ELECTROLUX HOME PRODUCTS PTY LTD

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SERVICE MANUAL

Westinghouse

Dishwasher

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SAFETY INFORMATION

Under NO circumstances should any service work be carried out unless you are qualified and licensed as per Federal, State and Territory requirements.

General Safety

- Work should not be under taken on any electrical appliance without first checking the earthing integrity of the appliance and electrical supply.
- A safety audit should be carried out of the work area to ensure the area has adequate room to work in and is free from any hazards that may cause any injury to yourself and any other person in the vicinity.
- After repair, product has to be reassembled as it was which complies with specification of the Manufacturer to ensure product is safe to operate both mechanically and electrically.

Electrical Safety

- Under NO circumstances should changing or repairs to parts be carried out on live appliances. Any changing or repair to parts must be done with the appliance removed from the electrical supply. Failure to do so may result is injury or death.
- After any work is completed the earthing integrity of the appliance must be checked.
- If you need to do electrical testing with the product live the following must be observed:
    - It must be on a circuit with earth leakage protection.
    - As much skin as possible should be covered to reduce the chances of coming into contact with live terminals
    - All jewellery should be removed.
    - There should not be any water/moisture on the ground.
    - A safety sign should be displayed to warn others of the danger.

Running appliances with panels/covers removed

- All the electrical safety procedures above must be observed.
- Care must be taken not to come into contact with moving parts.
- Loose clothing or jewellery that can become entrapped should not be worn.
- If handling or working near sharp edges the appropriate personal protection equipment must be used.
- Safety eyewear should be used if removing parts that may “spring and fly” if they slip of a tool. Eg removing a spring which is under compression.
- Any removed panels that have sharp edges should be placed where they do not cause any danger of injury to yourself or others.
- A safety sign should be displayed to warn others of the danger.
- If handling or working in a dusty area or with Dust Product, dust mask or appropriate PPE should be used.

Refrigeration

- Ensure you know which refrigerant is in the appliance so the correct gas handling procedures can be used. Failure to use the correct procedure may result in injury.
- If hot work needs to be done ensure all the surround area is safe and free from combustibles. Where necessary heat shielding should be used.
- Ensure pipework has cooled down before touching.
- When handling gas make sure all necessary PPE is used.
- Ensure there is enough ventilation.
- Place warnings signs so others know flames/smoking must not be in the area.

Gas Safety

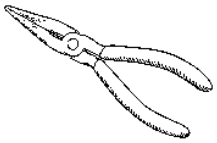
- Under no circumstances should a naked flame be used, eg match, lighter etc, to try and find a gas leak, only an appropriate gas leak detector or soapy water should be used.
- When converting an appliance to another gas type, the gas type label supplied must be fitted in the appropriate area.
- Always ensure the product is connected to the correct gas type.
- When working with a gas leak place warnings signs so others know flames/smoking must not be in the area.
- After fixing a gas leak do not try and ignite the burner(s) until any remaining escaped gas has dissipated.

TOOLS

FOR WASHERS / DRYERS / DISHWASHERS

- Standard socket and screwdriver set;
- T20 Torque Screw Bit.

or

- Phillips-head Screwdriver 
- 8, 9, 10, 12-mm Socket Wrench 
- Long nose Pliers 

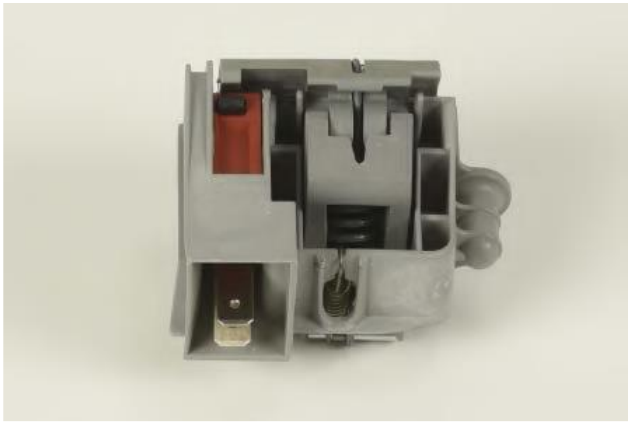
CONTENTS

ELECTRICAL COMPONENTS

Door Lock

A mechanical lock/release system closes the door, supplying the connection of electrical parts in the machine and cutting off the connection.

Currency 16 (4) A



Circulation Pump

Measurement of the primary windings of the washing pump. (118.2-135.9 Ω)

Measurement of the secondary windings of the washing pump (white cable – blue cable) (117.9-135.6 Ω)

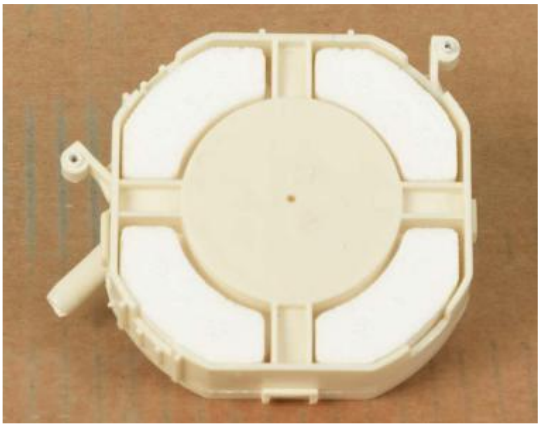
Voltage	220/240 V
Frequency	50Hz
Total Power	90W
Coil Isolation Class	F
Thermal Protector	150°C
Pump Outlet Pressure	300mbar
Pump Flowrate	60 lt/min

Single direction, single phase, asynchronous and two pole.

It turns in an anti-clockwise direction.

It is attached to the basement with rubber hangers.

Floater



Capacitor

2,5 µF – 450V class S2

The Capacitor is permanently connected to the circulation pump coils.

Drain Pump

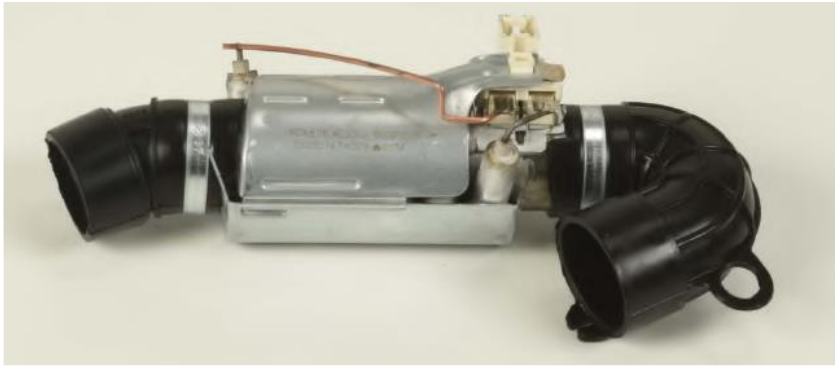
Voltage	220/240 V
Frequency	50Hz
Flowrate	30W
Coil Resistance / Leili	141Ω % ±7
Coil Isolation Class	F
Thermal Protector	120°C

Heater

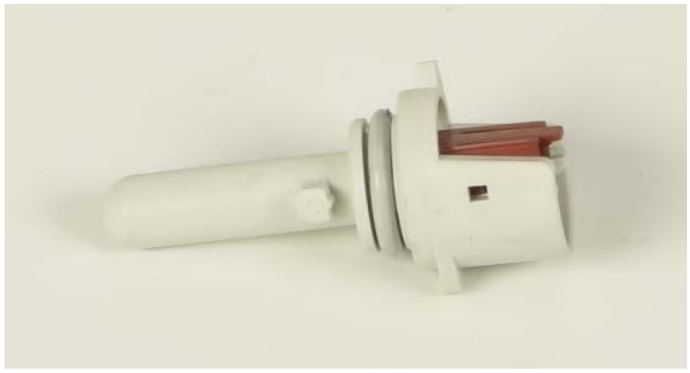
Voltage 220/240 volt

Total power 1800W

27.6-30.6 ohm



NTC



+25°C	47.200 ± 850 Ω
+30°C	37.500 ± 675 Ω
+40°C	24.900 ± 349 Ω
+50°C	17.000 ± 170 Ω
+60°C	11.700 ± 117 Ω
+70°C	8.280 ± 108 Ω
+80°C	5.945 ± 101 Ω

