

# ELECTROLUX HOME PRODUCTS PTY LTD ABN 51 004 762 341

Technical Publication N° DWSI1009

Issue: **1** Date: **11**/1**6** 

# 2014 WESTINGHOUSE SERIES ELECTRONIC DISHWASHERS SERVICE MANUAL

# MODELS:

WSF6606W - 942001219 00

WSF6606X - 942001220 00

WSF6608W - 942001221 00

WSF6608X - 942001222 00

CONTENTS	PAGE N°
SERVICE TEST PAGE	3
FAILURE CODES and DESCRIPTIONS	4
INSTALLATION INSTRUCTIONS	5
ELECTRICAL COMPONENTS	9
PLASTIC COMPONENTS	15
DISASSEMBLY	19
DISASSEMBLY OF INNER COMPONENTS	29
REPAIR TECHNIQUES	52
MEASIUING VALUES FROM THE CARD and COMPONENTS	53

#### SERVICE TEST

Only the Service Technician can execute this procedure:





WSF6606W - WSF6606X

WSF6608W - WSF6608X

- With the power OFF; press Start/Pause button.
- Power ON the machine while continuing to press Start/Pause button at least for 6 seconds
- When "Service Test" starts, all LED's blink for approximately 2 seconds.

During the first 6 seconds of test, if a failure code is stored in memory, its 'codification' is shown.

Also, if an error occurs within it, an error code is displayed at the end of the Service Test.

Step	Displayed	Time	Tested Load		
0	Last Fault Code	6 sec	Before start, the code of last error is displayed (see below)		
1	Drain	6 sec	Drain pump.		
2	Fill (3l/2,5l)*	~1 min	Flow meter; Inlet Valve;		
3	Fill+		Flow meter; Inlet Valve; Pressure Switch;		
	Wash(0,5/1lt)**				
4	Turbidity Sensor	30 sec	Measure of turbidity sensor (only WSF6608)		
5	Wash	1 min	Circulation pump; Regeneration Valve; detergent dispenser.		
6	Wash+ Heat***	5 min	Heater(PSW); NTC; diverter (position).		
7/8	Reg. Valve+	1 min	Regeneration Valve+ Turbo Fan (Turbo Fan only WSF6608_)		
	Turbo Fan				
9	Drain	20 sec	Drain pump; pressure switch.		
10	End	-	Code error or end led		

<sup>\* 3</sup>lt in WSF6606 ; 2.5lt in WSF6608 .

#### NOTE:

- a) If during the Service Test, the door is opened, start/pause led blinks (in WSF6606 & WSF6608 also "SP" is shown).
- b) If during the Service Test, the start/pause button is pressed, the program corresponding at the knob position starts.

<sup>\*\* 0.5</sup>lt in WSF6606 ; 1lt in WSF6608 .

<sup>\*\*\*</sup> During the Service Test an unsuccessful heating failure test (F8) works with reduced time to diagnose (first measurement at 2min20sec and the second measurement at 4min20sec)

