# **VESTEL**

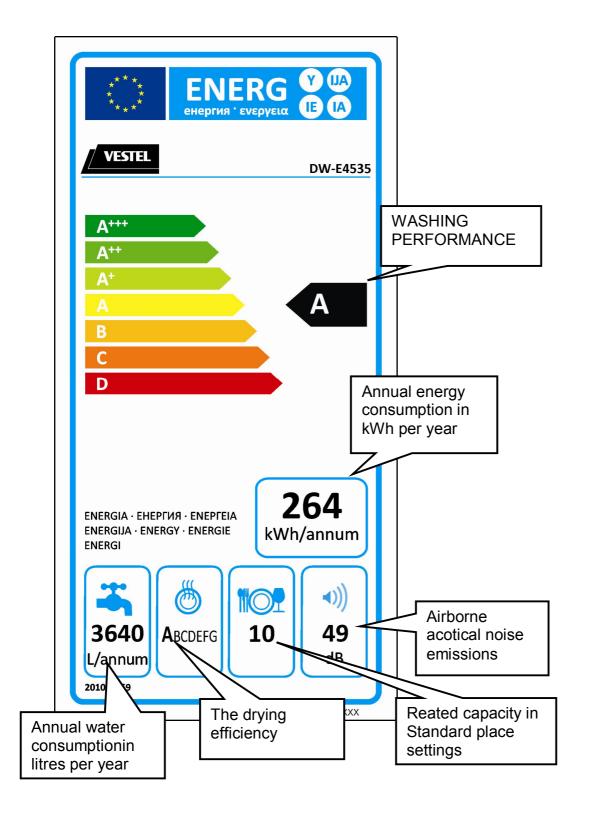
## **SERVIS**



# Service Manuel Dishwasher

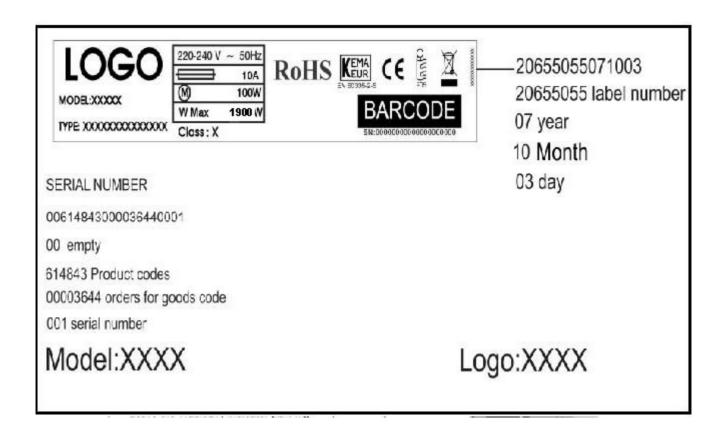


### **Energy Label**





### NAME PLATE





### **Electrical Components**

### Button (On / Off Switch)

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

Voltage 250 V Currency 50mA



#### 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



#### HEATER INTEGRATED WASHING PUMP

#### Washing Pump;

 $\begin{array}{lll} \mbox{Voltage} & 220/240 \mbox{ V} \\ \mbox{Frequency} & 50/60 \mbox{ Hz} \\ \mbox{Total Power} & 72W \left(230 \mbox{Volt}\right) \end{array}$ 

Coil \_solation Class

 $\begin{array}{ll} \mbox{Main(First) Coil} \ \ & 95 \pm \mbox{\%7 } \Omega \\ \mbox{Sub(second) Coil} \ \ & 126 \pm \mbox{\%7 } \Omega \\ \mbox{Thermal Protector} & 109 \mbox{\ensuremath{}^{\circ}C} \\ \mbox{Pump Outlet Pressure} & 280 \mbox{\ensuremath{}^{\circ}Days } \end{array}$ 





Pump Flowrate 50 lt / dk

Single direction, single phase, asynchronous and two

pole.

It turns opposite clock direction.

It is assembled to the basement with rubber hangers.

#### **HEATER INTEGRATED**

Voltage 220/240 V

Total Power 1800 +- %5 W (230Vac)

Resistance 27,25-31,8  $\Omega$ 

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 Supply side

of circulation pump.



### Capacitor

 $2.5~\mu$  F - 450 V class P2 Capacitor is permanently connected to the circulation pump coils.



#### Drain Pump

 $\begin{array}{lll} \mbox{Voltage} & 220/240 \mbox{ Volt} \\ \mbox{Frequency} & 50/60 \mbox{ Hz} \\ \mbox{Total Power} & 30 \mbox{ W} \\ \mbox{Flowrate} & 17-21 \mbox{ It/dk} \\ \mbox{Coil Resistance} & 143 \mbox{ } \Omega \mbox{ } \% \mbox{ $\pm$} 7 \\ \mbox{Coil\_solation Class} & \mbox{F} \end{array}$ 

Thermal Protection 120°



#### Water Inlet Valve

Voltage 220/240 Volt
Frequency 50-60 Hz
Total Power 6 W
Flowrate 2,5 It/dk
Coil solation Class F Resistance

120° C





#### Eco

This part is provide a connection between sump and washing pump.



