Order No. ??

Service Manual

Drum Type Washing Machine

Model No. **NA-127VB6WAE/WAS/WPG**

Product Color : White

Destination : IRAN, OMAN, UAE

⚠ WARNING

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

IMPORTANT SAFETY NOTICE

All the components used in this equipment are important for safety. These parts are marked by a ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that the parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards and lack of performance. Do not modify the original design without permission of manufacturer.

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Panasonic

1 Safety Precautions

In order to prevent any accident during repair work and ensure security of the product after repair work, somethings surely followed are explained below.

■The level of the arised damages or dangers, when indicated contents are ignored, are classified by following indications and explained.

⚠ **Warning**	The content in the column of this indication is "Be assumed that possibly die or get seriously injured".
⚠ **Attention**	The content in the column of this indication is "Be assumed that possibly get damages or possibly only damaged object occured".

■Types of the contents being followed are classified by following figured symbols and explained.
(The following is an example of expression in pictures.)

⚠ This figured symbol means caution "**Attention**".
⃠ This figured symbol means must not do "**Prohibition**".
❗ This figured symbol means surely execute "**Instructions**".

⚠ Warning

Connection of cables should be done according to regular work.

❗
- Connection of cables should be tightened reliably with strength using solderless terminal. (specified parts always using regular bonding plier)
- Install a fire protection cover (fireproof) covering connection area completely, and close opening area by tape. (Please reuse the fire protection cover which came with the product.)
- When drawing cables around, fixing those cables with cable suppression part. Do not touch rotating part, high temperature part and surface of metal.
- Be sure to replace with cable unit when any cable was snapped. When a part of the cable unit was cut you must not do the connection repair. It may be the cause of smoke, ignition or receiving an electric shock.

Be careful about receiving an electric shock.

⚡ When doing electric connection service such as voltage measurement, please be careful enough about receiving an electric shock at electric charging parts and cable terminal parts.

Pull out electric plug when doing repair work.

 Disassembling, assembling and replacing parts should be done after pulling out electric plug. Receiving an electric shock or getting an injury may occur.

Be sure to use specified parts.

❗ Always use specified parts for the parts with mark ⚠ in the electric circuit diagrams and parts list. It may be the cause of smoke, ignition or damage.

Do not touch any rotating object with hand unless it stops completely.

 Slow rotation may also roll in your hands and cause injury.

Rebuilding is prohibited.

⃠ Do not rebuild machine parts and components when repairing service. It may be the cause of damage or ignition.

Straightly pull out or insert in huasuton terminal.

❗ Do not twist it. It may be the cause of damage or ignition.

⚠ Attention

Please wear gloves when disassembling, replacing and assembling.

❗ Always wear gloves to prevent an injury by the metal end face or an electric shock at the time of the electricity service.

Please be careful to the edges of the metal end face.

⚠ Wear the working clothes of long sleeves to prevent an injury by the metal end face or please work after covering the end face with tape or towel.

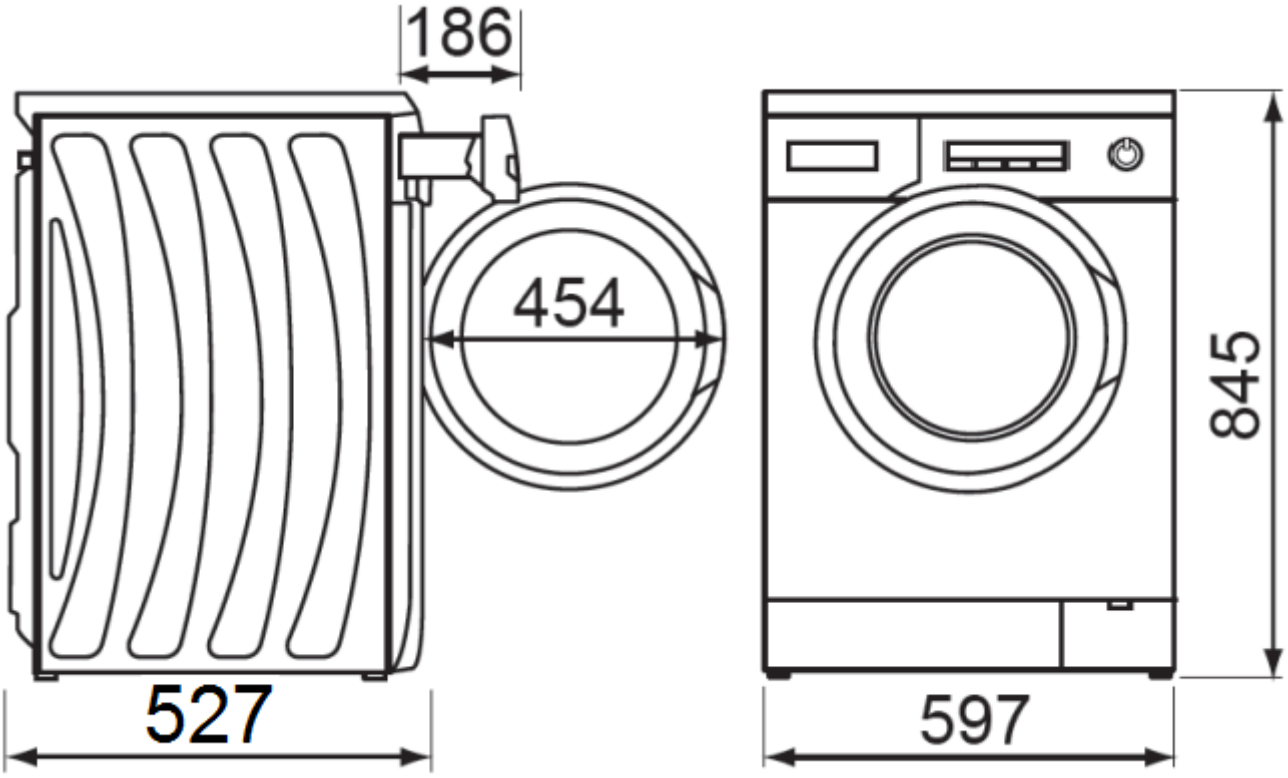
2. Specifications

2.1. Product Specifications

Model		NA-127VB6
Product Type		Front Loader
Capacity		7 kg
Max Spin Speed		1200 rpm
Drum Volume		50 lt
Energy Label Rating		A+++
Energy Consumption		162 kWh / annum
Water Consumption		9240 L / annum
Noise Level	Wash	58 dBA
	Spin	74 dBA
Control Panel		LCD Display
Wash Programs		15 settings
Spin Speed Setting		7 setting
Dimensions	Height	84,5 cm
	Width	59.7 cm
	Depth	52.7 cm
Door Opening		Large door opening
Delay Time Setting		Yes
Colour		White
Water Protection		Overflow Protection
Other Features		Child Lock
Packaging		Shrink package

2.2. Name Plate

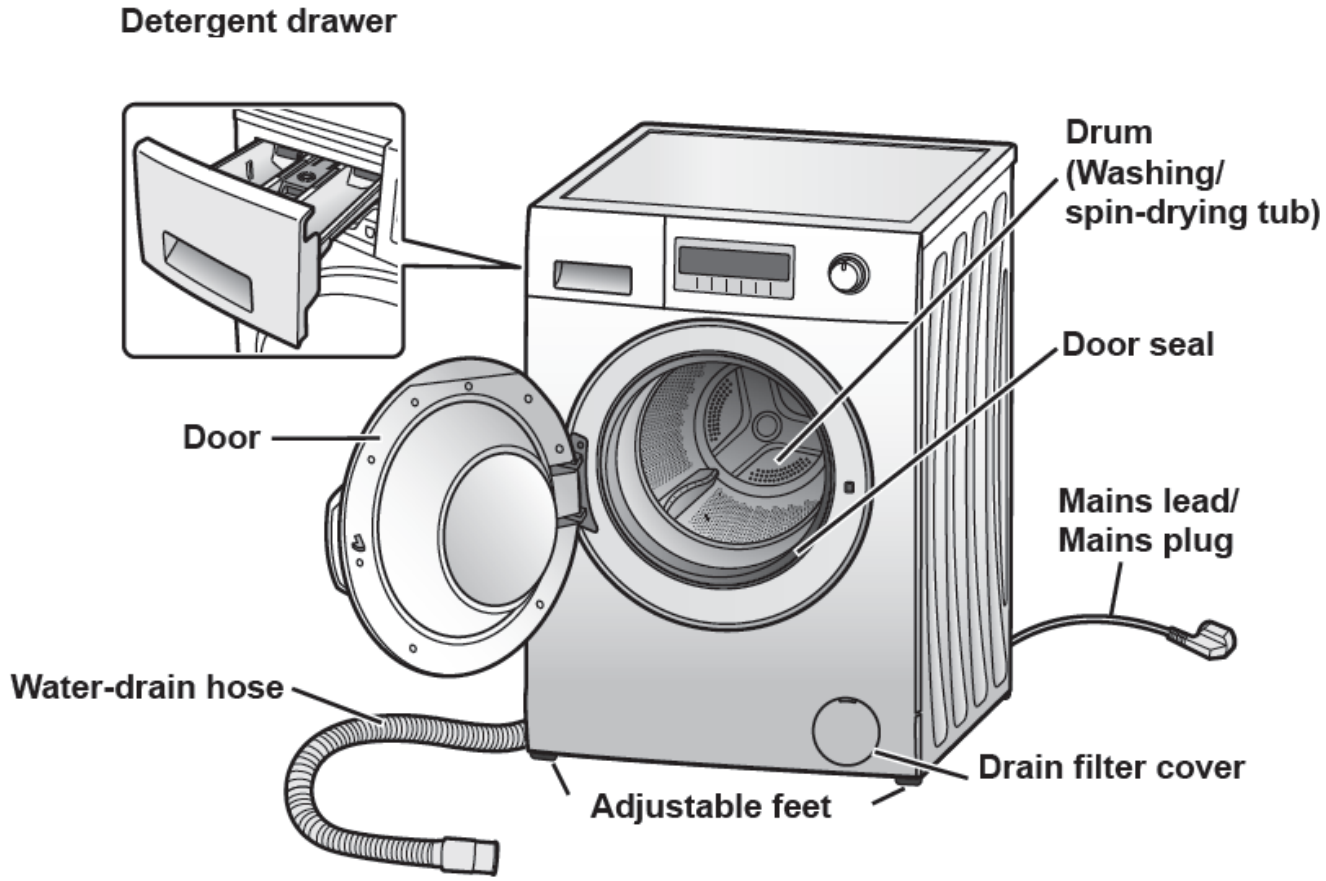
2.3. Dimension in millimetres



NA-127VB6

3. Location of Controls and Components

Your washing machine



Accessories

Make sure that all the accessories are supplied with the appliance.

Elbow

For fixing the water-drain hose

Liquid detergent level plate

Cover cap (x4)

Water-supply hose

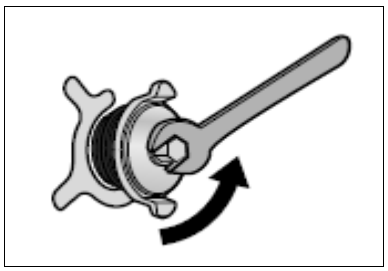
Either one of these hoses is supplied with the appliance.

4. Installation Instructions

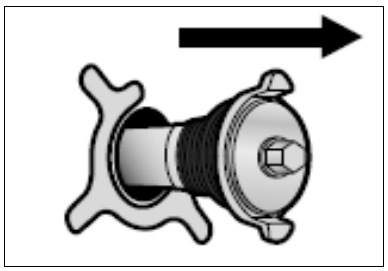
4.1. Moving and Installing

4.1.1. Removal of Transportation Screw

1. Transportation screws, which are located at the back side of the machine, must be removed before running the machine.
2. Loosen the screws by turning them anticlockwise with a suitable spanner.

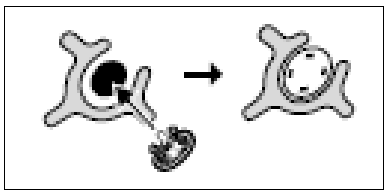


3. Pull out the screws and rubber washers.



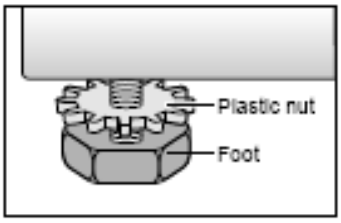
4. The holes where the transport screws have been removed should be covered with the plastic transport caps found in the accessories bag.

5. The transportation screws that have been removed from the machine must be re-used in any future transporting of the machine.



4.1.2. Foot Adjustment

1. Do not install machine on rugs or similar surfaces.
2. For machine to work silently and without any vibration, it should be installed on a flat, non-slippery firm surface. Any suspended floor must be suitably strengthened.
3. You can adjust the level of machine using its feet.
4. First, loosen the plastic adjustment nut away from the cabinet base.
5. Change the level by adjusting the feet upwards or downwards.
6. After level has been reached, tighten the plastic adjustment nut again by rotating it upwards against the base of the cabinet.
7. Never put cartons, wooden blocks or similar materials under the machine to balance irregularities of the floor.



4.1.3. Electrical Connection

1. Washing machine requires a 50Hz supply of 220-240Volts.
2. A special earthed plug has been attached to the supply cord of washing machine. This plug must be fitted to an earthed socket. The fuse value fitted to this plug should be 13 amps. If you have any doubts about electrical supply, consult a qualified electrician.

THIS APPLIANCE MUST BE EARTHED.
Insert the machine's plug to a grounded socket which you can easily reach.

