



**X SERIES (WITHOUT ON-OFF
BUTTON) WITH AND WITHOUT
DISPLAY PRODUCTS**



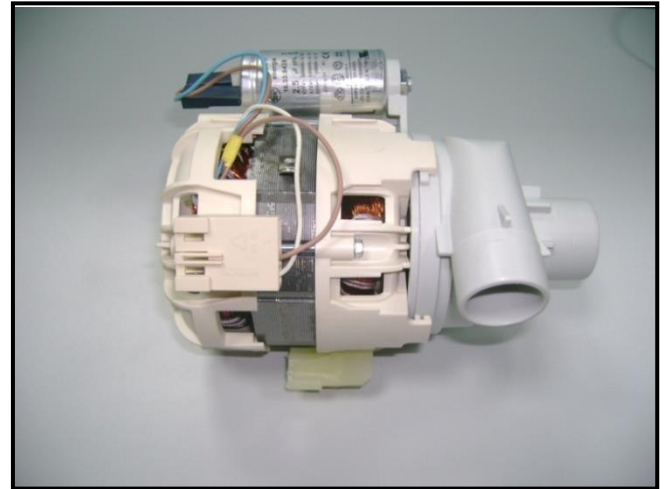
COMPONENTS

Circulation Pump

| | |
|----------------------|------------------------|
| Voltage | : 220/240 V |
| Frequency | : 50 Hz |
| Total Power | : 88 W |
| Coil Isolation Class | : F |
| Main Coil | : $95\% \pm 7 \Omega$ |
| Sub Coil | : $126\% \pm 7 \Omega$ |
| Thermal Protection | : 109 °C |
| Pump Outlet Pressure | : 300 mbar |
| Pump Flowrate | : 60 lt/min |

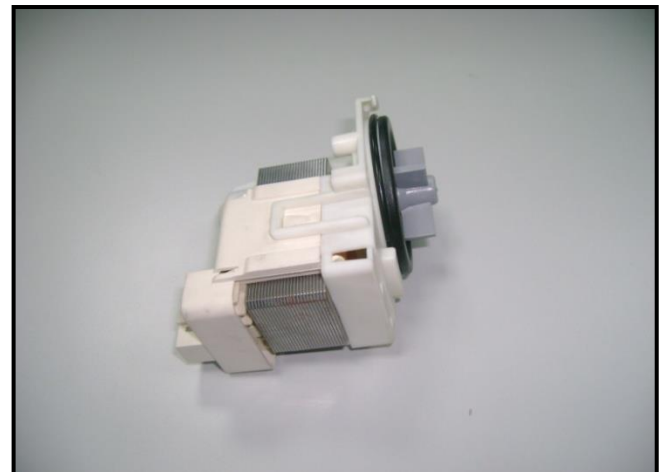
Single direction, single phase, asynchronous and two pole. It turns opposite clock direction. It is assembled to the basement with rubber hangers.

Single direction, single phase, asynchronous and two pole. It turns opposite clock direction. It is assembled to the basement with rubber hangers.



Drain Pump

| | |
|----------------------|----------------------|
| Voltage | : 220/240 Volt |
| Frequency | : 50 Hz |
| Total Power | : 30 W |
| Flowrate | : 17 – 21 lt/min |
| Coil Resistance | : $143 \Omega \pm 7$ |
| Coil Isolation Class | : F |
| Thermal Protection | : 120 °C |

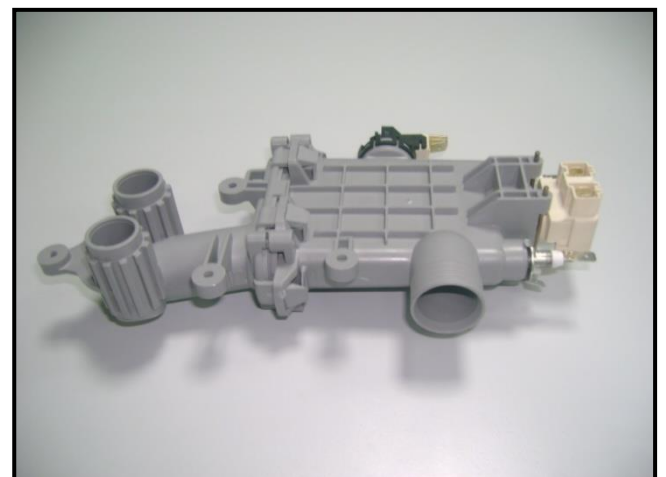


Heater Casing Group

Heater

| | |
|-------------|-------------------------|
| Voltage | : 220/240 V |
| Total Power | : 2000 W |
| Resistance | : $23.95 \pm 15 \Omega$ |

It is used to heat the washing water.
Heater is not active during the drying process.
It is assembled to the sump and located to the circulation pump.

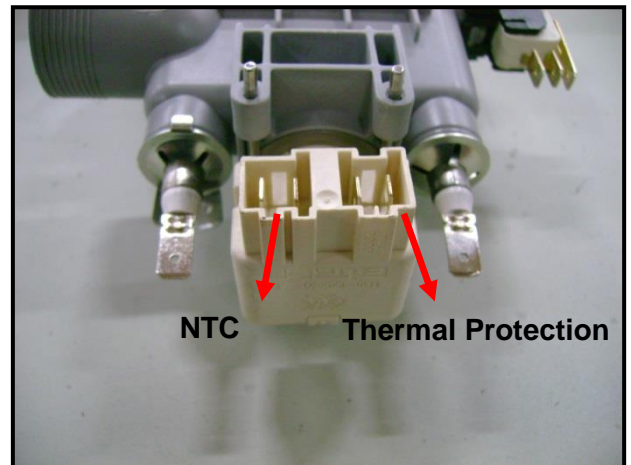


NTC

Thermal Protection 83 ± 3 °C

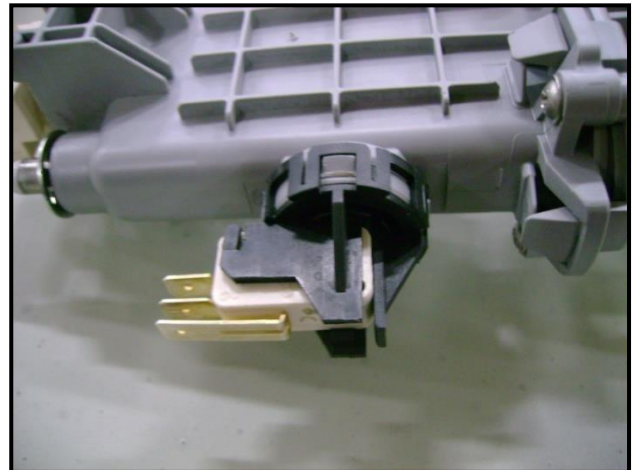
Temperatures;

| | | |
|-------|-------|-------|
| 25° - | 5000Ω | %±5.0 |
| 35° - | 3300Ω | %±5.5 |
| 55° - | 1520Ω | %±6.5 |
| 63° - | 1174Ω | %±7.5 |
| 80° - | 670Ω | %±8.0 |
| 90° - | 488Ω | %±8.5 |



Pressure Switch

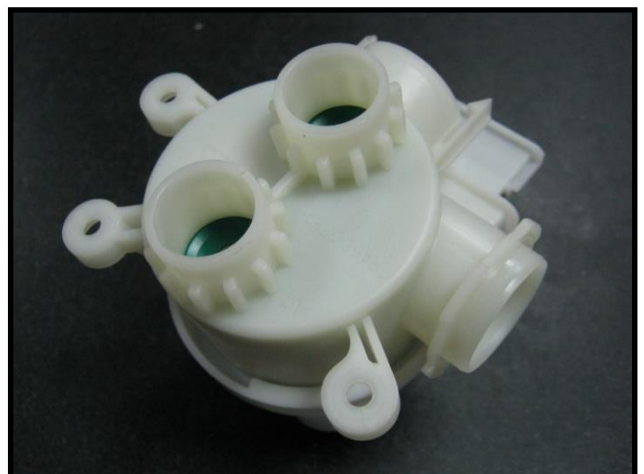
Voltage : 220/240 V
Frequency : 50 Hz (16 A – 3 Pins)



Diverter

Voltage : 220/240 V
Frequency : 50 Hz
Power : 8 W
Resistance : 6840 ± 5 Ω

T21 models includes diverter .



Detergent Dispenser

Detergant Compartment:

Main wash compartment : 40 cm³ (25/15)

Prewash compartment : 5 cm³

Aid Rinse Department :

Aid rinse cap : 150 cm³

Factory outlet setting position : 3. level



Detergent Dispenser Bobbin :

Voltage : 220/240 V

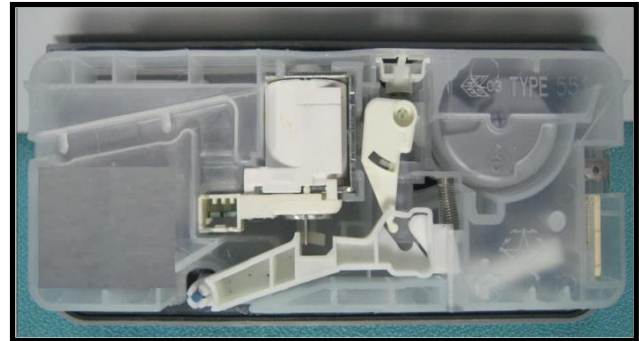
Frequency : 50 Hz

Resistance : 1660 ±10 Ω

Detergent Dispanser Rinse Aid Sensor:

Voltage : 250 V

Currency : 16 (4) A



Water Inlet Valve

Voltage : 220/240 Volt

Frequency : 50-60 Hz

Total Power : 6 W

Flowrate : 2,5 lt/min

Resistance : 3750 ±10 Ω (20 C°)

Single inlet and single outlet standard single coil selenoid valve. It is assembled to the basement and connect to the airbreak by hose.



Water Softener**Regeneration Valve;**

Voltage : 220/240 V
Frequency : 50/60 Hz
Total Power : 6 W
Resistance : $4130 \pm 10 \Omega$ (25 C°)



Regeneration valve is assembled on the water softener.

Salt Sensör;

Voltage : 250 V
Currency : 16 (4) A

It is assembled to the water softener. It warns if the salt is less than requested quantity.

**Door Lock Switch ;**

It is a mechanical lock/release system that is closing the door, supplying the connection of electrical parts in the machine and cutting off the connection.

Currency : 16 (4) A



Parasite Filter ;

Voltage : 220/240 V
Frequency : 50/60 Hz
0,1 uF (X1) + 2x0,027uF(Y2) + 1M Ω

It is used to prevent parasites from the main supply.
It has been assembled to basement.

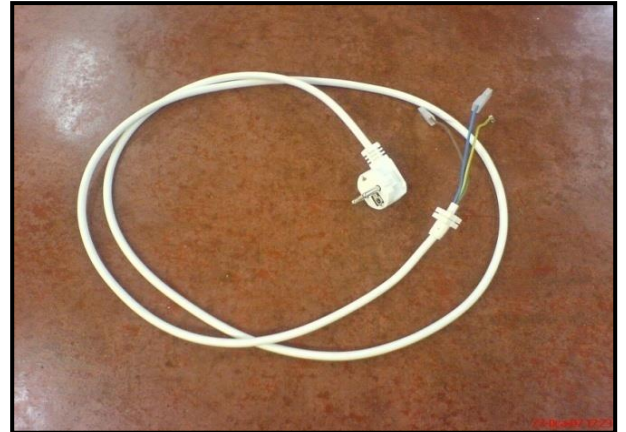
**Flowmetre ;**

It measures the inlet water and gives information to the electronic card.
It causes drying performance for the normal drying machines owing to the air ducts on it.



Power Cord;

Type : Euro 3 1mm², copper conducting
Isolation : TS 9760 H05VV-F
Plug : TS-IEC 60884-1earthed, PVC injected
Length : 1800 mm

**Drain Hose;**

Drain hose maximum height : 110cm
Drain hose minimum height : 50cm
Drain hose maximum length : 400cm

**Water Inlet Hose;**

Hose that is flat edge is assembled to plug.
Another edge that is turned edge is assembled to water inlet valve. It must be adjusted for assembly direction.



Air Break ;

It measure water that comes to inlet dishwasher. And It gives datas to electronic card.

It causes drying performance for the normal drying machines owing to the air ducts on it.

**Water Softener ;**

It decreases hardness of water that comes from main supply.

It includes 2 departments that "salt department" and "recine department" with 2 types that is sensor or without sensor.

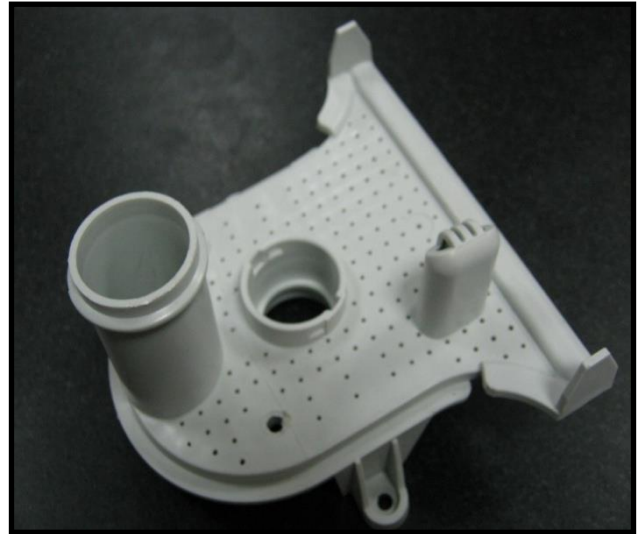
**Sump;**

Sump that is reservoir connects water in tube with circulation pump and drain pump and heater casing..

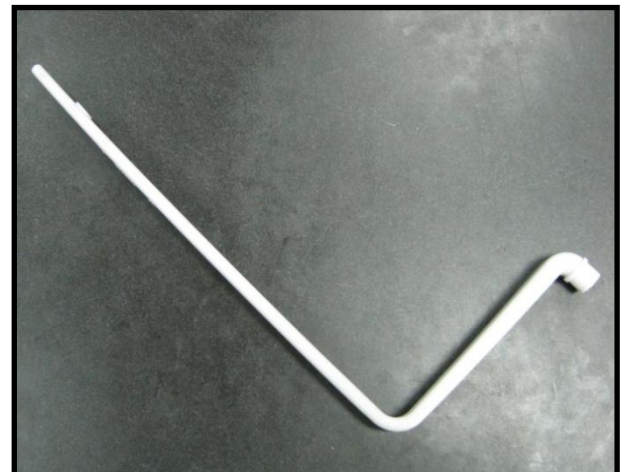


Spray Arm Support;

It distributes water from divisor to upper and below spray

**L Spray Arm;**

It transfers water from spray arm support to upper spray arm

**Upper Spray Arm;**

It transfers water from L spray arm to upper spray arm
There are two hole back of the upper spray arm.