#### NTC

#### Sıcaklıklar / Direnç karakteristiği

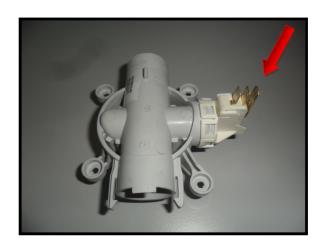
+25°C - 47.200 ±1.416 Ω +30°C - 37.500 ±1.125 Ω +40°C - 24.900 ± 747 Ω +50°C - 17.000 ± 510 Ω +60°C - 11.700 ± 351 Ω +70°C - 8.280 ± 248 Ω +80°C - 5.945 ± 178 Ω

This part is exist on the sump.



#### Pressure Switch

Voltaj 220/240 V Frekans 50/60 Hz 16 A – 3 Kontaklı





### Regeneration Valve

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

Resistance 4130±\_10 \_ ( 25 C° )

Regeneration valve is assembled on the water softener..



#### Parasite Filter

Voltage 220/240 V Frequency 50/60 Hz

0,1 uF (X1) + 2x0,015uF(Y2) + 1M  $\Omega$ 

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



#### **Power Cord**

Type Euro 3'lü 1 mm<sub>2</sub>, copper conducting

Isolation TS 9 7 6 0 H05VV-F

Plug TS-IEC 60884–1 PVC injected Boy

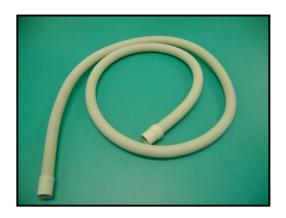
Length 1800 mm





#### Drain Hose

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



**Detergent / Rinse Aid Dispanser**Detergant dispenser consists of rinse aid and detergant compartment. It has been assemblied to the inner door by the snap fits. Only one bobbin has been used for operating the system.





Water Softener
Resin Quantity

Resin Quantity 0,45lt
Capacity of salt compartment 1,5 kg
Total hardness adjustment level 6

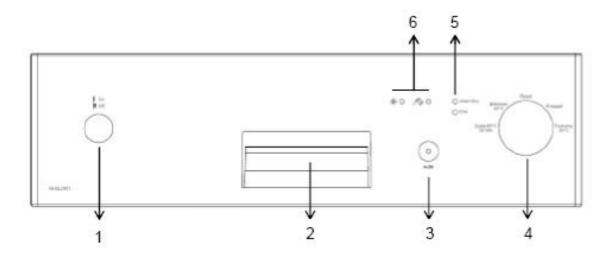
Water Hardness level	German Hardness °dH	French Hardness °dF	Bristish hardness °dE	Water Liter
Level 1	0-5	0-9	0-6	-
Level 2	6-11	10-20	7-14	160lt
Level 3	12-17	21-30	15-21	89It
Level 4	18-22	31-40	22-28	59lt
Level 5	23-31	41-55	29-39	46lt
Level 6	32-50	56-90	40-63	16lt

### Adjusting salt consumption

Water Hardness Level	British Hardness dE	Hardness Level Indicator
1	0 - 6	Wash/Dry Lamp is on End lamp is off Start/Pause Lamp is off
2	7 - 14	Wash/Dry Lamp is on End lamp is off Start/Pause Lamp is off
3	15 - 21	Wash/Dry Lamp is on End lamp is off Start/Paus Lamp is off
4	22 - 28	Wash/Dry Lamp is on End lamp is off Start/Pause Lamp is off
5	29 - 42	Wash/Dry Lamp is on End lamp is off Start/Pause Lamp is off
6	43 - 63	Wash/Dry Lamp is on End lamp is off Start/Pause Lamp is off



### Control Panel



#### Power on/off

When the power on/off button is pressed, the light on the Start/Pause button will illuminate.

#### 2. Door Handle

The door handle is used to open/close the door.

#### Start/Pause Button

Once you press the Start/Pause button, the programme you selected with the selector button will start running and the indicator lamp 'wash/dry' will illuminate. If the programme is paused, the LED light will flash repeatedly.

#### Programme selector knob

With the programme selector knob, you can select your desired programme by turning clockwise and anti-clockwise.