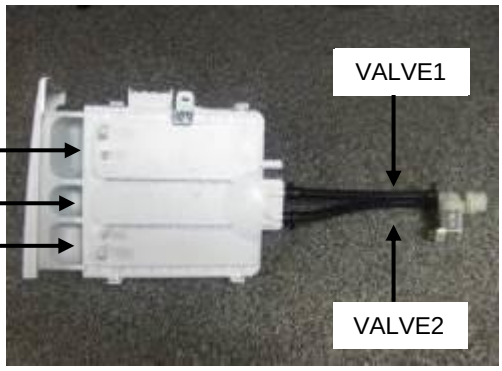
4.1.4. Water Supply Connection

1. Washing machine is supplied with a single (cold) water inlet.
2. To prevent leakage from the connection joints, a rubber washer is included in the hose packing. Fit this washer at the end of water inlet hose on the tap side.
3. Connect the hose to the water inlet valve. Tighten the plastic connector by hand. Please call a qualified plumber if you are unsure about this.
4. Water pressure of 0,1-1 MPa from tap will enable machine to work more efficiently.(0,1 MPa pressure means water flow of more than 8 litres in 1 minute from a fully opened tap)
5. After connection is complete, check for leakage by turning on tap completely.
6. Make sure that water inlet hoses cannot become folded, damaged, stretched or crushed when the washing machine is in its final position.
7. Mount the water inlet hose to a ¾" threaded water tap.

4.1.5. Drain Connection

1. Make sure that water inlet hoses are not folded, twisted, crushed or stretched.
2. The drain hose should be mounted at a minimum height of 60 cm and a maximum height of 100 cm from the floor.
3. The end of the drain hose can be connected directly to a drainage stand-pipe or alternatively to a specific connection point designed for that purpose on the waste outlet of a sink unit.
4. Do not extend the drain hose or guarantee will be invalidated.

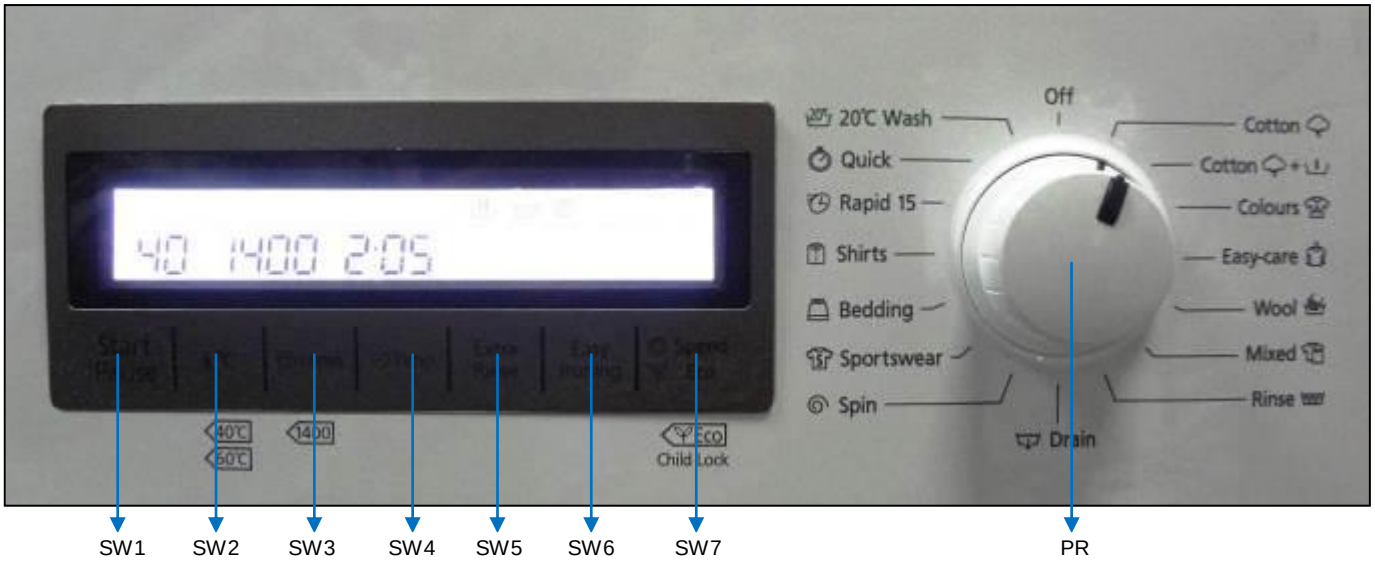
4.2 Detergent Box Group



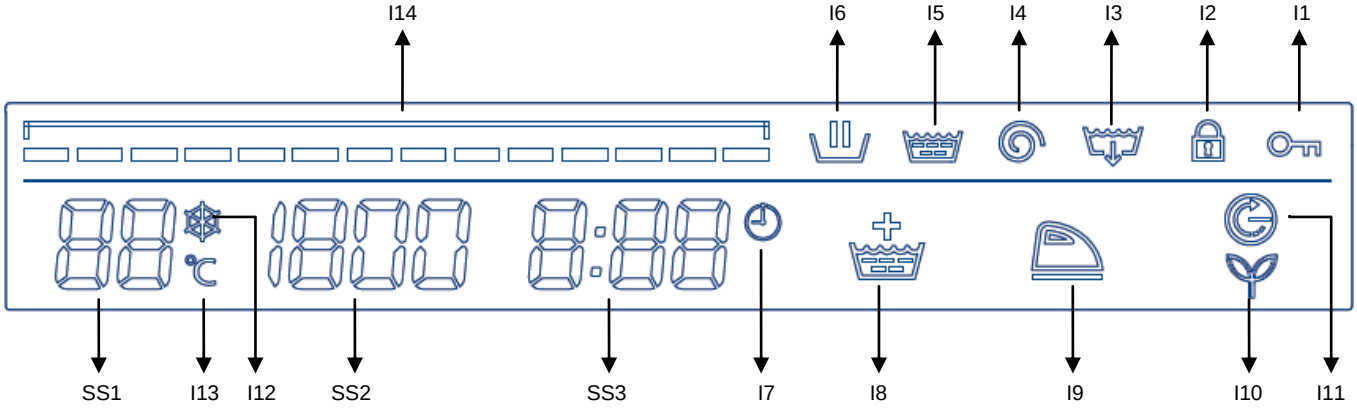
PREWASH	= WATER ENTRY VALVE 1
MAIN	= WATER ENTRY VALVE 2
SOFTENER	= WATER ENTRY VALVE 1 + VALVE 2

5. Operating Instructions

5.1. LCD Screen, Function Buttons & Knobs



PR	Program selector 16 programs including off position
SW1	Switch 1, Start / Pause
SW2	Switch 2, Temperature Selection
SW3	Switch 3, Spin Speed Selection
SW4	Switch 4, Delay Timer Selection
SW5	Switch 5, Extra Rinse Option
SW6	Switch 6, Easy Ironing Option
SW7	Switch 7, Eco/Speed Mode Option



SS1	7 Segment LCD for Temperature Display	I8	Extra Rinse Symbol
SS2	7 Segment LCD for Spin Speed Display	I9	Easy Ironing Symbol
SS3	7 Segment LCD for Remaining Time	I10	Eco Mode Symbol
I1	Child Lock Symbol	I11	Speed Mode Symbol
I2	Door Lock Symbol	I12	Cold Wash Symbol
I3	Drain Phase Symbol	I13	Temperature Sign
I4	Spin Phase Symbol	I14	Program Proceeding Zone
I5	Rinse Phase Symbol	Slow Blink	ON 0.5 sec, OFF 0.5 sec, ON 0.5 sec
I6	Wash Phase Symbol	Fast Blink	ON 0.10 sec, OFF 0.10 sec, ON 0.10 sec
I7	Delay Symbol		

5.2. Program Details

Power and Water Consumption

Programme	Temperature	Load (kg)	Power consumption (kWh) [2]	Water consumption (L) [2]	Time [2]
			147VB6 127VB6	147VB6 127VB6	147VB6 127VB6
Cotton	40 °C	7	0.93	60	2:05
Cotton + Eco function	40 °C [1]	3.5	0.64	39	2:40
	60 °C [1]	7	0.83	47	3:20
		3.5	0.68	39	2:50
Cotton (Prewash)	40 °C	7	0.98	69	2:23
Colours	40 °C	3.5	1.00	52	1:45
Easy-care	40 °C	3.5	0.61	47	1:25
Hand Wash	30 °C	2	0.29	57	1:30
Allergy-care	60 °C	3.5	2.96	82	3:15
Wool	30 °C	2	0.11	45	0:40
Shirts	40 °C	2	0.60	44	1:25
Mixed	30 °C	3.5	0.32	60	1:25
Quick	40 °C	3.5	0.48	38	1:08
Rapid 15	30 °C	2	0.10	30	0:15
20°C Wash	20 °C	3.5	0.27	42	1:40

1) Results calculated based on the maximum spin speed comply with EN 60456.

2) The power, water consumption, and time indicated in the table may vary depending on variations in pressures, water hardness and temperatures, room temperatures, types and amounts of laundry, voltage fluctuations and functions to be used.

5.3. Child Lock

Activation

Press SW7 for 5 seconds.

The Child Lock Symbol on appears on the LCD display as Child Lock is active.

Deactivation

Press SW7 for 5 seconds.

The Child Lock Symbol will disappear on LCD display upon deactivation.

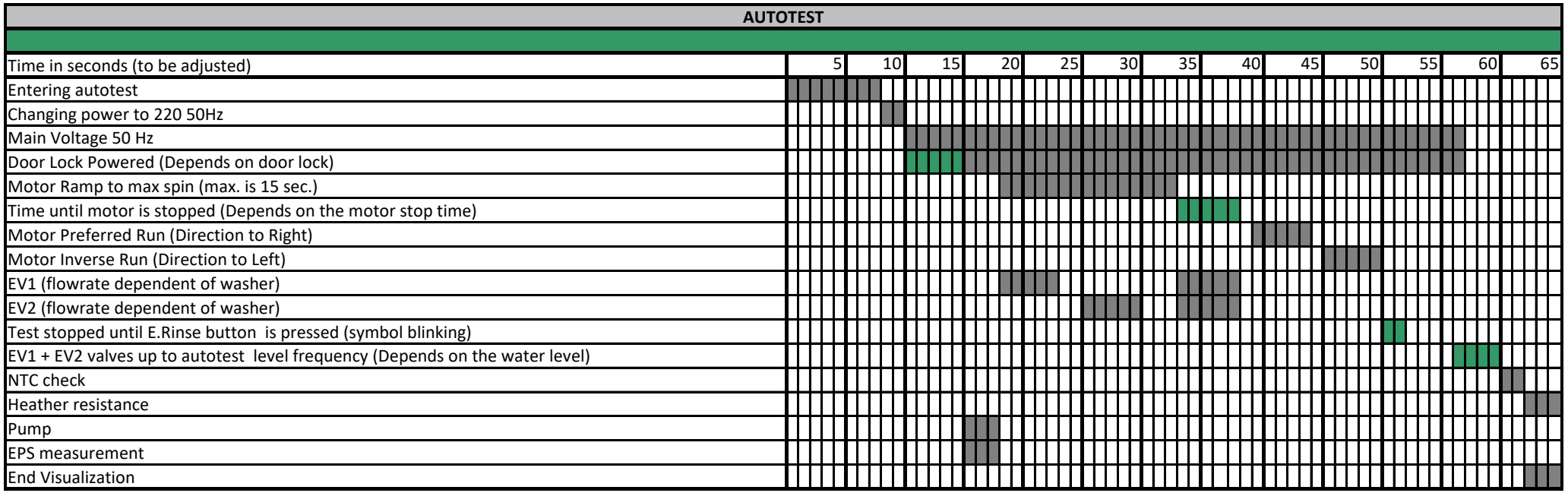
6. Test Mode

6.1. Autotest

Set PR to program 3 (Colours)

While pressing SW5 (Extra Rinse), change position of the PR from third program to second (Cotton-Prewash), and release SW5.

Autotest starts.



Ntc detection : Software will detect NTC's resistance value and will check if the temperature is between 5°C < Tdetected < 40°C. If it is inside the range, heating step will be done.

If temperature value is outside the range, then it means NTC is detecting the temperature in a wrong way and heating step will be skipped.

EPS measurement:The frequency value should be between 46.04Hz - 43.40Hz. It checks the EPS and if it OK, it continues the autotest; if it is NOK then cancel the Autotest and go to the selection mode. Also if any frequency can not be detected, then it mean

7. Service Mode

7.1. Service Autotest

1. Set PR to program 3 (Colours) and press SW2 (T°C)

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

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

LCD Display status:
I2 Door Lock Symbol -> Fixed on
SS3 -> SAU

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

The test steps are as below ;

Step 1:

Selector Program 1 (Cotton) will be “HEATER ON”

Before heating it should take water till first level frequency then start heating.

Heater will be on max. 8 minutes after this 8 minutes if the temp. doesn’t change more than 2°C then it will give NTC failure. (E05).

Or if the NTC connection is broken then it should give again E05 NTC failure.

At the end of heating, “SAU” visualization should make slow blink to indicate that the step is over.

Note: If user changes the selector position, machine will do what is defined for the new selected position.

Step 2:

Selector Program 2 (Cotton Prewash) will be “PUMP ON”

Temperature will be measured, if it is higher than 50 °C, it should take 60 sec. cooling water, and then make “Drain + 5 sec.”

At the end of pump activation, “SAU” visualization should make slow blink to indicate that the step is over.

Step 3:

Selector position 3 (Colours) will be a 12 mins test program where all functions of the appliance will be checked.

Machine will make exactly the same algorithm of Super Rapid 12'. So, time for selector position 3 is 12 minutes.

At the end of test program “End” is visualized on LCD and door is unlocked.

7.2. Failure Codes

Error Indication	Error Number	Indication For User	Indication For Service
		Yes/No	Yes/No
Door is not locked	E01	Yes	Yes
Door is unlocked during programme	E01	Yes	Yes
Lack of water	E02	Yes	Yes
Pump failure	E03	Yes	Yes
Overflow	E04	Yes	Yes
NTC or Heater Failure	E05	No	Yes
Motor Failure - 1 (Tachometer open-short circuit or motor connector is disconnected)	E06	No	Yes
Motor Failure - 2 (triac short circuit)	E08	No	Yes
Electronic Pressure Sensor	E10	No	Yes

8. Troubleshooting Guide

All repairs which must be done on the machine should be done by authorized agents only. When a repair is required for machine or you are unable to eliminate the failure with the help of the information given below:

- Unplug the machine.
- Close the water tap.

