dacor

DISHWASHER

Basic model : DW60BG850I00
Model Name: DDW24G90Series**
Model Code : DDW24G9000AP

SERVICE Manual

DISHWASHER

CONTENTS

WARNING

IMPORTANT SAFETY NOTICE

The service guide is for service men with adequate backgrounds of electrical, electronic, and mechanical experience.
Any attempt to repair a major appliance may result in personal injury and property damage.
The manufacturer or dealer cannot be responsible for the interpretation of this information.

Dacor
Technical Service Guide
Copyright ©2023

Contents

Contents

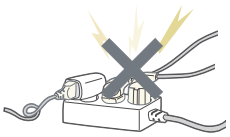
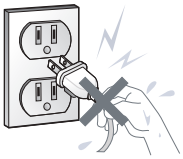
1. SAFETY INSTRUCTIONS

1-1. SAFETY INSTRUCTIONS FOR SERVICE ENGINEERS

- Make sure to observe the following instructions to operate the product correctly and safely and prevent possible accidents and hazards while servicing.
- Two types of safety symbols, Warning and Caution, are used in the safety instructions.

⚠	**Warning**	Hazards or unsafe practices that may result in severe personal injury or death.
⚠	**Caution**	Hazards or unsafe practices that may result in minor personal injury or property damage.

⚠ **Warning**

Before Servicing
• When servicing electrical parts or harnesses. Make sure to disconnect the circuit BREAKER or power cable before servicing. • An Electrical safety test must be performed before and after any repair. Refer to Samsung Electric Safety test Policy. ➢ Failing to do so may result in a risk of electric shock.
• **Do not allow consumers to connect several appliances to a single power outlet at the same time.** ➢ There is a risk of fire due to overheating. 
• **When removing the power cord, make sure to hold the power plug when pulling the plug from the outlet.** ➢ Failing to do so may damage the plug and result in fire or electric shock. 
• **When the dishwasher is not being used, make sure to disconnect the circuit breaker or power cable from the power outlet.** ➢ Failing to do so may result in electric shock or fire due to lightning.
• **Do not place or use gasoline, thinners, alcohol, or other flammable or explosive substances near the dishwasher.** ➢ There is a risk of explosion and fire caused from electric sparks.

While Servicing

- **Check if the power cable is damaged, flattened, cut or otherwise degraded.**
  - ➢ If faulty, replace it immediately. Failing to do so may result in electric shock or fire.

- **Completely remove any dust or foreign material from the housing, wiring and connection parts.**
  - ➢ This will prevent a risk of fire due to tracking and shorts in advance.

- **When connecting wires, make sure to connect them using the relevant connectors and check that they are completely connected.**
  - ➢ If tape is used instead of the connectors, it may cause fire due to tracking.

- **Make sure to discharge the PBA power and capacitor terminals before starting the service.**
  - ➢ Failing to do so may result in a high voltage electric shock.

- **When replacing the heater, make sure to fasten the holder heater after ensuring that it is inserted into the bracket- heater.**
  - ➢ Ensure the heater is fitted into the bracket - heater correctly.

After Servicing

- **Check for any water leakage.**
  - ➢ Perform a test run for the dishwasher using the standard(Eco) cycle and check whether there is any water leakage through the floor section or the pipes.

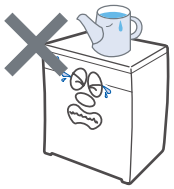
- **Do not allow consumers to repair or service any part of the dishwasher themselves.**
  - ➢ This may result in personal injury and shorten the product lifetime.

⚠ Caution

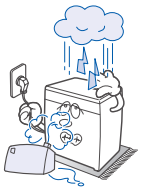
Before Servicing

- **Do not sprinkle water onto the dishwasher directly when cleaning it.**
  ➢ This may result in electric shock or fire, and may shorten the product lifetime.

- **Do not place any containers with water on the dishwasher.**
  ➢ If the water is spilled, it may result in electric shock or fire. This will also shorten the product lifetime.



- **Do not install the dishwasher in a location exposed to snow or rain.**
  ➢ This may result in electric shock or fire, and shorten the product lifetime.



- **Do not press a control button using a sharp tool or object.**
  ➢ This may result in electric shock or damage to the product.

During Servicing

- **When wiring a harness, make sure to seal it completely so no liquid can enter.**
  ➢ Make sure that they do not break when force is exerted.

- **Check if there is any residue that shows that liquid entered the electric parts or harnesses.**
  ➢ If any liquid has entered into a part, replace it or completely remove any remaining moisture from it.

- **If you need to place the dishwasher on its back for servicing purposes, place a support(s) on the floor and lay it down carefully so the back is on the floor.**
  ➢ Do not lay it down on its front or side. This may result in scratches to the surface or damage to the parts.

After Servicing

- **Check the assembled status of the parts.**
  - ➢ They must be the same as before servicing.

- **Check the insulation resistance.**
  - ➢ Disconnect the circuit braker or power cable from the power outlet and measure the insulation resistance between the power wires and the grounding wire of the dishwasher. The value must be greater than 10MΩ when measured with a 500V DC Megger.

- **Check whether the product is level with the floor. Check if there are any deformations in the sink. Check that the dishwasher is firmly installed to the sink.**
  - ➢ Vibrations can shorten the lifetime of the product.

2. FEATURES AND SPECIFICATIONS

2-1. FEATURES

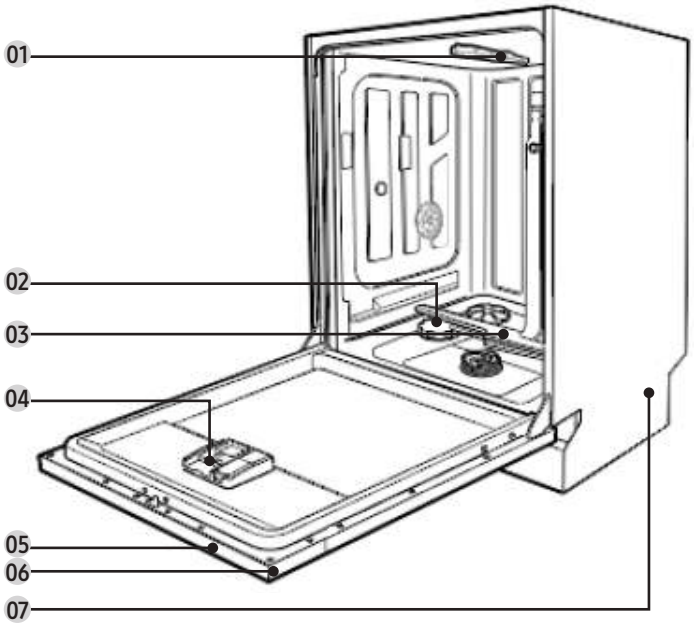
Features	Description	Remarks
High Energy Efficiency	Use less energy but still clean dirty dishes effectively. • E-Star Most Efficient 225kwh/year, 3.2gal/cycle	-
Storm Wash +	Get better washing result with Dual Wash Arms • 2 Spray arms on the bottom washes more effectively • Circle shaped spray jet blasts water from more angles	
9 Programs	9 Programs covers various types of situation : tons of dirty dishes, wine glasses, plastic container and late night need to be quite. • Auto, Normal, Heavy, Delicate, Express 60', Preblast, Selfclean, Plastic, Download.	
Extremely Quiet	Less noise, Less disturbance at home • 40dB Noise Level for Normal course	
Flexible Basket System	Flexibility for convenience • 3rd Rack : Both Side – Height adjustable (0.59inch (15mm)) • Upper Rack : Foldable Tines on the left side , Ball Bearing Roller/Smart Tine Guide • Lower Rack : Full Flex Tines : Dishes/Balls (Front), Pots&Pans/Dishes (Back)	
Smart	Clean your dishes more intelligently • Remote Control (SmartThings)/ Voice Control (compatible w. Bixby, Alexa and Google assistant) • 3 download Programs : Pots&Pans, Baby Care, Night • Amazon DART Auto Replenishment (US,UK,FR,DE,IT,ES)	
Kitchen Fit	Perfectly fit in your kitchen • Sliding Hinge models - 10~26lb (4.5~12kg), up to 35⅜inch (900mm) height, Sliding Hinge • Info Light	
Auto Open Drying	Auto Opens to release steam and dry faster	

New Washing System	9 Programs	Extremely Quite	Flexible Basket System
	Auto Normal Heavy Delicate Express 60' Pre Blast Plastic Self Clean Download Cycle		
Smart Control	**Floor Light**	**Kitchen Fit™**	
			

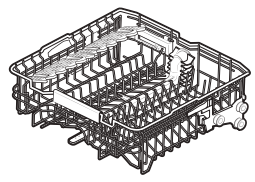
- **Energy Label :** 225kWh/year
- **Installation type :** Fully Built In(FBI) (Slide Hinge models)

2-2. SPECIFICATIONS

Model Name	DDW24G9000AP
Type	Fully Built In (Sliding)
Power	120 V / 60 Hz AC only, 15 A circuit breaker
Water Pressure	20-120 psi (140-830 kPa)
Rated Power	Circulation Motor : BLDC 60-100 W Heater : 1200 W Drain Pump : 45 W Alternate Motor : 4 W Energy Consumption : 239 kWh/year Max power consumption : 1260 W Max current draw : 11A
Wash Type	Rotating Nozzle Spray
Wash Capacity	14 place settings

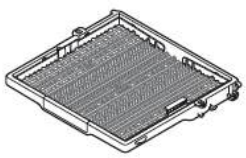


01 Top Nozzle **02** Salt Storage **03** Lower Nozzle **04** Dispenser
05 Control Panel **06** Door **07** Base



Upper rack

Lower rack

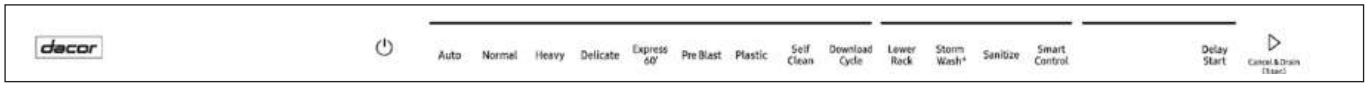


3rd Rack

Cutlery basket

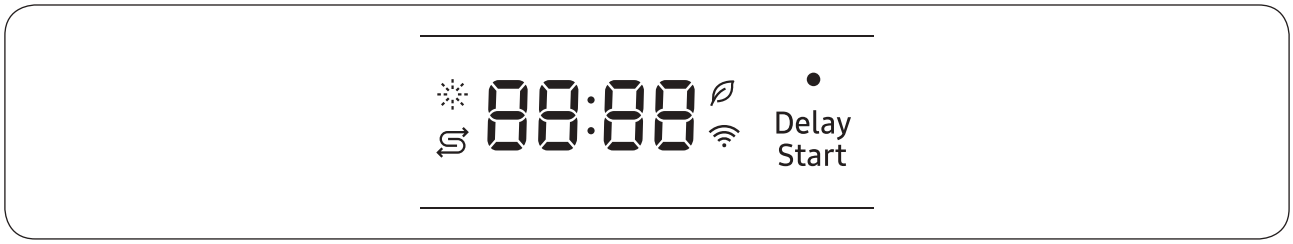
2-3. CONTROL PANEL

DDW24G9***series



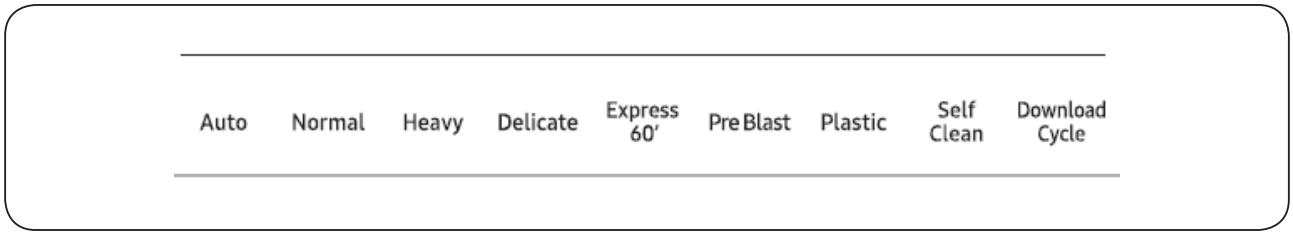
01 POWER	When you press the POWER button, the Cycle On light for the most recently started cycle turns on. When the selected cycle is complete, the dishwasher powers off automatically.
02 Cycle Selector	Select the appropriate wash cycle depending on the soil level of your dishes. After you select a cycle, the Cycle On light for that cycle lights. If you want to change the cycle once it has started, press the POWER button. Then, turn on the dishwasher again and select a new cycle.
03 Lower Rack	If selected, only the lower rack nozzle is activated to reduce both the cycle time and power consumption. Use this cycle to wash a small load of dishes or glasses in the lower rack. To wash heavily soiled items, select the Storm Wash+ option.
04 Storm Wash+	Use this option when you want to wash pots and pans, durable serving bowls, and other large, very dirty, hard to clean dishes. To use Storm Wash+, place the dishes face down in the marked Storm Wash+ area in the lower basket.
05 Sanitize	With the Sanitize option selected, the water temperature is increased to 167 °F (75 °C) in the final rinse cycle for high temperature sanitization. If you select the Sanitize option, the "**Sanitize**" lamp blinks when the water temperature reaches the sanitary temperature (over155 ˚F (68 ˚C)), and then remains illuminated until the Sanitize option ends. When you open the door or press the POWER button, the "Sanitize" lamp turns off. **NOTE** Only Normal cycle with the Sanitize option has been designed to meet the requirements for soil removal and sanitization efficacy in NSF 184. Certified residential dishwasher are not intended for licensed food establishments. For the Sanitize mode, the amount of detergent as 3/4 oz (20 g) in Main wash dispenser and 1/3 oz (10 g) on the door for pre-wash is used.
06 Smart Control	You can monitor and control the dishwasher remotely through a Wi-Fi connection. To connect the dishwasher to your smart phone for the first time, press and hold Smart Control. For more information, see the “SmartThings” section.
07 Display	Displays information about the current cycle including the cycle time, remaining time, Delay Start settings, and other cycle-specific information. If a problem occurs during operation, an information code will appear with a warning sound. Refer to the information codes on Check code.
08 Delay Start	Delay a cycle for up to 24 hours in one-hour increments. To increase the delay start time, press or hold the **Delay Start** button. The hour displayed indicates the time at which the wash will start. - After setting the delay time, press the Start button, and then close the door to start the cycle. - To change the delay time after the dishwasher has started, first turn the dishwasher off and turn it back on. Then, select a new cycle and change the delay time settings.
09 Start	To start a cycle, press the Start button before closing the door. **Cancel & Drain**: To cancel a currently running cycle and drain the dishwasher, press and hold the **Start** button for three (3) seconds. Once the dishwasher is reset, select a cycle and option, and then press **Start** to restart the dishwasher.

Indicators



Rinse Refil indicator		Lights up when the dishwasher runs out of rinse aid.
Salt refill indicator		Lights up if Salt refill is activated.
AI Energy mode indicator		• AI Energy mode becomes active when the SmartThings app allows it to be enabled. • With the AI Energy mode compatible, the indicator turns on if an AI Energy mode compatible cycle is selected. • Not all cycles are available with this mode. The indicator turns off if an AI Energy mode incompatible cycle is selected. • AI Energy mode helps reduce power consumption. However, It takes a longer cycle time.
Wi-Fi indicator		Lights up if SmartThings is activated.

Cycle overview



Auto	This cycle detects the level of soil and automatically initiates the optimal cycle after a few minutes of operation.
Normal	Use this cycle for normally soiled dishes. The energy-usage label is based on this cycle.
Heavy	Use this cycle for heavily soiled dishes.
Delicate	Use this cycles for soiled, fragile items such as fine glassware and crystal glass (wine glass). Do not use the cycle for other glassware because clouding or etching may occur.
Express 60'	Use this cycle when you need to wash dishes quickly. It takes about 1 hour.
Pre Blast	Use this cycle for dislodging large food debris roughly in a quick time and preventing caking. No detergent or rinse is applied.
Plastic	Appropriate for cleaning plastic dishes that are vulnerable to heat and temperature.
Self Clean	Use this cycle to clean the dishwasher's tub. If the dishwasher needs self cleaning, the Self Clean indicator will blink for 5 seconds. If you start a cycle when the indicator is blinking, the indicator turns off automatically. Be sure to run the Self Clean cycle with the dishwasher empty, and never use it as a wash cycle to clean dishes.

Download Course

Beside the default cycles, you can download and use additional cycles on your smartphone.

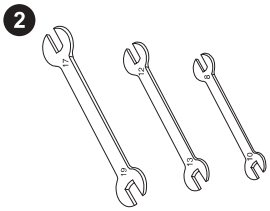
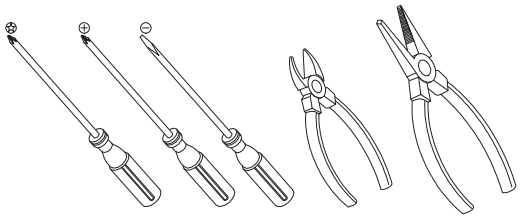
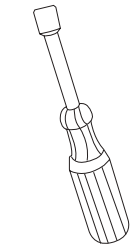
1. Press **POWER** button, and then select the **Download Cycle**.
2. Select a downloadable cycle on your smartphone app.

   Cycles available: Pots Pans, Baby Care, Night.
   - The default cycle is Pots Pans.
   - You can save the downloaded cycle for future use.
3. Press **START** button, and close the door of the dishwasher.

Pots Pans	Appropriate for cleaning cookware such as pans and pots that are likely to be soiled heavily.
Baby Care	Use this cycle to rinse dishes with high-temperature water before drying. No detergent is applied.
Night	Use this cycle for normal dishwashing after a meal. Use this cycle for normal dishwashing after a meal. This cycle takes longer time but makes less noise compare to the Normal cycle.

3. DISASSEMBLY AND REASSEMBLY

3-1. TOOLS FOR REMOVAL AND REASSEMBLY

Tool image	     		

No.	Tool	Type	Remarks
①	Adjustable Wrench	-	-
②	Open-end Wrench	1-7/16”	Leg
③	Vice pliers		-
④	Others (screwdriver, nipper, long nose pliers)		Common tools for servicing Screwdriver – Phillip, Flat, Torx T20
⑤	Nut Driver	10mm	Heater bracket Nut
⑥	Ear Clamp Pliers		-

Preparation for parts replacement

1. Take out the residual water inside the product. (Drain the water by operating the drain pump)
2. Close the water supply valve.
3. Turn off the power & disconnect power cable. You must turn off the circuit braker connected to the product.
4. Pull out the unit from the sink and lay it on the floor. Be careful of the drain hose when pulling out the unit.

3-2. PREPARATION FOR PARTS REPLACEMENT

1. Take out the residual water inside the product. (Drain the water by operating the drain pump)
2. Close the water supply valve.
3. Turn off the power. You must turn off the circuit braker connected to the product.
4. Pull out the unit from the sink and lay it on the floor. Be careful of the drain hose when pulling out the unit.

⚠ **WARNING**

Always turn off the electric power supply & water supply before servicing any electrical component, making ohmmeter checks, or replacing any parts.

⚠ **CAUTION**

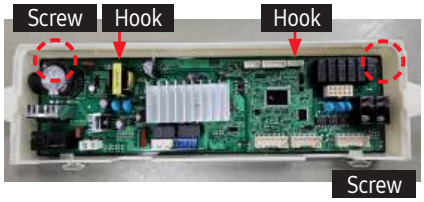
Before moving the unit, laying it down for service, or removing any parts for service be sure to drain as much of the water from the unit as possible. Use a protective mat or towel to prevent damage to the floor or having any of the remaining water spill on the floor.

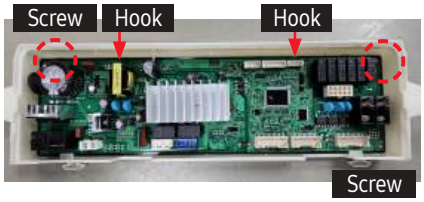
All voltage checks should be made with a voltmeter having a full scale range of 250 volts or higher. After service is completed, be sure all safety grounding circuits are complete, all electrical connections are secure, and all access panels are in place.

Before servicing, make sure to remove all items from inside of the dishwasher, including the wash racks.

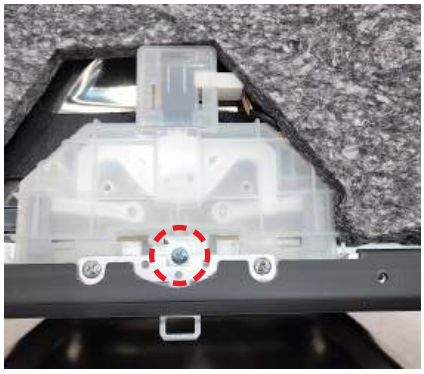
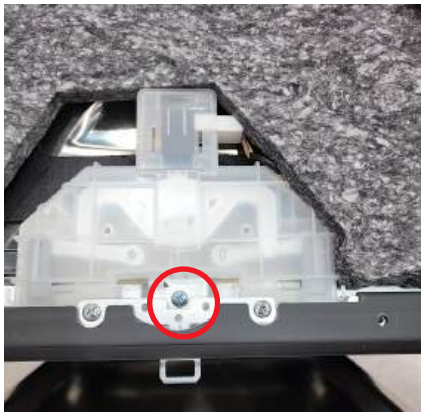
3-3. DISASSEMBLY AND REASSEMBLY

3-3-1. MAIN PBA

Part	Figure	Description
MAIN PBA [DISASSEMBLY]		**Preparation:** Make sure to disconnect the power. 1. Find Main PBA case below a door. 2. Remove two screws like a picture.
		3. Be sure to check the Hook in red circle and separates ASSY COVER PBA from BASE. 4. Separates the cover of ASSY COVER PBA.
		5. Remove the all wire connectors from MAIN PBA
		6. Separate two screws that are marked as circle. 7. Release 2 hooks, and remove MAIN PBA from GUIDE PBA ⚠ **CAUTION** Make sure to release hooks carefully. It can be brake easily if it's opened carelessly.