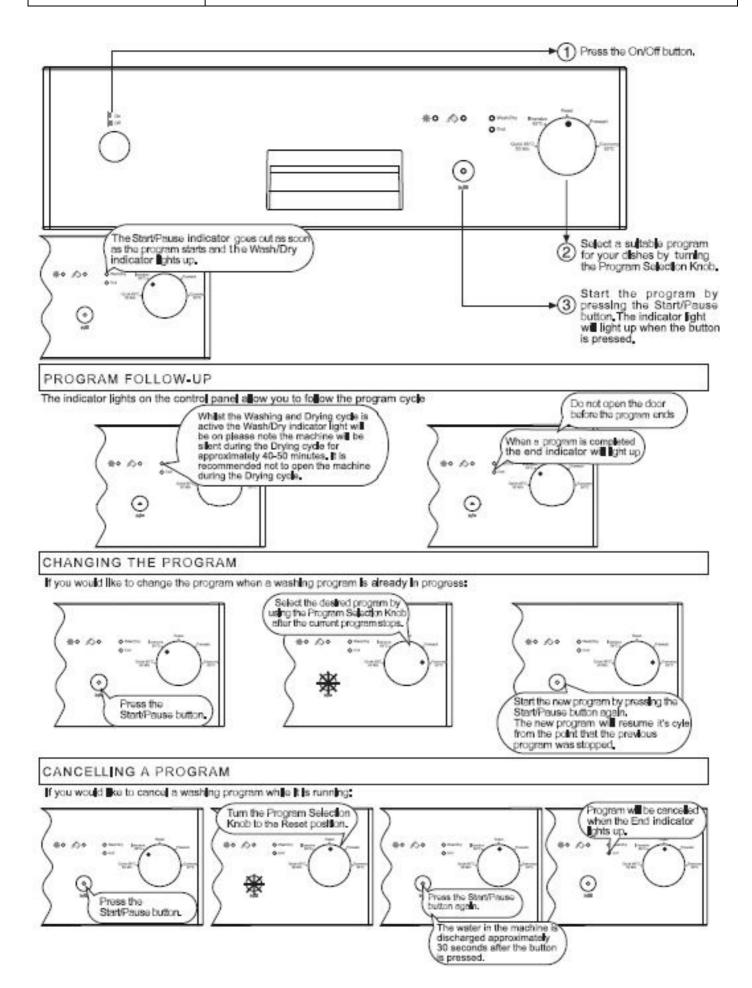
#### Status indicator

You can monitor the current status of your programme by using the indicator light shown above (5). There are two progression states, 'wash/dry' and 'End'.

#### 6. Low salt indicator

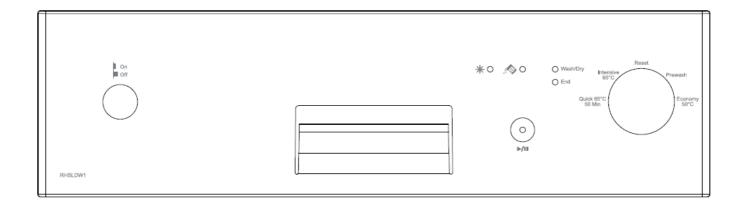
If the low salt indicator light is illuminated, ensure to replenish the salt supply







### Adjusting salt consumption



Move the programme selector knob to the 0 position (1) while the power

button is off.

After switching the programme dial to 0, press the Start/Pause buton

Of r

and hold it down.

While the start button is held down, press the On/Off button to switch the machine on (2)



Keep Start/Pause keys held down until the monitor lights illuminate (2)



After lights 'Wash/Dry/End' have flashed (3), release the Start/Pause



Your machine displays the latest entered water setting.

You can adjust the levels by pressing the Start/Pause button (2) according to the table of hardness settings above.

After adjusting the water hardness level, press on/off to save the settings in memory

#### Programme items

Programme No	Prewash	Economic ( Reference )	Super Wash 50 min.	Intensive
Programme names and temperatures	-	50°C	65°C	65°C
Type of food waste	Pre-wash to rinse and loosen residue-awaiting full load-then select a programme	coffee,milk,tea,cold meats,vegetables ,not kept for long	soups, sauces, pasta, eggs, pilaf, potato and oven dishes, fried foods	soups, sauces, pasta, eggs, pilaf, potato and oven dishes, fried foods
Level of soil	-	medium	medium	high
Detergent amount	-	A+B	A+B	A+B
A: 25 cm <sup>3</sup> / 15 cm <sup>3</sup> B: 5 cm <sup>3</sup>	Prewash	Prewash	65°CWash	Prewash
•				<del>                                     </del>
	End	50°C Wash	Cold rinse	65°C Wash
		Cold rinse	Hot rinse	Cold rinse
		Hot rinse	End	Intermediate rinse
	Г			Hot rinse
	L	Dry	_	Hot linse
	Γ	End	7	Dry
	L	7 5	J	
				End
		_		
Programme duration (min.)	15	160	50	115
Electricity consumption (kW hours)	0,02	0,93	1,31	1,45
Water consumption (liters)	. 3,8	13,6	10,5	17,6



### **Error Codes**

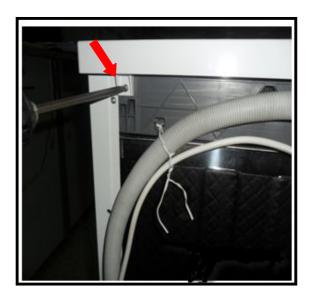
ERRO	OR CODE		ERROR	CONTROL
Wash / Dry	End	Start/Pause	DESCRIPTION	CONSCIPE THE PARTY.
		*	Inadequate water supply	<ul> <li>Make sure the water input tap is totally open and that there is no water cut.</li> <li>Close the water input tap, separate the water input hose from the tap and clean the filter at the connection and of the hose.</li> <li>Restart your machine, contact the service if the error resumes.</li> </ul>
	*		Error of continuous water input	Close the tap. Contact the service.
	*	*	The waste water in the machine cannot be discharged.	Water discharge hose is clogged.     The filters of your machine might be clogged.     Power off-on your machine and activate the program cancellation command.     If the error continues, contact the service.
*		*	Intended water temperature could not be reached faulty heater and heater sensor	Contact the service.
*	*		Alarm is active against water overflow	Power off your machine and close the tap.     Contact the service.
*	*	*	Faulty electronic card	Contact the service.