FAILURE	PROBABLE CAUSE	METHODS OF ELIMINATION
Machine does not operate.	It is unplugged.	Insert the plug into the socket.
	Fuse is defective.	Change fuse.
	Start / Pause button has not been pressed.	Press the start / pause button.
	The program knob is in 0 (off) status.	Bring the program knob on the desired status.
	The door is not shut properly.	Shut the door properly. You should hear the click.
	Child lock is active.	See section 5.5.
Machine does not receive water.	Water tap is closed.	Open water tap.
	The water inlet hose may be bent.	Check the water inlet hose.
	The water inlet hose is obstructed.	Clean the filters of water inlet hose.
	The water inlet filter is obstructed.	Clean the valve inlet filters.
	The door is not shut properly.	Shut the door properly. You should hear the click.
Machine is not draining water.	The drain hose is obstructed or bent.	Check the drain hose.
	The pump filter is obstructed.	Clean the pump filter.
	The clothes are not placed inside the machine in a well-balanced manner.	Spread the clothes inside the machine in an orderly and well-balanced manner.
Machine is vibrating.	The feet of machine are not adjusted.	Adjust the feet.
	Transportation screws are not removed.	Remove transportation screws.
	There is a small amount of clothes in the device.	It does not prevent operation of the machine.
	Excessive amount of clothes are filled in the machine or the clothes are not placed in a well-balanced manner.	Do not exceed the recommended quantity of clothes and spared clothes in the machine in a well-balanced manner.

FAILURE	PROBABLE CAUSE	METHODS OF ELIMINATION
Excessive foam in the detergent drawer	Too much detergent has been used.	Press the start/pause button. In order to stop the foam, dilute one table-spoon of softener in half liter of water and pour it in the detergent drawer. Press the start/pause button after 5-10 minutes. Arrange the amount of the detergent properly in the next washing process.
	Wrong detergent has been used.	Use only the detergents produced for full automatic machines.
The washing result is bad.	Laundry too dirty for the program you have selected.	Select a suitable program.
	The amount of detergent used is not sufficient.	Use more detergent according to the detergent.
The washing result is not good.	Clothes exceeding the maximum capacity have been filled in machine.	Put the clothes in machine in a manner not to exceed its maximum capacity.
	Water may be hard.	Use the amount of detergent according to the declaration of the detergent producer.
	Distribution of the clothes in machine is not well-balanced.	Spread the clothes inside the machine in an orderly and well-balanced manner.
The water is seen in the drum during washing.	No failure. The water is at the lower part of the drum.	
There are residues of detergent on the clothes.	The pieces of some detergents which do not dissolve in water may stick to clothes as white stains.	By calibrating machine for “Rinsing” program, make an additional rinsing or eliminate the stains After drying with the help of a brush.
There are grey stains on the clothes.	These stains may be caused by oil, cream or ointment.	In the next washing operation, use the maximum detergent amount declared by the detergent producer.
The spinning process is not done or starts with delay.	No failure. The unbalanced load control works in that way.	The unbalanced load control system will try to distribute clothes in a homogenous manner. After clothes are distributed, passage to spinning process will be realized. In the next washing process, place clothes into the machine in a well-balanced manner.

9. Critical Torque Values

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

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

10. Disassembly and Assembly Instructions

10.1. Top Plate

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

10.2. Door

1	   T25	2	
	Remove two screws that fix the door by using T25 tool		Pull up the door
3		4	
	Remove screws that fix the door group		Put the door outside plastic with helping screwdriver
5		6	
	Remove the door inside plastic		Remove six screws that fix the door hinge

7		8	
	Remove the door handle		Remove the door handle pin

10.3. Spring Wire

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

10.4. Detergent Drawer

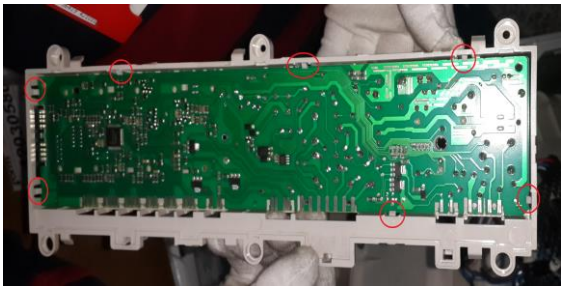
1		2	
	Gently pull the detergent drawer		While pressing siphon cover keep pulling drawer to remove it

10.5. Control Panel

1		2	
	Remove the screw which fixes the control panel to the front panel		Remove two screws fixing control panel

3			
	Pull the control panel out		

10.6. Electronic Card

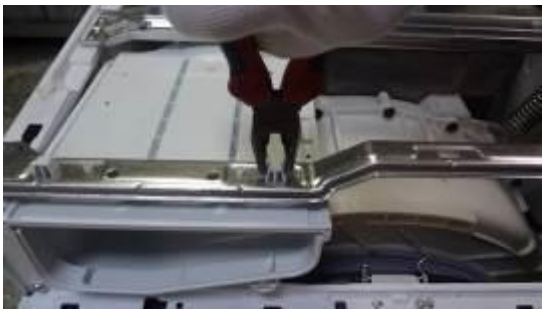
1		2	
	Depress the taps fixing the card by using a screwdriver		Release the socket fixing plastic by depressing the taps with the help of a screwdriver
3		4	
	Remove the card out off panel		Remove the sockets on the card
5		6	
	After releasing sockets, remove PCB box from its housing around the box		Disassemble the PCB box and its cover
7		8	
	Remove the PCB card by depressing the taps that fix it		Remove the connector that fixes the LCD screen

9		10	
	Remove the card from its housing and unplug its connector		Remove the LCD screen by depressing the taps by using a screwdriver

10.7. Front Panel

1		2	
	Remove the screw fixing the front panel at the bottom		Remove two screws fixing the door lock
3		4	
			Remove the tub bellows seal
5		6	
	Remove two screws fixing front panel to body		Pull up front panel
7		8	
	Remove front panel		

10.8. Support Bracket

1			
	Remove two clips fixing detergent drawer housing to upper support bracket		

10.9. Detergent Drawer Housing

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

10.10. Power Cable Group and EMI Filter

1		2	
	Remove the five connectors those are connected to the EMI filter		Remove two screws fixing EMI filter

3		**4**	
	Pull up the power cable group		Remove EMI filter
10.11. Electronic Pressure Switch (EPS)			
1		**2**	
	Unplug EPS connector		Pull up EPS
		10.12. Door Lock	
3		1	
	Remove clamp from EPS hose		Unplug door lock connector
10.13. Drain Pump			
1		**2**	
	Remove clamp holding drain hose by using a plier		Remove clamp fixing tub outlet hose

3		**4**	
	Unplug drain pump connector		Remove screws holding drain pump

10.14. Front Counterweight

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

10.15. Heater

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

10.16. Twinjet System

1		2	
	Remove twinjet hoses from tub bellow seal pulling them up		Remove screw fixing circulation pump
3		4	
	Lay the appliance down and press on ratchet holding circulation pump		Remove circulation pump
5		6	
	Remove cable connector		Remove hose connecting circulation pump to drain pump

10.17. Tub Bellow Seal

1		2	
	Remove the tub gasket clip by using small screwdriver		Hold the tub bellows seal and gasket-body fixing spring together, and pull them out

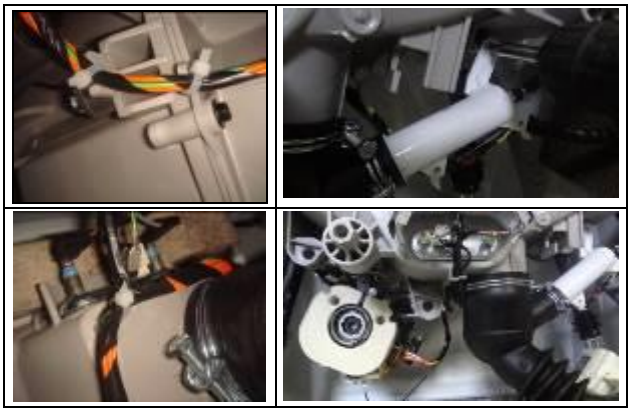
10.18. Transport Screw

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

10.19. Upper Counterweight

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

10.20. Washing Group

1		2	
	Unplug motor connectors		Cut all the cable ties which fix cable group
3		4	
	Remove the screws fixing hanger bracket		Remove the washing group carrying it out through front side

10.21. Shock Absorber Pin		10.22. Driven Pulley	
1		1	
	Remove shock absorber pins squeezing the ratchet by a pliers		Remove the belt rotating the driven pulley

10.23. Driven Pulley			
1		1	
	Remove the bolt at the center of pulley by tucking a wooden bar avoids rotation		Remove pulley

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

10.25. Tub			
1		2	
	Remove tub inlet bellow hose loosening the clamp squeezing it by using a pliers		Remove screw holding EPS reservoir

3		**4**	
	Remove tub outlet bellowed hose loosening screwed-clamp		Remove 19 screws around tub using box wrench size 8 mm
5		**6**	
	Remove front tub		Remove drum

11. Component Specifications

11.1. Drain Pump

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

Drain pump

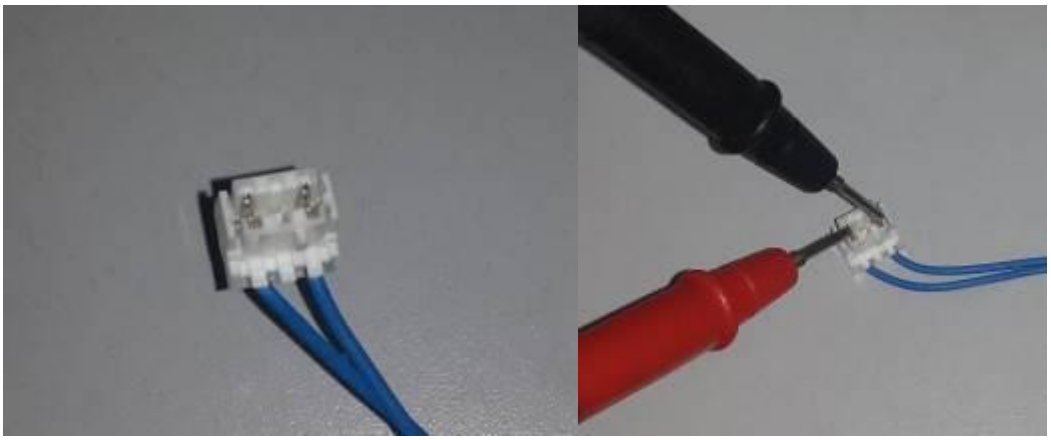
Technical features

Nominal voltage	220-240 V	Resistor (coil)	136 Ω (±5%)
Nominal current	0.28 A (±10 %)	Water flow	17 L/min(to 1 m height)
Nominal power	37 W	Thermal protector	YES
Frequency	50 Hz		

Testing component

Check the resistance value on the component with multimeter as shown below.
Resistance value should be between 131- 141 Ω

You can determine the ohm value of drain pump by measuring from the socket with two blue cables connected to the electronic card as shown in the figure.(referring X10 on the wiring diagram)



Component test

11.2. Heater

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

Resistance

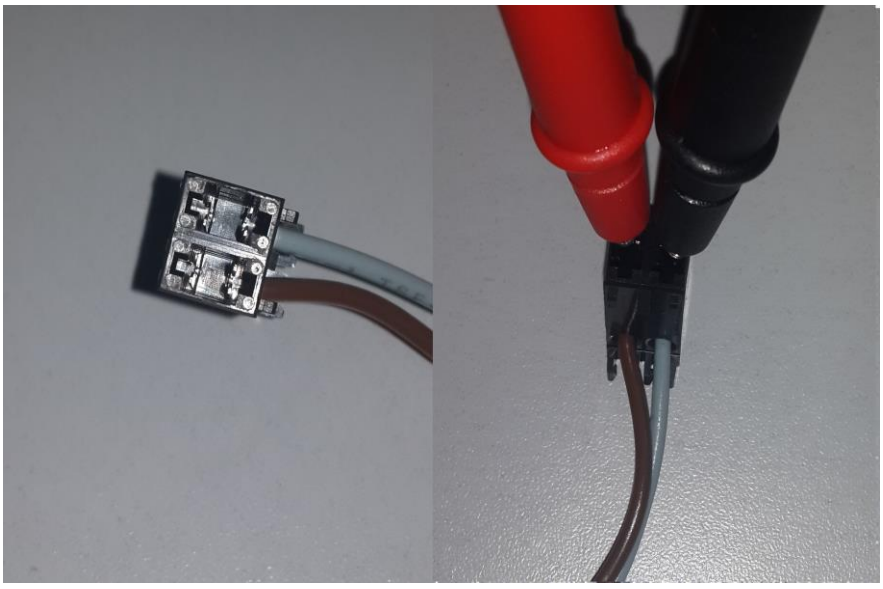
Technical features

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

Testing component

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

You can determine the ohm value of resistance by measuring from the socket with grey and brown cables (referring to X6 on the electronic card).



Component test

11.3. NTC

Component which sends signals to PCB about the water temperature inside the tub. The Resistance (Ohm) value of the NTC decreases as the temperature increases.

NTC

Technical features

Tem (°C)	R min (kΩ)	R max (kΩ)
-10	54.9	62.6
-5	43.0	48.6
0	33.9	38.1
5	27.0	30.1
10	21.6	23.9
15	17.4	19.1
20	14.1	15.4
25	11.5	12.5
30	9.4	10.2
35	7.8	8.3
40	6.4	6.9
45	5.4	5.7

Tem (°C)	R min (kΩ)	R max (kΩ)
50	4.5	4.7
55	3.8	3.9
60	3.2	3.3
65	2.7	2.8
70	2.3	2.4
75	1.9	2
80	1.7	1.8
85	1.4	1.5
90	1.2	1.3
95	1.1	1.1
100	0.9	1

NTC Resistance vs. NTC Temperature

Testing component

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

You can determine the ohm value by measuring from the socket with two black cables (referring to X7 on the wiring diagram). NTC resistance value varies depending on temperature.

