WA$$ING MACHINE
SERVICE MANUAL

CAUTION
READ THIS MANUAL CAREFULLY TO DIAGNOSE TROUBLE CORRECTLY BEFORE OFFERING SERVICE.

MODEL : WD-3274RHD / WD-3276RHD
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1. SPECIFICATION

<table>
<thead>
<tr>
<th>ITEM</th>
<th>WD-3274RHD / WD-3276RHD</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER SUPPLY</td>
<td>120V~, 60Hz</td>
</tr>
<tr>
<td>PRODUCT WEIGHT</td>
<td>156 1/2 lbs. (71 kg)</td>
</tr>
<tr>
<td>ELECTRICITY CONSUMPTION</td>
<td></td>
</tr>
<tr>
<td>WASHING</td>
<td>140W</td>
</tr>
<tr>
<td>SPIN</td>
<td>300W</td>
</tr>
<tr>
<td>FAN MOTOR</td>
<td>25W</td>
</tr>
<tr>
<td>DRAIN MOTOR</td>
<td>40W</td>
</tr>
<tr>
<td>WASH HEATER</td>
<td>1000W</td>
</tr>
<tr>
<td>DRY HEATER</td>
<td>1200W</td>
</tr>
<tr>
<td>REVOLUTION SPEED</td>
<td></td>
</tr>
<tr>
<td>WASH</td>
<td>45rpm</td>
</tr>
<tr>
<td>SPIN</td>
<td>No spin/400/800/1000/1400 rpm</td>
</tr>
<tr>
<td>OPERATION WATER PRESSURE</td>
<td>4.5 ~ 145 PSI (30 ~ 1000 KPa)</td>
</tr>
<tr>
<td>CONTROL TYPE</td>
<td>Electronic</td>
</tr>
<tr>
<td>WASH CAPACITY</td>
<td>15 2/5 lbs. [7.0 kg]</td>
</tr>
<tr>
<td>DRY CAPACITY</td>
<td>8 4/5 lbs. [4.0 kg]</td>
</tr>
<tr>
<td>DIMENSION</td>
<td>23 5/8 x 23 5/8 x 33 1/2 in. (600 x 600 x 850mm)</td>
</tr>
<tr>
<td>WASH PROGRAM</td>
<td>Cotton, Perm. Press, Wool/Silk, Rinse+Spin, Sanitary</td>
</tr>
<tr>
<td>WASH/DRY PROGRAM</td>
<td>Cotton, Perm. Press, Rinse+Spin, Sanitary</td>
</tr>
<tr>
<td>OPTION</td>
<td>Dry only, Extra Rinse, Extra Wash</td>
</tr>
<tr>
<td>DOOR SWITCH TYPE</td>
<td>Bi-Metal type</td>
</tr>
<tr>
<td>WATER LEVEL</td>
<td>8 steps (by sensor)</td>
</tr>
<tr>
<td>RESERVATION</td>
<td>From 3 hours to 19 hours</td>
</tr>
<tr>
<td>SENSING OF THE LAUNDRY AMOUNT</td>
<td>Adapted</td>
</tr>
<tr>
<td>FUZZY LOGIC</td>
<td>Adapted</td>
</tr>
<tr>
<td>DISPLAY OF THE REMAINING TIME</td>
<td>Adapted</td>
</tr>
<tr>
<td>ERROR DIAGNOSIS</td>
<td>10 items</td>
</tr>
<tr>
<td>POWER AUTO OFF</td>
<td>Adapted</td>
</tr>
<tr>
<td>CHILD LOCK</td>
<td>Adapted</td>
</tr>
<tr>
<td>AUTO RESTART</td>
<td>Adapted</td>
</tr>
<tr>
<td>RAPID</td>
<td>Adapted</td>
</tr>
</tbody>
</table>
2. FEATURES & TECHNICAL EXPLANATION

2-1. FEATURES

- **Automatic process from washing to drying.**
  Automatic process from washing to drying can be selected easily.
  Washing capacity: 15 5/2 lbs. (7.0 kg)
  Drying capacity: 8 4/5 lbs. (4.0 kg)

- **More economical by Intelligent Wash System**
  Intelligent Wash System detects the amount of load and water temperature, and then determines the optimum water level and washing time to minimize energy and water consumption.