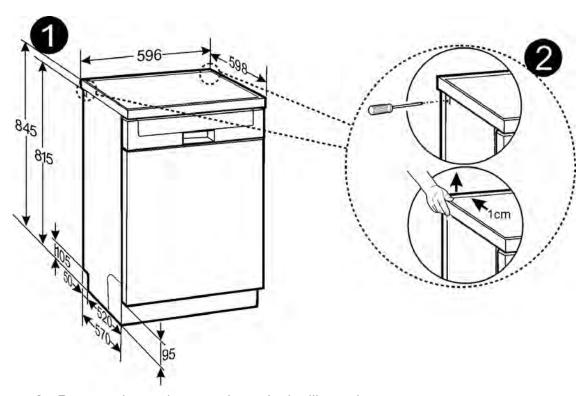
FAILURE CODES AND DESCRIPTIONS								
TYPE OF ALARM	DISPLAY	DISPLAYED TO THE USER		MACHINE STATUS	POSSIBLE CAUSES			
F0	FO	N O	During 5"; Floater sensing switch ON	1) Washing program restarts	1) Water leakage from body			
F1	FI	YES	More than 5"; Floater sensing switch ON	1) Stop all devices 2) Stop Program flow 3) Drain empty + 30" 4) Visualize the failure code	Water leakage from body     Ploater sensing switch can be broken			
F2	F2	YES	During 180"; Drain pump ON + Circulation pump ON + Pressure sensing switch ON (full level position)	1) Stop all devices 2) Stop Program flow 3) Drain empty + 30" 4) Visualize the failure code	Pressure switch is activated continuously     Drain pipe is blocked     Drain pump is broken			
F3	F3	YES	When the triac valve is OFF and flow meter gives some impulses (more than 500cl)	1) Drain all water 2) Water inlet valve works 12secOFF/12sec ON (try to load again correct amount of water inside the machine) if failure persists; 3) Drain all water 4) Water inlet valve works 12secOFF/12sec ON (try to load again correct amount of water inside the machine) if failure persists; 5) Visualize the failure code	Water inlet valve is broken     Electronic card is broken			
F4	F4	N O	flow meter does not give any impulses	During filling water step; 1) Water inlet valve works 50 seconds 2) Water inlet valve and circulation pump work 60 seconds 3) Program works and finishes without showing failure code	1) Flow meter is broken 2) Flow meter cable can be slip off 3) Electronic card is broken			
F5	FS	YES	After start circulation pump; Pressure sensing switch OFF	1) Water inlet valve and circulation pump work 100 seconds if failure persists; 2) Stop all devices 3) Stop Program flow 4) Drain empty + 30" 5) Visualize the failure code	1) Tap can be closed 2) Circulation pump can be broken 3) Pressure switch can be broken 4) floater switch can be broken			
F6	F5	YES	1) NTC value is open circuit (0Ω) 2) NTC value is short circuit (1Ω)	1) Stop all devices 2) Stop Program flow 3) Drain empty + 30" 4) Visualize the failure code	NTC is broken     Electronic card can be broken			
F7	F7	YES	When electronic card detects Water temperature >= 77°C	1) Stop all devices 2) Stop Program flow 3) Drain empty + 30" 4) Visualize the failure code	NTC is broken     Electronic card can be broken			
F8	F8	YES	During the heating phases, after the first 420", if water temperature increases less than 2°C or if it is less than 0°. The first valid value to check is read after 120" from	Program works and finishes     At the end of the program,     Visualized the failure code	1) NTC is broken 2) Electronic card can be broken 3) Heater can be broken			
F9	FB	YES	During 30"; Diverter does not give any impulses	1) Stop all devices 2) Stop Program flow 3) Drain empty + 30" 4) Visualize the failure code	1) Diverter is broken 2) Diverter cable can be slip off 3) Diverter connector is assembled opposite			
FE	FE	YES	While the program is running When software parameter Check sum is uncorrected	1) Stop all devices 2) Stop Program flow 3) Drain empty + 30" 4) Visualize the failure code	Main supply voltage of the location can be surged or burst			
FA	FR	N O	Turbidity does not give any impulses (only auto programs)	Program works and finishes without showing failure code	Turbidity is broken     Turbidity cable can be slip off			
H01 to H24	HDI-H24	YES	Delay wash activated	Machine pauses until selected delay time counts down	Refer User Guide			

#### **INSTALLATION INSTRUCTIONS**

Fitting the machine under counter:

If you wish to fit your machine under counter, check whether you have sufficient space under your countertop and whether the wiring-plumbing is suitable to do so.

**1.** If you decide that the space under the countertop is suitable for fittingyour machine.

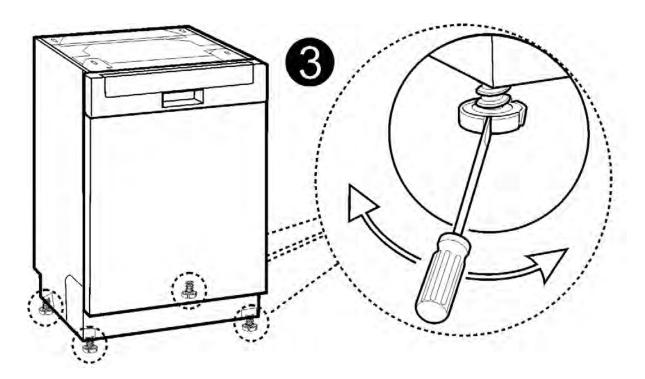


2. Remove the worktop as shown in the illustration.

### Removing the worktop:

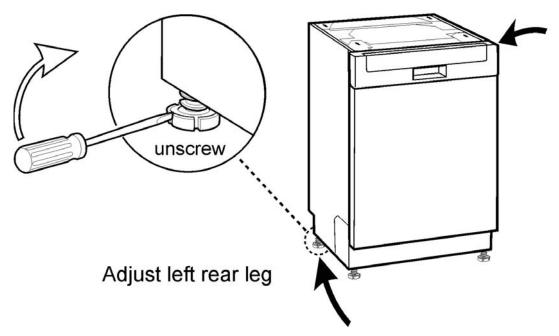
To remove the worktop, remove the screws that hold the worktop which are located at the rear of the machine; then push the front panel 1 cm from the front side towards the rear and lift it.