Component test

11.4. Valve

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

Valve

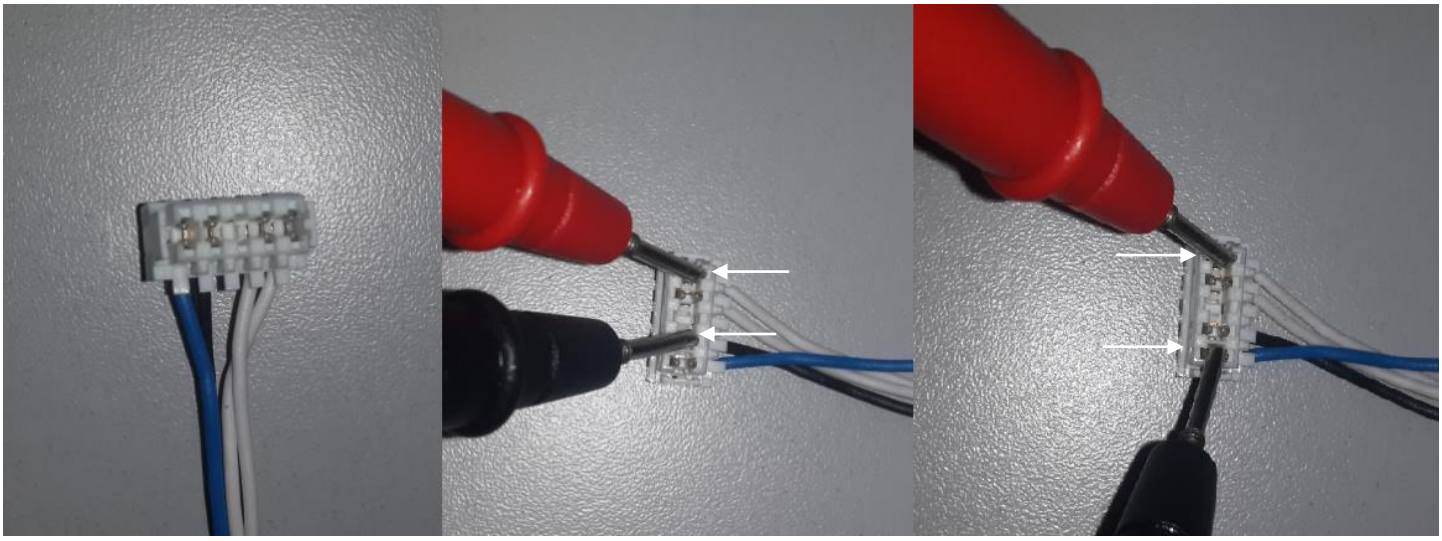
Technical features

Nominal voltage	220-240 V	Rated flow	7 L/min (±15 %)
Nominal power	8 VA	Operating water pressure	0.02 - 1 Mpa
Frequency	50-60 Hz		

Testing component

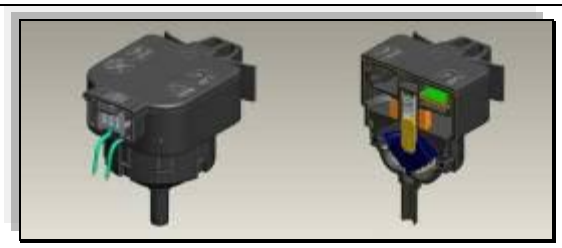
Check the resistance value on the component with multimeter as shown below. Valve water flow rate should be between 6 - 8 L/min. Each valve coil resistance values should be between 3.3 - 4.2 kΩ.

You can determine the resistance value of the main wash valve by measuring from the large socket which has one blue, one black and two white cables as shown in the figure below (refers X5 on the wiring diagram). Each valve coil resistance values should be between 3.3 - 4.2 kohm.



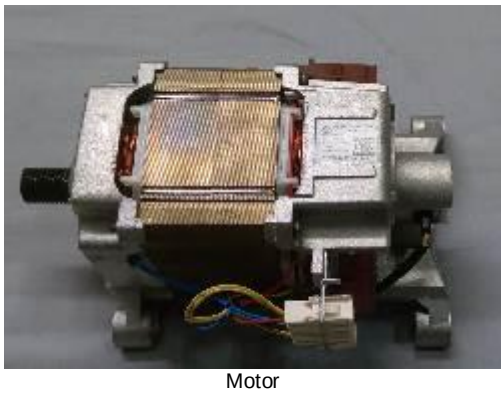
Component test

11.5. Electronic Pressure Sensor (EPS)

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

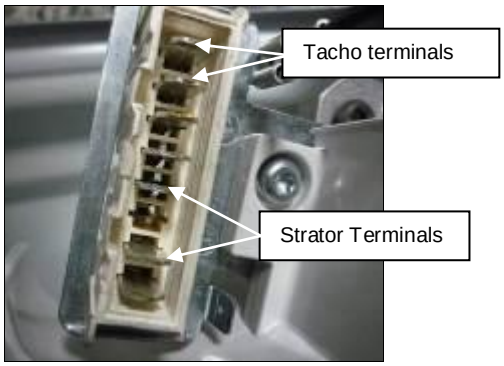
11.6. Motor

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



Motor

Motor socket terminals

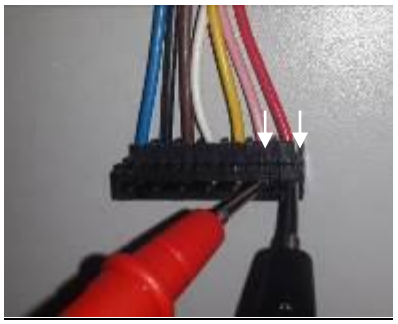


Testing components

Tacho resistance control

Check the motor tacho terminals on the motor socket with multimeter as shown in the picture above.

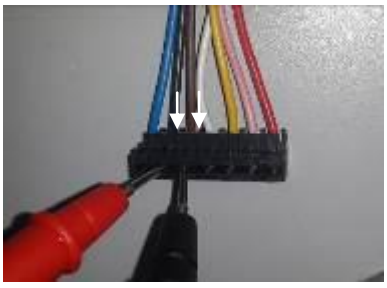
You can determine the ohm value by measuring from pink and red cables on the large socket as shown in the figure (referring X2 on the wiring diagram)



Stator Resistance Control

Check the motor stator terminals on the motor socket with multimeter as shown in the picture.

You can determine the ohm value by measuring from black and brown cables on the large (referring X2 on as shown in right figure. For resistance values, refer to the table below



Tacho and stator resistance values of motor:

MOTOR CODE	SUPPLIER	STATOR (Ω)	TACHO (Ω)	TEMPERATURE
32013066	ANAIMEP	1,20 ± 7% Ω	180 ± 7% Ω	0,55 ± 7% Ω

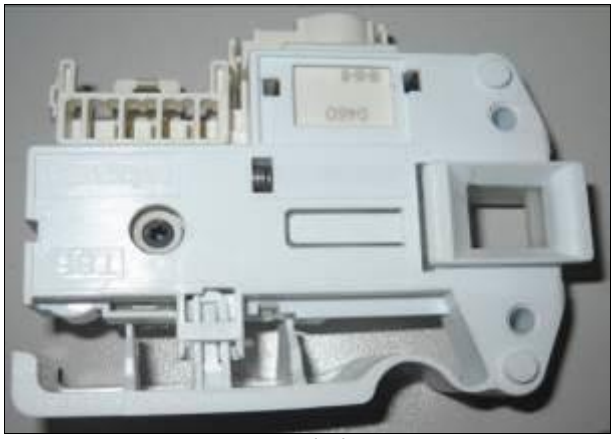
11.7. Door Lock

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

Emergency Opening System (PTC-Bimetal) In Case of Lack of Electric Energy

• In case of lack of electric energy during a washing cycle, the PTC-bimetal assembly will cool down and after minimum 60 sec (considering previous power supply of 30 sec min and T=20 °C) the door will be unlocked and thus can be opened.

• In case the door is closed when current comes back, the PTC-bimetal assembly will heat again, the slider lock will lock, the contact will close and the program will continue from where it stopped.



Door lock

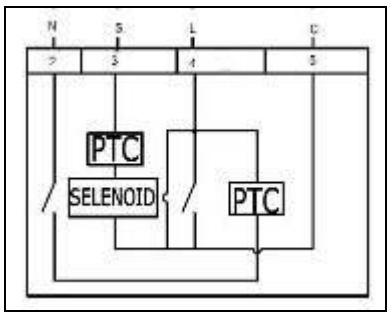
Technical features

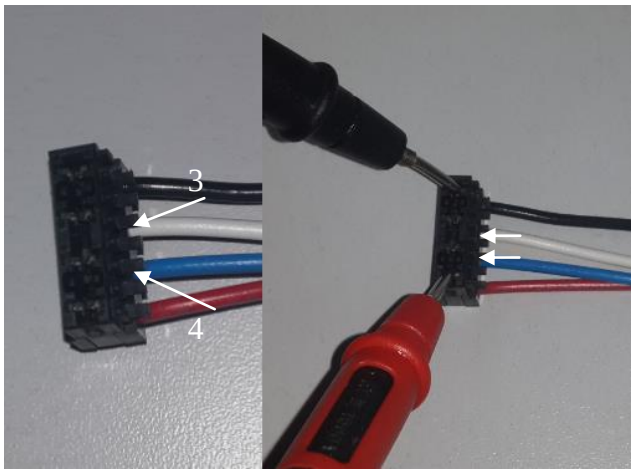
Nominal voltage	250 V

Testing component

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

You can determine the ohm value of PTC by measuring from cables those are shown in the figure below as 3 and 4. (Referring X3 on the wiring diagram).

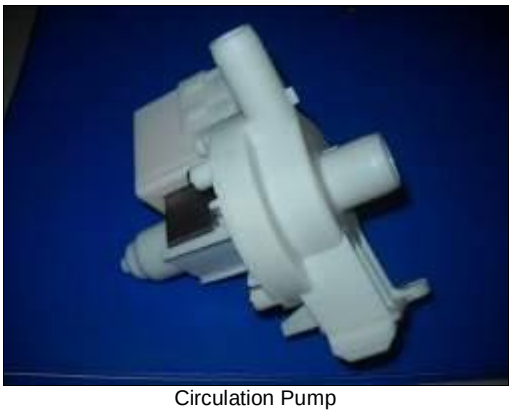




Component test

11.8. Circulation Pump

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



Circulation Pump

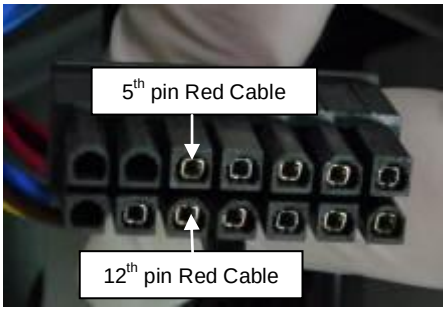
Technical features

Nominal voltage	220 - 240 V
Frequency	50 Hz
Resistor (coil)	169.5 Ω (±5%)

Testing component

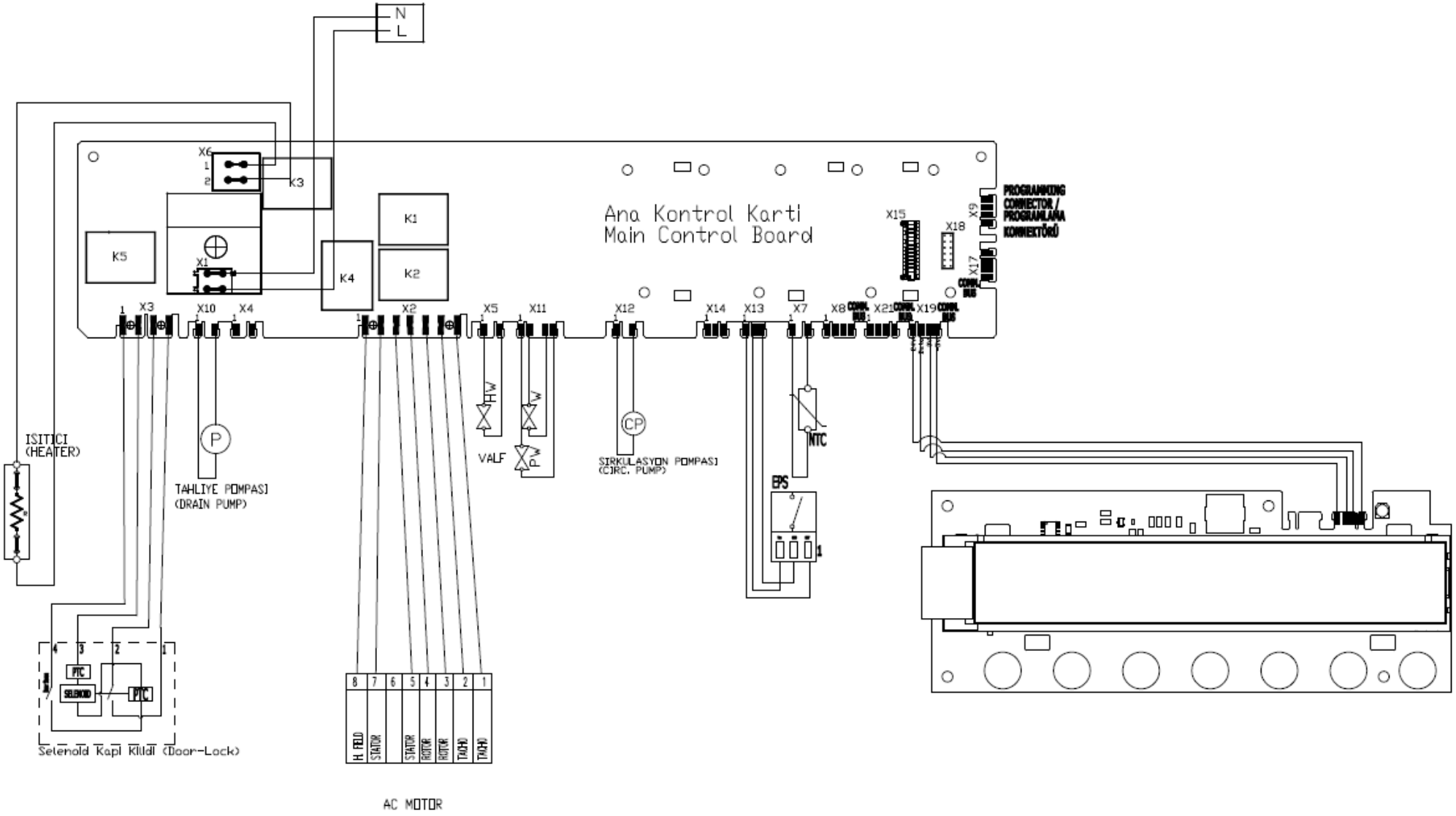
Check the resistance value on the component with multimeter as shown below.
Resistance value should be between 160- 180 Ω