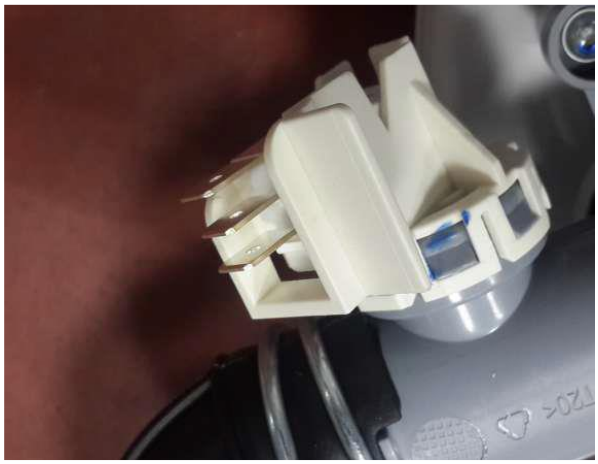
Pressure Switch

	C		T		
PRESSURE SWITCH	CN2.10 - CN2.2	0Ω ∞Ω	KN2.9 - KN2.10	0Ω ∞Ω	WATER. NO WATER.

Voltage 220/240 v

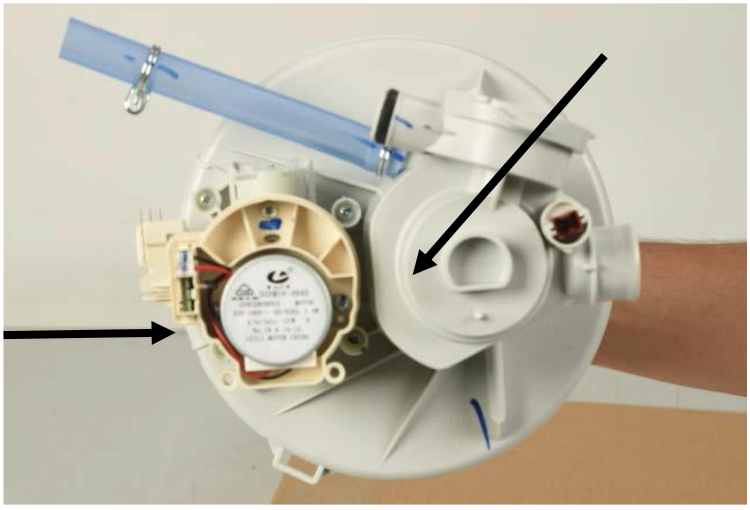
Frequency 50/60 Hz

16 A - 3 Pins



Diverter

There is Diverter on A15 and A23 models which is attached to the sump.



Voltage	220/240V
Frequency	50Hz
Power	8W
Resistance	10500 ±%5 Ω

Water Inlet Valve

Single inlet and single outlet standard single coil solenoid valve.

Voltage	220 – 240 V
Total Power	6W
Flowrate	2,5 ±% 15 lt/dk
Coil Isolation Class	H
Resistance	4200 ±%10

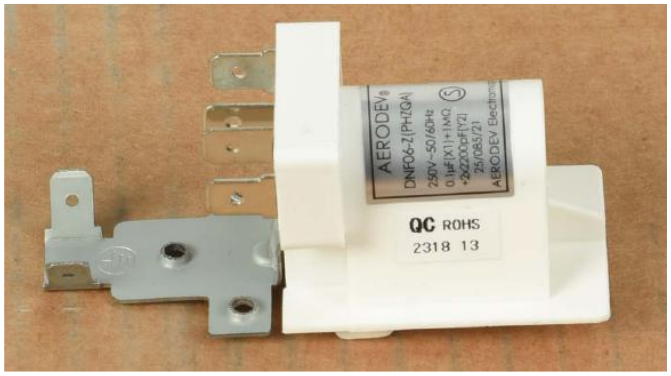
The Water Inlet Valve is attached to the basement and connected to the air-break by a hose.

Interference Filter

Voltage	220/240V
Frequency	50/60 Hz

Resistance
0,1 uF (X1) + 2x2,2 uF (Y2) + 1MΩ

This filter is used to prevent interference from the main supply and is attached to the basement.



Turbo Fan Motor

Turbo fan motor is a thermal protector shaded pole motor with two pole temperature between -40-150 °C.

Drain Hose

Drain hose maximum height.	110cm
Drain hose minimum height.	50cm
Drain hose maximum allowable extension length.	400cm

Upper Spray Arm

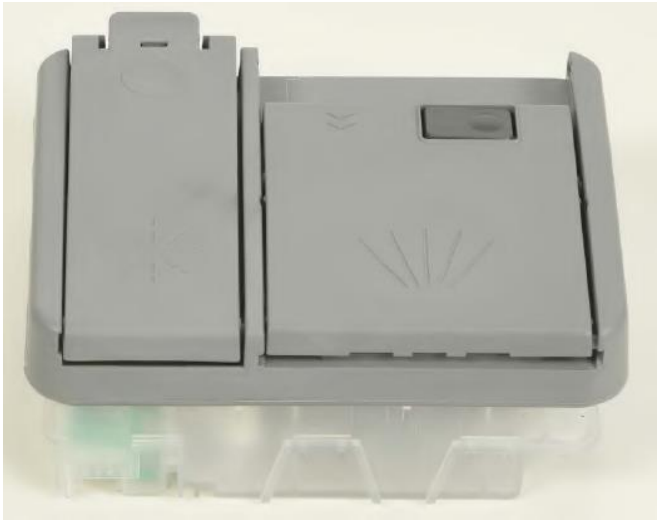
Water is distributed through holes in the upper spray arm at various angles while it is turning to wash the dishes in the upper basket.

Lower Spray Arm

Water is distributed through holes in the lower spray arm at various angles while it is turning to wash the dishes in the lower basket.

Detergent / Rinse Aid Dispenser

The Detergent Dispenser consists of a rinse aid and detergent compartment and is attached to the inner door by ‘snap fit’. Only one bobbin has been used for operating the system.



Rinse Aid Set

In order to enter the rinse aid set, the user applies the below steps:

- Power ON; press the Up button at least for 5 seconds for models without the display Power ON; press the Programme button at least for 5 seconds for models with a display. For A4 models, use the Delay button and press it for 5 seconds.
- If “Rinse Aid Set” is shown; all LEDs blink twice if the model is without a display. If the model has a display, “rA” is shown.
- Release the programme button. The last setting level is shown.
- Press the programme button to set the desired level.

At any pressing of the programme button – the rinse aid level is incremented. Level 1 returns after level 5.

For models without a display – the rinse aid levels are as shown in the table.

Level	Wash	Dry	End
1(0cc)	FIX	OFF	OFF
2(1,5cc)	OFF	FIX	OFF
3(3cc)	OFF	OFF	FIX
4(4,5cc)	FIX	FIX	OFF
5(6cc)	FIX	OFF	FIX

SERVICE TEST

Only service can execute this procedure:

- Power OFF; press the Start/Stop button.
- For all models: Power ON by pressing the On/Off button and continue to press the Start/Stop button for at least 6 seconds.
- When “Service test” is shown:

  For models without a display: All LEDs are ON. If the model has a sliding dispenser, all LEDs blink three times and the service test starts.

  For models with a display: All LEDs are ON, “SP” is shown on the display and the service test starts. During the first 6 seconds of the test, if a failure code is stored in its memory, its code blinks. Also at the end of the test - if an error occurs its error code blinks.

During the test, “SP” is shown.