**3.** Adjust the machine feet according to the slope of the floor.

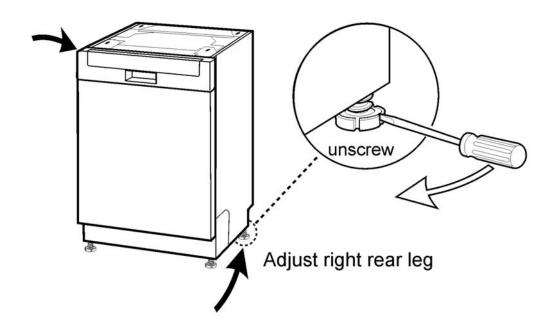


### If door is rubbing on left hand side;

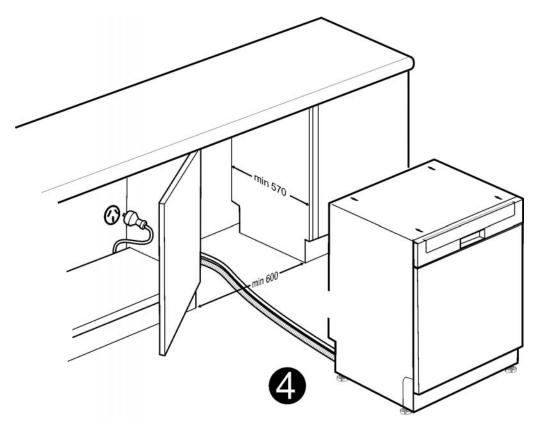
Remove from cupboard & extend the right rear leg by unscrewing it one quarter turn. Replace in cupboard and check door and repeat if necessary.



### If door is rubbing on right hand side;



Remove from cupboard & extend the left rear leg by unscrewing it one quarter turn. Replace in cupboard and check door and repeat if necessary.



**4.** Fit your machine by pushing it under counter without letting the hoses get crushed or bent.

#### 1. ELECTRICAL COMPONENTS

### 1.1 Circulation Pump

Voltage : 220/240 V
Frequency : 50 Hz
Total Power : 88 W
Coil Isolation Class : F

 $\begin{array}{lll} \text{Main Coil} & : 95\% \pm 7 \ \Omega \\ \text{Sub Coil} & : 126\% \pm 7 \ \Omega \\ \text{Thermal Protector} & : 109 \ ^{\circ}\text{C} \\ \text{Pump Outlet Pressure} & : 300 \ \text{mbar} \\ \text{Pump Flowrate} & : 60 \ \text{lt/dk} \\ \end{array}$ 



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

### 1.2 Drain Pump

Voltage : 220/240 Volt

Frequency : 50 Hz Total Power : 30 W

Flowrate : 17 - 21 lt/dk Coil Resistance :  $143 \Omega \% \pm 7$ 

Coil Isolation Class : F

Thermal Protection : 120 ° C

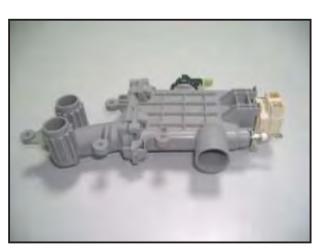


### 1.3 Heater Casing Group

#### 1.3.1 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.

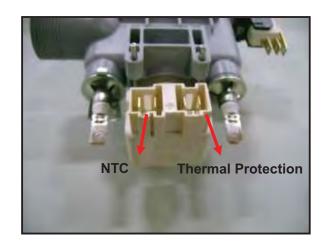


### 1.3.2 NTC

Thermal Protection 83±3 ° C

### Temperatures;

 $25^{\circ}$ -  $5000\Omega$  %±5.0  $35^{\circ}$ -  $3300\Omega$  %±5.5  $55^{\circ}$ -  $1520\Omega$  %±6.5  $63^{\circ}$ -  $1174\Omega$  %±7.5  $80^{\circ}$ -  $670\Omega$  %±8.0  $90^{\circ}$ -  $488\Omega$  %±8.5



#### 1.3.3 Pressure Switch

Voltage : 220/240 V

Frequency : 50 Hz (16 A - 3 Pins)



### 1.3.4 Diverter

Voltage : 220/240 V Frequency : 50 Hz Power : 8 W Resistance :  $6840\pm\%5 \Omega$ 

NOTICE: T21 models includes diverter.



# 1.4 Detergent Dispenser

### **Detergant Compartment:**

Main wash compartment : 40 cm³ (25/15)

Prewash compartment : 5 cm<sup>3</sup>

### **Aid Rinse Departmant:**

Aid rinse cap : 150 cm<sup>3</sup>

Factory outlet setting position : 3. seviye

### **Detergent Dispenser Bobbin:**

Voltage : 220/240 V Frequency : 50 Hz Resistance : 1660  $\pm$ 10  $\Omega$ 

### **Detergent Dispanser Rinse Aid Sensor:**

Voltage : 250 V Switched Current : 1 A max.