Part	Figure	Description
MAIN PBA [ASSEMBLY]		1. Put in the MAIN PBA into the GUIDE PCB (Make sure fixed by HOOK) 2. Fasten two screws like showing on the picture. ⚠ **CAUTION** Make sure to connect hooks carefully. It can be brake easily if it's assemble carelessly.
		3. Connect all wires from MAIN PBA 4. Connect GUIDE COVER PCB with GUIDE PCB ⚠ **CAUTION** Make sure to connect wires carefully.
		5. Assemble the HOOK with PLATE BASE
		6. Fasten 2 screw like showing on the picture

3-3-2. LEVER DOOR

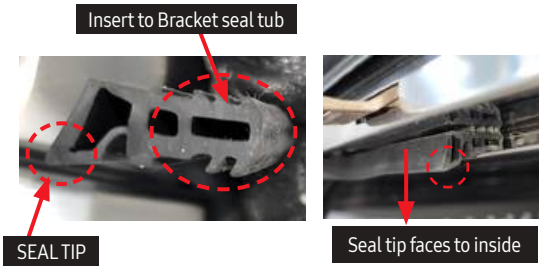
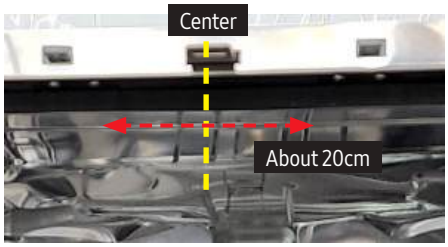
Part	Figure	Description
LEVER DOOR [DISASSEMBLY]		1. Remove 1 screw from LEVER DOOR
		2. Pull out LEVER DOOR **[ASSEMBLY]** * Reassembly is the reverse order of disassembly.
LEVER DOOR [ASSEMBLY]		1. Put in the LEVER DOOR
		2. Fasten the screw.

3-3-3. SEAL TUB PACKING

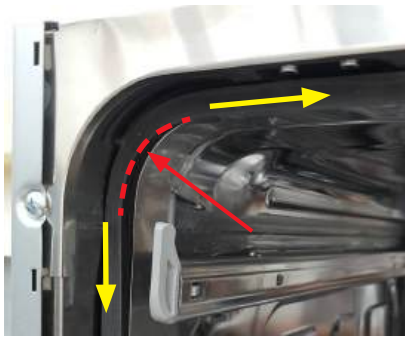
<table>
<tr><th>Part</th><th>Figure</th><th>Description</th></tr>
<tr><td>SEAL TUB PACKING
[DISASSEMBLY]</td><td> 
</td><td>1. Remove the old seal from the BRACKET SEAL TUB.

⚠ WARNING
Be sure to remove the power plug before servicing

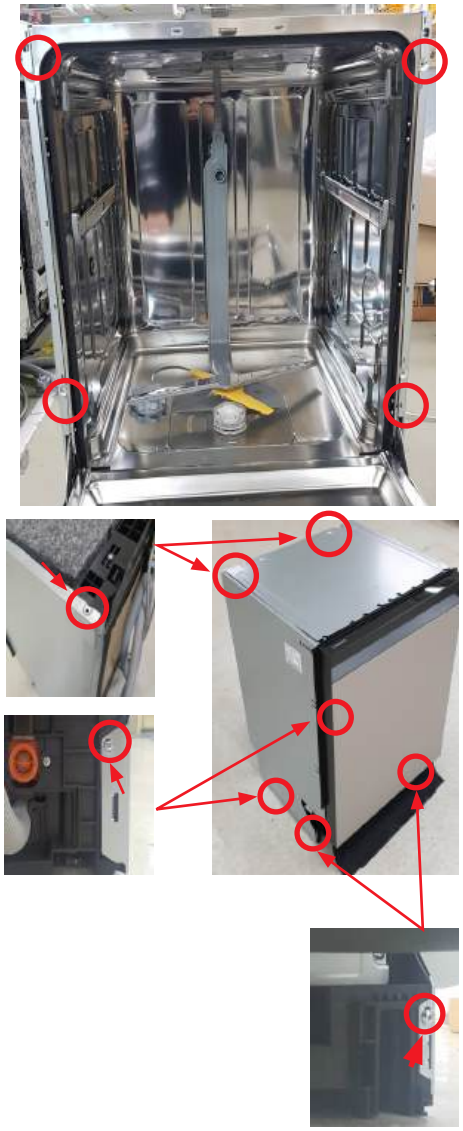
⚠ WARNING
Be careful to touch the BRACKET SEAL TUB after removed the seal. It may cause injury from sharp edges.</td></tr>
<tr><td rowspan="3">SEAL TUB PACKING
[ASSEMBLY]</td><td>  </td><td>1. Put some water on new SEAL TUB PACKING to assemble it easily. Fold the SEAL TUB PACKING in half with the tip of the seal facing inward.

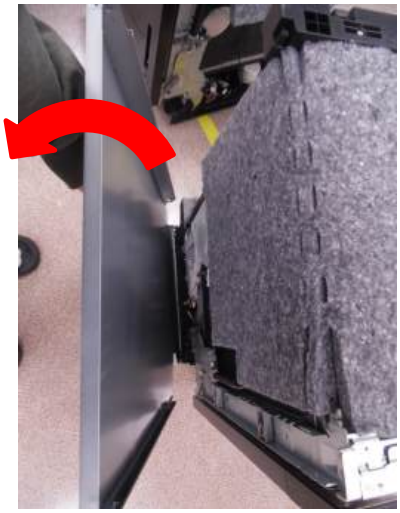
⚠ CAUTION
Pay attention to the direction of seal. If it is assembled in reverse, it may cause leakage of steam or water.
 
</td></tr>
<tr><td> 
</td><td>2. Assemble the SEAL TUB PACKING to center of the BRACKET SEAL TUB. Press seal about 7 7/8inch (20cm) (red dotted line) on both sides based on the center line.</td></tr>
<tr><td> 
</td><td>3. Put Seal in the left & right side of the bottom.

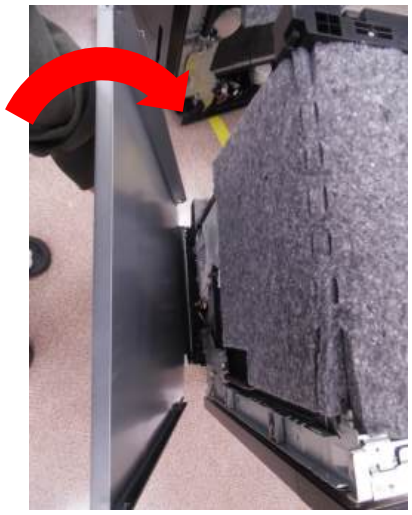
The folded seal is about 1 2/8~1 5/8inch (3~4cm) long.</td></tr>
</table>

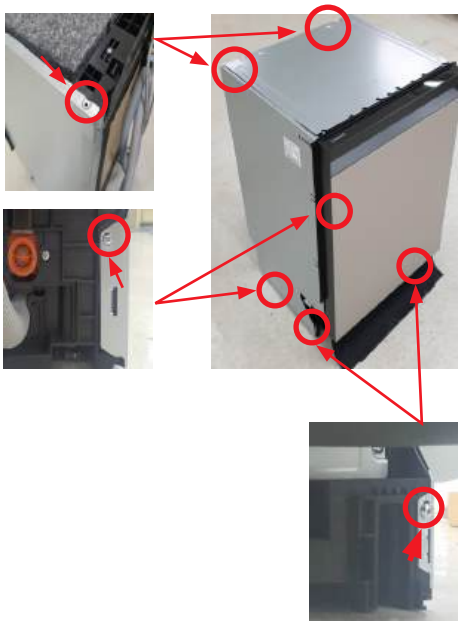
Part	Figure	Description
SEAL TUB PACKING [ASSEMBLY]		4. Press the seal from the top corner toward remaining side. ⚠ **CAUTION** Pay attention to assemble not to deform the seal tip at the corner. If the gap is opened, it may cause steam leakage.

3-3-4. HOUSING

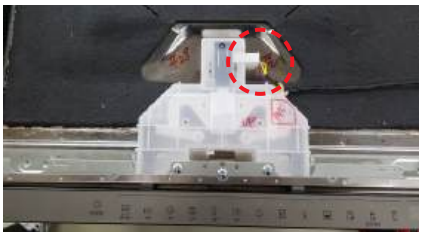
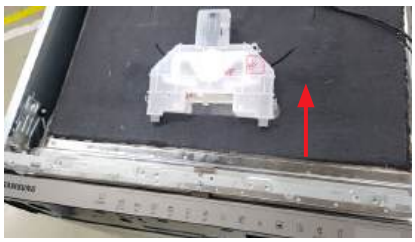
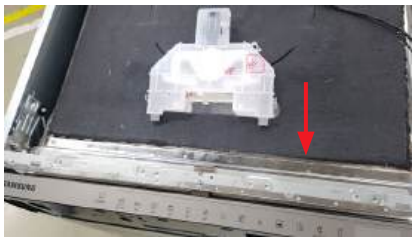
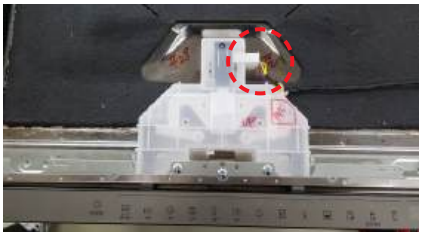
Part	Figure	Description
HOUSING [DISASSEMBLY]		1. Remove 4 screws at front of HOUSING 2. Remove 2 screws at front-lower of HOUSING 3. Remove 2 screws at rear-lower of HOUSING 4. Remove 2 screws at top-rear of HOUSING

Part	Figure	Description
HOUSING [DISASSEMBLY]		5. Release 6 hooks at back of Dishwasher to remove HOUSING
		6. Remove HOUSING from Dishwasher. ⚠ **CAUTION** Do not do this work without safety gloves. It may cause injury from sharp edges.

Part	Figure	Description
HOUSING [ASSEMBLY]		1. Assemble Housing to side of Dishwasher ⚠ **CAUTION** Do not do this work without safety gloves. It may cause injury from sharp edges.
		2. Secure 6 hooks at back of Dishwasher

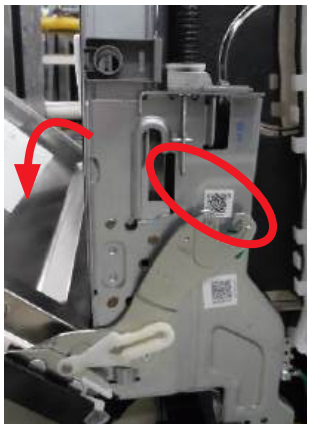
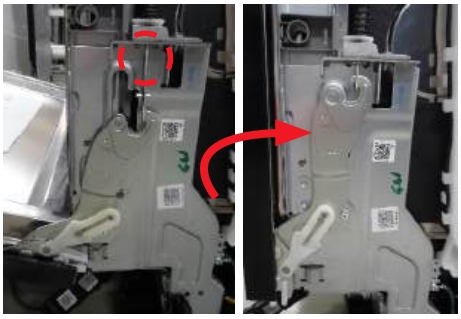
Part	Figure	Description
HOUSING [ASSEMBLY]	 	3. Fasten 4 screws at front of HOUISNG 4. Fasten 2 screws at front-lower of HOUSING 5. Fasten 2 screws at rear-lower of HOUSING 6. Fasten 2 screws at top-rear of HOUSING

3-3-5. ASSY COVER DOOR SWITCH

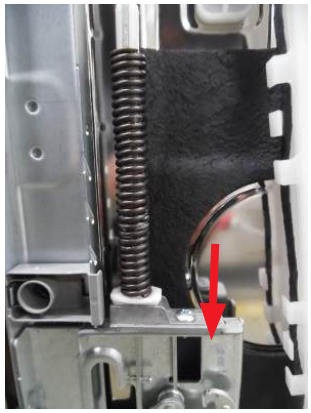
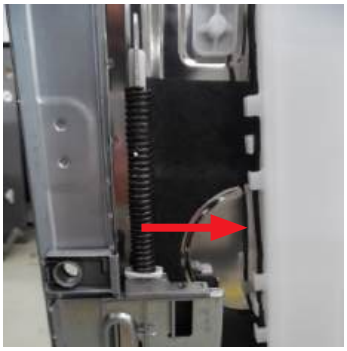
Part	Figure	Description
ASSY COVER DOOR SWITCH [DISASSEMBLY]		1. Disconnect wire of ASSY COVER DOOR SWITCH (Auto door opening module) ⚠ **WARNING** Remember to disconnect product from power supply.
		2. Remove 2 screws of ASSY COVER DOOR SWITCH
		3. Separate ASSY COVER DOOR SWITCH
ASSY COVER DOOR SWITCH [ASSEMBLY]		1. Insert ASSY COVER DOOR SWITCH at FRAME TOP
		2. Fasten 2 screws at ASSY COVER DOOR SWITCH
		3. Connect wire at ASSY COVER DOOR SWITCH

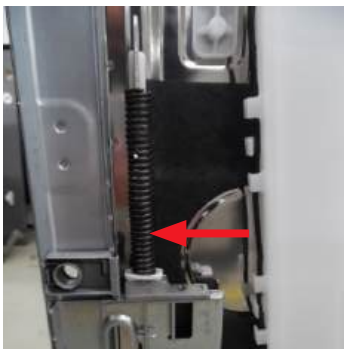
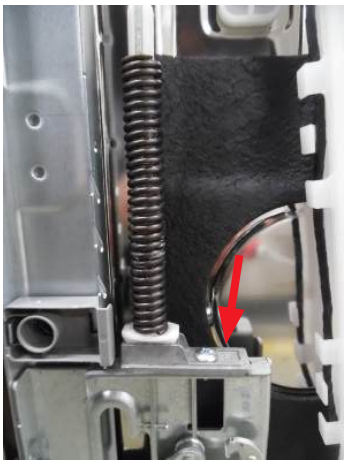
3-3-6. SLIDING HINGE - SPRING

Part	Figure	Description
SLIDING HINGE - SPRING [DISASSEMBLY]		**Preparation:** Disassemble HOUSING from Dishwasher 1. Open the DOOR about 80 degrees to pull the SPRING
		2. Input the EJECT PIN into a hole at SPRING Do the same disassembly on the other side **Note** • Alternative tool to EJECT PIN can be used as long as diameter and length is sufficient. ⚠ **WARNING** Because of HIGH SPRING FORCE only hardened Tools should be used. Mild steel or inadequately sized tools can break easily and cause a damage to the hinge and a tool. Always use caution when working with springs under tension as it may lead to a damage or an injury.
		3. Adjust the DOOR angle and separate the hook of SLIDING HINGE from SPRING **Note** Be careful not to touch the CASE BRAKE by the SLIDING HINGE at right side

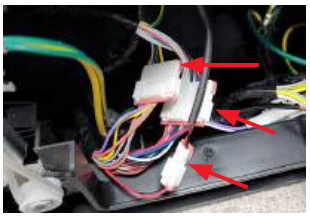
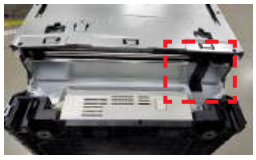
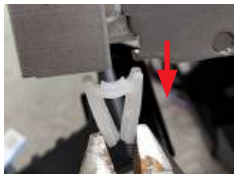
Part	Figure	Description
SLIDING HINGE - SPRING [ASSEMBLY]		**Preparation:** Insult Door to Dishwasher 1. Open the DOOR about 60 degrees to assemble the hook of SLIDING HINGE
		2. Open the DOOR about 80 degrees to pull the SPRING
		3. Remove the EJECT PIN Do the same disassembly on the other side 4. Close the DOOR slowly

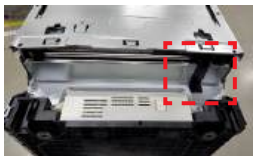
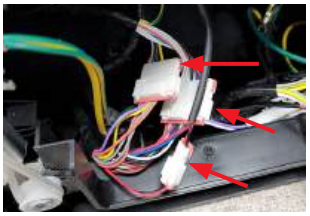
3-3-7. ASSY HINGE

Part	Figure	Description
ASSY HINGE [DISASSEMBLY]		**Preparation:** Disassemble SPRING from SLIDING HINGE 1. Remove a screw Do the same disassembly on the other side
		2. Move the SPRING about 1/16 inch (1.5mm) to separate from the SUPPORT HINGE Do the same disassembly on the other side. **Note** Be careful not to bend the SPRING.
		3. Remove the SPRING from SUPPORT HINGE Do the same disassembly on the other side

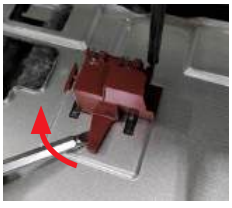
Part	Figure	Description
ASSY HINGE [ASSEMBLY]		**Preparation:** Disassemble SPRING from SLIDING HINGE 1. Insult the SPRING to SUPPORT HINGE Do the same disassembly on the other side
		2. Move the SPRING about 1/16inch (1.5mm) to align with the SUPPORT HINGE Do the same disassembly on the other side **Note** Be careful not to bend the SPRING
		3. Fasten a screw to Do the same disassembly on the other side

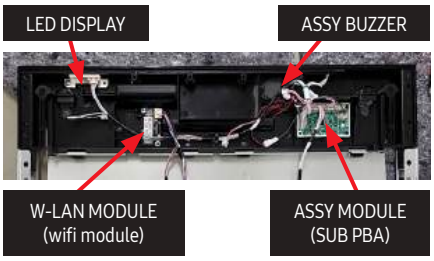
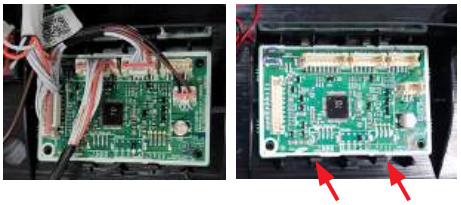
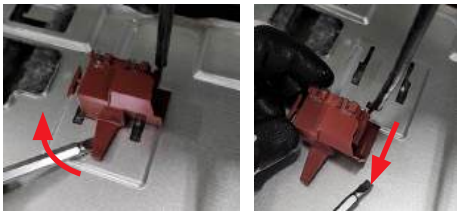
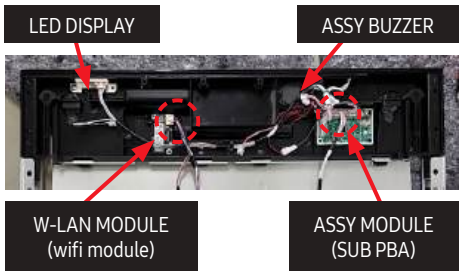
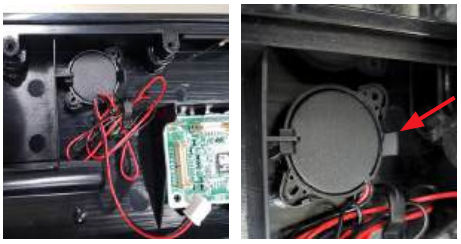
3-3-8. ASSY DOOR

Part	Figure	Description
ASSY DOOR [DISASSEMBLY]	 	**Preparation:** Disassemble HOUSING from Dishwasher Disassemble SLIDING HINGE from ASSY SPRING 1. Remove 1 screw at SUPPORT HINGE-RIGHT to remove Ground wire from the door
		2. Disassemble 3 connectors from the door
	 	3. Release 2 hooks and disassemble COVER WIRE ⚠ **WARNING** Do not do this work without safety gloves. It may cause injury from sharp edges.
		4. Pull out wires from dishwasher
	 	**Preparation:** Disassemble HOUSING from Dishwasher 5. Clamp GUIDE HINGE with Plier and pull out to disassemble Do the same disassembly on the other side.
		6. Open the ASSY DOOR 30~45 degree. 7. Pull out ASSY DOOR to disassemble. ⚠ **CAUTION** Be careful not to dent the DOOR during disassembly.

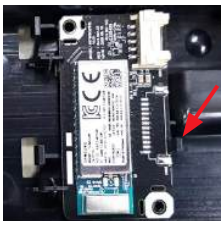
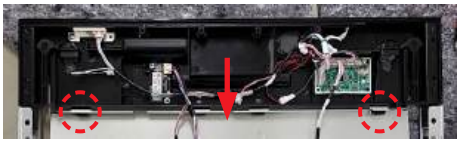
Part	Figure	Description
ASSY DOOR [ASSEMBLY]	 	1. Insert ASSY DOOR to dishwasher **Note** Door hinge must fit on shaft
		2. Insert GUIDE HINGE to lock door Do the same assembly on the other side. 
	 	3. Insert wires and COVER WIRE to inside of dishwasher.
	 	4. Assemble COVER WIRE to FRAME FRONT Secure 2 hooks .
		5. Assemble 3 connectors.
	 	6. Fasten GROUND WIRE with 1 screw. 

