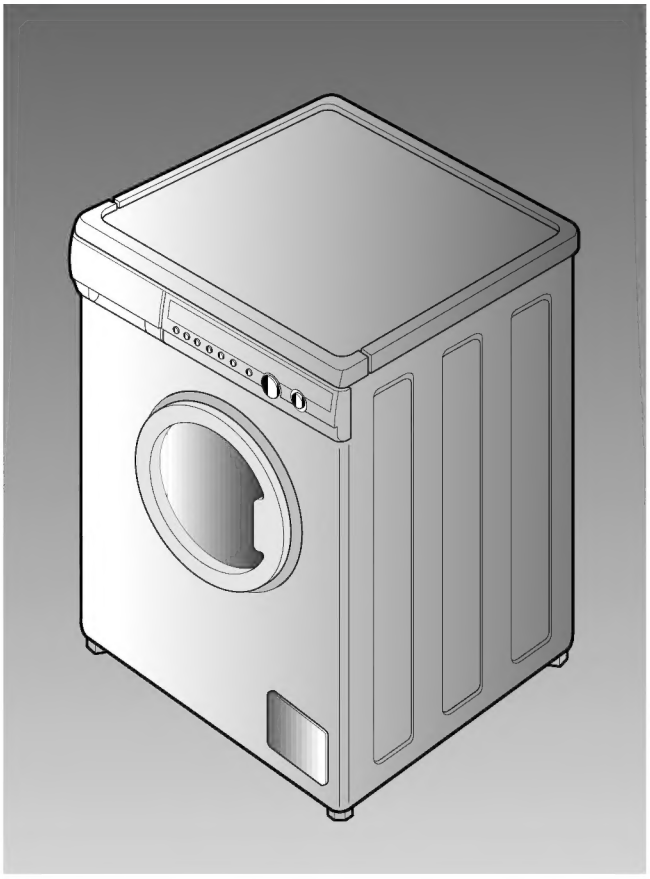
SAMSUNG

WASHING MACHINE

SWF - SQ1200

SERVICE Manual

WASHING MACHINE



CONTENTS

⚠ Caution for the safety during servicing

1. Do not allow the customer to repair the product.
☞The person may be injured or the product life may be shortened.

2. Execute A/S after unplugging the power supply unit.
☞Be care of the electric shock.

3. Do not plug several plugs in the same outlet.
☞It may cause the fire due to overheat.

4. Check the damage, pressing or burning of the power plug or outlet.
☞Replace it promptly if it has problem.(It may cause the electric shock or fire.)

5. Do not clean the main body with the water.
☞It may cause the electric shock and fire and shorten the product life.

6. The wiring of the harness shall be free from the moisture and tightened during serving.
☞It shall not be deviated by certain impact.

7. Remove any dust or filth on the housing section, wiring section, connection section during servicing.
☞Protect the cause of the fire such as the tracking, shortage and etc.

8. Check any mark of the moisture on the electrical parts, harness section and etc.
☞Replace the parts or remove the moisture.

9. Check the assembly status of the parts after servicing.
☞Maintain the status before servicing.

10. Pull out the power cord with holding the plug.
☞Be care of the electric shock and fire when the cord is damaged.

11. Unplug the power plug from the outlet when the wash machine is not used.
☞Be care of the electric shock and fire due to the strike of the lightening.

12. Do not use or store the spray or flammable materials(including gasoline, alcohol and etc.) around the wash machine.
☞Be care of the explosion or fire due to the electric spark.

13. Do not put the bowel of water or wet laundry on the wash machine.
☞If the water is penetrated to the wash machine, this may cause the electric shock or fire.

14. Do not install the wash machine in the place where the snow or rain falls.
☞It may cause the electric shock and fire and shorten the product life.

15. Do not push the control buttons with the awl, pin, or sharp materials.
☞It may the electric shock and trouble.

16. Check the wash machine is leveled horizontally and installed properly on the floor.
☞The vibration may shorten the product life.

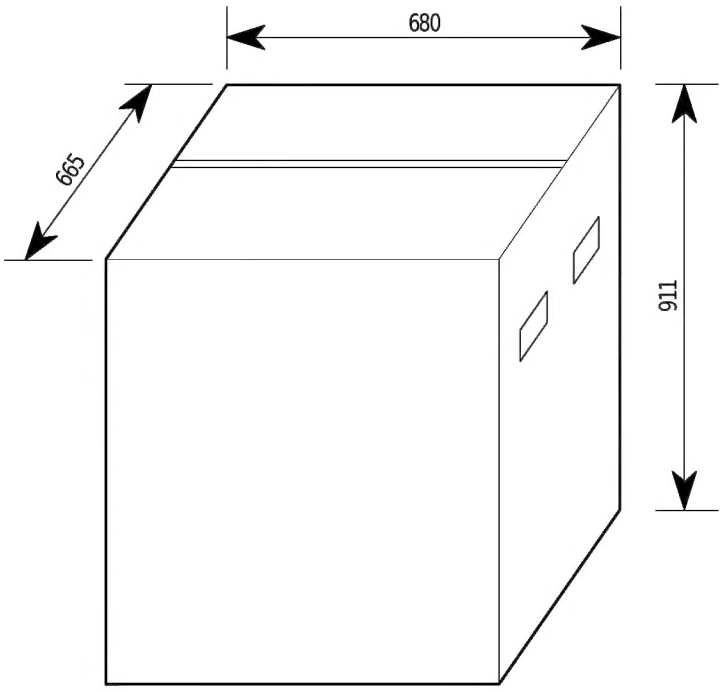
17. Joint the wire by the connector correctly.
☞When the wire is jointed by the tape, this may cause the fire due to the tracking.

18. When the wash machine is to be laid for the service, put the pad on the floor and lay the product at side slowly.
☞If the wash machine is laid front, the relay may be damaged by the tub.

19. When the wash-heater is replaced, check it is inserted in the bracket-heater and screw the nut.
☞If the wash-heater is not inserted in the bracket-heater properly, this may cause the noise and leakage since it is contacted to the drum.

1. Specification

● Power supply	:	AC 220 - 240V, 50Hz
● Wash and spin capacity	:	6.0 kg
● Dimension		
Product	:	W 600mm x D 610mm x H 850mm
Package	:	W 680mm x D 665mm x H 911mm
● Weight		
Net	:	75 kg
Gross	:	80 kg
● Wash type	:	Drum type
● Wash revolution	:	40 - 50 rpm
● Spin revolution	:	1200 rpm
● Power consumption		
Heating wash	:	2500 W (220 V), 2900 W (240 V)
No Heating wash	:	250 W
● Water volume	:	69 L(Standard course)
● Pressure of the water pipe	:	0.5 kgf/Cm^2 - 8 kgf/Cm^2



2. Function of the front control panel

■This product, as the deluxe drum wash machine adapting the heating-wash function and CAN-BALANCER, is the soft-touch type micom wash machine which reduces the vibration and noise and provides best wash process with the FUZZY control function.

2-1 Control Keys and Displays

2-2 Function Description of Control Keys

1. COURSE SELECTION KEY

1) On initial status without key input or on temporary pause mode, pressing the COURSE SELECTION KEY can select one of the following courses in the order as listed below.
→ FUZZY → DELICATE → WOOL → SPEEDY → OFF
2) For FUZZY course, default setting is MAIN WASH + RINSE 3 times + SPIN 1200 + 40 °C.
3) For DELICATE course, default setting is MAIN WASH + RINSE 2 times + SPIN 600.
4) For WOOL course, default setting is MAIN wash course + RINSE 2 times.
5) When the selected course is in normal operation, pressing the COURSE SELECTION KEY is not valid making beep sounds.
6) When you pressed PAUSE key and changed the current course while the washing machine was in normal operation after valid key input, the setting doesn't get affected but reset to initial value of the finally selected course even when you manually set each washing process by using manual keys in the previous course.
7) Weight-sensing feature is available only for FUZZY course.

2. WASH SELECTION KEY

1) Pressing the WASH SELECTION KEY is valid after a course is selected or before washing process is started. It is not valid if any washing process is already in operation.
2) On initial status without key input or on temporary pause mode, pressing the WASH SELECTION KEY can select one of the following courses in the order as listed below.
→ MAIN → MAIN + PRE → OFF

3) On a pause mode while in a washing process, RINSE, SPIN, or OPTION features are valid but WASH, TEMPERATURE, COURSE, or DELAY START features are not valid.
4) PRE cannot be selected alone.
5) PRE selection is valid when you select FUZZY course or manual course, but not valid when you select DELICATE, WOOL, or SPEEDY courses.

3. Error generation

3-1-1 Water supply trouble signal

1) When the change of water level frequency is less than 50 Hz in 2 minutes after supplying the water.
2) When the melody sound of 0.5 seconds ON/OFF is generated 5 times.
3) Display : H20
4) Release method : POWER S/W OFF

3-1-2 Drainage trouble signal

1) When the water level is not lower than RESET after some period of the drainage(Wash: 1 minute, Rinse: 30 seconds).
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times.
3) Display : dr-FE
4) Release method : POWER S/W OFF

3-1-3 Balance trouble signal

1) When the eccentricity is over the standard value after executing the eccentricity release control process 7 times repeatedly.
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times.
3) Display : unbE
4) Release method : POWER S/W OFF

3-1-4 Door open signal

1) When the door is opened during the process.
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times.
3) Display : door
4) Release method : DOOR CLOSE

3-1-5 Pressure ensor trouble signal

1) When the water level is not detected after 30 minutes of the water supply.
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times and the water is drained compulsively.
3) Display : PSE
4) Release method : POWER S/W OFF

3-1-6 Water supply triac trouble signal(Over-flow error)

1) When the abnormal pressune sensor detects over-flow due to the triac trouble.
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times and the water is drained to the standard water level(wash level) compulsively.
3) Display : OFE
4) Release method : POWER S/W OFF

3-1-7 AUTO POWER S/W trouble signal

1) When the auto power switch is not operated.
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times.
3) Display : AUPE
4) Release method : POWER S/W OFF

3-1-8 Heater error signal

1) When ASS'Y-Thermistor detects the water temperature in the drum and the temperature is not changed during HEAT wash.
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times.
3) Display : HHE
4) Release method : POWER S/W OFF

3-1-9 Motor driving triac trouble signal

1) When the motor driving triac is not operated properly.
2) The melody sound of 0.5 seconds ON/OFF is generated 5 times.
3) Display : oCE
4) Release method : POWER S/W OFF

3-2 Test mode

3-2-1 Test mode

1) Switch on by pushing DELAY START and START/PAUSE keys simultaneously.
2) Display : tESt

3-2-2 Heating speed course aging mode

1) The speed course (60℃) is executed repeatedly by pushing WASH key at TEST MODE till releasing it.
2) The temperature can be selected in the order of CANCEL → 40℃) → 60℃) after pushing PAUSE button.
3) Display : t2

3-2-3 Speed course aging mode

1) The speed course(cold water) is executed repeatedly by pushing RINSE key at TEST MODE till releasing it.
2) Display : t3

3-2-4 SPIN aging mode

1) The spin aging is executed repeatedly by pushing SPIN key at TEST MODE till releasing it.
2) Display : t4

3-2-5 WASH+HEAT Aging mode

1) The water supply is completed and HEAT wash starts by pushing OPTION key in TEST MODE.
2) Display : t5

3-2-6 Driving part test mode(ON/OFF time is 1 second respectively)

1) The driving part test is executed by pushing START/PAUSE key at TEST MODE.
   PRE WASH VALVE → WATER(V3) ON → OFF → MAIN WASH VALVE → WATER(V4) ON → OFF → RINSE VALVE → WATER(V1) VALVE → WATER ON → OFF → DRAINAGE MOTOR ON → OFF → MOTOR RELAY 1 ON → OFF → MOTOR RELAY 2 ON → OFF → AUTO POWER S/W OFF
2) Display : tESt

3-2-7 Thermistor value test mode

1) Switch on by pushing RINSE and SPIN keys simultaneously.