Step		Time	Tested Load
0	Show code	6”	Before start, the code of last error is shown (see below)
1	Drain	6”	Drain pump.
2	Fill (3l/2,5l)	~ 1’	Flow meter; Inlet Valve;
3	Fill + Wash (0,5/1lt)**		Flow meter; Inlet Valve; Pressure Switch;
4	Turb. Sensor	30”	Measure of turbidity sensor
5	Wash	1’	Circulation pump; Regeneration Valve; detergent dispenser.
6	Wash + Heat	5’	Heater (PSW); NTC; diverter (position).
7/8	Reg. Valve + Turbo Fan	1’	Regeneration Valve + Turbo Fan
9	Water V+Drain	1’20”	Water Valve; Drain pump; Pressure switch
10	Drain	20”	Drain pump; pressure switch.
11	End	-	Code error or end LED

SERVICE FAILURE CODES

For models w/o display;

Name	S_P	Wash	Dry	End	Display	Notes
Overflow/Leakage	-	Blink	-	Blink	F0/F1	In normal operation - only leakage is visible.
Drain time out	Blink	-	-	Blink	F2	
Presence Flow meter impulses	-	-	-	Blink	F3	
Absence Flow meter imp.	-	Blink	-	-	F4	In normal operation - is not visible.
Empty Level	Blink	-	-	-	F5	
Re-Fill time out	Blink	-	-	-	F5	
NTC ca/cc	Blink	Blink	-	-	F6	
Overheating	Blink	-	Blink	-	F7	
Unsuccessful heating	-	Blink	Blink	-	F8	In normal operation - is visible at the end of the programme
HIGH VOLTAGE	Blink	Blink	Blink	-	HI	
LOW VOLTAGE	-	Blink	Blink	Blink	LO	

For models w/ display;

Name	Display	Notes
Overflow	F0	In normal operation - this failure is not visible.
Leakage	F1	
Draining time out	F2	
Presence of Flow meter impulses	F3	
Absence of Flow meter	F4	In normal operation - this failure is not visible.
Empty Level	F5	
Re-Fill time out	F5	
NTC ca/cc	F6	
Overheating	F7	
Unsuccessful heating	F8	
Diverter opened	F9	
Turbidity Sensor	FA	In normal operation - this failure is not visible.
Parameter set salt incorrect	SE	In normal operation - this failure is not visible.
High Voltage	HI	In normal operation - this failure is not visible.
Low Voltage	LO	In normal operation - this failure is not visible.
Communication Error	EnA	

FAILURE CODES (Possible Problems)

F1 (Alarm is Active for Overflow)

Floater

- The Floater switch could be out order or have a problem with the cable connection.

Tub

- There could be a water leakage from the tub.

Main PCB

- The Main PCB could be out of order.

F2 (The Waste Water in the Machine Cannot be Discharged)

Drain Hose

- The water outlet hose is clogged.
- Check of the water outlet hose position.

Drain Pump

- Check the drain pump resistance and power values.
- There could be a problem with cable connection of the drain.

Pressure Switch

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

F3 (Error of Continuous Water Input)

Water inlet valve

- The water inlet valve could be out of order or cannot be closed.

Main PCB

- The main PCB could be out of order.

F4 (Flowmeter Faulty)

Flowmeter

- The flowmeter could be out of order.
- The cable connection of the flowmeter could be faulty.

Main PCB

- The main PCB could be out of order.

F5 (Inadequate Water Supply)

Water Tap

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

Water Inlet Hose

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

Water Inlet Valve

- The water inlet valve filter could be clogged.
- The water inlet valve could be out of order. There could be a problem with the cable connection of water inlet valve.

Floater

- The floater switch could be out of order or have a problem with the cable connection.

Pressure Switch

- The pressure switch of the heater could have a mechanical or cable connection problem.

Circulation Pump

- The circulation pump could be out of order or have a problem with the cable connection.
- An external part could be blocked to the circulation pump.

F6 (NTC Faulty)

NTC

- The NTC could be out of order.
- The NTC cable connection could be faulty. The NTC could have a short or an open circuit.

Main PCB

- Check the power and resistance value of heater.
- Check the cable connection of the heater.

F7 (Extreme Heating Up Faulty)

NTC

- If the water temperature inside machine is higher than 77°C, the NTC could be out of order.

Main PCB

- The main PCB could be out of order.

F8 (Inadequate Heat)

Heater

- Check the power and resistance values.
- Check the cable connection of the heater.

Main PCB

- Check the Main PCB.

F9 (Diverter Position Problem)

Diverter

- Check the values of the diverter.
- Check the cable connection of the diverter.

Main PCB

- Check the Main PCB.

FA (Turbidity Sensor Faulty)

Turbidity Sensor

- There could be some soil around the turbidity sensor.
- Check the cable connection of the turbidity sensor.

Main PCB

- Check the Main PCB.

EnA (Communication Error)

Main software failed to load due to communication error between User interface and main board.

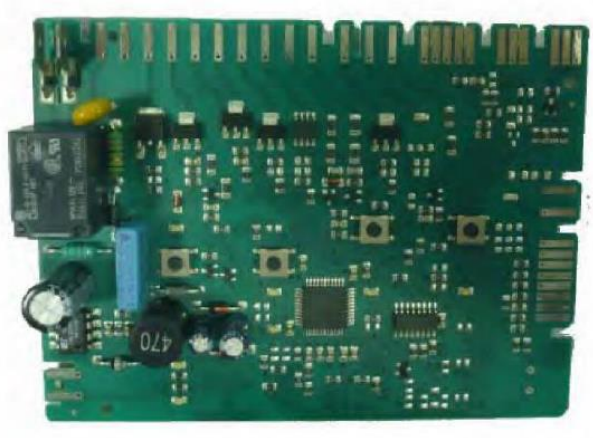
- Power Off machine and power back on after a few seconds
- If still showing EnA on display replace both Main and User interface.

REPAIR TECHNIQUES COMPONENTS AND RESISTANCE VALUES

COMPONENTS	C		T		NOTES
ON / OFF SWITCH	0 Ω on component		0 Ω on component		ON/OFF button is pressed
DOOR SWITCH	CN2.9 - CN2.2 0 Ω		KN2.8 - KN2.10 0 Ω		Door is close
PRESSURE SWITCH	CN2.10 - CN2.2	0 Ω ∞Ω	KN2.9 - KN2.10	0 Ω ∞Ω	Full fill water no water
DRAIN PUMP / HANYU	CN2.2 - CN2.4 220 Ω % ±10		KN2.4 - KN2.10 220 Ω % ±10		
DRAIN PUMP / LEILI	CN2.2 - CN2.4 141 Ω % ±10		KN2.4 - KN2.10 141 Ω % ±10		
WATER INLET VALVE	CN2.6 - CN2.9 4200 Ω ± %10 (20°C)		KN2.6 - KN2.8 4200 Ω ± %10 (20°C)		
REGENERATION VALVE	CN2.2 - CN2.7 3560 Ω ± %10(25°C)		KN2.2 - KN2.10 3560 Ω ± %10(25°C)		
SALT SENSOR	CN5.1 - CN5.2	0 Ω NO SALT ∞Ω THERE IS	KN50.10 - KN 50.11	0 Ω NO SALT ∞Ω THERE IS SALT	Measure just on the electronic
HEATER	29.1 ± 1,5 Ω		29.1 ± 1,5 Ω		Measure just on the component
DETERGENT DISPENSER	2300 Ω ±%10 (25 C°)		2300 Ω ±%10 (25 C°)		Measure just on the component
CIRCULATION PUMP	CN2.3 - CN2.9		KN2.3 - KN 2.8		Primary winding Secondary winding (from the component)
SET NTC SENSOR	CN 3.2 CN 3.1		KN 50.1 KN 50.2		
FAN MOTOR	CN 6.2 - CN 2.9		KN 6.2 - KN 2.8		
DIVERTER	CN 6.1 - CN 2.9 10500 ± %7 Ω		KN 6.1 - KN 2.8 10500 ± %7 Ω		
RINSE AID SENSOR	CN 5.3 - CN 5.2	0 Ω NO RİNSE AİD ∞Ω THERE IS RİNSE	KN 50.8 - KN 50.9	0 Ω NO RİNSE AİD ∞Ω THERE IS RİNSE AİD	Rinse aid off Rinse aid on
FLOATER (MICROSWITCH)	CN2.1 - CN 2.5 CN2.1 - CN 2.4	0 Ω ∞Ω	KN2.5 - KN 2.10 KN2.4 - KN 2.5	0 Ω ∞Ω	Microswitch is inactive (no water). Micro-switch is active (there is water)

MEASURING THE COMPONENTS FROM THE MAIN PBC

You might measure the components from either connectors of Main PCB or directly on the component.