3-3-9. PANEL CONTROL / SUB PBA

Part	Figure	Description
PANEL CONTROL / SUB PBA [DISASSEMBLY]	 	1. Lift up the CUSTOM PANEL to remove from the machine, Open the door completely to prevent losing screws. Before removing the parts, place a cushioned mat on the floor to prevent the parts from being scratched. ⚠ **WARNING** Be sure to remove the power plug before servicing. It is not necessary to uninstall the dishwasher from the furniture cabinet
		2. Remove the 1 screw which holding the door outer and bracket door inner.
		3. Remove the 14 screws which holding the door outer and control panel in place. Use Torx T20 driver to remove it
		4. Separate PANEL CONTROL and DOOR OUTER from DOOR INNER ⚠ **CAUTION** Be careful not to dent the DOOR during disassembly.
	 	5. Separate ASSY LAMP LED from DOOR OUTER Release hook and pull ASSY LAMP LED

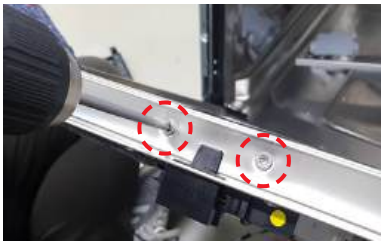
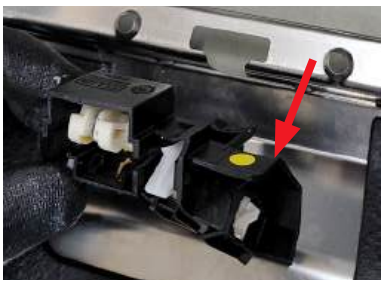
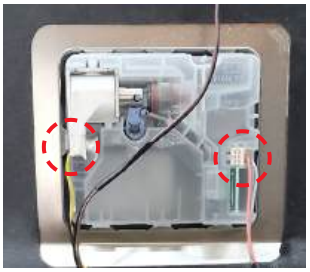
Part	Figure	Description
PANEL CONTROL / SUB PBA [DISASSEMBLY]		6. Separate wires of part need to be replaced
		7. Disconnect wires of ASSY MODULE 8. Release 2 hooks and separate ASSY MODULE
		9. Separate ASSY LAMP LED from DOOR OUTER Release hook and pull ASSY LAMP LED
		10. Separate wires of W-LAN MODULE and ASSY MODULE
		11. Release 2 hooks and separate ASSY PANEL CONTROL 
		12. Disconnect wire from ASSY MODULE 13. Release a hook and separate ASSY BUZZER

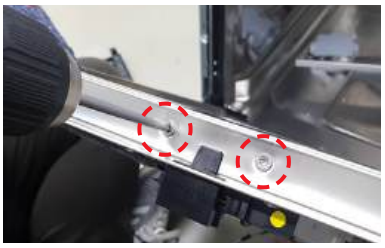
Part	Figure	Description
PANEL CONTROL / SUB PBA [DISASSEMBLY]		14. Release a hook and separate W-LAN MODULE (Wifi)
		15. Disconnect wires of LED DISPLAY 16. Remove a screw and separate LED DISPLAY

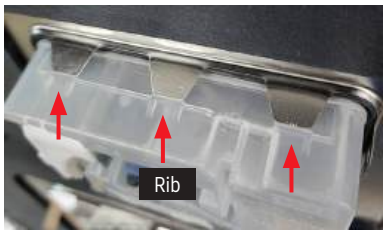
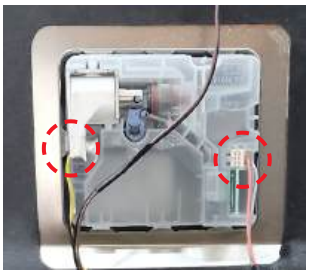
Part	Figure	Description
PANEL CONTROL / SUB PBA [ASSEMBLY]		1. Fasten a screw to LED DISPLAY 2. Connect wire to LED DISPLAY
	 	3. Lock hook of W-LAN MODULE 4. Connect wire of W-LAN MODULE
	 	5. Lock hook of ASSY BUZZER 6. Connect wire of ASSY BUZZER
		7. Insert ASSY PANEL CONTROL to DOOR OUTER Lock 2 hooks
	 W-LAN MODULE (wifi module) ASSY MODULE (SUB PBA)	8. Connect wires of W-LAN MODULE, ASSY MODULE
	 	9. Insert ASSY LAMP LED to DOOR OUTER Lock a hook
		10. Assemble DOOR OUTER with DOOR INNER

Part	Figure	Description
PANEL CONTROL / SUB PBA [ASSEMBLY]		11. Fasten 14 screws to DOOR OUTER and DOOR INNER Use Torx T20 driver to fasten it
		12. Fasten the 1 screw which holding the door outer and bracket door inner.

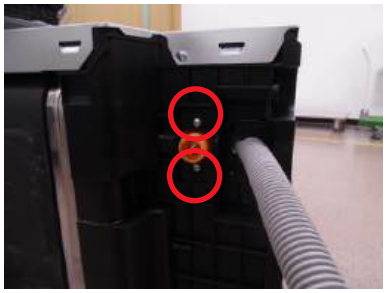
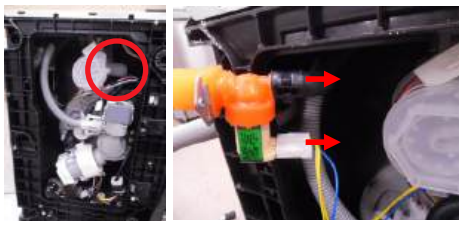
3-3-10. SWITCH DOOR / DISPENSER

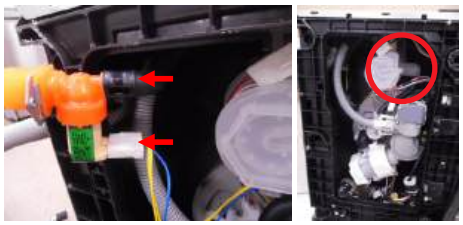
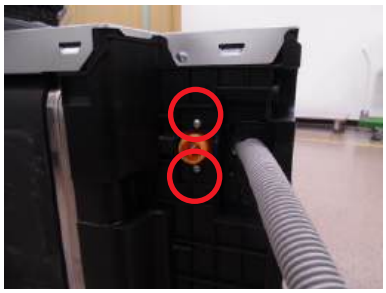
Part	Figure	Description
SWITCH DOOR / DISPENSER [DISASSEMBLY]		**Preparation:** Disassemble DOOR OUTER. 1. Disconnect wire of SWITCH DOOR
		2. Remove 2 screws Use Torx T20 driver to remove it
		3. Separate SWITCH DOOR fron INNER DOOR
		4. Disconnect wires of DISPENSER Release hook to disconnect
		5. Tilt the 8 hooks outward to disassemble DETERGENT DISPENSER with a flat-head screwdriver. ⚠ **WARNING** Do not perform this work without safety gloves. It may cause injury from sharp edges.
		6. Separate DISPENSER FROM INNER DOOR

Part	Figure	Description
SWITCH DOOR / DISPENSER [ASSEMBLY]		1. Insert SWITCH DOOR into INNER DOOR
		2. Fasten 2 screws Use Torx T20 driver to assemble it
		3. Connect wire to SWITCH DOOR
		4. Tilt the 8 hooks a little inward. ⚠ **WARNING** Do not perform this work without safety gloves. It may cause injury from sharp edges. ⚠ **CAUTION** Pay attention to hook of terminals.
	 	5. Insert DISPENSER into INNER DOOR It will be assembled with a click. ⚠ **CAUTION** Pay attention to the direction of the DETERGENT DISPENSER.

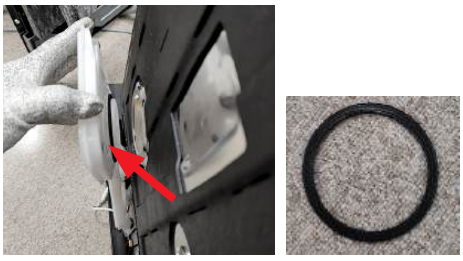
Part	Figure	Description
SWITCH DOOR / DISPENSER [ASSEMBLY]	 	6. Check if the 8 hooks are locked correctly. The hook must be on the rib. ⚠ **CAUTION** Check if there's any gap on the seal.
		7. Connect the 2 wire connectors

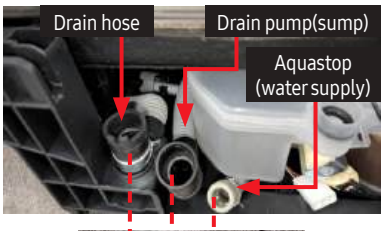
3-3-11. WATER VALVE

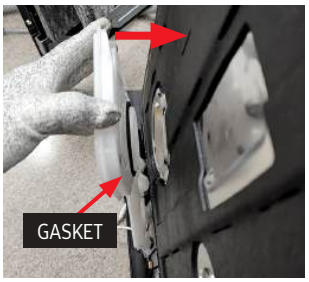
Part	Figure	Description
WATER VALVE [DISASSEMBLY]		1. Lay the machine on its side. ⚠ **CAUTION** Check the inside of Dishwasher, Make sure there are no dishes inside
		2. Loosen 2 Screws from the back side of PLATE BASE.
		3. Separate WATER VALVE from PLATE BASE 4. Disassemble WATER HOSE and CONNECTOR from the WATER VALVE. ⚠ **CAUTION** Do easy not to damage to the WATER HOSE and CONNECTOR while working.

Part	Figure	Description
WATER VALVE [ASSEMBLY]		1. Assemble WATER HOSE and CONNECTOR to the WATER VALVE. ⚠ **CAUTION** Do easy not to damage to the WATER HOSE and CONNECTOR while removal. 2. Place WATER VALVE at the PLATE BASE to align to the Screw hole.
		3. Fasten 2 Screws from the back side of PLATE BASE.
		4. Set up the right set.

3-3-12. ASSY CASE BRAKE

Part	Figure	Description
ASSY CASE BRAKE [DISASSEMBLY]		**Preparation:** Disassemble HOUSING-LEFT Remove BASKET-LOWER from dishwasher 1. Turn CAP OUTLET DRY counter-clockwise to unlock Use Handle of Plier to grab CAP
		2. Make ASY CASE BRAKE come out from hole of TUB
		3. Remove the GASKET BRAKE from the CASE BRAKE assembly.
		4. Disconnect wire of ASSY CASE BRAKE.
		5. Release 3 clamps at HOSE

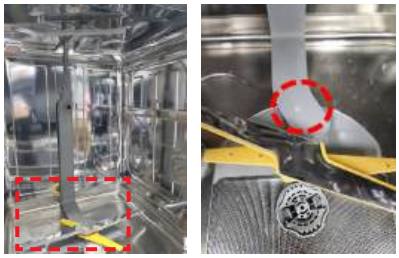
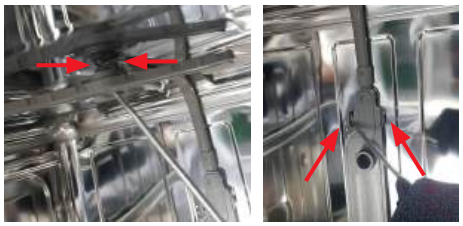
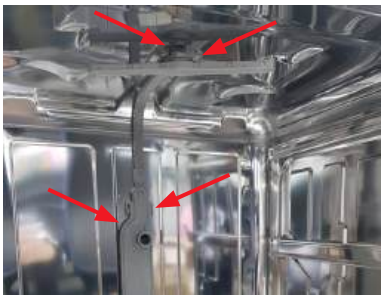
Part	Figure	Description
ASSY CASE BRAKE [DISASSEMBLY]		6. Lift up ASSY CASE BRAKE to disassemble from Hose and Softner
		7. Separate ASSY CASE BRAKE from Dishwasher
ASSY CASE BRAKE [ASSEMBLY]	 	1. Assemble ASSY CASE BRAKE with Hoses ⚠ **CAUTION** Be careful not to miss the SEAL  Seal at CASE BRAKE  Seal at SOFTNER (same seal with CASE BRAKE)
		2. Insert ASSY CASE BRAKE to BASE and SOFTNER Check the 2 hooks are secured with SOFTNER  ⚠ **CAUTION** Make sure both seals are installed correctly
		3. Assemble 3 clamps at HOSE

Part	Figure	Description
ASSY CASE BRAKE [ASSEMBLY]		4. Fit the GASKET BRAKE on the CASE BRAKE. 5. Insert ASSY CASE BRAKE to hole of TUB. ⚠ **CAUTION** Be careful not to miss the GASKET. 
		6. Turn CAP OUTLET DRY clock wise to lock.

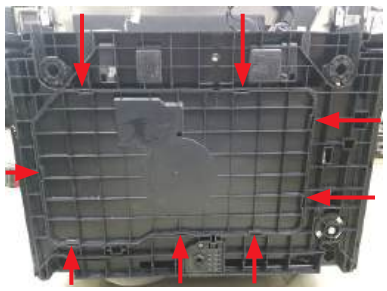
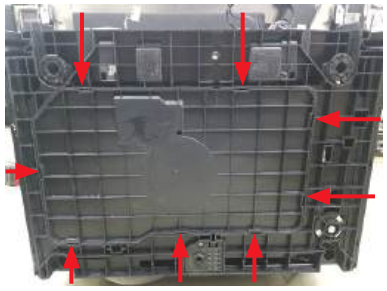
3-3-13. ASSY DUCT POWER-MODULE

Part	Figure	Description
ASSY DUCT POWER-MODULE [DISASSEMBLY]		1. Remove 1 screw Use Torx T20 driver to remove it.
		2. Remove ASSY DUCT POWER-MODULE from Dishwasher.
ASSY DUCT POWER-MODULE [ASSEMBLY]		1. Assemble the ASSY DUCT POWER-MODULE at the Hole of HOUSING.
		2. Fasten 1 Screw Use Torx T20 driver to remove it

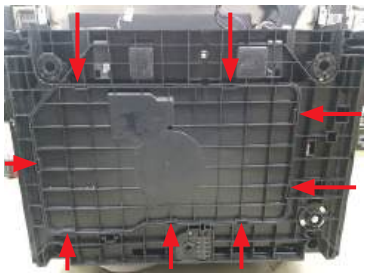
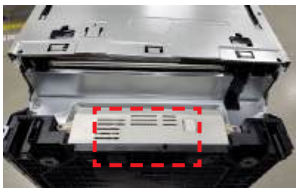
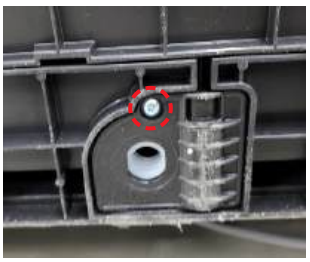
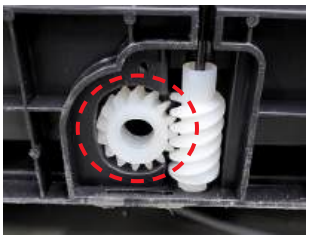
3-3-14. ASSY DUCT MAIN

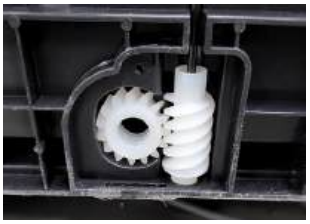
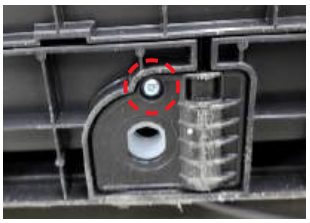
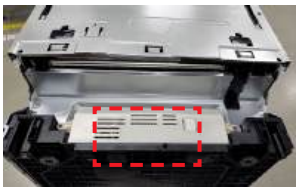
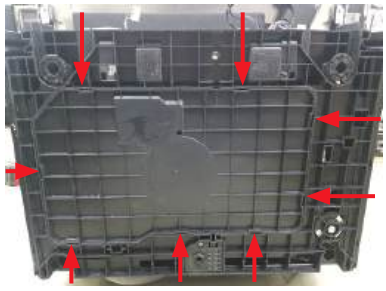
Part	Figure	Description
ASSY DUCT MAIN [DISASSEMBLY]		**Preparation:** Remove all BASKETs from dishwasher . 1-1. Remove a cap 1-2. Remove a screw with Torx T20 driver
		2. Release hooks holding ASSY DUCT MAIN at the top of TUB 3. Release hooks holding ASSY DUCT MAIN at the middle of TUB
		4. Pull Out DUCT MAIN from TUB
ASSY DUCT MAIN [ASSEMBLY]		1. Assemble ASSY DUCT MAIN with hole of HOUSING
		2. Lock hooks of TUB with ASSY DUCT MAIN
		3. Assemble a screw with Torx T20 driver. 4. Assemble a Cap.

3-3-15. ASSY COVER BASE

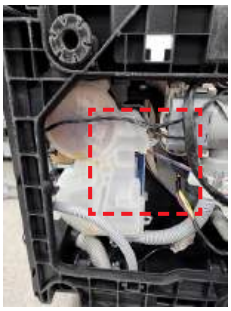
Part	Figure	Description
ASSY COVER BASE [DISASSEMBLY]		1. Lay down the dishwasher on the back or both sides. ⚠ **WARNING** Be sure to remove the power plug before servicing. ⚠ **CAUTION** Make sure to lay down the dishwasher carefully. If it falls carelessly, It may cause damage.
		2. Open the COVER BASE which is closed by 8 hooks using a flat-head screwdriver. 
		3. Disconnect wire from SENSOR-LEAKAGE
ASSY COVER BASE [ASSEMBLY]		1. Connect wire of SENSOR-LEAKAGE.
		2. Assemble 8 hooks of COVER BASE with BASE

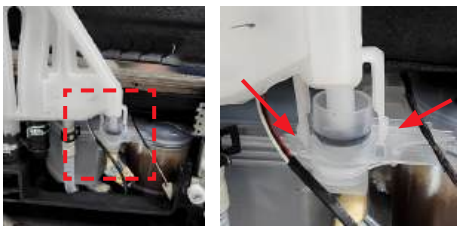
3-3-16. Rear Leg & Adjuster

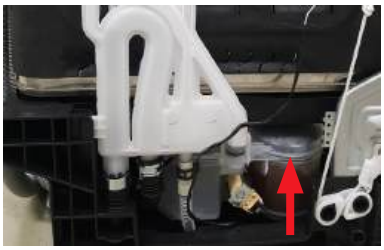
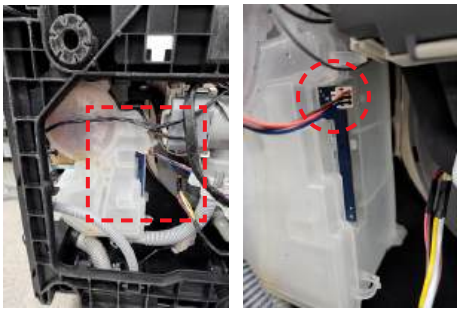
Part	Figure	Description
Rear Leg & Adjuster [DISASSEMBLY]		1. Lay down the dishwasher on the back ⚠ **WARNING** Be sure to remove the power plug before servicing. ⚠ **CAUTION** Make sure to lay down the dishwasher carefully. If it falls carelessly, It may cause damage.
		2. Open the COVER BASE which is closed by 8 hooks using a flat-head screwdriver 
	 	3. Turn SHAFT-ADJUSTER counter clockwise, until rear adjusting leg comes out
		4. Remove a screw and take off CASE GEAR
		5. Separate GEAR HELICAL from BASE
	 	6. Pull out SHAFT-ADJUSTER Need to release hook to pull out it.

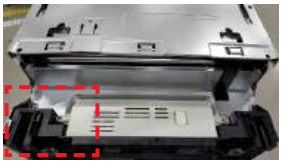
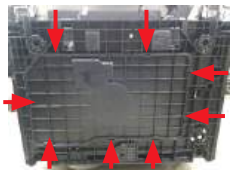
Part	Figure	Description
Rear Leg & Adjuster [ASSEMBLY]		1. Assemble SHAFT-ADJUSTER and GEAR WORM at BASE
		2. Insert GEAR HELICAL into BASE ⚠ **CAUTION** Pay attention to assembly direction 
		3. Assemble CASE GEAR at BASE and fasten a screw
		4. Insert FOOT at CASE GEAR
	 	5. Turn SHAFT ADJUSTER clock wise to load foot into BASE
		6. Assemble 8 hooks of COVER BASE with BASE

3-3-17. TANK WATER-SOFTENER

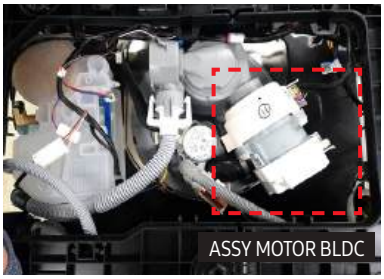
Part	Figure	Description
TANK WATER-SOFTNER [DISASSEMBLY]		**Preparation:** Remove BASKET-LOWER from dishwasher Disassemble HOUSING-RIGHT Disassemble Spring at left side of ASSY DOOR 1. Turn CAP counter clock wise and separate it.
		2. Turn HOLDER counter clock wise and separate it Use Flat head driver to help turn it ⚠ **CAUTION** Be careful to not damage inner parts to release the SOFTENER HOLDER with tools.
		3. Disconnect wire from VALVE ⚠ **WARNING** Be sure to remove the power plug before servicing.
	 	4. Disconnect wire from SENSOR
	 	5. Lay down Dishwasher 6. Remove a screw at left side of COVER PBA
		7. Remove 3 screws from BASE

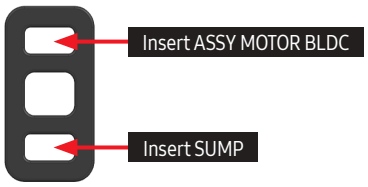
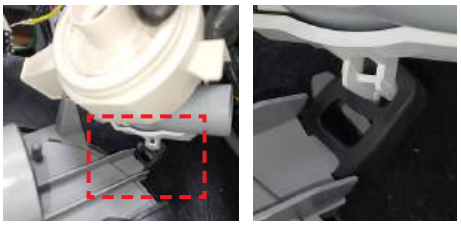
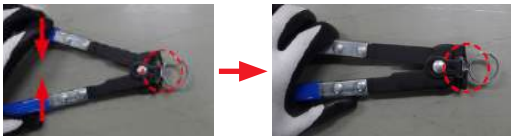
Part	Figure	Description
TANK WATER-SOFTNER [DISASSEMBLY]		8. Pull front of BASE apart from the dishwasher to make space for the SOFTNER come out
		9. Push down TANK WATER-SOFTNER to disassemble from ASSY CASE BRAKE 2 hooks have to be disassembled
		10. Pull out TANK WATER-SOFTNER
		11. Loosen Clamp and disassmble hose from SOFTNER

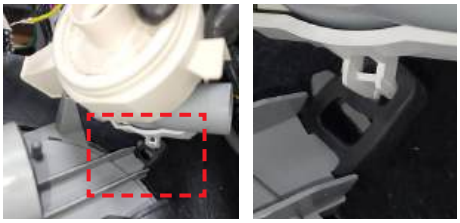
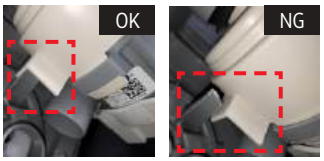
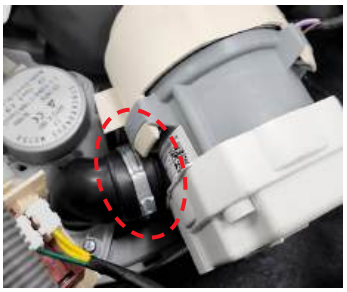
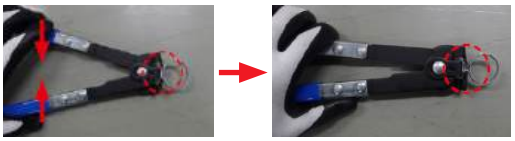
Part	Figure	Description
TANK WATER-SOFTNER [ASSEMBLY]		1. Assemble Hose and clamp at SOFTNER
		2. Assemble SOFTNER into the hole of TUB ⚠ **CAUTION** Be careful not to miss the GASKET 
		3. Assemble SOFTNER with ASSY CASE BRAKE Check the 2 hooks are secured with SOFTNER ⚠ **CAUTION** Check 2 Seals are assembled well 
		4. Connect wire at SENSOR
		5. Connect wire at VALVE

Part	Figure	Description
TANK WATER-SOFTNER [ASSEMBLY]		6. Push the front of BASE to assemble with Dishwasher
		7. Fasten 3 screws to assemble BASE and SUPPORT HINGE
	 	8. Fasten a screw to assemble BASE with FRAME FRONT
	 	9. Connect the wire of SENSOR LEAKAGE 10. Assemble COVER BASE with BASE
		11. Turn HOLDER clockwise to lock SOFTNER ⚠ **CAUTION** Be careful to not damage inner parts to release the SOFTENER HOLDER by tools.
		12. Turn CAP clockwise to lock SOFTNER

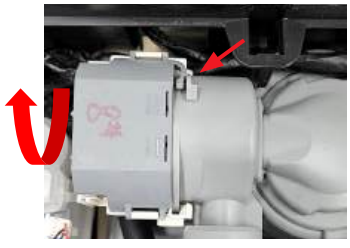
3-3-18.ASSY MOTOR BLDC(CIRCULATION PUMP)

Part	Figure	Description
ASSY MOTOR BLDC (CIRCULATION PUMP) [DISASSEMBLY]		**Preparation:** Disassemble COVER BASE ⚠ **WARNING** Be sure to remove the power plug before servicing.
	 	1. Disconnect 3 connectors 
	 	2. Remove a clamp for fixing ASSY MOTOR BLDC 3. Disassemble Hose from ASSY MOTOR BLDC When you brake clamp, use flathead driver than brake area which marked red arrow. 
		4. Disassemble ASSY MOTOR BLDC from SUMP
		5. Separate ASSY MOTOR BLDC from HOLDER DAMPER When you disassemble holder damper, using flathead driver and disassemble red arrow point.