Current Through Closed Contact: 2,5 max.





### 1.5 Water Inlet Valve

Voltage : 220/240 Volt Frequency : 50-60 Hz Total Power : 6 W

Flowrate : 2,5 lt/dk

Resistance :  $3750 \pm 10 \Omega$  (  $20 C^{\circ}$  )

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



### 1.6 Water Softener

### 1.6.1 Regeneration Valve;

Voltage : 220/240 V Frequency : 50/60 Hz Total Power : 6 W

Resistance :  $4130\pm\%10 \Omega$  (  $25 C^{\circ}$  )

Regeneration valve is assembled on the water softener.



Voltage : 250 V Currency : 16 (4) A

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





# 1.7 Door Lock;

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.

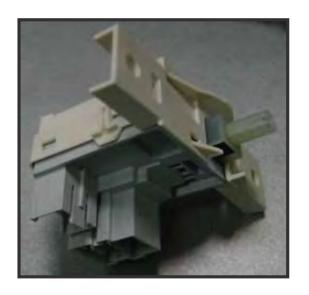
Currency : 16 (4) A



# 1.8 ON/OFF Button (Hemera series);

Button is assembled in the control panel unit. On / Off (two pole).

Voltaj: 250 V Akım: 50mA



### 1.9 Button (On / Off Switch);

Button is assembled in the control panel unit. On / Off (two pole).

Voltage : 250 V Currency : 50mA



### 1.10 Turbo Fan Motor;

Total Power : 15 W
Voltage : 220/240 V
Frequency : 50 Hz.

Resistance : 238.6± % 5  $\Omega$ 

Coil solation Class: H

There is a thermal protector. Shaded pole motor, two pole temperature is between  $-40 - 150 \, \text{C}^{\circ}$ .

It is applied only to WSF6608W & WSF6608X Models.



# 1.11 Filter;

Voltage : 220/240 V

Frequency : 50/60 Hz 0,1 uF (X1) + 2x0,027uF(Y2) + 1M  $\Omega$ 

It is used to prevent electromagnetic compatibility

from the main supply.

It has been assemblied to basement.



### 1.12 Flowme er;

The amount of water intake is in precise control located in the base of Air Break.



#### 2. PLASTIC COMPONENTS

### 2.1 Drain Hose;

Drain hose maximum height 110 cm

Drain hose minimum height 50 cm

Drain hose maximum length 400 cm



# 2.2 Water Inlet Hose;

Hose that is flat edge is assemblied to plug.

Another edge that is turned edge is assemblied to water inlet valve. It must be adjusted for assembly direction.



# 2.3 Air Break;

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



Page 15 DWSI1009

# 2.4 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.



# **2.5 Sump**

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



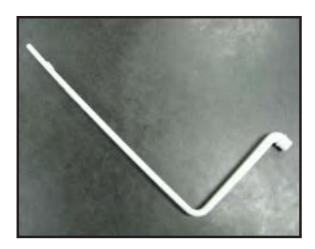
# 2.6 Spray Arm Support

It distributes water from divisor to upper and below spray



# 2.7 L Spray Arm;

It transfers water from spray arm support to upper spray arm



# 2.8 Upper Spray Arm;

It tranfers 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.



# 2.9 Upper Spray;

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



# 2.10 Lower Spray Arm;

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



### 3. DISASSEMBLY

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

### 3.1 ACCESSIBILITY

### 3.**1.1 Top Plate**

a) Remove two screws that fix the top plate at the back.





b) Push the top-plate back and pull it up.





# 3.1.2 Plastic Kick plate

a) Remove two screws fixing plastic kick plate.





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



# 3.1.3 Side panels

Before removing side panels;

- a) Firstly remove the top plate.
- b) Than remove plastic kick plate.









### 3.1.4 Front Panel

a) Remove six screws that fix the front panel.





b) Pull down the front panel as it shown in the Picture.



### 3.1.5 Kick Plate Sheet Iron

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





### 3.1.6 Control Panel

a) Remove six screws that fix control panlel to the door inside sheet iron.



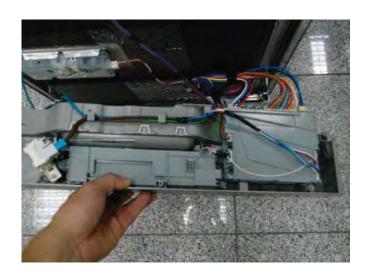


# Claros series;





### Hemera series;





#### 3.1.7 Electronic Card

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



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

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

- c) Remove the wire which is between rotary switch and electronic card.
- d) Remove the electronic card from pcb box by removing pcb box's plastic hinges.





e) Remove the connection cable between display and electronic card.