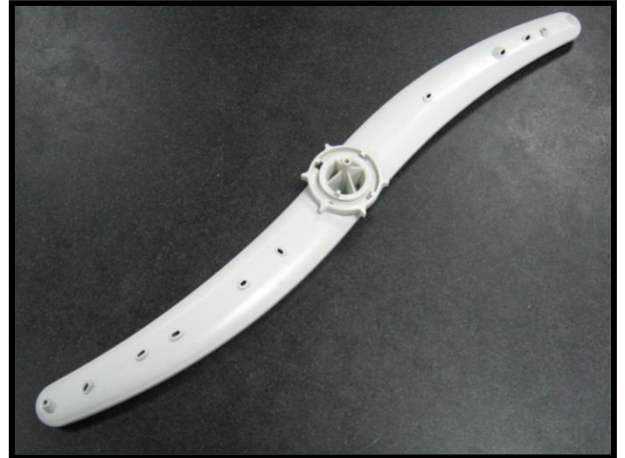
The holes provides to work upper basket for
upper and lower position.



Upper Spray;

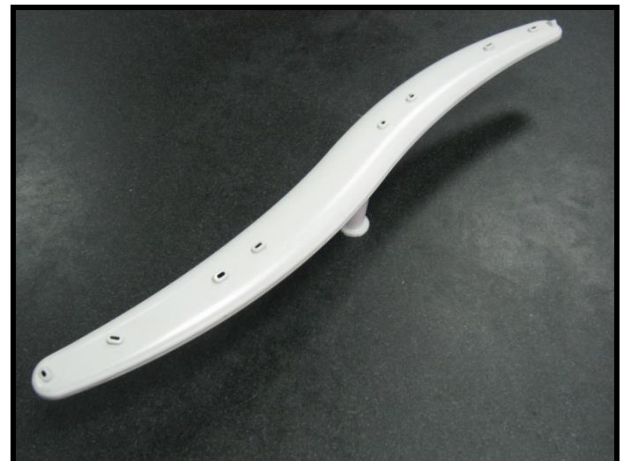
It distributes water from upper spray arm to dirty dishes in the upper basket.

It provides to wash the dishes in the upper basket through turning by the holes with various angles.

**Lower Spray Arm;**

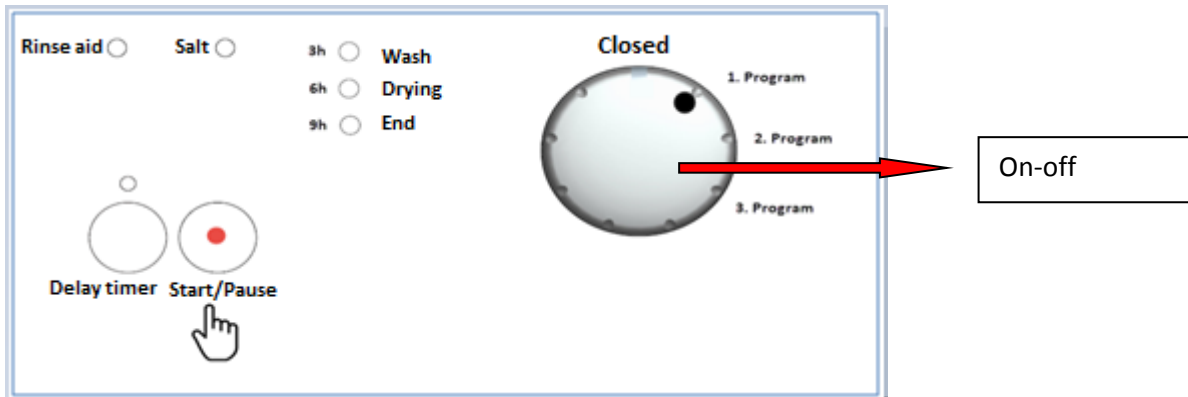
It distributes water from lower spray arm to dirty dishes in the lower basket.

It provides to wash the dishes in the lower basket through turning by the holes with various angles.

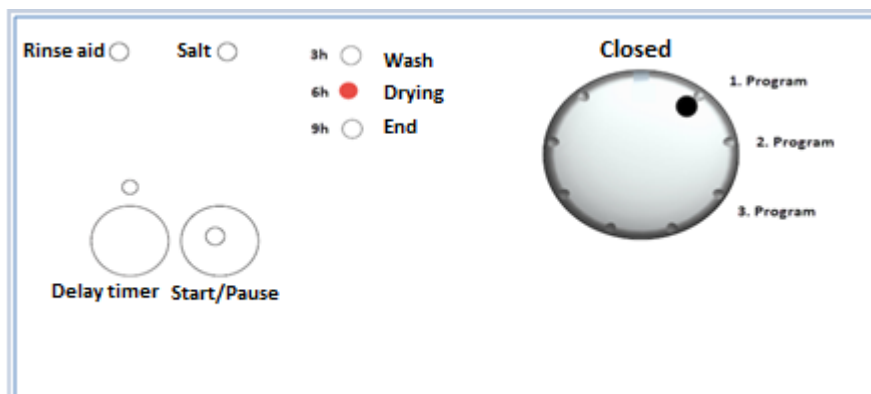


PROGRAM CANCELLATION OF X SERIES

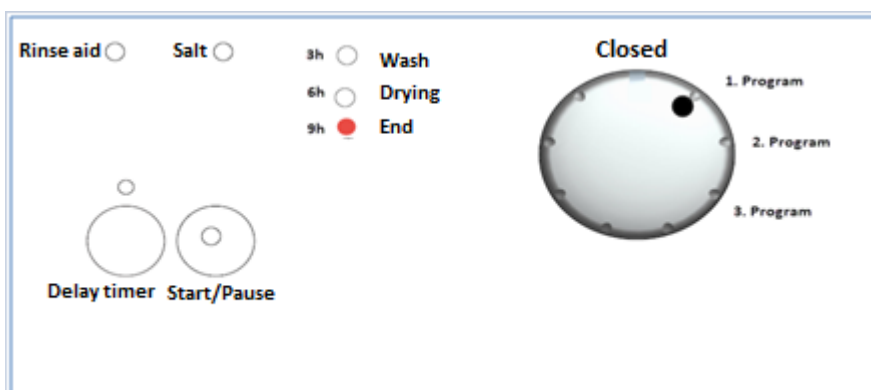
- 1) The machine must be open position to do the cancellation process.
- 2) Push the Start/Pause button for 3 sec. while the machine is operating.



- 3) After 3 sec, the drying light lights up and then it starts draining by the drain pump operates. (Approximately 30 sec)

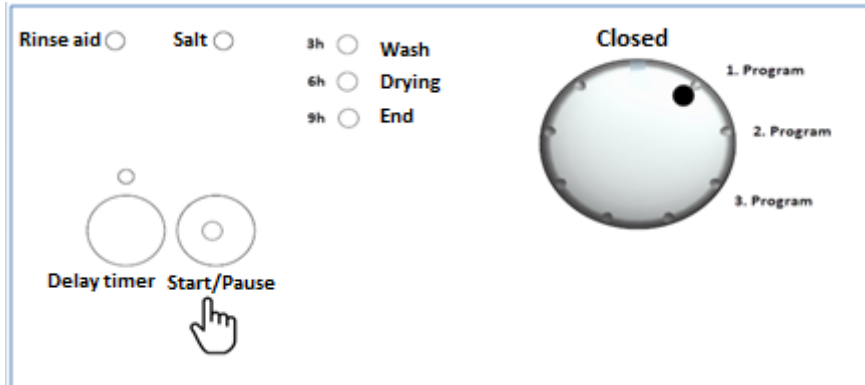


- 4) After the end of draining operation, the draining pump stops and the End light lights up.

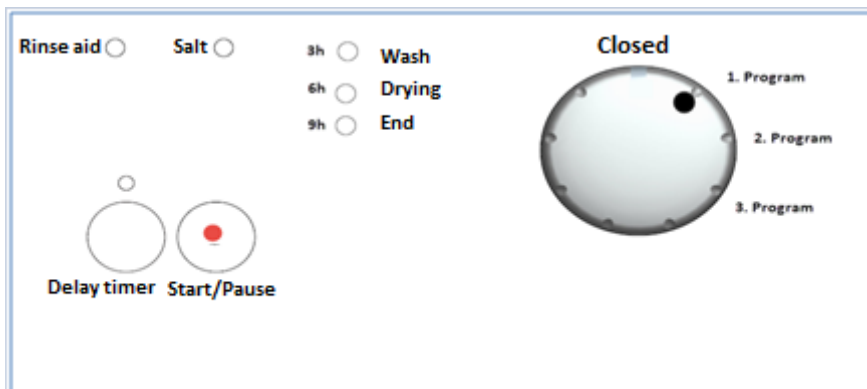


ON-OFF OPERATION FOR X SERIES

1) The machine is closed while the on/off and program choosing knob is on the closed position. All of the buttons don't operate. The lights don't light up. Only the electronic card has energy.



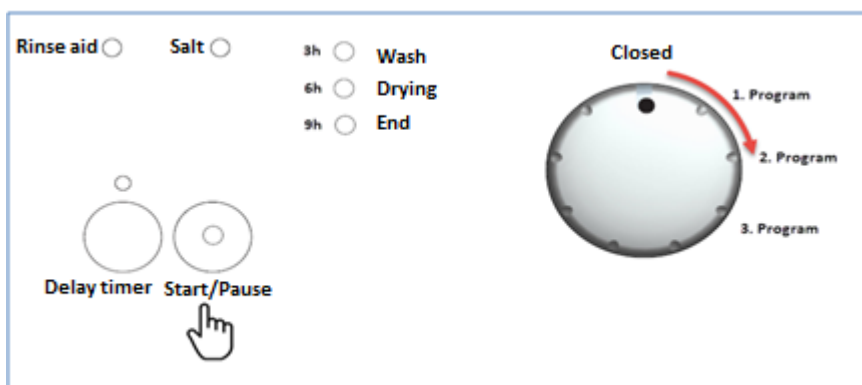
2) The machine will be opened when the on/off and program choosing knob is on any position except "Closed". The Start/Pause light lights up.



THE SERVICE TEST OF X SERIES

1) The machine is came to the Closed position.

2) The program chooser knob is came to the "2.Program" while pushing on the Start/Pause button for 5 sec.



3) The Start/Pause button is released when all of the lights light up for 1 time. (The service program starts)

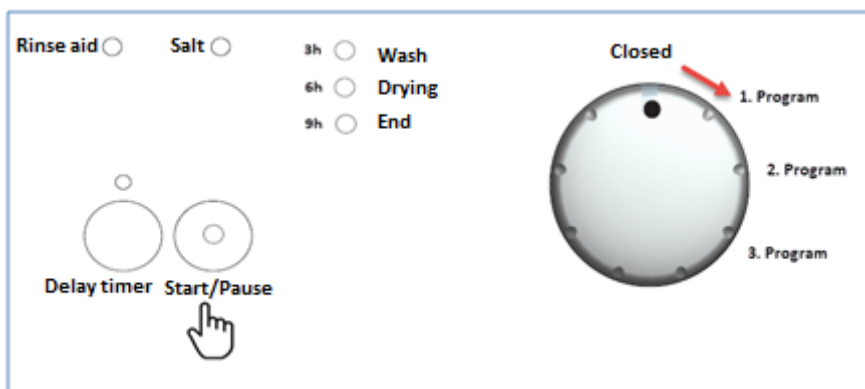
4) The last error (if there is a previous error) is observed at the beginning of service program.

Note: Service program can be cancelled by turning off the Start/Pause button or cancellation operation.

SALT SETTING OF X SERIES

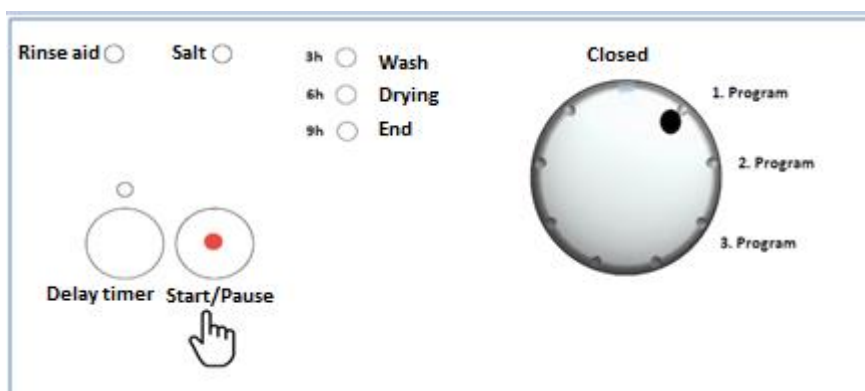
1) The machine is came to the Closed position.

2) The program chooser knob is came to the "1.Program" while pushing on the Start/Pause button for 5 sec.



3) The Start/Pause button is released when all of the lights light up for 1 time. (It is setted on the water hardness section)

4) The water hardness level is selected while pushing the Start/Pause button.



| LEVEL | WASH LIGHT | END LIGHT | START/PAUSE LIGHT |
|--------------|-------------------|------------------|--------------------------|
| 1 | ON | OFF | OFF |
| 2 | OFF | ON | OFF |
| 3 | OFF | OFF | ON |
| 4 | ON | ON | OFF |
| 5 | ON | OFF | ON |
| 6 | OFF | ON | ON |

5) The machine is came to the closed position to exit from the water hardness setting and to get in memory the last setting.

DISASSEMBLY

CAUTION!: REMOVE ELECTRIC PLUG FROM THE SOCKET DURING THE DISASSEMBLY

Top Plate

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



Plastic Kick Plate

a) Remove two screws fixing plastic kick plate.



b) Remove the plastic kick plate as it is shown in the picture.



Side panels

Remove the screws fixing side panels

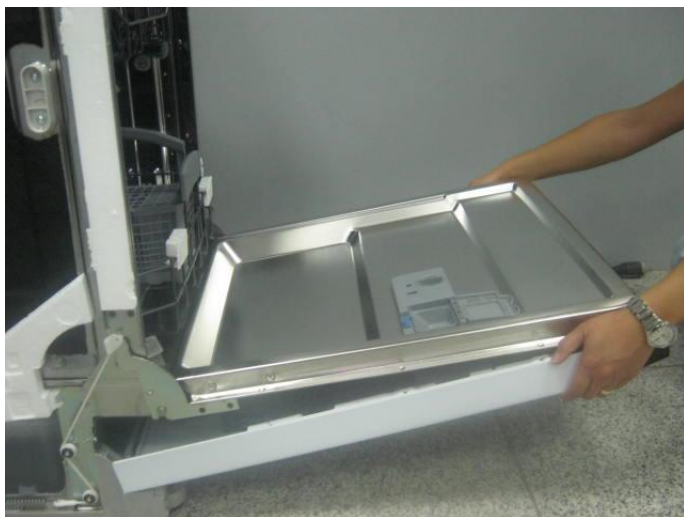


Front Panel

a) Remove the screws as it shown in the picture.



b) Pull down the front panel after removing the screws.