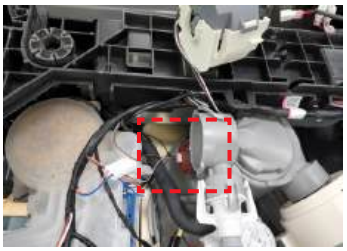
Part	Figure	Description
ASSY MOTOR BLDC (CIRCULATION PUMP) [ASSEMBLY]		1. Assemble HOSE PUMP IN at SUMP * It is not necessary if the hose does not come out during the disassembly process ⚠ **CAUTION** Pay attention to assembly direction 
		2. Fit the Ear clamps on Hose  Ear clamp: DD61-00583A BRACKET HOSE
		3. Assmble HOLDER DAMPER at SUMP  Insert ASSY MOTOR BLDC Insert SUMP
		4. Assemble ASSY MOTOR BLDC at HOLDER DAMPER
		5. Insert ASSY MOTOR BLDC at HOSE
		6. Fasten Ear clamp using Clamping pliers 

Part	Figure	Description
ASSY MOTOR BLDC (CIRCULATION PUMP) [ASSEMBLY]		7. Assemble ASSY MOTOR BLDC at HOLDER DAMPER
		8. IInsert ASSY MOTOR BLDC at HOSE  ⚠ **CAUTION** After assemble, MOTOR have to placed as left picture
		9. Insert ASSY MOTOR BLDC at SUMP Apply water for easy insertion
		10. Fasten Ear clamp using Clamping pliers 
		11. Connect wires at ASSY MOTOR BLDC

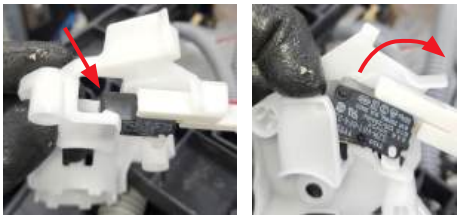
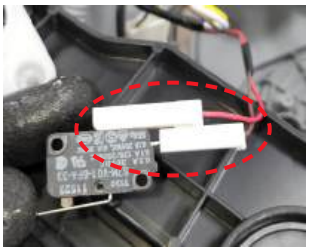
3-3-19. MOTOR BLDC PUMP(DRAIN PUMP)

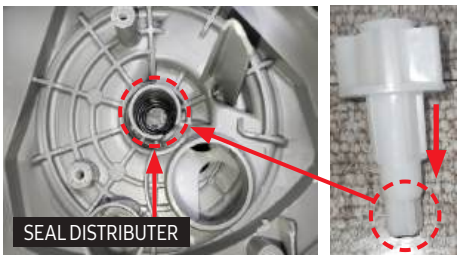
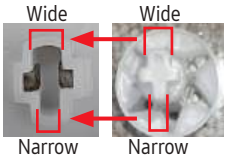
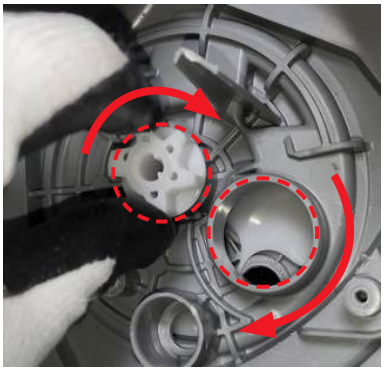
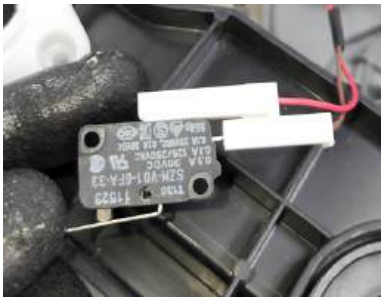
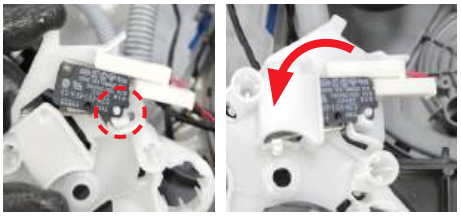
Part	Figure	Description
MOTOR BLDC PUMP (DRAIN PUMP) [DISASSEMBLY]	 	**Preparation:** Disassemble COVER BASE 1. Release hook of MOTOR BLDC PUMP ⚠ **WARNING** Be sure to remove the power plug before servicing.
		2. Turn MOTOR BLDC PUMP clockwise and pull out
		3. Disconnect wire from MOTOR BLDC PUMP
MOTOR BLDC PUMP (DRAIN PUMP) [ASSEMBLY]		1. Connect wire to MOTOR BLDC PUMP ⚠ **WARNING** Be sure to remove the power plug before servicing.
		2. Insert MOTOR BLDC PUMP into SUMP Apply water for easy insertion
		3. Turn MOTOR BLDC PUMP counter clockwise and lock hook

3-3-20. SENSOR-TURBIDITY

Part	Figure	Description
SENSOR-TURBIDITY [DISASSEMBLY]		**Preparation:** Disassemble COVER BASE Disassemble ASSY MOTOR BLDC(Drain pump)
		1. Release hook and pull out SENSOR-TURBIDITY, using flat head driver
		2. Disconnect wire from SENSOR-TURBIDITY
SENSOR-TURBIDITY [ASSEMBLY]		1. Connect wire to SENSOR-TURBIDITY
		2. Insert SENSOR TURBIDITY into SUMP Apply water for easy insertion ⚠ **CAUTION** Be careful not to miss the SEAL SOIL SENSOR 

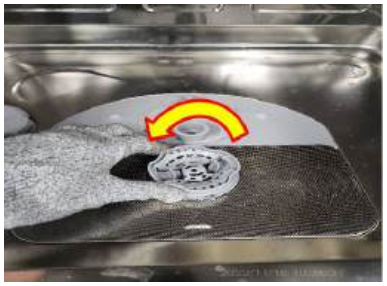
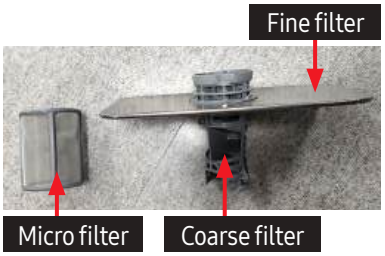
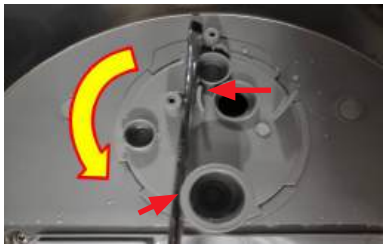
3-3-21. MOTOR AC DRIVE / DISTRIBUTER

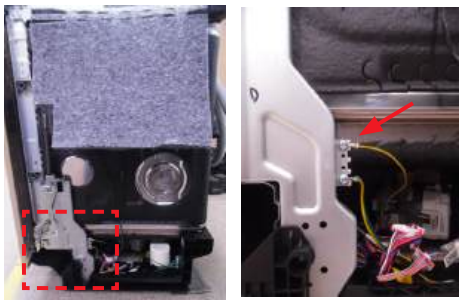
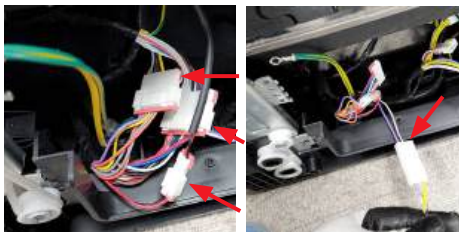
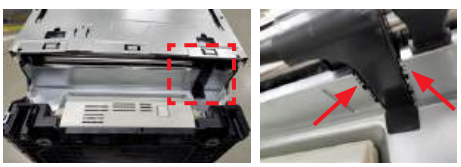
Part	Figure	Description
MOTOR AC DRIVE / DISTRIBUTER [DISASSEMBLY]		**Preparation:** Disassemble COVER BASE Disassemble ASSY HOSE CONNECTOR 1. Remove 3 screws from HOLDER MOTOR
		2. Pull out MOTOR AC DRIVE from HOLDER MOTOR 3. Disconnect wire from MOTOR AC DRIVE
		**Preparation:** Disassemble ASSY MOTOR BLDC (Circulation pump) 4. Pull out HOLDER MOTOR from SUMP, using flat head driver
		5. Release hook and turn SWITCH MICRO clockwise
		6. Pull out SWITCH MICRO and disconnect wire
		7. Remove CAM DISTRIBUTE from SUMP

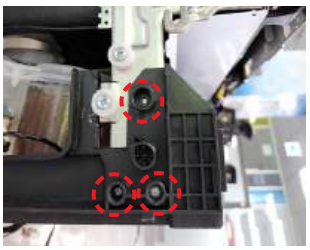
Part	Figure	Description
MOTOR AC DRIVE / DISTRIBUTER [ASSEMBLY]		1. Insert CAM DISTRIBUTE to VALVE DISTRIBUTE in SUMP  ⚠ **CAUTION** Pay attention to assembly direction  ⚠ **CAUTION** Be careful not to miss the SEAL DISTRIBUTER
		2. Turn CAM DISTRIBUTE to make sure it's fully assembled When the CAM is turned, VALVE must also rotate to be fully assembled
		3. Connect wire to SWITCH MICRO
		4. Assemble SWITCH MICRO at HOLDER MOTOR 5. Turn SWITCH MICRO counter clockwise to lock it
		6. Assemble HOLDER MOTOR with SUMP Apply water for easy insertion

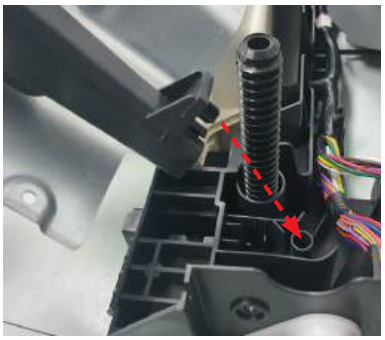
Part	Figure	Description
MOTOR AC DRIVE / DISTRIBUTER [ASSEMBLY]		7. Turn CAM DISTRIBUTE to match MOTOR AC DRIVE shaft direction Use flat head driver to turn  
		8. Connect wire to MOTOR AC DRIVE
		9. Assmble MOTOR AC DRIVE with HOLDER MOTOR 10. Fasten 3 screws at HOLDER MOTOR 

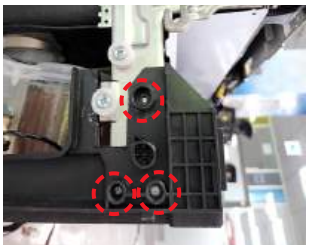
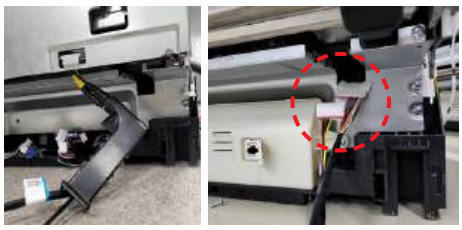
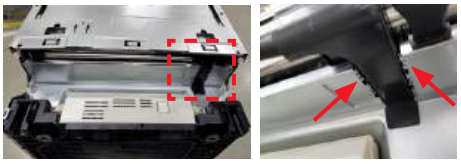
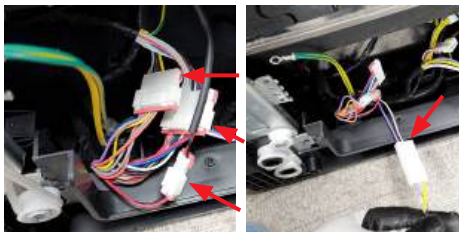
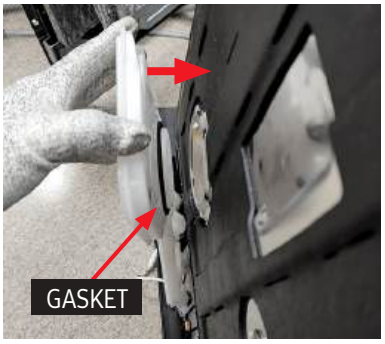
3-3-22. ASSY BASE

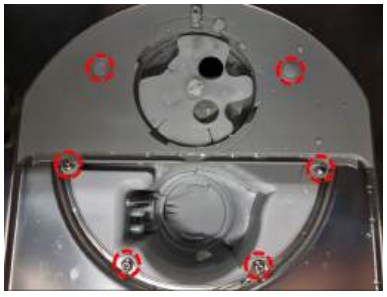
Part	Figure	Description
ASSY BASE [DISASSEMBLY]		**Preparation:** Disassemble HOUSING LEFT, RIGHT Disassemble DOOR SPRING Disassemble ASSY DUCT MAIN 1. Pull out ASSY ROTOR from SUMP
		2. Turn FILTER counter clockwise and pull out FILTERS 
		3. Turn HOUSING counter clock wise, and separate it Use flat head driver to turn it. Position the driver in the position of the arrow
		4. Remove 2 caps and 6 screws from SUMP Use Torx T20 head driver
		5. Remove COVER FILTER-BOTTOM from SUMP

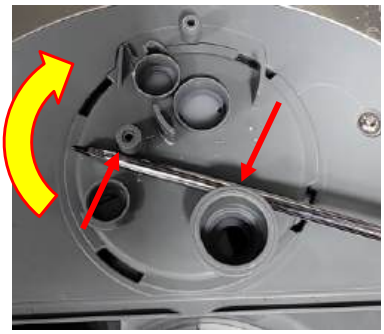
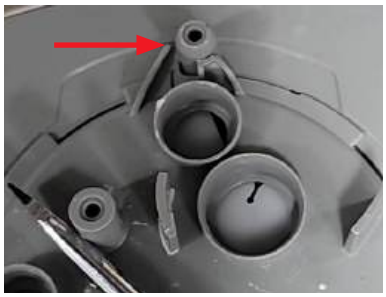
Part	Figure	Description
ASSY BASE [DISASSEMBLY]		6. Turn CAP counter clock wise and separate it. 7. urn HOLDER counter clock wise and separate it Use Flat head driver to turn it ⚠ **CAUTION** Be careful to not damage inner parts to release the SOFTENER HOLDER by tools.
		8. Turn CAP OUTLET DRY counter-clockwise to unlock Use Handle of Plier to grab CAP
		9. Make ASY CASE BRAKE come out from hole of TUB
		10. Remove a screw fixing ground wire from Main wire
		11. Disconnect 3 wires from the door 12. Disconnect wire of ASSY COVER DOOR SWITCH (Auto door opening module)
		13. Release 2 hooks and disassemble COVER WIRE

Part	Figure	Description
ASSY BASE [DISASSEMBLY]		14. Pull out wires from dishwasher
		15. Remove 3 screws fixing BASE and SUPPORT HINGE Do the same on the other side
		16. Remove 4 screws from FRAME FRONT
		17. Separate ASSY BASE from TUB
		18. Remove 2 screws fixing COVER PBA and FRAME FRONT
		19. Remove FRAME FRONT from ASSY BASE

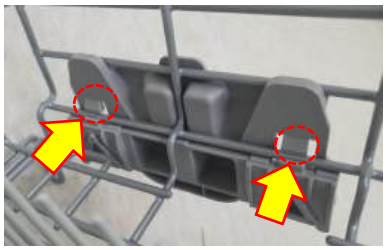
Part	Figure	Description
ASSY BASE [ASSEMBLY]	 	1. Assemble ASSY FRAME FRONT into ASSY BASE * Left and right GUIDE LIQUID must be assembled to fit the holes in the ASSY BASE
		2. Assemble 2 scres at COVER PBA
	  	3. Assemble ASSY BASE to ASSY TUB * SOFTNER must be fit at hole of TUB-BOTTOM
		4. Fasten 4 screws at FRAME FRONT

Part	Figure	Description
ASSY BASE [ASSEMBLY]		5. Fasten 3 screws to fix BASE and SUPPORT HINGE Do the same on the other side
		6. Insert wires and COVER WIRE to inside of dishwasher
		7. Assemble COVER WIRE to FRAME FRONT Secure 2 hooks
		8. Connect 3 wires from the door 9. Connect wire of ASSY COVER DOOR SWITCH (Auto door opening module)
		10. Fasten a screw to fix ground wire from Main wire
		11. Insert ASSY CASE BRAKE to hole of TUB ⚠ **CAUTION** Be careful not to miss the GASKET 

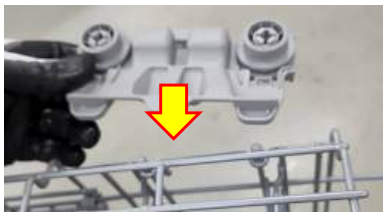
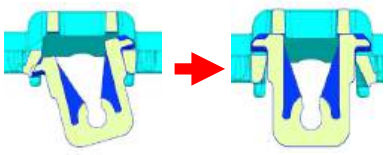
Part	Figure	Description
ASSY BASE [ASSEMBLY]		12. Turn CAP OUTLET DRY clock wise to lock
		13. Turn HOLDER clockwise to lock SOFTNER 14. Turn CAP clockwise to lock SOFTNER
		15. Assemble COVER FILTER-BOTTOM at SUMP
		16. Fasten 6 screws at SUMP Use Torx T20 head driver to fasten. 17. Fasten 2 Caps at Sump.   

Part	Figure	Description
ASSY BASE [ASSEMBLY]	 	18. Insert HOUSING into COVER FILTER-BOTTOM 19. Turn HOUSING clockwise to lock it Use flat head driver to help turn it. Position the driver in the position of the arrow. * HOUSING must be turned to the end.
		20. Insert Micro filter in the SUMP 
		21. Insert Coarse filter and Fine filter into SUMP 22. Turn Coarse filter clockwise to lock it
		23. Assemble ASSY ROTOR to HOUSING

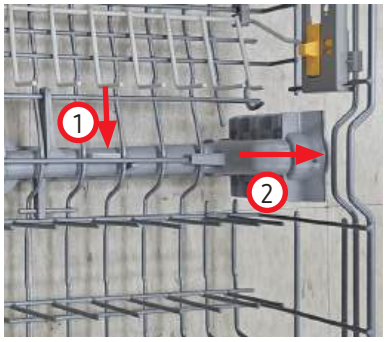
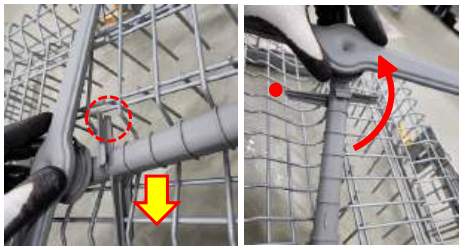
3-3-23. ASSY BASKET LOWER

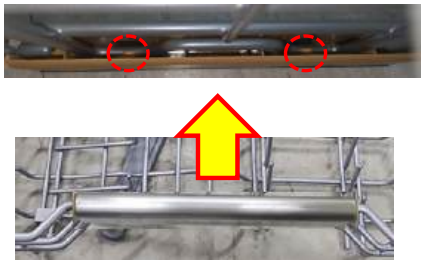
Part	Figure	Description
ASSY BASKET LOWER [DISASSEMBLY]		1. Pull out ASSY BASKET LOWER from Dishwasher.
		2. Push 2 hooks at ASSY ROLLER.
		3. Take off ASSY ROLLER from BASKET.
		4. Push hook with flat head driver to take off HANDLE BASKET. Front side  Back side 
		5. Tilt the ASSY PLASTIC SUPPORTOR
		6. Pull the upper side of ASSY PLASTIC SUPPORTOR to take off it.