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

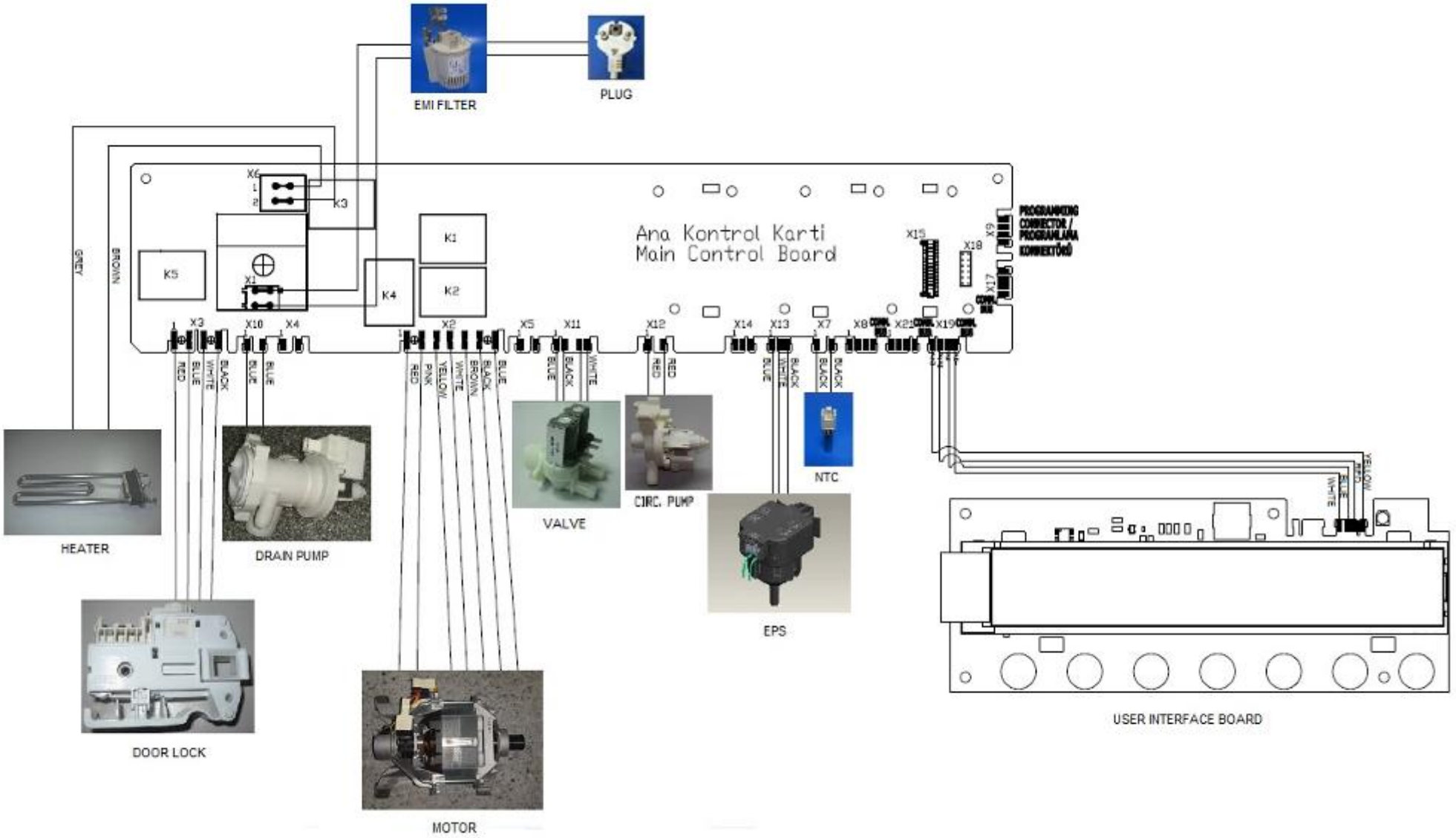


Component test

12. Wiring Diagram (Board)



12.1. Wiring Diagram (Socket)

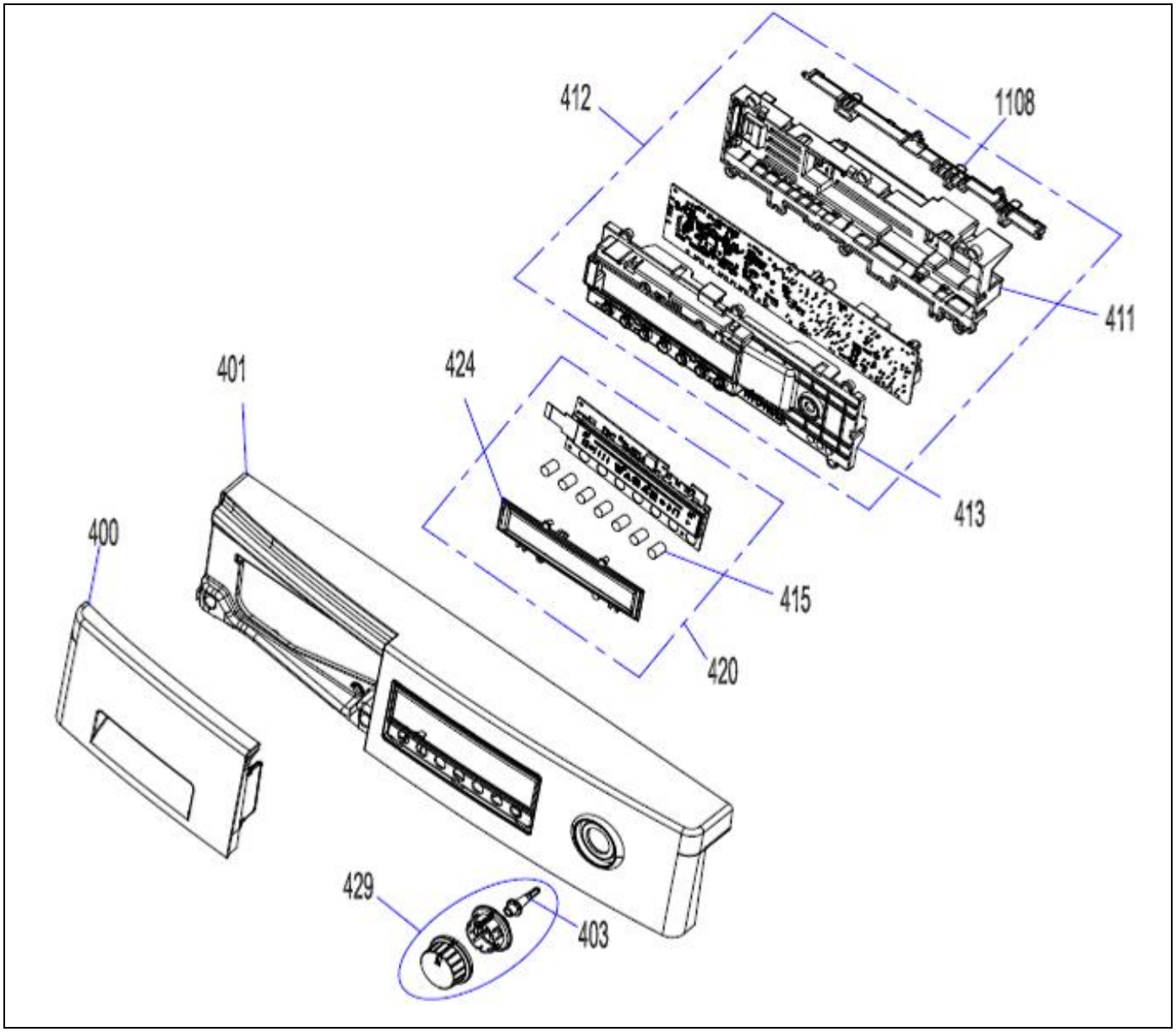


13. Exploded View and Spare Part List

13.1. Control Panel Spare Parts

13.1.1. Exploded View of Control Panel Parts

(U): Indicates parts at the remarks that can be replaced by user.
CP: Components identified with CP have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

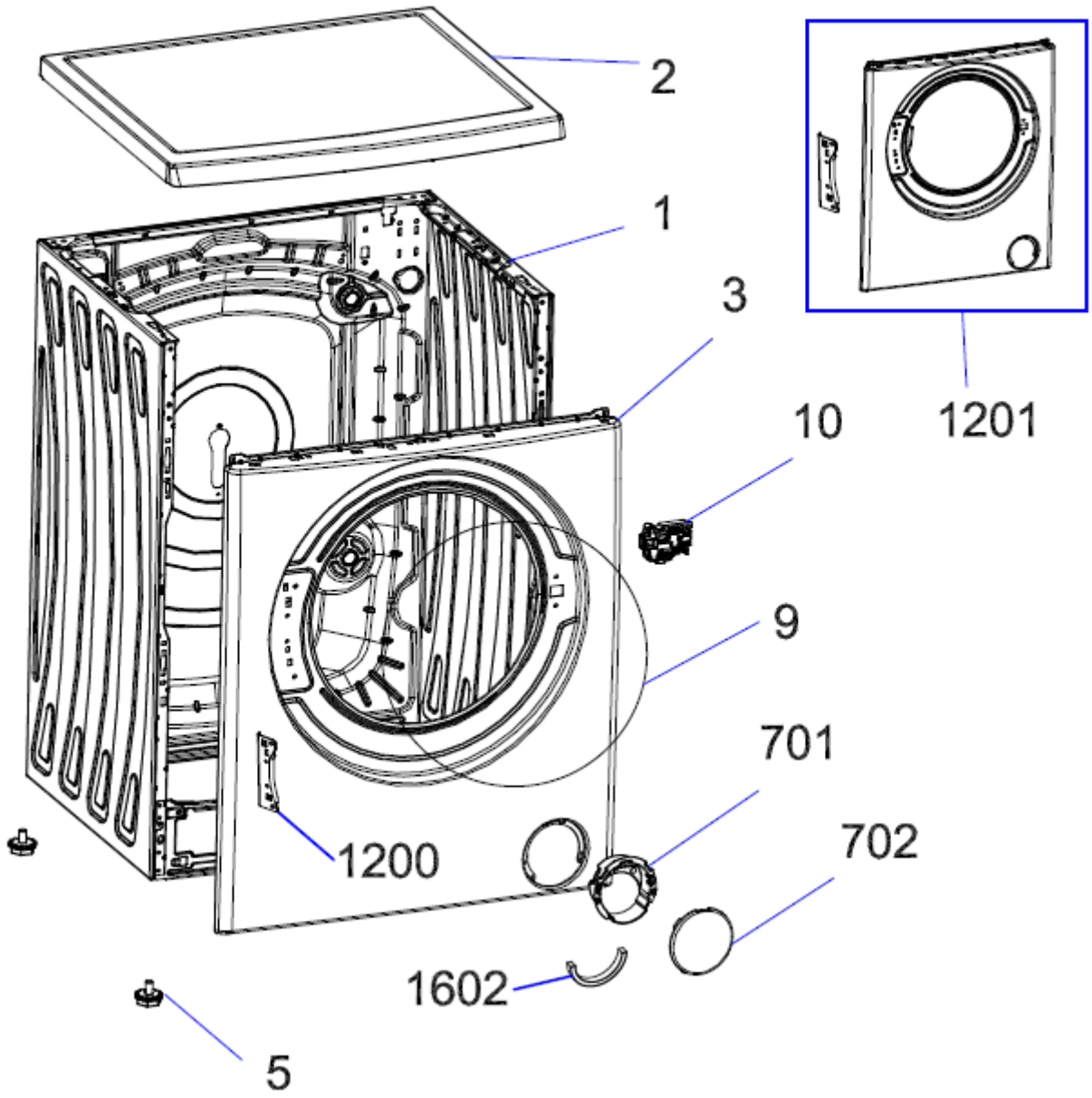


13.1.2. Control Panel Spare Parts

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
400	DETERGENT DRAWER COVER	1	42144365	NA-127VB6WAE	
			42144603	NA-127VB6WAS	
			42144377	NA-127VBWPG	
401	CONTROL PANEL	1	42144364	NA-127VB6WAE	
			42144602	NA-127VB6WAS	
			42144376	NA-127VB6WPG	
412	ELECTRONIC CARD GR.	1	20890092	NA-127VB6WAE	CP
			20608701	NA-127VB6WAS	
			20608701	NA-127VB6WPG	
411	PCB BOX	1	42128166		
413	PCB BOX REAR COVER	1	42091225		
415	TOUCH BUTTONS	1	42119208		
420	FL CARD GROUP	1	20889716		CP
424	LCD FRAME	1	42134899		
403	PROGRAM ADJUSTMENT SHAFT	1	42069325		
429	PR. ADJ. KNOB GR	1	42132581		
1108	SOCKET HOLDER	1	42132583		