2) The temperature of the thermistor for the water temperature detection is displayed by HEX value.

3) Thermistor data for the temperature

Temperature(℃)	20	30	40	50	60	70	80	90
DATA	24	2E	42	57	71	85	95	A9

※Above temperature is the temperature of the drum inside detected by the thermistor.
※Replace the thermistor when HEX value is displayed below 0.3.

3-2-8 Unbalance test mode

1) Switch on by pushing SPIN and TEMP keys simultaneously.

2)" Unbal " is displayed and the laundry eccentricity is detected for 35 seconds.

3) The unbalance data is displayed by HEX after completing the unbalance detection process.

3. RINSE SELECTION KEY

1) Pressing the RINSE SELECTION KEY is valid after you selected a course or when in a washing process, but not valid when in a rinsing or spin process.
2) On initial status without key input or on temporary pause mode, pressing the RINSE SELECTION KEY can select one of the following options in the order as listed below.
→ 2 → 3 → 4 → OFF
3) After pressing PAUSE key whilst in a RINSING process, SPIN is valid but WASH, RINSE, COURSE, or DELAY START are not valid.

4. SPIN SELECTION KEY

1) SPIN SELECTION KEY input is valid if not in SPIN process.
2) On initial status without key input or on temporary pause mode, pressing the SPIN SELECTION KEY can select one of the following options in the order as listed below.
→ 600 → 900 → 1200 → OFF
3) Only 600 is available for DELICATE COURSE.
4) In case of WOOL COURSE, you cannot select SPIN mode but washing machine automatically performs spinning by 200 RPM.
5) If RINSE HOLD or NO SPIN is selected, SPIN setting is automatically canceled and it is restored when the RINSE HOLD or NO SPIN is deselected.

5. OPTION SELECTION KEY

1) OPTION SELECTION KEY input is valid only when WASH or SPIN is selected after course selection.
2) On initial status without key input or on temporary pause mode, pressing the OPTION SELECTION KEY can select one of the following options in the order as listed below.
→ WATER PLUS → RINSE HOLD → NO SPIN → WATER PLUS + RINSE HOLD → WATER PLUS + NO SPIN → OFF
3) SPIN is automatically canceled if RINSE HOLD or NO SPIN is selected.
4) Only WATER PLUS is available when WOOL course is selected.

6. TEMPERATURE SELECTION KEY

1) TEMPERATURE SELECTION KEY input is valid only when WASH is selected after course selection.
2) On initial status without key input or on temporary pause mode, pressing the OPTION SELECTION KEY can select one of the following options in the order as listed below.
→ 95°C → 60°C → 40°C → OFF
3) Only 60°C and 40°C are available when DELICATE COURSE is selected.
4) Only 40°C is available when WOOL COURSE is selected.
5) Only 40°C and 60°C are available when SPEEDY COURSE is selected.

7. DELAY START SELECTION KEY

1) DELAY START SELECTION KEY input is valid when more than one course is selected among WASH, RINSE, SPIN, or COURSE and before START KEY is pressed.
2) This key is a sort of REPEAT KEY, reservation default value is 1 hour when the selected process is less than total 1 hour, 2 hours when selected process is more than 1 hour and less than 2 hours, and 3 hours when selected process is more than 2 hours and less than 3 hours.
3) Pressing the DELAY START SELECTION KEY once increases the hold time by 1 hour and can set up to 19 hours max.

8. START/PAUSE KEY

1) START/PAUSE KEY input is possible when a course is already selected and pressing the key toggles between the following modes.
→ START → PAUSE

9. POWER ON/OFF KEY

1) POWER ON/OFF KEY input is always possible and pressing the key toggles between t he following modes.
→ POWER ON → POWER OFF

2) This POWER ON/OFF KEY performs reset function on ERROR.
This key removes ERROR by turning power off when error happened.

4. Process table

		Temperature selection			Weight detection	Pre wash						Main wash process						Rinse process										SPIN process										
		40°C	60°C	95°C		Initial water supply	Water supply reverse	Wash	Wash + Drain	Drain + Interm -ediate SPIN	Stop	Initial water supply	Water supply reverse	Wash (Time plus for the heating)			Water supply + Wash For the heating	Wash + Drain																				
		Standarde 30°C				Driving water level	Selected water level					Driving water level	Selected water level	45 Min.	40 Min.	35 Min.																						
Allocated time		Wool course heating is not available.			1'	1'	5'	7'	1'	4'	30"	1'	5'	45'	40'	35'	30"	1'	4'		1', 2'		1'	4'	30"	1'		8'									10'
Course selection	Fuzzy (S)	0	0	0	0	¶^						0				0	¶^	0	0	0	0	0	0	0	0	0		0		0	1:22	0				
	Fuzzy (M)	0	0	0	0	¶^						0			0		¶^	0	0	0	0	0	0	0	0	0		0		0	1:27	0				
	Fuzzy (L)	0	0	0	0	¶^						0		0			¶^	0	0	0	0	0	0	0	0	0		0		0	1:32	0				
	Delicate	0	0	0	0	¶^						0				15'	¶^	0	0	0	0	0	0	0	0	0	0				50	0				
	Wool	Not available				¶^						0				15'	¶^	0	1 Min	0	0	0	0	1 Min	0						41	X				
	Speed	0	0			¶^						0				10'	¶^	0	0	0	0	0	0	0	0	0		0			46	0				
Manual wash	Pre					S		0	0	0	0																				19	X				
	Main	0	0	0								0		0			¶^	0	0	0											52					
Manual Rinse																					0	0	0	0	0						17	X				
Manual SPIN	Weak																									0	0			0	10	0				
	Standard																									0		0		0	10	0				
	Strong																									0			0	0	10	0				
No SPIN																																				
No drain												¶^																								
Water plus						S						S																								
Door lock release																			0					0						0					0	
Unbalance detection										0									0					0			0	0	0						
Foam detection																			0																
Pump motor operation					0				0	0								0	0				0	0			0	0	0						
Water supply valve	Warm water (Main)					0						0					0																		
	Cold water (Pre)					0						0					0																		
	Rinse																				0														
Wash-heater		0	0	0										0																					
Thermistor		0	0	0								0	0	0	0																				
Wash motor	CW				0	0		0	0	0		0	0	0	0	0		0	0		0	0	0	0		0	0	0	0						0	
	CCW					0		0	0			0	0	0	0	0		0			0	0	0			0									0	

¶^:Option

* Note 1: The heating wash time is calculated by the formula.

7. Installation guide

7. Precautions during Service

7-1. Before Servicing

1) When you lay down the washing machine so that the front side may face the surface of the floor, take care in order not to cause any deformation or scratches on the door part. That should be observed also when you lay down the washing machine by side part to the floor. Never lay it down by rear part to the floor as it might cause damage to pulley or other parts by being contacted with back cover.
2) Do not turn power off the washing machine whilst in operation on an uneven floor. (Rubber packing might be abrased and cause severe vibration or deviation from the designated place.

7-2. After Servicing

1) Select a place to install the washing machine.
   # Decide to which direction you are going to place a drainage hose.
   # Leave 10cm or more space between washing machine and the wall.

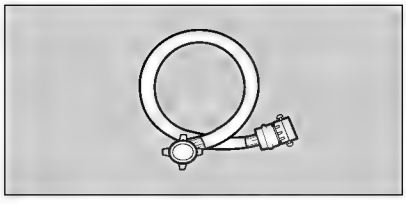
2) Coordinate the horizontal level by adjusting the leg height.
   Ajust the height when the washing machine is correctly placed.
   ## If the horizontal level is not even, that may cause severe vibration or troubles. Make sure the washing machine is placed horizontally even.

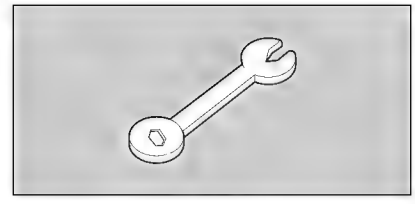
10. Installation guide

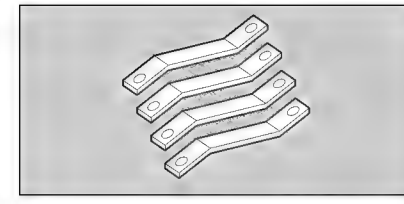
10-1 Unpack the package and make sure all items are included.

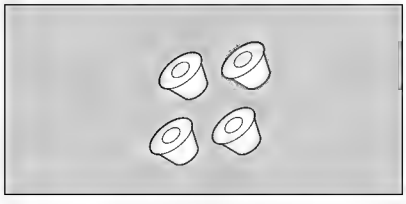
1) Open the box and take out the manual and the spanner for adjusting the leg height. Then, remove the box and lift up the product on the packing base plate.
   Open the front door and check below item.
2) The items are used for below purpose.

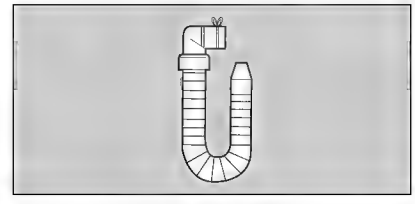
Item	Q'ty	Purpose
1. Water supply hose	1	Connection for the water supply.
2. Spanner	1	Removal of the transport safety device and the leg.
3. Rubber plug	4	Packing to protect the water penetration after removing the transport safety device(four holes in the cabinet)
4. Hose connector	1	Extension connector of the water supply hose.

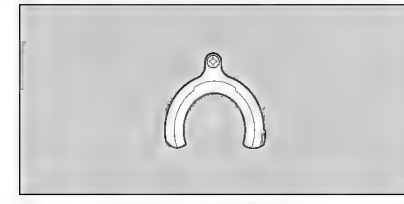

WATER SUPPLY HOSE (1)


SPANNER


TRANSPORT SAFETY DEVICE (4)


RUBBER PLUG (4)


DRAINAGE HOSE

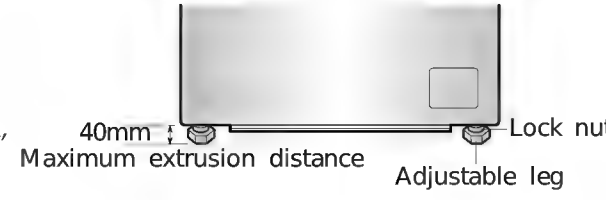

HOSE HANGER

10-2 Install the product on the level and stable surface.