#### **DISASSEMBLY**

- 1) ACCESSIBILITY
- 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.





#### 1.2) Front Panel

a) Remove six screws that fix the .front panel.





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





#### 1.3 ) Plastic Kick plate

a) Remove two screws fixing plastic kick plate.





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







#### 1.4) Side panels

Before removing side panels;

- a) Firstly remove the top plate. ( see1.1 )
- b) Than remove plastic kick plate. (see1.3)

While removing side panels;

a) Remove six screws that fix side panels at the back..



b) Remove four screw covers carefully as it shown in the Picture.



C) Remove six screws whice are in front of the machine.







d) To remove the side panel , remove the upper plastic hinge and than the aboveone and pull it up.





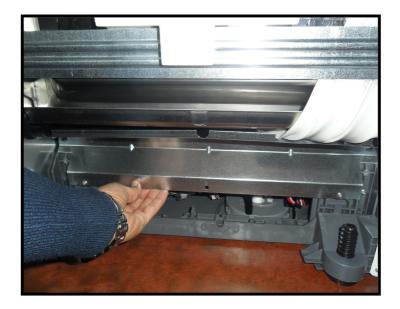


#### 1.5) Kick Plate Sheet Iron

- a) Remove top plate, plastic kick plate and side panels. ( see 1.1,1.3, 1.4) b) Remove two screws tat fix the kick plate sheet iron.



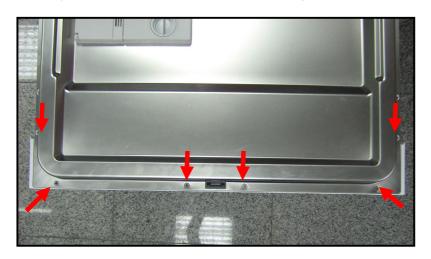
c) pull it down as shown in the picture.





#### 1.6) Control Panel

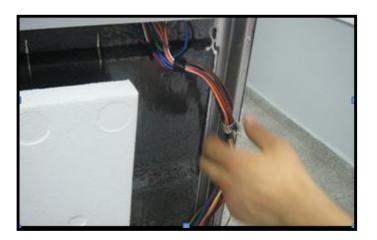
a)Remove six screws that fix control panlel to the door inside sheet iron.





b) Remove the cable connection plastic which fix cable harness to the control panel as shown in the Picture.





c) Remove the conrol panel group carefully as shown in the picture.



d)Remove the wires that are connected to control panel group.

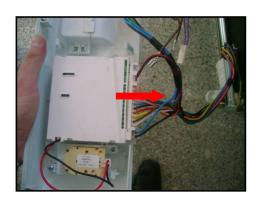


#### 1.6.1) Rotary Switch



- a) Remove the control panel.( see 1.6 ) b)Remove the wire that is connected to the electronic
- c) Remove two screws fixing to the control panel group.

1.6.2) Electronic Card





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

**WARNING**: while removing wires , do not pull them from wires , pull from connectors.

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







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..



#### 1.7) Door Lock Group.

- a) Remove control panel group. ( see 1.6)b) Remove two screws that fix the door lock
- group.





#### 1.8) Dispanser

- a) Remove the front panel ( see 1.2 )b) Remove the wire.
- c) Remove dispanser from inside door's hinges by using slotted screwdriwer.
- d) Push and remove the dispanser .



Warning: use work glovers otherwise \_nside door iron sheet can cut your hands.

#### 1.9) Door Inside

a) Remove side panels. (see 1.4)

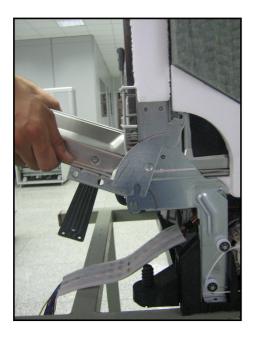








b) Remove hinge spring from hinge cord group as it is shown in the picture.





- d) Pull the door inside up as it is shown in the picture..
- e) remove two screws that fix hinge movement sheet iron to the door inside.