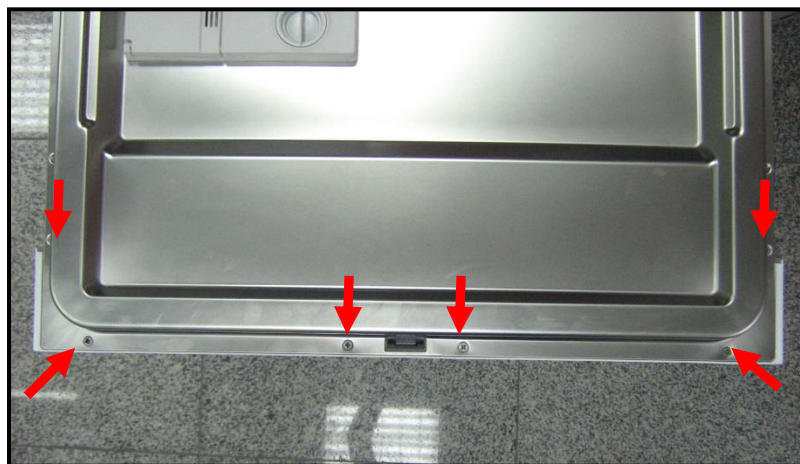


Kick Plate Sheet Iron

- a) Remove top plate, plastic kick plate and side panels.
- b) Remove the screws (4 screws) that fix the kick plate sheet iron.
- c) Pull it down as shown in the picture.

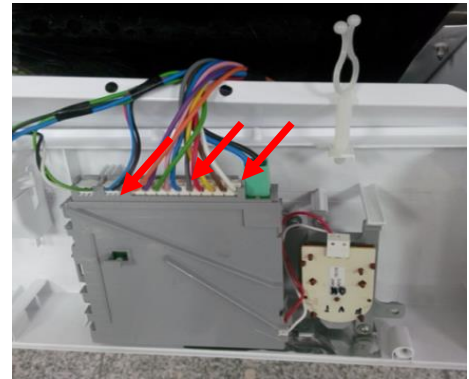
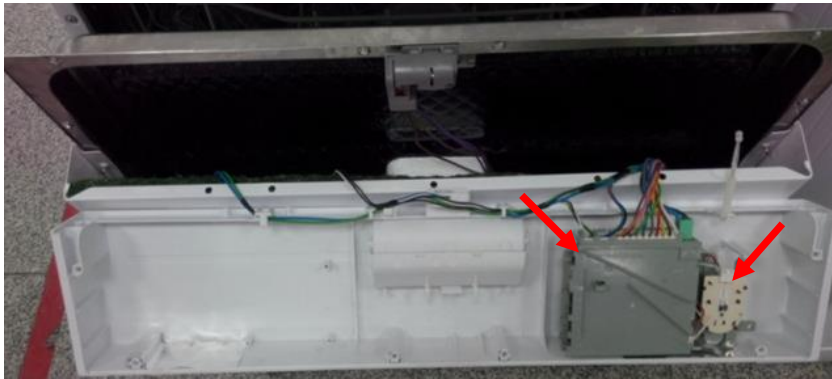
**Control Panel**

- a) Remove 6 screws that fix control panel to the door inside sheet iron.



Electronic Card

a) Remove the wires that are shown in the picture.



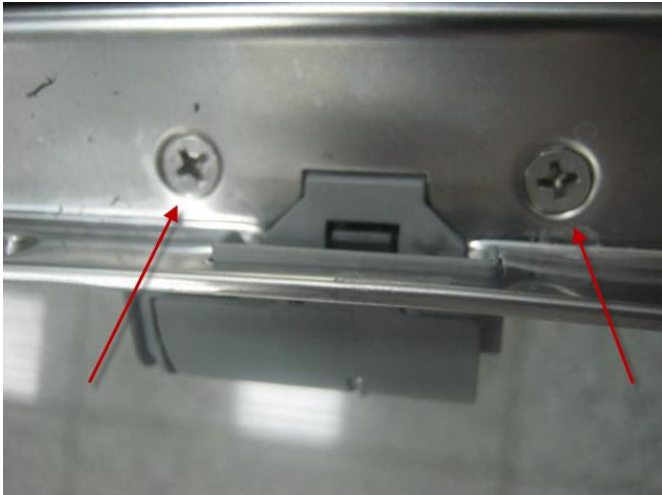
WARNING: WHILE REMOVING WIRES, DO NOT PULL THEM FROM WIRES, PULL FROM THE CONNECTOR

b) Remove pcb box cover with pulling its plastic hinges.

c) Remove the connection cable which is between display and electronic card.

d) Remove the electronic card from pcb box by removing pcb box's plastic hinges.

Door Lock Group



- a) Remove control panel group.
- b) Remove two screws that fix the door lock group.

Dispenser

- a) Remove the front panel and remove the electrical connections of the dispenser.
- b) Remove dispenser from inside door's hinges by using slotted screwdriver. Push and remove the dispenser .

WARNING: USE WORK GOVERS OTHERWISE INSIDE DOOR SHEET IRON CAN CUT YOUR HANDS



Door Inside ve Hinge Cord Group

a) Remove side panels.

b) Remove hinge spring from hinge cord group as it is shown in the picture.



c) Pull the door inside up as it is shown in the picture.



THE INNER COMPONENTS

To Access The Components From Sides

Remove the side panel to reach component which you need.



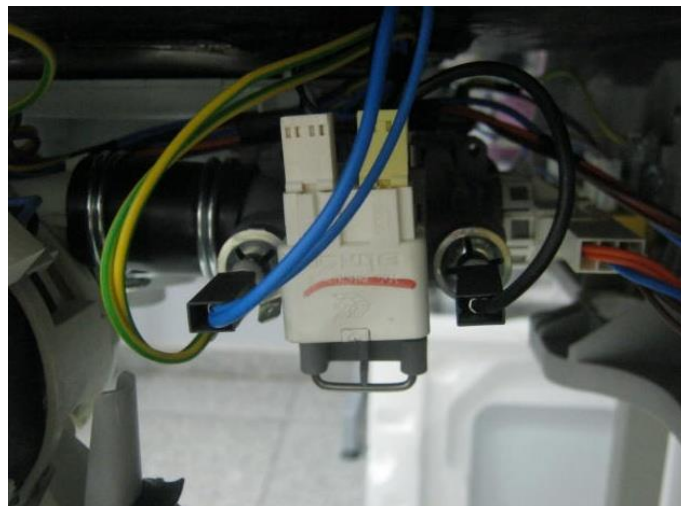
a) Right Sight



b) Left Sight

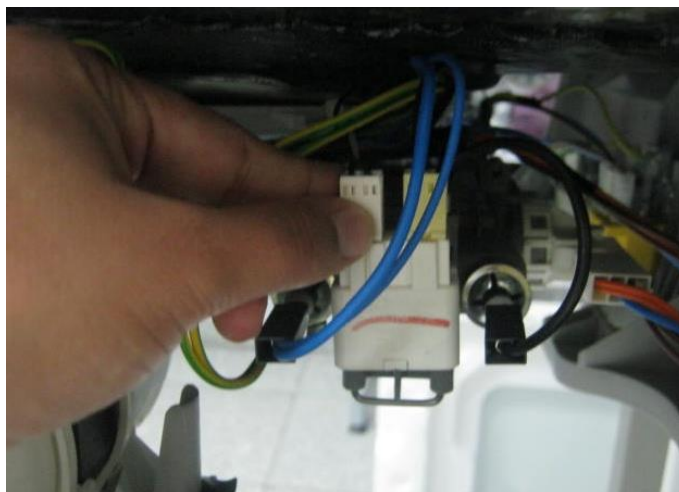
NTC with Thermal Protector

a) Remove right side panel. NTC is assembled on the heater casing.

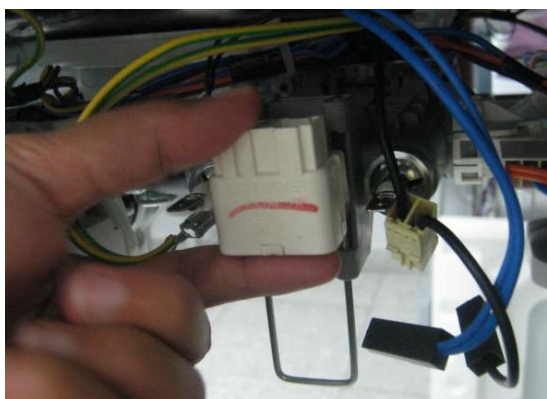
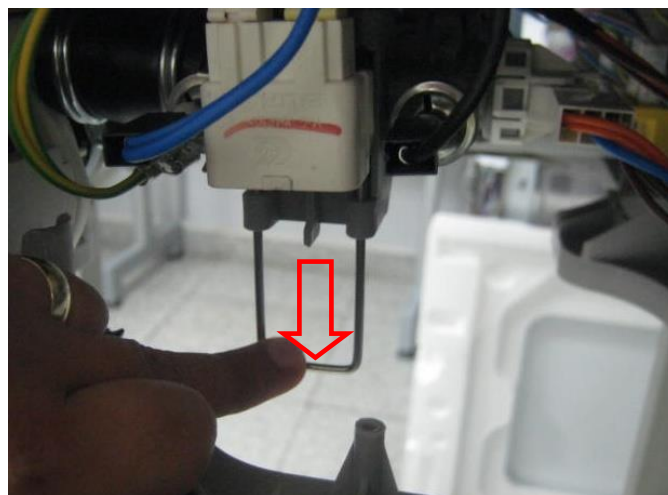
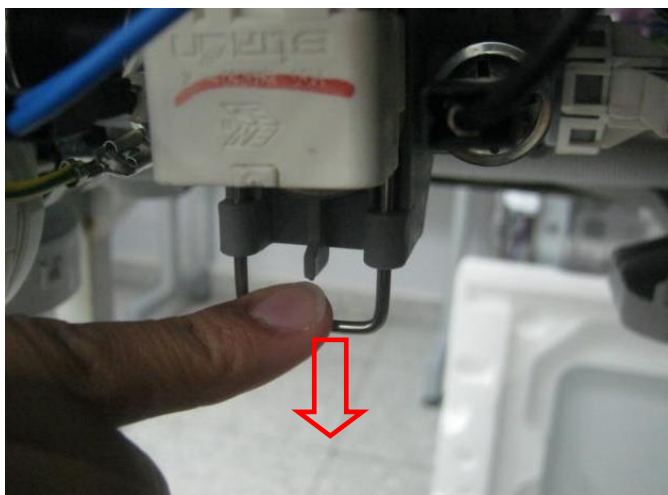


b) Remove the wires as it is shown in the Picture.

(The left one is NTC, the right one is thermal protection wire)



c) Pull the pim down as it is shown in the picture. d) Remove the NTC as it is shown in the picture.



Air-Break



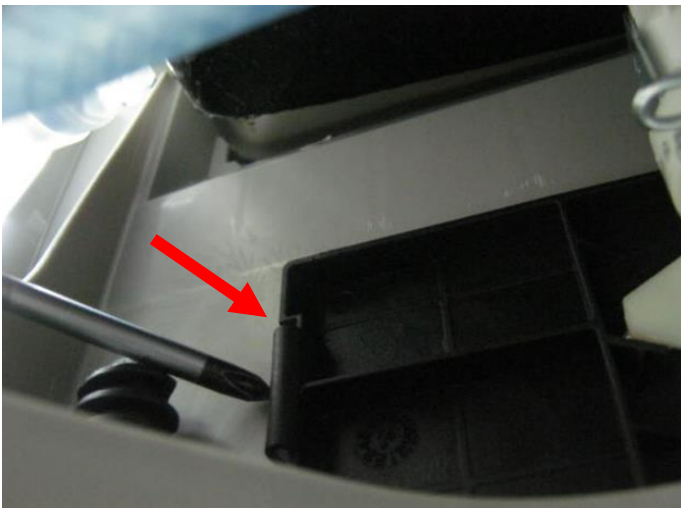
- a) Remove the left side panel of the machine.
- b) Open machine's door.
- c) Rotate counterclockwise air-break nut and remove it.

d) Remove air –break's connections with salt cap as it is shown in the picture.
(Be careful about plastic hinges)



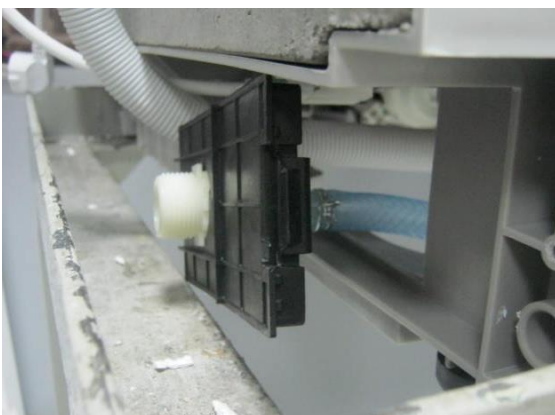
Hose Connection Plastic

a) Remove left side panel.



b) By using flat tip screwdriver remove hose connection plastic's hinge from the basement as it shown in the picture.

c) Push the hose connection plastic from the basement to remove it.



WARNING: IF YOU DO NOT OBEY INSTRUCTIONS WHILE DISASSEMBLY OF THE HOSE CONNECTION PLASTIC IT CAN BE BROKEN

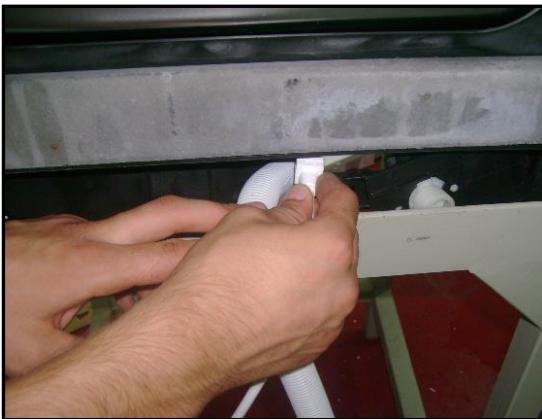
Power Cord

a) Remove hose connection plastic.



b) Remove the lower cover

c) Remove the wires that is between power cord and parasite filter.



To Access The Components From in Front Of The Machine

a) Remove plastic kick plate and kick plate iron.

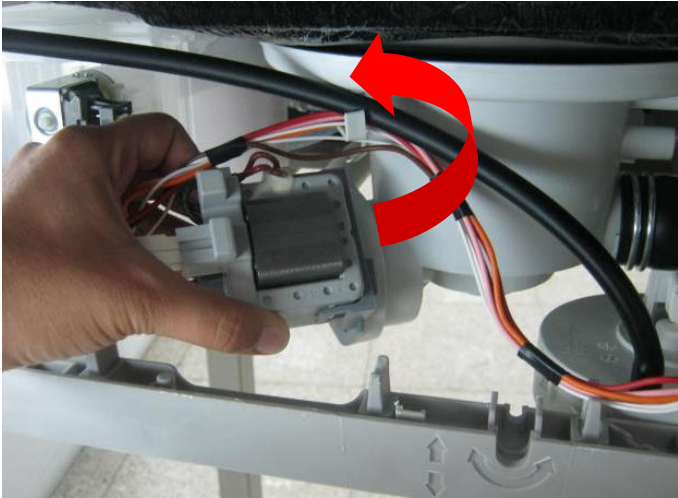
Regeneration Valve

a) Remove plastic kick plate and. Kick plate iron sheet.

b) Remove the wires.

c) To remove regeneration valve, rotate counterclockwise and pull it as it is shown in the picture.