- **Direct Drive system**
  The advanced Brushless DC motor rotates the Drum directly without belt and pulley.

- **Child-Lock**
  The Child-Lock system has been developed to prevent children from pressing any button to change the program during operation.

- **Low noise speed control system**
  By sensing the amount of load and balance, automatically distributes load evenly to minimize the spinning noise level.

- **Auto Restart**
  Although the washing machine is turned off by a power failure, it restarts automatically where it stopped when power is supplied again. And it will be the same if the machine unplugged and is plugged in again.
2-2. DETERMINE WASHING TIME BY FUZZY LOGIC

To get the best washing performance optimal time is determined by sensing of water temperature, selected washing temperature and laundry amount.

2-3. WATER LEVEL CONTROL

- This model adopts a pressure sensor which can sense the water level in the tub.
- Water supply is stopped when the water level to the preset level, then the washing program proceeds.
- Spinning does not proceed until the water in the tub reduces a certain level.
3. PARTS IDENTIFICATION

Power plug
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agents or a similarly qualified person in order to avoid a hazard.

Drawer
(For detergent and fabric softener)

Control panel

Door

Drum

Lower cover

Adjustable feet

Lower cover cap

Drain hose

Drain pump filter

Drain plug

ACCESSORIES

Inlet hose (1 each)

Wrench
4. INSTALLATION

1. Before servicing ask trouble the customer, what the trouble is.
2. Check the adjustment (power supply is 120V~ remove the transit bolts....)
3. Check the troubles referring to the troubleshooting.
4. Decide service steps referring to disassembly instructions.
5. Then, service and repair.
6. After servicing, operate the appliance to see whether it works O.K or NOT.

**STANDARD INSTALLATION**

The appliance should be installed as follows.

<table>
<thead>
<tr>
<th>REMOVE THE TRANSIT BOLTS</th>
<th>INSTALL THE APPLIANCE ON FLAT AND FIRM SURFACE</th>
<th>ADJUST THE HORIZONTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Remove the transit bolts (3EA:1) with supplied spanner.</td>
<td>- Keep the transit bolts and spanner for future use.</td>
<td>- Turn the leveling feet to set the appliance horizontally.</td>
</tr>
<tr>
<td>- Insert the 3 caps provided into the hole</td>
<td></td>
<td>- The appliance goes up by rotating the feet clockwise.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The appliance come down by rotating the feet counterclockwise.</td>
</tr>
</tbody>
</table>
HOW TO CONNECT INLET HOSE

- Check that the rubber washer is inside of the valve connector.
- Connect the inlet hose firmly to prevent leak.

CONNECT DRAIN HOSE

- Make sure that the hose is not twisted.
- Avoid submerging the end of the hose.

※ The drain hose should be placed under 100cm from the floor.

CONNECT POWER PLUG

- Connect the power plug to the wall outlet.
- Avoid connecting several electric devices, it may be the cause of a fire.
TEST OPERATION

1. Preparation for washing.
   - Connect the power plug to the outlet.
   - Connect the inlet hose.

2. Press the power button.
   - In case of Coloureds program.

3. Press the Start/Pause button.

4. Check the water supply.
   - Check if water is supplied through the detergent dispenser.

5. Check automatic reverse turn.
   - Check if the drum rotates clockwise and counterclockwise.

6. Check the water heating.
   - Press the button TEMP. and the present temperature will be displayed.

7. Check drain and spin.
   - Turn off Spin and Temp after pressing the Start/Pause button and start the machine again.
   - Check drain and Spin.

8. Power off and open the door
   - Power off and then power on.
   - Check if the door can be opened after 3 minutes.

9. Water removal
   - If SVC is needed during check, remove the remaining water by pulling out the hose cap.
Option

Extra Wash
- If the laundry is heavily soiled, “Extra Wash” course is effective.
- Extra Wash is available in Sanitary, Cotton and Perm. press.

Extra Rinse
- This option can be used to add a rinse for people with sensitive skin. Selecting the Extra Rinse button is also recommended when washing heavily soiled fabrics which needs a lot of detergent, or when the wash load contains towelling fabrics that have a greater tendency to retain detergent.