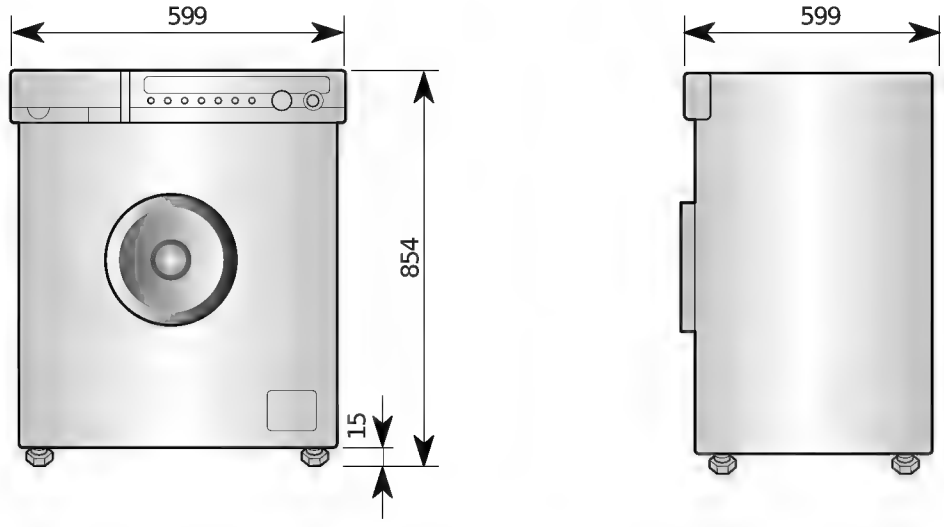
Adjust four adjustable leg for the stable leveling by the level adjust device. The installation condition and pr oduct dimension are described as below.

10-2-1 Ex-factory condition(Assembly cover top assembly status)

1) The adjustable leg is closed to the bottom of the product(15mm extrusion) so that the vibration and noise are properly set.
2) For the first installation or replacement, unscrew four adjustable legs and put the product horizontally; then, screw the lock nut to clockwise direction tightly.
   The legs can be extruded up to 40 mm maximally.

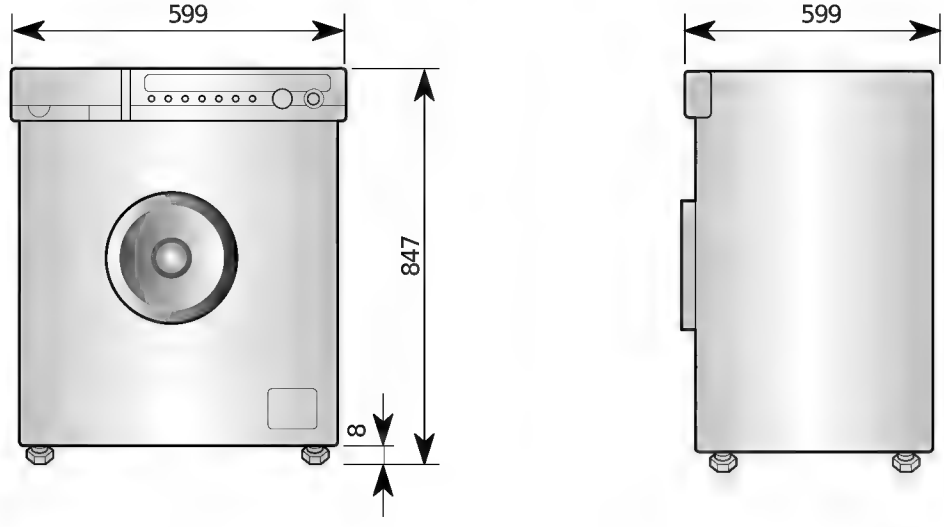


3) If the leveling is not suitable at the maximum extrusion of the adjustable leg, put the wood or brick to adjust the level.(Do not use the weak material such as the laminated paper.)



10-2-2 Installation condition at the sink(Assembly cover top disassembly status)

1) Unscrew four adjustable legs and remove them from the product.
2) Disconnect the lock nut(4) from the adjustable leg and fix them to the product.
3) Remove the assembly cover top.
4) Unscrew the bracket-C.T fix screw(each two of the left and right) for the side-fixing of the assembly cover top.
5) Install the product at the sink.



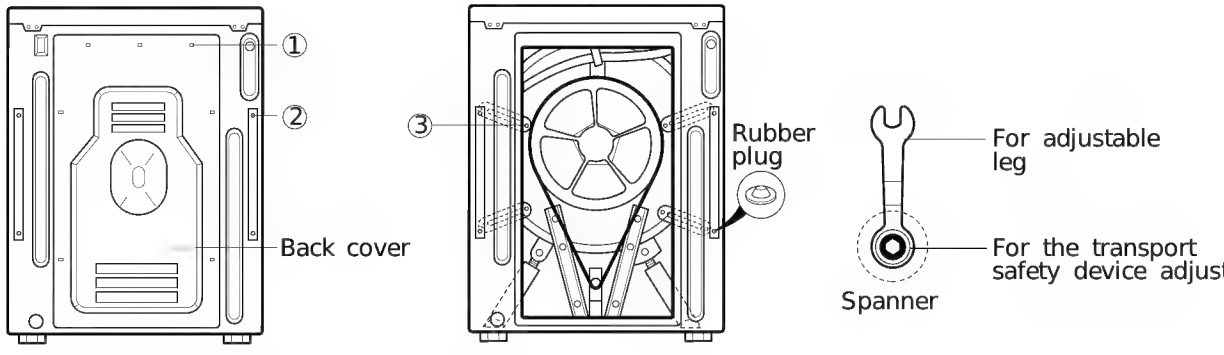
10-3 Remove the transport safety device.

1) Unscrew seven fix screws(1) and disassemble back cover.
2) Unscrew each four bolts of (2) and (3) by the spanner for the transport safety device and remove the transport safety device.
3) Put the rubber plug in four holes of (2).
4) Disassemble back cover.

※Eight fix bolts disassembled and transport safety device shall be kept well since they are necessary for the transport of the product.

Caution

Please remove the safety device since it causes the vibration and excessive force to the wash machine.



9. Assembly and disassembly instruction

9-1 Assembly - Cover top

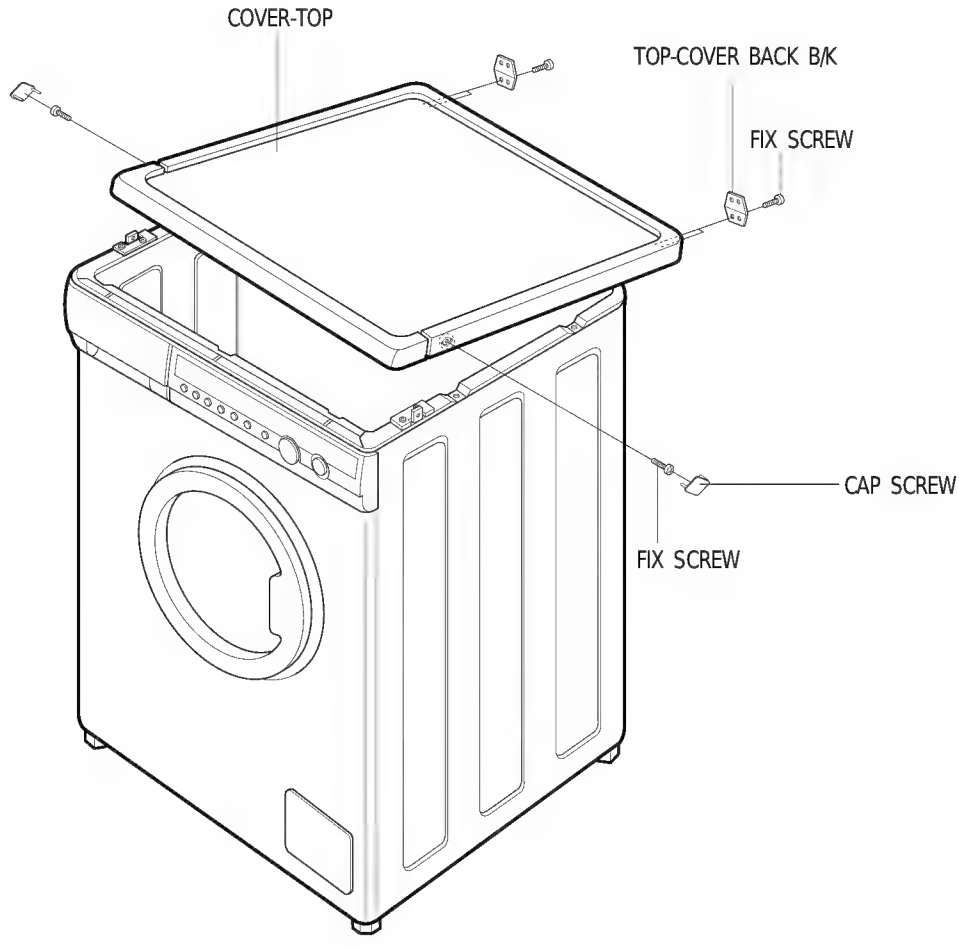
9-1-1 Disassembly

1) Remove the cap-screw(each on of left and right) in the groove section on the cover-top using the pin.
2) Remove the fix screw on the cover-top.
3) Remove the screw (each two of the left and right) fixing the cover-top on back side and the top-cover back b/k(two).

※Keep the disconnected part not to be missed. Specially, do not store the cover top in the moisture place since it may be deformed.

9-1-2 Assembly

Assemble the parts by the reverse order of the disassembly.



