SAMSUNG

DISHWASHER

Model Name : DMT800 Series
DMT700 Series
DMT400 Series

Model Code : DMT800RHS/XAA DMT800RHS/XAC
DMT800RHB/XAA DMT800RHB/XAC
DMT800RHW/XAA DMT800RHW/XAC
DMT700RHS/XAA DMT700RHS/XAC
DMT700RHB/XAA DMT700RHB/XAC
DMT700RHW/XAA DMT700RHW/XAC
DMT400RHS/XAA DMT400RHS/XAC
DMT400RHB/XAA DMT400RHB/XAC
DMT400RHW/XAA DMT400RHW/XAC

SERVICE *Manual*

DISHWASHER

CONTENTS

Refer to the service manual in the GSPN (see the rear cover) for the more information.

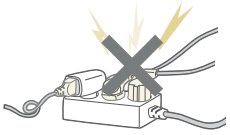
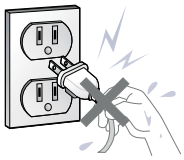
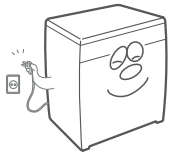
1. Safety Instructions

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. ➢ 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 arcing and short circuits 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 arcing.

- Make sure to disconnect the PBA power 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 nut after ensuring that it is inserted into the bracket-heater.
  - ➢ If not fasten the nut of the heater, it cause water and electric leakage.

After Servicing

- Check for any water leakage.
  - ➢ Perform a test run for the dishwasher using the standard(normal) 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.

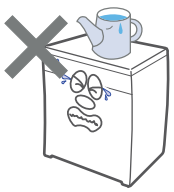
- If it seems that grounding is needed due to water or moisture, make sure to run grounding wires.
  - ➢ Failing to do so may result in electric shock due to electric leakage.

⚠ 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.

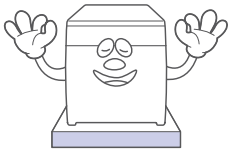
- Check if there is any residue that shows that liquid entered the electric parts or harnesses.
  - ➢ If any liquid has entered into a part, replace it or completely remove any remaining moisture from it.

- 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 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.



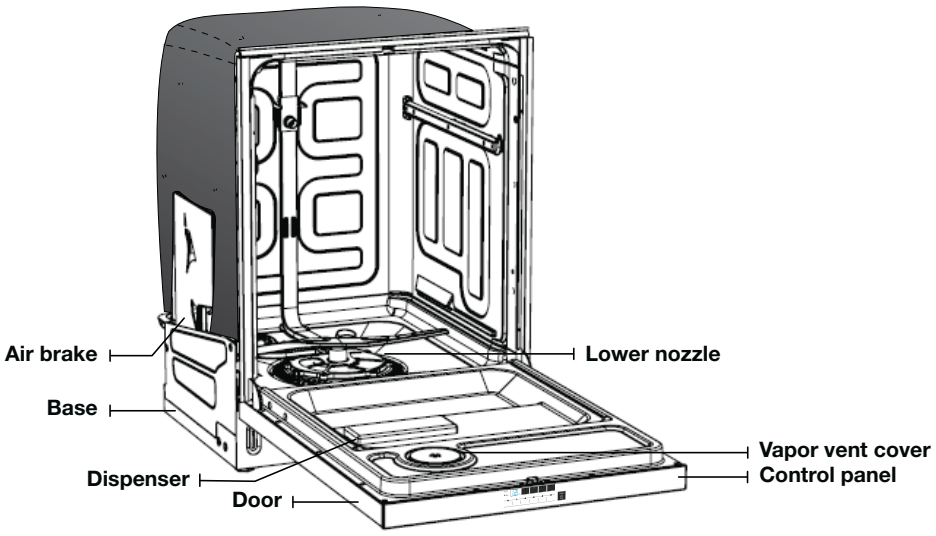
2. Features and Specifications

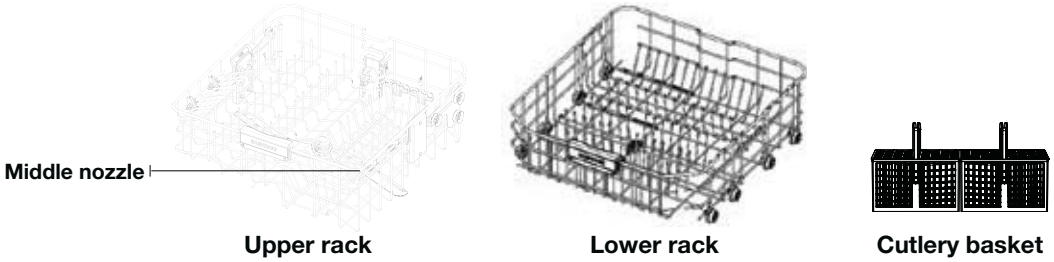
2-1. Features

Features	Description	Remarks
Extra large capacity	▶ The upper rack is slanted for larger dishes. The space has been maximized to accommodate a variety of dish sizes.	
Elegant design with digital touch sensors	▶ Digital touch sensors are used in the control panel for more simple operation, with a touch of elegance.	
Increased convenience	▶ The smart auto cycle determines the level of soil on the dishes and initiates the optimal cycle using this feature saving water, energy and time.	
Extremely quiet operation	▶ Efficient noise control technology is used for the quietest possible operation. Your new Samsung dishwasher will be quieter than ever.	
Self-cleaning filter	▶ Cleaning the filter yourself is a thing of the past! This product keeps food waste internally while operating, then drains it automatically with the water.	
Storm wash (For DMT800 & DMT700 series)	▶ With a jet stream like a geyser, Storm Wash effectively cleans big, heavily soiled pots with ease. Look for the built-in extra nozzle and spray in the specialized Storm Washing Zone.	
Twin fan condensing drying	▶ Two fans connected to one motor make for better drying performance. Still better, your dishwasher emits no hot steam. Instead, it mixes external fresh air with the internal hot steam during drying to eliminate the steam, making your dishwasher safer and easier to use.	

2-2. Specifications

Wash capacity	14 place settings
Type	Dishwasher
Model	DMT800 Series, DMT700 Series, DMT400 Series
Power	Single-phased alternating current of 60Hz, 15A at 120V
Used water pressure	20 ~ 120 psi (140 ~ 830 kPa)
Wash type	Rotating nozzle spray
Dry type	Air diffusion condensing dry system
Power usage	Main Motor : (2-step) 185W/150W, Heater : 1100W
Standard amount of used water	5.3~7.9 gallon (20~30L), Normal Cycle
Size (W×D×H)	23 ⅞” x 24 ¾” x 33 ⅞” inch (605 x 627 x 860 mm)





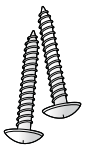
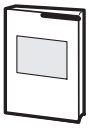
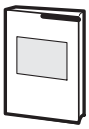
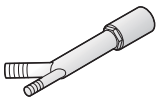
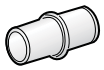
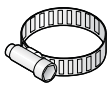
Upper rack | Lower rack | Cutlery basket

Above images might differ in the dishwasher models.

2-3. Comparing Specifications with Existing Models

Model	NEW MODEL			BASIC MODEL	
	DMT800RHS/B/W	DMT700RFS/B/W	DMT400RHS/B/W	DMR78AHS/B/W	DMT300RFS/B/W
Photo					
Design Specifications					
Panel Control	Black	Silver/Black /White	Black	Black	Silver/Black /White
Control Type	Touch	Touch	Touch	Touch	Button
Frame Front	STS/Black/White				
Basket Handle	Blue + STS	Blue + STS	Blue + Gray	Gray	Blue + Gray
Function Specifications					
Soil Detection Sensors	O	O	O	O	O
Drying method	Air diffusion condensing				
Basket Height Adjustment	One-touch	One-touch	2-stage	One-touch	2-stage
Leakage Sensor	O	O	O	O	O
Programs	6 (Normal, Heavy, Delicate, Pot & Pans, Quick+, Smart Auto)	6 (Normal, Heavy, Delicate, Pot & Pans, Quick, Smart Auto)	4 (Normal, Heavy, Delicate, Smart Auto)	6 (Normal, Heavy, Delicate, Rinse, Quick, Smart Auto)	4 (Normal, Heavy, Delicate, Quick)
Options	6 (Delay Start, Sanitize, Half Load, Storm Wash, Child Lock, Cancel & Drain)	6 (Delay Start, Sanitize, Half Load, Storm Wash, Child Lock, Cancel & Drain)	3 (Sanitize, Child Lock, Cancel & Drain)	5 (Delay Start, Sanitize, Half Load, Child Lock, Cancel & Drain)	3 (Sanitize, Child Lock, Cancel & Drain)

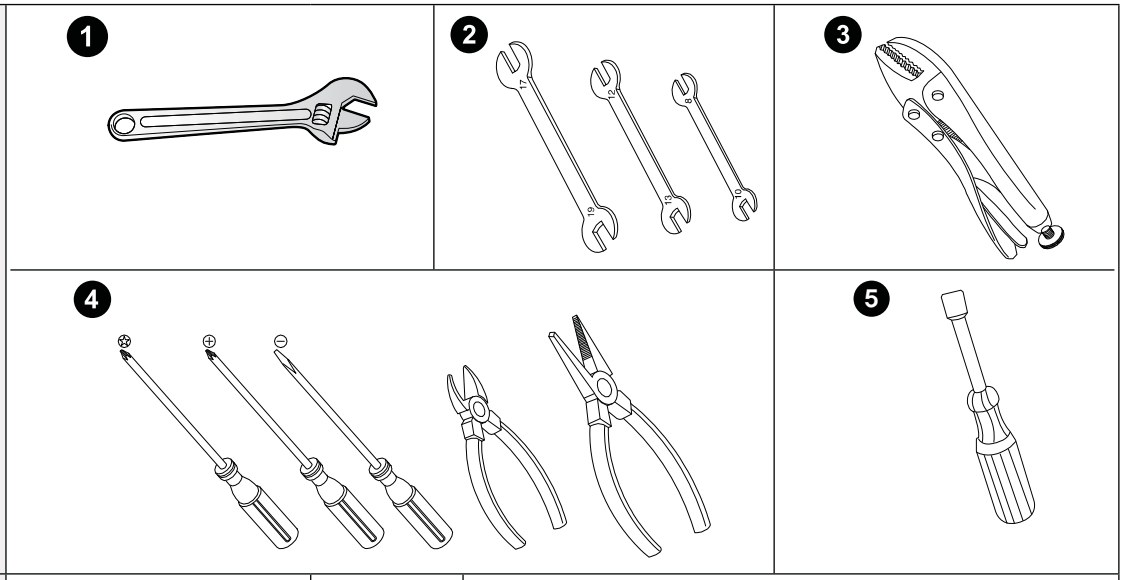
2-4. Options Specifications

Photo	Item	Code	Quantity	Remarks
	Bracket-install	DD61-00176A	2	Provided with the dishwasher
	Assy-install kit for Top mounting (Bracket-install + Screw)	DD94-01002A	2+2	
	Screw for side mounting		2	
	User Manual	DD68-00050A (DMT800) DD68-000xxA (DMT700) DD68-00074A (DMT400)	1	
	Installation Guide	DD68-00046A	1	
	Elbow	-	1	Sold separately
	Water Supply Line (Flexible STS supply line is recommend)	-	1	
	Air Gap	-	1	
	Rubber Connector	-	1	
	Hose Clamp	-	1	
	Strain Relief	-	1	

Memo

3. Disassembly and Reassembly

3-1. Tools for Removal and Reassembly

Tool image			
No.	Tool	Type	Remarks
❶	Adjustable Wrench		
❷	Open-end Wrench	1-7/16”	Leg
❸	Vice pliers		
❹	Others (screwdriver, nipper, long nose pliers)		Common tools for servicing Screwdriver - Philips, flat, Torx T20
❺	Nut Driver	10mm	Heater bracket Nut

*** 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 breaker 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.

⚠ Caution

When pulling out or laying the dishwasher down for service, it may be necessary to lower the height of the adjustable legs to provide the clearance for the removal of the unit, prevent breaking the legs, or damaging the base of the unit.