Remove the electronic card PCB box from the connection tab.





### Hemera series;









### 3.1.8 Door Lock Group



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

### 3.1.9 Dispenser

a) Remove the front panel



- b) Remove the wire.
- c) Remove dispenser from inside door's hinges by using slotted screwdriwer.
- d) Push and remove the dispenser .

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

### 3.1.10 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..





# **4. THE INNER COMPONENTS**

### 4.1 To Access The Components From Sides

Remove the side panel to reach component which you need



a) Right Sight

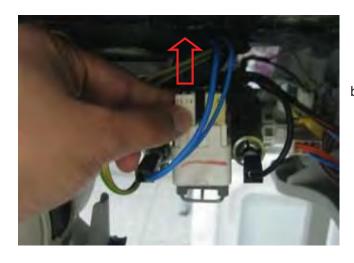


b) Left Sight

### 4.2 NTC with Thermal Protector

# a) Remove right side panel.

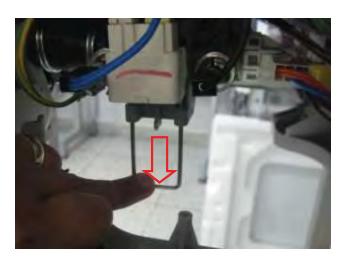
NTC is assemblied on the heater casing



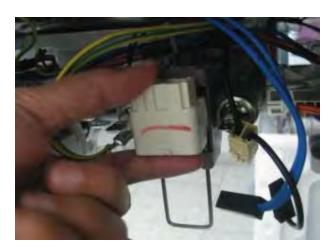
b) Remove the wires as it is shown in the Picture...

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





d) Remove the NTC as it is shown in the picture.



# 2.2 ) 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 )

### 4.3) 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.



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

.

### 4.4) Power Cord

a ) Remove hose connection plastic.



- b) Remove the lower cover
- c) Remove the wires that is between power cord and parasite filter



### 3. To Access The Components From in Front Of The Machine



a) Remove Plastic kick plate and .kick plate iron.

# 4.5 ) Regeneration Valve

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



- b) Remove the wires...
- c) To remove regeneration Value rotate counterclockwise and pull it as it is shown in the picture.



### 4.6 **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 .

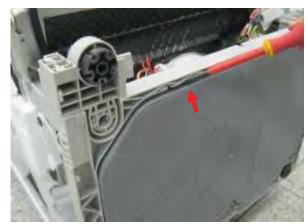
### **4.7) To Access The Components from the Lover Cover**

a) Lay the appliance on the rear panel..



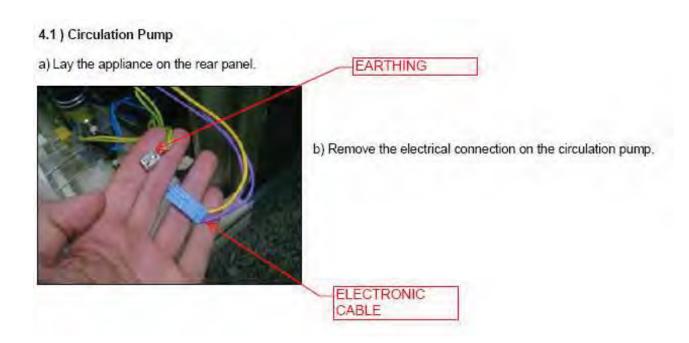
b)Remove lower cover from the places that are shown in the picture.







Page 36 DWSI1009





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

## 4.9 ) Heater Casing Group Without Diverter (without T13 and T21)



a)Remove the machines lover cover.



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

c) Remove clamp that are shown in the Picture . ( Heater casing - circulation pump ,)



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

## 4.9.1 ) Heater Casing Group with divertor



a) Remove the machine's lower cover.



b) Remove five screws that fix heater to sump

- c) Remove the clamp that are shown in the picture.(Heater Casing-Circulation Pump)
- d) Remove the wires that are shown in the picture.



### 4.10 ) 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..

# 4.11) Parasite Filter;



a) Remove lower cover.



b) Remove one screw fixing parasite filter.



- c)Remove electical connection..
- d) Pull parasite filter as shown in the picture

## **4.**12 ) Floater

a) Remove lower cover.



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



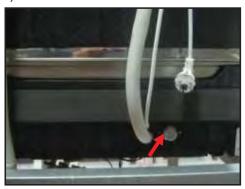
c) Remove the two floater hoses .