9-2 Assembly - Panel control

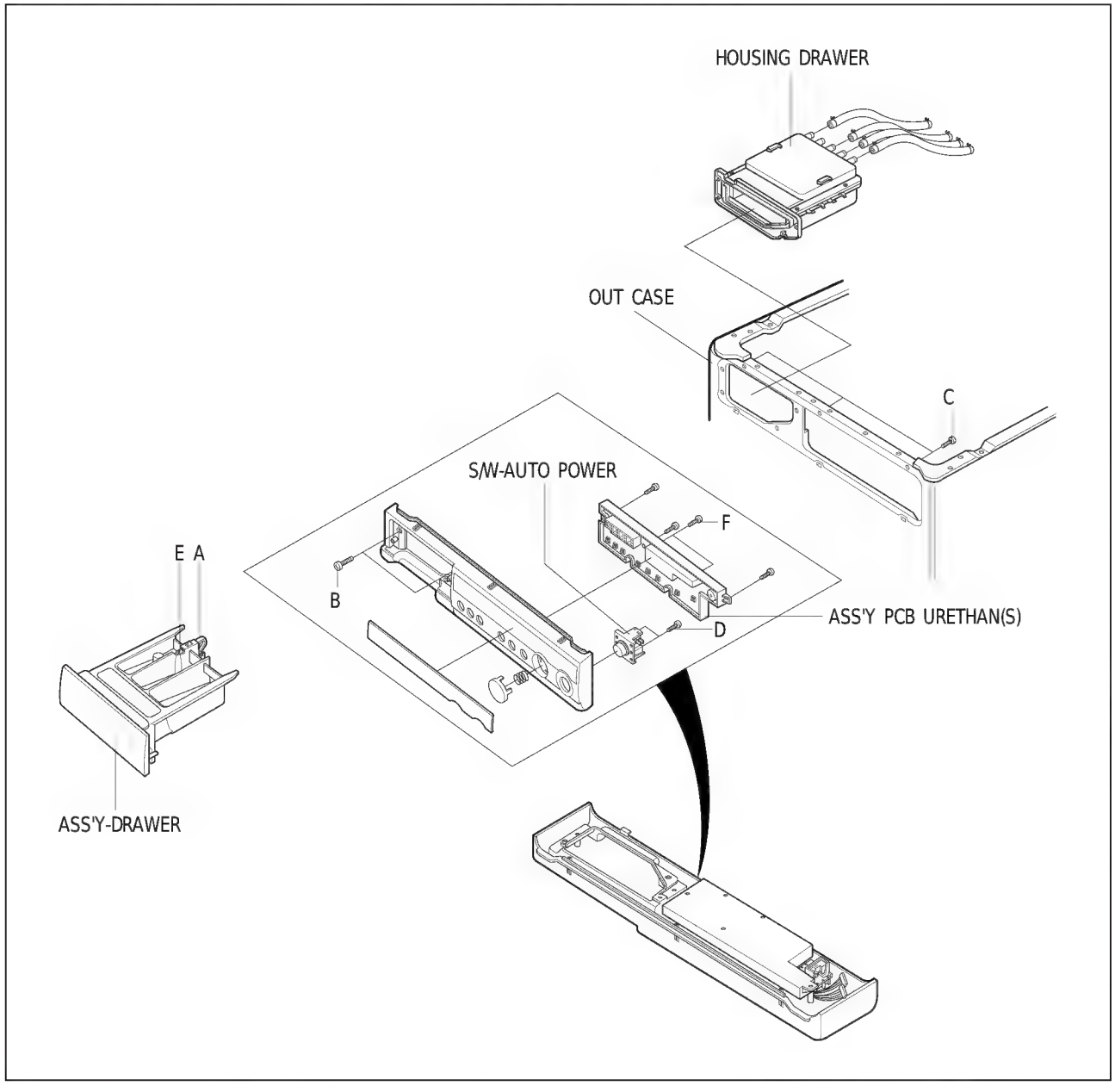
9-2-1 Disassembly

1) Pull the assembly drawer until it stops and disassemble it pushing (E) position by the (—) driver.
2) Remove two screws(B) in the housing drawer.
3) Remove three fix screws(C) and dissemble the assembly panel control.
4) Disconnect the wire of the assembly panel control so that it can be disassembled from the out case sill.
   ①Disassemble the switch-auto power by removing two fix screws(D).
   ②Disassemble the assembly PCB urethane(S) by removing five fix screws(F).

9-2-2 Assembly

Assemble the parts by the reverse order of the disassembly.

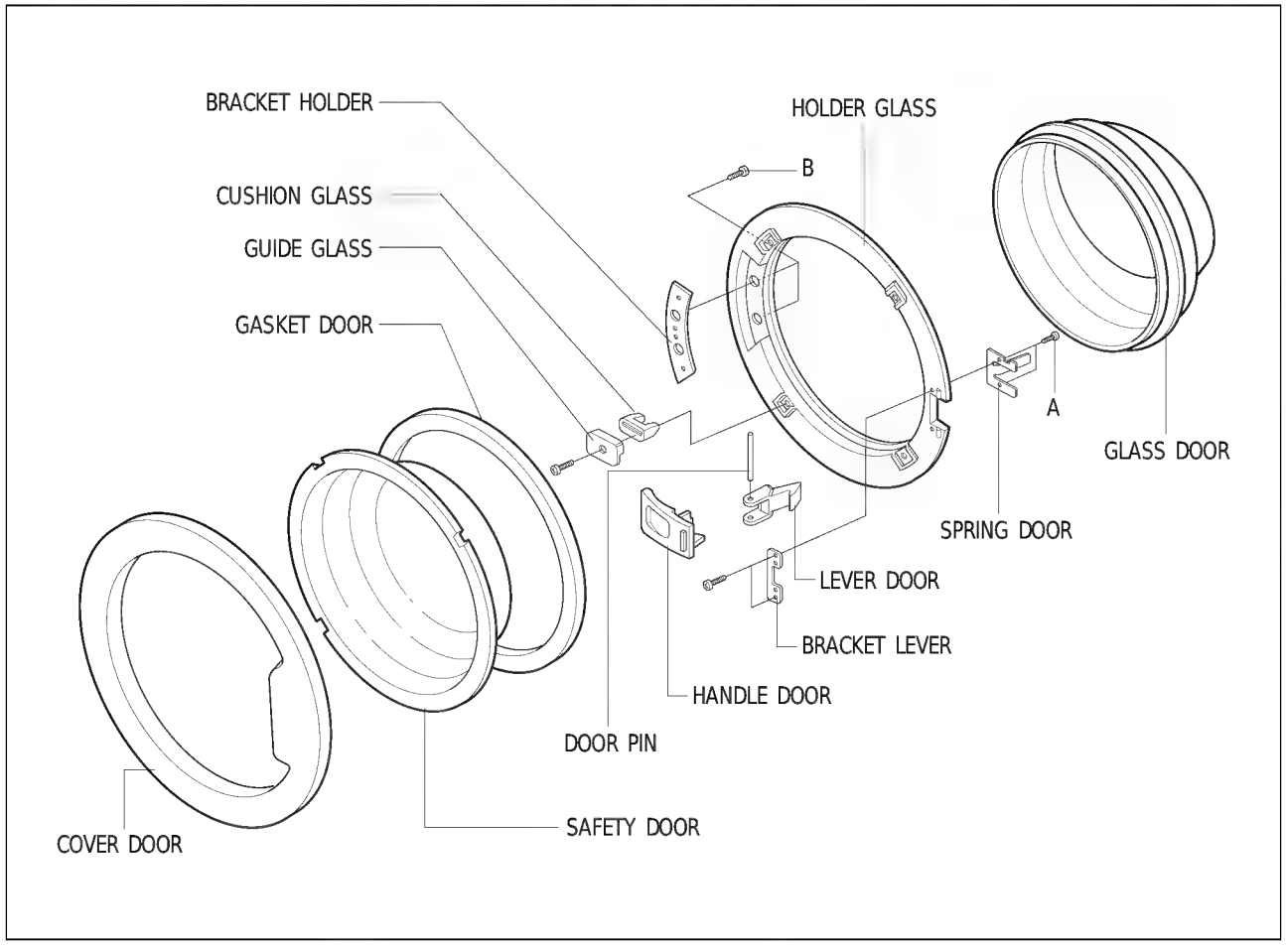
✻Assemble the switch-auto power after assembling the knob power.



9-3 Assembly - Door

9-3-1 Disassembly

1) Remove two fix screws(A) and disconnect the spring-door.
2) Push the door pin to the groove direction so that the lever door and handle door is disassembled.
3) Disconnect the holder glasser, which is assembled in the under-cut of cover door, from the hook.
4) Dissemble the cover door so that the safety door and gasket door is disassembled
5) Disconnect four guide glass assembled in the holder glass so that the glass door is disassembled.
6) Remove two fix screws(B) and disconnect the bracket holder.
7) Remove two fix screws(C) and disconnect the bracket lever.



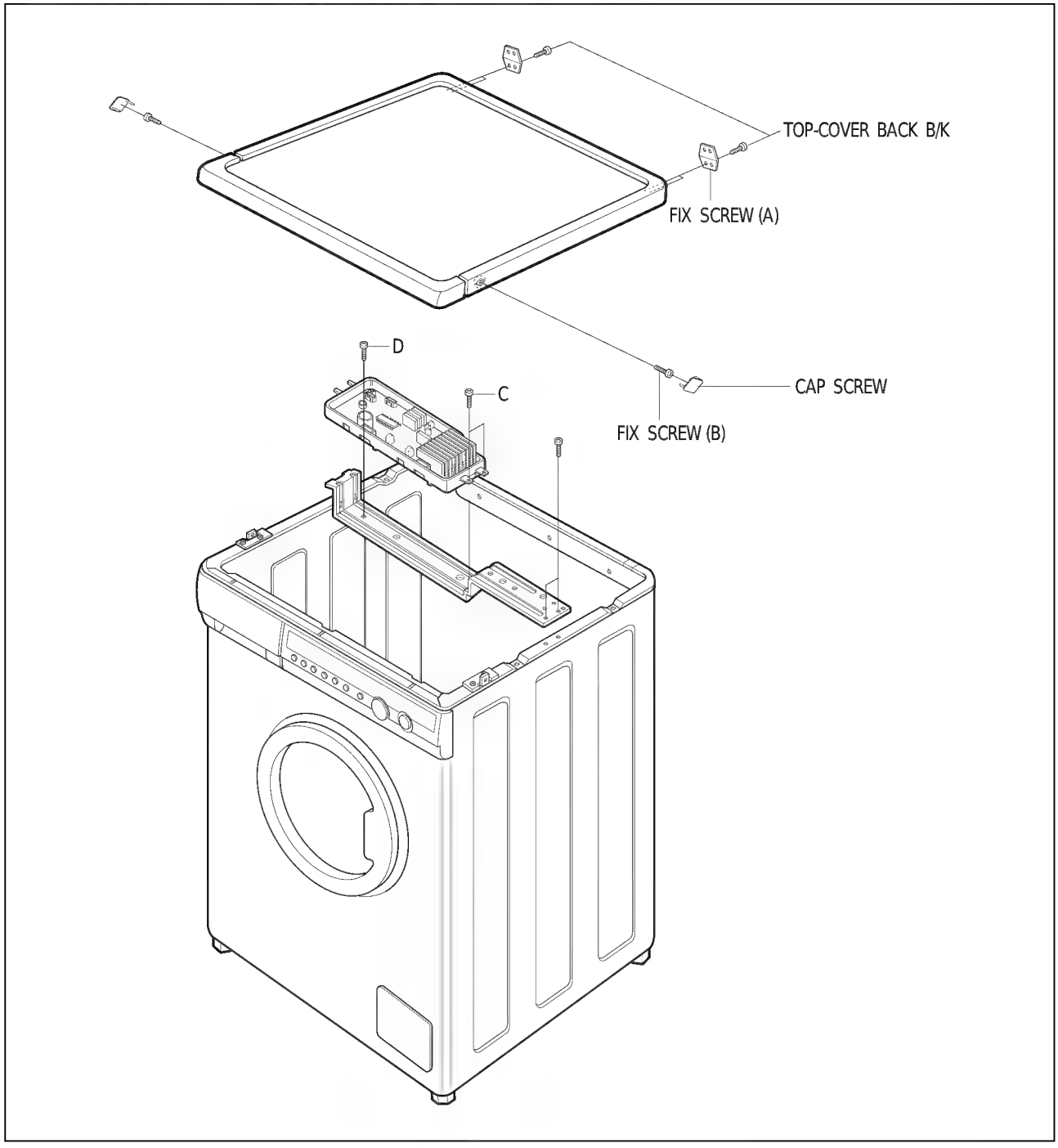
9-4 Assembly - PCB urethane (M)

9-4-1 Disassembly

1) Remove the cap screw of assembly top cover and unscrew the four fix screw(A) and two fix screw(B) from the assembly top cover.
2) Disconnect the assembly top cover so that the assembly PCB urethane(M) can appear at the upper section.
3) Remove two fix screw(C) and one fix screw(D).
4) Disconnect the wire connected to the assembly PCB urethane(M).