Part	Figure	Description
ASSY BASKET LOWER [DISASSEMBLY]		7. Rotate and take off the ASSY PLASTIC SUPPORTOR. 

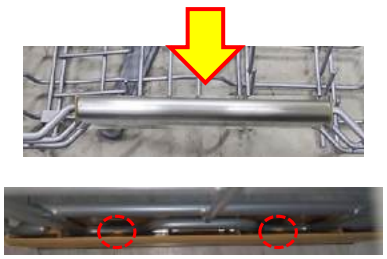
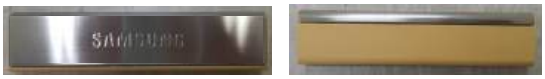
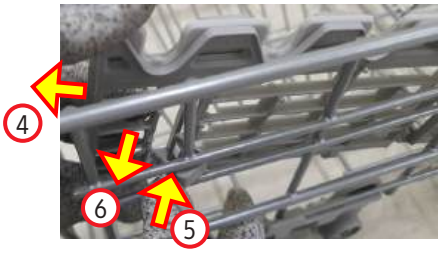
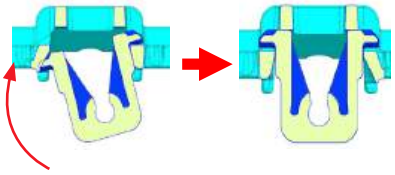
Part	Figure	Description
ASSY BASKET LOWER [ASSEMBLY]		1. Assemble HANDLE BASKET at BASKET. Front side  Back side 
	 	2. Assemble ASSY ROLLER at BASKET Secure hook to lock it. * Match wire and center of ASSY ROLLER.
		3 . Hang the one side rail of ASSY PLASTIC SUPPORTOR by tilting it.
	 	4. Pull the upper side of ASSY PLASTIC SUPPORTOR. 5. Support SUPPORT CUP-HOLDER to assemble with ASSY PLASTIC SUPPORTOR. 6. Assemble ASSY PLASTIC SUPPORTOR with SUPPORT CUP-HOLDER holding on pulling(No.4).

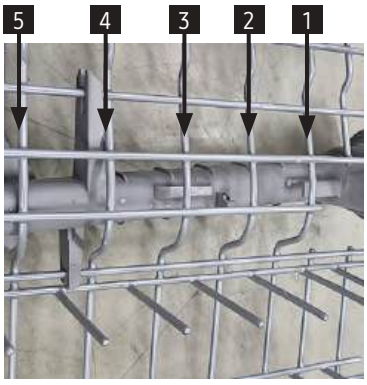
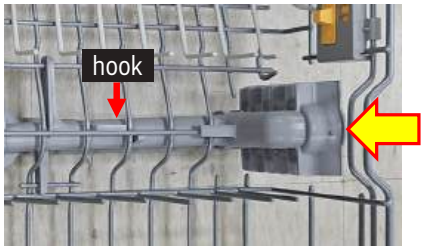
3-3-24. ASSY BASKET MIDDLE

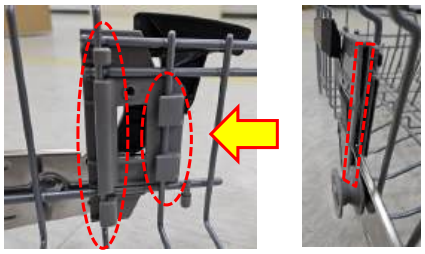
Part	Figure	Description
ASSY BASKET MIDDLE [DISASSEMBLY]		1. Pull out ASSY BASKET MIDDLE from Dishwasher
		2. Push ASSY DUCT MIDDLE back with the hook pressed.
		3. Move ASSY DUCT MIDDLE to direction of arrow(direction to the long arm) 4. Take off ASSY DUCT MIDDLE with rotating.
		5. Tilt the ASSY PLASTIC SUPPORTOR
		6. Pull the upper side of ASSY PLASTIC SUPPORTOR to take off it.

Part	Figure	Description
ASSY BASKET MIDDLE [DISASSEMBLY]		7. Rotate and take off the ASSY PLASTIC SUPPORTOR.
		8. Remove SUPPORT CUP-HOLDER from BASKET 
		9. Push 2 hooks with flat head driver to take off the ASSY HANDLE Front side  Back side 
		10. Pull ASSY BASKET ADJUSTER forward for disassembly.

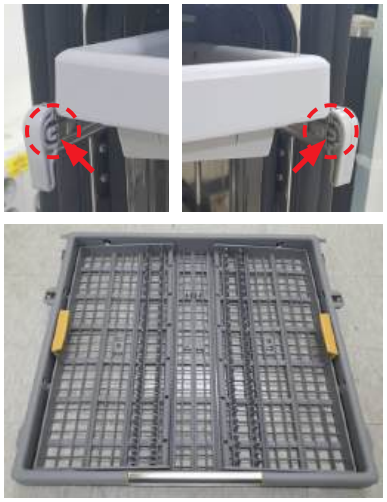
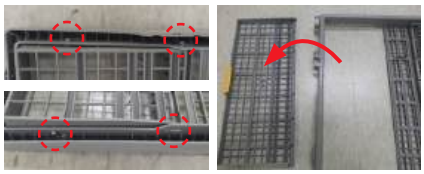
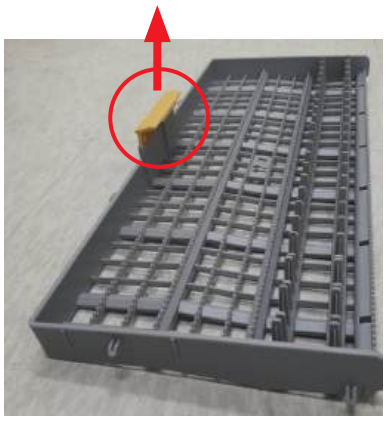
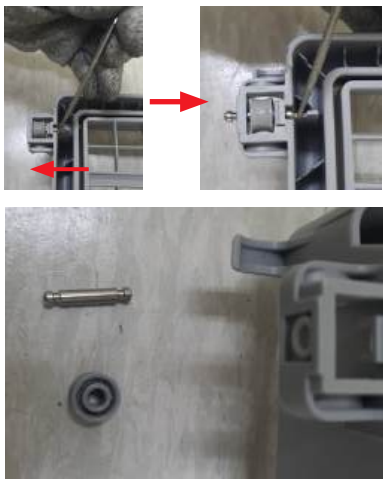
Part	Figure	Description
ASSY BASKET MIDDLE [DISASSEMBLY]		11. Remove ASSY BRACKET ADJUSTER from BASKET  ASSY BASKET ADJUSTER R  ASSY BASKET ADJUSTER L  ASSY BRACKET ADJUSTER R  ASSY BRACKET ADJUSTER L

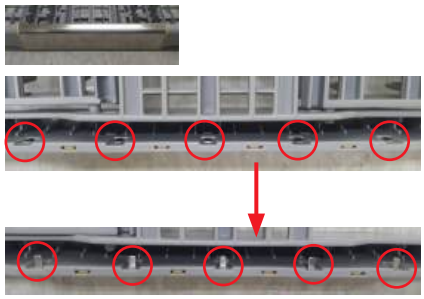
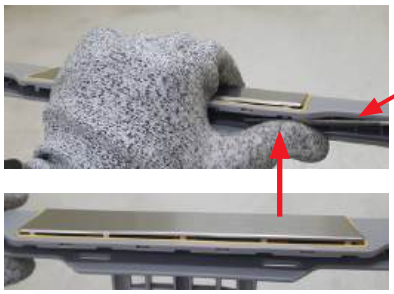
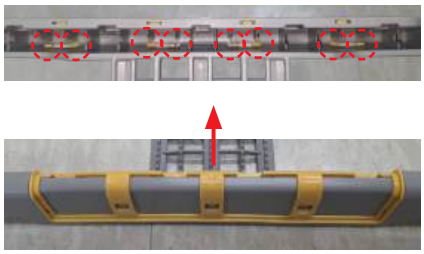
Part	Figure	Description
ASSY BASKET MIDDLE [ASSEMBLY]		1. Assemble ASSY HANDLE ⚠ **CAUTION** Make sure to hold 2 hooks of ASSY HANDLE to BASKE MIDDLE securely **Front side** **Back side** 
		2. Assemble SUPPORT CUP-HOLDER to the left side of BASKET MIDDLE ⚠ **CAUTION** Pay attention to the location of assembly 
		3. Hang the one side rail of ASSY PLASTIC SUPPORTOR by tilting it. 
	 	4. Pull the upper side of ASSY PLASTIC SUPPORTOR. 5. Support the SUPPORT CUP-HOLDER to assemble with a ASSY PLASTIC SUPPORTER. 6. Assemble ASSY PLASTIC SUPPORTOR with SUPPORT CUP-HOLDER holding on pulling(No.4).

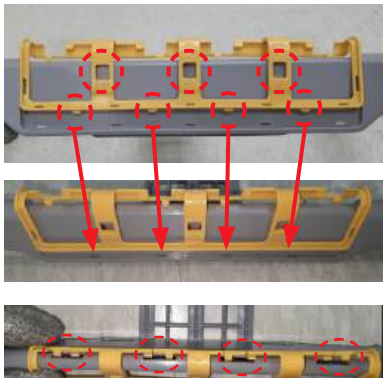
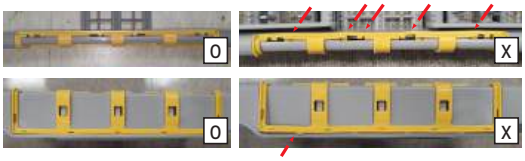
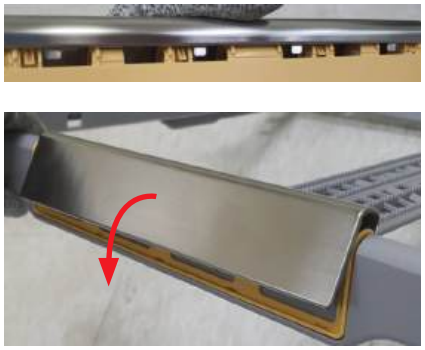
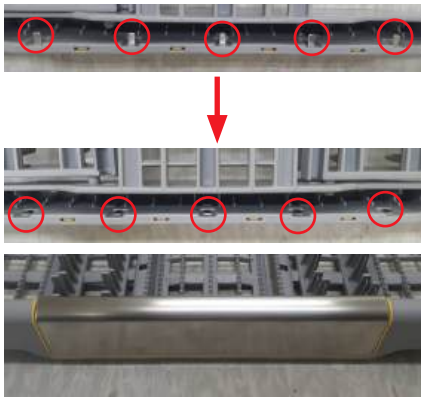
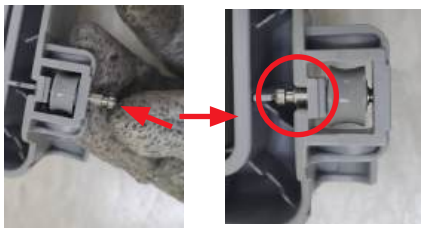
Part	Figure	Description
ASSY BASKET MIDDLE [ASSEMBLY]		7. Assemble arm of ASSY ROTOR MIDDLE DUCT at BASKET Arms are assembled between 4 and 5 row
		8. Slide ASSY ROTOR MIDDLE DUCT to direction of arrow ASSY PLASTIC SUPPORTOR
		9. Push ASSY ROTOR MIDDLE DUCT forward and secure hook
		10. Hang the U-shape hooks of ASSY BRACKET ADJUSTER L/R to Basket Middle  ASSY BRACKET ADJUSTER R  ASSY BRACKET ADJUSTER L
		11. Place the ASSY BASKET ADJUSTER-LEFT&RIGHT at each side to assemble with Basket Middle  ASSY BASKET ADJUSTER R  ASSY BASKET ADJUSTER L

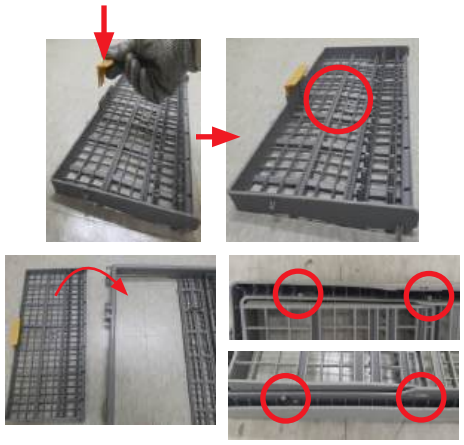
Part	Figure	Description
ASSY BASKET MIDDLE [ASSEMBLY]		12. Assemble ASSY BASKET ADJUSTER-LEFT/RIGHT with ASSY BRACKET ADJUSTER L/R to fit the slit position

3-3-25. ASSY BASKET 3RD

Part	Figure	Description
ASSY BASKET 3RD [DISASSEMBLY]		1. Remove 2 pieces of HOLDER RAIL 3RD FRONT from the rail.  2. Take off ASSY BASKET 3RD from the rail.
		3. Take off BASKET 3RD-UP from the BASKET 3RD with removing 4 holders.
		4. Pull the HANDLE BASKET 3RD-TRAY from the BASKET 3RD.  BASKET 3RD-UP  HANDLE BASKET-3RD TRAY
		5. Remove SHAFT-ROLLER from the BASKET 3R with pointed tool. ⚠ **WARNING** Be careful not to hurt yourself when using the tool  SHAFT ROLLER  ROLLER-RAIL UP

Part	Figure	Description
ASSY BASKET 3RD [DISASSEMBLY]		6. Bend the 5 hooks of DECORATION HANDLE-BASKET with the pointed tool.
		7. Push hooks to remove DECORATION HANDLE-BASKET. ⚠ **WARNING** Be careful not to hurt from sharp edge. Must wear gloves and use tool.
		8. Take off DECORATION HANDLE-BASKET with rotate. 
		9. Remove COVER DECO HANDLE from the BASKET 3RD.  BASKET 3RD  COVER DECO HANDLE

Part	Figure	Description
ASSY BASKET 3RD [ASSEMBLY]		1. Assemble COVER DECO HANDLE to the BASKET 3RD. ⚠ **CAUTION** Pay attention to the locations of each hook.  BASKET 3RD  COVER DECO HANDLE  O X O X
		2. Assemble DECORATION HANDLE-BASKET to the BASKET 3RD. ⚠ **CAUTION** Pay attention to the locations of each hook. 
		3. Bend 5 hooks to assemble DECORATION HANDLE-BASKET with BASKET 3RD with pointed tool. ⚠ **WARNING** Be careful not to hurt yourself on the sharp edges.
		4. Assemble ROLLER-RAIL UP with SHAFT ROLLER. ⚠ **CAUTION** Pay attention to assemble SHAFT ROLLER securely.  SHAFT ROLLER  ROLLER-RAIL UP

Part	Figure	Description
ASSY BASKET 3RD [ASSEMBLY]		5. Assemble HANDLE BASKET-3RD TRAY with BASKET 3RD-UP. ⚠ **CAUTION** Pay attention to the direction of HANDLE.  BASKET 3RD-UP  HANDLE BASKET-3RD TRAY 6. Assemble BASKET 3RD-UP with BASKET 3RD.
		7. Insert ASSY BASKET 3R to the rail, and assemble HOLDER RAIL 3RD. ⚠ **CAUTION** Pay attention to the direction of the holder. End tip → downward 

3-4. CHECKPOINTS AFTER FINISHING SERVICE

1. **Check the safety device**
   CCheck the operation of the door lock switch. Make sure that it is locked while the dishwasher is running and that it is unlocked when the dishwasher stops.

2. **Use authenticated parts only**
   If any part is not genuine authentic, replace it with a genuine authentic part.

3. **Handling wires**
   Check if any wires are loose or too tight, if they are connected correctly, if they are well bound with tape, and if they are properly clamped.

4. **The state of screws and nuts**
   Check if the screws and nuts are fastened correctly.
   Check whether they are fastened with the specified torque.

5. **Remove foreign material**
   Check whether any foreign material such as soil, wire scraps and screws are in the dishwasher.
   (Check whether any foreign material is entering through the sump into the disposer.)

6. **Check for water leakage**
   Check whether there is water leakage from the hose connector, door, case sump
   (drain motor, circulation motor, heater, thermistor, distributor motor), and from the water supply/drain hoses.

7. **Check the power cable**
   Check if there is any damage to the power cable(replace it if necessary) or power outlet.
   Check that the power capacity is appropriate.

8. **Check leveling**
   Check whether the dishwasher is level.

9. **Check the installation location**
   Check whether the installation location is safe, flat and stable.

An Electrical safety test must be performed before and after any repair.
Refer to Samsung Electric Safety test Policy

4. TROUBLESHOOTING

4-1. CHECK CODE

Check code Display	Check code Recall	When occur	Symptom	Possible Causes
4C	4C	- Flow-meter in Case Brake don't detect proper pulse counts in water filling period.	- All driving parts except for the drain part are turned off and draining (20 seconds ON/ 5 seconds OFF) is performed for 3 minutes.	- The water supply pressure is low. - The water supply valve is closed. - The aqua stop is out of order.
No display	4C5	- Flow-meter in Case Brake detect pulse counts over100 in not water filling period.	- keep going remained cycle	
5C	5C	- when drain pump power consumption average value is detected over than limit in drain step (16W at 3400rpm, 10W at 2800rpm)	- keep going remained cycle without supply water. - Drainage clogging is occurred when last drain is performed, display check code.	- A foreign object has entered the drain pump and the pump is stuck. - The drain pump is out of order. - The Main PBA is out of order. - The Inverter PBA is out of order.
	5C1~5C5	- drain pump error occurred 11 times, 5minutes pause and retry. when pause condition is occurred 3times.	- The driving parts stops. - Retry until 2nd time, and then 3rd time display check code.	
No display	PC	- When the location is not detected for 2 minutes after the synchronous motor operation. (after1minute, Synchronous stop. and then after1sec retry with c-pump also stopped condition)	- keep going remained cycle with heater off condition.	- The synchronous motor is out of order. - The location in the cam is incorrect.
No display	TC	- When the temperature sensor data output is equal to or greater than approximately 4.5V or is equal to or less than approximately 0.2V - When the water temperature is detected as equal to or less than 27°F (-3 °C) for 30 seconds in succession during the cleaning the heater operation.	- Heater off and keep going remained cycle.	- The thermistor is out of order.
No display	HC1	- The start temperature is saved 30 seconds after heating starts. Thereafter, if the temperature change is equal to or less than 4°C for10 minutes, the heater relay is turned off for1 second and then restarts heating. Then, if the temperature change is equal to or less than 39°F (4 °C) for10 minutes again, an HC1 check code occurs.	- Keep going remained cycle with heater off condition.	- The heater is out of order. - The heater is improperly connected.
HC	HC	- When the temperature is measured as equal to or greater than 176°F (80 °C) for 3 seconds.	- The driving part stops and the main relay is turned off.	- The heater is out of order. - The thermistor is out of order.
No display	BC2	- When the button is pressed and held for 30 continuous seconds or longer.	- Keep going remained cycle	- The touch button is out of order. - An object is on the touch button.
No display	BC3	- When IC communications between the Sub PBA and the touch button fails.	- Keep going remained cycle	- The touch button is out of order. - The sub PBA or touch button PBA is not properly connected.

