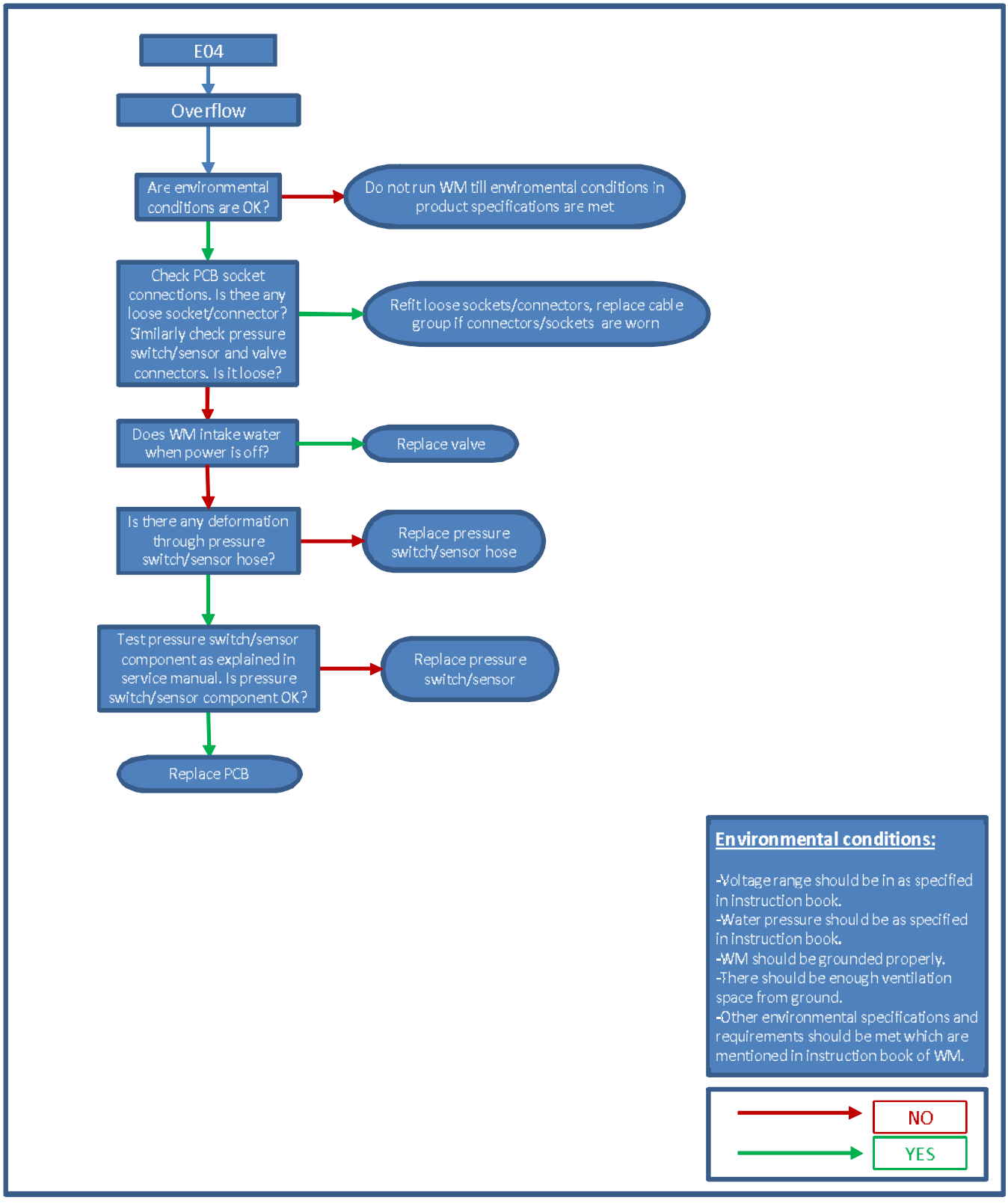
10. Troubleshooting

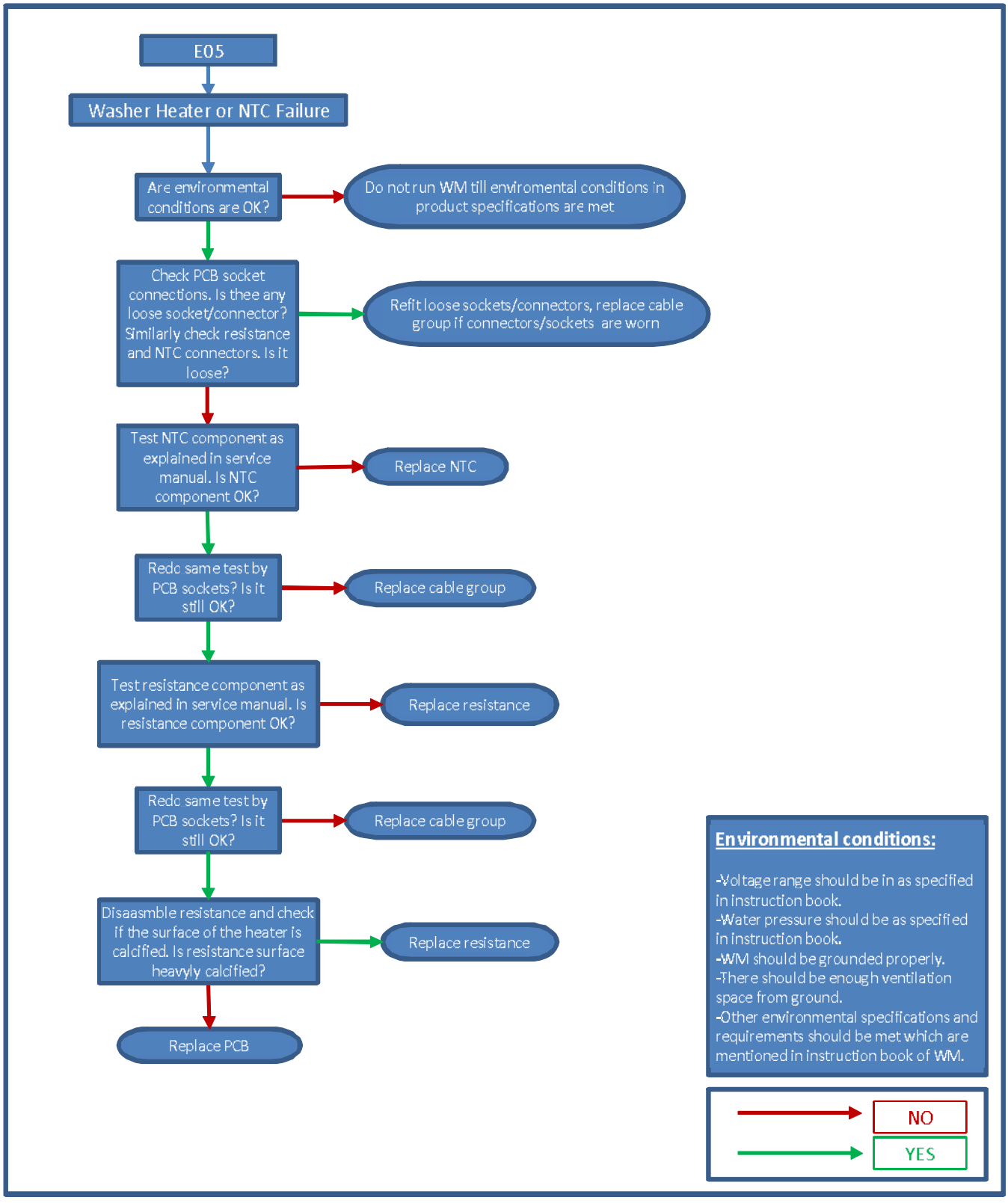
Please apply basic troubleshooting steps described in user manual. If you can not find a solution you should run service autotest and complete all steps. In case of an error encounter please follow the instructions through flowchart related with the error.