3-2. Standard Disassembly Drawings

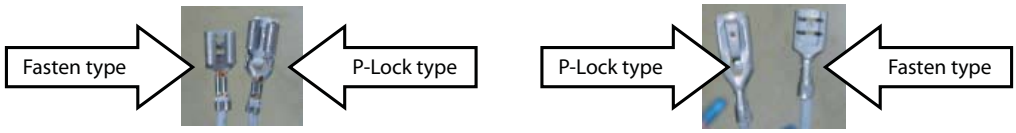
Throughout this manual, features and appearance may vary from your model.

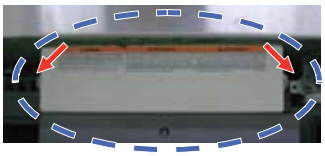
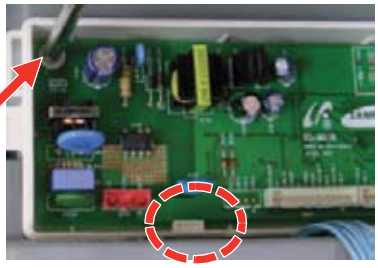
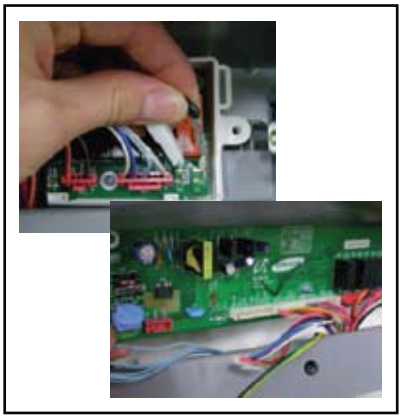
⚠ **Warning**
Always disconnect the electric power supply & water supply before servicing any electrical component, making ohmmeter checks, or replacing any parts.

⚠ **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.

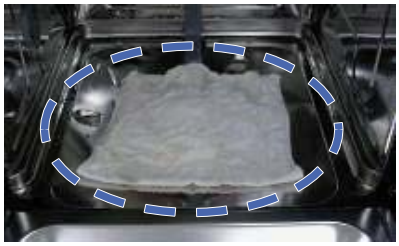
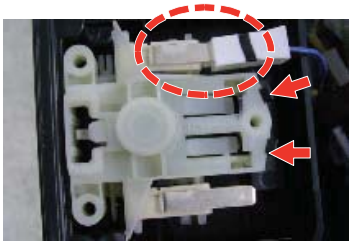
All voltage checks should be made with a voltmeter having a full scale range of 250 volts or higher. After service is completed, be sure all safety grounding circuits are complete, all electrical connections are secure, and all access panels are in place.

Before servicing, make sure to remove all items include baskets inside dishwasher.

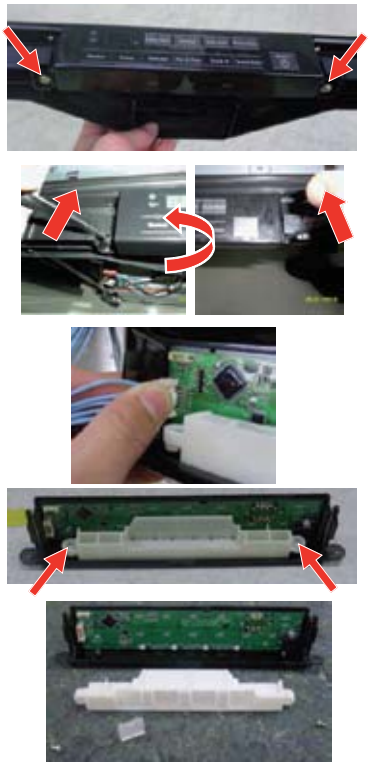
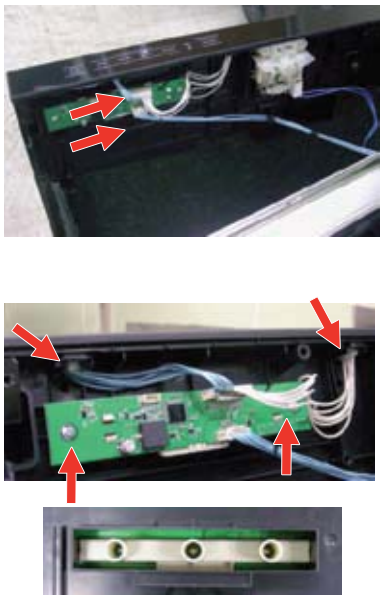
Part	Photo	Description
Terminal - Fasten type - P-Lock type	This dishwasher use 2 kinds terminal type. 	
Remove the Terminal - P-Lock type		1. Terminal with buckle. 2. Press the buckle, and pull out the terminal. * P-lock type for drain pump.
Remove the Terminal - Fasten type		1. Use the proper tool to firmly insert or remove the “fasten” type terminals on the Main PCB, the dispenser “rinse aid” level sensor, and the heater. Hold both sides of the connection to prevent bending the terminals or breaking the PCB.

Part	Photo	Description
Main PBA	     	**Preparation:** * Make sure to disconnect the power. 1. You can see the Main-PBA case under the door. 2. Remove the two (2) screws of PBA case and pull out the PBA cover carefully. 3. Remove the all connectors in the PBA include two(2) fasten type ones at right side. 4. Remove the three (3) screws on the PBA board. 5. Pull out the PBA board carefully.. When removing the Main PBA, lift up the PBA board carefully because it is hanging to the PBA case with two(2) hooks. If you feel hard to disconnect the wire connectors. Follow the below. a. Release two(2) fasten type connector located right side. b. Unscrew the three(3) screws in PBA board & pull out the PBA board. c. Disconnect the wire connectors.

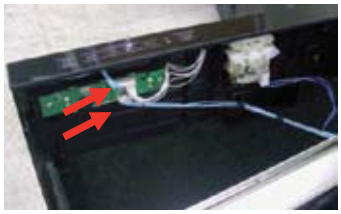
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Frame front	   	**Preparation:** * Make sure to disconnect the power. * Remove the lower basket in the dishwasher. * Cover the Assy sump with towel for prevent losing screws. 1. Open the door completely. Remove the 12 screws holding the tub front, frame front, and control panel in place. Before removing it, place a cushioned mat on the floor to prevent being scratched. After removing screws, make sure to hold the tub front using your hand. It can prevent closing door suddenly and harming you. ⚠ **Caution** Do not place the removed screws on the tub front. They may fall into the sump assy. 2. Pull out the Frame front & the Assy control panel carefully. 3. Remove the Assy control panel from Frame front. (Pull out just a little and push down it.)
Door Lock Switch (Door latch)		**Preparation**: * Disassemble the frame front. 1. When removing the door latch, lift up the door latch which is fixed by two hooks. Use a flat screwdriver to remove it. 2. Release the micro switch.

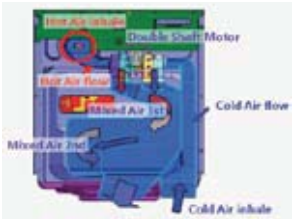
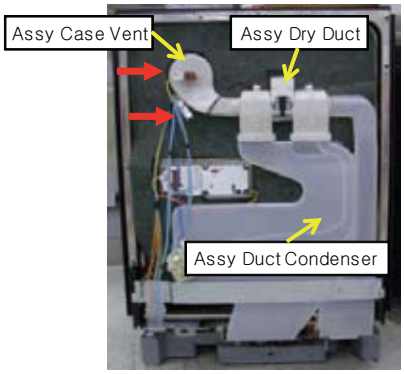
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Control Panel + Window Panel (DMT800)		**Preparation:** *** Disassemble the frame front , Assy control panel and Door lock switch.** **- Refer the "Frame front" disassembly section to separate the Frame front.** **1. Remove the two(2) screws on the control panel and release the window panel using flat screw driver.** **- Insert the flat screw driver into the gap of screw boss and turn it over.** **2. Rotate the window panel to upside and disconnect the wire connector.** **3. Release the two(2) screws on the window panel to release the guide LED.**
Control Panel (DMT400)		**Preparation:** *** Disassemble the frame front , Assy control panel and Door lock switch.** **- Refer the "Frame front" disassembly section to separate the Frame front.** **1. Remove two(2) connectors in the display – PCB.** **2. Pull the control panel up slightly from Assy frame front , and pull it out.** **3. Unscrew two(2) screws to remove display-PCB and guide-LED.** **4. Disconnect the 2 wire connectors from control panel(touch-PCB).**

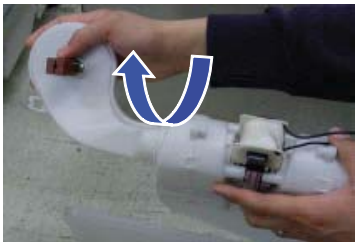
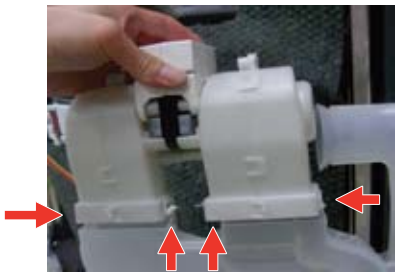
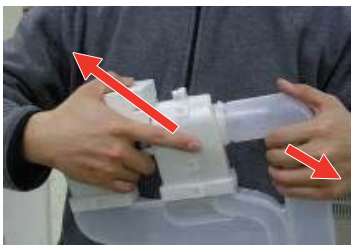
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Control Panel (DMT400)	  	**Preparation:** * Disassemble the frame front , Assy control panel and Door lock switch. - Refer the “Frame front” disassembly section to separate the Frame front. 1. Remove two(2) connectors in the display – PCB. 2. Pull the control panel up slightly from Assy frame front , and pull it out. 3. Unscrew two(2) screws to remove display-PCB and guide-LED. 4. Disconnect the 2 wire connectors from control panel(touch-PCB).