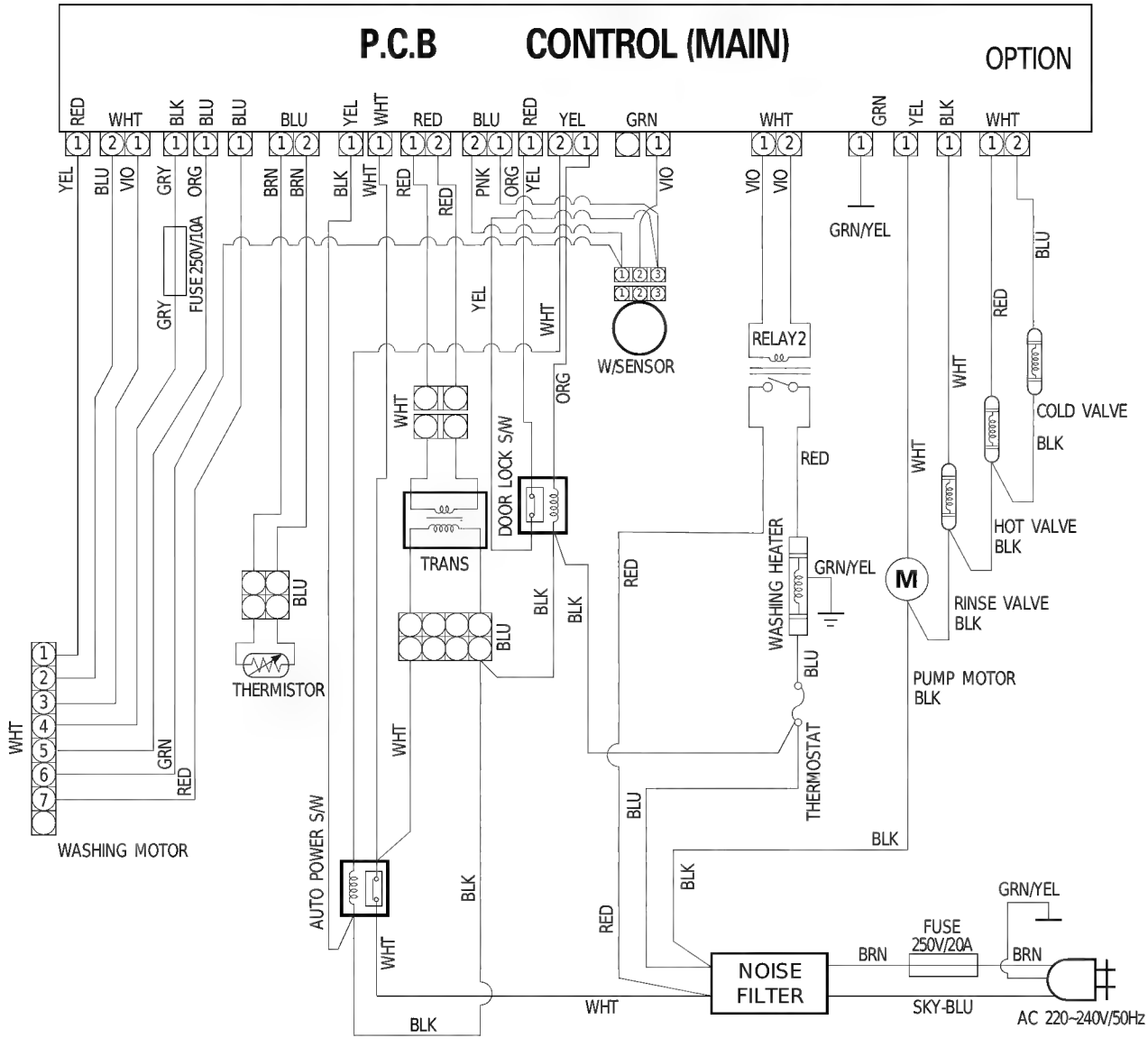
9-4-2 Assembly

Assemble the parts by the reverse order of the disassembly.



6. Wiring diagram

SWF-SQ1200 SCHEMATIC DIAGRAM



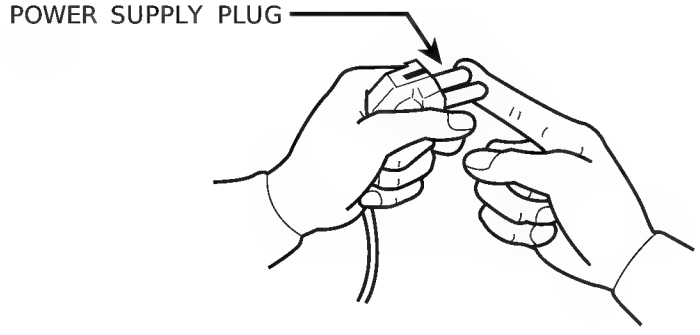
8. Trouble diagnosis

■ As the micom wash machine is configured of the complicate structure, there might be the service call. Below information is prepared for exact trouble diagnosis and suitable repair guide.

8-1 Caution for the repair and replacement

Please follow below instruction for the trouble diagnosis and parts replacement.

1) As some electronic components are damaged by the charged static electricity from the resin part of wash machine or the human body, prepare the human body earth or remove the potential difference of the human body and wash machine by contacting the power supply plug when the work contacting to PCB is executed.



2) Since AC 220 ~ 240V is applied to the triac T1 and T2 on P.C.B, the electric shock may occur by touching and be careful that the strong and weak electricity are mixed.
3) If the P.C.B assembly is out of order, do not replace the component on P.C.B except TACT switch since the component is coated by the urethane.
4) As the P.C.B assembly is designed for no trouble, do not replace the P.C.B assembly by the wrong diagnos is and follow the procedure of the trouble diagnosis when the micom is not operated normally.
5) As the parts on P.C.B are coated by the urethane, they can not be tested by the test bar of the meter. Check the trouble by the test mode method according to the procedure.

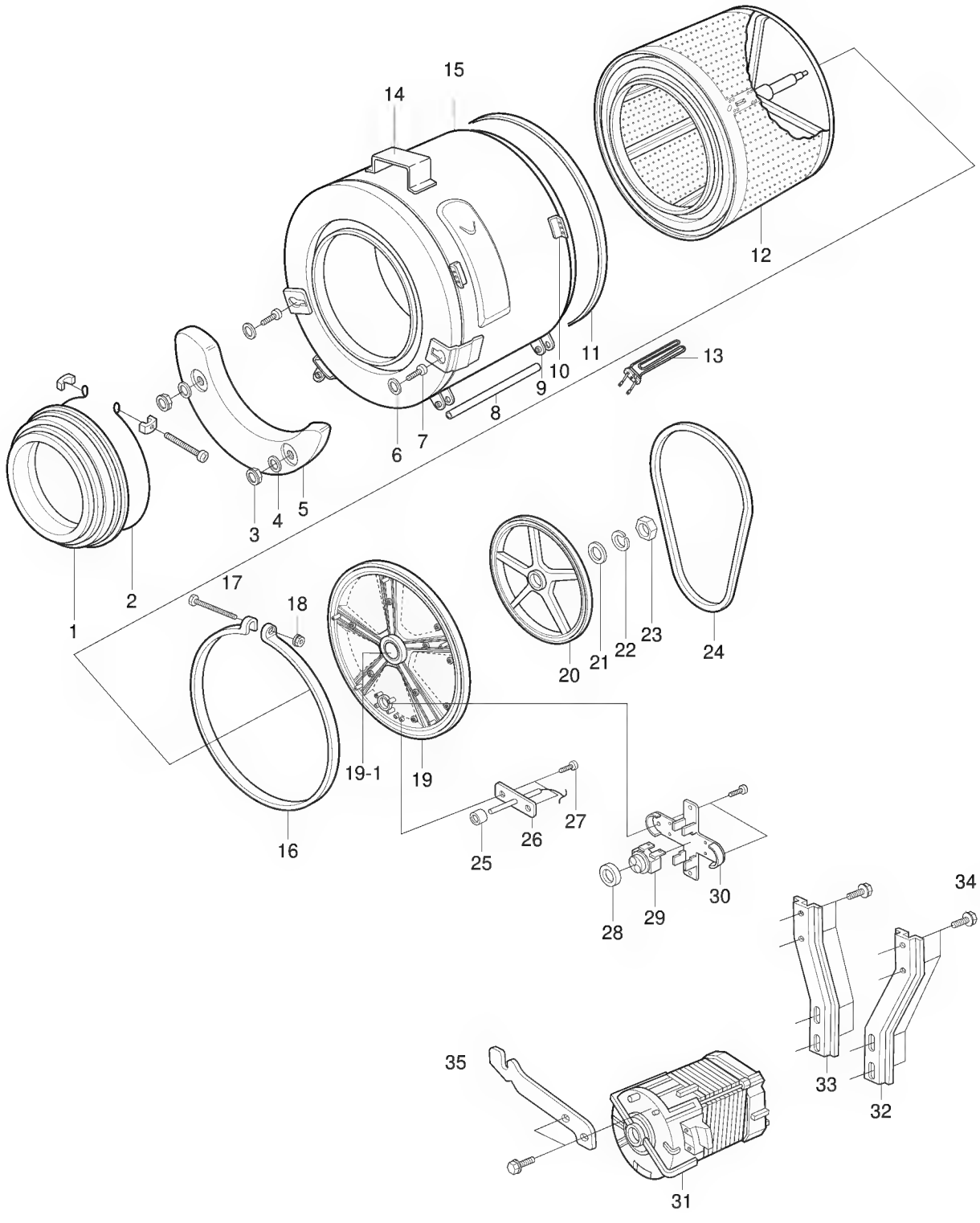
8-2 Trouble diagnosis

No	Item	Cause and treatment
1	The power is not supplied.	- Is the connector between sub PCB and main PCB connected well? - Is the voltage normal? - Is the power supply plug connected well? - Is the noise filter connected well? - Is the secondary output of the power supply transformation normal? - Is the fuse disconnected? ※If above points are not found, the PCB assembly is out of order. Replace it.
2	The water is not supplied.	- Is the knob open? - Did you push START/PAUSE button after selecting the course? - Is the water supply valve connected well? - Is the winding of the water supply valve continuous? - Is the connection and operation of the pressure switch normal? ※If above points are not found, the PCB assembly is out of order. Replace it.
3	The wash does not start though the water supply is stopped.	- Is the connection and operation of the pressure switch normal? - Is the pressure switch hose damaged so that the air is leaked? - Is the pressure switch hose bent? - Check the operation of the water level switch. ※If above points are not found, the PCB assembly is out of order. Replace it.
4	The wash is executed while the water is supplied.	- The PCB assembly is out of order. Replace it.
5	The drum does not rotate during washing.	- Is the belt connected well? - Is the winding of the motor continuous? (Rotor winding, stator winding, generator) - Is the motor fuse normal? ※If above points are not found, the PCB assembly is out of order. Replace it.
6	The drum rotates by one direction during washing. (The drum rotates to one direction for SPIN.)	- The PCB assembly is out of order. Replace it. (Inversion relay open trouble)
7	Drainage problem.	- Is the drainage hose bent? - Is the winding of the drainage pump continuous? - Is the drain filter clogged by the waste? ※If above points are not found, the PCB assembly is out of order. Replace it.
8	Dehydration problem.	- The unbalance is detected. - Put in the laundry uniformly and start again.
9	Abnormal noise during SPIN.	- Is the pulley nut loosen? - Is the transport safety device removed? - Is the product installed on the level and stable place? (Little noise may be generated during the high-speed SPIN.