Rinse hold
- If you desire to leave fabrics in the machine without spinning after rinse to prevent them wrinkling, you may select rinse hold by pressing the spin button.
- If you want to drain and spin, when Rinse Hold function is proceed, Press the Start/Pause button to cancel the Rinse Hold function and select spin speed or program. Press the Start/Pause button again to start program.
- If you want to drain only, select the no spin.
- If lamp turns on, that function has been selected.

Water temperature selector
- Press the button to select water temperature.
- The water temperature
  [WARM/COLD → WARM/WARM → HOT/COLD → TAB COLD/COLD → COLD/COLD] selected in Cotton or Perm. Press.
- [HOT/COLD] is selected for Sanitary only.
- By pressing the button while operating the washer, the present temperature is displayed.

Child - lock
- Child Lock system can be set and canceled by pressing both [SPIN] and [TIME DELAY] button simultaneously.
- Once Child Lock is set, all button are inoperable.
- Child Lock system can be set anytime even during Power-off and operation.
- It is automatically cancelled when an operational error occur.
**LED display**
- It displays the remaining time (Hour : Minute) to finish.
- In case of abnormal operation, error indications are displayed. 
  (IE, OE, UE, dE, LE, FE, PE, LE, dHE, CE)
- See troubleshooting guide.

**Wash & Wash/Dry program selector**
- 9 programs can be set depending on the type of the laundry.
- By turning the program dial, Cotton→Perm. Press→Wool/Silk→Rinse+Spin→Perm. Press→Cotton→Sanitary→Sanitary
  [洗/乾] (The opposite order is possible)

**Power button**
- Press the button to turn power on and off.
- Press the button to cancel the delay finish.

**Start/Pause button**
- Use the button to start or pause wash cycle.
- The power turns off automatically 4 minutes after the pause button is pressed.

**Time Delay**
- Press the button when delayed washing is needed.
- When the button is pressed, [3:00] is displayed, maximum delay of [9:00] hours can be set.
- Each press advances time delay by the hour.
- Use [POWER] button to cancel [TIME DELAY].
- [TIME DELAY] means the time required from the present to the completion of washing.

**Dry Selector**
- Dry programs can be selected by pressing the [DRY] button.
- By pressing the button, [AUTO DRY → TIME DRY(30/60/150)] can be selected.
6. WIRING DIAGRAM / PROGRAM CHART

PRGRAM CHART (KGD2-PJT)

*(   ) : Wash/Dry

* Water Supply : W•S / Intermittent Spin : I•S / Distangle : D•T

CYCLE

<table>
<thead>
<tr>
<th>Washing</th>
<th>Main</th>
<th>Normal</th>
<th>Rinse+</th>
<th>Spin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Watering</td>
<td>Wash</td>
<td>Drain</td>
<td>1-Spin</td>
<td>1-Watering</td>
</tr>
<tr>
<td>1-Watering</td>
<td>2-Spin</td>
<td>Drain</td>
<td>2-Watering</td>
<td>2-Spin</td>
</tr>
<tr>
<td>2-Watering</td>
<td>3-Spin</td>
<td>Drain</td>
<td>3-Watering</td>
<td>3-Spin</td>
</tr>
<tr>
<td>3-Watering</td>
<td>4-Spin</td>
<td>Drain</td>
<td>4-Watering</td>
<td>4-Spin</td>
</tr>
</tbody>
</table>

| TIME (sec) | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 | 12 0 | 24 0 |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cotton     | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    |
| Perm. Press.| X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    |
| Sanitary   | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    |
| Wool/Silk  | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    |
| Rinse+Spin | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    |
| Spin       | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    |

* Basic Cycle
* Optional Cycle
* Pre-Setting Time : Water Supply - 120 sec.
  Drain - 60 sec.

About 1:22(4:31)
About 1:17(4:25)
About 1:37(4:46)
About 56
About 32
About 12

* Basic time is minute in washing chart
* The actual program time can be varied with the load amount.
7. TROUBLESHOOTING

7-1. BEFORE PERFORMING SERVICE

- Be careful of electric shock or disconnecting the parts while trouble shooting.
- Voltage of each terminal in 120V~ and DC while applying an electric current.

7-2. QC TEST MODE.