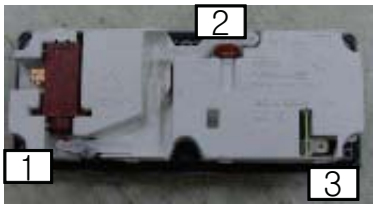
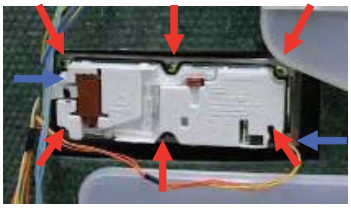
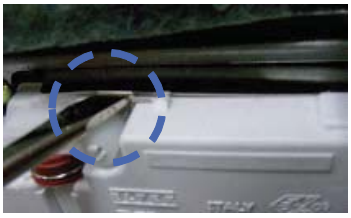
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Condensing dry system		**Air Diffusion Condensing Dry system** This system circulates and combines air from inside the dishwasher with outside air to dry the dishes quickly and efficiently. This process is designed to use as little energy possible while exhausting the least amount of hot and humid air back into the room.
		**Preparation:** * Disassemble the frame front & Assy control panel. - Refer the “Frame front” disassembly section. 1. Remove the two(2) connectors from thermal actuator & Dry Fan motor. 2. Open the door & Remove the three(3) screws holding the bracket cover fan and Assy case vent. 3. Remove the cover fan by rotating using a tool. (counterclockwise) NOTE : Use a jig. If you have no jig, use a tool such as a long nose pliers. Remove it carefully so that the part is not damaged. 4. Remove the four (4) screws to release the bracket door link and remove Assy dry system. Be careful while removing them as the duct condenser is touching the bracket door link and the cushion duct.
		
		
		

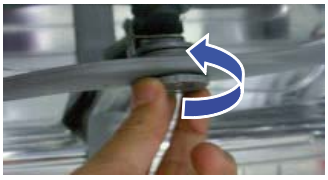
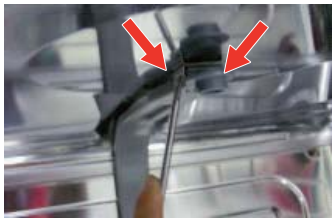
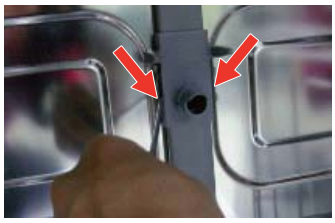
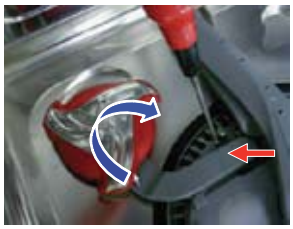
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Condensing dry system Assy Case Vent & Assy Dry Duct & Assy Duct Condenser	  	5. Remove the Assy case vent by rotating it counterclockwise. 6. Remove the Assy dry duct from the Assy duct condenser. These parts are fixing by four(4) hooks. To disassemble, hooks are broke down in the Assy dry duct. ⚠ **Caution** Only when dry motor is not working, disassemble it. After remove it, you should use new Assy dry duct part to reassemble. 7. Pull out Assy dry duct.
Assy Case Vent	  	1. Remove the Assy case vent. 2. Release two screws. 3. Pull the thermal actuator firmly to remove it from the housing and to release it from the gasket vent.

※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Dispenser		The dispenser automatically dispenses both the detergent and the rinse agent at the appropriate times. The dispenser is activated twice during a wash cycle. The first time the dispenser is activated (1), the lever slides up the right-hand path of the connecting rod. This action moves the cover catch and releases the detergent cover. When activated for the second time in a cycle, the lever lifts the connecting rod by the notch, lifting the rinse dispenser plunger (2) and releasing the rinse agent. When close the cover of dispenser, the lever returns to its original starting position. The magnetic sensor(3) are connected to rinse aid lack warning light at control panel by wires. When the indicator lights up, it should add more rinse aid.
	   	**Preparation:** * Disassemble the frame front. - Refer the “Frame front” disassembly section to separate the Frame front. 1. Remove the three (3) connectors (blue) on both sides of the dispenser. ⚠ **Caution** Right side’s rinse aid level sensor connectors are fasten type. Be careful don’t break them when removing them. 2. Release the six (6) screws (Red) holding at the tub front and remove the two (2) bracket dispensers in place. 3. The dispenser is fixed to the tub front with many hooks. Use several flat screwdrivers to remove it . 4. Push it to the inside carefully. ⚠ **Caution** Be careful as the tub front is sharp.

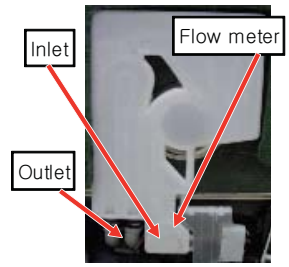
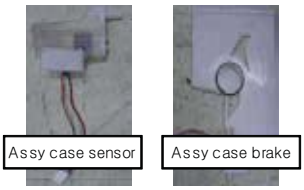
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Nozzles	  	**Preparation:** * Remove the lower basket in the dishwasher. * Make sure to remove the water in each nozzle to block the wet. 1. Upper Nozzle : Remove it by rotating the holder. (counterclockwise) 2. Middle Nozzle : Remove it by rotating the holder from upper basket. (counterclockwise) 3. Lower Nozzle : Pull out carefully it from the Assy sump.
Duct Nozzle	  	1. The duct nozzle is fixed by two brackets inside tub. Use a flat screwdriver to remove it. Be careful don't make scratch on tub. 2. Release the hooks clamping the bracket duct (U) & the bracket duct (M) using a flat screwdriver. 3. Remove the duct nozzle by rotating to left side.
Storm wash Nozzle (DMT800/ DMT700)		1. Release the screw. 2. Rotate the Assy storm wash nozzle to right turn slightly.

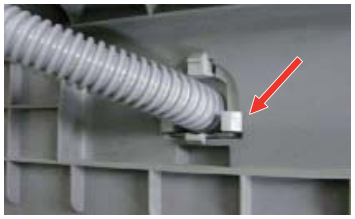
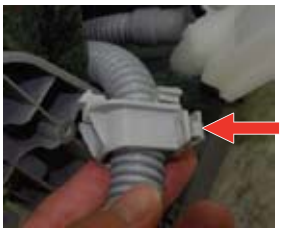
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Filter Mesh body & Cover Sump & Impeller & Case scroll & Disposer	 Filter Mesh body  Cover Sump    	**Preparation:** * Disassemble the baskets, nozzles and storm wash nozzle. - Refer the each disassembly section to separate. 1. Release the 13 screws on Assy sump. (Except the two (2) screws holding the holder nozzle L in center place.) Take off the filter mesh body, cover sump(& holder nozzle L). 2. Pull out the Assy cover sump slightly. And, Hold and rotate slightly the duct nozzle & Assy case sump each other. 3. Release the screw (1) that is fixing the impeller and circulation motor shaft. Caution : Use the gloves for your hand to hold the impeller during releasing the screw. Be careful your hands to harm. (Only for DMT800 & DMT700 series) 4. Remove the plate-distribute. 5. Remove the case scroll. Check if the seal rubber scroll is normal. If it is damaged or hardened, replace it. 6. Remove the cutter disposer. ⚠ **Caution** Both sides of cutter are sharp. Be careful when removing it. “U” stamp is upside. Place the removed parts in a safe location to prevent them from being damaged.

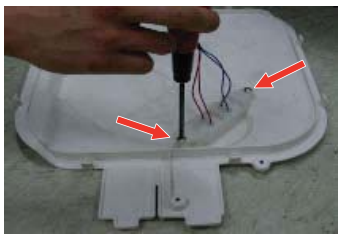
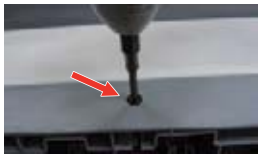
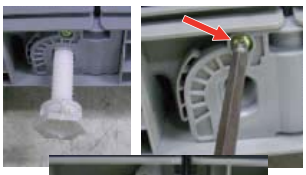
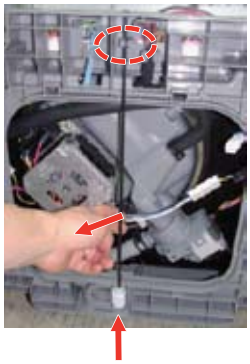
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Assy Case Brake & Assy Case Sensor		The Assy case brake & case sensor is mounted on the left side of the tub. Its purpose is to provide a method of supplying water for the wash and rinse cycles. The air inlet allows air into the tub to permit air flow for dish drying. Also the air can flow out through the air brake when pressure inside tub. Flow meter embedded in the Assy case brake can give electronic pulse output to electronic controller, so the supplying water quantity could be controlled accurately.
	    	**Preparation:** * Make sure to disconnect the power & water supply & drain hose connections. * Remove the upper & lower baskets in the dishwasher. * Pull out the dishwasher carefully. 1. Remove the two (2) screws of the frame left. 2. Remove the frame left. ⚠ **Caution** Make sure to wear gloves when removing it. Be careful as the steel plate may harm you. 3. Remove cover brake rotating it. (counterclockwise) Use a jig. If you have no jig, you can use a long nose pliers covering with fabric. (It can make scratch or breakage, be careful) 4. Disconnect the three(3) sensor connectors. - flow meter, water level , over flow . 5. Remove the Assy case sensor from the Assy case brake. 6. Loosen the four (4) clamps and release the four (4) hoses from the Assy case brake and Assy case sensor. ⚠ **Caution** Remain water can come out, Must use the towel to block the wet on floor.

※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Drain Hose	   	**Preparation:** * Disassemble the Assy case brake. - Refer the Assy case brake disassembly section to separate. 1. Loosen the clamp(left side in picture) and release the hose from the Assy case brake. 2. You can see the hose holder in the dishwasher backside. 3. Push the three(3) hooks of the drain hose holder to inside. 5. Pull out the hose carefully at side position. 6. Remove the hose holder by releasing the hook. 7. Remove drain hose entirely.

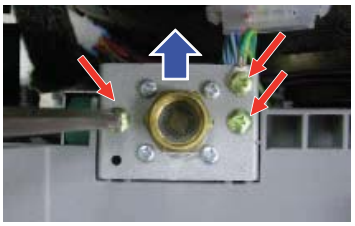
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Shutter & Leakage Sensor	 	**Preparation:** * Make sure to disconnect the power & water supply & drain hose connections. * Remove the upper & lower baskets in the dishwasher. * Pull out the dishwasher carefully. 1. Lay down the dishwasher on its back. Release the two(2) screws fixing the base and shutter in place. 2. Pull out the shutter and release the leakage sensor connector. 3. Remove the leakage sensor from the shutter by unfastening the two(2) screws.
Rear Leg & Case gear & Adjust leg bar	   	**Preparation:** * Make sure to disconnect the power & water supply & drain hose connections. * Remove the upper & lower baskets in the dishwasher. * Pull out the dishwasher & Lay down the dishwasher on its back carefully. * Remove the shutter. 1. Rotate the rear leg adjust bar below Door to right turn entirely until pull out the rear leg. 2. Release the screw that is holding case gear and remove it. 3. Case gear is made up of worm gear and helical gear. Pull out worm gear at first. 4. Hold the adjust bar & pull in it pushing helical gear from backside. Adjust leg bar is holding by hook which is inside red circle.