13.2 Front Panel Spare Parts

13.2.1. Exploded View of Front Panel Spare Parts

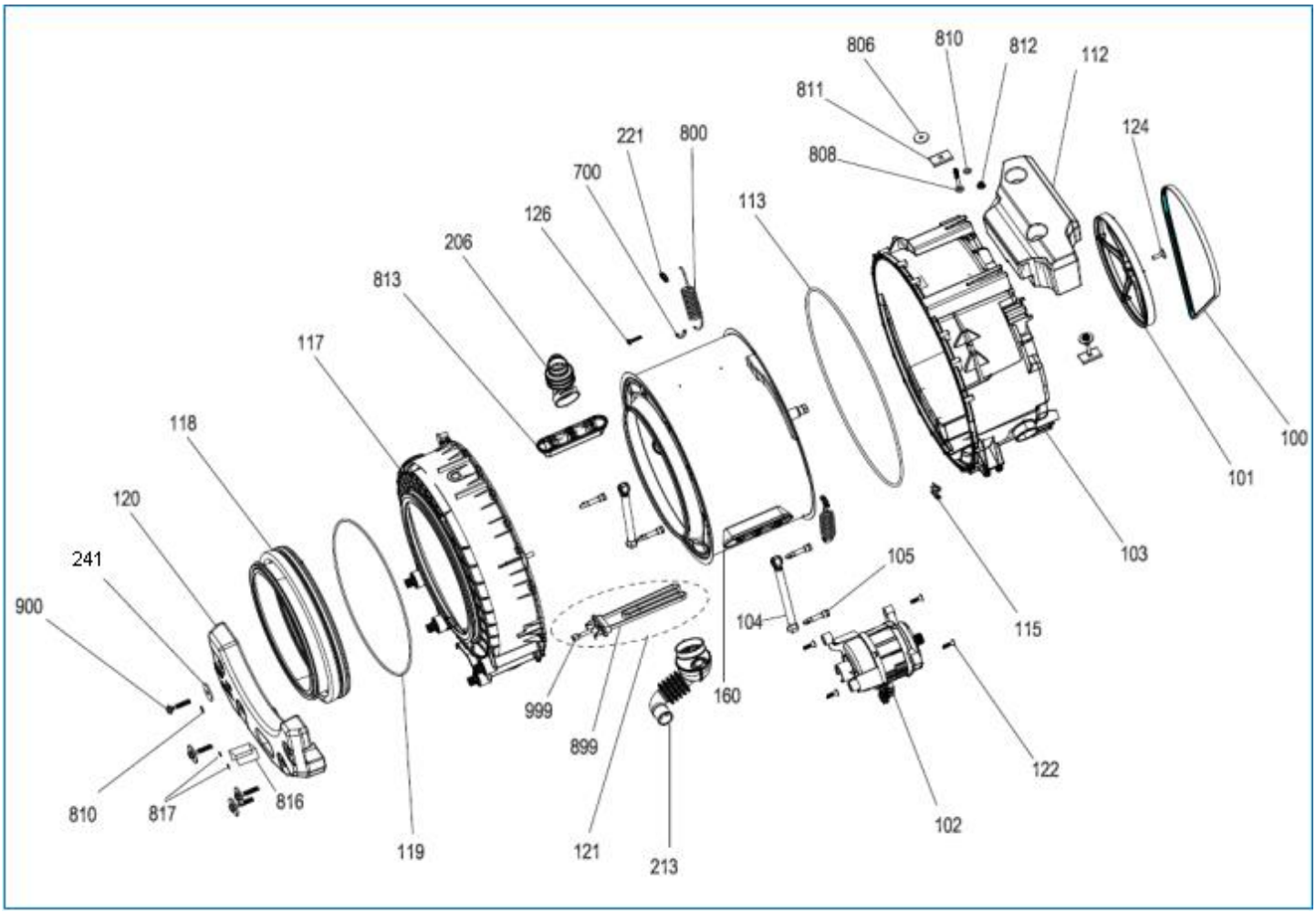


13.2.2. Front Panel Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
1	BODY GROUP PAINTED	1	20813489		
2	UPPER TRAY GROUP	1	42116356		
3	FRONT PANEL GROUP	1	20827924		
5	ADJUSTABLE FEET GR.	4	47000778		
9	HOUSING FRAME BELLOW CLIP-PHYTON	1	37023407		
10	DOOR LOCK	1	32024463		CP
701	PUMP COVER HOUSING	1	42105807		
702	PUMP COVER	1	42067962		
1200	HINGE SUPPORT SHEET	1	37019456		
1201	FRONT PANEL GROUP (3+1200)	1	20854562		
1602	DRAIN HOSE SPONGE	1	47012749		

13.3 Washing Group Spare Parts

13.3.1. Exploded View of Washing Group Spare Parts

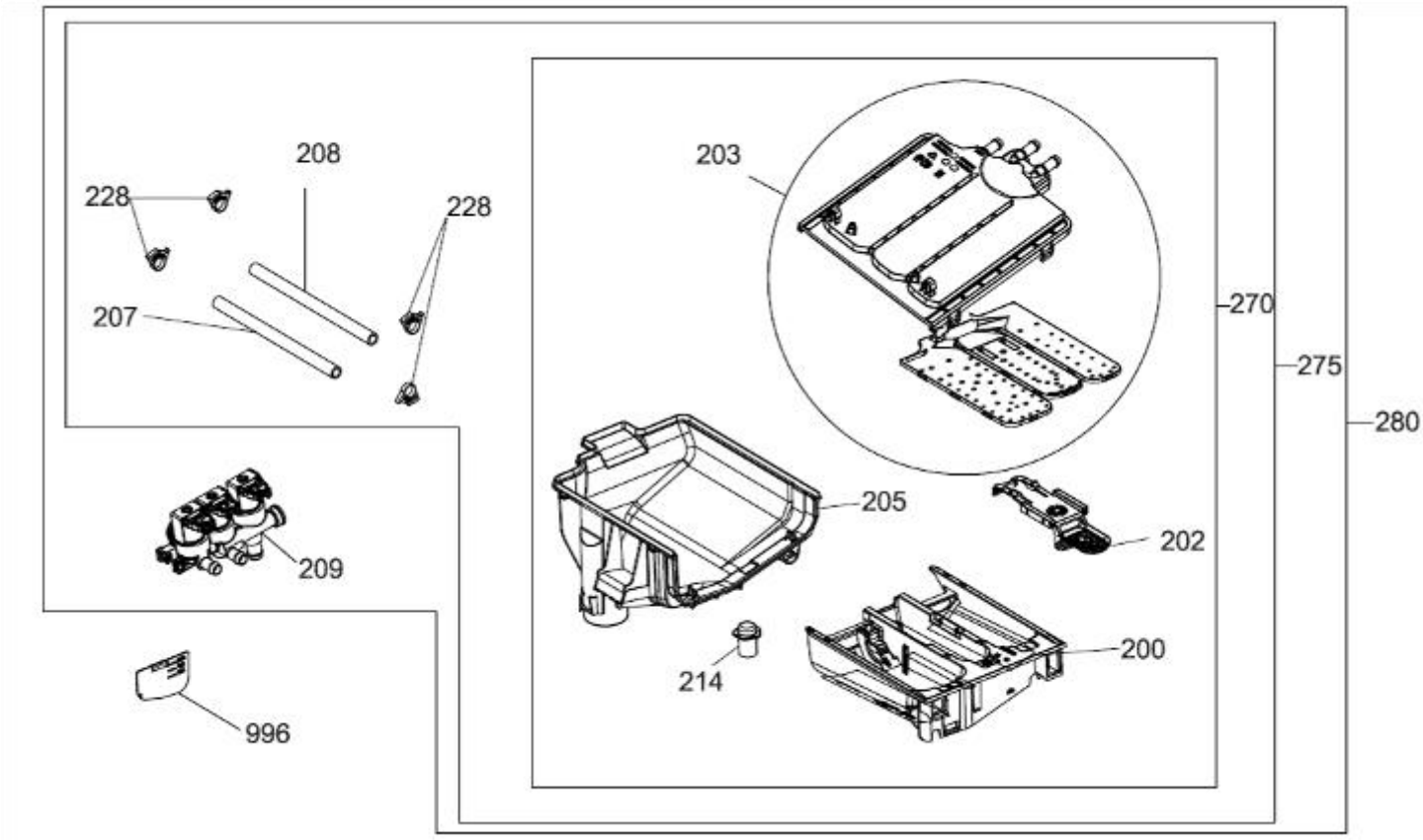


13.3.2. Washing Group Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
103	REAR TUB GROUP	1	20790585		
117	FRONT TUB	1	42059330		
160	DRUM GROUP	1	20813458		
102	MOTOR	1	32013066		CP
113	TUB SEAL	1	42015077		
101	DRIVEN PULLEY	1	37000499		
100	BELT	1	42025178		
122	COUNTERSUNK HEAD BOLT 8X28 TORX	4	37007899		
206	TUB ENTERANCE WITH BELLOW HOSE	1	42087110		
118	TUB BELLOWS SEAL	1	42025995		
126	HEXAGON HEAD BOLT 6X30 PT	19	37014521		
900	HEXAGON HEAD BOLT 10 X 52	4	37023804		
241	PLAIN WASHER 10.5X40X2.5	4	37008965		
810	PLAIN WASHER (SAFETY)	4	37006960		
105	SHOCK ABSORBER PIN-2	4	42025094		
119	TUB GASKET CLIP	1	37008555		
120	FRONT CONCRETE WEIGHT	1	47009244		
121	RESISTANCE GR	1	20796002		CP
999	NTC	1	32003597		CP
899	RESISTANCE WITHOUT NTC	1	32016814		CP
115	RESISTANCE FIXING WIRE	1	37018738		
104	SHOCK ABSORBER	2	47011586		
213	TUB EXIT BELLOWS GR(HOSE+BALL)	1	42127585		
124	COUNTERSUNK HEAD BOLT M 8X29	1	37005142		
700	TUB HANGER SPRING PART	2	42019298		
800	TUB SPRING	2	37015307		
808	MUSHROOM HEAD SQUARE NECK BOLT M 8X65	2	37003063		
806	PLAIN WASHER 8.4X28X3	2	35007454		
811	UPPER CRT SUPPORT SHEETIRON PART	2	37016379		
812	HEX.NUT WITH FLANGE SERRATED M8	2	37000615		
813	PLASTIC LIFTER	3	42055352		
112	UPPER CONCRETE WEIGHT	1	47003323		
221	HANGER SPRING SHEETIRON PLS.	2	42016727		
816	RESISTANCE PROTECTION FOIL-1-C	1	47007557		
817	SCREW 3,5X7PAN HEAD WITH COLAR CROSS RE.	2	37015637		

13.3 Detergent Drawer Group Spare Parts

13.3.1. Exploded View of Detergent Drawer Group Spare Parts

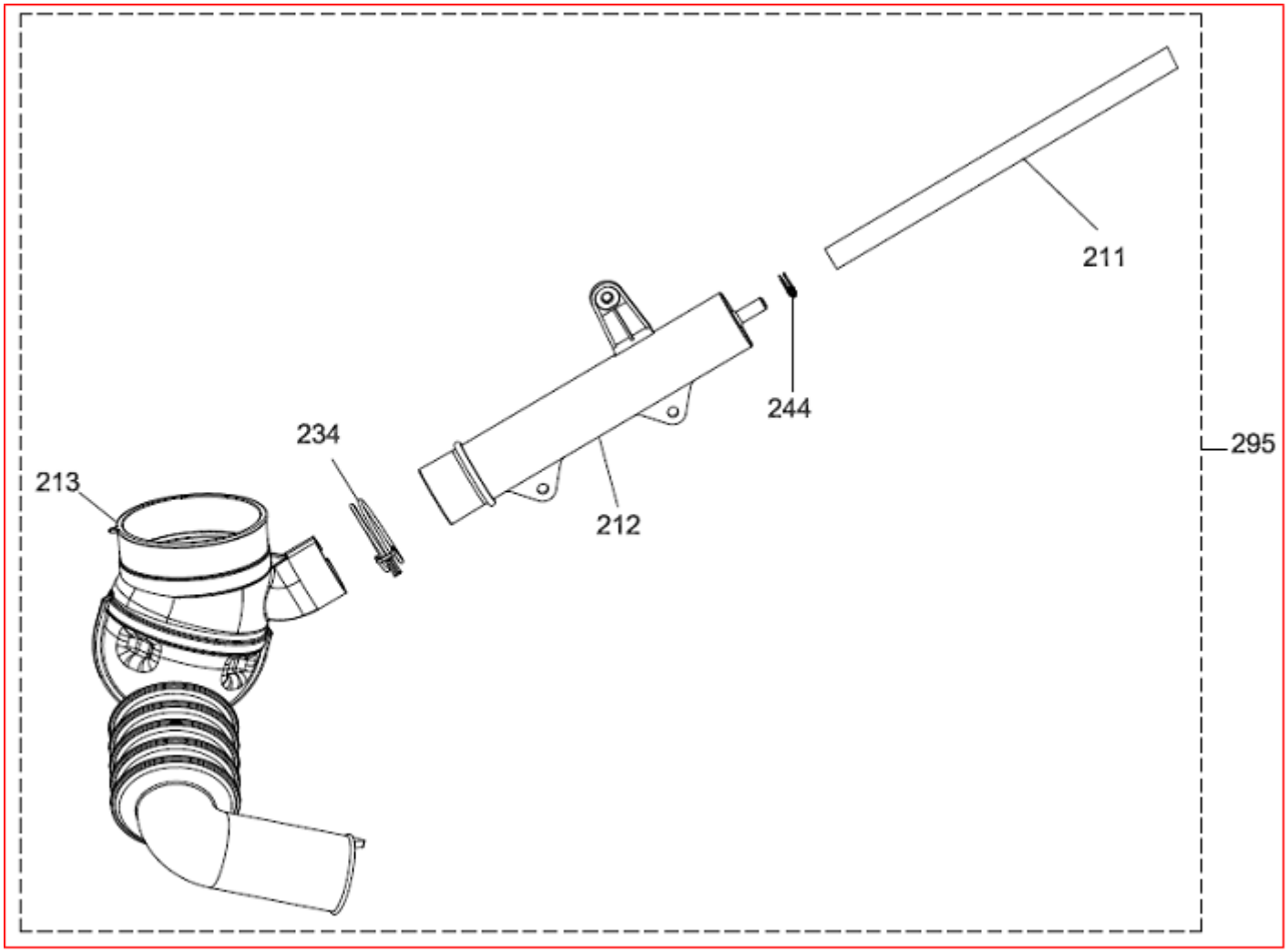


13.3.2. Detergent Drawer Group Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
200	DETERGENT DRAWER	1	42065303		
202	SIPHON COVER	1	42065308		(U)
214	DETERGENT DRAWER LOC. PART-BLUE	1	42065309		
203	WATER DISTRIBUTION PLATE GR	1	42065322		
205	DETERGENT DRAWER HOUSING	1	42065304		
228	PLASTIC HOSE CLAMP	4	42004189		
207	VALVE-DETERGENT BOX HOSE	1	42004536		220mm
208	VALVE-DETERGENT BOX HOSE	1	42004535		200mm
209	VALVE(TWO EXIT)	1	32013042		CP
270	DETERGENT BOX GROUP	1	42065326		
275	DETERGENT BOX GROUP/HOSE	1	42065329		
280	DETERGENT BOX GROUP/FULL	1	42110164		CP
996	LIQUID DETERGENT LEVEL PLATE	1	42065310		