Example Main PCB

Measurements are best done from connectors on the main PCB where possible; check the values according to the resistance value table for each components.

COMPONENT VALUES MEASUREMENT

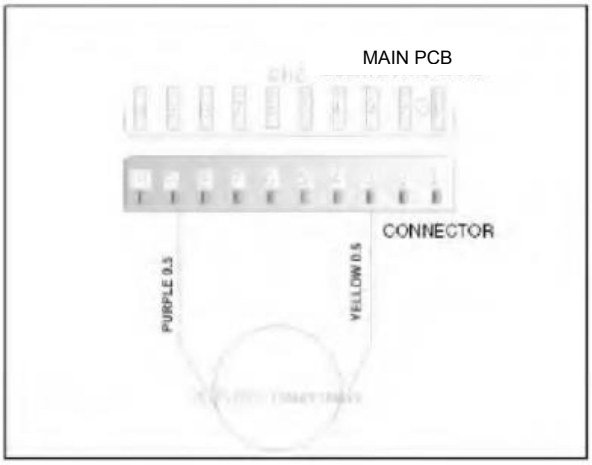
Caution: Always remove the plug from the power socket before touching internal components.

Circulation Pump:

From the Main PCB:

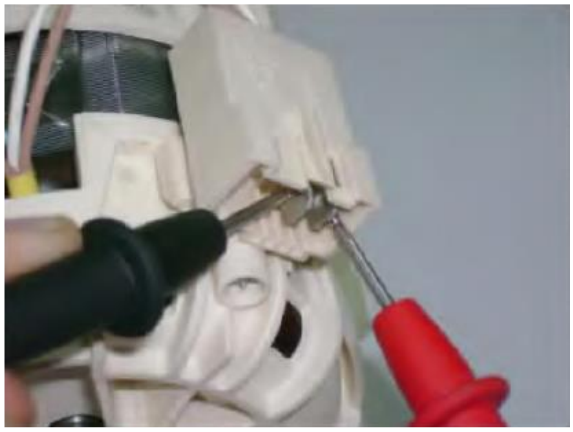
You can only measure the primary winding value from the main PCB. Resistance value of the primary winding must be:

	C	T	
CIRCULATION PUMP	CN2.3 - CN2.9 117.9-135.6 Ω	KN2.3 - KN 2.8 117.9-135.6 Ω	Primary winding. Secondary winding (from the component).



Above sketch show the connectors of the circulation pump on the main PCB.

From the component:



Measurement of the primary windings of the washing pump. (118.2-135.9 Ω)

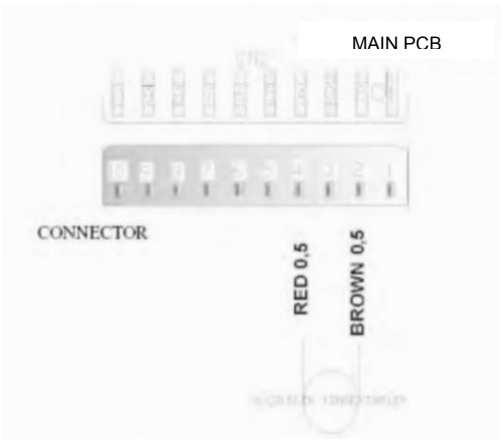
Measurement of the secondary windings of the washing pump (white cable – blue cable) (117.9-135.6 Ω)

Probes of the tester should be applied on to the related connectors as shown on the pictures.

Drain Pump

From the Main PCB:

	C	T
DRAIN PUMP / LEILI	CN2.2 - CN2.4 141 Ω % ±10	KN2.4 - KN2.

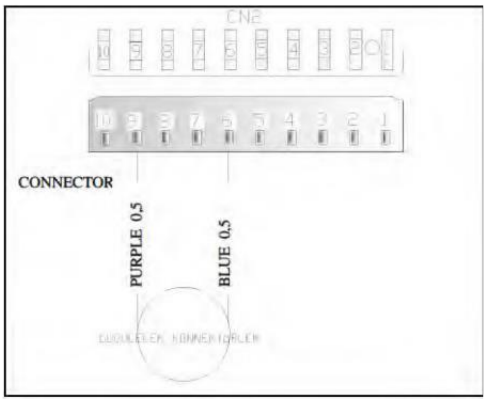


Above sketch shows the connector terminals of the drain pump on the main PCB.

Water Inlet Valve

From the Main PCB:

	C	T
WATER INLET VALVE	CN2.6 - CN2.9 4200 Ω ± %10 (20°C)	KN2.6 - KN2.8 4200 Ω ± %10 (20°C)



Measurement points on both Main PCB connector and component.

Heater

It can' be measured from the Main PCB.

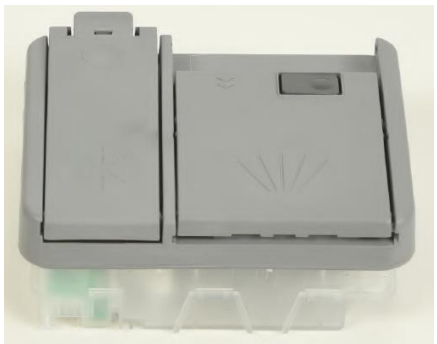
From the component:

Detergent Dispenser

It can't be measured from the Main PCB.

	C	T
DETERGENT DISPENSER	2300 Ω ±%10 (25 C°)	2300 Ω ±%10 (25 C°)

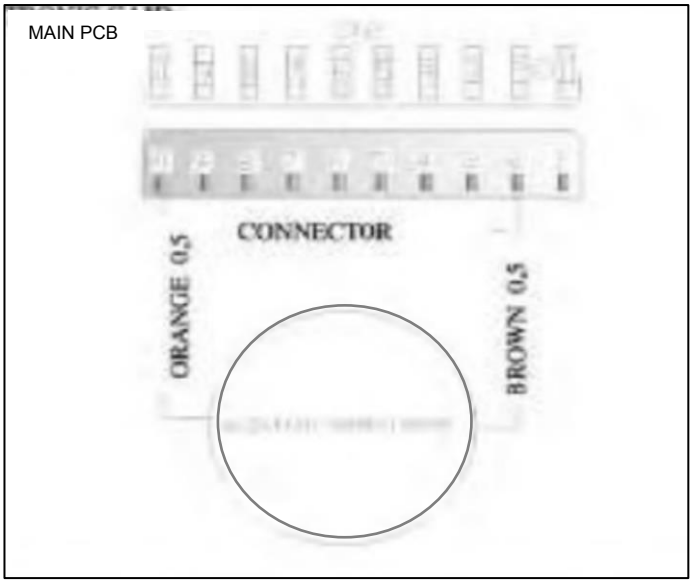
From the component:



Pressure Switch

From the Main PCB:

	C		T		
PRESSURE SWITCH	CN2.10 - CN2.2	0 Ω ∞Ω	KN2.9 - KN2.10	0 Ω ∞Ω	Full fill water. No water.