### THE INNER COMPONENTS 2.) To Access The Components From Sides



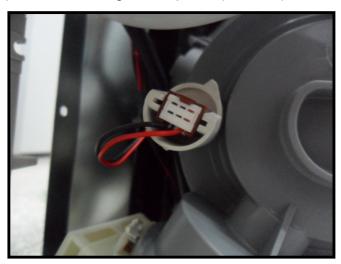


a)Right Sight b)Left Sight

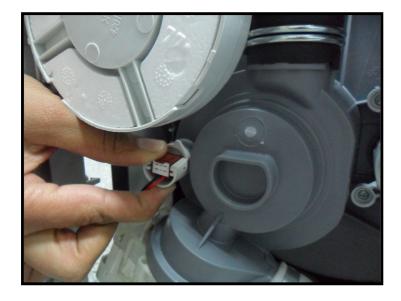


#### 2.2 ) NTC with Thermal Protector

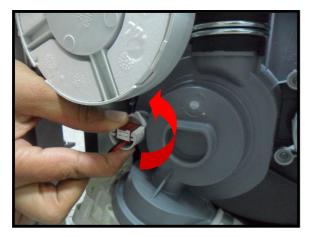
a) Remove the right side panel (bkz 3.4). You will see the NTC which connected to the sump.



b) Remove the NTC connector.



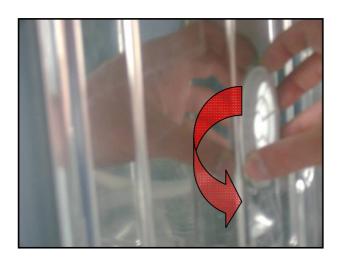
c) After NTC connector is removed, to remove NTC rotate counterclockwise and pull it as it is shown in the picture.







- 2.3 ) Air-Break
- 2.3) Air-Break
- a) Remove the left side panel of the machine.. (see 1.4)
- 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 )

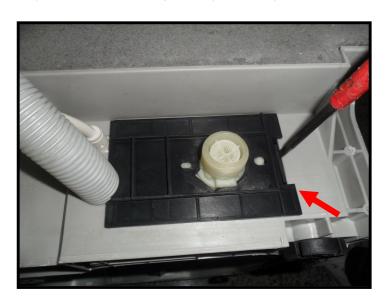






#### 2.4) Hose Connection Plastic

a) Remove left side panel. ( see 1.4 ).



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





#### 2.5) Power Cord

a) Remove hose connection plastic.( see 2.3)



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



d ) Remove the power cord..



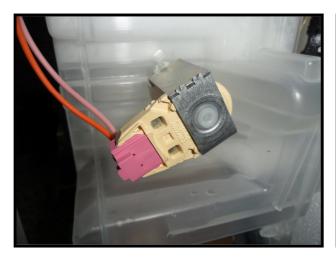
#### 3. To Access The Components From \_n Front Of The Machine

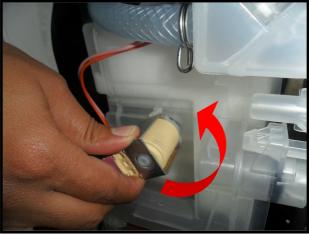


a)Remove Plastic kick plate and .kick plate iron sheet.(see 1.3 – 1.5 )

#### 3.1) Regeneration Valve

- a)Remove Plastic kick plate and .kick plate iron sheet.(see 1.3 1.5)
- b) Remove the wires...
- c) To remove regeneration Value rotate counterclockwise and pull it as it is shown in the picture.

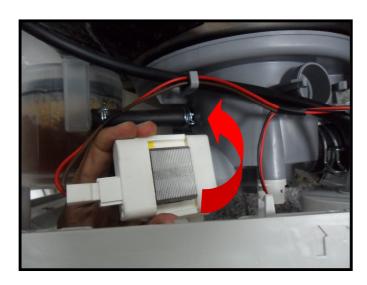






#### 3.2) Drain Pump

- a)Remove Plastic kick plate and .kick plate iron sheet.(see 1.3 1.5)
- 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.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.





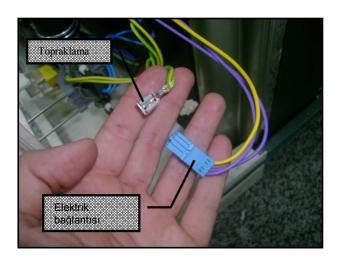
### 4.1) Washing Pump







a) Lay the appliance on the rear panel. (see 4)



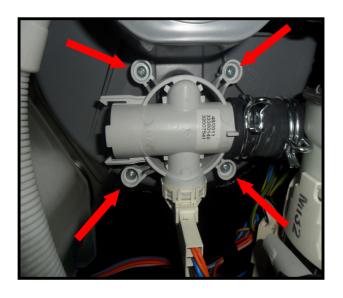
c)Remove two clamps that are shown in the Picture . ( Heater casing – circulation pump , sump – Circulation pump )



d) Yıkama pompasını alt tabana monte eden askılardan, kurtararak sökün.



### 4.2 ) Eco



### 4.3 )Water Softener

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

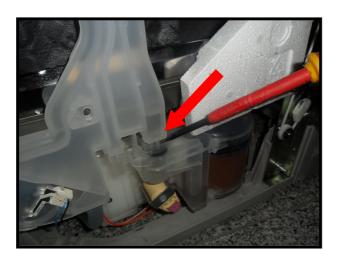




b) To remove salt cup nut, rotate it in the direction of counterclockwise.



- c) Remove left side panel (see 1.4)
- d) detach the connections which are between water softener and air-break.