- Pressing SPIN, and TEMP. button simultaneously.
- Power supply ON with pressing upper two button. Then buzzer sound twice.
- Press the START/PAUSE button as follows.
  [Press the START/PAUSE button more 4 times until stop spinning]

<table>
<thead>
<tr>
<th>Pressing number of [START/PAUSE] button</th>
<th>Checking Point</th>
<th>Display Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>All lamps turn on</td>
<td>:8:35</td>
</tr>
<tr>
<td>1 time</td>
<td>Clockwise spin (right)</td>
<td>Drum rpm (About 40~52)</td>
</tr>
<tr>
<td>2 times</td>
<td>Low speed Spin</td>
<td>Drum rpm (About 70~90)</td>
</tr>
<tr>
<td>3 times</td>
<td>High speed Spin</td>
<td>Drum rpm (About 110~130)</td>
</tr>
<tr>
<td>4 times</td>
<td>Inlet valve for pre-wash operation</td>
<td>Water level frequency (25~65)</td>
</tr>
<tr>
<td>5 times</td>
<td>Inlet valve for main-wash operation</td>
<td>Water level frequency (25~65)</td>
</tr>
<tr>
<td>6 times</td>
<td>Inlet valve for dry operation</td>
<td>Water level frequency (25~65)</td>
</tr>
<tr>
<td>7 times</td>
<td>Counterclockwise spin (left)</td>
<td>Drum rpm (About 40~52)</td>
</tr>
<tr>
<td>8 times</td>
<td>Heater is in operation for 3 sec.</td>
<td>Water temperature</td>
</tr>
<tr>
<td>9 times</td>
<td>Draining pump operation</td>
<td>Water level frequency</td>
</tr>
<tr>
<td>10 times</td>
<td>Dry operation for 6 minutes</td>
<td>Auto off operation after 6 minutes</td>
</tr>
</tbody>
</table>

7-3. HOW TO KNOW THE WATER LEVEL FREQUENCY

* Press the OPTION and TEMP. button simultaneously.

![The digits means water level frequency (10^{-1} kHz)]

\[ \text{ex) 241 : Water level frequency} = 241 \times 10^{-1} \text{kHz} = 24.1 \text{kHz} \]

7-4. HOW TO KNOW TO TEMPERATURE OF EACH THERMISTOR AT OPERATING CONDITION.

- Thermistor in tub : Press the [WATER TEMP.] button.
- Thermistor in dry duct : Press the [DRY] button.
- Thermistor in condensing duct : Press the [SPIN] and [DRY] button simultaneously.
7-5. ERROR DISPLAY.

- If you press the START/PAUSE button when an error is displayed, any error except [PE] will disappear and the machine will change into pause status.
- In case of [PE], [EE], or [dE] if the error is not resolved within 20 sec., the in case of other errors, if the error is not resolved within 4 min., power will be turned off automatically and the error code will blink. But in the case of [FE], power will not be turned off.

<table>
<thead>
<tr>
<th>ERROR</th>
<th>SYMPTOM</th>
<th>CAUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER INLET ERROR</td>
<td>![1E]</td>
<td>• Not reached to the water level (2 level) within 4 minutes after water supplied or not reached to the preset water level within 25 minutes.</td>
</tr>
<tr>
<td>DRAIN ERROR</td>
<td>![0E]</td>
<td>• Not fully drained within 5 minutes.</td>
</tr>
<tr>
<td>OVERFLOW ERROR</td>
<td>![PE]</td>
<td>• Water is over flowing (over 8 level).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If [PE] is displayed, drain pump operates to drain water automatically.</td>
</tr>
<tr>
<td>SENSOR PRESSURE S/W ERROR</td>
<td>![PE]</td>
<td>• The sensor pressure switch is out of order.</td>
</tr>
<tr>
<td>DOOR OPEN ERROR</td>
<td>![dE]</td>
<td>• In case of operating the reservation function or the other function with door opened. Close the door, then the error display is resolved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The door switch is out of order.</td>
</tr>
<tr>
<td>IMBALANCE ERROR</td>
<td>![UE]</td>
<td>• The appliance is tilted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Laundry is gathered to one side.</td>
</tr>
<tr>
<td>HEATING ERROR</td>
<td>![dE]</td>
<td>• The THERMISTOR is out of order.</td>
</tr>
<tr>
<td>ERROR</td>
<td>SYMPTOM</td>
<td>CAUSE</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 8 CURRENT ERROR | ![CE] | • MAIN PWB ASSEMBLY is out of order  
[Replace the MAIN PWB ASSEMBLY]  
• Winding in the STATOR ASSEMBLY is short-circuited.  
[Replace the STATOR ASSEMBLY]  
• CE is displayed during a high spin  
[Replace the LEAD WIRE ASSEMBLY (MOTOR)] |
| 9 MOTOR ERROR | ![LE] | • The connector in the LEAD WIRE ASSEMBLY is not connected to the connector of STATOR ASSEMBLY  
[Replace the LEAD WIRE ASSEMBLY (MOTOR)]  
• The hall sensor is out of order/defective.  
[Replace the STATOR ASSEMBLY] |
| 10 DRY HEATER ERROR | ![DH] | • The Dry Heater is out of order  
[Replace the Dry Heater]  
• The Connector of the Dry Heater is not connected properly to the connector in the Main PWB ASSEMBLY  
[Replace the Dry Heater]  
• The Dry fan motor is out of order  
[Replace the fan Motor] |
## 8. ERROR DIAGNOSIS AND CHECK LIST