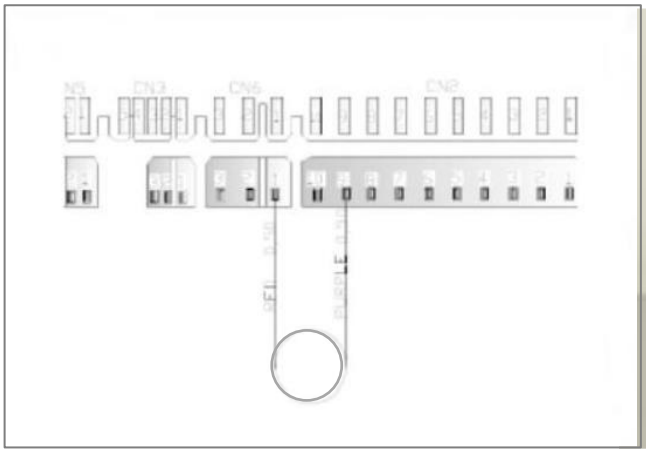
From the component:

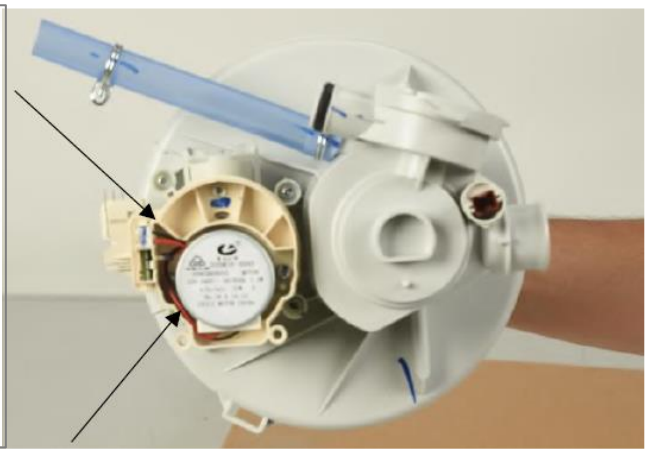
Probes of the tester should be applied on to the related connectors as shown in the picture above.

Diverter

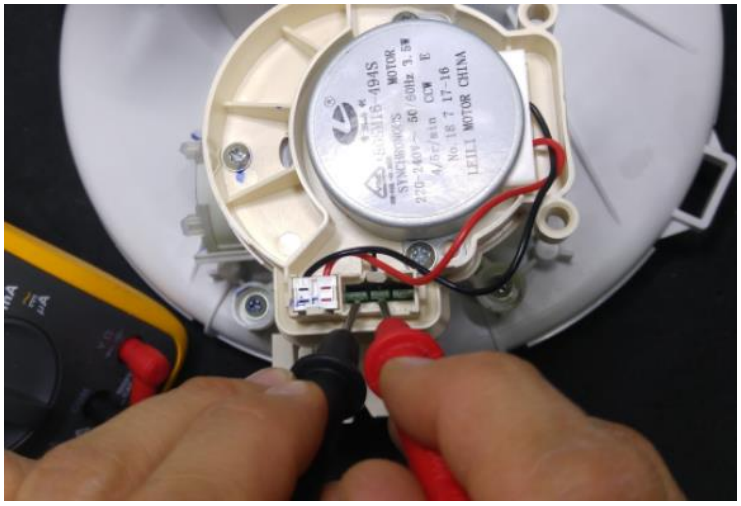
From the Main PCB

	C	T
DIVERTER	CN 6.1 – CN 2.8 10500 ± %7 Ω	KN 6.1 – KN 2.8 10500 ± %7 Ω





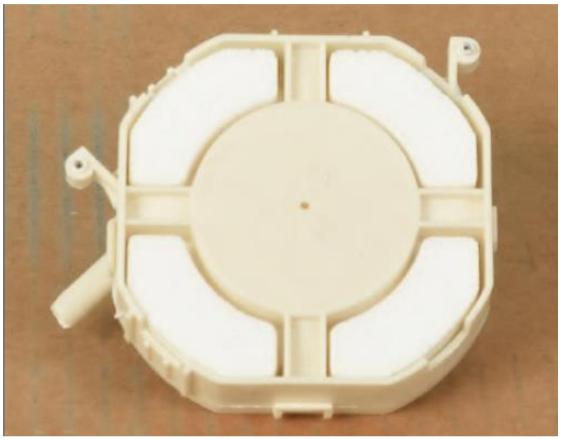
From the component:



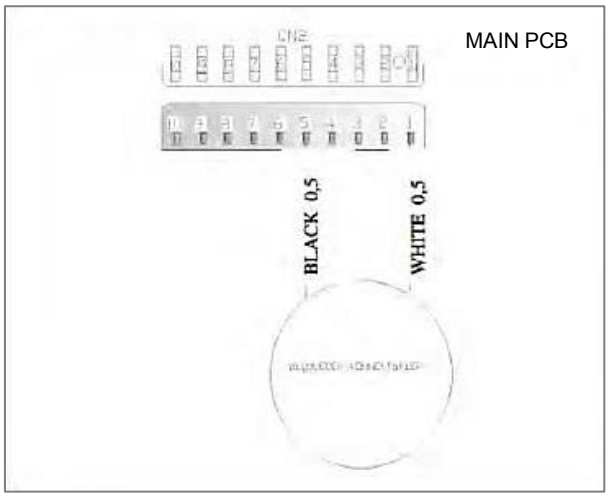
Floater

From the Main PCB:

	C		T		
FLOATER (MICROSWITCH)	CN2.1 - CN 2.5 CN2.1 - CN 2.4	0 Ω ∞Ω	KN2.5 - KN 2.10 KN2.4 - KN 2.5	0 Ω ∞Ω	Micro-switch is inactive (no water). Micro-switch is active (there is water)

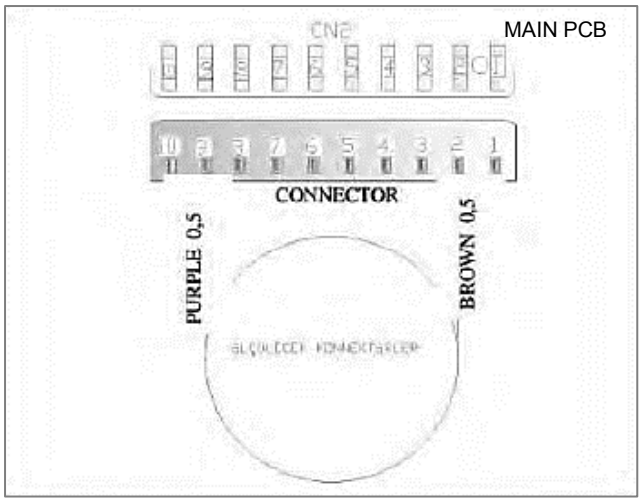


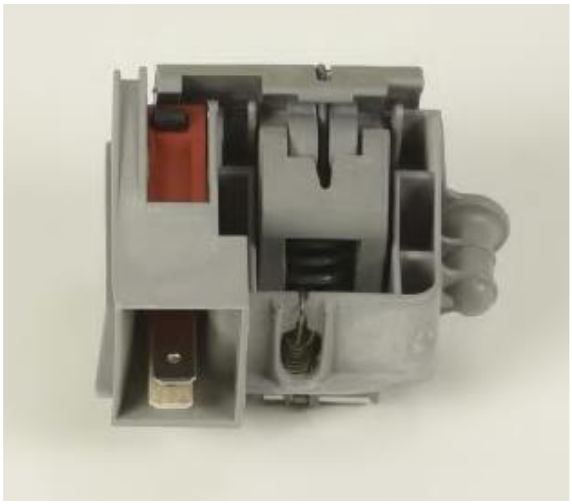
Position 1: You can check the floater by checking the value from the main PCB



Door Switch

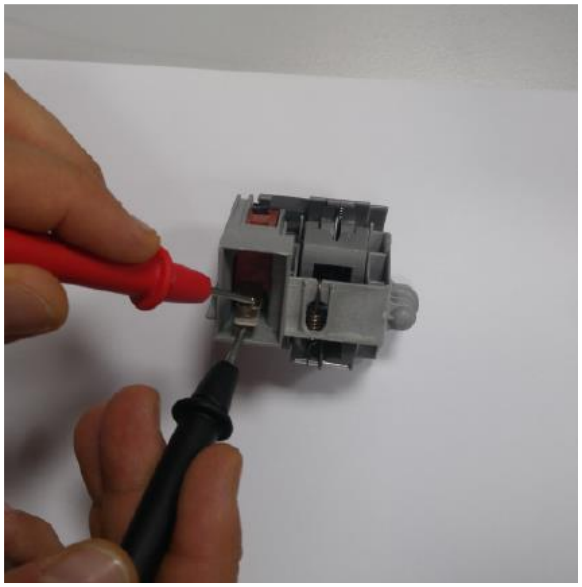
From the Main PCB:





The above sketch show the connectors of the door switch on the Main PCB.