13.5 Pressure Switch Hose Group Spare Parts

13.5.1. Exploded View of Pressure Switch Hose Group Spare Parts

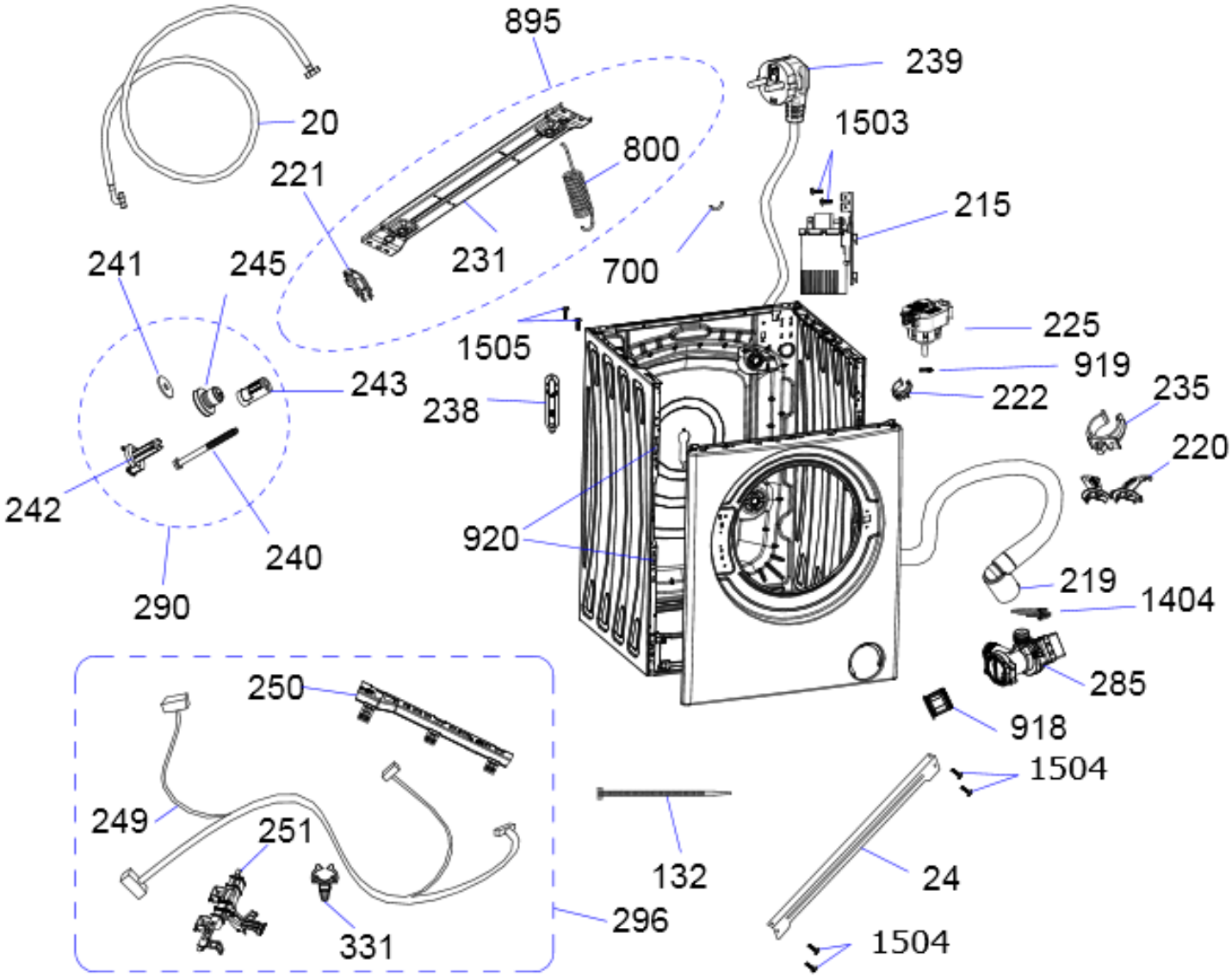


13.5.2. Pressure Switch Hose Group Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
211	PRESSURE SWITCH HOSE (EPDM)	1	42078599		
212	PRESSURE SWITCH WATER RESERVOIR	1	42088879		
213	TUB EXIT BELLOWS GR(HOSE+BALL)	1	42127585		
234	HOSE CLAMP Ø32,7	1	35007366		
244	HOSE CLAMP Ø9,6	1	35008991		
295	PRESSURE SWITCH HOSE GR.PYTHON BALL SYST	1	42079698		

13.6 Body Group Spare Parts

13.6.1. Exploded View of Body Group Spare Parts

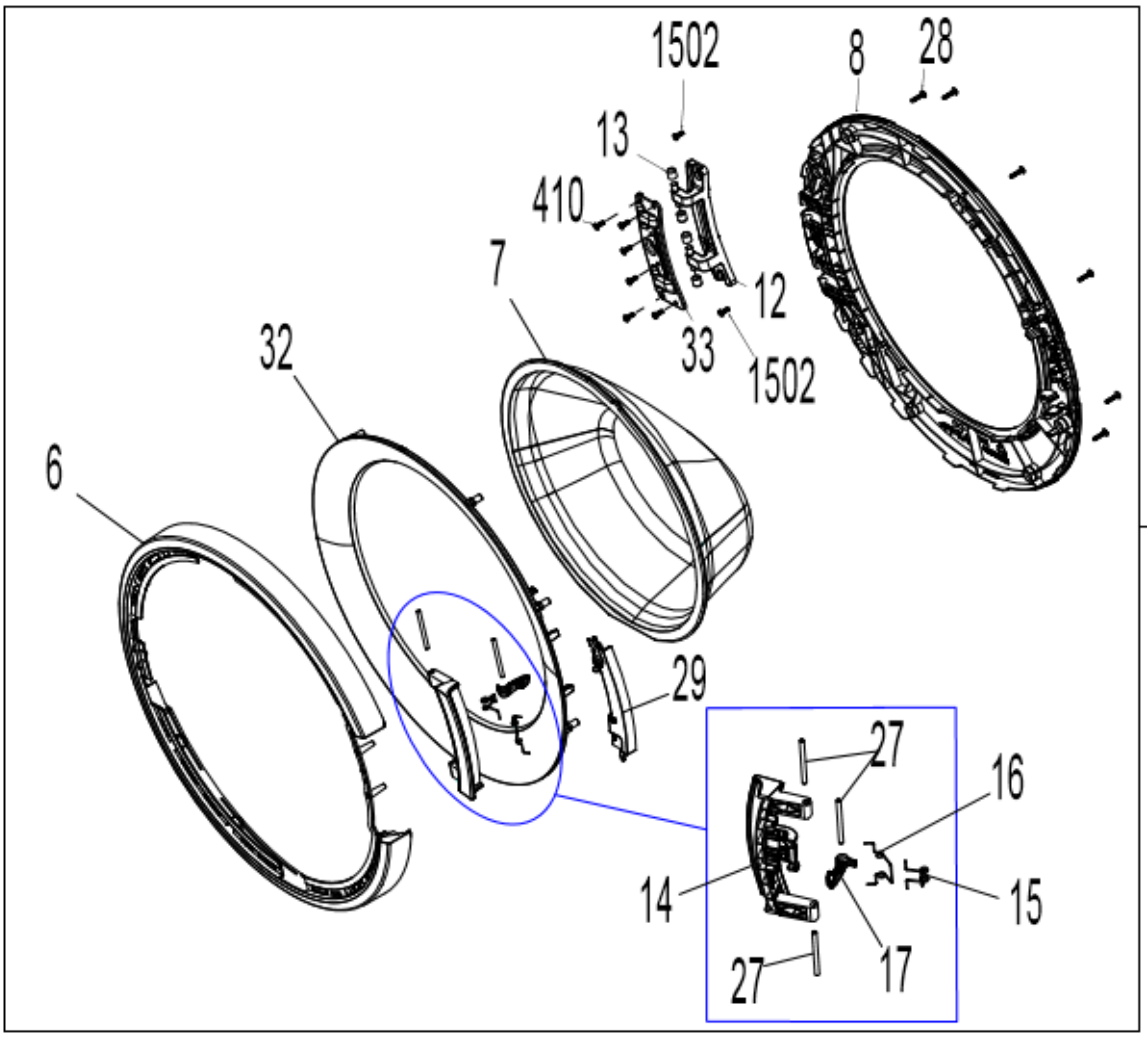


13.6.2. Body Group Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
20	WATER ENTRY HOSE GROUP	1	40014423		
24	UPPER SUPPORT BRAKET	1	20796100		
285	PUMP GROUP	1	32006391		CP
220	DRAIN HOSE ROUTER PLASTIC	1	42019322		
219	DRAIN HOSE	1	42074837		
225	ELECTRONIC PRESSURE SENSOR	1	32006187		CP
215	EMI FILTER	1	32015002		CP
296	CABLE GR	1	32026678		CP
249	CABLE HARNESS	1	32026679		CP
250	CABLE HARNESS HOLDER PLS	1	42093407		
251	CABLE HOLDER AND ROUTER PLASTIC	1	42028367		
331	LOCKING WIRE SADDLE (BLUE)	1	42085086		
895	SPRING HANGER BRACKET GROUP	1	20737953		
800	TUB SPRING	2	37015307		
231	SPRING HANGER BRACKET	1	20779359		
221	HANGER SPRING BRACKET PLS.	2	42016727		
700	TUB HANGER SPRING PART (PLASTIC HOUSING PART BETWEEN TUB AND SPRING HOOK)	2	42019298		
235	DRAIN HOSE HOLDING PLS	4	40014270		
239	POWER CORD GROUP	1	32017512	NA-127VB6WAE	CP
			32017511	NA-127VB6WAS	CP
			32017511	NA-127VB6WPG	CP
222	PRESSURE SWITCH MOUNTING CLIP	1	42022768		
238	SPEED CONTROL HOLE STOPPER	1	42106161		
290	TRANSPORT SCREW GROUP-II	4	37015676		
242	TRANSPORT SCREW PLASTIC-A-II	4	42018528		
243	TRANSPORT SCREW PLASTIC-B-II	4	42018529		
240	TRANSPORT SCREW	4	37008363		
245	TRANSPORT SCREW EPDM	4	42060790		
241	PLAIN WASHER 8,30X29X2	4	37015272		
132	CABLE TIE(YKB150)	7	40007592		
918	DRAIN FILTER	1	42120197		
919	HOSE CLAMP Ø8,6	1	37000344		
920	FRONT PANEL DROP FIXING PLASTIC-II	4	42020456		
1404	HORT. KLPÇ.Ø35,0	1	37006977		
1503	ST 4,2X9,5 PAN HEAD W.COL. T.UNDER. SER. EA	2	37016042		
1504	ISO 7049 ST 4,2X13 TORX	4	37014453		
1505	ST 4,2X9,5 TRTSB	4	37014454		