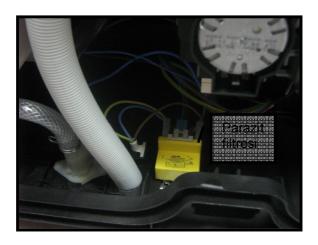


- e) Remove lower cover.
- f)Remove the hose that is between sump and salt camp.

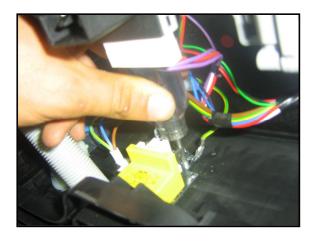


#### 4.4) Parasite Fitler

a) Remove lower cover.



b) Remove one screw fixing parasite filter...



- c) Remove wires..
- d) Push parasite filter as shown in the picture..



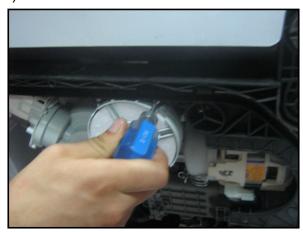


### 4.5 ) Floater

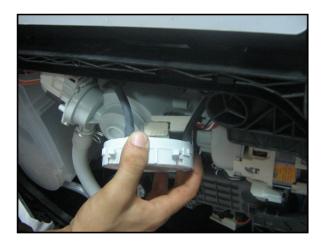
a) Remove lower cover.



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



c) Remove the two floater hoses .

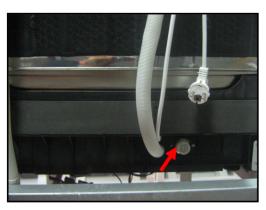


d)Remove the wire that is connected to the floater.

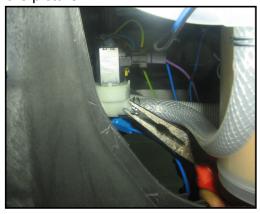


#### 4.6) Water Inlet valve

a) Remove lower cover.

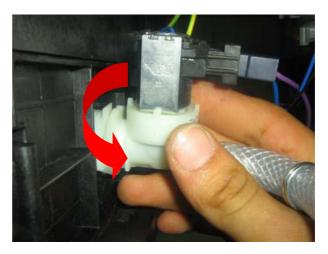


- b) Remove the wire that is connected to the water inlet valve.
- c) Remove the clamp that connects water inlet valve and air –break as it is shown in the picture.

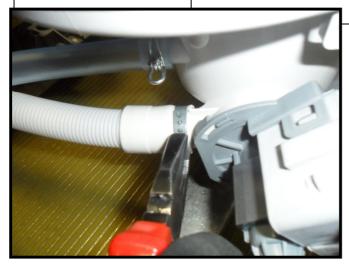


c) To remove water inlet valve pull it back as it is shown in the direction of Picture then release water inlet valve from the pins that is connected to . and rotate it in the direction of counterclockwise.





#### 4.7) Draining Hose



- a) Remove the hose connection plastic.. ( see 4.4 ) b) Remove lower cover. ( see 6 ) c) Remove the clamp that fixes draining hose to the sump.
- d) Remove draining hos
- 5) Basket Group 5.1) Lower Basket



a) Open machine's door.

## **VESTEL**

### **SERVICE MANUEL**



### 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 rear
- 2- Upper baket wheels
- 3- Upper basket rail lock front

#### 6. ) The Components That Are \_nside 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



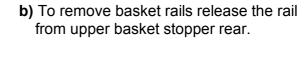


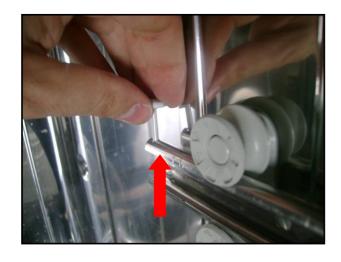
**e)**to remove the metal filter pull it up as it shown in the picture.





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



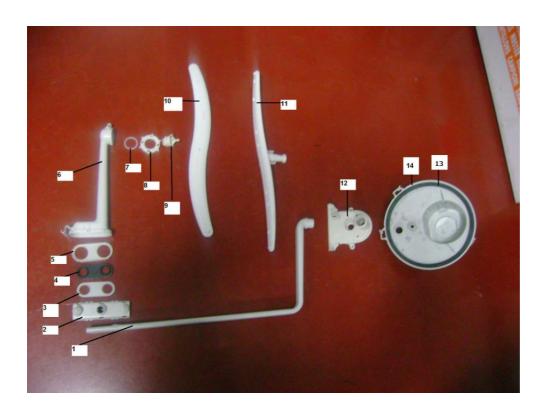




## **VESTEL**

### **SERVICE MANUEL**

#### 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

## **VESTEL**



### **SERVICE MANUEL**

**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.



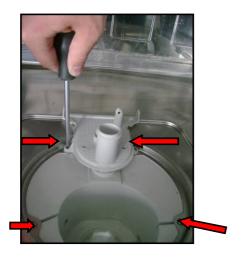
**c)** to remove upper spray feeding canal turn left it than pull it up as it is shown in the picture.