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>GUIDE FOR SERVICE CALL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Power</strong></td>
<td>Is the power plug connected firmly to 120V~ outlet?</td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td>Power failure? or Breaker opened? Is the outlet controlled by a switch?</td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td></td>
<td>Visit to check</td>
</tr>
<tr>
<td><strong>Water inlet trouble</strong></td>
<td>Is displayed?</td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td>Is the tap opened?</td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td>Is the tap frozen?</td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td></td>
<td>Is the water supply shut-off?</td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td></td>
<td>Is filter in the inlet valve clogged with foreign material?</td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td>Clean the filter of inlet valve</td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td></td>
<td>Visit to check</td>
</tr>
</tbody>
</table>
## SYMPTOM
- Door does not open
- Error displayed on the program

### GUIDE FOR SERVICE CALL

<table>
<thead>
<tr>
<th>Question</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you press the START/PAUSE button when the door is open?</td>
<td>Yes → Error displayed on the program NO → Visit to check Close the door Check if the door switch is O-K.</td>
</tr>
<tr>
<td>Is the debris filter clogged with foreign material such as pins, coins, etc?</td>
<td>Yes → Clean up the filter NO → Visit to check</td>
</tr>
<tr>
<td>Is the drain hose frozen with water, kinked, or crushed?</td>
<td>Yes → Visit to check</td>
</tr>
</tbody>
</table>

### SYMPTOM
- Drain Trouble

<table>
<thead>
<tr>
<th>Question</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is $OE$ displayed?</td>
<td>Yes → Is the debris filter clogged with foreign material such as pins, coins, etc? NO → Is the drain hose frozen with water, kinked, or crushed?</td>
</tr>
<tr>
<td>Clean up the filter.</td>
<td></td>
</tr>
<tr>
<td>Visit to check</td>
<td></td>
</tr>
</tbody>
</table>
### SYMPTOM
- Suds overflow from the appliance.
  (In this condition, wash and spin do not operate normally)

### GUIDE FOR SERVICE CALL

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SYMPTOM</strong></td>
<td><strong>GUIDE FOR SERVICE CALL</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| * Suds overflow from the appliance. (In this condition, wash and spin do not operate normally) | Is low-sudsing detergent for the drum washing machine used?  
  **YES**  
  Is the proper amount of detergent used as recommended?  
  **YES**  
  Recommend to reduce the amount of detergent. |
|   |   |
| * No effect of softener | Is softener put in the correct compartment of the drawer?  
  **YES**  
  Is the drawer closed during wash?  
  **YES**  
  Is the softener cap clogged?  
  **YES**  
  Explain how to use softener  
  Clean the compartment for softener |

- This appliance has the automatic suds sensing function which operates under much suds condition for good rinse and preventing overflow.
- When much suds are sensed, the suds removing function such as drain, water input, pause will operate without rotating the drum.
1. Be careful of electric shock or disconnecting the parts while trouble shooting.
2. First of all, check the connection of each part terminal with wiring diagram.
3. If you replace the MAIN PWB ASSEMBLY, Put in the connectors correctly.