Check code Display	Check code Recall	When occur	Symptom	Possible Causes
No display	AC	- When communications between the main PBA and the sub PBA fails for 24 seconds. (In Test Mode, communication fails for 6 seconds.)	- Keep going remained cycle	- The main PBA or sub PBA is out of order. - The communications connection for the main PBA or sub PBA is not properly connected.
No display, change to pause	AC6	- When the response is not received from inverter PBA for 3 seconds, Inverter RELAY OFF for 2 minutes. After repeated 3 times, display the error code	- Inverter Relay 2min off, 3sec on (until find response) - Display change to pause	- The main PBA or Inverter PBA is out of order. - The communications connection for the main PBA or Inverter PBA is not properly connected.
LC	LC	- When the water leakage sensor data is equal to or less than 3V for 3 seconds.	- Main relay off - If sensor data over 3V is detected after draining (20 seconds on/5 seconds off) is performed for 3 minutes, the drain pump is turned off. If data over 3V is detected, draining is performed for 3 minutes and then the sensed data is checked again. - Alarm sound is occurred 1 time, and display 'LC'	- There is a water leak.
OC	OC	- When the overflow sensor data is equal to or less than 3V for 5 seconds.	- If an error has occurred when set operating, 3times '3min drain' retry, and display "OC" (No operating condition, display "OC" without retry) - During retry 3times, display 'pause'	- The case brake fails to detect the pulse. - The valve water is out of order.
No display	DC3	- In case the Auto door Open device operates, When the door opening is not sensed. (Auto door open device action retry 4 times)	- Keep going remained cycle.	- Auto door actuator is not properly connected. - Switch door wire is shorted. - Auto door actuator or main PBA is out of order. - Door latch is out of order.
DC	DC	- In case the Smart Install mode operates, when the Door opening is sensed.	- Display 'DC' code and Stop cycle.	- Door is opened. - Door latch is out of order.
3C	3C, 3C1~ 3C5	When Main receives the Circulation pump error from the inverter, stop the drive the motor and restart again. If Main receive the motor error 11 times, turn off the motor for 5 minutes. At the third rest time, Error occurs	- The driving part stops. - Retry until 2nd time, and 3rd display check code.	- A foreign object has entered the Circulation pump and the pump is stuck. - The Circulation pump is out of order. - The Main PBA is out of order. - The Inverter PBA is out of order.
No display, change to pause	9C1 / 9C2	If blackout or DC Link voltage is high or low voltage conditions, switches to stop mode (abnormal voltage).	- The driving part stops. - Display change to pause	- High or Low voltage is supplied

Check code Display	Check code Recall	When occur	Symptom	Possible Causes
FC3 FC4	FC3 FC4	Fan Motor for air drying is in operation 3 seconds after the operation of the Fan Motor for air drying starts, if less than 2000rpm is 2 seconds continuous, it restarts after1 second off. Occurs when the total number of starts is 6 or more. (In Test Mode / Service Mode, the check code is generated when the total number of starts is 3 times.)	Keep going remained cycle	- Drying Fan Motor failure - Drying Fan Impeller clogged by foreign matter
HC2	HC2	Occurs only during drying cycle operation When the drying heater is turned on from the off state, the inspection and judgment starts, and if the drying duct air temperature does not rise more than 2 degrees for 85 seconds, it turns on again after1 second off. If the Off operation according to the above conditions occurs 3 times in a row, it is judged as an inspection. However, if the air temperature of the drying duct is detected above 77 degrees, the inspection is not judged. (Reason: When the drying duct air temperature rises sufficiently, the temperature rise gradient becomes gentle) (In Test Mode / Service Mode, a check code is generated when the check condition occurs once.)	Keep going remained cycle	- Drying Fan Motor failure - Drying Duct Temperature Sensor failure
tC1	tC1	It only happens during operation. (Drying Duct Temperature Sensor AD value is 64920 or more or 615 or less)	Keep going remained cycle	- Drying Duct Temperature Sensor failure
HC4	HC4	Occurs only when the Drying Duct Temperature Sensor is not within the inspection range, and occurs when the Drying Duct temperature is 216°F (102 °C) or higher for 3 consecutive seconds.	Display 'HC4' code and Stop cycle.	
9C9	9C9	Occurs when the ambient temperature of IPM in PBA is overheated	Check due to overheating around the power module (IPM)	

4-2. SERVICE INSPECTION MODE

Item	Description
Enable Smart Install	1) Set the timer for 17h with Power On. 2) Press First option key for at least 7 seconds.
Disable Smart Install Mode	- When Power Key is pressed, it is disabled with Power Off.
Smart Install Mode Configuration	- There are Auto Mode and Manual Mode. When Smart Install Mode is enabled, it is set to Auto Mode by default. - Mode change KEY : Changing modes can be done by entering the Auto Key while on standby or when the operation of each mode has been completed. (AS → Manual mode STEP[1] → Manual mode STEP[2] → ... Manual mode STEP[7] → AS → ... (Circulation)) - Entering the mode change KEY when the Door Open check code occurs will cancel the check code and go to the state where mode change can be performed.
Smart Install Mode Display	- Displays "AS" before Auto Mode is enabled. - If Rinse Aid is not sufficient, Rinse Aid ICON turns on. - During Auto Mode, the current Step No. blinks as an indication.
Auto Mode Configuration	- Closing the Door within 3.7 seconds after entering the Start Key will automatically run Step 1 through to Step 6. ※ dC1 will occur if Door Open information is detected only in Inverter Micom. – If the Door opens during operation, it will stop and the Door Open check code "dC(dC1)" will be displayed. However, this does not apply once Auto Door Open is activated. – When the Door Open check code "dC(dC1)" is displayed, pressing the Start Key will turn the check code display off and it will re-run from the initial AS. **1.** During Auto Mode, all keys except Power Key are deactivated. During Auto Mode, Sub Mode cannot be changed manually. **2.** [Auto Mode STEP1: check drainage and vane.] **3.** Turn on the drain pump. (Use the following steps/ no drain error detection.) - Drain pump on for 14 seconds → drain pump off for 2 seconds → drain pump on for 14 seconds → off for 5 seconds → complete **4.** Move the vane back and forth while draining step is in progress. (※ Applicable to models with a vane only.) **5.** Once the draining step completes and the vane operates normally, proceed to [STEP 2].

Item	Description
Auto Mode Configuration	**6. [Auto Mode STEP 2: check water supply]** 1) Supply 4.0L of water. 2) Water supply operates (including the internal pressure calibration) according to the development model specifications. 3) Once the water supply, internal pressure calibration and alternating motor operation completes, proceed to [STEP3]. **7. [Auto Mode STEP 3: check nozzle]** 1) Operate the circulation pump. (AWECO : 2400RPM, EGO : 3400RPM, AC Pump: LOW (default)/HI Setting) 2) Operates the alternating motor in the order of the locations where alternation takes place during the water supply step. Skip any unused alternation. Operate for10 seconds each time after it reaches the target alternation location. ex) Location #1: 10 seconds, Location #2: 10 seconds , Location #3: 10 seconds, ... Location #6: (10 seconds) Location #1: 10 seconds ※ For models with AC circulation pump, operate in the order of LOW (starting alternation → HI → LOW → for each alternation location. When the last alternation completes, the circulation pump operates from LOW (starting alternation) again. ※ For models with a Vane, move the Vane back and forth once when operating the bottom. For Vane operation alternations, detect the Vane reset position and then operate the relevant alternation while moving it back and forth once. 3) Operate the Dispenser Actuator for 3sec (1sec ON -> 1sec OFF -> 1sec ON) 4) Operate the heater10 seconds after operating. 5) If after1 Cycle is run for each alternating position and the temperature has increased by more than 4 degrees over the initially saved temperature (the initial temperature saving point is saved 30 seconds after running [STEP3]), or if more than 73 degrees is detected when operating the heater, turn the heater OFF and judge it as normal operations of the heater. 6) Go to [STEP4] when more than 1 Cycle is run for each alternating position until the last alternation, the heater operation is judged to be normal, and then the Dispenser is operated for 3sec (1sec ON -> 1sec OFF -> 1sec ON). ※ However, for models with a Vane, go to [STEP4] after moving the Vane from the Vane Reset position to the front for1.0 second. 7) HC1 error will occur if the heater operation is not judged to be normal after10 minutes have passed. **8. [Auto Mode STEP 4: check drain]** 1) Operate the drain pump. 2) Follow the same steps as PreDrain. 3) If low water level is not detected in the first cycle after draining starts, the drain inspection code is activated. 4) For models without low water level detection, proceed to the next step after draining without the drain inspection code.

Item	Description
Auto Mode Configuration	**9. [Auto Mode STEP 5: check drying]** 1) Auto Door Open Actuator operation is as follows. - [Model specification: Check whether hot air drying module is applied] Auto Door Open Actuator On at the start of this step. However, when the hot air drying module is applied, the Auto Door Open Actuator On after the Dry Heater operation is completed. - If Door Open is detected during Auto Door Open Actuator operation, it is turned off after 30 seconds of additional operation, and the Auto Door Open Actuator is judged to have completed normal operation. - If Door Open is not detected even after Auto Door Open Actuator On for more than 3 minutes, it turns off for 10 seconds. Once again, if Door Open is not detected even after On operation for more than 3 minutes, DC3 check code is generated. 2) Fan Motor, Dry Actuator, Dry Heater operation is as follows. - [Model specification: Check whether hot air drying module is applied] Fan Motor and Dry Actuator On at the start of this step. However, if the hot air drying module is applied, do Fan Motor On and 15 seconds later, Dry Heater On. For Dry Heater inspection specifications, refer to [Dishwasher-Inspection Mode - (HC2) Dry Heater Malfunction Check, (HC4) Dry Heater Overheat Check]. - [Model specification: Check whether hot air drying module is applied] If the hot air drying module is applied, it is On for 105 seconds after starting this step, and for other cases, it is On for 30 seconds. If there is no related check code, the operation is completed after Off. 3) [Model specification: Check whether each driving part is applied] Models without Auto Door Open Actuator, Fan Motor, Dry Actuator, Dry Heater complete each driving part as normal operation. 4) When the Auto Door Open Actuator, Fan Motor, Dry Actuator, and Dry Heater operate normally, proceed to the next step. **10. [Auto Mode STEP 6: complete the Auto Mode operation]** 1) "OK" displays. 2) At the time Auto Mode operation completes, Smart Install Auto Mode Completion is saved to EEPROM.
Manual Mode Configuration	- Each time Auto Key is pressed, the Manual Mode step changes indicating Step No. - After Max Step No. is selected, it is automatically changed to Auto Mode "AS". - Start Key must be pressed to start the Manual Mode steps. - The Step of the manual mode will operate only when the Door is closed within 3.7 seconds after entering the Start Key. - If the Door opens during operation, it will stop and the Door Open check code “dC(dC1)” will be displayed. - If the Door is left open for 3.7 seconds after the Start Key is entered, the Door Open check code “dC(dC1)” will be displayed. ※ dC1 will occur if Door Open information is detected only in Inverter Micom. - During manual mode operations, if the relevant Step number blinks and the relevant Step operation has been completed, the Display will indicate the relevant Step number. - Once this Manual Mode step is complete, the Step No. stays turned on in the display. - If the Door opens during operation, it will stop and the Door Open check code “dC(dC1)” will be displayed. (However, Auto Door Open Mode is an exception. The operation is resumed as it detects the door is open.) - When the Door open check code "dC(dC1)" is displayed, pressing the Start Key will turn the check code display off and it will restart. - When restarting, the mode starts from the beginning. - For models with a vane, the vane must be always positioned at parking when the bottom nozzle starts spraying (to prevent leakage).

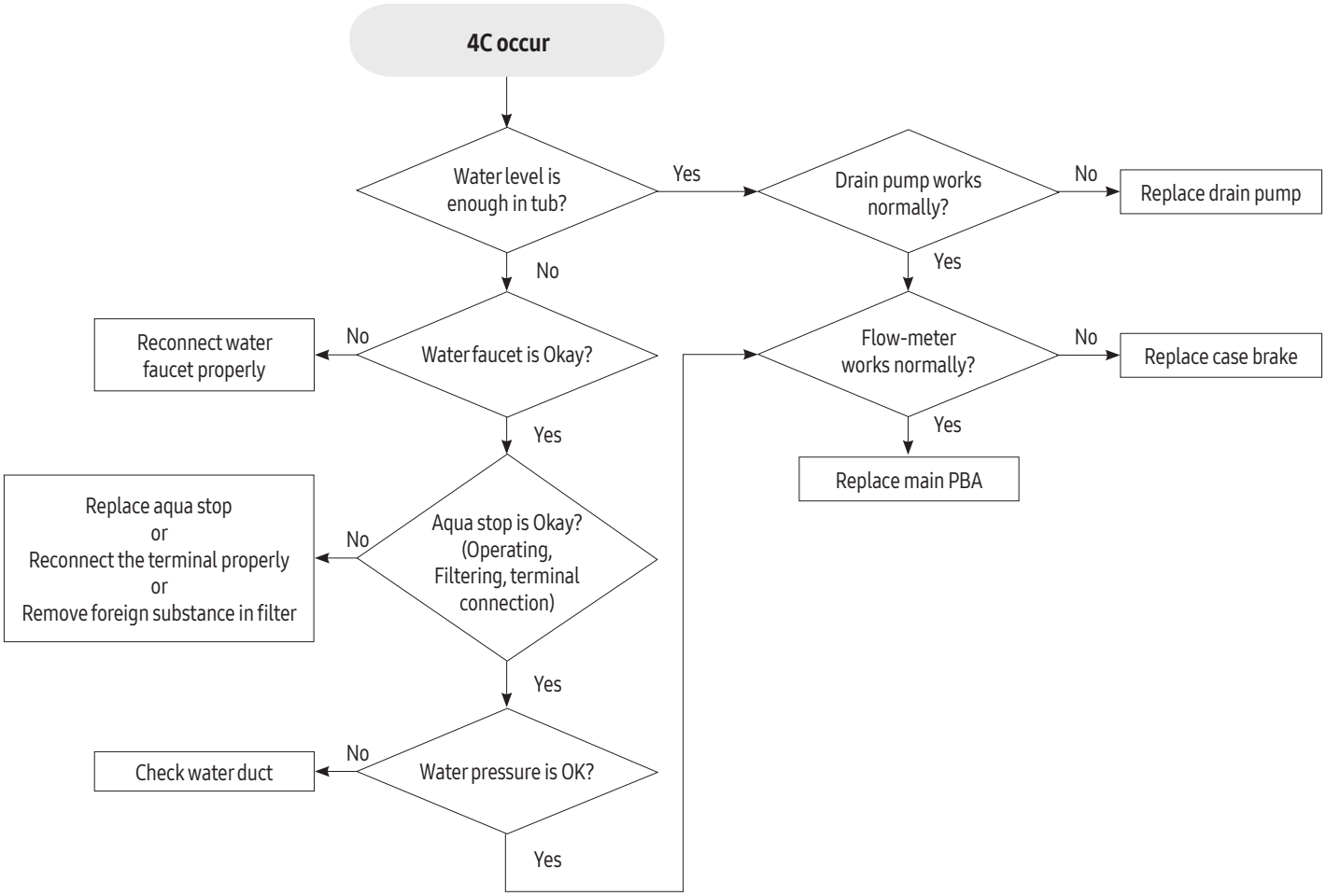
Item	Description
Manual Mode Configuration	**1. [Manual Mode STEP1: drain / supply of water]** 1) Perform Auto Mode STEP 4 (drainage) and STEP 2 (water supply). **2. [Manual Mode STEP2: check the nozzle]** - Each time 2nd course Key is pressed, the setting changes by100rpm (it can be set to 2000~4500RPM). - 4th course key: 3400 (default RPM) → 3300 → 3200 → 3100 → (Change to RPM decreasing direction) AC circulation pump model: change to Low (default) → Hi →Low -> Hi → ... (When the key is pressed, the RPM displays for 2 seconds.) - Each time 3rd course key is pressed, the alternation nozzle position can be set and it starts from its default position. Unused alternation cannot be set. No. 8 (default: the default position varies by model → No.10 → No.1 → No. 2 → No. 4 → No. 6 (max. alternation target position: varies by model) → No. 8 → Please refer to [Dish Washer-Washing Performance Specifications-Distributor Control] for the specifications of alternation position by model. (When the key is pressed, the current target alternation position displays for 2 seconds.) ※ When performing this STEP without performing STEP1 as it has been already performed, calibrate the pressure in the tub when restarting or operating the nozzle for the first time. ※ If STEP1 has not been performed before, perform STEP1 first. (STEP1 is not recognized as having been performed if STEP1 is re-operated, STEP 6 has been performed or Auto Mode has been enabled.) ※ For models with vane, the vane must move back and forth when the bottom alternation is in progress. **3. [Manual Mode STEP3: inspect the heater]** - Set the alternation to the default position. - Circulation pump: operate BDLC Model at 3400RPM, and AC model at LOW Power setting. - Operate the heater after operating the circulation pump for10 seconds. - Turn the heater off when the max. temperature reaches 75 degrees or the max. operation time passes 10 minutes. - During operation, the display alternates between the temperature of the heater and the current Step No. ※ When performing this STEP without performing STEP1 as it has been already performed, calibrate the pressure in the tub when restarting or operating the nozzle for the first time. ※ If STEP1 has not been performed before, perform STEP1 first. Only "3" blinks during STEP1 operation (no display of temperature). (STEP1 is not recognized as having been performed if STEP1 is re-operated, STEP 6 has been performed or Auto Mode has been enabled.) **4. [Manual Mode STEP4: operate the dispenser]** - Operate the dispenser for 3sec (1sec ON -> 1sec OFF -> 1sec ON) **5. [Manual Mode STEP5: operate the fan]** 1) Fan Motor, Dry Actuator, Dry Heater operation is as follows. - [Model specification: Check whether hot air drying module is applied] Fan Motor and Dry Actuator On at the start of this step. However, if the hot air drying module is applied, do Fan Motor On and 15 seconds later, Dry Heater On. For Dry Heater inspection specifications, refer to [Dishwasher-Inspection Mode - (HC2) Dry Heater Malfunction Check, (HC4) Dry Heater Overheat Check]. - [Model specification: Check whether hot air drying module is applied] If the hot air drying module is applied, it is On for105 seconds after starting this step, and for other cases, it is On for 30 seconds. If there is no related check code, the operation is completed after Off. - [Model specification: Check whether each driving part is applied] Models without Fan Motor, Dry Actuator, Dry Heater complete each driving part as normal operation.

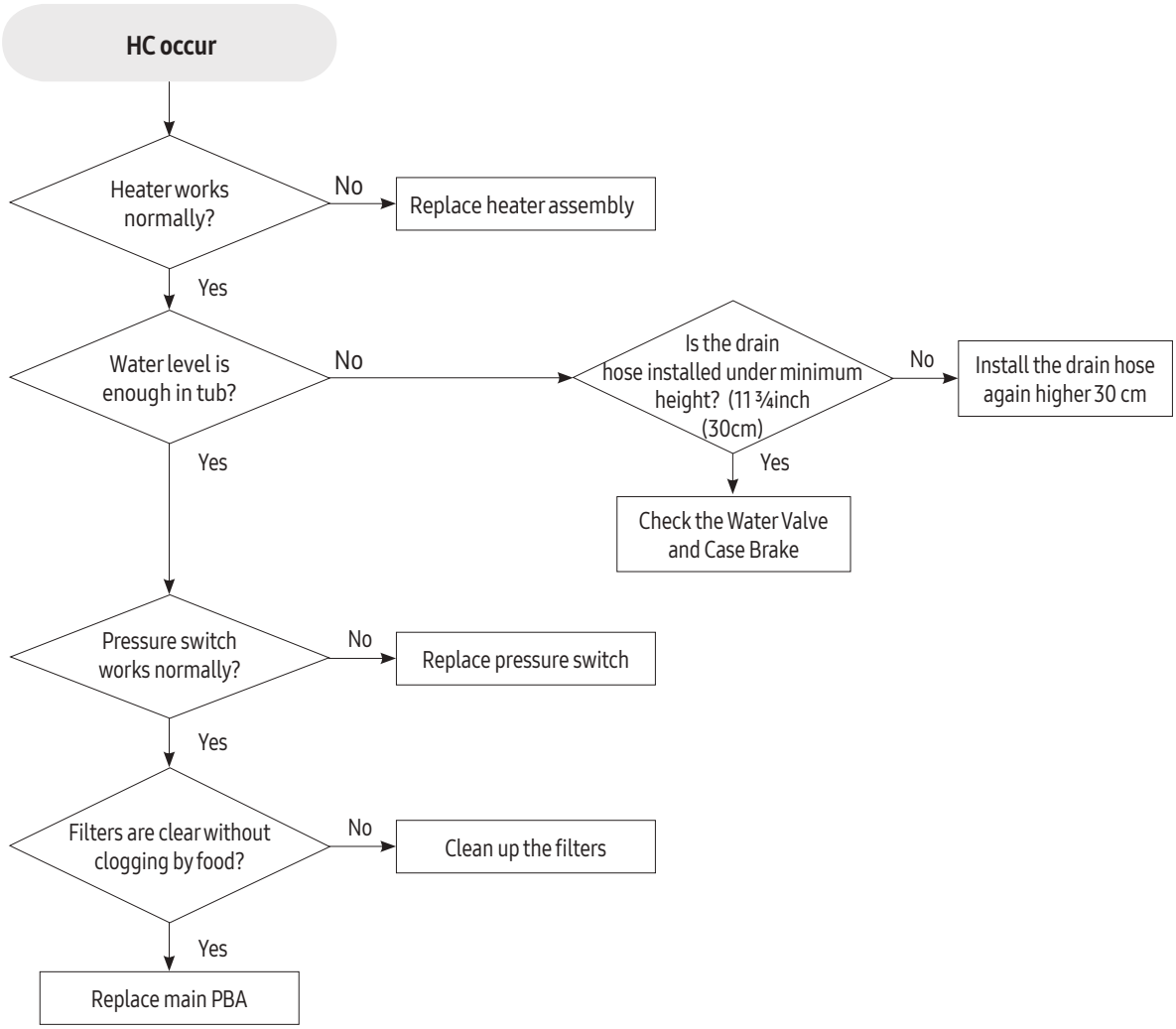
Item	Description
Manual Mode Configuration	**6. [Manual Mode STEP 6: drain]** 1) Operate the drain pump. 2) Follow the same steps as PreDrain. 3) If water level is not detected after draining, the drain inspection code is activated. 4) For models without low water level detection, proceed to the next step after draining without the drain inspection code. **7. [Manual Mode STEP 7: operate Auto Door Open Actuator]** 1) Operate Auto Door Open Actuator. - If the Door does not open within 3 minutes after the Auto Door Open Actuator is run, it will Retry once (10 seconds Off, 3 minutes On). - If the Door does not open after the retry, a DC3 check code will occur. Before the DC3 check code occurs, operate the Auto Door Open Actuator for an additional 30 seconds during Door open detection. **8. [Manual Mode STEP 8: Check feeding at WATER TANK]** 1) Operate Drain pump 30 sec(3400RPM) → 5sec. Rest → Feed 4.0L → Feed water in WATER TANK → Operate Drain pump 30 sec **9. [Manual Mode STEP 9: Check drain of WATER TANK]** 1) Tank Actuator Main, Sub Valve On. Rest 30 second after activation - Model which doesn't have WATER TANK, show done for this STEP
Information Display	Each time 1st options key is pressed while "AS" displays, it makes [SOUND_KEYPUSH] sound and changes in the following order: n1 → n2 → n3 → n4 → n5 → n1 → n2 → n3...changes in a loop - When Auto Key is pressed while the information display mode is on, it makes [SOUND_KEYPUSH] sound and returns to Auto Mode.
n1: Version Display	When holding the following keys, the version displays alternating with "n1": - 2nd course Key: Sub PBA Version Display - 3rd course Key: Sub PBA Touch IC SW Version Display - 4th Course Key: Model Option Display - 5th course Key: Inverter PBA SW Version Display - 6th course key Key: WiFi Module Version Display (Only for WiFi models; before receiving the version data, display "---"; display version if version information is received)
n2: Inspection Code Display	- Each time Normal (2nd course) Key is pressed, the code on display changes in a loop starting from the last saved code : C00 → C10 → C20 → C30 → C40 → C50 → C60 → C00 → ... - Up to 7 inspection codes can be saved, any additional code overwrites the oldest code. ※ Inspection codes are saved according to [Dish Washer - Inspection Mode - Inspection Recall Mode]. 1. Each time Intensive Key (3rd course key) is pressed while inspection code is on display, the information about the condition which triggers the inspection code displays in sequence. ex : When C00 displays, it changes as follows: C00 → C01 → C02 → C03 → C04 → C05 →C06 → ... When C10 displays, it changes as follows: C10 → C11 → C12 → C13 → C14 → C15 → C10 → ... ※ CX1: X indicates the order of inspection code on display. C01: indicates the code ID which occurs most recently. 2. When the operation button is held for 7 seconds with the inspection code on display, it clears all the inspection data.
n3: Smart Install Auto Mode Result Display	It determines based on the data saved in EEPROM. - Smart Install Auto Mode is successfully completed: it is indicated by "OK" - Smart Install Auto Mode is not successfully completed or not performed: it is indicated by "nG"
n4: Operation C	- The max. value is 9999 and it does not go any higher. - When the finishing session is entered, Cycle Cnt increases unless Cancel & Drain has been enabled.