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

#### 4.13 ) 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.





d)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

## 4.14) 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..

## 5) Basket Group

# 5.1 ) Lower Basket





- a) Open machine's door.
- b) Pull the basket to yourself.

## 5.2) Upper Basket



- a) Open machine's door.
- b) Pull the basket to yourself.



c) Open Upper basket rail lock front.

d) Pull the basket to yourself and remove it..



#### 5.3) **Basket Rails**

- 1- Upper basket rail stoper rear2- Upper baket wheels3- Upper basket rail lock front



### 6. ) The Components That Are inside the Tub

- 6.1 ) 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





Page 47 DWSI1009



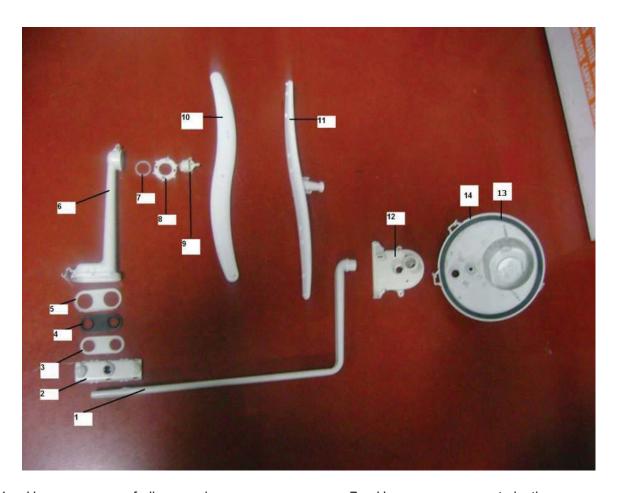
a)To remove the basket rails, open the door and take out baskets.



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



### 6.2 ) Spray Arm System



- 1 Upper spray arm feding canal
- 2 Upper spray arm adjustment link
- 3 Upper spray arm adaptor flange
- 4 Upper spray arm adaptor gasket
- 5 Upper spray arm adaptor cover
- 6 Upper spray arm

- 7 Upper spray arm nut plastic
- 8 Upper spray arm nut
- 9 Upper spray arm shaft
- 10 Upper spray arm
- 11 Lower sparay arm
- 12 Spray arm support
- 13 Sump seal
- 14 Sump

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 trought yourself as it is shown in the picture.

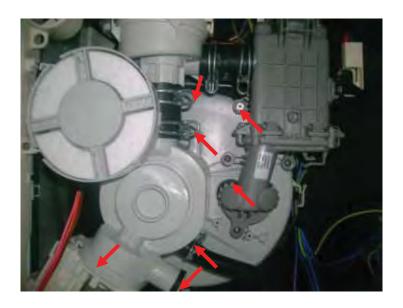


c) To remove upper spray feeding canal turn left it than pull it up as it is shown in the picture.



#### 6.3) 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 lover 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 the tub, remove the lower basket and lower spray arm.
- f) Remove the micro filter group and metal filter.
- g) Remove the four (4) screws which secure the sump to the tub.
- h) Remove the two (2) screws which secure the spray arm support to the sump.
- i) Detatch the drain pump and pull the sump out, taking care not to damage the tub seal.





# REPAIR TECHNIQUES COMPONENTS AND RESISTANCE VALUES

COMPONENTS	REAL VALUES	NOTES
ON / OFF BUTTON	0 Ω on component	ON/OFF button is pressed
DOOR SWITCH (KAPI KILIDI)	CN2.9 – CN2.2 0 Ω	Door is close
PRESSURE SWITCH	CN2.10 – CN2.2 0 Ω	FULL FILL WATER
	∞ Ω	NO WATER
DRAIN PUMP	CN2.2 – CN2.4 143 Ω % ± 7 (PLASET)	/ 210 % ± 7 (HANYU)
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	4450 ±10 Ω ± %10 (25 C °)	MEASURE JUST ON THE COMPONENT
CIRCULATION PUMP	CN2.3 – CN2.9 95 ±%7 Ω	Primary winding
	126 ±% 7 Ω	Secondary winding (FROM THE COMPONENT)
SET NTC SENSOR	CN 3.2 25°- 5000Ω %±5.0	
	CN 3.1 35°- 3300Ω %±5.5	
	55°- 1520Ω %±6.5	
	63°- 1174Ω %±7.5	
	80°- 670Ω %±8.0	
	90°- 488Ω %±8.5	
FLOATER (MICROSWITCH )	CN2.1 – CN 2.5 0 Ω	MICROSWITICH IS INACT VE (NO WATER)
,	CN2.1 − CN 2.4 ∞ Ω	MIKROSWITCH IS ACTIVE (THERE IS WATER )

#### MEASURING THE COMPONENTS FROM THE ELECTRONICAL CARD

You might measure the components either connentors of electronic card or directly on the component. Measuring from the connectors of electronic card gives definite results to define the repair. If you know the specialities and values of tester, you can easily determine the repair.