NO POWER

When measuring the voltage of the outlet, is the voltage AC 120V?

Check the fuse?

Is the led (1) on?

Replace MAIN PWB ASSEMBLY

Is connector (2) disconnected or disassembled?

Reconnect the PWB ASSEMBLY

Is wire of the PWB ASSEMBLY disconnected?

Reconnect the PWB ASSEMBLY

Replace PWB ASSEMBLY
**NO WATER SUPPLY**

- Is water supply shut-off? **NO**

- Is the tap opened? **YES**
  - When you press both \textit{RINSE} button and \textit{SPIN} button simultaneously, is the water level frequency below 240? **YES**
    - Check the \textit{AIR CHAMBER} and the tube clogged with impurity.
  - Is the inlet valve filter clogged with impurity? **YES**
    - Clean the filter.
  - Is resistance between each terminal of INLET VALVE ASSEMBLY is 2~8k\(\Omega\)? **NO**
    - Replace the INLET VALVE ASSEMBLY.

- Check the voltage of the inlet valve connector 120V~. (Refer to 7-2 QC TEST MODE) **NO**
  - Replace the MAIN PWB ASSEMBLY

**DETERGENT DOES NOT FLOW IN**

- Is water supplied? **NO**
  - Refer to ‘NO WATER SUPPLY’

- Are replaceptacles correctly connected to the terminals of the INLET VALVE ASSEMBLY? **NO**
  - Check the wiring on the dispenser.

- Is detergent put in the correct compartment of the drawer? **NO**
  - Put the detergent in the correct position
    - \textbf{LIQUID BLEACH} \[
    \begin{array}{c}
    \text{C} \\
    \text{D}
    \end{array}
    \]
    - MAIN WASH \[
    \begin{array}{c}
    \text{C} \\
    \text{D}
    \end{array}
    \]
  - Is the detergent caked or hardened? **YES**
    - Clean the drawer.
**SOFTENER DOES NOT FLOW IN**

- Is water supplied?  
  - YES  
  - NO  
  - Refer to NO WATER SUPPLY.

- Are receptacles correctly connected to the terminals of the INLET VALVE ASSEMBLY?  
  - NO  
  - Check the wiring on the dispenser.

- Is softener put in the correct compartment of the drawer?  
  - NO  
  - Put it in the correct compartment.

- Is the softener cap clogged?  
  - YES  
  - Clean the Cap and Drawer.

**ABNORMAL SOUND**

- Is the motor bolt loosened?  
  - YES  
  - Fix the bolt tightly.

- NO  

- Is there friction noise from the motor?  
  - YES  
  - Replace the STATOR ASSEMBLY or ROTOR ASSEMBLY.
HEATING WITHOUT WATER

When pressing OPTION and SPIN at the same time after draining, is the water level frequency 248 ~ 262 or more?
When pressing SPIN, DRY buttons at the same time while wash, is the water level frequency between 230 - 243 ?

Replace the S.PRESSURE SWITCH ASSEMBLY

YES

Checking voltage between two pins as press the POWER button is the voltage 120V~?

Replace the MAIN PWB ASSEMBLY

DRAIN MALFUNCTIONING

Is the drain hose twisted or frozen?

YES

Repair the DRAIN HOSE ASSEMBLY.

NO

Is the impeller of the drain pump clogged?

YES

Remove foreign material.

NO

Is the connector disconnected, disassembled?

YES

Reconnect or repair the connector

NO

Is the coil of the drain pump cut-off? (resistance of coil is 80~150Ω)

YES

Repair the DRAIN PUMP ASSEMBLY.

NO

When checking voltage between connectors (1), (2) on spinning, is the voltage 120V~ as the figure?

NO

Repair the MAIN PWB ASSEMBLY.
**WASH HEATER TROUBLE**

When checking the voltage between connector during whites washing, is the voltage 120V?

- **NO** Replace the MAIN PWB ASSY

- **YES**
  
  After power off, is the resistance of wire (RED-YELLOW) connectors between 10 Ω ~ 30 Ω?

  - **YES** Normal
  - **NO**

  After power off and the heater terminal is disconnected, is the resistance 10~30 Ω?