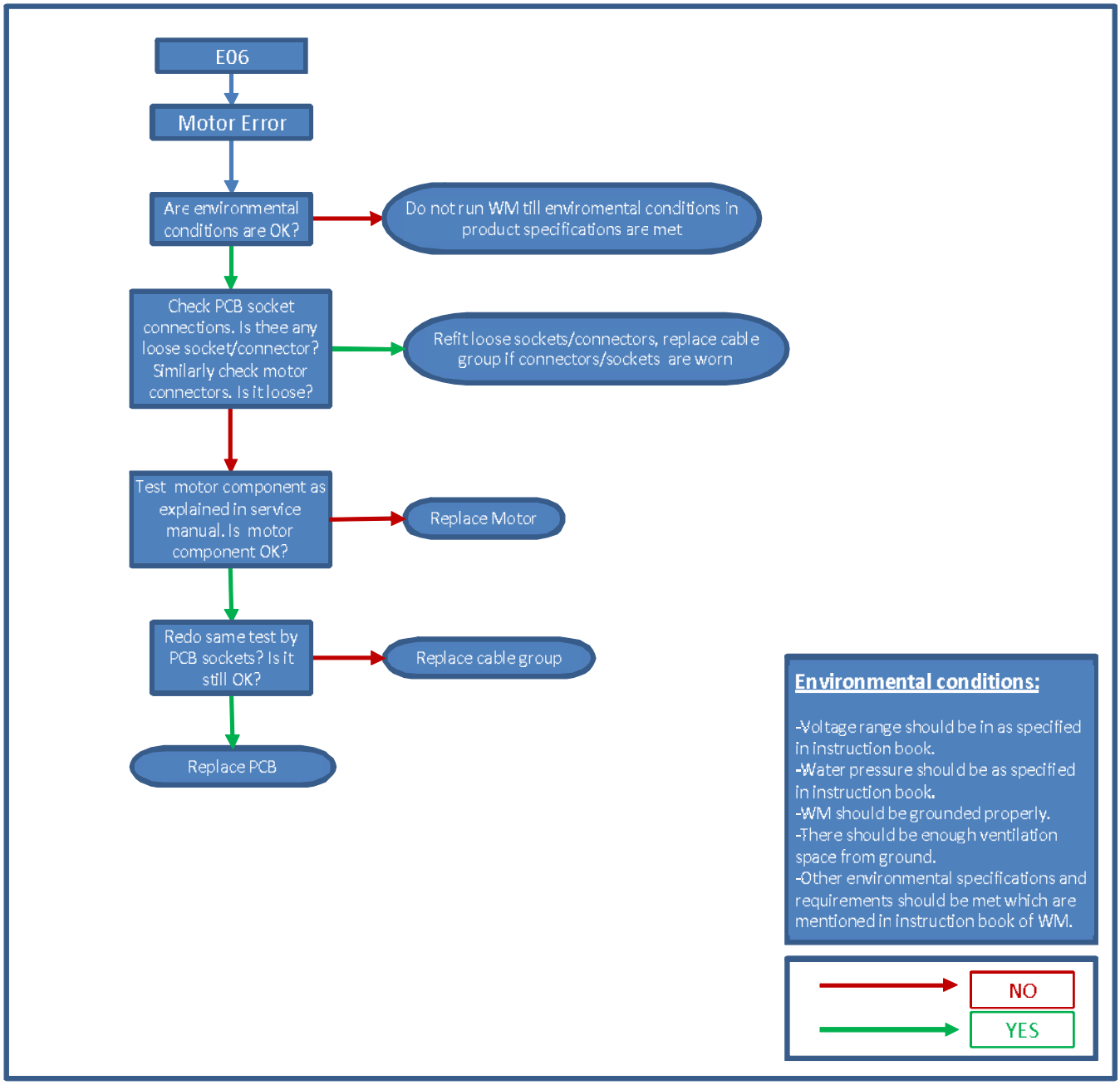


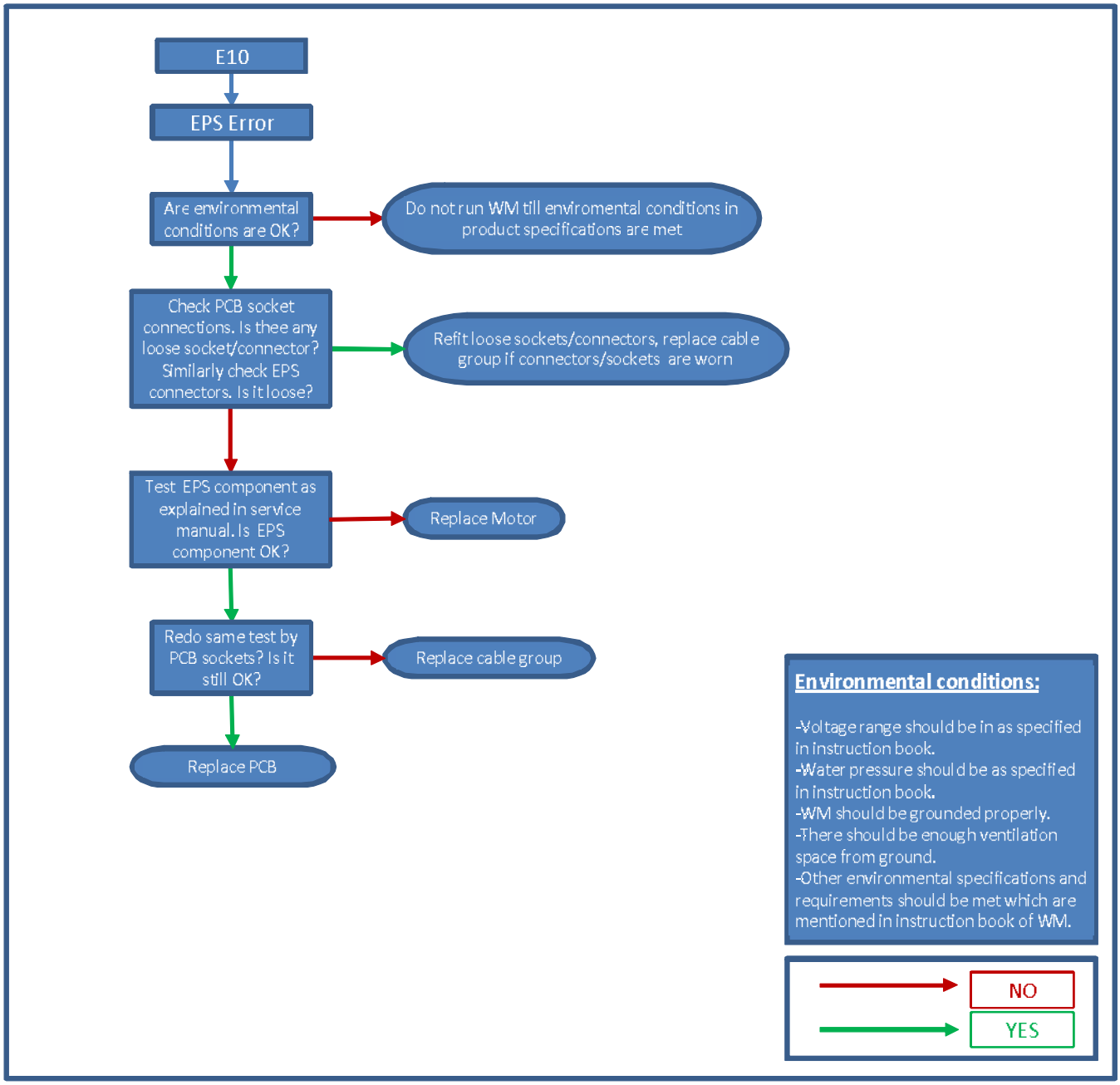

E02
Lack of Water
Is water inlet tap opened?
Open the tap
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check water pressure, is it between specified range in instruction book?
Do not run WM till required plumping operations are done and water pressure is in required range.
Check PCB socket connections. Is thee any loose socket/connector? Similarly check valve connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Check waster inlet hose & valve enterance. Are there any cloggage in hose and around filters?
Clean cloggage, replace water inlet hose/valve if required.
Test valve component as explained in service manual. Is valve component OK?
Replace valve
Redo same valve test by PCB sockets? Is it still OK?
Replace cable group
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES

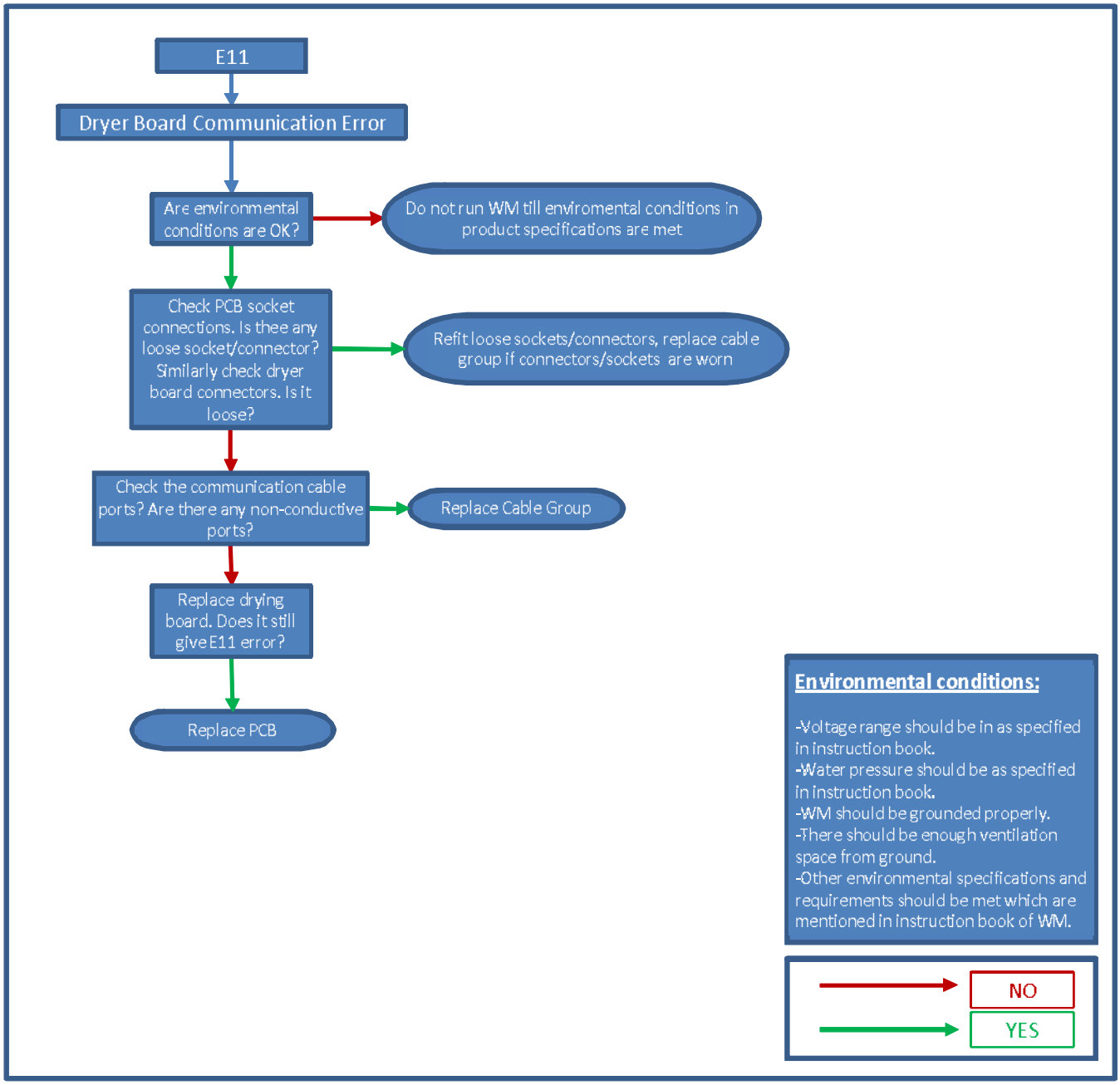

E03
Drain Pump Failure
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Is pump filter clogged or is there a foreign object around pump propeller?
Clean pump filter/remove foreign object
Check PCB socket connections. Is thee any loose socket/connector? Similarly check pump connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Check waster inlet hose & valve enterance. Are there any cloggage in hose and around filters?
Clean cloggage, replace water inlet hose/valve if required.
Test pump component as explained in service manual. Is pump component OK?
Replace pump
Redo same pump test by PCB sockets? Is it still OK?
Replace cable group
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES

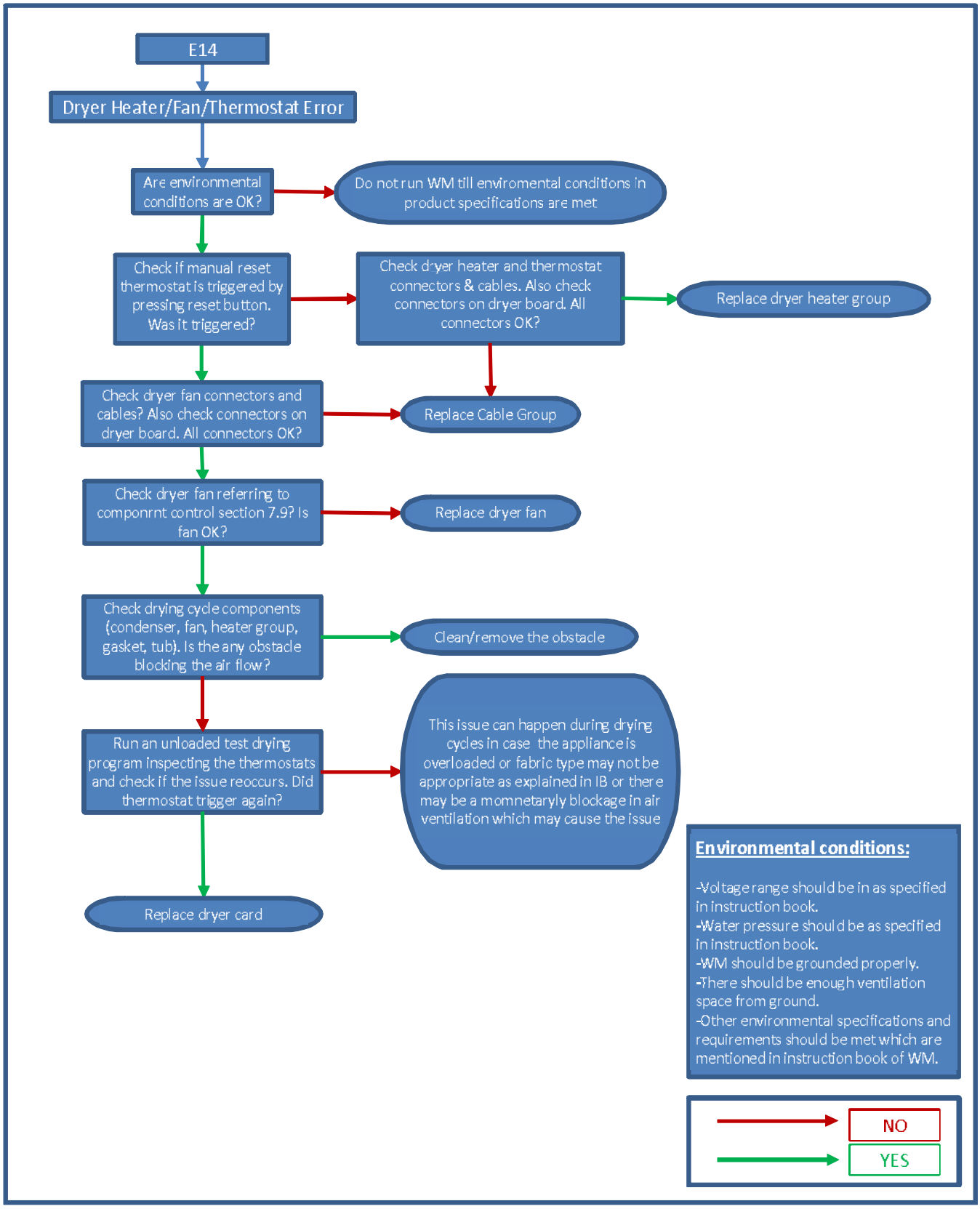

E04
Overflow
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check PCB socket connections. Is thee any loose socket/connector? Similarly check pressure switch/sensor and valve connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Does WM intake water when power is off?
Replace valve
Is there any deformation through pressure switch/sensor hose?
Replace pressure switch/sensor hose
Test pressure switch/sensor component as explained in service manual. Is pressure switch/sensor component OK?
Replace pressure switch/sensor
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES

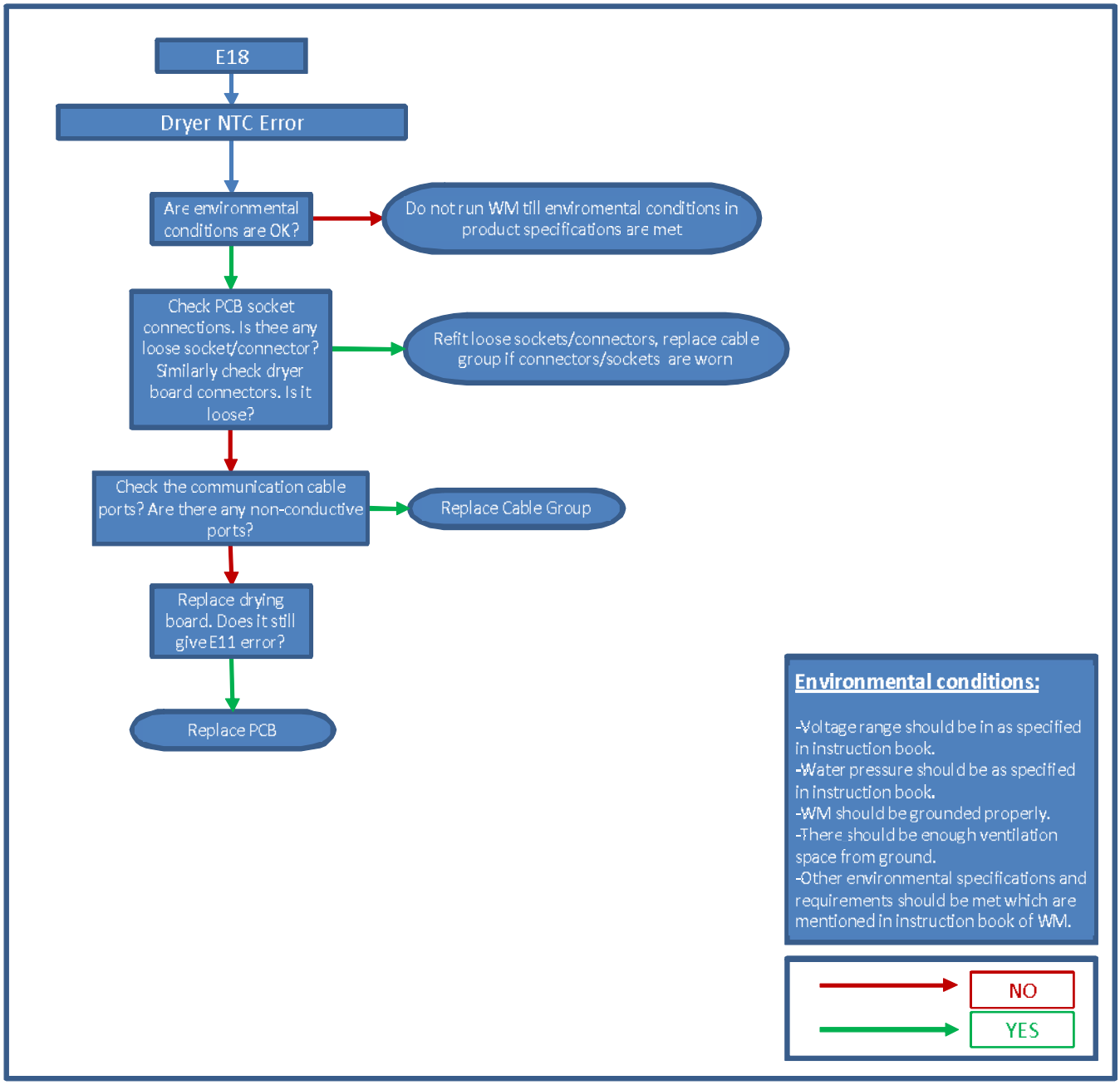

E05
Washer Heater or NTC Failure
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check PCB socket connections. Is thee any loose socket/connector? Similarly check resistance and NTC connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Test NTC component as explained in service manual. Is NTC component OK?
Replace NTC
Redo same test by PCB sockets? Is it still OK?
Replace cable group
Test resistance component as explained in service manual. Is resistance component OK?
Replace resistance
Redo same test by PCB sockets? Is it still OK?
Replace cable group
Disaasmble resistance and check if the surface of the heater is calcified. Is resistance surface heavyly calcified?
Replace resistance
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES


E06
Motor Error
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check PCB socket connections. Is thee any loose socket/connector? Similarly check motor connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Test motor component as explained in service manual. Is motor component OK?
Replace Motor
Redo same test by PCB sockets? Is it still OK?
Replace cable group
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES


E10
EPS Error
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check PCB socket connections. Is thee any loose socket/connector? Similarly check EPS connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Test EPS component as explained in service manual. Is EPS component OK?
Replace Motor
Redo same test by PCB sockets? Is it still OK?
Replace cable group
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES


E11
Dryer Board Communication Error
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check PCB socket connections. Is thee any loose socket/connector? Similarly check dryer board connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Check the communication cable ports? Are there any non-conductive ports?