Drain Pump

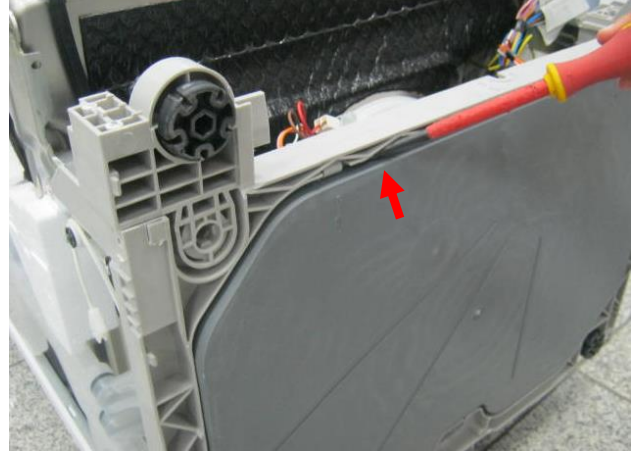
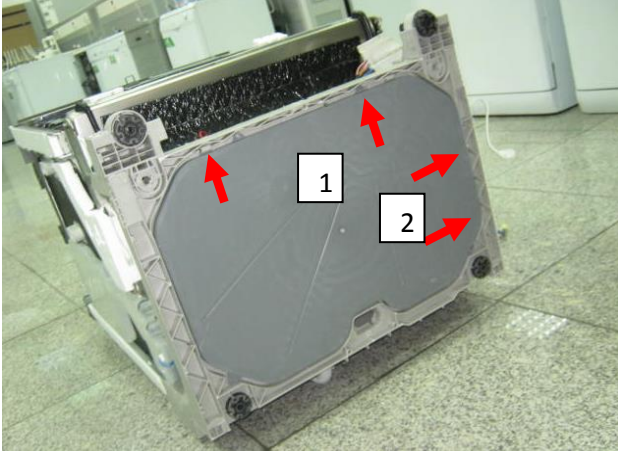
- a) Remove Plastic kick plate and .kick plate iron sheet.
- b) Remove the wires.
- c) To remove the drain pump that fixes to the sump, rotate it in the direction of counterclockwise and pull.

To Access The Components from the Lover Cover

- a) Lay the appliance on the rear panel.

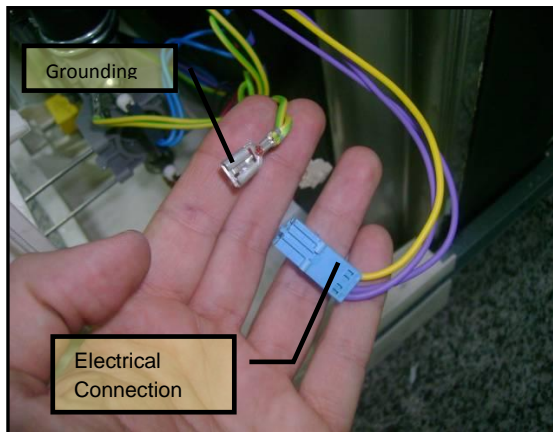


b) Remove lower cover from the places that are shown in the picture.

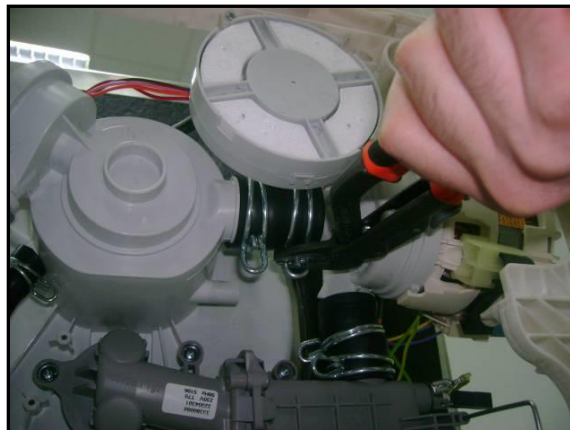


Circulation Pump

a) Lay the appliance on the rear panel.



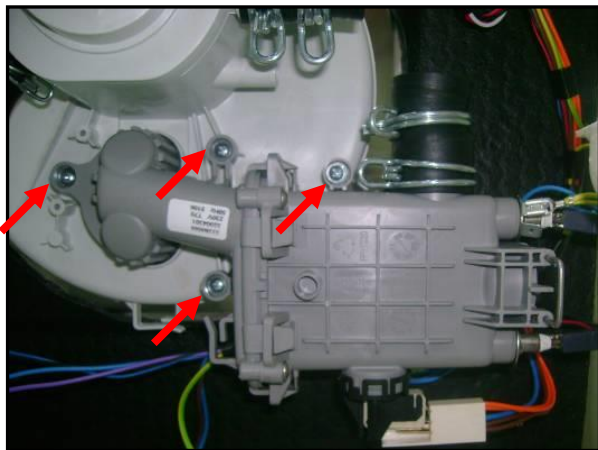
b) Remove the electrical connection on the circulation pump. (Check the cable if it has energy while removing the electrical components)



c) Remove 2 clamps that are shown in the picture (Heater casing circulation pump, sump-Circulation pump)

d) Remove the circulation pump by saving it from the suspenders that mount it to the basement.

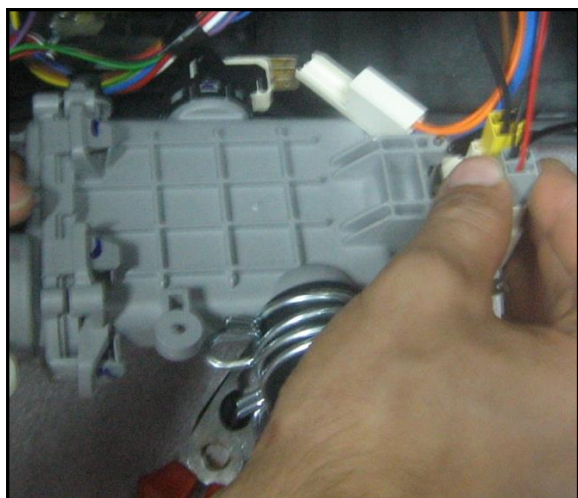
Heater (Heater Casing Group- Without Diverter)



a) Remove the machines lower cover.

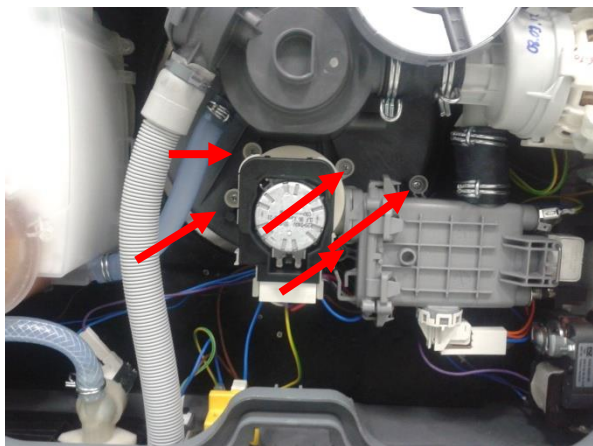


b) Remove four screws that fix heater to the sump.

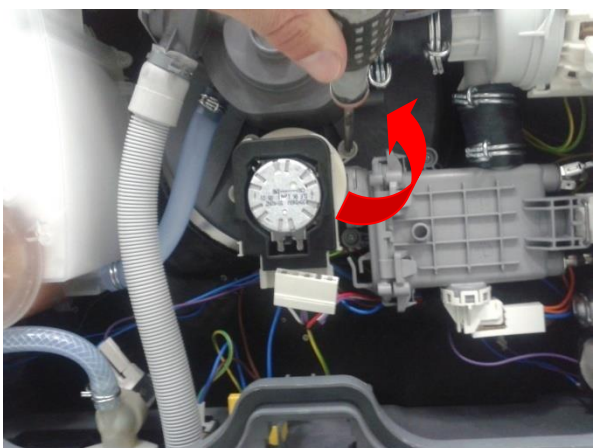


c) Remove the wires that are shown in the picture.

Heater (Heater Casing Group- With Diverter)



a) Remove the machines lower cover.



b) Remove screws that fix heater to the sump.



c) Remove the wires that are shown in the picture.

Water Softener

a) To remove salt cup cover, rotate it in the direction of counterclockwise.



b) To remove salt cup nut , rotate it in the direction of counterclockwise.

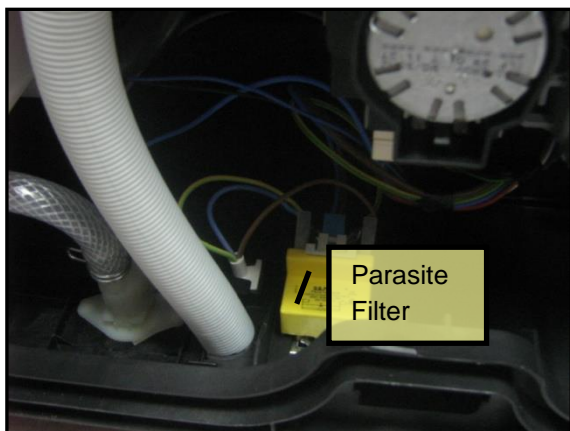
c) Remove left side panel.

d) Detach the connections which are between water softener and air-break.

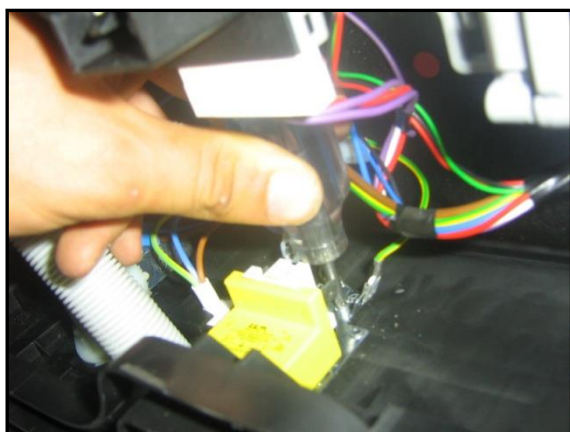
e) Remove lower cover.

f) Remove the hose that is between sump and salt camp.

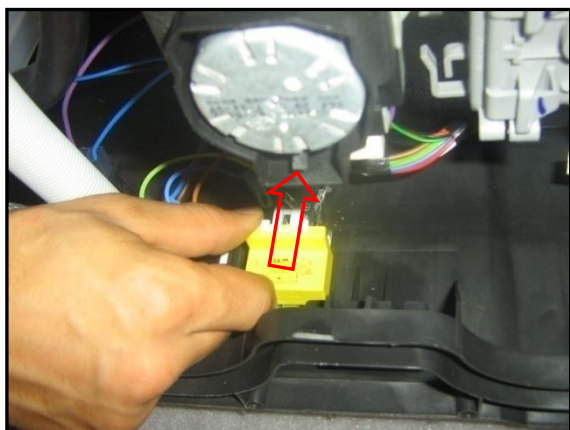
Parasite Filter



a) Remove lower cover.



b) Remove one screw fixing parasite filter.



c) Remove electrical connection.

d) Pull parasite filter as shown in the picture.

Floater

a) Remove lower cover.



b) Remove two screws that fix floater as it is shown in the picture.



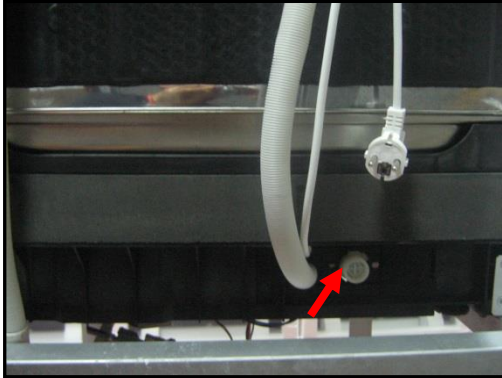
c) Remove the two floater hoses .



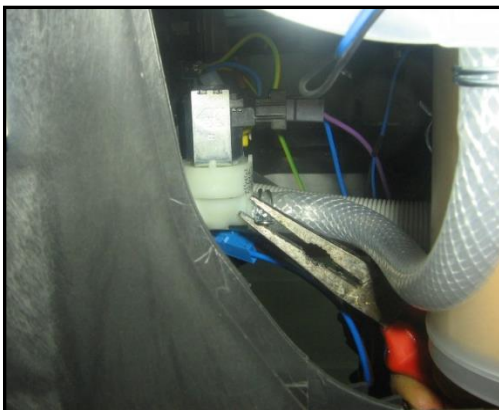
d) Remove the wire that is connected to the floater.

Water Inlet Valve

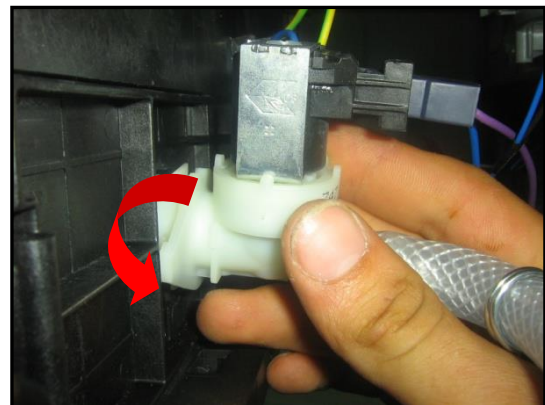
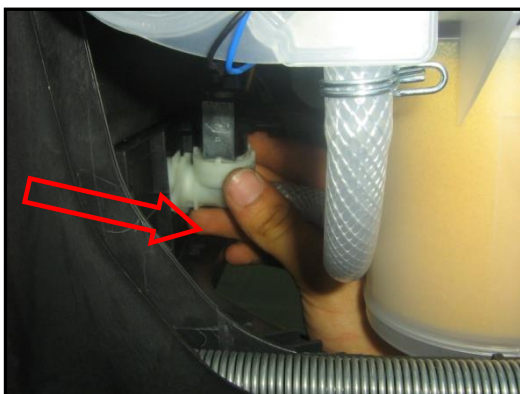
a) Remove lower cover.



b) Remove the wire that is connected to the water inlet valve.



c) Remove the clamp that connects water inlet valve and air –break as it is shown in the picture. To remove water inlet valve pull it back as it is shown in the direction of picture then release water inlet valve from the pins that is connected to and rotate it in the direction of counterclockwise.



Draining Hose



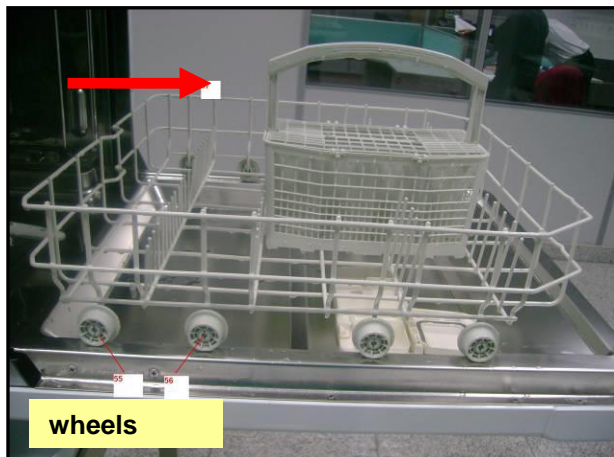
- a) Remove the hose connection plastic.
- b) Remove lower cover.
- c) Remove the clamp that fixes draining hose to the sump.
- d) Remove draining hose.