#### 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. ( see 6 )
- c) From inside tub ,remove the basket and lower spray arm .
- d) Remove the microfilter group and metal filter .
- **c)** detach all the hoses (sump draining hose, circulation pump sump, sump water softener)





- **f)**Remove the four screws that secure the tumb to the tub.
- **g)** Remove the two screws which secure the spray arm support to the sump.
- **h)** detach the drain pump and pull the sump out ,taking care not to damage the tub seal.



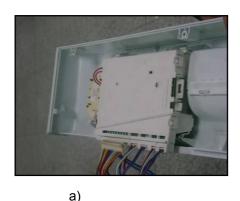
# REPAIR TECHNIQUES COMPONENTS AND RESISTANCE VALUES

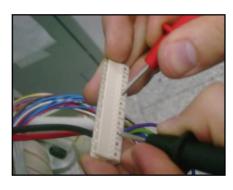
COMPONENTS	REAL VALUES	NOTES			
ON / OFF BUTONU	0 Ω KOMPONENT ÜZERİNDEN	ON/OFF BUTTON IS PRESSED			
DOOR SWITCH (KAPI KILIDI)	CN2.9 – CN2.2 0 Ω	DOOR IS CLOSE			
PRESSURE SWITCH	CN2.10 − CN2.2 0 Ω ∞ Ω	FULL FILL WATER NO WATER			
DRAIN PUMP	CN2.2 – CN2.4 143 Ω % ± 7				
WATER INLET VALVE	CN2.6 – CN 2.9 3750 $\Omega \pm \%10(20$ C°)				
REGENERATION VALVE	CN2.10 – CN2.7 4130 Ω ± %10(25 C°)				
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 CN 3.1 +25°C - 47.200 ±1.416 Ω +30°C - 37.500 ±1.125 Ω +40°C - 24.900 ± 747 Ω +50°C - 17.000 ± 510 Ω +60°C - 11.700 ± 351 Ω +70°C - 8.280 ± 248 Ω +80°C - 5.945 ± 178 Ω				
FLOATER (MICROSWITCH )	CN2.1 - CN 2.5 $ CN2.1 - CN 2.4 $ $ Φ Ω$	MICROSW_TICH IS INACT_VE (NO WATER) M_KROSWITCH IS ACTIVE (THERE _S WATER ))			

### MEASURING THE COMPONENTS FROM THE



### **ELECTRONICAL CARD**





b)

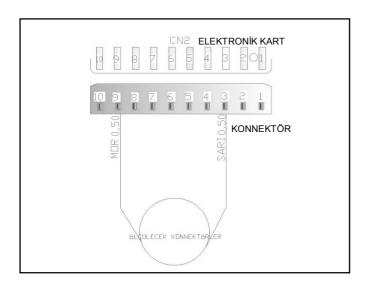
In order to reach the connections of the electronic card; dismantle the control panel (Picture a) and probes of the tester should be applied on to the related connectors of the electronical card; control the values according to the resistance value table. (picture b)

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

#### Washing pump:

From the electronical card:

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

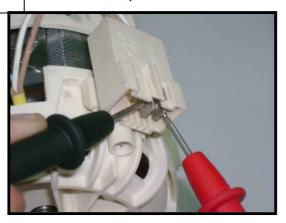




Above sketch show the connectors of the washing pump on the electronical card. Probes of the tester should be applied on to the related connect

ANA SARGI	95 ±%7 Ω
YARDIMCI SARGI	126 ±% 7 Ω

From the component:





Measurement of the primary windings of the washing pump

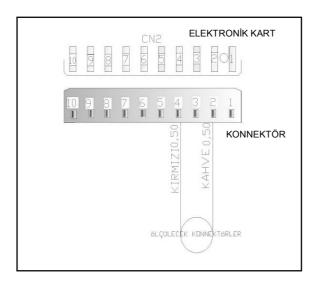
Measurement of the secondary windings of the washing pump (white cable-blue cable)

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

#### **Drain Pump:**

From the electronical card:

CN2.2 - CN2.4	143 Ω % ± 7



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:

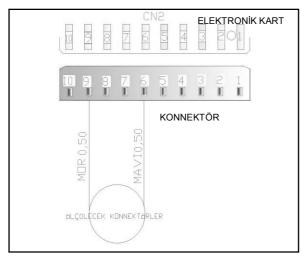


Probes of the tester should be applied on to the related connectors as shown on the pictures.

#### Water inlet valve:

From the electronical card:

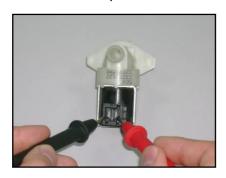
CN2.6 – CN 2.9 3750 
$$\Omega \pm 10$$
 ( 20 C°)



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



#### From the components:



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.