※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Bracket front lower	       	**Preparation:** * Make sure to disconnect the power & water supply & drain hose connections. * Remove the upper & lower baskets in the dishwasher. * Pull out the dishwasher & Lay down the dishwasher on its back carefully. * Remove the water supply line(& elbow). ⚠ **Caution** Make sure to close the faucet before removing the water supply line. 1. Remove the cover PCB and pull out case PCB without disconnecting wire connectors. - When remove case PCB, lift up two(2) clasps using flat screwdriver as lever effect. 2. Pull out the case PCB and fix it using standard duct tape like as picture. 3. Remove the four (4) screws on both sides of the bracket front lower. 4. The bracket front lower is fixed with the guide wire with three hooks. Use a long nose pliers or flat screwdriver. 5. Using a Philips screw driver, lift up the each clasp on both sides of the bracket front lower. 6. To remove the bracket front lower entirely, push inside and pull out outer surface holding each sides. (refer the pictures.)

※ Reassembly is in the reverse order of the removal.

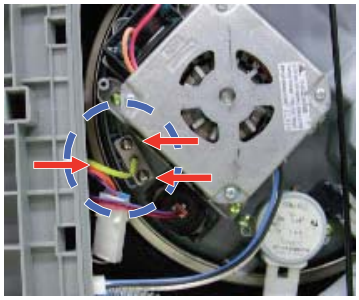
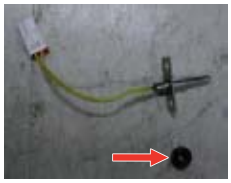
<table>
<tr><th>Part</th><th>Photo</th><th>Description</th></tr>
<tr><td rowspan="2">Water Valve</td><td colspan="2">The water valve is electrical controlled and solenoid operated. The flow of water is controlled by a rubber flow washer capable of maintaining a flow of 4(±5%) liters per minute with incoming water pressure of 0.04~1Mpa.The water valve is mounted to the front of base.</td></tr>
<tr><td> 
 
  </td><td>Preparation:
* Disassemble the bracket front lower & frame left.
- Refer the “bracket front lower” disassembly section.

1. Remove the two (2) screws and ground wire screw from the inlet valve.

2. Lift up the inlet valve and disconnect the inlet valve wire connector.

3. Release the hose clamp and disconnect hose.

⚠ Caution
Take care when holding and removing the clamp with a tool, as it may bounce and harm you.

⚠ Caution
Make sure to remove remain water in the dishwasher. If not, wet the floor.</td></tr>
<tr><td>Thermistor</td><td> 
  </td><td>Preparation:
* Disassemble the shutter.
- Refer the “shutter” disassembly section.

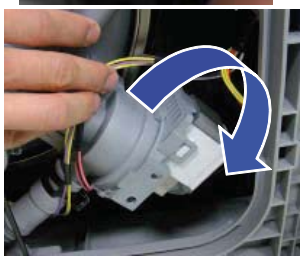
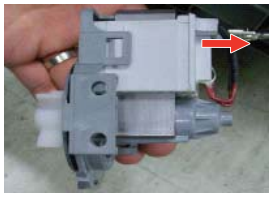
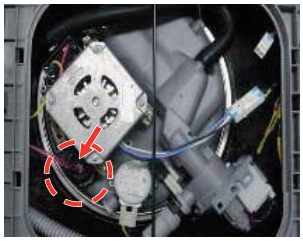
1. Disconnect the wire terminal connected to the thermistor.

2. Release the two(2) screws of thermistor.

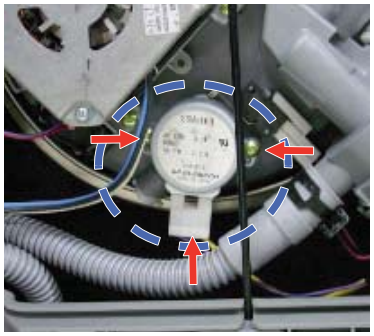
3. Pull out it carefully.

The thermistor has a seal .</td></tr>
</table>

※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Drain Pump	  	Preparation: * Disassemble the shutter. - Refer the “shutter” disassembly section. 1. Remove the drain pump by rotating it clockwise lifting up the hook holding it in place slightly. ⚠ **Caution** Make sure to remove remain water in the dishwasher. If not, wet the floor. The drain pump has a seal . 2. Disconnect the two(2) drain pump connectors.
Turbidity Sensor	 	**Preparation:** * Disassemble the shutter. - Refer the “shutter” disassembly section. 1. Remove the turbidity sensor connector. 2. Remove the two hooks from the turbidity sensor. ⚠ **Caution** Use a flat screwdriver carefully to remove it from the Assy sump preventing breakage. The turbidity sensor has a seal.

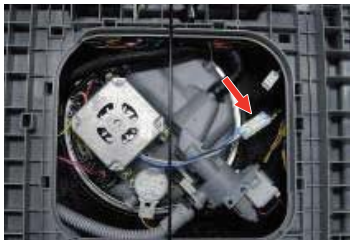
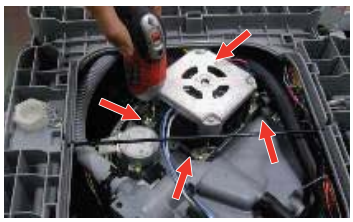
※ Reassembly is in the reverse order of the removal.

<table>
<tr><th>Part</th><th>Photo</th><th>Description</th></tr>
<tr><td rowspan="2">Distributor Motor
(DMT800 /
DMT700)</td><td colspan="2">The distributor motor is located under the tub at the middle, rear the circulation motor. The distributor motor operates to select flow direction at the dishwasher sump when select half load or storm wash option.</td></tr>
<tr><td> 
  </td><td>Preparation:
* Disassemble the cover sump & case scroll.
- Refer the “cover sump” disassembly section.
* Disassemble the shutter.
- Refer the “shutter” disassembly section.

1. Remove the distributor motor connector.

2. Remove the two (2) screws that hold the distributor motor in place.

3. Pull out the distributor motor and micro switch holding by hooks.

Be careful removing it because it has cam-switch and a seal in opposite side.</td></tr>
<tr><td>Circulation
Motor</td><td> 
 
  </td><td>Preparation:
* Disassemble the cover sump & cutter disposer and shutter.
- Refer the each disassembly section.

1. Remove the circulation motor and capacitor connection.

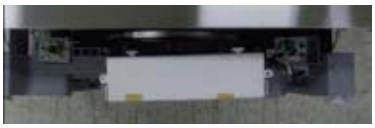
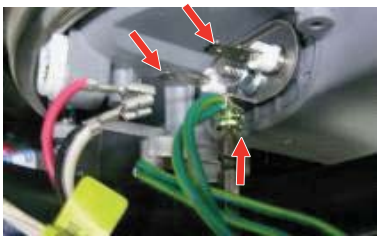
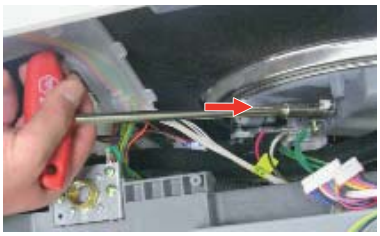
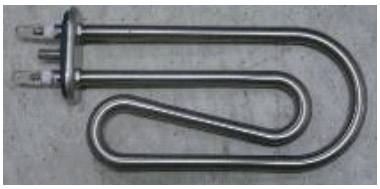
2. Remove the four(4) screws holding the circulation motor and the sump in place,and the one(1) screw for earth connection from main wire-harness.

3. Hold and pull out the circulation motor carefully to remove it from the sump.

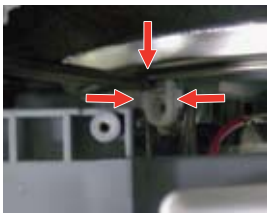
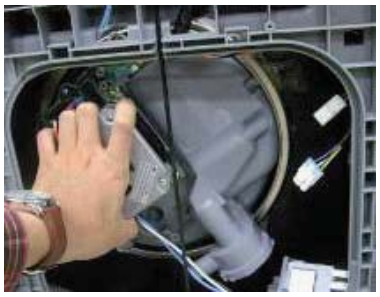
⚠ Caution
Make sure to remove remain water in the dishwasher. If not, wet the floor.

⚠ Caution
Be careful don’t break oil seal when removing them.</td></tr>
</table>

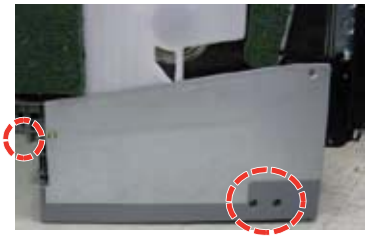
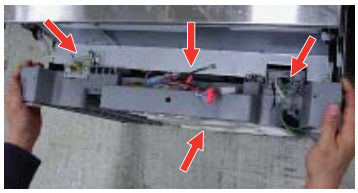
※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Heater	    	**Preparation:** * Make sure to disconnect the power. * Disassemble the cover sump & cutter disposer. * Disassemble the shutter & bracket front lower. - Refer the each disassembly section. 1. Remove the two (2) heater connectors. 2. Remove a ground screw on the heater bracket. 3. Release a nut using nutdriver(10mm). 4. Push the heater inside of case sump carefully. ⚠ **Caution** The heater may be very hot. Make sure to check it before touching the heater. ⚠ **Caution** Make sure to check whether any water is left. Remove any remaining water, to prevent water leakages while servicing.

※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Assy Sump	      	**Preparation:** * Disassemble the baskets, nozzles, duct nozzle & storm wash nozzle. * Disassemble the frame left & the shutter & bracket front lower. - Refer the each disassembly section. 1. Remove the parts which are connected with Assy sump. - connectors, drain pump, screws 2. Remove the three (3) screws & holders in Assy sump. Pull out the holder outside using long-nose pressing the hook using driver. 3. Push the Assy sump using your hands toward the inside carefully. ⚠ **Caution** Make sure to remove remain water in the dishwasher. If not, wet the floor. 

※ Reassembly is in the reverse order of the removal.

Part	Photo	Description
Base	  	**Preparation:** * Disassemble the frame L/R and the shutter. - Refer the each disassembly section. 1. Remove the six (6) screws of the base plate both-side. (in Red circle) 2. Lay down the dishwasher on its back carefully. 3. Remove the cover PCB and pull out case PCB with disconnecting wire connectors. 4. Disconnect the wire connectors from Assy Sump. 5. Pull out the base plate to downside slightly. 6. If need, remove other parts. Ex. Main wire-harness. Hoses.

※ Reassembly is in the reverse order of the removal.

3-3. Checkpoints after Finishing a Service

1 **Check the safety device**
Check 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 authenticated, replace it with an authenticated 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, turbidity sensor, distributor motor), and the water supply/drain hoses.

7. **Check the power cable**
Check if there is any damage to the power cable 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 flat and stable.