Basket Group

Lower Basket



- a) Open machine's door.



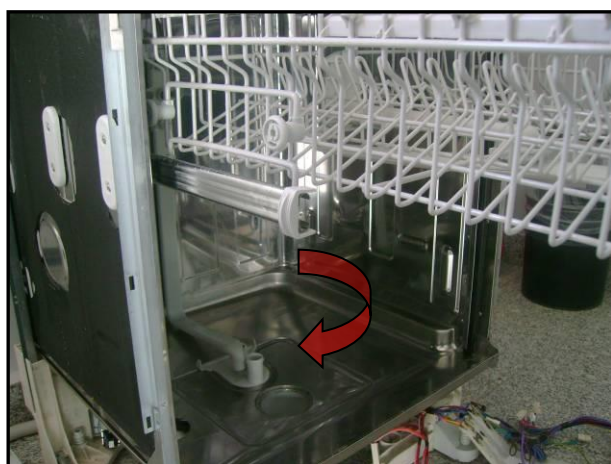
b) Pull the basket to yourself.

Upper Basket



a) Open machine's door.

b) Pull the basket to yourself by sliding on the rails.

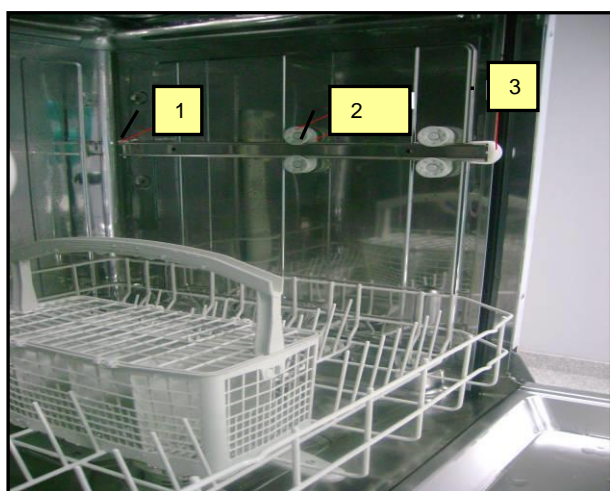


c) Open Upper basket rail lock front.



d) Pull the basket to yourself and remove it.

Basket Rails



1- Upper basket rail stoper rear.

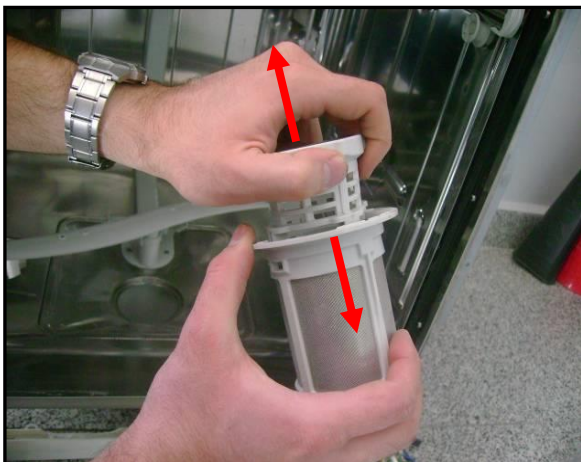
2- Upper basket wheels.

3- Upper basket rail lock front.

The Components That Are inside the Tub

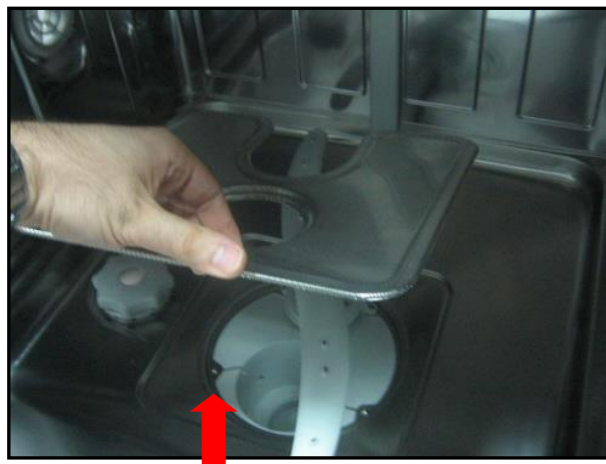
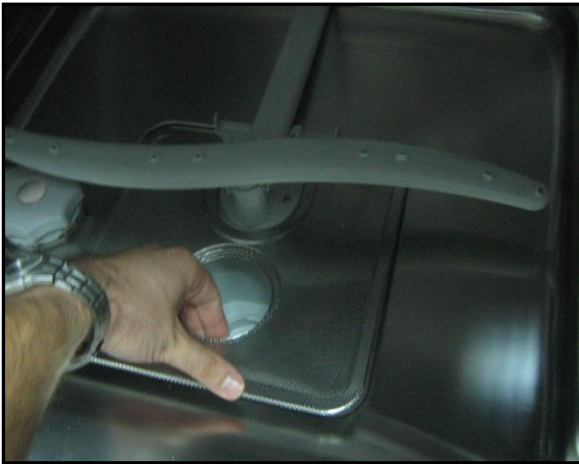
Course , Micro and metal filters

- a) Open the door.
- b) Remove lower basket.
- c) To remove microfilter group rotate them in the direction of counterclockwise and pull them up as it is shown in the picture.



- d) To remove microfilter group (course filter and micro filter) pull them as it is shown in the picture.

e) To remove the metal filter pull it up as it shown in the Picture



a) To remove the basket rails, open the door and take out baskets.



b) To remove basket rails release the rail from upper basket stopper rear.



Spray Arm System

a) After removing the lower basket, pull the spray arm upwards gripping it by the central hub.



b) To remove upper spray arm adjustment link pull it through yourself as it is shown in the picture.



c) To remove upper spray feeding canal turn left it than pull it up as it is shown in the picture.



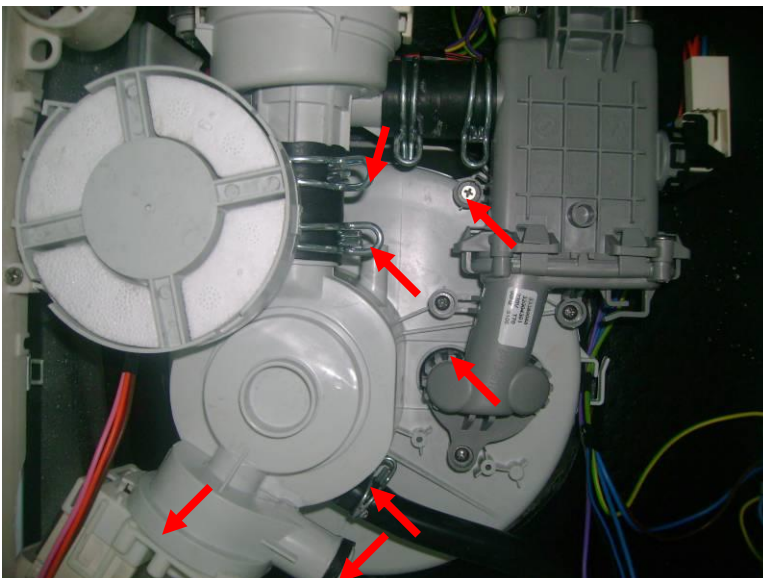
Sump

a) Remove any residual water from the sump by suction so that it does not flow into the tub and the pressure switch tubes , then lay the appliance on the rear panel.

b) Remove lower cover.

c) From inside tub, remove the basket and lower spray arm.

d) Detach all the hoses (sump – draining hose , circulation pump – sump, sump – water softener)



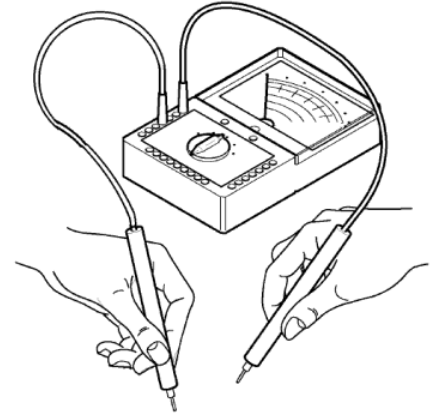
- e) From inside tub ,remove the basket and lower spray arm.
- f) Remove the microfilter group and metal filter.
- g) Remove the four screws that secure the tumb to the tub.
- h) Remove the two screws which secure the spray arm support to the sump.
- i) Detach the drain pump and pull the sump out ,taking care not to damage the tub seal.

REPAIR TECHNIQUES

A simpler and special control **procedure** is obtained to test the components efficiency.

In this control procedure, you can measure the resistance of the components and compare with the normal resistance values. Then you can understand that if the components are faulty or not.

You can measure the components directly or you can measure from the connectors with the probes of the measurement gauge.



| COMPONENTS | REAL VALUES | NOTES |
|---------------------|---|---|
| ON / OFF BUTTON | 0 Ω on component | ON/OFF button is pressed |
| DOOR SWITCH | CN2.9 – CN2.2 0 Ω | Door is closed |
| PRESSURE SWITCH | CN2.10 – CN2.2 0 Ω ∞ Ω | FULL FILL WATER NO WATER |
| DRAIN PUMP | CN2.2 – CN2.4 143 Ω % ± 7 | |
| WATER INLET VALVE | CN2.6 – CN 2.9 3750 Ω ± %10(20C°) | |
| REGENERATION VALVE | CN2.10 – CN2.7 4130 Ω ± %10(25 C°) | |
| HEATER | 23.95±15 Ω | MEASURE JUST ON THE COMPONENT |
| DETERGENT DISPENSER | 1660 Ω ± %10 (25 C °) | MEASURE JUST ON THE COMPONENT |
| CIRCULATION PUMP | CN2.3 – CN2.9 95 ±%7 Ω 126 ±% 7 Ω | Primary winding Secondary winding (FROM THE COMPONENT) |

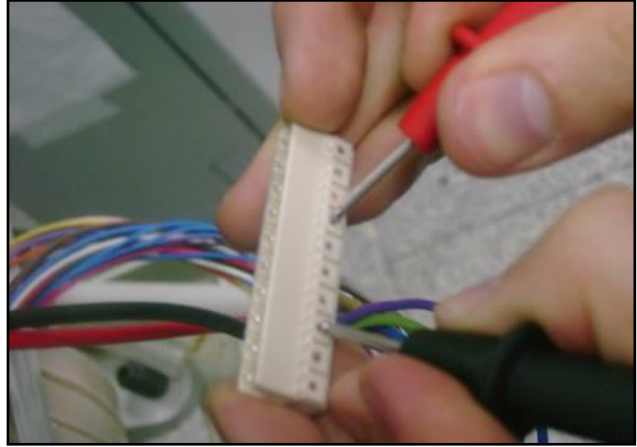
| | | | |
|--------------------------|----------------|-------------|--|
| SET NTC SENSOR | CN 3.2 | 25° - 5000Ω | |
| | %±5.0 | | |
| | CN 3.1 | 35° - 3300Ω | |
| | %±5.5 | | |
| | %±6.5 | 55° - 1520Ω | |
| | %±7.5 | 63° - 1174Ω | |
| | %±8.0 | 80° - 670Ω | |
| | %±8.5 | 90° - 488Ω | |
| FLOATER (MICROSWITCH) | CN2.1 – CN 2.5 | 0 Ω | MICROSWITCH IS INACTIVE (NO WATER) |
| | CN2.1 – CN 2.4 | ∞ Ω | MICROSWITCH IS ACTIVE (THERE IS WATER) |

MEASURING THE COMPONENTS FROM THE CONTROL PANEL

You might measure the components either connectors of electronic card or directly on the component.



a)



b)

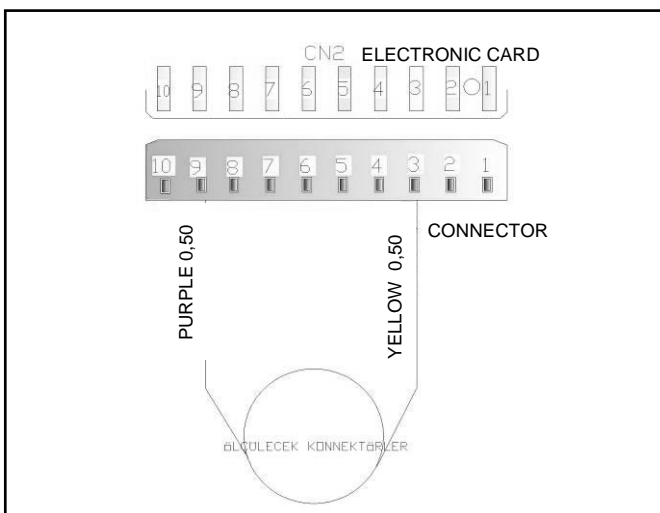
In order to reach the connections of the electronic card; dismantle the control panel and probes of the tester should be applied on to the related connectors of the electrical card (Photo a); control the values according to the resistance value table. (Photo b)

Warning: Always remove the plug from the power socket before touching internal components.

Circulation Pump:

From the Electrical Card:

You can only measure the primary winding value from the electrical card. Resistance value of the primary winding must be 95 ohm on the connectors CN2.3 – CN2.9.

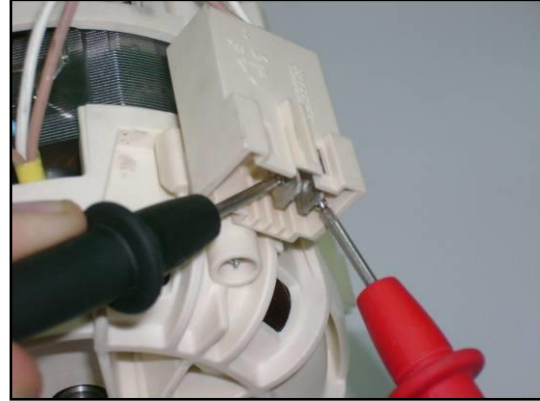


Above sketch show the connectors of the washing pump on the electrical card. Probes of the tester should be applied on to the related connectors.

From the component:



Measurement of the primary winding



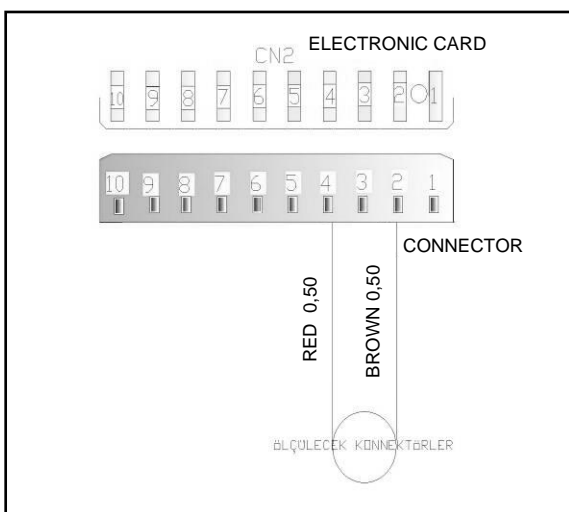
Measurement of the primary winding

Probes of the tester should be applied on to the related connectors as shown in the picture above.