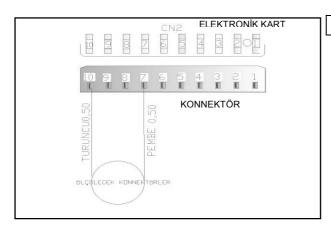
1660 Ω ± 10 (25 C°)



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

#### **Regeneration valve:**

From the electronical card:



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

Sketch at the side 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:



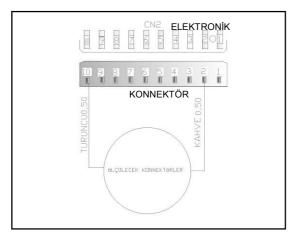


Probes of the tester should be applied on to the related connectors as shown on the pictures

#### Pressure switch:

From the electronical card:

CN2.10 - CN2.2	∞ Ω SU VARKEN(DOLU)			
	0 Ω SU YOKKEN (BOŞ )			



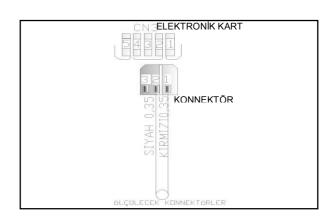
Above sketch show the connectors of the pressure switch on the electronical card.

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

#### **NTC SENSOR:**

From the electronical card:

CN 3.1 - CN 3.2	+25°C - 47.200 ±1.416 Ω +30°C - 37.500 ±1.125 Ω +40°C - 24.900 ± 747 Ω +50°C - 17.000 ± 510 Ω +60°C - 11.700 ± 351 Ω +70°C - 8.280 ± 248 Ω +80°C - 5.945 ± 178 Ω
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Above sketch show the connectors of NTC sensor on the electronical card. Probes of the tester should be applied on to the related connectors.

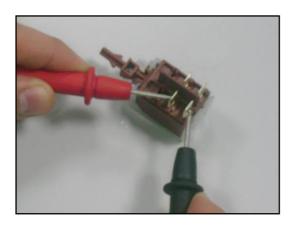
.



#### ON/OFF BUTTON

When the buton pressed	0 Ω	
------------------------	-----	--

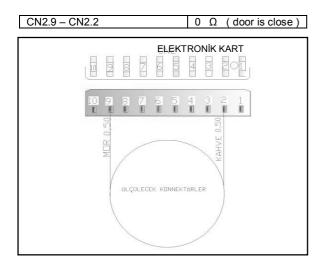
( can not be measured from the electronical card)



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

#### DOOR SWITCH (KAPI SWITCHI)

From the electronical card





Above sketch show the connectors of the door switch on the electronical car

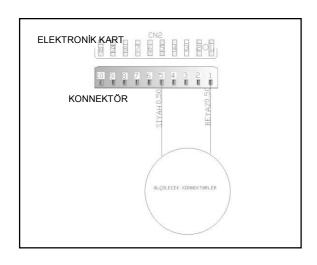
#### From the component:



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

#### **FLOATER**

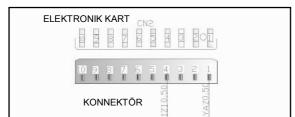
CN2.1 – CN 2.5 0 Ω	(KONUM 1)	(MİCROSWITCH IS INACTIVE (NO
CN2.1-CN2.4	(KONUM 2)	WATER)
∞ Ω		M_CROSWITCH IS ACTIVE (WATER)





From the component:

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.edebilirsiniz



#### **SERVICE TEST**

Only service can execute this procedure.

- Power OFF; pressure S/P button.
- Power ON and continue to pressure S/P button at least for 6".
- When "Service test" is recognized all leds blink for 2" (also "SP" is visualized on the display) and Service test starts.

During the first 6" of test, if a failure code is stored in memory, its codification is shown. Also at the end of the test if an error occurs its error code is visualized.

Step		Time	Tested Load
0	Show code	6"	Before start, the code of last error is visualized (see below)
1	Drain	6"	Drain pump.
2	Fill (3I)*	~ 1′	Flow meter; Inlet Valve;
3	Fill + Wash (0,5)**		Flow meter; Inlet Valve; Pressure Switch;
4/•	Turb. Sensor	30"	Measure of turbidity sensor (only T21_45cm)
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 (Turbo Fan only T21)
9	Drain	20"	Drain pump; pressure switch.
10	End	-	Code error or end led



#### Coding failure for T14\_45cm & T14\_45cm\_without display:t15;

N°	Name	S/P	Wash	Dry	End	Display	
1	Door open	Blink	-	-	-	-	
2	Delay before Door closing	-	-	-	-	-	
3	Overflow	-	-	-		-	
	Leakage		-	Blink	Blink	F1	
4	Drain time out	-	Blink	-	Blink	F2	
5	Re-Fill time out	Blink	Blink	-	-	F5	
6	Presence Flow meter imp.	Blink	-	-	Blink	F3	
7	Absence Flow meter imp. With Full Absence Flow meter imp. Without Full	-	-	-	-	-	
	·	Blink	-	Blink	-	F5	
8	NTC ca/cc	-	Blink	Blink	-	F6	
9	Overheating	Blink	Blink	Blink	-	F7	
10	Unsuccessful heating*	-	Blink	Blink	Blink	F8	
11	CK Parameters	Blink	Blink	Blink	Blink	FE	
*!!	*Unsuccessful Heating is shown at the end of the program						

<sup>\*</sup>Unsuccessful Heating is shown at the end of the program