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 electronical card; control the values according to the resistance value table.





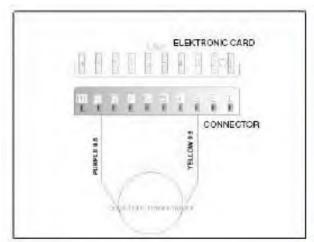


Precaution: Always remove the plug from the power socket before touching internal components.

## **Washing Pump:**

#### From the Electronical Card:

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





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

#### From the component:



Measurement of the primary windings of the washing pump



Measurement of the secondary windings of the washing pump (white cable – blue cable)

# **VALUES OF PUMP COILS**



NIDEC WASHING PUMP

WELLING WASHING PUMP

MAIN COIL: 95 Ω ±7

MAIN COIL: 120 Ω ± 7

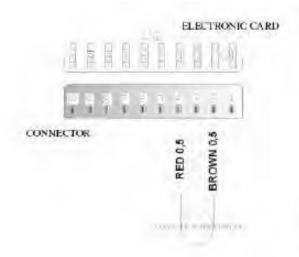
SUB COIL: 125 Ω ±7

SUB COIL: 116 Ω ± 7

## **Drain Pump:**

From the Electronical Card:

143 ± 7 on the connectors CN2.2 - CN2.4





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

## From the component:



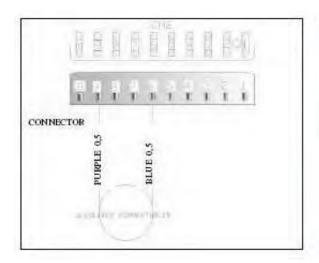
# **VALUES OF PUMP COILS**



#### Water inlet valve:

#### From the Electronical Card:

 $3750 \pm 10~\Omega$  (  $20~\text{C}^{\text{o}})$  on the connectors CN2.6 – CN 2.9





Above sketch show the connectors of the water inlet valve on the electronical card. Probes of the tester should be applied on to the related connectors.

#### From the component:



# WATER INLET VALVES (OPTIONAL)





3750 Ω ± 10 (20°)

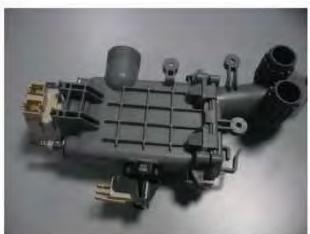
# **Heater Casing:**

It can't be measured from the electronical card.

#### From the component:

23.95 ±15 Ω





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

## **Detergent Dispenser:**

It can't be measured from the electronical card.

1660 ± 10 (25 C°)

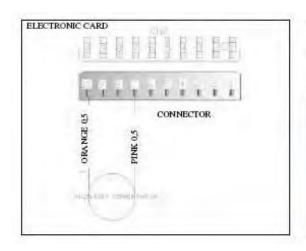
#### From the component:



# **Regenaration Valve:**

From the Electronical Card:

4130  $\pm$  10 (25 C °) on the connectors CN2.10 – CN2.7





Above sketch show the connectors of the regeneration valve on the electronical card. Probes of the tester should be applied on to the related connectors.

## From the component:

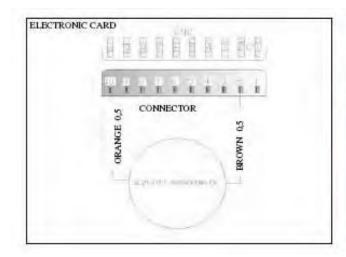


### **Pressure Switch:**

#### From the Electronical Card:

CN2.10 – CN2.2 0  $\Omega$  There is water (Full)

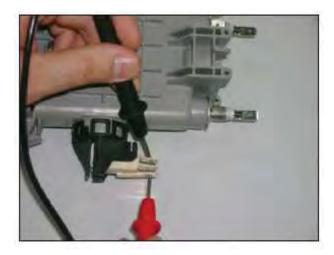
 $\Omega$  There is not water (Empty)





Above sketch show the connectors of the pressure switch on the electronical card. Probes of the tester should be applied on to the related connectors.

### From the component:



## NTC sensor:

#### From the Electronical Card:

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	
BLACK 0.35	ELECTRONIC CARD	

Above sketch show the connectors of NTC sensor on the electronical card. Probes of the tester should be applied on to the related connectors.