Drain Pump:

From the Electrical Card:

| | |
|---------------|------------------------|
| CN2.2 – CN2.4 | 143 Ω % \pm 7 |
|---------------|------------------------|



The above sketch shows the connectors of the drain pump on the electronic card. Probes of the tester should be applied on to the related connectors.

From the component :

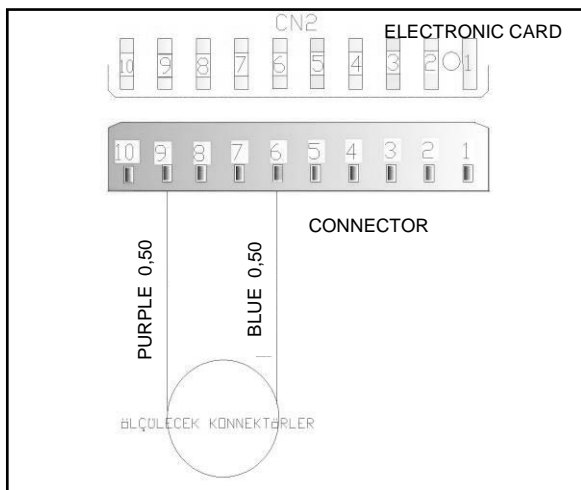


Probes of the tester should be applied on to the related connectors as shown in the picture above.

Water inlet valve:

From the Electrical Card:

| | |
|----------------|-------------------------------|
| CN2.6 – CN 2.9 | 3750 $\Omega \pm 10$ (20 C°) |
|----------------|-------------------------------|



The above sketch shows the connectors of the water inlet valve on the electronic card. Probes of the tester should be applied on to the related connectors.

From the component :



Probes of the tester should be applied on to the related connectors as shown in the picture above.

Heater Casing:

(It can't be measured from the electrical card.)

From the component:

| |
|------------|
| 23.95±15 Ω |
|------------|

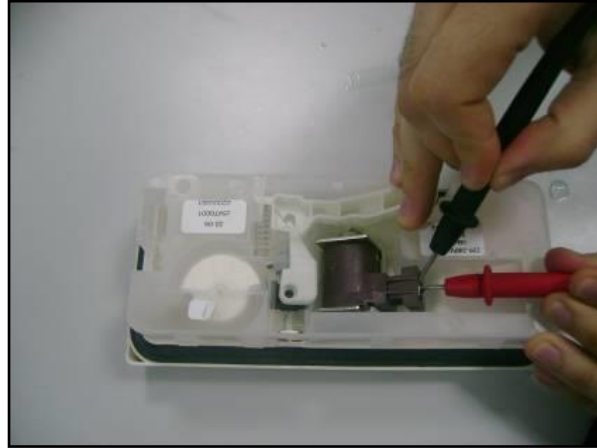


Probes of the tester should be applied on to the related connectors as shown in the picture above.

Detergent Dispenser:

(It can't be measured from the electrical card)

| |
|-------------------------------|
| 1660 $\Omega \pm 10$ (25 C °) |
|-------------------------------|

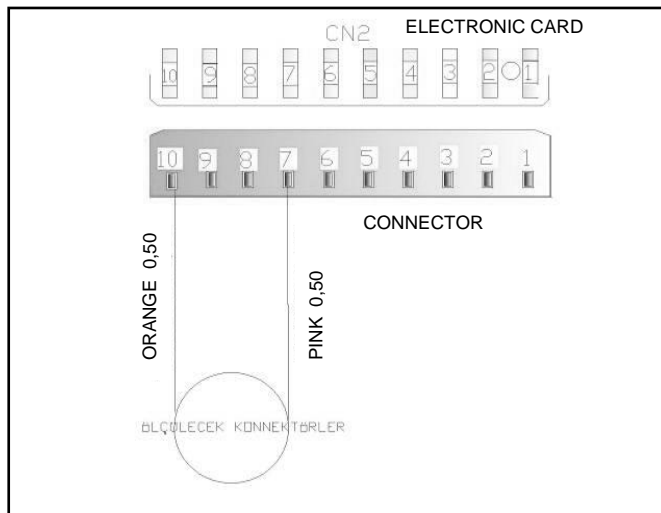


Probes of the tester should be applied on to the related connectors as shown in the picture above.

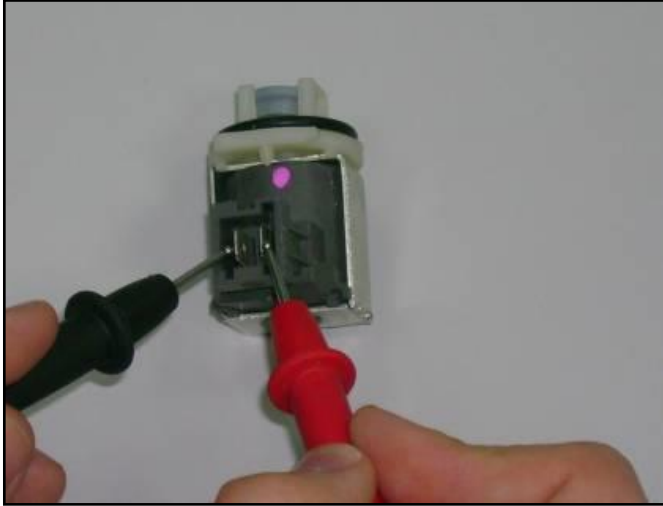
Regeneration Valve:

From the Electrical Card:

| | |
|----------------|-------------------------------|
| CN2.10 – CN2.7 | 4130 $\Omega \pm 10$ (25 C °) |
|----------------|-------------------------------|



From the component:

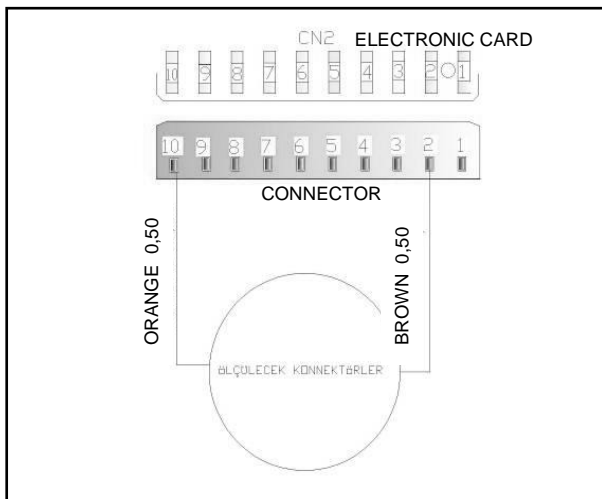


Probes of the tester should be applied on to the related connectors as shown in the picture above.

Pressure Switch:

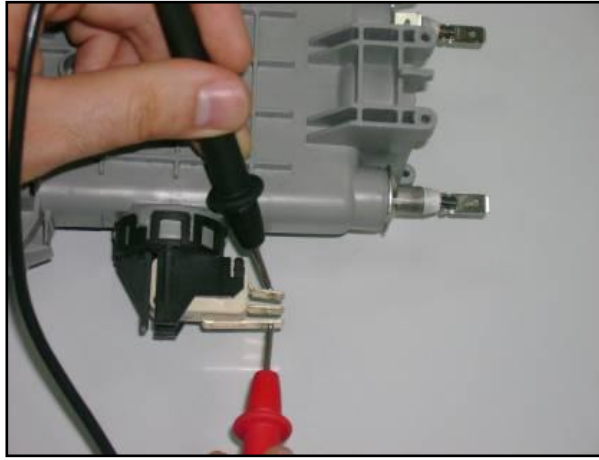
From the Electrical Card:

| | |
|-----------------------|---------------------------------|
| CN2.10 – CN2.2 | $\infty \Omega$ FULL FILL WATER |
| | 0Ω NO WATER |



The sketch on the left shows the connectors of the pressure switch on the electrical card. Probes of the tester should be applied on to the related connectors.

From the component:



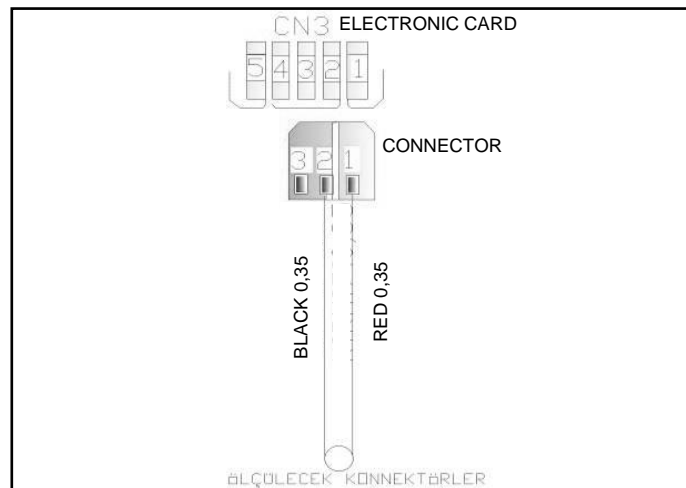
Probes of the tester should be applied on to the related connectors as shown in the picture above.

Set NTC sensor:

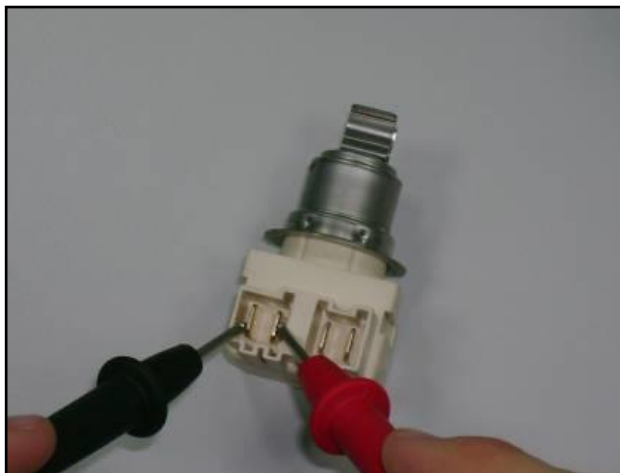
From the Electronical Card:

The below sketch shows the connectors of the NTC sensor on the electronical card. Probes of the tester should be applied on to the related connectors.

| | |
|------------------------|------------------|
| CN 3.1 - CN 3.2 | 25°-5000Ω-%±5.0 |
| | 35°-3300Ω-%±5.5 |
| | 55°-1520Ω-%±6.5 |
| | 63°-1174Ω-%±7.5 |
| | 80°- 670Ω -%±8.0 |
| | 90°- 488Ω -%±8.5 |



From the component:



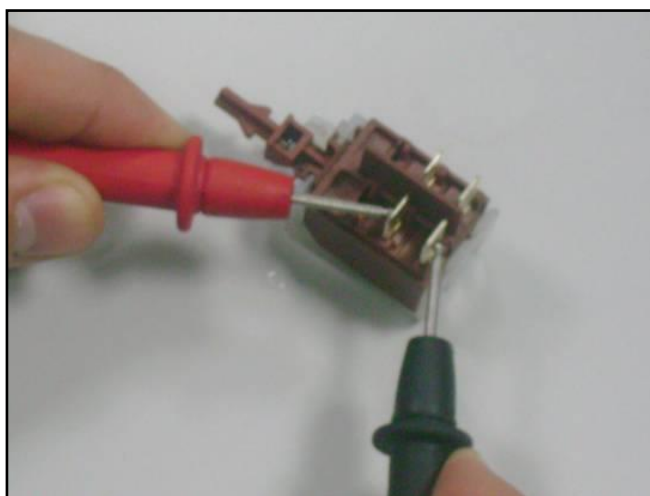
Probes of the tester should be applied on to the related connectors as shown in the picture above.

ON/OFF BUTTON

| | |
|-----------------|------------|
| ON / OFF BUTTON | 0 Ω |
|-----------------|------------|

From the component:

(It can't be measured from the electrical card)

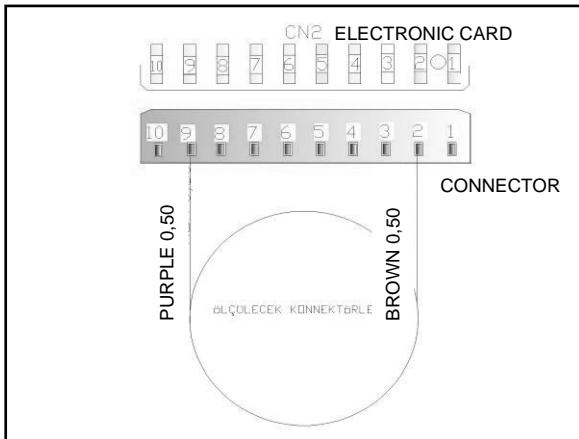


Probes of the tester should be applied on to the related connectors as shown in the picture above.

Door Switch :

From the Electronical Card:

| | |
|---------------|-------------------------------|
| CN2.9 – CN2.2 | 0 Ω (Door is closed) |
|---------------|-------------------------------|



The above sketch shows the connectors of the door switch on the electronical card. Probes of the tester should be applied on to the related connectors.

From the component:

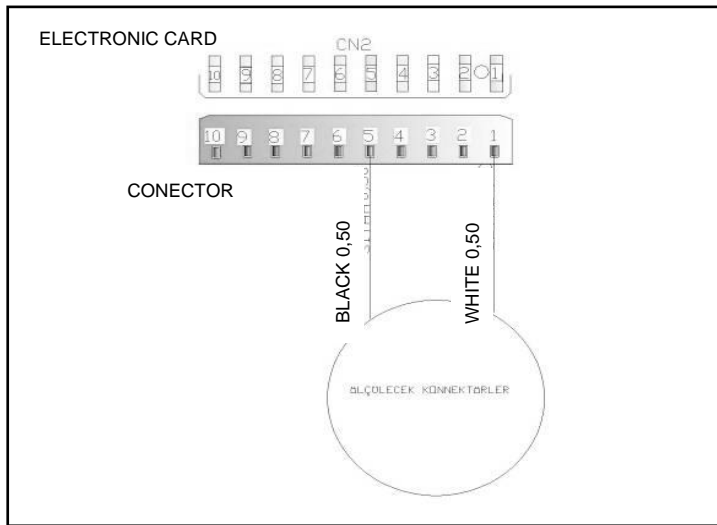


Probes of the tester should be applied on to the related connectors as shown in the picture above.