  - **NO** Replace the HEATER ASSEMBLY

**HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE**

When pressing WATER TEMP. during, is the displayed temperature is over 10°C higher than the selected temperature?

- **NO** Check if inlet hose is connected to a hot faucet; otherwise, replace PWB ASSEMBLY(Main)

  - **YES**

  Is the resistance between Thermistor Connectors 2.5kΩ ~ 180kΩ?

  - **NO** Replace Thermistor
  - **YES**

  When checking THERMISTOR on the tub is the THERMISTOR loosened above 2mm from the rubber?

  - **YES** Push the THERMISTOR tightly to the rubber.
SPIN TROUBLE

Option SPIN

Check on the spinning, is the frequency of the water level 248 or more. The frequency can be checked by pressing the OPTION and SPIN buttons at the same time on the program.

Option SPIN

When pressing OPTION, SPIN and POWER buttons at the same time after power off, press the START/PAUSE button 1 times, is the drum spinning at low speed?

Is it disconnected, or disassembled?

[Red:3pin (1), NA:4pin (2)]

Check the motor connector, Is the resistance of the terminal same as the figure?

Motor Terminal (1)

Resistance of terminal:

YL-YM / YM-YN / YN-YL: About 5Ω~15Ω

Replace the MAIN PWB ASSEMBLY

Door does not open

Is 「dE」 Displayed?

Check switch Assembly, Door lock connector and Main PWB ASSEMBLY (Blue, 3pin)
Disassemble the cabinet cover and condensing bellows.

Is there any foreign object in condensing bellows.

Clean the bellows

Replace the thermistor.
- 6322FR2046A : Condensing Duct
- 6322FR2046B : Dry Duct

Is the resistance of 2 thermistors on condensing duct and dry duct 2.5kΩ ~ 180kΩ (at 105°C ~ 0°C)

Replace the thermistor.
- 6322FR2046A : Condensing Duct
- 6322FR2046B : Dry Duct

Check for dry heater trouble

Check for dry fan motor trouble

Disassemble the dry fan assy and dry duct upper, and clean foreign object in duct and fan.
**DRY HEATER TROUBLE**

- After power off, is the resistance of dry heater 10 ~ 40Ω?
  - **NO**: Replace the dry heater.
  - **YES**: Is thermostat closed?
    - **NO**: Replace the thermostat.
    - **YES**: When checking voltage between connectors (①, ②) on drying, is the voltage AC 120V as the figure?
      - **NO**: Replace the PWB assy (Main)
      - **YES**: Wire color: ① - Red, ② - Blue
DRY FAN MOTOR TROUBLE

Is it disconnected, or disassembled?
- (1) - Nature, 3pin (2) - Red 6pin

YES
Reconnect or repair connector.

NO

When checking voltage between connectors (1)~(2), (2)~(3) on drying, is the voltage DC 9~15V as the figure?
- Wire color: (1) - White, (2) - Blue, (3) - Black

NO
Replace the PWB ASSEMBLY(Main)

YES

Check the motor connector, is the resistance of terminal same as the figure?
Resistance of terminal: ①-③: 2~5Ω  ②-③: 2~5Ω

NO
Replace the DRY FAN ASSEMBLY.
LOT OF VAPOR IN DRAWER WHEN DRYING

Isn’t the water supply shut-off?

NO

Is tap opened?

NO

Open the tap.

YES

Isn’t the inlet valve filter clogged with impurity?

YES

Clean the filter.

NO

Is resistance of the inlet valve terminal between 2 to 8 kΩ?

NO

Replace the inlet valve.
(5220FR2075C)

YES

Check if the voltage of each terminal of Inlet Valve is AC 120V.
(Refer to 7.TEST MODE)

NO

Replace PWB assy (Main)
9. DISASSEMBLY INSTRUCTIONS

Disassemble and repair the parts after pulling out power cord from the outlet.

CONTROL PANEL

Unscrew the 2 screws on the top plate.
The PLATE ASSEMBLY (Top) is pulled back and then upward to arrow direction.
The cover (Inner) is disassembled.

The PWB ASSEMBLY (Display) connectors are disconnected.
Pull out drawer, three screws are unscrewed.
Press two upper hooks and pull the control panel forward.