13.7 Porthole Group Spare Parts

13.7.1. Exploded View of Porthole Group Spare Parts

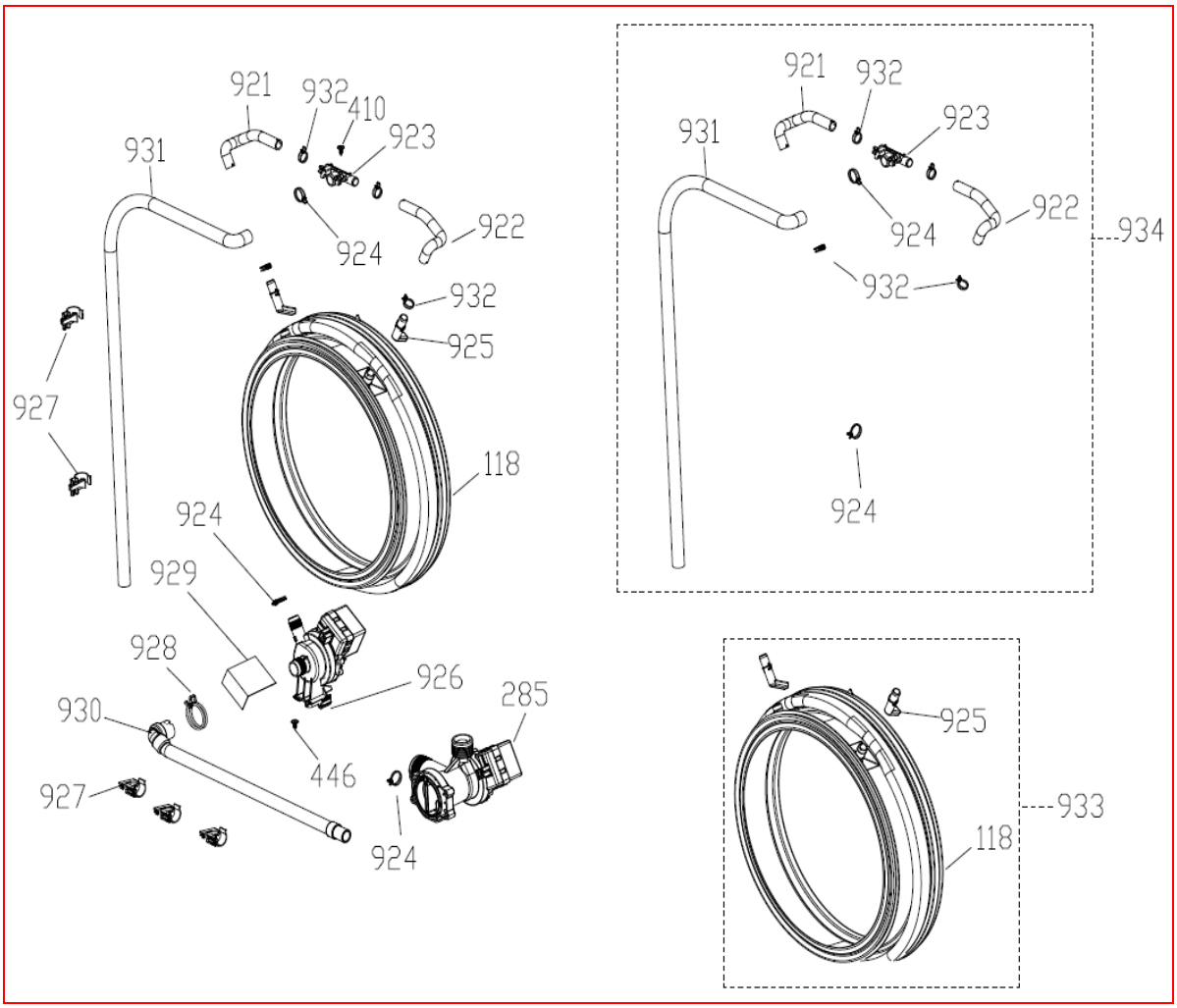


13.7.2. Porthole Group Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
6	OUTER DOOR PLASTIC	1	42093322		
7	DOOR GLASS	1	47003771		
8	INNER DOOR PLASTIC	1	42086999		
12	HINGE II-M5	1	37015559		
13	HINGE BUSHING II	4	42023907		
14	DOOR HANDLE	1	42104266		
15	HOOK SPRING	1	35007443		
16	HANDLE SPRING	1	37014985		
17	DOOR HOOK II.(METAL)	1	37008931		
27	DOOR HANDLE TONGUE PIN	3	35007434		
28	SCREW 3.5X16PAN.HE. WITH COL. CR. RE. UN. HE.	9	35008715		
29	OUTER DOOR PLS INSERT PART	1	42106270		
32	OUTER DOOR PLS. INNER FRAME	1	42080609		
33	DOOR HINGE SUPPORT SHEET	1	37008152		
50	PORTHOLE GROUP	1	42132501		(U)
410	SCREW 4X12 PAN HEAD WITH COLLAR UNDER HE	6	37016360		
1502	SCREW M5X8 TSB	2	37015092		

13.8. CIRCULATION GROUP

13.8.1. Exploded View of Circulation Pump Spare Parts



13.8.2. Circulation Pump Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
118	TUB BELLOWS SEAL	1	42025995		
285	PUMP GROUP(FILTER)(THER. PROTECT.)	1	32006391		
410	SCREW 4X14 PAN HEAD TYPE 2	1	37016360		
446	ISO 7049 ST 4,2x13 TYPE 2	1	35008716		
921	TWIN JET HORN/LEFT	1	42025993		
922	TWIN JET HORN/RIGHT	1	42025992		
923	TWIN JET T-ELBOW	1	42025561		
924	HANDCUFFS Ø20.2	3	37008653		
925	TWIN JET NOZZLE	2	42025574		
926	CIRCULATION PUMP	1	32018568		
927	TWIN JET CABLE HOSE HOLDER PLASTIC	5	42025867		
928	HANDCUFFS Ø26.8	1	37009587		
929	PUMP PROTECTION FOIL-3	1	47010025		
930	TWIN JET HOSE_N NO:1	1	42025194		
931	TWIN JET HOSE_H NO:2	1	42025991		
932	HANDCUFFS Ø15.88	4	37008652		
933	PYTHON-CIRCULATION TUB GASKET GR	1	42031321		
934	TWIN _JET HOSE GROUP	1	42034816		

13.9. Accessories

13.9.1. Accessories

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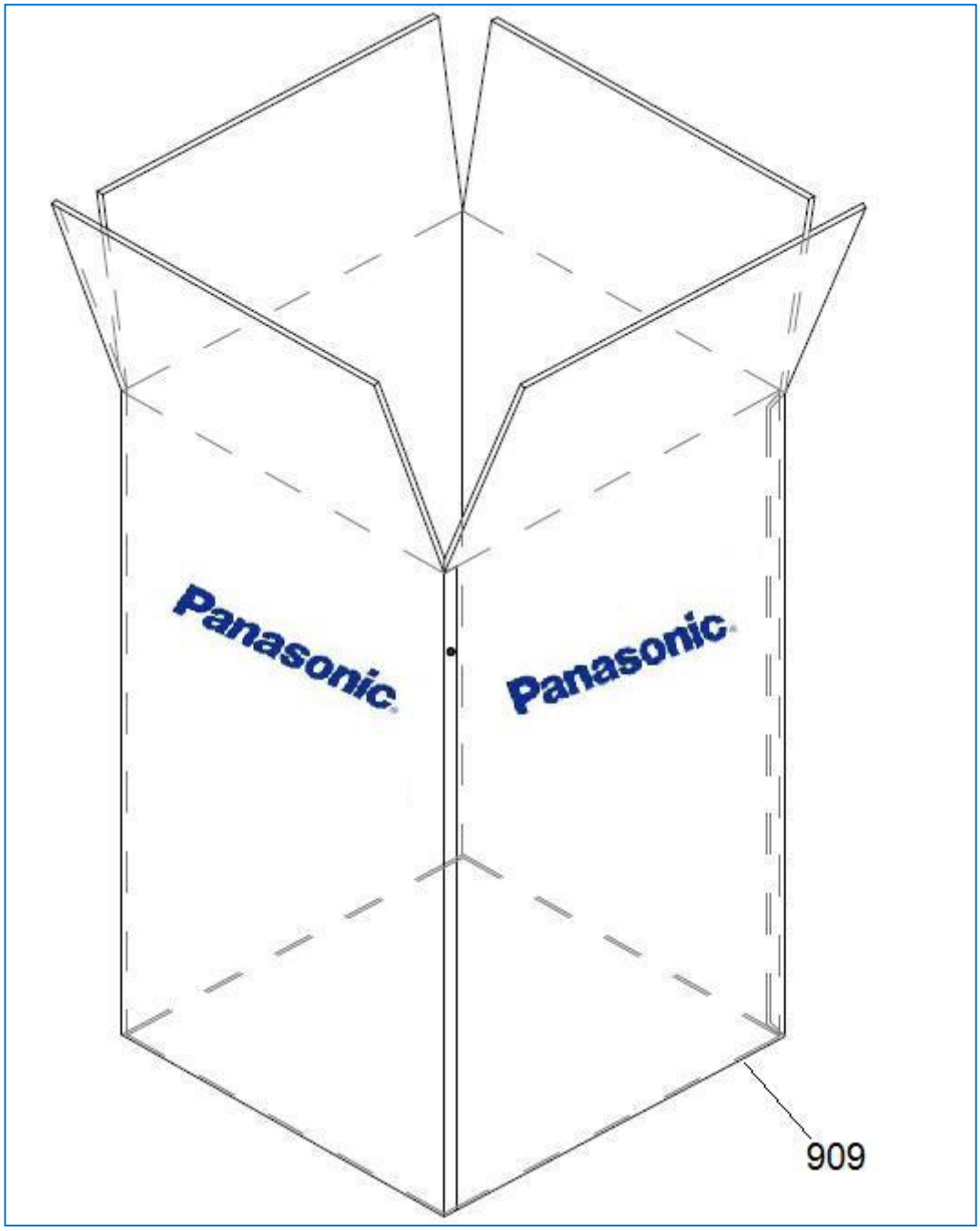
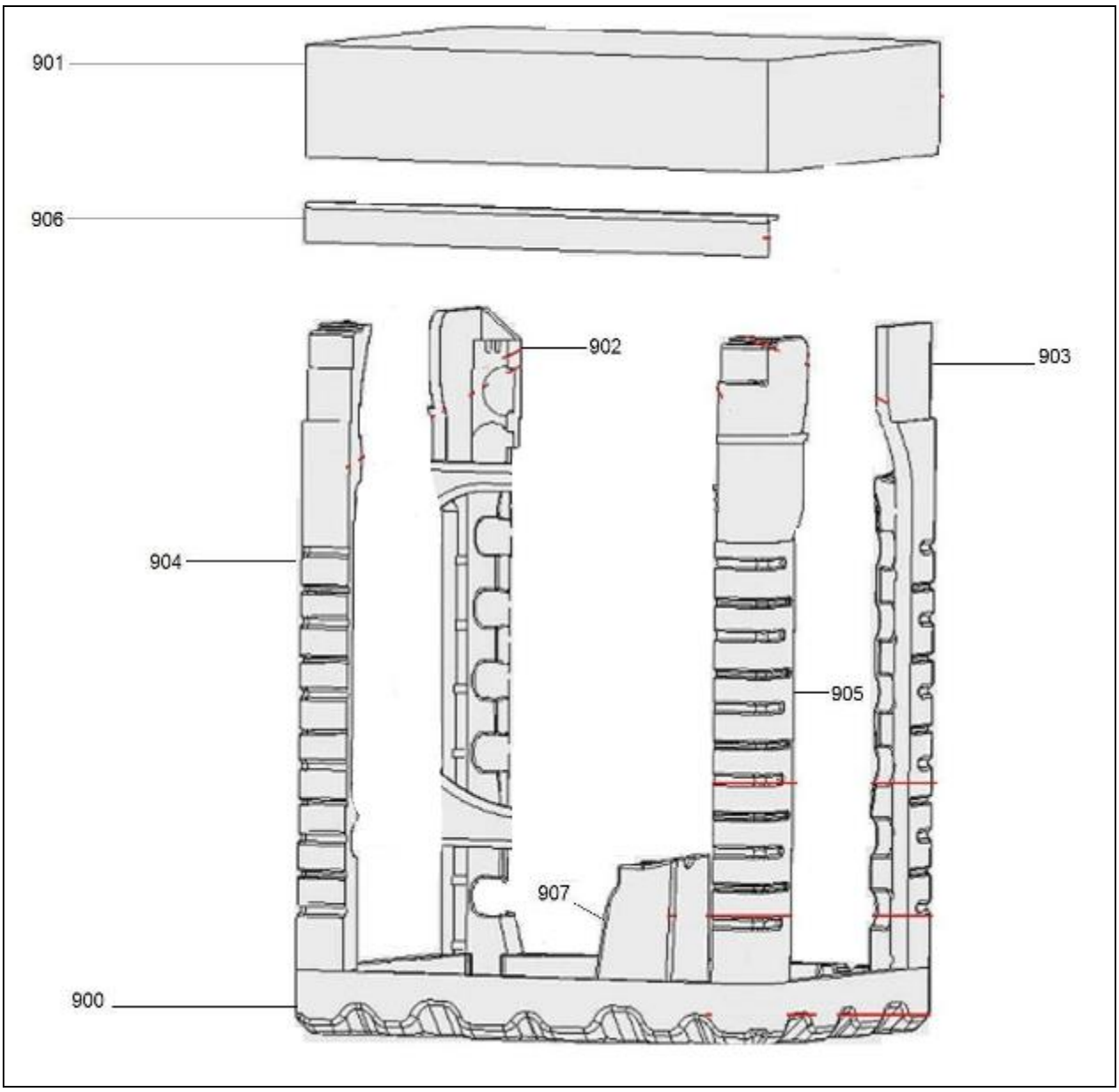
13.9.2. Accessories Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
994	USER'S MANUAL	1	52174913	NA-127VB6WAE	ARABIC
			52174912		ENGLISH
			52175338	NA-127VB6WAS	ARABIC
			52175337		ENGLISH
			52174926	NA-127VB6WPG	ARABIC
			52174925		ENGLISH
995	ENERGY LABEL	1	52174903	NA-127VB6WAE	
			52175339	NA-127VB6WAS	
			52174931	NA-127VB6WPG	
996	LIQUID DETERGENT LEVEL PLATE	1	42065310		
997	DRAIN HOSE COAT RACK	1	40020601		
998	TRANSPORT SCREW STOPPER	4	42116405		

13.10. Packaging Group Spare Parts

13.10.1. Exploded View of Packaging Group Spare Parts





13.9.2. Package Group Spare Parts List

REF. NO	PART NAME	QTY	CODE	MODEL	REMARKS
900	BOTTOM STYROFOAM	1	52015437		
901	TOP CARTON	1	52152496		
902	REAR STYROFOAM(LEFT)	1	52027783		
903	REAR STYROFOAM(RIGHT)	1	52027782		
904	FRONT STYROFOAM LEFT	1	52027781		
905	FRONT STYROFOAM RIGHT	1	52028076		
906	CORNER CARDBOARD	1	47002042		
907	TUB SUPPORT STYROFOAM	1	52005300		
909	PACKAGE CARTON	1	52160507		