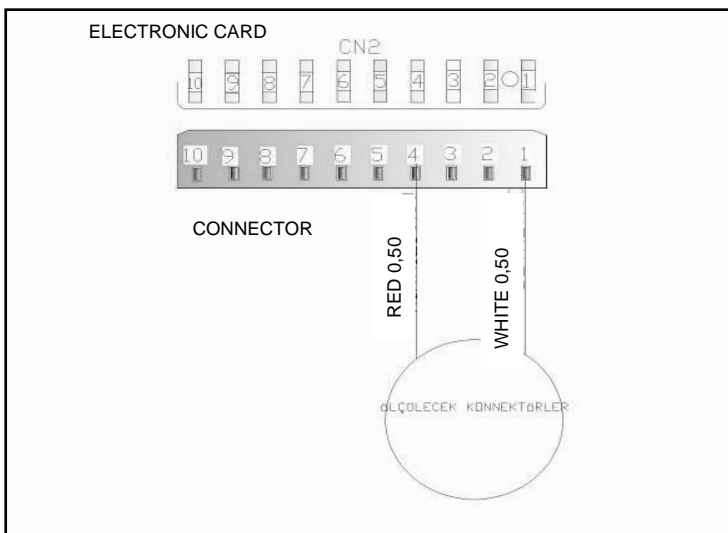
FLOATER

From the Electrical Card:

| | | |
|-----------------------------|-----|------------------------------------|
| CN2.1 – CN 2.5 (POSITION 1) | 0 Ω | MICROSWITCH IS INACTIVE (NO WATER) |
| CN2.1–CN2.4 (POSITION 2) | ∞ Ω | MICROSWITCH IS ACTIVE (WATER) |

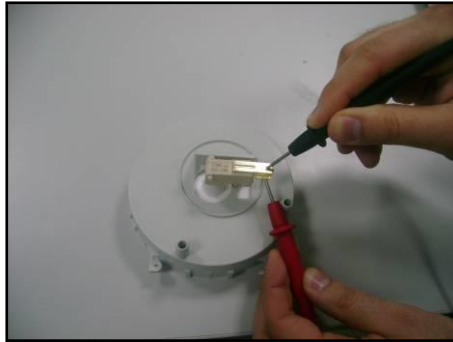


Position 1: You can check the floater by controlling the specified value intervals.



Position 2: If failure code is occurred related with the floater within control the above values; you can figure out whether leakage occurs or not.

From the component:

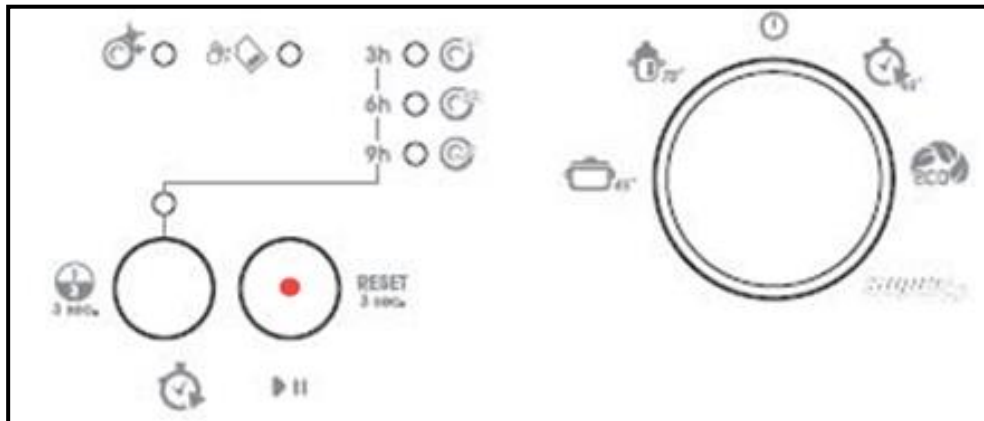


Probes of the tester should be applied on to the related connectors as shown in the picture above.

FAILURE CODES

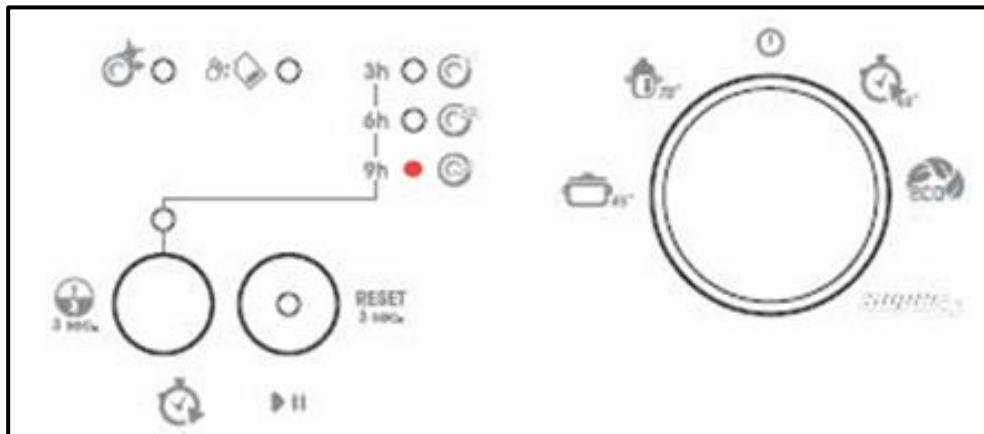
PRODUCTS WITHOUT DISPLAY

1- Inadequate water supply



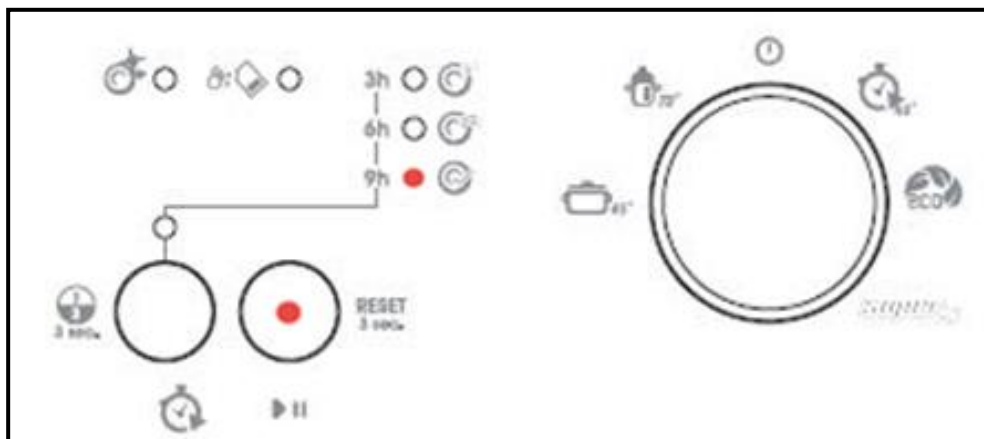
Possible problem:

- 1- Make sure the water input tap is totally open and that there is no water cut.
- 2-Close the water input tap, separate the water input hose from the tap and clean the filter at the connection end of the hose.
- 3-Water inlet hose can be out of order.
- 4-Water inlet valve filter can be clogged.
- 5-Water inlet valve can be out of order.
- 6-There can be a problem with the cable connection of water inlet valve.
- 7-Floater switch can be out of order or have a problem with the cable connection.
- 8-Pressure switch of the heater casing group can have a mechanical or cable connection problem.
- 9-Circulation pump can be out of order or have a problem with the cable connection.

2- Error of continuous water input

Possible problem:

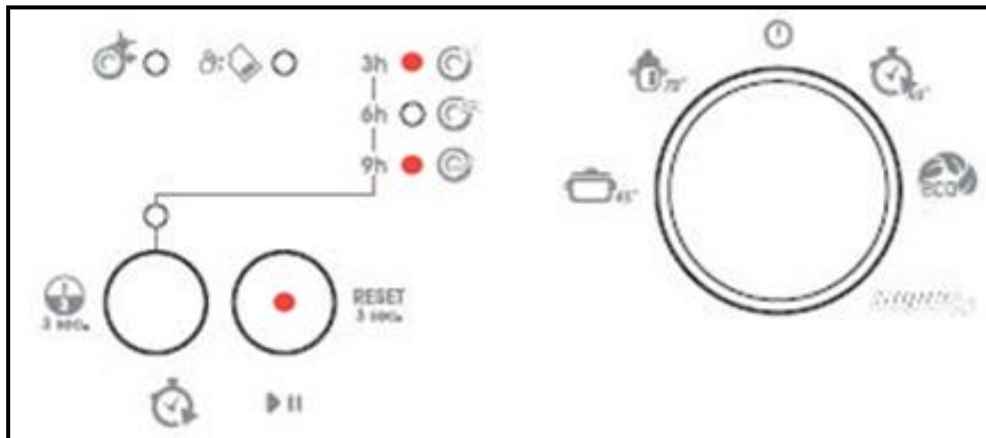
- 1-Water inlet valve can be out of order or can not be closed.
- 2-Electronic card can be out of order.

3- The waste water in the machine cannot be discharged

Possible problem:

- 1-Water outlet hose is clogged.
- 2-Water outlet hose position can be too high.
- 3-The drain pump can be out of order.
- 4-There can be a problem with cable connection of the drain pump.
- 5-Pressure switch of the heater casing group can have a mechanical or cable connection problem

6- Electronic card parameter failure

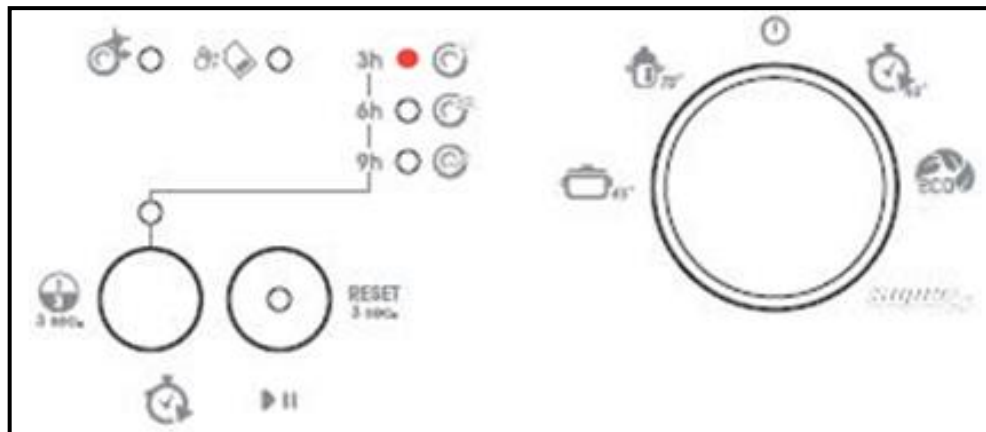


Possible problem:

1-By the immediate and continuous voltage decreases software variants can not be kept in the memory of electronic card.

2-The program continues, when you restart it. You should warn the user about controlling the network voltage.

7- Flowmeter failure



Possible problem:

1-Flowmeter can be out of order.

2-Cable connection of flowmeter can be faulty.

3-Electronic card can be out of order.

PRODUCTS WITH DISPLAY**1- Inadequate water supply**

Possible problem:

1-Make sure the water input tap is totally open and that there is no water cut.

2-Close the water input tapi separate the water input hose from the tap and clean the filter at the connection end of the hose.

3-Water inlet hose can be out of order.

4-Water inlet valve filter can be clogged.

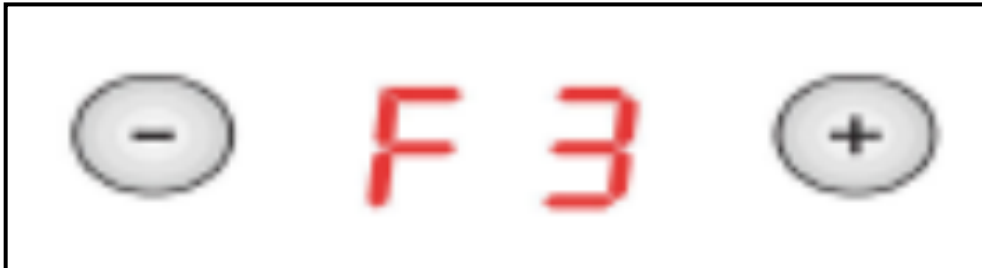
5-Water inlet valve can be out of order.

6-There can be a problem with the cable connection of water inlet valve.

7-Floater switch can be out of order or have a problem with the cable connection.

8-Pressure switch of the heater casing group can have a mechanical or cable connection problem.

9-Circulation pump can be out of order or have a problem with the cable connection.

2- Error of continuous water input

Possible problem:

- 1-Water inlet valve can be out of order or can not be closed.
- 2-Electronic card can be out of order.

3- The waste water in the machine cannot be discharged

Possible problem:

- 1-Water outlet hose is clogged.
- 2-Water outlet hose position can be too high.
- 3-The drain pump can be out of order.
- 4-There can be a problem with cable connection of the drain pump.
- 5-Pressure switch of the heater casing group can have a mechanical or cable connection problem.

4- Heater Error: Inadequate heat

Possible problem:

- 1-Heater can be out of order.
- 2-There can be a problem with cable connection of the heater.
- 3-Thermal protection can be out of order.
- 4-Electronic card can be out of order.

5- Alarm is active against water overflow

Possible problem:

- 1-Floater switch can be out of order or have a problem with the cable connection.
- 2-Electronic card can be out of order.

6- Alarm is active against water leakage

Possible problem:

- 1-There can be a water leakage from the tub.
- 2-Floater switch can be out of order or have a problem with the cable connection.
- 3-Drain pump and pressure switch can be out of order at the same time.
- 4-Electronic card can be out of order.

7- Exceed heating problem (water inside the machine is too high)

Possible problems:

- 1-Water inside the machine is $>77^{\circ}\text{C}$, NTC can be out of order.
- 2-Electronic card can be out of order.

8- Diverter position problem

Possible problem:

- 1- There can be a water leakage to diverter contacts and diverter electric contacts can have open circuit
- 2- There can be a problem with cable connection of the diverter.
- 3- Electronic card can be out of order.

9- NTC failure

Possible problem:

- 1- NTC can be out of order.
- 2- NTC cable connection can be faulty. NTC can be short or open circuit.
- 3- Electronic card can be out of order.

10-Electronic card parameter failure

Possible problem:

1-By the immediate and continuous voltage decreases software variants can not be kept in the memory of electronic card.

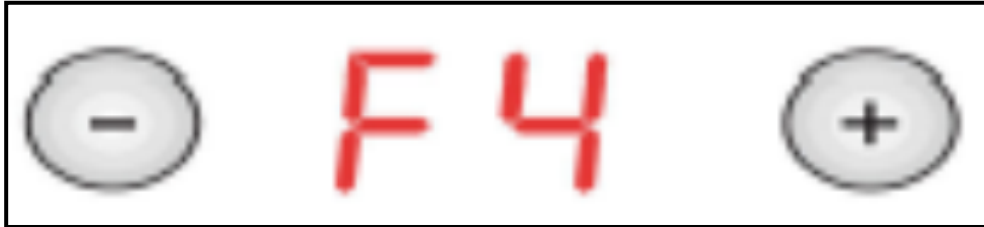
2-The program continues, when you restart it. You should warn the user about controlling the network voltage.

11-Electronic card water hardness failure

Possible problem:

1-Water hardness is not adjusted or water hardness adjustment can be kept in the electronic card memory.

2-Water hardness should be adjusted by controlling the supply water.