Memo

4. Troubleshooting

4-1. Information code

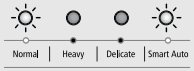
4-2-1. DMT800 & DMT700 series

CODE SYMBOL	Meaning	Occurring condition	Expected condition
tE	Temperature sensor Error	When 0.2V or below, or 4.5V or above is maintained for over 3 seconds.	Thermistor terminal not connected. Possible defect : Thermistor , Main PBA.
HE	Heater Error	When the temperature change is 4˚C or less within the first 10 minutes after the heating starts.	Heater terminal not connected. Possible defect : Main Wire-Harness, Heater, Main PBA.
1E	High temperature Heating error.	When the temperature of the Thermistor is 80˚C or above for more than 3 seconds.	Water supply temperature of 80˚C or above. Possible defect : Thermistor , Main PBA.
9E	Low-level water error	1.When high level sensor is not detected after water supply was done, drain & refill the water. After then, if high level sensor is not detected again, this error is occurred. 2.When low level sensor is detected over 5 seconds during wash operation, this error is occurred.	Water-level sensor terminal is not connected. Possible defect : Assy case sensor, Water Level Sensor , Main PBA.
PE	Half load function error	When micro s/w is not detected for over 30 seconds after the Distributor motor starts.	Distributor motor defect. Micro SW terminal is not connected. Main PBA defect.
4E	Water supply error	1. When the pulse of 100 or less is detected even 73 seconds after the water supply. 2. When flow meter pulse is 5 or less for 13 seconds after the water supply starts. 3. When the water supply does not complete 6 minutes after the water supply starts.	Alien particles within water supply valve. Water supply valve terminal not connected. Possible defect : Main PBA, Water supply valve , Flow Meter.
3E	High temperature Water supply error	When 80˚C or above is detected during water supply	Water supply temperature is 80˚C or above. Possible defect : Thermistor, Main PBA.
5E	Drain error	When OFF status of Low Level S/W is not detected within 3 minutes during the drain.	Alien particles are clogging in drain hose. Drain pump terminal is not connected. Possible defect : Drain pump, Water-level sensor , Main PBA.
oE	Over-level water error	When overflow detection AD data is 3.5V or below for 3 seconds (When leakage sensor detects 3.5V or below for 1 seconds during water supply)	Alien particles within water supply valve. Case Sensor part breakdown. Possible defect : Flow Meter, Main PBA, Water supply valve.
LE	Leakage	When leakage sensor detects 3.5V or below for 1 seconds	Possible defect : Each hose connection , Sump and Tub assembly, Drain Pump assembly , Main PBA.
bE	Button error	When the button is pressed continuously for over 30 seconds.	Possible defect : Sub PBA in control panel, Main PBA.
dE	Door open warning	When door is open in washing period.	Door is not closed properly in test mode only. Possible defect : Door lock switch, Main PBA.

4. Troubleshooting

4-1. Information code

4-2-2. DMT400 series

CODE SYMBOL	Meaning	Occurring condition	Expected condition
	Temperature Sensor error	When 0.2V or below, or 4.5V or above is maintained for over 3 seconds.	Thermistor terminal not connected Possible defect : Thermistor , Main PBA
	Heater error	When the temperature change is 4˚C or less within the first 10 minutes after the heating starts.	Heater terminal not connected Possible defect : Main Wire-Harness, Heater, Main PBA
	High temperature Heating error.	When the temperature of the Thermistor is 80˚C or above for more than 3 seconds.	Water supply temperature of 80˚C or above. Possible defect : Thermistor , Main PBA.
	Low-level water error	1.When high level sensor is not detected after water supply was done, drain & refill the water. After then, if high level sensor is not detected again, this error is occurred. 2.When low level sensor is detected over 5 seconds during wash operation, this error is occurred.	Water-level sensor terminal is not connected. Possible defect : Assy case sensor, Water Level Sensor, Main PBA.
	Water supply error	1. When the pulse of 100 or less is detected even 73 seconds after the water supply. 2. When flow meter pulse is 5 or less for 13 seconds after the water supply starts. 3. When the water supply does not complete 6 minutes after the water supply starts.	Alien particles within water supply valve. Water supply valve terminal not connected. Possible defect : Main PBA, Water supply valve , Flow Meter.
	High temperature Water supply error	When 80˚C or above is detected during water supply .	Water supply temperature is 80˚C or above. Possible defect : Thermistor, Main PBA.
	Drain error	When OFF status of Low Level S/W is not detected within 3 minutes during the drain.	Case Sensor part breakdown. Possible defect : Flow Meter, Main PBA, Water supply valve. Possible defect : Drain pump, Water-level sensor , Main PBA.
	Over-level water error	When overflow detection AD data is 3.5V or below for 3 seconds. (When leakage sensor detects 3.5V or below for 1 seconds during water supply).	Case Sensor part breakdown. Possible defect : Flow Meter, Main PBA, Water supply valve
	Leakage error	When leakage sensor detects 3.5V or below for 1 seconds.	Possible defect : Each hose connection, Sump and Tub assembly, Drain Pump assembly , Main PBA.
	Button error	When the button is pressed continuously for over 10 seconds.	Possible defect : Sub PBA in control panel, Main PBA.
	Door open warnning	When door is open in washing period.	Door is not closed properly in test mode only. Possible defect : Door lock switch, Main PBA.

4-2. Service Inspection Mode

4-2-1. DMT800 & DMT700 series

- Press the ‘Heavy’ + ‘Delicate’ + ‘Power’ buttons at the same time for two seconds to enter Service Inspection Mode.
- All LEDs are displayed for the first two seconds and then Software-Ver. will be indicated.
- You can change the mode by pressing the Normal button again. If press the Normal button in this mode, the mode will be changed to next mode.
- If you want to activate a mode while operating the dishwasher, the door must be closed.
- If ‘LE’ , ‘OE’, ‘tE’ error occur, enter Service Inspection Mode after resolving it.
- Service Inspection Mode is described in the following table.

Mode	Display	Related Parts	Symptoms	Note
No.1	Ft	Drain pump Inlet Valve Flow Meter Water-level sensor Turbidity	Door open warning Water supply Error Low level water Error Turbidity Error	If Door is open, Door open warning (dE) will blink. If low level sensor is not detected, Drain is executed. Water supply will be executed when low level sensor is detected. If water is not fully supplied(sensing on flow-meter), the Water Supply Error (4E) will blink. When High level sensor is not detected after water supply was done, Low-level water error (9E) will blink. When Turbidity problem is occurred after water supply was done, Turbidity Error (AE) will blink. If all functions in this mode are completed, ‘Ft’ and ‘3.6~3.9’ will blink.
No.2	Lc	Circulation Motor	A nozzle does not inject water.	If Low Level sensor is detected before Circulation Motor is operating, ‘LL’ and ‘Lc’ will blink. When water is filled enough, Circulation Motor -2(190W) will be operated.
No.3	Ld	Circulation Motor	A nozzle does not inject water.	If Low Level sensor is detected before Circulation Motor is operating, ‘LL’ and ‘Ld’ will blink. When water is filled enough, Circulation Motor- 1(150W) will be operated.
No.4	Hd	Circulation Motor Heater Thermistor Dispenser	Heater Error	If Low Level sensor is detected before Circulation Motor is operating, ‘LL’ and ‘Hd’ will blink. When water is filled enough, Circulation Motor 1(150W) and Heater will be operated. ‘Temperature[˚C]’ and ‘Hd’ will blink. When the temperature meet 60˚C or above, the heater is turned off. If Heater or Thermistor have problems, the Heater Error (HE) will blink. Dispenser will operate during 130 seconds only one time.
No.5	SH	Half Load Motor	Half load function Error	If Low Level sensor is detected before Circulation Motor is operating, ‘LL’ and ‘SH’ will blink. When water is filled enough, Half Load Motor will be operated, and then Half load function will be operated.
No.6	SP	Half Load Motor	Storm wash function Error	If Low Level sensor is detected before Circulation Motor is operating, ‘LL’ and ‘SP’ will blink. When water is filled enough, Half Load Motor will be operated, and then Storm wash function will be operated.
No.7	dF	Dry Fan Motor Dispensor	The Dry Fan motor does not work.	Operate the Dry Fan Motor and check whether Rinse aid is filled or not. If there is not rinse aid in Dispenser, Rinse Refill lamp is ON.

Mode	Display	Related Parts	Symptoms	Note
No.8	L	Inlet valve Overflow Sensor	Over level water Error	Water is supplied until Over-level water error (oE) is blinked. If Over-level water error (oE) occurs, overflow sensor is OK.
No.9	S	Drain Pump Water-level sensor	Drain Error	Drain pump will drain until low level sensor is detected. If Low level sensor is not detected after 60 seconds, Drain Error (5E) will blink.
No.10	FL	Half Load Motor	Half load function Error	Buzzer sound is generated when the Half Load Motor is initialized to full load location, and the 'FL' will blink.
No.11	Temperature	Inlet Valve Circulation Motor Dry Fan Motor Drain Pump Heater Half Load Motor		Operate each operating part when the key is pressed. (See the below) When the 'Smart Auto' Key is pressed Water supply is On('Smart Auto' LED On) and pressed again it is Off ('Smart Auto' LED Off) When 'Heavy' Key is pressed each time, it works the Circulation Motor-1 is On ('Heavy' LED On) -> Off ('Heavy' LED Off) -> Circulation Motor-2 is On ('Heavy' LED On) -> Off ('Heavy' LED Off) -> Dry Fan Motor is On ('Heavy' LED On) -> Off ('Heavy' LED Off), Drain Pump is On ('Heavy' LED On) -> Off ('Heavy' LED Off). When 'Delicate' Key is pressed, it woks Heater On ('Delicate' LED On during 2 seconds) and Off automatically. When 'Half Load' Key is pressed Half Load Motor is On('Half Load' LED On) and pressed again it is Off('Half Load' LED Off). When a different key is pressed during individual operation of the operating part, present operating part is stopped and the applicable operation for the pressed key will start.

4-2. Service Inspection Mode

4-2-2. DMT400 series

- Press the ‘Heavy’ + ‘Delicate’ + ‘Power’ buttons at the same time for two seconds to enter Service Inspection Mode.
- All LEDs are displayed for the first two seconds and then Software-Ver. will be indicated Binary Code using LED of ‘Normal, Heavy, Delicate, Smart Auto’.
- You can change the mode by pressing the Normal button again. If press the Normal button in this mode, the mode will be changed to next mode.
- If you want to activate a mode while operating the dishwasher, the door must be closed.
- If ‘Heavy’ LED , ‘Heavy+Smart Auto’ LED, ‘Heavy+Delicate+Smart Auto’ LED error occur, enter Service Inspection Mode after resolving it.
- Service Inspection Mode is described in the following table.