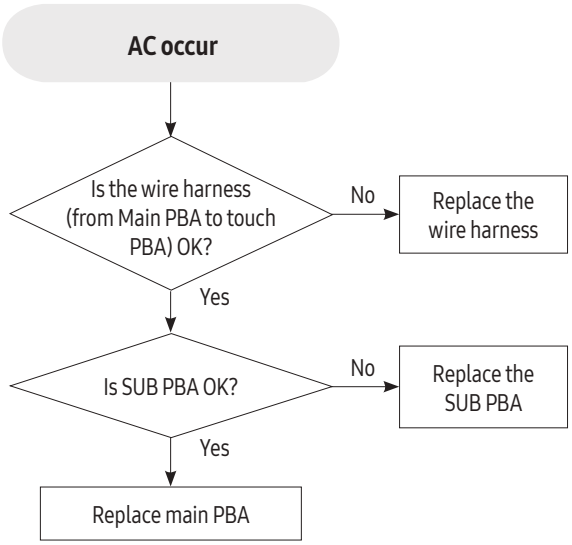
Item	Description
n5: Setting Dry Increase Option by Default	1) If Smart Dry or Dry+ (or Sanitize) option is set to On by default, it indicates as "d1". 2) If Smart Dry or Dry+ (or Sanitize) option is not set to On by default, it indicates as "d0". 1. To set Smart Dry or Dry+ (Sanitize) option to On by default, use the 3rd option (Smart Dry or Dry+ (or Sanitize)) button to switch it On/Off [n5: Setting Dry Increase Option by Default mode only]. - When 3rd option (Smart Dry or Dry+ (or Sanitize)) button is pressed, Smart Dry or Dry+ (Sanitize) is set to On or Off by default. ※ For models without Smart Dry or Dry+, the Sanitize button can be used to set the Sanitize option to On by default. **About This Option** This option is designed to increase the drying performance by default in case there are consumer complaints. - If Smart Dry or Dry+ (Sanitize) option can be set to On by default, it powers on and sets the Smart Dry or Dry+ (Sanitize) option to On by default. - If the course does not support Smart Dry or Dry+ (Sanitize) option setting, it is not set to On by default. - Even if the course is completed without using Smart Dry or Dry+ (Sanitize) option, the last used course is set to On by the course save feature on its next power-on and Smart Dry or Dry+ (Sanitize) option is set automatically depending on the default setting as long as Smart Dry or Dry+ (Sanitize) option is set to On by default. - Even if Smart Dry or Dry+ (Sanitize) option is automatically set by the default setting, it can be switched on/off by pressing 3rd option (Smart Dry or Dry+ (or Sanitize)) .

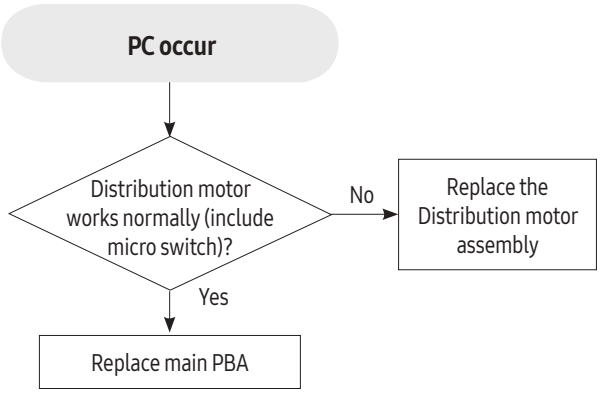
4-3. CHECK CODE TROUBLE SHOOTING

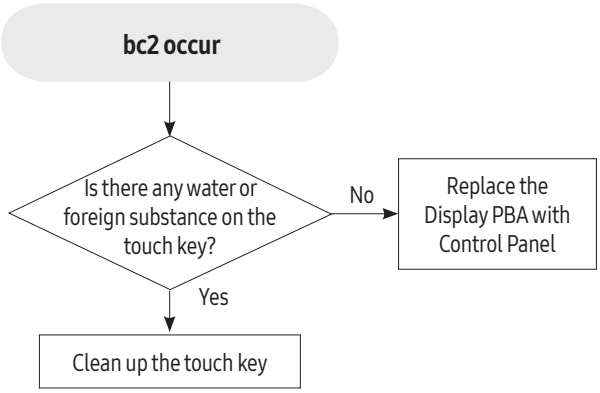
* Resolution of Information Codes

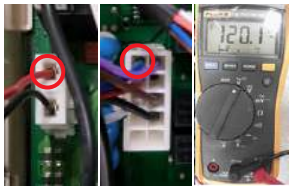


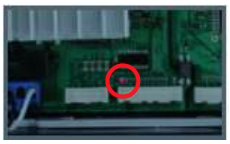
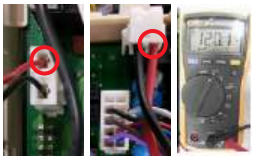

HC occur
Heater works normally?
No
Replace heater assembly
Yes
Water level is enough in tub?
No
Is the drain hose installed under minimum height? (11 ¾inch (30cm)
No
Install the drain hose again higher 30 cm
Yes
Check the Water Valve and Case Brake
Yes
Pressure switch works normally?
No
Replace pressure switch
Yes
Filters are clear without clogging by food?
No
Clean up the filters
Yes
Replace main PBA

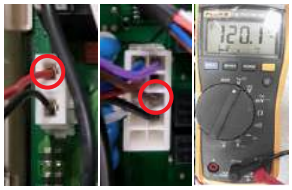
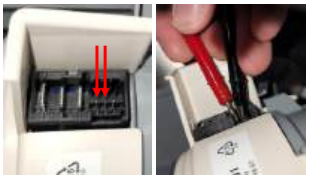
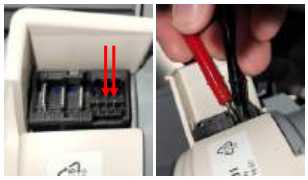

AC occur
Is the wire harness (from Main PBA to touch PBA) OK?
No
Replace the wire harness
Yes
Is SUB PBA OK?
No
Replace the SUB PBA
Yes
Replace main PBA

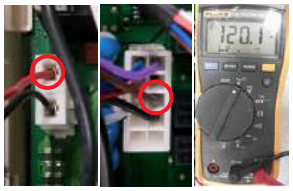

PC occur
Distribution motor works normally (include micro switch)?
No
Replace the Distribution motor assembly
Yes
Replace main PBA


bc2 occur
Is there any water or foreign substance on the touch key?
No
Replace the Display PBA with Control Panel
Yes
Clean up the touch key

Check type	Check code	Checking method	Corrective actions
Water supply check	4C	1. Check whether the faucet is open.	- Open the faucet.
		2. Check whether the water supply has been cut off.	- After wait until the water supply resumes and turn off the power. After the water supply resumes, turn on the power.
		3. Check whether any foreign material is in the Water Supply Line and the Water Valve filter.	- Remove the foreign material, clean the filter in Water Valve with a brush.
		4. Check the connection for the Water Valve connector.	- Reconnect the Water Valve connector.
		5. Check whether the coil in Water Valve is conductive (Remove the connector before measuring.) ▶ Normal: Approx. 1000Ω ±10% (900Ω~1100Ω)	- Faulty: Replace the Water Valve. 
		6. Check whether the water supply stops after water is supplied for 1minutes.	- Check the water supply pressure. (> 1.0bar) - Faulty: Replace the Water Valve.
		7. Check whether the Water Valve is operating normally in the Main PBA. - Check the Water Valve Relay in Main PBA. : Check the voltage between the Blue wire(Number 6) of the CN401 and the White wire of the CN100 connector. ▶ Normal: 110 ~ 120V (while operating)	- Faulty: Replace the Main PBA Assy. - Normal: Replace the Water Valve 
		8. Check the Power Relay.	- See the "Power Relay error".
Drain error	5C	1. Check whether there is any foreign material in the Drain Hose and Drain Pump.	- Remove the foreign material in the Drain Hose and Drain Pump.
		2. Check the connections for the Drain Pump connector.	- Reconnect the Drain Pump connector.
		3. Check whether the Drain Pump coil is conductive. (Remove the connector before measuring.) ▶Normal: Approx. 88Ω ±7% (81.8~84.2)	- Faulty: Replace the Drain Pump. 
		4. Check the operation of the Inverter PBA	-
		3-1. Check the operating AC voltage of the Inverter PBA CN5 connector ▶ Normal: 110 ~ 120V (while operating)	- Faulty: Replace the Main PBA Assy 
Key input error	bC-2 bC-3	Check whether there is condensation on the PBA. - CN103 of Display Control Module connector - CON100 TOUCH Module connector ▶ Normal: No condensation	- Faulty : Remove any condensation and moisture. - Normal : Replace the Control Panel Assy. (Display Control Module, Touch Module, Sub Wire)

Check type	Check code	Checking method	Corrective actions
Circulation Pump Check	3C	1. Check whether there is any foreign material in the Circulation Hose and Circulation Pump. 2. Check the connections for the Circulation Pump connector. 3. Check whether the Circulation Pump coil is conductive. (Remove the connector before measuring.) ▶ Normal: Approx. 59Ω ±5% 4. Check the operating LED(red) of the MAIN PBA ▶ Normal: Fully turn-on (while operating)	- Faulty: Replace the MAIN PBA Assy. 
Heater Check	HC-1	1. Check the connections of the Heater connectors.	- Reconnect the Heater connectors.
		2. Check the resistance between both ends of the Heater. : Check the resistance between both ends of the Heater directly, or check the resistance between the red wire of the Heater Relay and the black and yellow wires of the Power Relay, respectively. ▶ Normal: Approx. 8.30 ~ 10.08Ω - Check after disconnect circuit brake or power cable.	- Faulty: Replace the Heater. 
		3. Check the connections of the Heater Relay in Main PBA. : Check the voltage between the Red wire of the Heater Relay on the base and the White wire of the CN100 connector. ▶ Normal: 110 ~ 120V (while operating)	- Reconnect the Heater Relay connectors. 
Heater Overheat Check	HC	1. Check the operation of the Thermistor.	- See the "(tC)" check code.
		2. Check the Heater Relay.	- See the "(HC-1) check code".
Leakage check	LC	Check whether there is any trace of water leakage in the shutter. ▶ Normal: No water leakage trace	- Faulty: Check the leakage location. - Replace the faulty part.
Half load check	PC	1. Check the connections for the Distributor Motor and Micro Switch connectors.	- Reconnect the Distributor Motor and Micro Switch connectors. 
		2. Check whether the coil in Distributor Motor is conductive. : Remove the connectors before measuring. ▶ Normal: Approx. 3.6 ~ 4.0kΩ	- Faulty: Replace the Distributor Motor.
		3. Check the position sensing operations when turning the Micro Switch on and off.(Use n5 Service test mode.) Check the conduction between the brown wire and the Violet wire. ▶ Micro switch On: Short ▶ Micro switch Off: Open - Micro Switch sign alters in ON/OFF state. - It is NG if keep in ON or OFF state for 120 seconds. * Do not supply with water and test.	- Faulty: Replace the Micro Switch for sensing positions. - Normal: Replace the valve distributor and CAM switch. 
		4. Adjust Cam Assy and Find the faulty.	- Faulty: Replace Cam Assy.

<table>
<tr><th>Check type</th><th>Check code</th><th>Checking method</th><th>Corrective actions</th></tr>
<tr><td rowspan="2">Half load check</td><td rowspan="2">PC</td><td>5. Check whether half load is operating normally.
- Check the half load operation
▶ Normal: 110 ~ 120V
- Check the operation of Distributor Motor Relay.
: Check the operating voltage between the 3pin(Brown) wire of the Main PBA CN401 connector and the White wire of the Main PBA CN100 connector
▶ Normal: 110 ~ 120V (while operating)</td><td>- Faulty: Replace the Main PBA Assy.
  </td></tr>
<tr><td>6. Check the Power Relay.</td><td>- See the “Power Relay error”.</td></tr>
<tr><td rowspan="2">Thermistor check</td><td rowspan="2">tC</td><td>1. Check the connections for the Thermistor connector.</td><td>- Reconnect the Thermistor connector.</td></tr>
<tr><td>2. Check whether the Thermistor is operating normally.
- Measure the voltage between Main PBA CN600 pin 5 and 7.
▶ Normal: 0.05 to 4.95V
- Measure the resistance between both ends of the Thermistor.
: Remove the connector before measuring.(See the Table right.)
<table><tr><th colspan="2">Thermistor table</th></tr><tr><th>Temp(°C)</th><th>Resistance(kΩ)</th></tr><tr><td>10</td><td>17.926</td></tr><tr><td>15</td><td>14.674</td></tr><tr><td>20</td><td>12.081</td></tr><tr><td>25</td><td>10.000</td></tr><tr><td>30</td><td>8.315</td></tr><tr><td>35</td><td>6.948</td></tr><tr><td>40</td><td>5.834</td></tr><tr><td>45</td><td>4.917</td></tr><tr><td>50</td><td>4.161</td></tr><tr><td>55</td><td>3.535</td></tr><tr><td>60</td><td>3.014</td></tr><tr><td>65</td><td>2.586</td></tr><tr><td>70</td><td>2.228</td></tr></table></td><td>- Faulty: Replace ASSY MOTOR BLDC.
- Normal: Replace the Main PBA.
 
  </td></tr>
<tr><td rowspan="2">Thermistor check</td><td rowspan="2">tC2</td><td>1. Check the connections for the Thermistor connector.</td><td>- Reconnect the Thermistor connector.</td></tr>
<tr><td>2. Check whether the Thermistor is operating normally.
- Measure the voltage between Main PBA CN600 pin 7 and 9.
▶ Normal: 0.05 to 4.95V
- Measure the resistance between both ends of the Thermistor.
: Remove the connector before measuring.(See the Table right.)
<table><tr><th colspan="2">Thermistor table</th></tr><tr><th>Temp(°C)</th><th>Resistance(kΩ)</th></tr><tr><td>10</td><td>17.926</td></tr><tr><td>15</td><td>14.674</td></tr><tr><td>20</td><td>12.081</td></tr><tr><td>25</td><td>10.000</td></tr><tr><td>30</td><td>8.315</td></tr><tr><td>35</td><td>6.948</td></tr><tr><td>40</td><td>5.834</td></tr><tr><td>45</td><td>4.917</td></tr><tr><td>50</td><td>4.161</td></tr><tr><td>55</td><td>3.535</td></tr><tr><td>60</td><td>3.014</td></tr><tr><td>65</td><td>2.586</td></tr><tr><td>70</td><td>2.228</td></tr></table></td><td>- Faulty: Replace ASSY MOTOR BLDC.
- Normal: Replace the Main PBA.
 
  </td></tr>
</table>

Check type	Check code	Checking method	Corrective actions
No Power check	None	1. Check the connections for the power plug.	- Reconnect the power plug.
		2. Check the voltage of the power outlet. ▶ Normal : 110 ~ 120V	- Connect to a 110 ~ 120V power source.
		3. Check Power Key on state.	- Try to touch the Power key.
		4. Check the connections for the Sub PBA and Touch PBA connector parts.	- Reconnect the Sub PBA and Touch PBA connectors.
		5. Check the connection of the Main PBA connector CN100	- Reconnect CN100
		6. Check the connections for the Sub PBA and Main PBA connector parts and	- Reconnect the Sub PBA and Main PBA connectors.
		7. Check whether there is condensation on the PBA. - CN103 of Display Control Module connector - CON100 TOUCH Module connector ▶ Normal: No condensation	- Faulty: Remove any condensation and moisture. - Normal: Replace the Control Panel Assy.
		8. Check whether the fuse is broken.	- Replace the fuse (15A).
		9. In case of is No Power after Method 1~10 action	- Replace the Control Panel Assy. (Sub, Touch, wire)
		10. In case of is No Power after Method 1~11 action	- Replace the Main PBA.
Display check	None	1. Check the connections for the Display LED connector part.	- Reconnect the connectors for Display LED.
		2. Check the Display LED.	- Faulty: Replace the Display LED and Sub PBA.
Detergent is not dispensed	None	1. Check whether detergent is inserted into the dispenser.	- Check whether there is detergent in the Dispenser.
		2. Check the connections for the Dispenser connector.	- Reconnect the Dispenser connector.
		3. Check the resistance of the Dispenser. (Remove the connector before measuring.) ▶ Normal: Approx. 13 ~ 17Ω	- Faulty: Replace the Dispenser. 
		4. Check the operation of the Dispenser power : Check the operating voltage between the Gray wire(2) of the CN500 connector and the Orange wire(4) of the CN500 connector. ▶ Normal: 10.5 ~ 13V (while operating)	- Faulty: Replace the Main PBA Assy. 
No washing	None	1. Check the filter	- Faulty: Replace filter
		2. Check Rotors and ducts and vane	- Faulty: Replace Rotors and ducts
		3. Check the operation of the half load.	- See “PC Error”.
		4. Check the operation of the Dispenser	- See “Dispenser is not dispensed”.
		5. Check if the upper rack unbalanced	- Faulty: Level the left and right sides of the upper rack.

Check type	Check code	Checking method	Corrective actions
The cycle does not start.	**None**	1. Check the connections for the Door Sensing Switch : Check the white wire and the switch connected to the white wire. ▶ Normal: 10.5 to 13V (when the door is open) ▶ Normal: < 1V (when the door is closed)	- Reconnect the Door Sensing Switch Connector
		2. Check the connection for the Door Sensing Switch.	- Reconnect the Door Sensing Switch Connector
		3. Check the operation of the Door Sensing Switch. (Remove the connector before measuring.) : Check the blue wire and the switch connected to the blue wire. ▶ Normal: SHORT(when the door is open) ▶ Normal: OPEN (when the door is closed)	- Faulty : Replace the Door Sensing Switch.
		4. Check the operation of the Power Relay.	- See "Replace the Main PBA Assy.
Power Relay error	**None**	1. Check the connections for the Power Relay connector: : Start the cycle by pressing the Power key. when measure the operating voltage between the wires of the Power Relay and pin 1 wires of the CN100 ⚠ **CAUTION** Check the pin of the wires of the Power Relay and the Heater Relay. ▶ Normal: 110V ~ 120V	- Reconnect the Power Relay.
		2. Check the door switch. : Check the white wire and the switch connected to the white wire. ▶ When the door is open: The Door Switch is OFF. ▶ When the door is closed: The Door Switch is ON. âThe Power Relay and the Heater Relay use a 12V line. If the switch is out of order, the Power Relay and the Heater Relay will not operate.	- Faulty: Replace the Door Switch.
		3. Check the driving signals for the power relay : Measure the voltage between pin 7 and pin 2 of the CN402 connector on the main PBA. ▶ When the door is open or before the cycle starts. - Normal: 1 V ▶ After the cycle has started by closing the door and pressing the Power key. - Normal : 10.5 to 13 V	- Faulty: Replace the main PBA Assy.
		4. Check the operation of the Power Relay : Start the cycle by pressing the Power Key. Measure the operation voltage between the terminal of the Power Relay (pin 3) and pin 1 of CN100 ⚠ **CAUTION** Check pin the Power Relay and pin 1 of CN100 ▶ Normal: 110V ~ 120V	- Faulty: Replace the main PBA Assy.

4-4. CYCLE CHART

■ **DDW24G9***

Cycle		Auto	Normal	Heavy	Delicate	Express 60	preblast	Plastic	Self Clean	Pots & Pans	Baby care	Night
Cycle sequence		Prewash ▶ Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Prewash ▶ Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Prewash ▶ Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Prewash ▶ Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Prewash ▶ End	Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Prewash ▶ Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Prewash ▶ Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End	Rinse ▶ Dry ▶ End	Prewash ▶ Mainwash ▶ Rinse ▶ Hot Rinse ▶ Dry ▶ End
Temp [˚F (˚C)]	Main wash	131–149°F (55-65°C)	113-145°F (45-63°C)	149°F (65°C)	122°F (50°C)	131°F (55°C)		140°F (60°C)	163°F (73°C)	158°F (70°C)		140°F (60°C)
	Hot Rinse *Sanitize 167 ˚F (75 ˚C)	140-149°F (60-65°C)	129-144°F (54-62°C)	145°F (63°C)	131°F (55°C)	131°F (55°C)		136°F (58°C)	149 (65°C)	149 (65°C)	163 (73°C)	129 (54°C)
Water consumption[gal(ℓ)]		4.08-5.34 (15.45-20.2L)	2.64-5.26 (10.0-19.90L)	5.49 (20.8L)	4.33 (16.4L)	2.93 (11.1L)	1.03 (3.9L)	3.45 (13.05L)	4.49 (17.0L)	5.46 (20.65L)	0.98 (3.7L)	5.06 (19.15L)
Cycle time[min]		113-135	127-112	140	79	60	10	94	116	148	89	154
Available Options	Lower rack	O	O	O	O	O	X	O	X	O	X	O
	Storm wash plus	O	O	O	X	O	X	X	X	O	X	O
	Sanitize	O	O	O	X	O	X	X	X	O	X	O
	Delay start	O	O	O	O	O	O	O	O	O	O	O

When you select the Auto or Normal cycle, running the Prewash and Rinse cycles depends on the soil level of the load.

The water consumption and wash time varies depending on the steps or options you add, and on the pressure and temperature of the supplied water.

*** Preblast:** This cycle does not activate the Auto Door function nor the drying process. Continuous use of the Pre Wash cycle for an extended time is not recommended. This may reduce the performance of the water softener.

NOTE

- The cycle time depends on the options you have added, and the pressure and temperature of the supplied water.
- The power consumption depends on the water temperature and/or load.