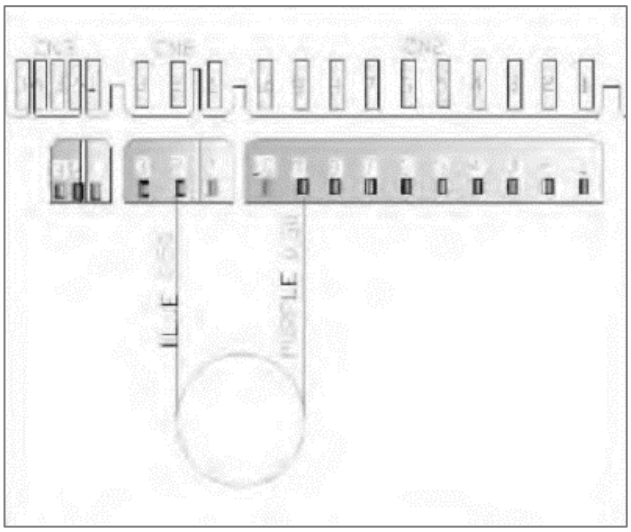
From the component:

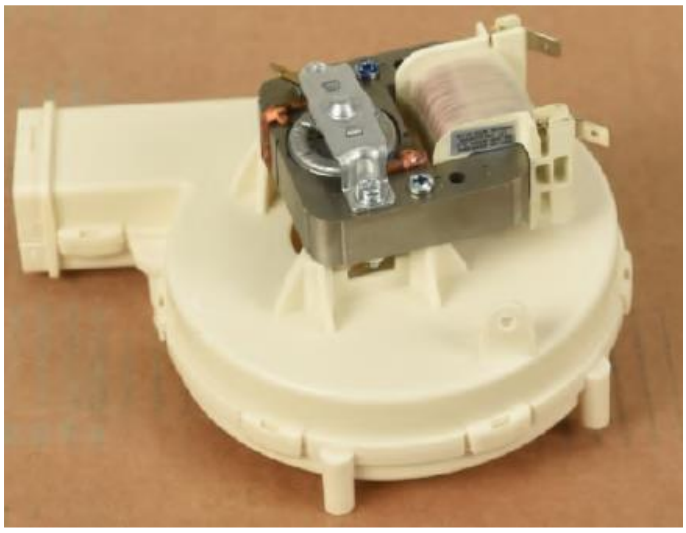


Fan Motor

From the Main PCB:

	C	T
FAN MOTOR	CN 6.2 - CN 2.9	KN 6.2 - KN 2.8





Above sketch shows the connectors of the fan motor on the Main PCB.

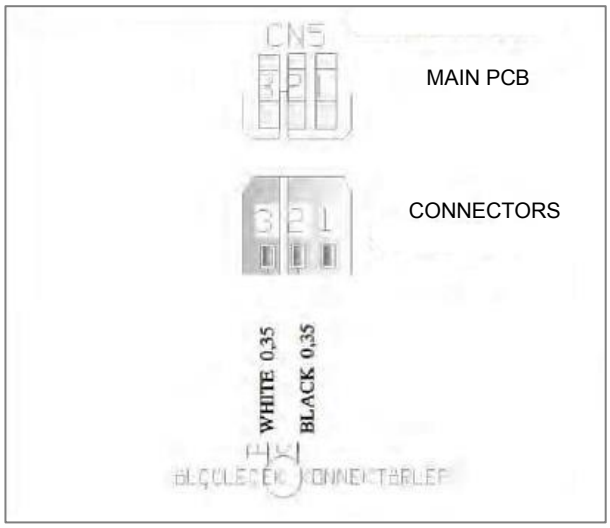
From the component:

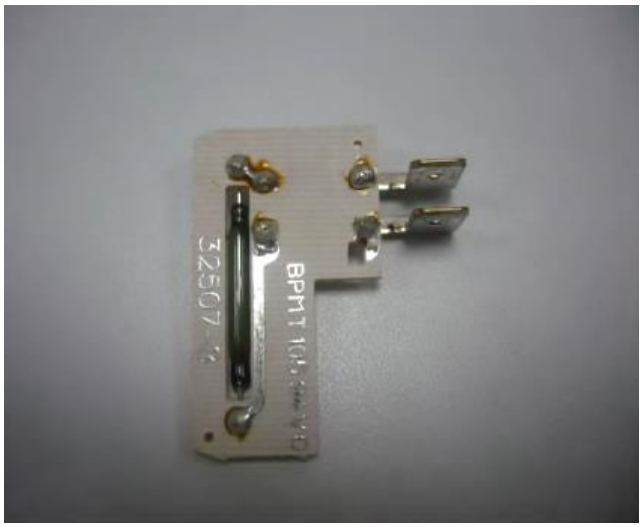
Turbo fan resistance value: 265 ± %10 Ω.

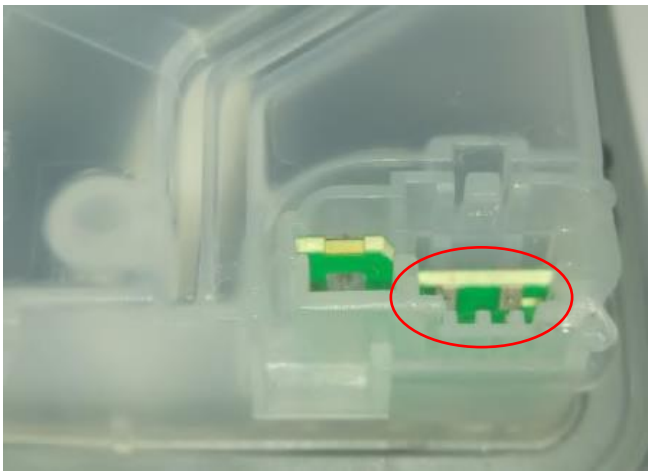
Rinse Aid Sensor

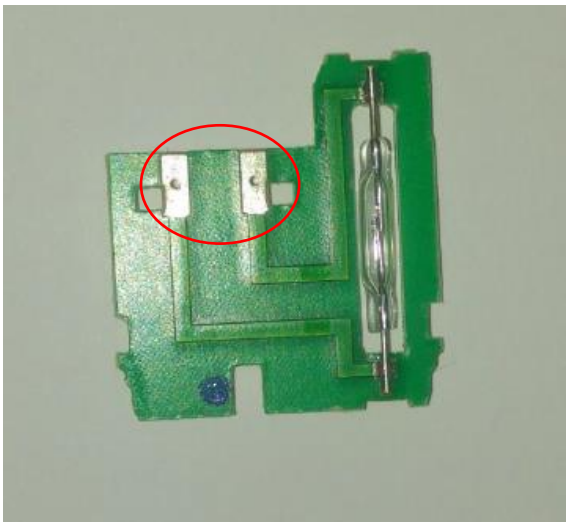
From the Main PCB:

	C		T		
RINSE AID SENSOR	CN 5.3 - CN 5.2	0 Ω NO RİNSE AİD ∞Ω THERE IS RİNSE AİD	KN 50.8 - KN 50.9	0 Ω NO RİNSE AİD ∞Ω THERE IS RİNSE AİD	Rinse aid off. Rinse aid on.









DISASSEMBLY

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

Top Plate

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

Plastic Kick Plate

1) Remove two screws fixing plastic kick plate.

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

Side panels removal instructions

1) Remove top table screws.

Top Tray Screws

2) Remove the side panel rear screws.

Side panel rear screws

3) Remove the kick plate plastic after removing the front panel.

Plastic kick plate screw

4) Remove the side panel front screws.