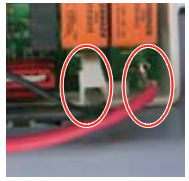
Mode	Display	Related Parts	Symptoms	Note
No.1	‘Smart Auto’ LED	Drain pump Inlet Valve Flow Meter Water-level sensor Turbidity	Door open warning Water supply Error Low level water Error Turbidity Error	If Door is open, Door open warning (‘Delicate + Smart Auto’ LED) will blink. If low level sensor is not detected, Drain is executed. Water supply will be executed when low level sensor is Off. If water is not fully supplied(sensing on flow-meter), the Water Supply Error (‘Smart Auto’ LED) will blink. When high level sensor is not detected after water supply was done, Low-level water error (‘Normal + Heavy + Smart auto’ LED) will blink. When Turbidity problem is occurred after water supply was done, Turbidity Error (‘Normal + Heavy’ LED) will blink. If all functions in this mode are completed, Wash LED will blink.
No.2	‘Delicate’ LED	Circulation Motor	A nozzle does not inject water.	If Low Level sensor is detected before Circulation Motor is operating, (‘Delicate + Sanitize’ LED) will blink. When water is filled enough, Circulation Motor -2(190W) will be operated.
No.3	‘Delicate’ + ‘Smart Auto’ LED	Circulation Motor	A nozzle does not inject water.	If Low Level sensor is detected before Circulation Motor is operating, (‘Delicate + Smart auto + Sanitize’ LED) will blink. When water is filled enough, Circulation Motor- 1(150W) will be operated.
No.4	‘Heavy’ LED	Circulation Motor Heater Thermistor Dispenser	Heater Error	If Low Level sensor is detected before Circulation Motor is operating, (‘Heavy + Sanitize’ LED) will blink. When water is filled enough, Circulation Motor 1(150W) and Heater will be operated. When the temperature meet 60˚C or above, the heater is turned off and the ‘Wash’ LED will blink. If Heater or Thermistor have problems, the Heater Error (‘Heavy + Delicate’ LED) will blink. Dispenser will operate during 130 seconds only one time.
No.5	‘Heavy’ + ‘Delicate’ + ‘Smart Auto’ LED	Dry Fan Motor Dispensor	The Dry Fan motor does not work.	Operate the Dry Fan Motor and check whether Rinse aid is filled or not. If there is not rinse aid in Dispenser, Rinse Refill lamp is ON.
No.6	‘Normal’ LED	Inlet valve Overflow Sensor	Over level water Error	Water is supplied until Over-level water error (‘Heavy + Smart Auto’ LED) is blinked. If Over-level water error occurs, overflow sensor is OK.

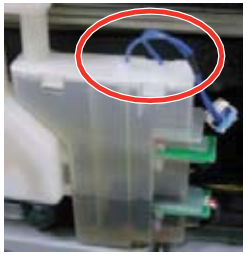
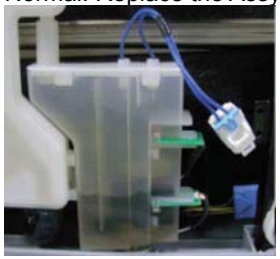
Mode	Display	Related Parts	Symptoms	Note
No.7	‘Normal’ + ‘Smart Auto’ LED	Drain Pump Water-level sensor	Drain Error	Drain pump will drain until low level sensor is detected. If Low level sensor is not detected after 60 seconds, Drain Error (‘Delicate’ LED) will blink.
No.8	‘Normal’ + ‘Delicate’ + ‘Smart Auto’ LED	Inlet Valve Circulation Motor Dry Fan Motor Drain Pump Heater		Operate each operating part when the key is pressed. (See the below) When the ‘Smart Auto’ Key is pressed Water supply is On(‘Smart Auto’ LED On) and pressed again it is Off (‘Smart Auto’ LED Off) When ‘Heavy’ Key is pressed each time, it works the Circulation Motor-1 is On (‘Heavy’ LED On) -> Off (‘Heavy’ LED Off) -> Circulation Motor-2 is On (‘Heavy’ LED On) -> Off (‘Heavy’ LED Off) -> Dry Fan Motor is On (‘Heavy’ LED On) -> Off (‘Heavy’ LED Off), Drain Pump is On (‘Heavy’ LED On) -> Off (‘Heavy’ LED Off). When ‘Delicate’ Key is pressed, it woks Heater On (‘Delicate’ LED On during 2 seconds) and Off automatically. When a different key is pressed during individual operation of the operating part, present operating part is stopped and the applicable operation for the pressed key will start.

Error Type	Error mode	Checking Method	Corrective actions
Water supply Error	4E [Or] 'Smart Auto' LED	1. Check whether the water faucet is open.	- Open the faucet.
		2. Check whether the water supply has been cut off.	- Close the faucet and turn off the power. Wait until the water supply resumes.
		3. Check whether any foreign material is in the Water Supply Line and the water Inlet Valve filter.	- Remove the foreign material. Clean the filter with a brush.
		4. Check the connection for the Inlet Valve connector.	- Reconnect the Inlet Valve connector.
		5. Check whether the coil in Inlet Valve is conductive (Remove the connector before measuring.) ➢ Normal: Approx. 1.2 kΩ	- Faulty: Replace the Inlet Valve. 
		6. Check whether the Inlet Valve is operating normally. - Check the operation of the Inlet Valve ➢ Normal: 120V - Check the Inlet Valve Relay. : Check the voltage between the yellow wire of the Main PBA CN101 connector and the brown wire of the CN202 ➢ Normal: 120V (while operating)	- Faulty: Replace the Main PBA assy. - Normal: Replace the Inlet Valve  - Remove Retainer.   - Check voltage  
		7. Check whether the water supply stops after water is supplied for 5 seconds.	- Replace the Assy Case Brake which is including Flow Meter.
		8. Check whether the water supply stops after water is supplied for 1~5 minutes.	- Check the water supply valve and increase the water pressure.
		9. Check whether the water supply stops after water is supplied fully until the floater in Assy Case sensor is located in High level sensor.	- Replace the Assy Case Sensor which is including water (high & low) level sensor.

Error type	Error mode	Checking Method	Corrective actions
High temperature Water supply error	3E [Or] 'Normal' + 'Delicate' + 'Smart Auto' LED	1. Check the hot water connections for the Inlet Valve.	- Adjust the hot water supply so that the temperate of the supplied water is less than 176˚F (80˚C)
		2. Check the operation of the Thermistor.	- See the "Temperature sensor error"..
Drain error	5E [Or] 'Delicate' LED	1. Check whether there is any foreign material in the Drain Hose.	- Remove the foreign material from the Drain Hose.
		2. Check the operation of the Water-level sensor	- See the "Low-level water error"
		3. Check the connections for the Drain Pump connector.	- Reconnect the Drain Pump connector.
		4. Check whether the Drain Pump coil is conductive. (Remove the connector before measuring.) ➢ Normal: Approx. 25Ω	- Faulty: Replace the Drain Pump.
		5. Check the operation of the Drain Pump Relay : Check the operating voltage between the yellow wire of the Main PBA CN101 connector and the orange wire of the CN202 connector. ➢ Normal: 120V (while operating)	- Faulty: Replace the Main PBA assy. - Normal: Replace the Drain Pump. - Remove retainer. - Check voltage.  

<table>
<tr><th>Error type</th><th>Error mode</th><th>Checking Method</th><th>Corrective actions</th></tr>
<tr><td rowspan="2">Low-level water error</td><td rowspan="2">9E
[Or]
‘Normal’ +
‘Heavy’ + ‘Smart
Auto’ LED</td><td>1. Check the connections for the Water-level sensor connectors.</td><td>- Reconnect the Water-level sensor connector.
  </td></tr>
<tr><td>- Faulty: Replace the Assy case sensor, Remove foreign material from the floater
- Normal: Replace the Main PBA assy.</td><td>- Faulty: Replace the Assy case sensor, Remove foreign material from the floater
- Normal: Replace the Main PBA assy.
  </td></tr>
<tr><td>Button error</td><td>bE
[Or]
‘Normal’ +
‘Delicate’ LED</td><td>Check whether there is condensation on the Main PBA connector (CN102)
➢ Normal: No condensation</td><td>- Faulty: Remove any condensation and moisture.
- Normal: Replace the Control Panel assy.</td></tr>
</table>

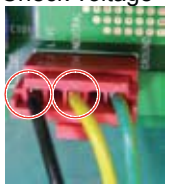
Error type	Error mode	Checking Method	Corrective actions
Half Load function Error (Only for DMT800 & DMT700 series)	PE	1. Check the connections of the Half Load motor connector.	- Reconnect the Half Load motor connector 
		2. Check the resistance between both ends of the Half Load motor. : Check the resistance between both ends of the Motor directly. ➢ Normal: Approx. 3.9kΩ	- Faulty: Replace the Half Load Motor. - Normal: Replace the Main PBA assy. 
		3. Check the movement of distributer in the Assy sump. : Refer the disassembling guide. (class 3-2)	- Faulty: Adjust or Replace the Distributor part.
Heater Error	HE [Or] 'Heavy' + 'Delicate' LED	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 amber and yellow wires of the Power Relay, respectively. ➢ Normal: Approx. 13.5Ω ✳ Check after disconnecting circuit breaker or power cable.	- Faulty: Replace the Heater. 
		3. Check the connections of the Heater Relay in Main PBA. : Check the voltage between Main PBA T101 connector and T102 connector. ➢ Normal: 120V (while operating)	- Reconnect the Heater Relay connectors. 

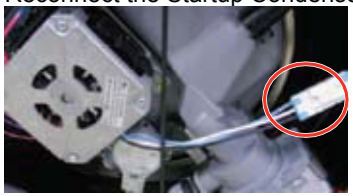
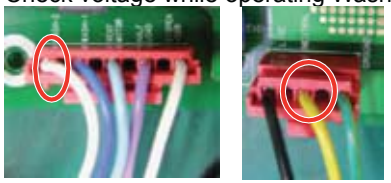
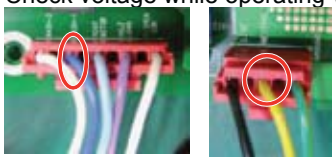
Error type	Error mode	Checking Method	Corrective actions
High Temperature Heating Error	1E [Or] 'Normal' + 'Smart Auto' LED	1. Check the hot water connections for the Inlet Valve..	- See the "Temperature Sensor Error".
		2. Check the operation of the Thermistor.	- See the "Heater Error".
Leakage Error	LE [Or] 'Heavy' LED	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. - Normal: Replace the Main PBA assy.
Over-level water error	oE [Or] 'Heavy' + 'Smart Auto' LED	1. Check the connections for the Overflow Sensor connector.	- Reconnect the Overflow Sensor connector. 
		2. Check whether the Inlet Valve operates normally.	- See "Water supply Error".
		3. Check whether water is supplied (even small amounts) in the intervals when the Inlet Valve is not operating.	- Remove foreign material from the Inlet Valve. - If you cannot remove the foreign material from the Inlet Valve, replace it.
		4. Check whether there is any trace of water leakage on the top of the Case Sensor.	- Clean the Hose-Sensor and the Case Sensor. 
		5. Check whether an "Over Level Water Error" is detected when the assy wire-harness connector for Overflow Sensor is not connected. ➢ Normal: The "Over Level Water Error" does not occur.	- Faulty: Replace the Main PBA assy - Normal: Replace the Assy case brake(flow-meter). 

<table>
<tr><th>Error type</th><th>Error mode</th><th>Checking Method</th><th>Corrective actions</th></tr>
<tr><td rowspan="2">Temperature Sensor error</td><td rowspan="2">tE
[Or]
‘Heavy’ +
‘Delicate’ +
‘Smart Auto’
LED</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 both ends of the Thermistor.
➢ Normal: 0.2 to 4.5V
- Measure the resistance between both ends of the Thermistor:
Remove the connector before measuring.
(See the Table right.)