Category	PROBLEM	POSSIBLE CAUSE	SOLUTION
Will not start	Power is on, but does not start	The door is not closed completely.	Check that the door is latched and closed completely.
			Check if the upper rack unbalanced. Level the left and right sides of the upper rack.
		No cycle is selected.	Select a proper cycle.
		The power cable is not connected.	Connect the power cable properly.
		The water supply does not work.	Check that the water supply valve is open.
		Control panel is locked.	Unlock the child lock.(See user manual.)
		A circuit breaker is open.	Reset the circuit breaker.
Not Dry	Does not dry dishes well.	There is no rinse aid in the dispenser.	Check the dispenser and add the rinse aid. Use the liquid type rinse aid for automatic dishwasher.
		Too many dishes have been loaded.	Proper loading of items can affect drying. Load your dishes as recommended.
		Are the plastics wet?	Plastic dishes often need towel drying.
		Water is dropt to lower basket from the upside.	After the cycle finishes, empty the lower rack first and then the upper rack. This will prevent water from dripping from the upper rack onto the dishes in the lower rack.
		Glasses and cups with concave bottoms hold water. This water may spill onto other items when unloading.	After finishing the cycle, empty the lower rack first and then the upper rack, this will avoid water dripping from the upper rack onto the dishes in the lower rack.
		The temperature of the water is low when the dishwasher is running.	Connect the water supply line to a hot water supply. Use rinse aid with the Sanitize option.
Odor	Has a bad odor.	There is water left over when the last cycle is not completed.	Insert detergent without loading dishes, and run the Normal cycle to clean the dishwasher.
		Drain Hose is obstructed.	Contact a qualified service technician to remove any obstruction from the drain hose.
		The dishwasher is not used daily or Soiled dishes left in unit too long.	With the dishwasher empty and no detergent, place a glass with 1 or 2 cups(8~16 ounces) of white vinegar upright into the lower rack, and then run a Normal cycle.

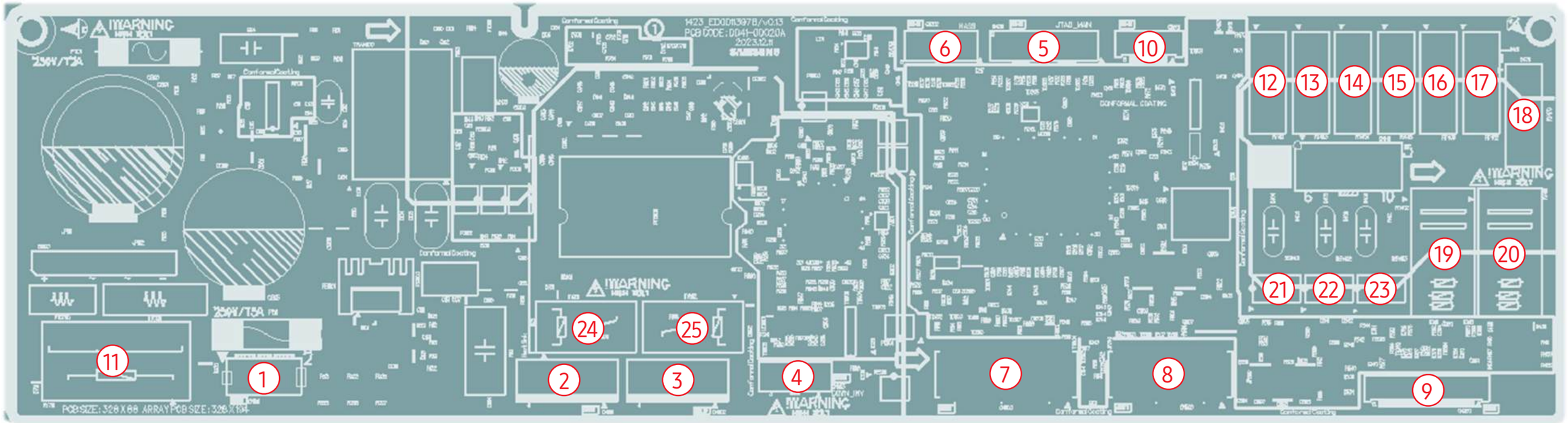
Category	PROBLEM	POSSIBLE CAUSE	SOLUTION
Not Clean	There are food particles remaining on dishes. (Not cleaning properly.)	An inappropriate cycle has been selected.	Did you choose the cycle that describes the most difficult soil in your dishwasher? If you have some items with heavier soils, use a heavier cycle. Select a cycle according to the number and soil level of the dishes, as directed in this manual.
		The dishes are improperly loaded. Too many dishes have been loaded.	Rearrange the dishes so they do not interfere with the nozzle rotation and the detergent dispenser's cover operation. Load only an appropriate number of dishes. Load your dishes as recommended. (See user manual.)
		Low water pressure.	The water pressure should be between 20 and 120 psi(140 ~ 830kPa)
		The water is too hard.	Use a commercial dishwasher cleaner. Use a high-quality and fresh detergent with rinse aid.
		Dishwasher detergent was not used.	Use a dishwasher detergent. Recommend the powder or gel type dishwasher detergent.
		The amount of detergent was inappropriate.	Use the appropriate amount of automatic dishwasher detergent.
		Detergent remains in the dispenser.	Check the position of dishware such as cookie sheets, cutting boards, or large containers, etc. that maybe blocking the detergent dispenser from opening properly. Rearrange the dishes so they do not interfere with the detergent dispenser opening.
		There is no rinse aid.	Check the dispenser and add the rinse aid. Use the liquid type rinse aid.
		A nozzle is clogged.	Is the pump or spray nozzle clogged by labels from bottles and cans? Or Check the spray nozzle clogged by little food lump. Clean the nozzle as recommended by user manual.
		The water temperaure is low.	Connect the water supply line to a hot water supply. For best performance, the temperature of the supplied water should be 120°F(49°C)
		Upper rack unbalanced.	Level the left and right sides of the upper rack.

Category	PROBLEM	POSSIBLE CAUSE	SOLUTION
Not Clean	Spots and filming on glasses and flatware	Did you use the correct amount of effective detergent?	Use recommended dishwasher detergents only. Refer to the "Detergent Dispenser" section. Detergent must be fresh to be effective. Store detergent in a cool, dry area. Heavy soil and/or hard water generally require extra detergent.
		NOTE To remove spots and film from dishes, try a white vinegar rinse. This procedure is intended for occasional use only. Vinegar is an acid, and using it too often could damage your dishwasher. 1. Wash and rinse dishes. Do not use sanitize option. Remove all silverware or metal items. 2. Put 2 cups [500 ml] white vinegar in a glass or dishwasher-safe measuring cup on the bottom rack. 3. Run the dishwasher through a complete washing cycle. Do not use detergent. Vinegar will mix with the wash water.	
		Extremely hard water Old or damp powder detergent Too little detergent	The harder your water, the more detergent a load needs.
			To prevent the common hard-water problem of spotting and to help dishes dry better, we recommend that you add a rinse aid.
			If you see white residue inside your dishwasher, you can occasionally try to dissolve it with distilled white vinegar(or Lemi juice & White vinegar mixture). Instead of using detergent, place a container with 2 cups of vinegar(or 1 cup of Lime juice & 1 cup of white vinegar) in the bottom rack and run a Normal cycle.
			Make sure detergent is fresh.
Not Clean	Leaves glasses with a dim polish. (Cloudiness on glassware.)	The water supplied is soft and too much detergent was used.	- Underload the dishwasher and use a rinse aid to minimize this. - This is called etching and is permanent. To prevent this from happening, use less detergent if you have soft water. Wash glassware in the shortest cycle that will get them clean.
		Silica film or etching (silica film is a milky, rainbow-colored deposit; etching is a cloudy film)	Sometimes there is a water/chemical reaction with certain types of glassware. This is usually caused by some combination of soft or softened water, alkaline washing solutions, insufficient rinsing, and overloading the dishwasher. It might not be possible to prevent the problem, except by hand washing. To slow this process use a minimum amount of detergent but not less than 1 tb (15 g) per load. Use a liquid rinse aid and underload the dishwasher to allow thorough rinsing. Silica film and etching are permanent and cannot be removed.
		Water temperature entering the dishwasher exceeds 150°F	This could be etching. Lower the water heater temperature.
	Black or gray marks on dishes	Aluminum dishes were included in the wash load.	Disposable aluminum items can break down in the dishwasher and cause marking. Hand wash these items. Remove aluminum markings by using a mild abrasive cleaner.

Category	PROBLEM	POSSIBLE CAUSE
It's taking too long with an operation or cycle.	Cold water is being supplied.	Check that the water supply line is connected to a hot water supply. (Additional time is required to heat cold water.)
Leaves a yellow or brown film on the inside of the dishwasher.	This is caused by coffee and tea soils.	Remove the soils using a spot cleaner.
Is too noisy.	Sound is generated when the dispenser cover is open and the drain pump is operating in an early stage.	This is normal operation.
	The dishwasher is not level.	Ensure the dishwasher is level.
	Foreign material(Screw, Plastic piece) is in pump chamber.	Contact a qualified service technician to remove foreign material from the pump chamber.
	There is a 'chopping' sound because a nozzle is bumping against the dishes.	Rearrange the dishes.
Does not have a smoothly rotating nozzle.	The nozzle hole is clogged with food particles.	Clean the nozzle hole.
	The nozzle is blocked by a dish or pot and cannot rotate.	After placing the dishes into the racks, rotate the nozzles by hand to check whether any of the dishes will interfere with them.
	Upper rack unbalanced.	Level the left and right sides of the upper rack.
Water won't pump out of the dishwasher.	Drain is clogged.	Contact a qualified service technician to remove any obstruction from the drain hose and check the drain pump operation.
Has a bent upper rack after loading dishes.	The dishes are not loaded properly.	Load your dishes as recommended.

5. PCB DIAGRAM

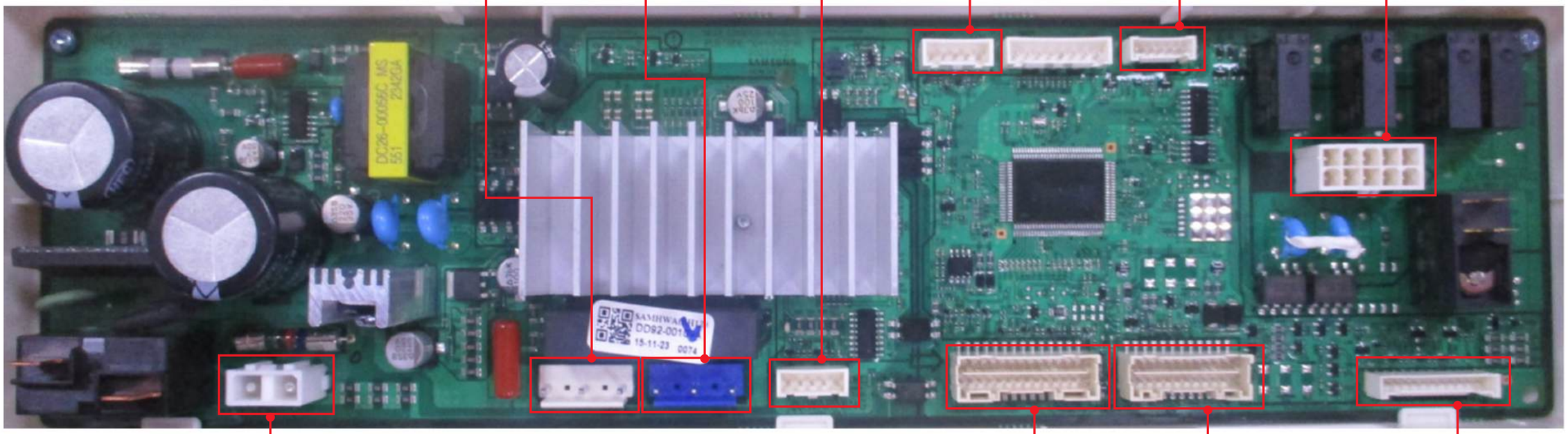
5-1. MAIN PBA



No.	Location	Description
1	CN100	Connector for PBA AC input power
2	CN901	Connector for BLDC Pump
3	CN902	Connector for BLDC Drain
4	CN903	Connector for Flash Write of Inverter MICOM
5	CN201	Connector for JTAG of Main MICOM
6	CN202	Connector for HASS / Flash Write of Main MICOM
7	CN600	Connector for Sensor I/O
8	CN500	Connector for DC LOAD
9	CN360	Connector for Communication
10	CN601	Connector for Sensor I/O
11	RY701	Source Relay
12	RY401	Auto Door Relay
13	RY403	Dry Dactuator Relay

No.	Location	Description
14	RY404	Distributor Motor Relay
15	RY405	Fresh Tank Actuator Relay
16	RY406	Water Tank Actuator Relay
17	RY452	AC Dry Fan Motor Relay
18	RY470	Reserved Relay
19	RY402	Wash Heater Relay
20	RY451	Steam Heater Relay
21	SSR401	Water Valve Relay
22	SSR402	Water Filter Valve Main Relay
23	SSR403	Water Filter Valve Sub Relay
24	RY901	BLDC Pump Relay
25	RY902	BLDC Drain Relay

5-2. PCB DIAGRAM



▶CN901
1) U_PUMP
2) -
3) V_PUMP
4) -
5) W_PUMP

▶CN902
1) U_DRAIN
2) -
3) V_DRAIN
4) -
5) W_DRAIN

▶CN903
1) +5V
2) RX_INV
3) TX_INV
4) GND
5) BOOT_INV

▶CN202
1) +5V
2) RX_MAIN
3) TX_MAIN
4) GND
5) BOOT_MAIN

▶CN601
1) SALT SHORTAGE SENSOR
2) SNS+5V
3) GND
4) SNS+5V
5) DIGITAL TURBIDITY SENSOR
6) GND

▶CN401
1) AUTO DOOR ACTUATOR
2) DRY ACTUATOR
3) DISTRIBUTOR MOTOR
4) FRESH TANK ACTUATOR
5) WATER TANK ACTUATOR
6) WATER VALVE
7) WATER FILTER VALVE MAIN
8) WATER FILTER VALVE SUB
9) RESERVED RELAY
10) WATER TANK ACTUATOR

▶CN100
1) NE_UTRAL
2) LI_VE_SMPS

▶CN600
1) SNS+5V
2) TURBIDITY RECEIVE
3) WATER THERMISTOR
4) DC TURBIDITY TRANSMIT
5) WATER THERMISTOR IN MOTOR
6) SNS+5V
7) SNS+5V
8) FLOWMETER SENSOR
9) FAULT CHECK THERMISTOR IN MOTOR
10) GND
11) SNS+5V
12) SNS+5V
13) DUCT AIR THERMISTOR
14) RINSEAID SHORTAGE SENSOR
15) SNS+5V
16) GND
17) STEAM THERMISTOR
18) SNS+5V
19) SNS+5V
20) DISTRIBUTOR SENSOR
21) HEAT PUMP THERMISTOR
22) STEAM ATER LEVEL
23) SNS+5V
24) GND
25) -
26) LEAKAGE
27) -
28) GND

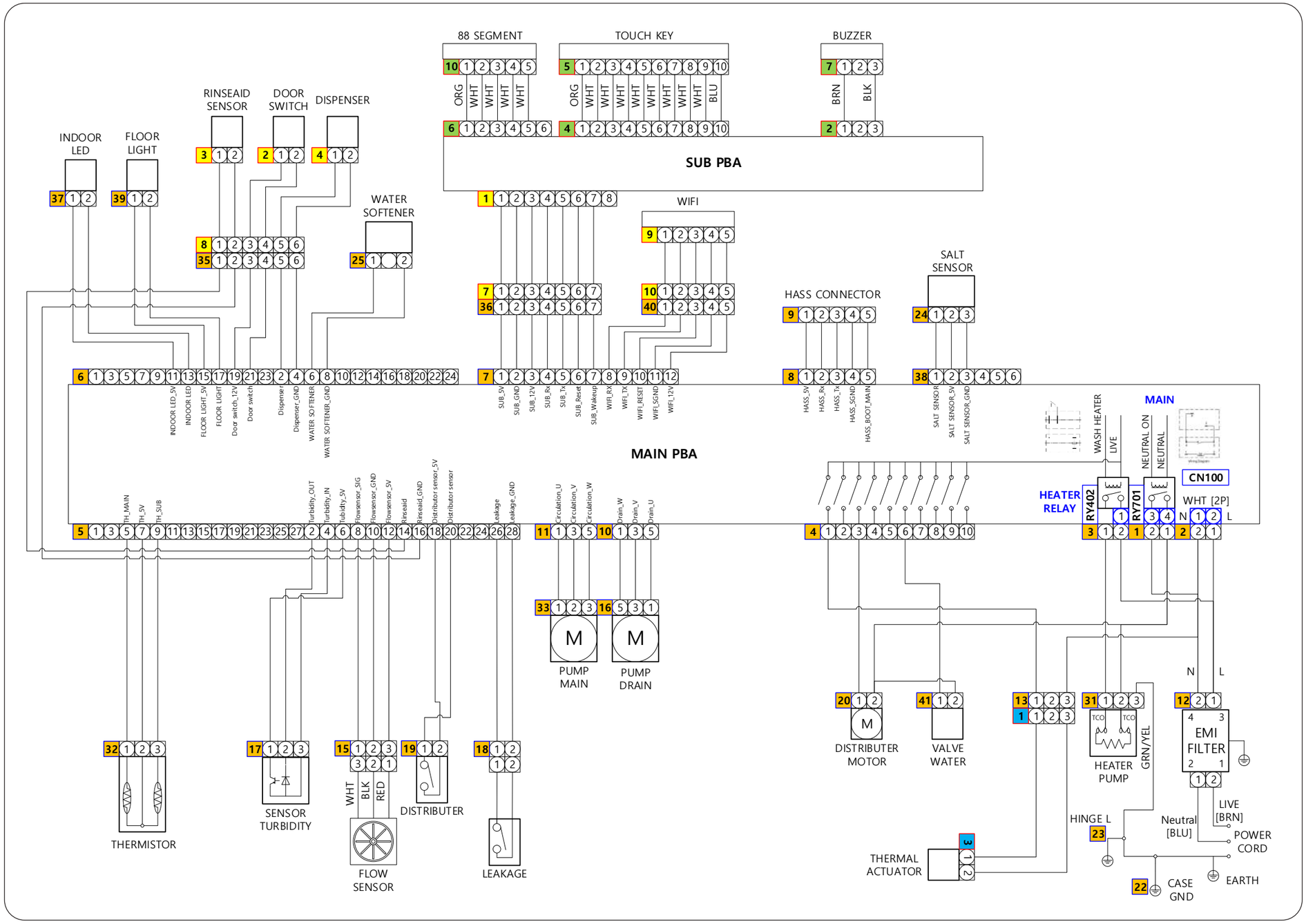
▶CN500
1) +12V
2) DISPENSOR SOLENOID
3) UV-C LED
4) GND
5) DRY FAN DC MOTOR
6) STEAM WATER VALVE
7) GND
8) GND
9) DC FAN FAULT
10)A UTO DOOR FORWARD
11) +5V
12) AUTO DOOR REVERSE
13) INDOOR LED
14) ADOC OPEN FEEDBACK
15) +5V
16) ADOC CLOSE FEEDBACK
17) FLOOR LIGHT
18) GND
19) +12V
20) -
21) +12V DOOR LOCK
22) DC FAN FAULT2
23) DRY FAN DC MOTOR2
24) GND

▶CN360
1) +5V OR SNS+5V
2) GND
3) 12V
4) SUB RX
5) SUB TX
6) SUB RESET
7) POWER KEY
8) WIFI RX
9) WIFI TX
10) WIFI RESET
11) GND
12) +12V

6. WIRING DIAGRAM

6-1. WIRING DIAGRAM

► This Document can not be used without Samsungs authorization.



7. REFERENCE

7-1. MODEL NUMBER NAMING RULES

► This Document can not be used without Samsungs authorization.

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Dacor	Product		Capacity		Years	Series (Grade)	Feature1	Feature2	Feature3	Feature 4 (Color)		/	Buyer	
MODEL CODE	D	D	W	2	4	G	9	0	0	0	A	P	/	D	A

1. Circulation Motor	A motor that sucks the water remaining on the floor of the dishwasher and injects water using high pressure through the internal water passages to the top, middle and lower nozzles.
2. Drain Pump	The pump that drains the polluted water from the dishwasher generated while the dishwasher is running.
3. Heater	The heater is located on the water passages inside the dishwasher. It heats the flowing water to increase wash efficiency.
4. Vent Fan	Drains high temperature moisture out of the dishwasher during the drying cycle (drying the dishes).
5. Assy guide water-sub	Measures the amount of supplied water by counting the pulses of the hall IC located at the next of the Inlet valve.
6. Distributor	Located at the output end of the sump outside the dishwasher. It turns the flow of the water that goes to the bottom part of the dishwasher on or off.
7. Dispenser	The location where the detergent and rinse aids are stored so they can be used by the dishwasher. The dispenser automatically supplies detergent and rinse aids to the inside of the dishwasher when they are needed.
8. Tub Assy	An internal case made of stainless steel that makes up the basic framework of the dishwasher.
9. Sump Assy	The place inside the dishwasher where water is collected. The injected water gathers here after circulation. The sump Assy is connected to the circulation motor, drain pump, and distributor motor.
10. Tub Front Assy	An internal case made of stainless steel that makes up the internal part of the front door.
11. Base Assy	A plastic part that makes up the basic bottom framework.
12. Basket Assy	The upper and lower racks where dishes can be loaded.
13. Top/Middle/Lower Nozzles	Washes dishes by rotating and injecting the supplied water through the water passages at high pressure.
14. Case Brake	A passage that adjusts the air pressure by connecting the pressure of the inside air which is expanded at high temperature during the wash and rinse cycles and the outside air pressure.
15. Door Lock Switch	Detects whether the door of the dishwasher is open or closed. If the door is open while the dishwasher is running, the cycle is temporary stopped.
16. Child Lock/Unlock	This function is used to prevent a child from operating the dishwasher while it is running.

dacor

Printed in Korea