No	Item	Cause and treatment
10	Leak breaker or current/leak breaker is down during washing.	<When the leak breaker and current breaker is installed separately> - When the leak breaker is down, check and make the earth of the outlet. - When the current is down, the current is leaked. <Is the breaker down when the leak/current breaker is combined?> - Check the rated capacity of the current and leak breaker. The current breaker may be down due to the lack of the current when the wash machine and other apparatus are used. In this case, execute the cold water wash to check whether the current capacity is lack.
11	The heating wash is not executed.	- Is the wash heater terminal unplugged? - Is the connection of the thermostat(95(C Blue color) and continuity normal? - Is the wash heater normal? - Is the relay terminal normal? - Is the thermostat terminal normal? - Is the thermostatís hex value displayed more than 03 in the test mode? (Replace it if the hex value is below 03.) If above points are not found, the PCB assembly is out of order. Replace it.

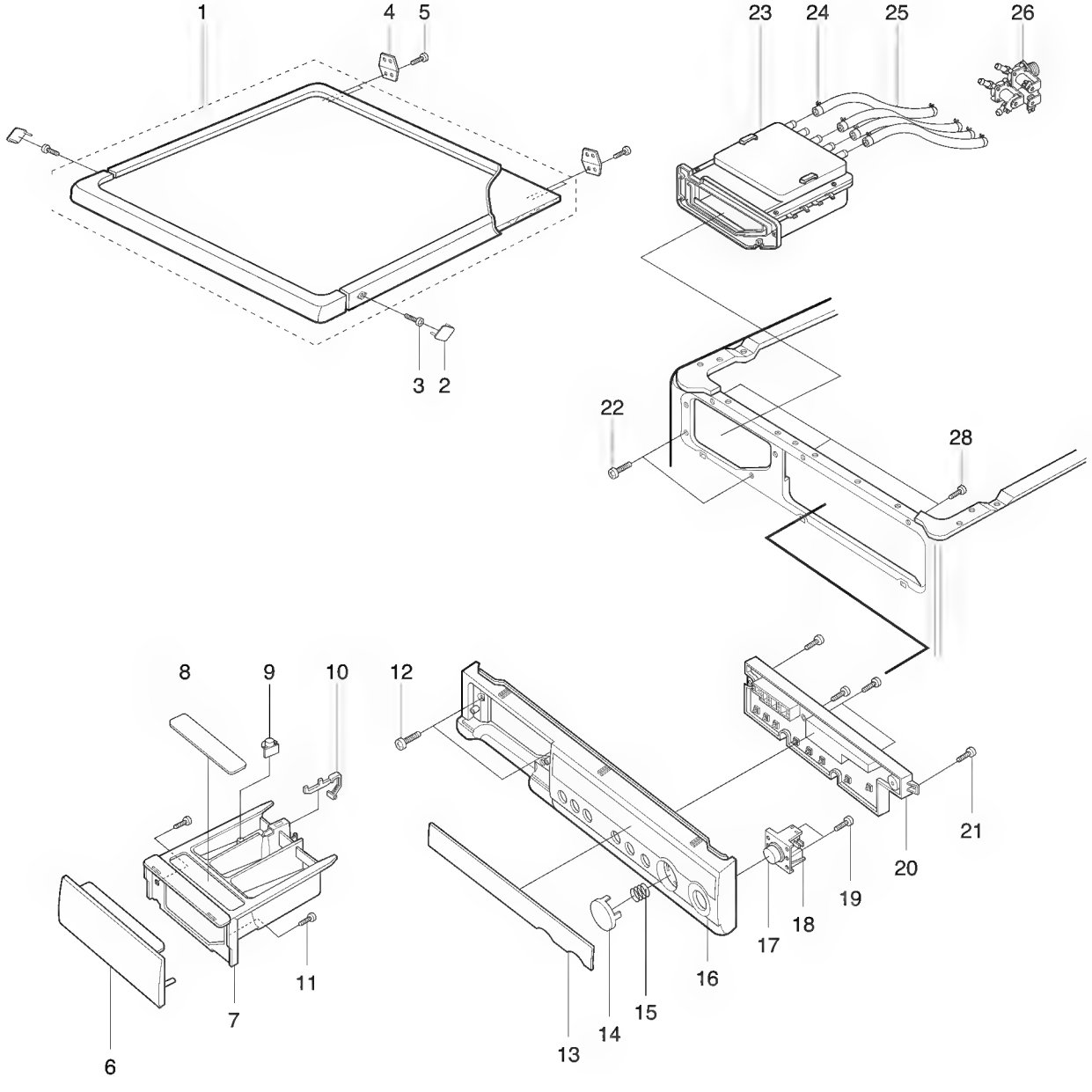
11. Exploded view and parts list

11-1 ASS'Y-TUB & DRUM



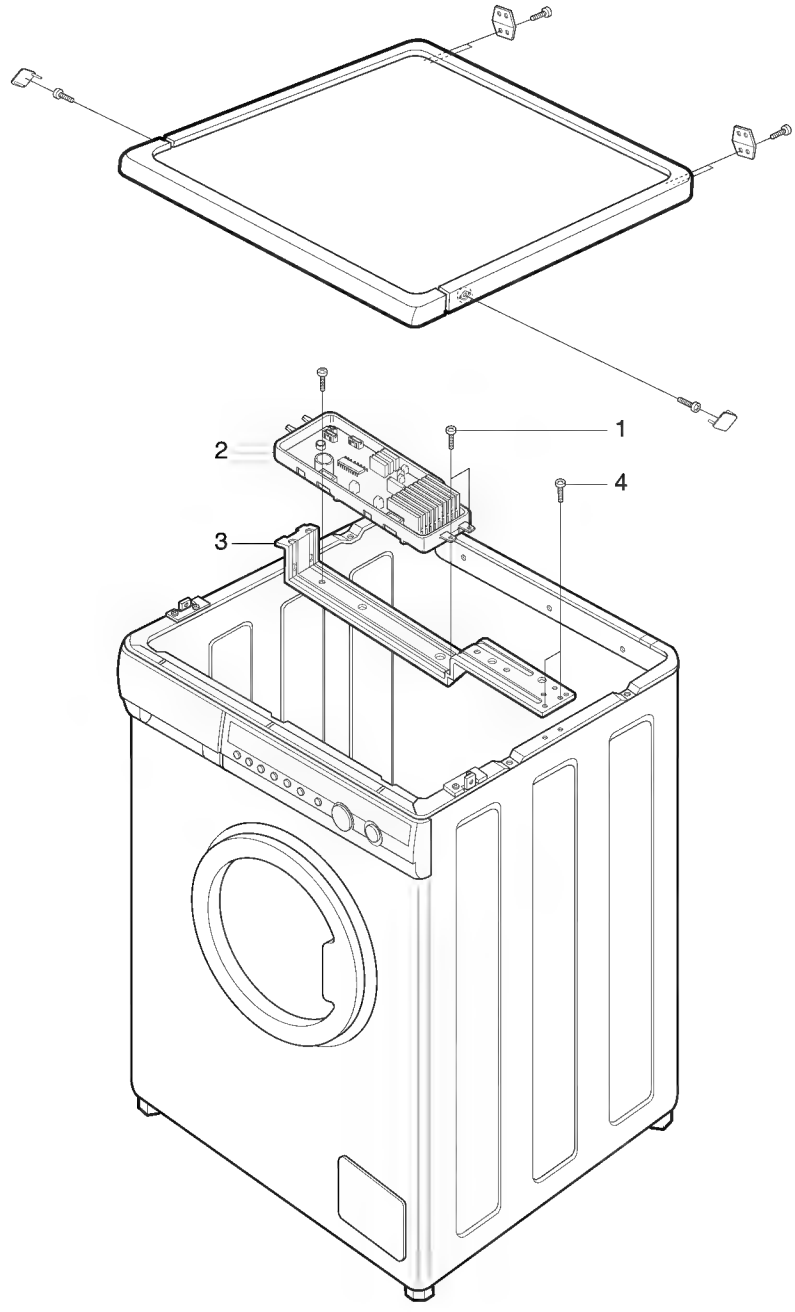
NO	CODE-NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARKS
1	DC61 - 20031A	DOOR DIAPHRAGM	SEW - 745DW	1	
2	DC91 - 10353A	ASS'Y - CLAMP DIAPHRAGM	—	1	
3	DC26 - 10032A	NUT - HEX	M8xP1.25 NYLON	2	
4	DC60 - 60044B	WASHER - PLAIN	4.3TxØ8.4xØ30	2	
5	DC66 - 60142A	BALANCER - WEIGHT (F)	GC - 150 5000g	1	
6	DC60 - 60040A	WASHER - NYLON	2TxØ10.5xØ32	2	
7	DC60 - 20043B	SCREW - TAPPING	M8x50	2	
8	DC61 - 40216A	BRACKET - ABSORBER PIPE	STS304 PIPE	2	
9	DC61 - 40214A	BRACKET - ABSORBER	SBHG1 - A T2.0	2	
10	DC61 - 70102A	BRACKET - SPRING	STS430 T1.0	4	
11	DC61 - 60377A	GASKET - TUB	EPDM 1540MM	1	
12	DC91 - 11615A	ASS'Y - DRUM	—	1	
13	DC62 - 50122A	HEATER - WATER ELEMENT	AC 230V 2500W	1	
14	DC61 - 70068A	BRACKET - HANGER	SBHG1 - A T2	1	
15	DC91 - 11614B	ASS'Y - TUB	SEW - 745DW	1	
16	DC66 - 40017A	COUPLER - TUB	SBHG1 - A	1	
17	DC60 - 40001A	BOLT - FLANGE	M6x90 ZPC2	1	
18	6021 - 00026P	NUT - HEX FLAN	M6	1	
19	DC91 - 10257A	ASS'Y - HOUSING BEARING	AL DC	1	
19–1	DC62 - 40013A	SEAL - OIL	NBR	1	
20	DC66 - 10050B	PULLEY	AL DC	1	
21	DC60 - 60060A	WASHER	Ø12xØ24xØT2	1	
22	DC60 - 60046A	WASHER - SPRING	Ø12xØ21xØT3	1	
23	DC60 - 50014A	NUT - HEX	HEXAGON M12	1	
24	DC66 - 10139A	BELT - TRANSMISSION	1270 J4	1	
25	DD62 - 40116A	PACKING - THERMISTOR	EPDM	1	
26	DD90 - 10128G	ASS'Y - THERMISTOR	PT - K51 FSI	1	
27	DC60 - 20036A	SCREW - TAPPING	M4x8	2	
28	DC61 - 60176A	GASKET - THERMO	EPDM T5	1	
29	DC62 - 50025A	THERMOSTAT	95°C / 110°C	1	
30	DC61 - 10352A	CAP - THERMO	PP NTR	1	
31	3101 - 001105	MOTOR - DRUM	220/240 50Hz	1	
32	DC61 - 40265B	BRACKET - MOTOR (L)	SBHG - R T2.0	1	
33	DC61 - 40264B	BRACKET - MOTOR (R)	SBHG - R T2.0	1	
34	6011 - 000103	BOLT - FLANGE	M8x18	8	
35	DC61 - 40327A	BRACKET - MOTOR (B)	GA T2.0	1	