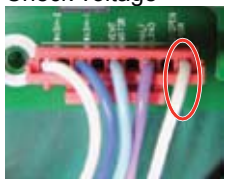
THERMISTOR TABLE
Temp. (ºC) | Temp. (˚F) | Resistance (kΩ)
5 | 41 | 125.780
10 | 50 | 98.323
15 | 59 | 77.454
20 | 68 | 61.465
25 | 77 | 49.120
30 | 86 | 39.517
35 | 95 | 31.996
40 | 104 | 26.065
45 | 113 | 21.358
50 | 122 | 17.599
55 | 131 | 14.579
60 | 140 | 12.140
65 | 149 | 10.159
70 | 158 | 8.542</td><td>- Faulty: Replace the Thermistor.
- Normal: Replace the Main PBA assy.

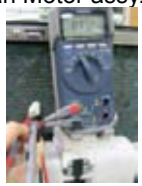
  </td></tr>
</table>

Error type	Error mode	Checking Method	Corrective actions
Power error	None	1. Check the connections for the power cable	- Reconnect the power cable.
		2. Check the voltage of the power outlet. ➢ Normal: AC 120V	- Connect to a 120V power source.
		3. Check the wires of the Main PBA power part. - Measure the voltage between the black wire and the yellow wire of CN101. ➢ Normal: AC 120V	- Faulty: Check and replace the wires of the power part. - Check voltage 
		4. Check the DC voltage of the Main PBA.	- See “Main PBA DC voltage error”.
Main-PBA DC Voltage Error	None	Check the DC voltage of the Main PBA. - Measure the voltage between pin 4 (orange) of the main PBA CN302 connector and pin 7 (pink) of the CN301 connector. ➢ Normal: 4.5V to 5.5V - Measure the voltage between pin 10 (blue) of the main PBA CN302 connector and pin 9 (white) of the CN302 connector. ➢ Normal (Power Key On): 9.5V to 12.5V ➢ Normal (Power Key Off): 5.5V to 7.0V	- Faulty: Replace the Main-PBA Assy. - Remove retainer. - Check voltage (4.5V~5.5V).   - Check voltage (9.5V~12.5V or 5.5V~7.0V)  

Error type	Error mode	Checking Method	Corrective actions
The nozzle does not inject water	None	1. Check the connections for the Circulation Motor connector.	- Reconnect the Circulation Motor connector.
		2. Check the connections for the Startup Condenser connector of the Circulation Motor.	- Reconnect the Startup Condenser connector of the Circulation Motor. 
		3. Check the resistance for the Circulation Motor coil. (Remove the connector before measuring.) - Between black wire and white wire ➢ Normal: Approx. 15 Ω - Between black wire and blue wire ➢ Normal: Approx. 21 Ω	- Faulty: Replace the Circulation Motor. 
		4. Check the operation of the Circulation Motor Relay. - At No.2 mode in service inspection mode, Check the operating voltage between the yellow wire of the CN101 connector and the white wire of the CN201 connector. ➢ Normal: 120V (while operating) - At No.3 mode in service inspection mode, Check the operating voltage between the yellow wire of the CN101 connector and the blue wire of the CN201 connector. ➢ Normal: 120V (while operating)	- Faulty: Replace the Main PBA assy. - Normal: Replace the Circulation Motor. - Remove retainer. - Check voltage while operating Wash motor-2(High)  - Check voltage while operating Wash motor-1(Low) 
		5. Check whether there is foreign material in the water passages.	- Remove foreign material from the water passages.

Error type	Error mode	Checking Method	Corrective actions
The Cycle does not start.	None	1. Check the connections for the Door Sensing Switch : Check the blue wire and the switch connected to the blue wire. ➢ Normal (Power Key On): 9.5 to 12.5V (when the door is open) ➢ Normal (Power Key Off): 5.5 to 7.0V (when the door is open) ➢ Normal : <2V (when the door is closed)	- Reconnect the Door Sensing Switch connectors  
		2. 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: OPEN (when the door is open) ➢ Normal: SHORT (when the door is closed)	- Faulty: Replace the Door Sensing Switch. - Normal: Replace the Main PBA assy.
No Washing	None	1. Check whether the nozzle injects water normally.	- See “The nozzle does not inject water”.
		2. Check the operation of the Heater.	- See “Heater Error”.

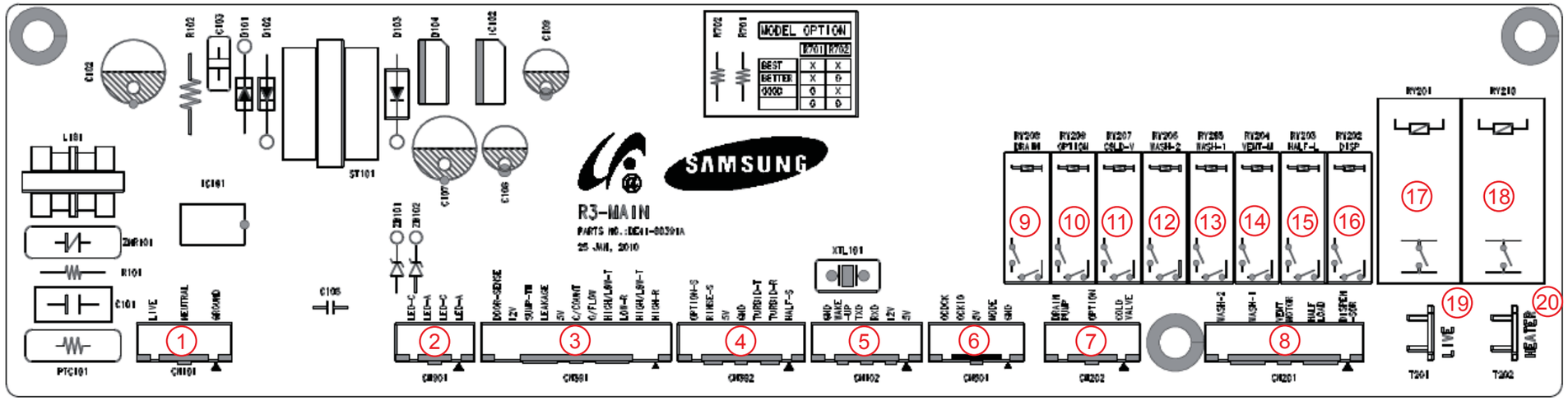
Error type	Error mode	Checking Method	Corrective actions
Detergent is not dispensed.	None	1. Check whether detergent is inserted into the dispenser.	- Check whether there is detergent in the Dispenser.
		2. Check the connections for the Dispenser connector.	- Reconnect the Dispenser connector.
		3. Check the resistance of the Dispenser. (Remove the connector before measuring.) ➢ Normal: Approx. 2.3 kΩ	- Faulty: Replace the Dispenser. 
		4. Check the operation of the Dispenser Relay. Check the operating voltage between the yellow wire of the CN101 connector and the white wire of the CN201 connector. ➢ Normal: 120V (while operating)	- Faulty: Replace the Main PBA assy. - Remove retainer - Check voltage  

Error type	Error mode	Checking Method	Corrective actions
Dry is not satisfied.	None	1. Check whether Rinse Refill LED light or not.	- If Rinse Refill LED light, refill rinse in Dispenser.
		2. Check the wire connections for the Dry Fan Motor.	- Reconnect the Dry Fan Motor connectors.
		3. Check the resistance of the Dry Fan Motor coil. (Remove the connector before measuring.) ➢ Normal: Approx. 80 Ω	- Faulty: Replace the Dry Fan Motor assy.  
		4. Check the resistance of the Thermal Actuator. (Remove the connector before measuring.) ➢ Normal: Approx. 73 Ω	- Faulty: Replace the Main PBA assy. - Check voltage 
		5. Check the operation of the Dry Fan Motor Relay : Check the operating voltage between the yellow wire of the C101 connector and the sky wire of the CN201 connector. ➢ Normal: 120V (while operating)	- Faulty: Replace the Main PBA assy. - Remove retainer. - Check voltage.  
		6. Check the operation of the dispenser. ➢ If rinse aids are not dispensed, a dry error may occur. Because the dishes are heated and heat dried during the last drying cycle, the dried state of plastic dishes may not be optimal	- See “Detergent is not dispensed”

Error type	Error mode	Checking Method	Corrective actions
LED or Input Key Fail	None	1. Check the connections for the Sub PBA connector	- Reconnect the Sub PBA connectors.
		2. Check the LED and Input Key 1) Push ‘Normal’ + ‘Heavy’ + ‘Power Key’ 2) Push ‘Normal’ Key 4 times 3) Push all key. ➢ Normal : All LED is light.	- Faulty : Replace the Sub PBA.
		3. Check the DC voltage of the Main PBA.	- See “Main PBA DC voltage error”.

5. PCB Diagram

5-1. Main PCB



No.	Location	Description
1	CN101	MAIN PBA Power (120V)
2	CN901	NC
3	CN301	Sensing (refer to next page For details)
4	CN302	Sensing (refer to next page For details)
5	CN102	Micom writer connector
6	CN501	SUB PBA connector
7	CN202	Drain pump, Inlet valve

No.	Location	Description
8	CN201	Wash Motor, Dry Fan Motor, Dispenser
9	RY208	Drain Pump Driving Relay
10	RY209	NC
11	RY207	Inlet Valve Driving Relay
12	RY206	Wash Motor-2 (High) Driving Relay
13	RY205	Wash Motor-1 (Low) Driving Relay
14	RY204	Dry Fan Motor Driving Relay

No.	Location	Description
15	RY203	Half Load Motor Driving Relay (option)
16	RY202	Dispenser Driving Relay
17	RY201	Heater-1 Driving Relay
18	RY210	Heater-2 Driving Relay
19	T201	Live conncetor
20	T202	Heater connector

5-2. New PBA- Detailed Specifi cations and Descriptions for Connectors and Relay Terminals (MAIN PBA)

▶ CN101
1) GND
2) NC
3) NEUTRAL
4) NC
5) LIVE

▶ CN301
1) HIGH-R
2) HIGH/LOW-T
3) LOW-R
4) HIGH/LOW-T
5) OVER FLOW
6) COLD COUNT
7) 5V
8) LEAKAGE
9) SUMP THERMISTOR
10) 12V
11) DOOR-SENSE