Replace Cable Group
Replace drying board. Does it still give E11 error?
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES


E14
Dryer Heater/Fan/Thermostat Error
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check if manual reset thermostat is triggered by pressing reset button. Was it triggered?
Check dryer heater and thermostat connectors & cables. Also check connectors on dryer board. All connectors OK?
Replace dryer heater group
Check dryer fan connectors and cables? Also check connectors on dryer board. All connectors OK?
Replace Cable Group
Check dryer fan referring to componrnt control section 7.9? Is fan OK?
Replace dryer fan
Check drying cycle components (condenser, fan, heater group, gasket, tub). Is the any obstacle blocking the air flow?
Clean/remove the obstacle
Run an unloaded test drying program inspecting the thermostats and check if the issue reoccurs. Did thermostat trigger again?
This issue can happen during drying cycles in case the appliance is overloaded or fabric type may not be appropriate as explained in IB or there may be a momnetaryly blockage in air ventilation which may cause the issue
Replace dryer card
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES


E18
Dryer NTC Error
Are environmental conditions are OK?
Do not run WM till enviromental conditions in product specifications are met
Check PCB socket connections. Is thee any loose socket/connector? Similarly check dryer board connectors. Is it loose?
Refit loose sockets/connectors, replace cable group if connectors/sockets are worn
Check the communication cable ports? Are there any non-conductive ports?
Replace Cable Group
Replace drying board. Does it still give E11 error?
Replace PCB
Environmental conditions:
-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.
NO
YES