11-2 ASS'Y-PANEL CONTROL



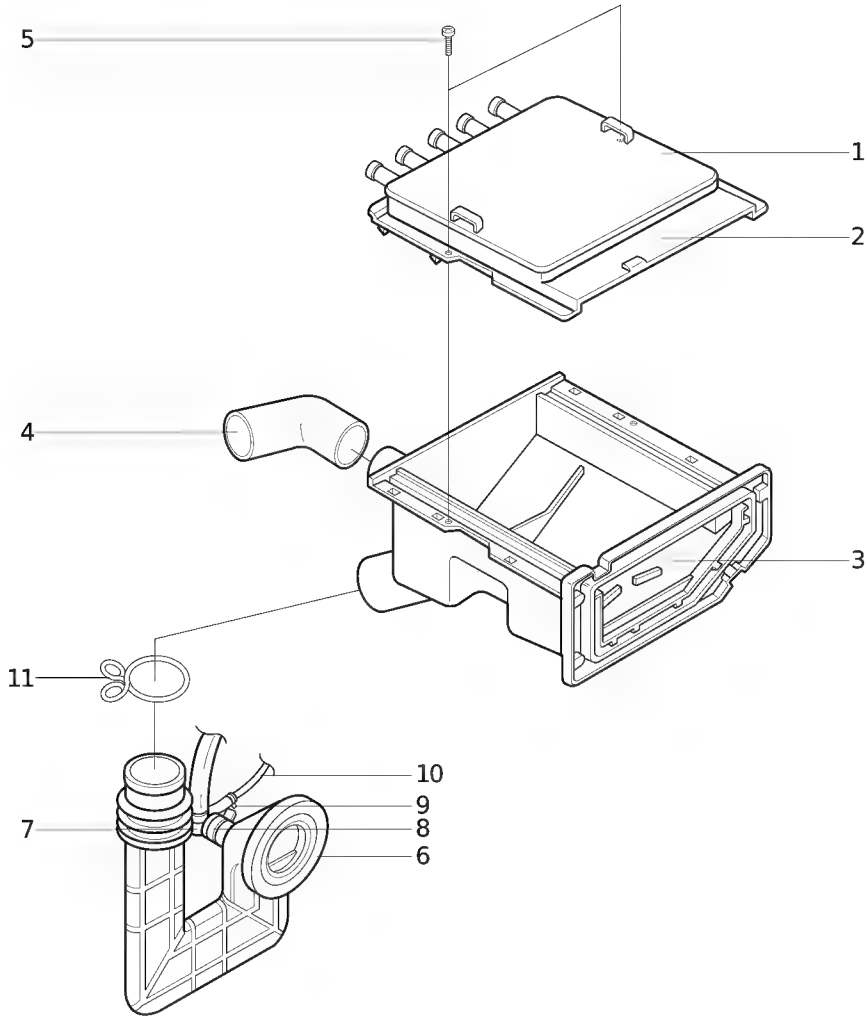
NO	CODE-NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARKS
1	DC91 - 10211C	ASS'Y - COVER TOP	WHT	1	
2	DC61 - 10310B	CAP - SCREW	ABS WHT	2	
3	DC60 - 20036A	SCREW - TAPPING	M4x8	2	
4	DC61 - 40181B	COVER - TOP BACK (B / K)	SBHG - R T2	2	
5	6002 - 000444	SCREW - TAPPING	2S - M4x14 STS304	4	
6	DC61 - 10524C	PANEL - DRAWER	ABS WHT	1	
7	DC61 - 30034B	BODY - DRAWER	PP (TB52) WHT	1	
8	DC64 - 30085A	INLAY - DRAWER	PC - FILM	1	
9	DC61 - 10316B	CAP - RINSE	PP (TB52) WHT	1	
10	DC61 - 70126A	STOPPER - DRAWER	POM (F20 - 02	1	
11	DD60 - 20054B	SCREW - TAPPING	1 - 4x10 STS	2	
12	6002 - 000445	SCREW - TAPPING	2S - 4x18 STS	3	
13	DC64 - 40359C	WINDOW - PANEL	ACRYL NTR	1	
14	DC64 - 10399A	KNOB - STOP	ABS WHT	1	
15	DC61 - 70181A	SPRING - BUTTON	STS 304	1	
16	DC91 - 11610D	ASS'Y - PANEL CONTROL	SWF - SQ1200	1	
17	DC64 - 10400A	KNOB - S / W PUSH	ABS WHT	1	
18	DC34 - 20002B	SWITCH - AUTO POWER	AC 250V 12A	1	
19	DC60 - 20049A	SCREW - TAPPING	2S - 4x12	2	
20	DC90 - 10877A	ASS'Y - PCB URETHAN	SUB	1	
21	DC60 - 20049A	SCREW - TAPPING	2S - 4x12	5	
22	6002 - 000445	SCREW - TAPPING	2S - 4x18 STS	2	
23	DC91 - 10007C	ASS'Y - HOUSING DRAWER	—	1	
24	DC61 - 60063B	CLAMP - HOSE	SK5 YEL	8	
25	DC62 - 10068A	HOSE - DRAWER	SOFT - PVC (L350)	4	
26	DC62 - 30036C	VALVE - WATER	3 WAY	1	

11-3 HOUSING-P.C.B (MAIN)



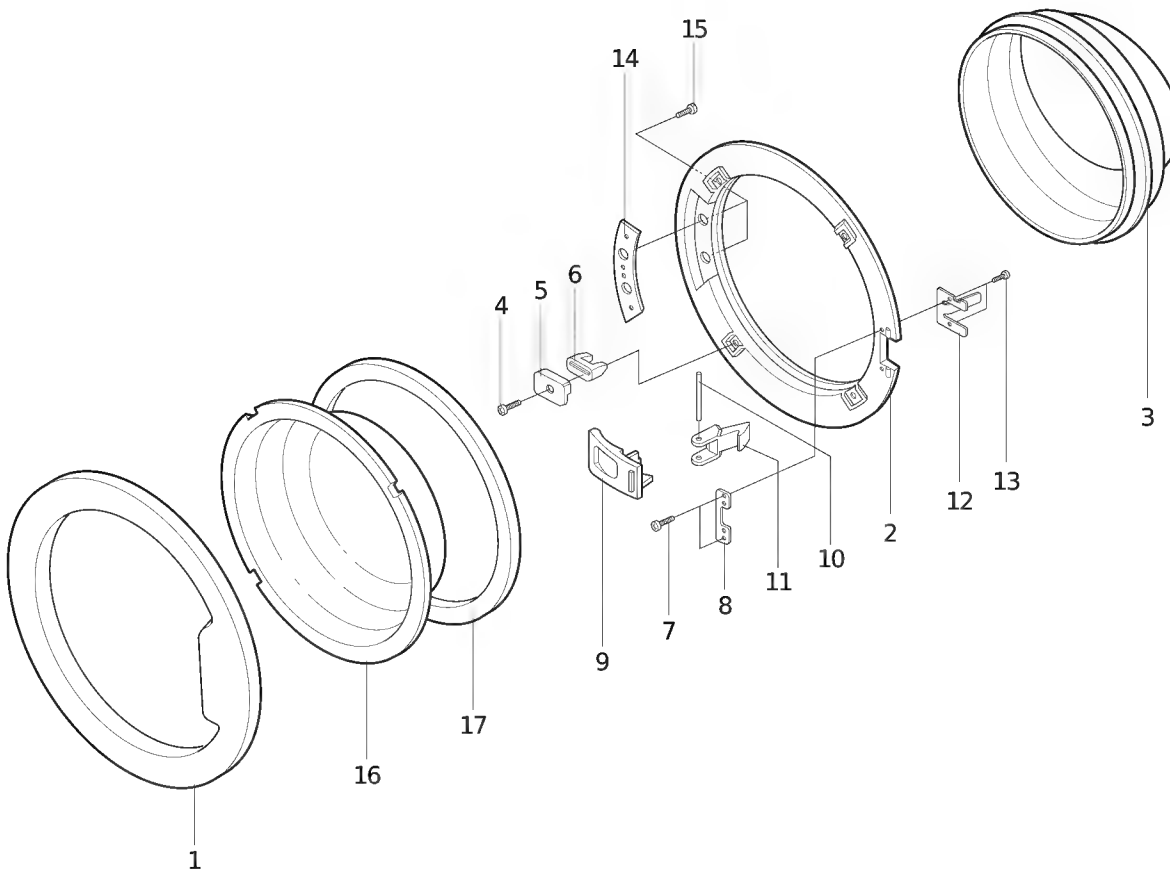
NO	CODE-NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARKS
1	DD60 - 10010A	SCREW - MACHINE	M4x10 (SEAL LOCK)	3	
2	DC90 - 11108A	ASS'Y - PCB URETHAN	MAIN	1	
3	DC61 - 40328A	BRACKET - PCB (M)	SBHG - R T1.6	1	
4	DD60 - 20054A	SCREW - TAPPING	1 - 4x10 ZPC2	2	