▶ CN302
1) HALF LOAD SENSE
2) TURBIDITY-R
3) TURBIDITY-T
4) GND
5) 5V
6) RINSE-SENSE
7) OPTION-SENSE

▶ CN102
1) 5V
2) 12V
3) RXD
4) TXD
5) WAKE-UP
6) GND

▶ CN501
1) GND
2) MODE
3) 5V
4) OCKIO
5) OCDCK

▶ CN202
1) COLD-VALVE
2) NC
3) OPTION
4) NC
5) DRAIN-PUMP

▶ CN201
1) DISPENSER
2) NC
3) HALF LOAD (option)
4) NC
5) Dry Fan MOTOR
6) NC
7) WASH MOTOR -1
8) NC
9) WASH MOTOR-2

▶ T201
LIVE

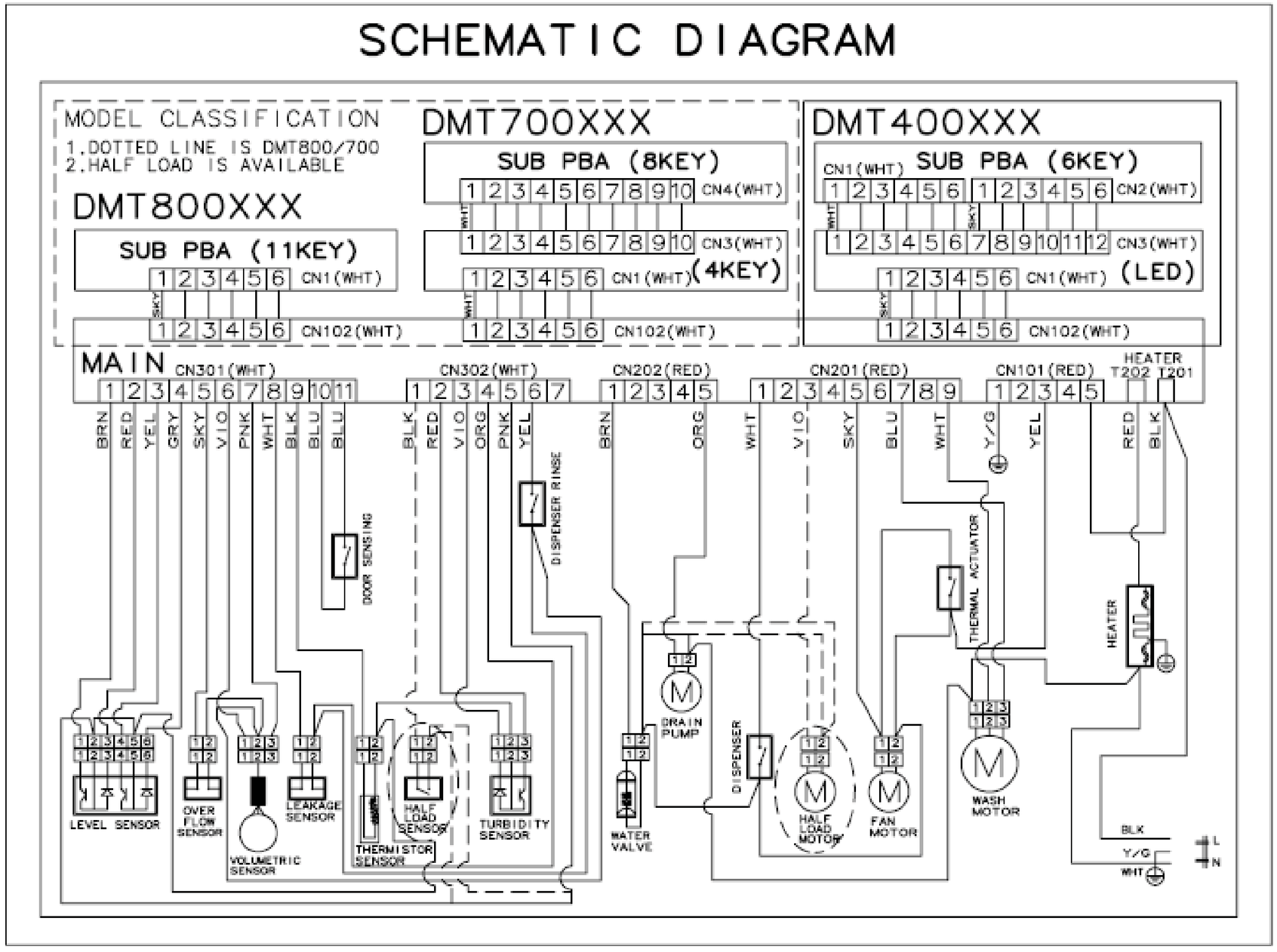
▶ T202
HEATER

6. Wiring Diag6am

6-1. Wiring Diagram

■ Reference Information

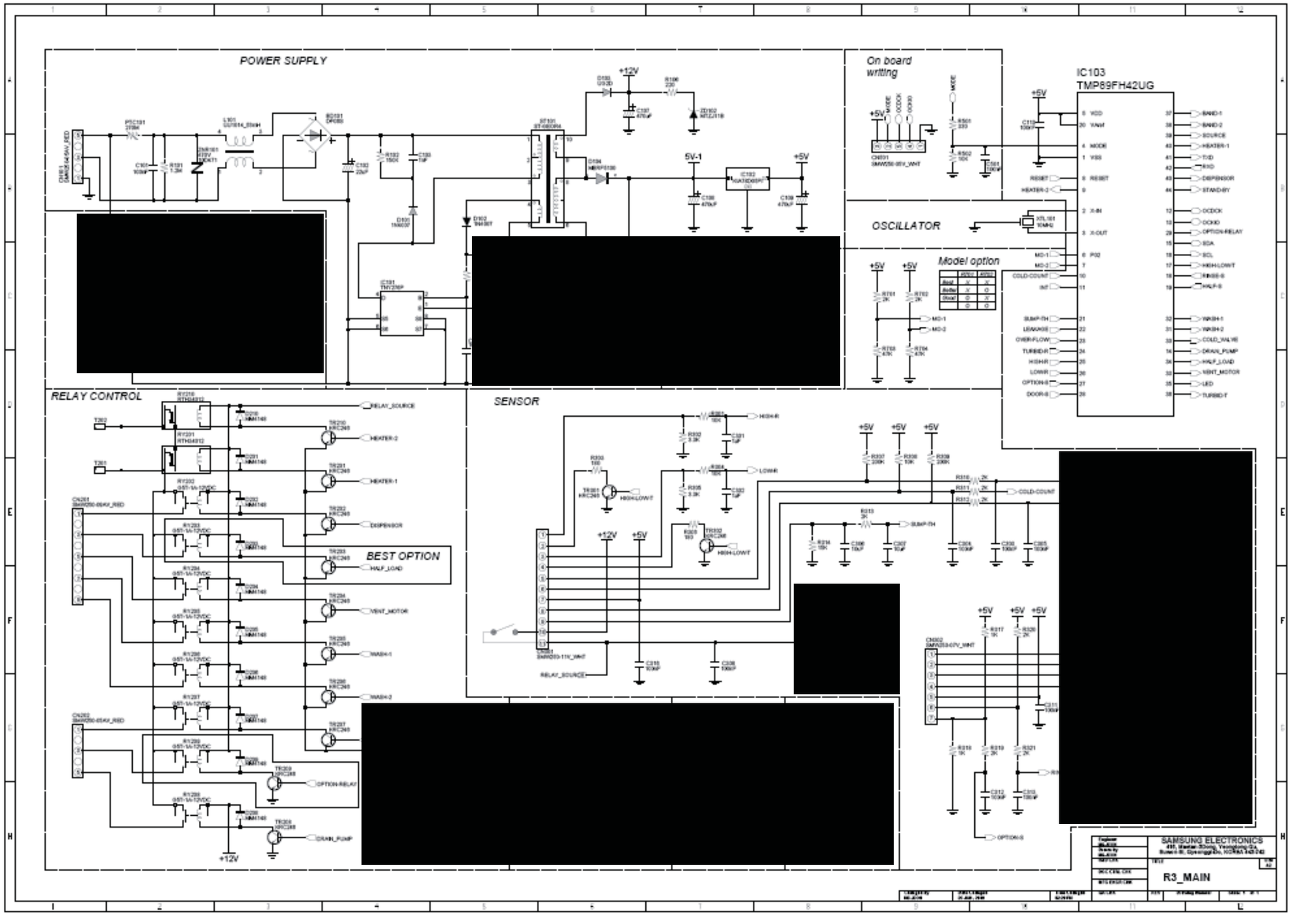
Abbreviated word	Meaning
GRY	GRAY
ORG	ORANGE
VIO	VIOLET
PNK	PINK
YEL	YELLOW
BRN	BROWN
WHT	WHITE
BLK	BLACK
RED	RED
SKY	SKY BLUE
BLU	BLUE
Y/G	YELLOW / GREEN
NTR	COLORLESS



7. Schematic Diagram

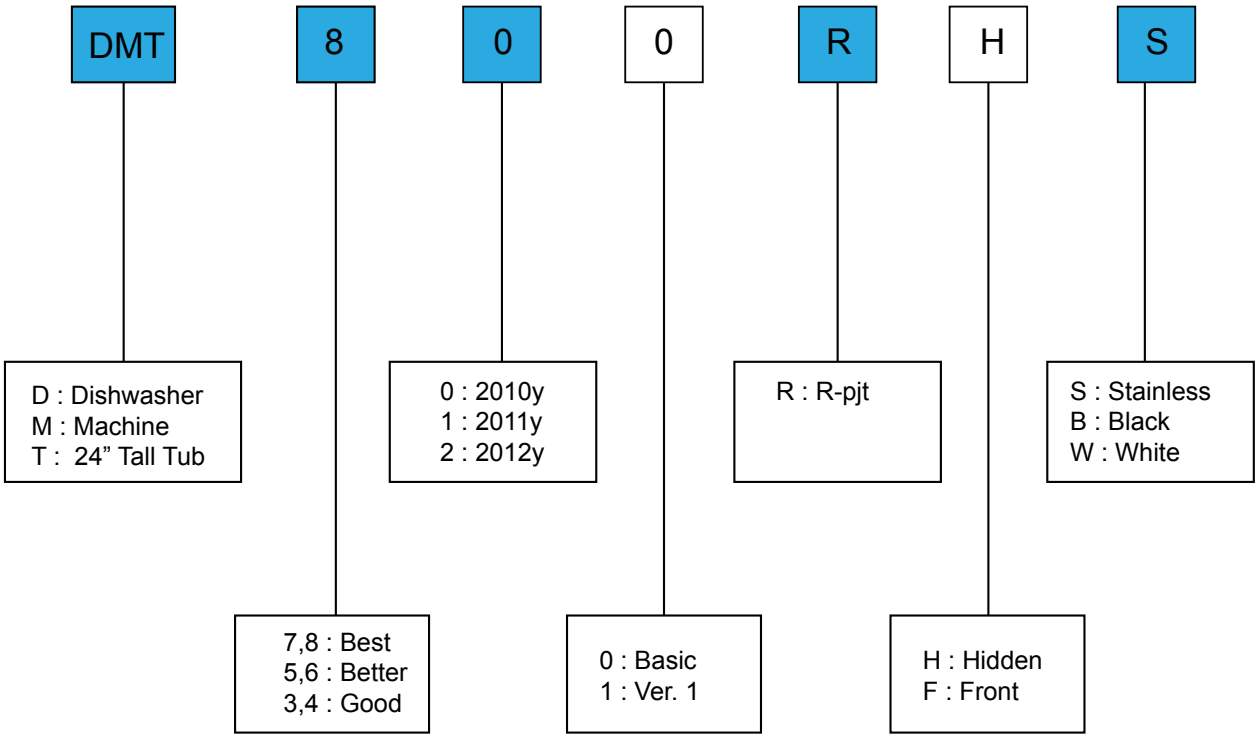
7-1. MAIN CONTROL

✳ This Document can not be used without Samsung's authorization.



8. Reference

8-1. Model Number Naming Rules



8-2. Terminology

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. Flow Meter
   ➢ 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 inside 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
    ➢ This function is used to prevent a child from operating the dishwasher while it is running.

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