12- Flowmeter failure

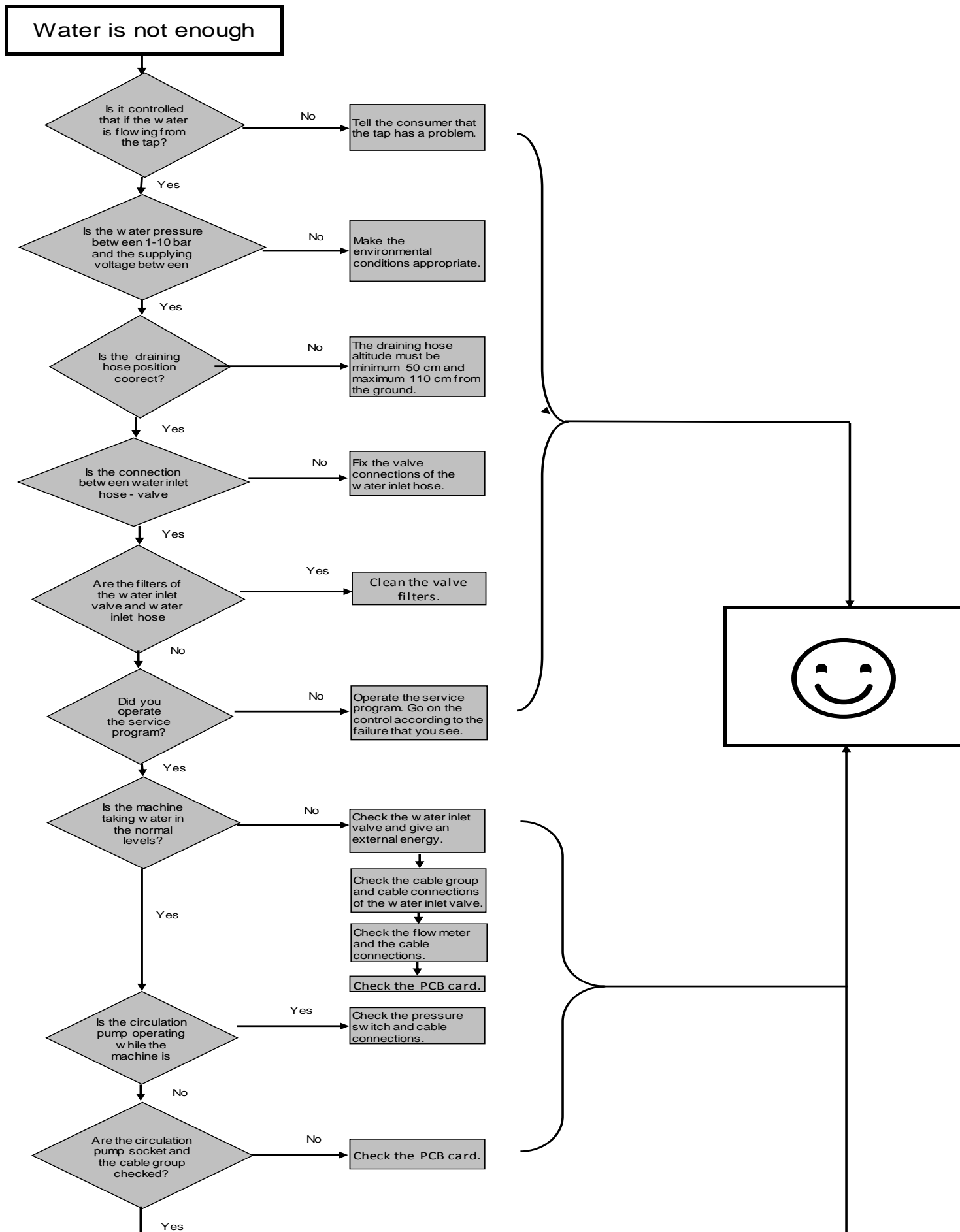
Possible problem:

- 1-Flowmeter can be out of order.
- 2-Cable connection of flowmeter can be faulty.
- 3-Electronic card can be out of order.

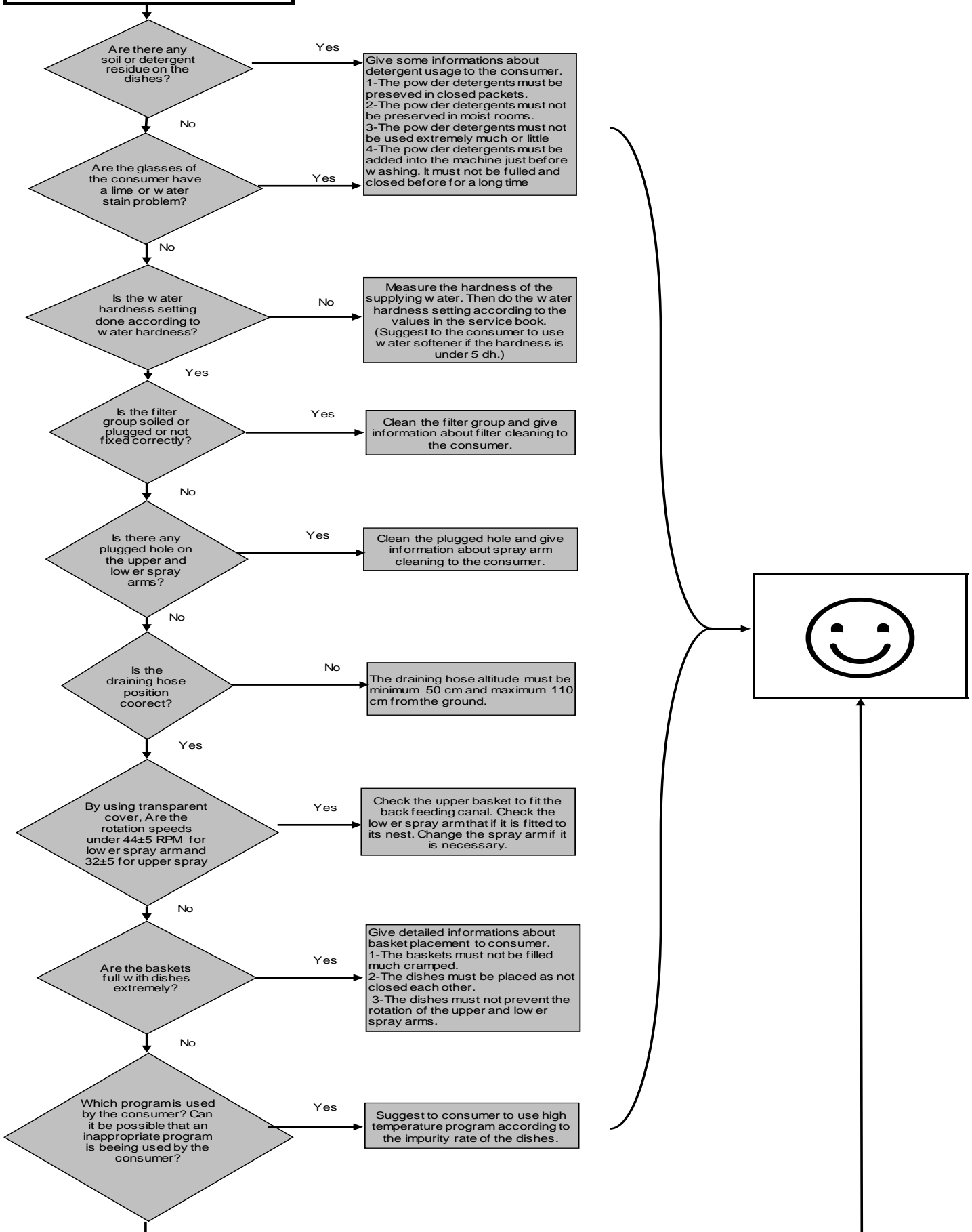
13- Turbidity sensor failure

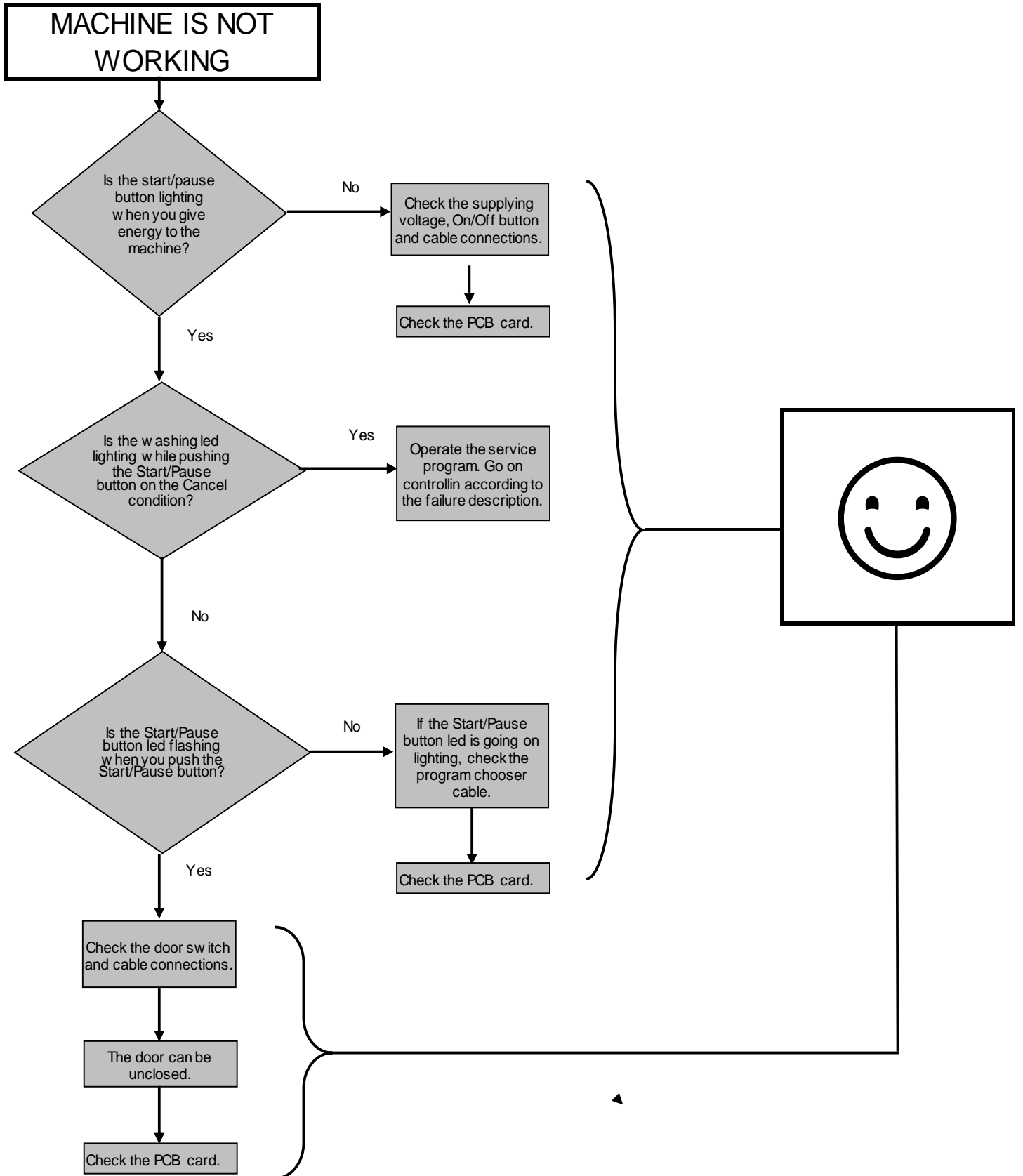
Possible problem:

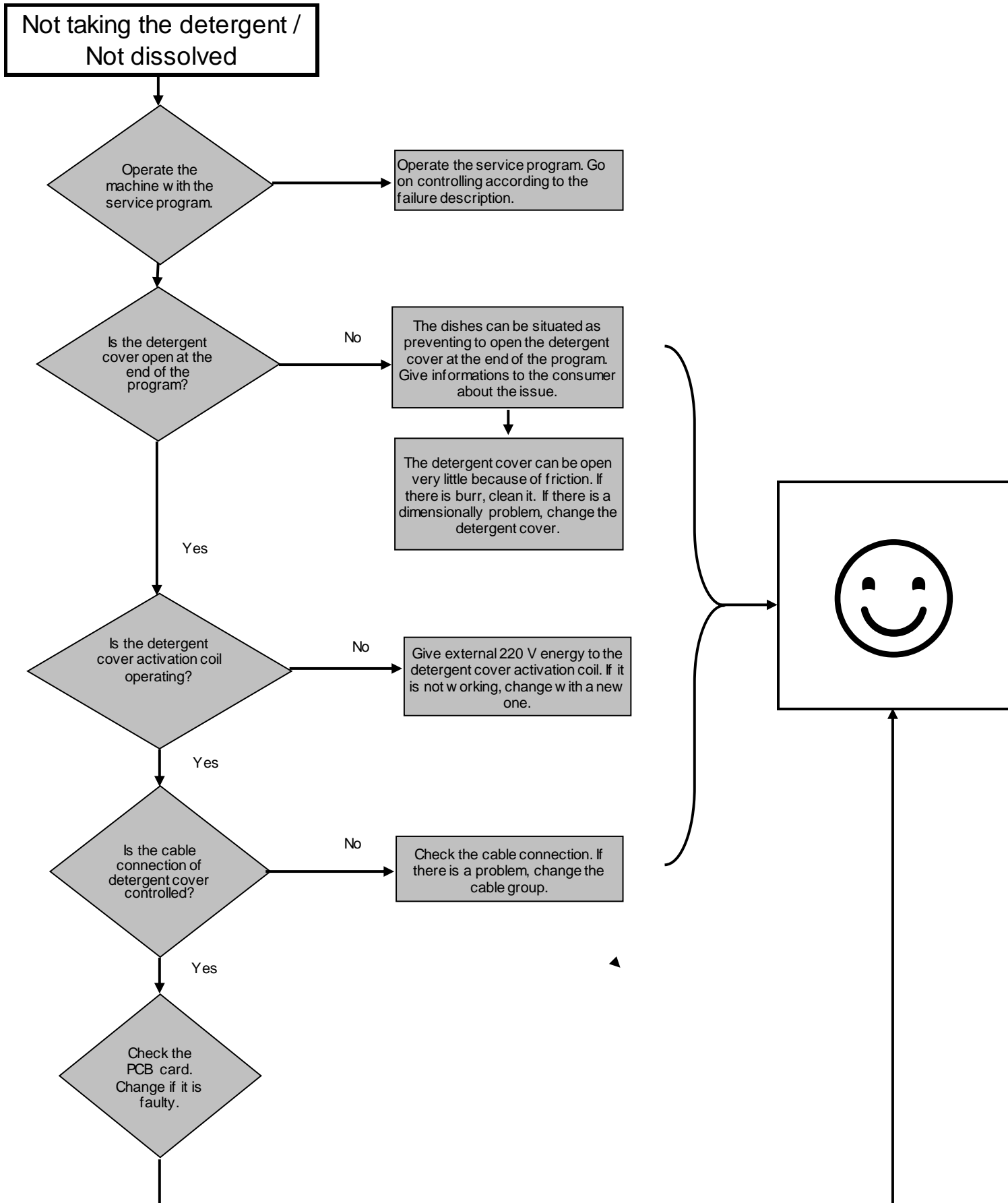
- 1- Turbidity sensor can be out of order.
- 2-There can be some soil around the turbidity sensor.
- 3-Electronic card can be out of order.



Not washing clean







Water overflow/water leakage