11-4 ASS'Y-HOUSING DRAWER



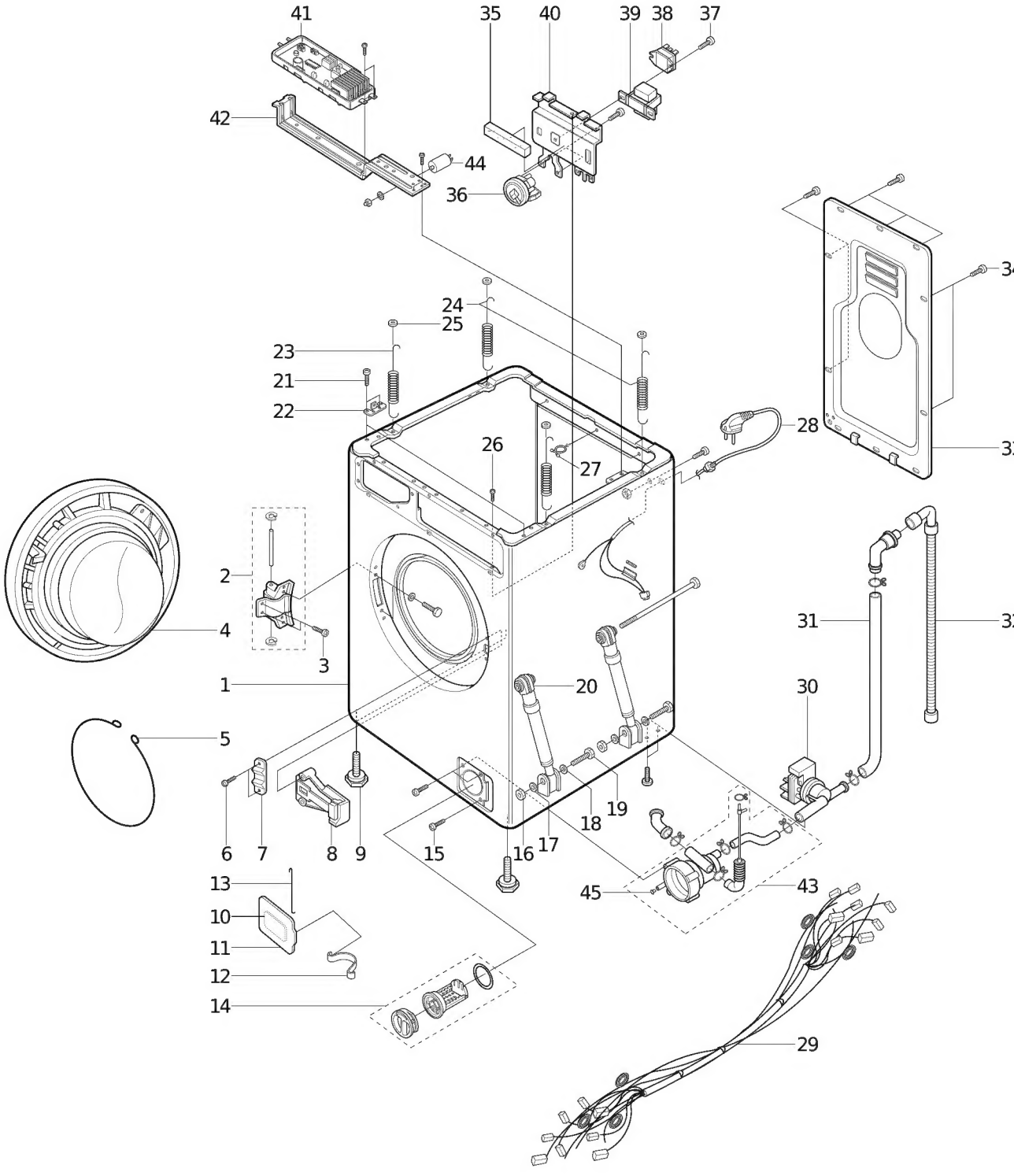
NO	CODE-NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARKS
1	DC61 - 10098A	HOUSING - DRAWER (U)	PP (TB52) WHT	1	
2	DC61 - 10093B	HOUSING - DRAWER (M)	PP (TB52) WHT	1	
3	DC61 - 10094B	HOUSING - DRAWER (L)	PP (TB52) WHT	1	
4	DC62 - 10030A	HOSE - OVER	EPDM BLK	1	
5	DD60 - 20054A	SCREW - TAPPING	1 - 4x10 FE FZY	4	
6	DC62 - 10024A	HOSE - DRAWER TUB	EPDM BLK	1	
7	DC62 - 20033A	ELBOW - TUB	PP NTR	1	
8	DC61 - 60063B	CLAMP - HOSE	SK5 YEL	2	
9	DC61 - 70029A	SPRING - CLIP	HSWR67 ZPC3	1	
10	DD62 - 1001A	HOSE - VINYL	VINYL L890	1	
11	DC61 - 60064A	CLAMP	HSWR YEL	1	

11-5 ASS'Y-DOOR



NO	CODE-NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARKS
1	DC61 - 10212A	COVER - DOOR	ABS WHT	1	
2	DC61 - 40059A	HOLDER - GLASS	PP NTR	1	
3	DC64 - 20007A	DOOR - GLASS	GLASS NTR	1	
4	6002 - 000445	SCREW - TAPPING	TH 2S - 4x18 STS	4	
5	DC61 - 60159A	GUIDE - GLASS	PP NTR	4	
6	DC61 - 60051A	CUSHTION - GLASS	SBR T3 BLK	4	
7	DD60 - 20054B	SCREW - TAPPING	TH 1 - 4x10 STS	2	
8	DC61 - 70105A	BRACKET - LEVER	SBHG1 - A T2	1	
9	DC61 - 20019A	HANDLE - DOOR	POM (F25 - 33) NTR	1	
10	DC60 - 80016A	PIN - DOOR	ø3 L28 STS	1	
11	DC66 - 30015A	LEVER - DOOR	POM (F20 - 03) L45	1	
12	DC61 - 70156A	SPRING - DOOR	SK5	1	
13	DC60 - 10008A	SCREW - MACHINE	RH M3x8	2	
14	DC61 - 70078A	BRACKET - HOLDER	SBHG1 - A T2	1	
15	6001 - 000947	SCREW - MACHINE	TH M4x10 STS304	2	
16	DC61 - 20204A	SAFETY - DOOR	PC, SAN (HR 5330S)	1	
17	DC61 - 60464A	GASKET - DOOR	EPDM	1	

11-6 ASS'Y-OUT CASE



NO	CODE-NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARKS
1	DC92 - 11183A	FRAME	SBHG1 - A T1	1	
2	DC91 - 10310A	ASS'Y - HINGE	HINGE	1	
3	DC60 - 40027A	BOLT - HEX	M5 STS304	4	
4	DC91 - 10147A	ASS'Y - DOOR	—	1	
5	DC66 - 10001A	WIRE - DIAPHRAGM	HSWR37	1	
6	DC60 - 20063A	SCREW - TAPPING	TH 2S - 3.5x20 STS	2	
7	DC61 - 60142A	GUIDE - LEVER	POM WHT	1	
8	DC62 - 30057A	DOOR - LOCK S / W	250V 16A	1	
9	DC91 - 10400A	ASS'Y - LEG	LEG	4	
10	DC68 - 20384A	LABEL - FILTER	TETRON W80 L80	1	
11	DC61 - 10494B	COVER - FILTER	SBHG1 - A	1	
12	DC61 - 70024A	SPRING - P.S	STS304 T0.4 W100	1	
13	DC60 - 80015A	PIN - FILTER	ID1.6 L131.5 YEL	1	
14	DC91 - 11612A	ASS'Y - SEMI FILTER	—	1	
15	6002 - 000445	SCREW - TAPPING	2S - 4x18 STS304	3	
16	DC26 - 10033A	NUT - HEX	M10xP1.5	4	
17	DC60 - 60049A	WASHER - SPRING	ID10.5 OD18 T2.5	4	
18	DC60 - 60054A	WASHER - TOOTHED	ID10.5 OD18 T1	4	
19	DC60 - 40026A	BOLT - HEX	M10 P1.5 SCP	4	
20	DC66 - 60119A	DAMPER - SHOCK	60N / WHITE	2	
20	DC66 - 60120A	DAMPER - SHOCK	60N / YELLOW	2	
21	DD60 - 20054A	SCREW - TAPPING	1 - 4x10 ZPC3	4	
22	DC61 - 70104A	BRACKET - C.T	SBHG1 - A T2	2	
23	DC61 - 70174A	SPRING - HANGER (F)	HSWR L185.1	2	

NO	CODE-NO	DESCRIPTION	SPECIFICATION	Q'TY	REMARKS
24	DC61 - 70174B	SPRING - HANGER (B)	HSWR	2	
25	DC61 - 60180A	SLEEVE - PLUG	NYLON#6 NTR	4	
26	DD60 - 20054A	SPRING - TAPPING	1 - 4x10 ZPC3	1	
27	DC61 - 40081A	HOLDER - WIRE	NYLON - DAWH - 2NC	5	
28	DC90 - 11099A	ASS'Y - POWER CORD	AC 250V 16A	1	
29	DC90 - 11105A	ASS'Y - M, WIRE HARNESS	SWF - SQ1200	1	
30	DC31 - 30006A	PUMP - DRAIN	AC 220 ~ 240V/50Hz	1	
31	DC62 - 10273A	HOSE - DRAIN (I)	ID20 L750	1	
32	DC90 - 10352A	ASS'Y - HOSE DRAIN (O)	HOSE - DRAIN (O)	1	
33	DC61 - 10491B	COVER - BACK	SBHG1 - A T1	1	
34	DD60-20054A	SCREW - TAPPING	1 - 4x10 ZPC3	7	
35	DC63 - 10012A	SPONGE - PCB	0.05G T20xW20xL90	1	
36	DC32 - 30003S	SENSOR - PRESSURE	—	1	
37	DC60 - 20036A	SCREW - MACHINE	M4x8 FZY	1	
38	3501 - 000392	RELAY - POWER	12V 1.2W 20A	1	
39	DC26 - 10150B	TRANS - FORMER	SK 230V 12V 50/60Hz	1	
40	DC61 - 40211A	BRACKET - PRESSURE	SBHG1 - R T1.0	1	
41	DC90 - 11108A	ASS'Y - PCB URETHAN	MAIN	1	
42	DC61 - 40328A	BRACKET - PCB (M)	SBHG - R T1.6	1	
43	DC91 - 11613A	ASS'Y - HOUSING FILTER	—	1	
44	2901 - 001087	FILTER - EMI AC LINE	AC 220V 15A	1	
45	DC61 - 10527A	CAP - DRAIN	ABS WHT	1	

11-7 Tools for disassembly and assembly

NO	Tool		
1	Box driver	8mm	2 Drain pump holes, 2 Hinge door holes, 2 Hinge fixer holes
			1 Ass'y diaphragm clamp hole
		10mm	1 Coupler TUB hole, 1 Water heating element hole
		12mm	2 Balancer front holes, 1 Noise filter hole
		13mm	8 Bracket motor, 8 TUB fixing B/K holes
		17mm	3 holes of each left and right of the shock absorber
		19mm	1 Pulley hole
2	Double-ended spanner	8, 10, 12, 13	Replaceable for the box driver.
		17, 19mm	Since the bolt runs idle when the box driver is used,
			use the box driver 17mm.
3	Vice pliers		Tool to protect the idle and abrasion of the bolt for the box driver.
4	Other(Driver, Nipper, Long nose)		General tools for the after service.