The PWB assembly (Display) is disconnected.
When 1 screws are unscrewed on the PWB insulator and the PWB assembly (Display) is disassembled from the PWB insulator.
**PWB ASSEMBLY (POWER)**

- The back cover is removed.
- Two screws are unscrewed.
- Disconnect connector from the wiring.
- Pull the PWB ASSEMBLY (Main) to arrow direction.

**DISPENSER ASSEMBLY**

- The PLATE ASSEMBLY (Top) and the cover (Inner) are disassembled.
- Pull the drawer to arrow direction.
- Two screws are unscrewed.

- The hose clamps (6EA) and the hose are disassembled.
- The ventilation bellows are disassembled on the tub.
Disconnect the wiring connector.

Remove the valve by two screws of the valve holder.

When reconnecting the connector

<table>
<thead>
<tr>
<th>VALVE</th>
<th>Color 1</th>
<th>Color 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>YL (DRY)</td>
<td>YL/BK</td>
<td>BK</td>
</tr>
<tr>
<td>YM (LIQUID BLEACH)</td>
<td>GY/WH</td>
<td>BK</td>
</tr>
<tr>
<td>YN (NORMAL-WASH)</td>
<td>WH/BK</td>
<td>BK</td>
</tr>
<tr>
<td>(HOT)</td>
<td>BL/RD</td>
<td>BK</td>
</tr>
</tbody>
</table>

Remove the lower cover to arrow direction after one screw is unscrewed.
Open the door completely.
Remove the two screws from the hinge.

Removing method of remained water

Rotate the Cap(Remaining Hose) to arrow direction.
Pull it out from hose.
First, prepare a bucket to put in the remained water.
The cabinet gasket clamp is released.
Two screws are unscrewed from the cabinet cover.

One screw is unscrewed from the lower cover.
The lower cover is disassembled by pulling out.
Three screws are unscrewed from the cabinet.

The control panel is removed.
Screw is unscrewed from the cabinet cover.
Remove tub gasket clamp by loosening the screw.

Remove dry gasket clamp by loosening the screw.

When reassembling the gasket, put the drain hole of the gasket downward, then assemble.
**PULLEY, MOTOR, DAMPER**

**¥L** Remove the back cover.

**¥M** After loosening the bolt, Rotor, pull out the rotor.

**¥L** Remove the 6 bolt from the stator.

**YM** Disconnect the 2 connectors.

**¥L** Remove the bolts at the Tub.

**YM** The Hinge (Damper) at the base is pulled off pressing on the snaps at the sharp end.

**YN** The hinge at the base is pulled off. (To arrow direction)
Remove pump outlet hose.
Remove tub pump bellows.
Remove cap (Remaining Hose).
Disconnect the wiring.
Three screws are unscrewed from the cabinet.
Remove the pump to arrow direction.

Loosen the nut.
Remove washing heater by pulling out.

**CAUTION**

When assembling the washing heater, insert the heater to heater clip on the bottom of tub.

Pull it out by holding the thermistor bracket. If holding the wire and pulling out it, it may be broken.
**DOOR HINGE ASSEMBLY**

© Two screws are unscrewed on the door and the door is disassembled.
© The cabinet cover clamp is removed and the gasket is released.
© Two screws are unscrewed on the door hinge.
© The door hinge is disassembled by pushing the door hinge arm inside the cabinet cover.

**SWITCH ASSEMBLY, DOOR LOCK**

© The cabinet cover clamp is removed and the gasket is released.
© Two screws are unscrewed.
© The door lock S/W is disconnected from the wiring connector and the strap.

**WHEN FOREIGN OBJECT STUCK BETWEEN DRUM AND TUB**

© Remove washing heater.
© Remove the foreign object (wire, coin, etc) by inserting long bar in the hole.
Remove 5 screws and dry fan assembly.
Remove 6 screws and dry duct upper.

Remove 1 screw and dry heater.
Remove thermostat.

Remove 2 screws from cabinet.

Remove clamp and condensing duct.
10. EXPLODED VIEW AND PART LIST

10-1. THE PART LIST OF CABINET ASSEMBLY

- Non-service part
- Service part
10-2 THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSEMBLY

- Non-service part
- Service part
10-4 THE EXPLODED VIEW OF DRYER

- :Non-service part
  :Service part