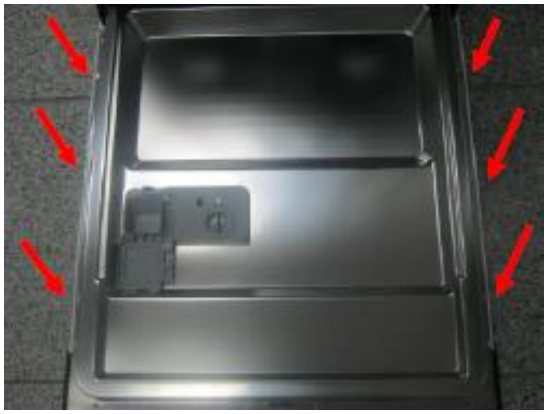
Side panel front screws

5) Remove the side panel rear tabs.

6) Remove the side panel front tabs.

Front Panel

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



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

Kick Plate Sheet Iron

1) Remove top plate, plastic kick plate and side panels.
2) Remove the screws (4 screws) that fix the kick plate sheet iron.

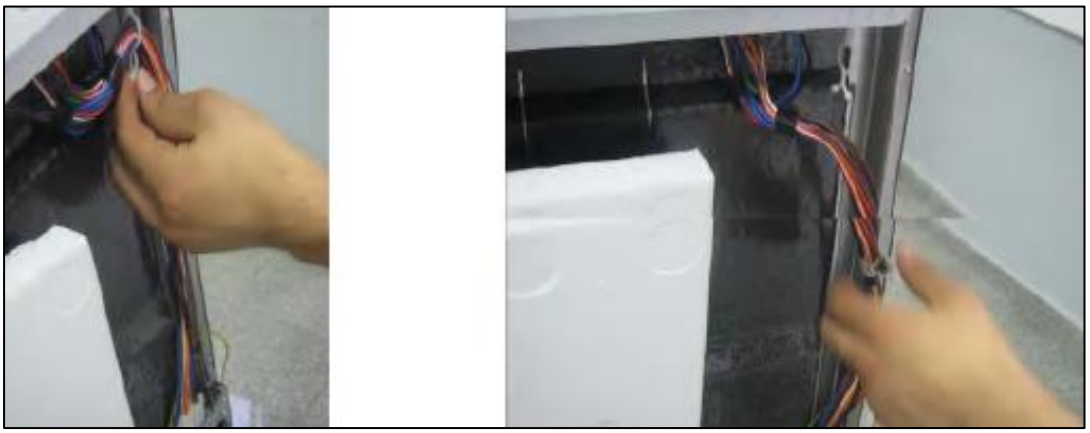
3) Pull it down as shown in the picture below.

- To remove the side panel, remove the upper plastic hinge and then the above one and pull it up.

Control Panel

1) Remove 6 screws that fix the control panel to the door inside sheet iron.
2) Remove the control panel group carefully as shown in the picture.

3) Remove the cable connection plastic which fix cable harness to the control panel as shown in the picture.
4) Remove the wires that are connected to control panel group.



Display Card Removal Instructions

1) May show changes by models;
2) There is a cover and a screw on LED models (touch);
3) Non-touch and non-LED models include normal and coverless display cards;
4) For models without a cover, you can remove the display card using a screwdriver;
5) On models with a cover, unscrew the display box and take out the display;
6) Remove the control panel screws.

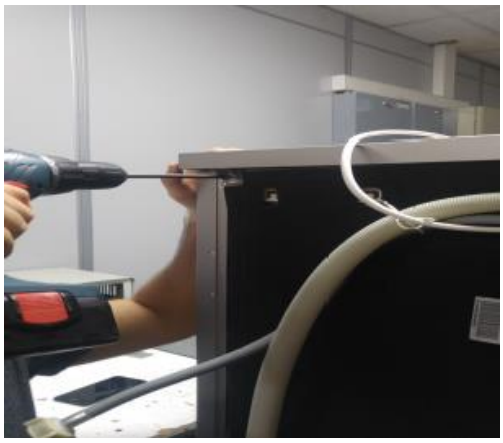
Control Panel Screws

7) Unscrew the display box screws.

Unscrewing the display box screws by screwdriver

Main PCB Removal Instructions

1) Remove the top tray.



2) Remove the side panel.
3) Remove the side panel support Styrofoam.

4) Pull up the PCB box.

5) Disconnect the cable connections from cable harness.
6) Remove the tabs and take the Main PCB out.
7) To assemble, reinsert the PCB box into the tabs.

Door Lock Removal Instructions

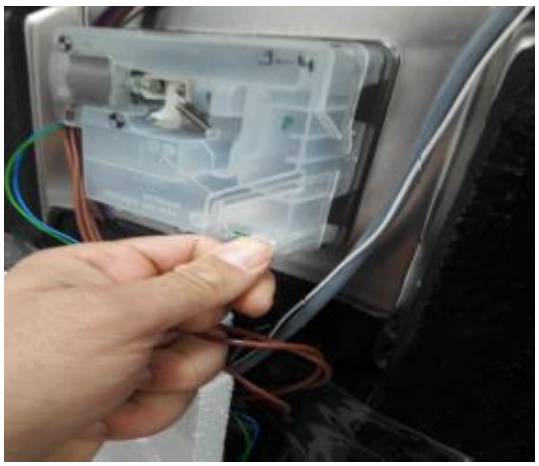
1) Remove control panel screws.

2) Disconnect the cable connections with door lock.

3) Remove the two door lock screws.

Dispenser Removal Instructions

1) Remove the front panel.
2) Disconnect the dispenser cable harness.



Dispenser cables

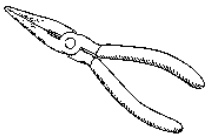
3) Remove the metal tabs on the top, bottom and sides to disengage the dispenser.

Metal tabs on the top

4) Then the dispenser will drop in.

Dispenser is free

5) To assemble, tighten the metal tabs with a pliers.



Metal tabs on the top

6) After applying silicone oil or liquid soap to the dispenser, press down and engage the dispenser.

Pressing the dispenser down

Door Inside

1) Remove the side panels.
2) Remove the Hinge Spring.

3) Pull the door inside – up, as shown in the picture.
4) Remove the two screws that fix the hinge movement sheet iron to the door inside.

Air-Break

1) Remove the left side panel of the machine.
2) Open the machine's door.
3) Rotate counter-clockwise the air-break nut and remove it.

Hose Connection Plastic

1) Remove left side panel.

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

3) Push the hose connection plastic.

Power Cord

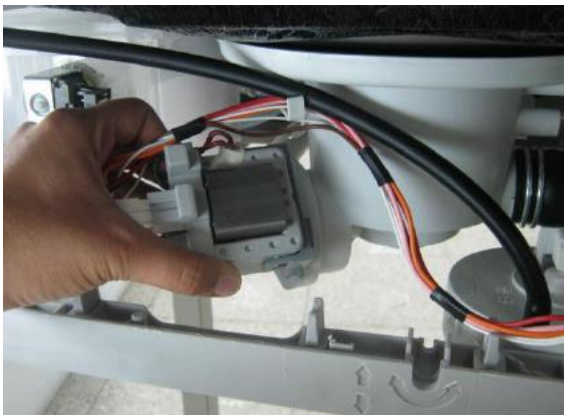
1) Remove the hose connection plastic.

2) Remove the lower cover.
3) Remove the wires that is between power cord and parasite filter.
4) Remove the power cord.

To Access the Components from in Front of the Machine

1) Remove the plastic kick plate iron sheet and basement front cover.

Drain Pump

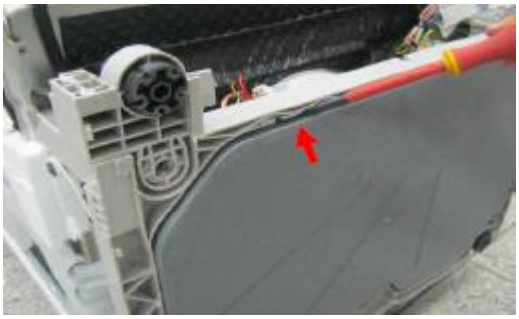


1) Remove the plastic kick plate and kick plate iron sheet.
2) Remove the wires.
3) To remove the drain pump that fixes to the sump, rotate it in a counter-clockwise direction and pull.