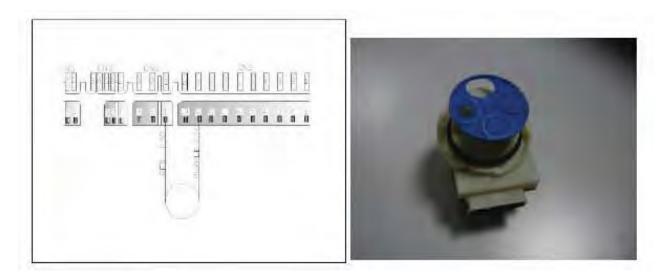
## From the component:



### **Diverter:**

#### From the Electronical Card:

#### 6840 $\Omega$ -%±5.0 on the connectors CN6.1 – CN 2.9



Sketch above show the connectors of the diverter on the electronical card. Probes of the tester should be applied on to the related connectors.

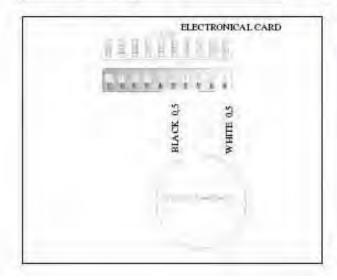
## From the component:



### FLOATER:

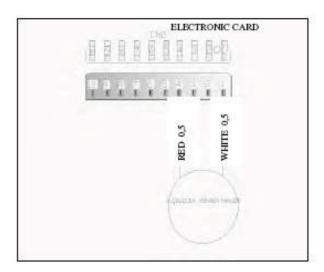
## From the Electronical Card:

CN2.1 - CN 2.5	0 Ω (Position1)	MICROSWITCH IS INACTIVE (NO WATER)
CN2.1-CN2.4	∞ Ω (Position2)	MICROSWITCH IS ACTIVE (WATER)





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

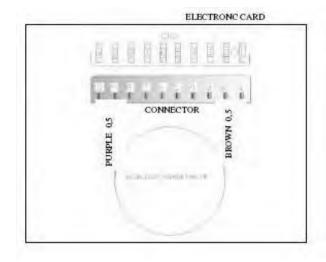


**Position 2:** If failure code is occured related with the floater within control the above values; you can figure out whether leakage occurs or not.

### **Door Switch:**

#### From the Electronical Card:

0  $\Omega$  on the connectors CN2.9 – CN2.2 ( Door is close )





Above sketch show the connectors of the door switch on the electronical card.

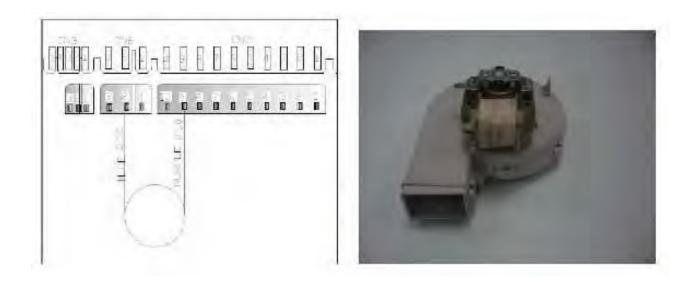
#### From the component:



## **Fan Motor:**

#### From the Electronical Card:

## 238.6 $\Omega$ ± % 5 on the connectors CN 6.2 – CN 2.9



Above sketch shows the connectors of the fan motor on tke electronical card.

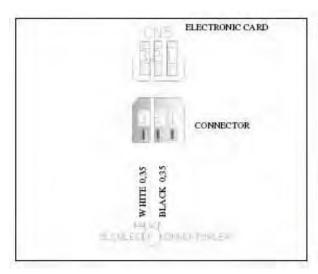
### From the component:



### **Rinse Aid Sensor:**

#### From the Electronical Card:

CN 5.2 – CN 5.3	0 Ω	There isn't any rinse aid
	∞Ω	There is rinse aid





Above sketch shows the connectors of the rinse aid sensor on tke electronical card.

## From the component:

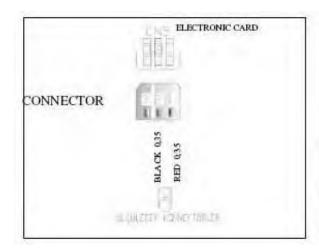


### Salt Sensor:

#### From the Electronical Card:

CN5.1 – CN5.2 0 Ω NO SALT

∞ Ω THERE IS SALT





Sketch above show the connectors of the salt sensor on the electronical card. Probes of the tester should be applied on to the related connectors.

## From the component:



Salt sensor can also be measured from the water softener when the salt sensor assemblied on the water softener.

## On/Off Button:

It can't be measured from the electronical card

#### From the component:

 $0 \Omega$  When the buton is pressed