Access the components from the lower cover

1) Lay the appliance on the rear panel.

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



Circulation Pump Removal Instructions

1) There are 2 clamps.
2) Push the 2 clamps upwards.

Pushing the clamps upwards

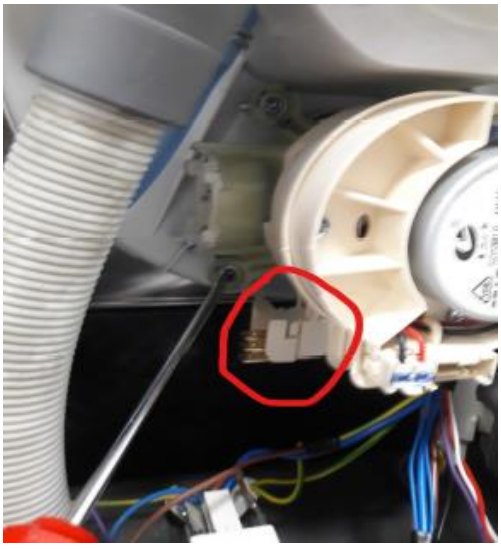
3) Remove the straps from both sides.

Diverter Removal Instructions

1) Disconnect the diverter cables.

Diverter Cables

2) Disconnect pressure switch cables.



Pressure Switch

3) Disconnect the turbidity sensor cables (if the machine has them).
4) Unscrew the diverter screws.
5) Pull the clamps with pliers. (The Diverter clamp is next to the Circulation pump's clamp. Refer Circulation Pump Removal Instruction page).

Interference Filter

1) Remove the lower cover.
2) Remove one screw fixing interference filter.
3) Remove wires.
4) Push the interference filter and remove it.

Floater

1) Remove the lower cover.

2) Remove the two screws that fix the floater as shown in the picture.

3) Remove the two floater hoses.
4) Remove the wire that is connected to the floater.

Heater Removal Instructions

1) Remove the 2 clamps.

2) Disconnect the cable connections to access or remove the heater.

3) To assemble, the cables are connected first and the screws are attached.

Sump Group Removal Instructions

1) Remove the 2 screws on top.

Sump Screws

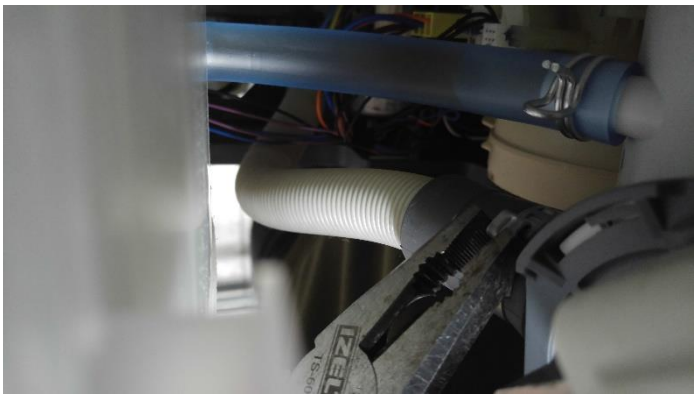
2) Remove the drain pump.

Drain Pump

3) Remove the drain hose.

Drain Hose

4) Remove the hose to the pool group.



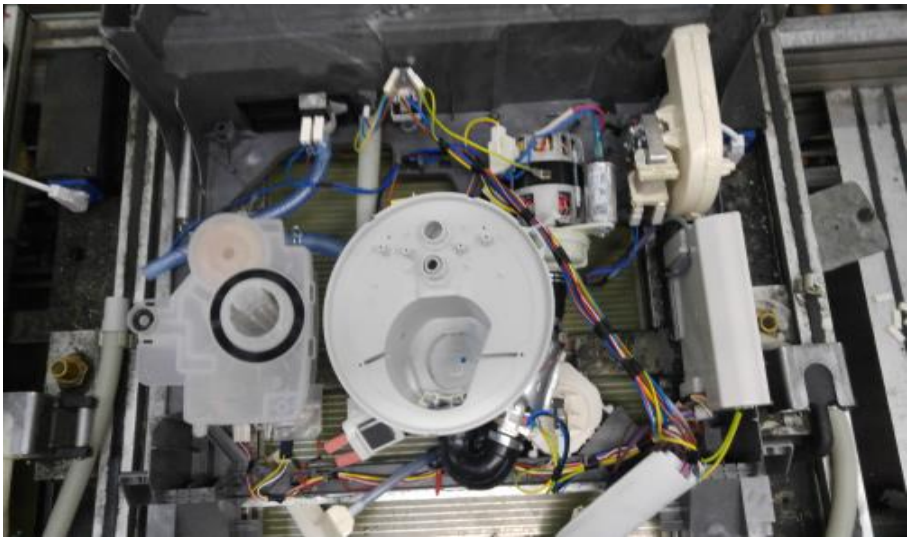
5) Disconnect the NTC cables.

NTC

6) Disconnect the heater hose.

7) Unscrew the eco or diverter part *(interchangeable)* screws.

8) Then you have access to the sump.



To assemble, connect the cables and screws in same way.

Turbo Fan Removal Instructions

1) Remove Top Tray.

2) Remove the side panel rear and front screws.

3) Disconnect the condensate unit from the turbo fan.

4) Remove the side panel rear and front screws.

5) Disconnect turbo fan cables.

6) Remove the turbo fan from its replacement + to reassemble. Before connecting the cables, install the screws and install the condensate unit.

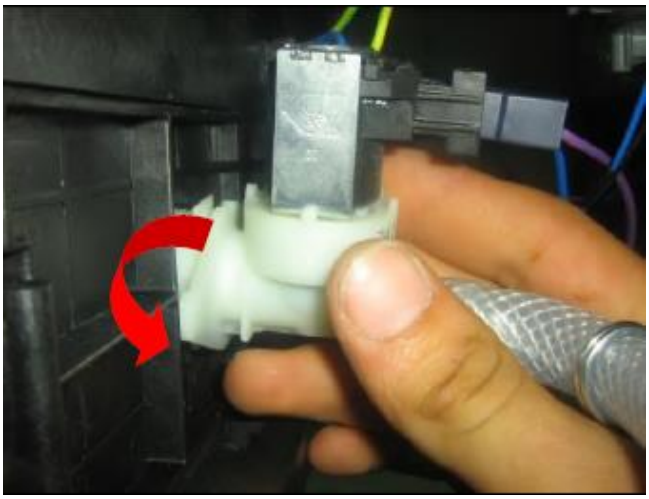
Water Inlet valve

1) Remove the lower cover.

2) Remove the wire connected to the water inlet valve.

3) Remove the clamp that connects water inlet valve and air-break as shown in the picture.

To remove the water inlet valve pull it back in the direction shown in the picture, then release the water inlet valve from the pins connected to it, and rotate it in a counter-clockwise direction.



Draining Hose

1) Remove the hose connection plastic.
2) Remove the lower cover.
3) Remove the clamp that fixes the draining hose to the sump.
4) Remove the draining hose.

Lower Basket

1) Open machine's door.
2) Pull the basket to yourself.

Upper Basket

1) Open the upper basket rail lock front.
2) Pull the basket to yourself and remove it.

The Components that are Inside the Tub Course, Micro and Metal Filters

1) Open the door.
2) Remove the lower basket.
3) To remove the micro-filter group - rotate them in the direction of counter clockwise and pull them up as shown in the picture.

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

5) To remove the metal filter - pull it up as it shown in the picture.

Internal Feeding Tubes and Spray Arms Removal

1) Unscrew the feed channel tabs with the help of a screwdriver.

2) To assemble, manually narrow the feed channel replacement and insert it into the tabs.
3) Pull out the top spray channel by turning it clockwise.
4) Turn it counter-clockwise to reinstall it.

5) To remove the lower spray arm, kindly pull it up.

Publication Version Control Chart		
Issue Number	**Reason**	**Date**
1	Original Document	12-03-2020