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<Note>

For more detail..

Please, access the Web site (LGTechAssist.com) and refer to the Article #No.

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Title : No Water Coming In (IE Error)

Major Causes can be: Water Connection, Filter Screen, Valve Issues. Not PCB.

※ **Precondition:** Items to Check first

a)Check if Water is On.
b)Check that Hose is not Kinked.
c)Check if Cold Water and Hot Water hoses are not reversed.
d)Check if Inlet Screen is clogged.
e)Open Faucet & Check water flow
f)Open Faucet & Check water flow

Step No.	Check Item	Result & SVC Action
1	Perform Test Mode for all Inlet Valve (PreWash, Main Wash, Hot Water, Steam, Bleach) Refer to Tech Sheet for Test Mode	**Result** / **SVC Action** Inlet Valve Turn On → No Issue Educate Customer Inlet Valve NOT Turn On → Go to Step 2
2	Check Inlet Valve Voltage  Check Point	**Result** / **SVC Action** 108 ~ 132 VAC → Go to Step 3 0 VAC → Replace main PCB
3	Disconnect Inlet Valve Connectors	
4	Check Inlet Valve  Check Point	**Result** / **SVC Action** 0.8-1.2 kΩ → Normal. Check for External Problem/Cause 0 Ω or Infinity(∞)Ω → Replace Inlet Valve

Title : Water Does Not Drain (OE Error)

Major Cause can be: Pump System. Not PCB.

※ **Precondition:** Items to Check first

a) Check for Loose Connections
b) Check if Drain Hose is twisted, clogged, or frozen
c) Check Drain Hose Installation (make sure Drain hose is not too high)
d) Check Drain hose is max. 96 inches high and within 5ft. Of machine

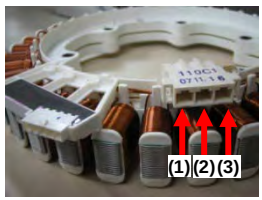
Step No.	Check Item	Result & SVC Action
1	Perform Test Mode for Drain Pump. Refer to Tech. Sheet for Test Mode	**Result** / **SVC Action** Drain Pump Turn On → No Issue Educate Customer Drain Pump NOT Turn On → Go to Step 2
2	Check Drain Pump Voltage at Check Points  Check Point	**Result** / **SVC Action** 120 VAC → Go to Step 3 0 VAC → Replace main PCB
3	Disconnect Drain Pump Connectors	
4	Check Drain Pump Resistance at Check Points	**Result** / **SVC Action** 10 ~ 20 Ω → Normal. Check for External Problem/Cause Other → Replace Drain Pump

Title : Motor Not Operating / Rotating (LE Error)

Major Cause can be: Hall Sensor. Not PCB.

※ **Precondition:** Items to Check first

a) Check for Loose Connection
b) Check to see if motor is difficult to turn by hand
c) Check if anything is preventing motor from turning (Example: clothes caught on tub or gasket)
d) Check if Motor Rotor Magnets are broken or cracked

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td colspan="2">Disconnect the Hall Sensor and Stator connector from the Motor.</td></tr>
<tr><td>2</td><td>Check Resistance of Hall Sensor at Test Points.
 
</td><td>
<table>
<tr><th>Test Points</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">(1) & (5)</td><td>8 ~ 12 kΩ</td><td>Check Test Points (2) & (5)</td></tr>
<tr><td>Other</td><td>Replace Hall Sensor</td></tr>
<tr><td rowspan="2">(2) & (5)</td><td>8 ~ 12 kΩ</td><td>Go to Step 3</td></tr>
<tr><td>Other</td><td>Replace Hall Sensor</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Check Resistance of Stator at Test Points.
 
</td><td>
<table>
<tr><th>Test Points</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">(1) & (2)</td><td>8 ~ 11 Ω</td><td>Check Test Points (1) & (3)</td></tr>
<tr><td>Other</td><td>Replace Motor</td></tr>
<tr><td rowspan="2">(1) & (3)</td><td>8 ~ 11 Ω</td><td>Check Test Points (2) & (3)</td></tr>
<tr><td>Other</td><td>Replace Motor</td></tr>
<tr><td rowspan="2">(2) & (3)</td><td>8 ~ 11 Ω</td><td>Go to Step 4</td></tr>
<tr><td>Other</td><td>Replace Motor</td></tr>
</table>
</td></tr>
<tr><td>4</td><td colspan="2">Connect Hall Sensor and Stator to Motor.</td></tr>
</table>

Title : Motor Not Operating / Rotating (LE Error)

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>5</td><td>From PCB, disconnect Hall Sensor connector and Stator connectors.

Refer to Tech Sheet for Hall Sensor and Stator Connectors</td><td></td></tr>
<tr><td>6</td><td>Check Resistance of Hall Sensor at PCB Test Points.

Refer to Tech Sheet for Hall Sensor Test Points</td><td>
<table>
<tr><th>Test Points</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">(Ha) & (GND)</td><td>8 ~ 12 kΩ</td><td>Check Test Points (Hb) & (GND)</td></tr>
<tr><td>Other</td><td>Replace Wire Harness</td></tr>
<tr><td rowspan="2">(Hb) & (GND)</td><td>8 ~ 12 kΩ</td><td>Go to Step 7</td></tr>
<tr><td>Other</td><td>Replace Wire Harness</td></tr>
</table>
</td></tr>
<tr><td>7</td><td>Check Resistance of Stator at PCB Test Points.

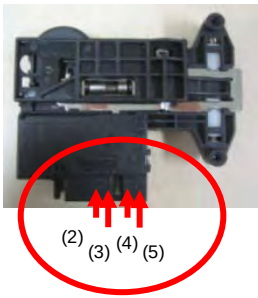
Refer to Tech Sheet for Hall Sensor Test Points</td><td>
<table>
<tr><th>Test Points</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">(U) & (V)</td><td>8 ~ 11 Ω</td><td>Check Test Points (V) & (W)</td></tr>
<tr><td>Other</td><td>Replace Harness</td></tr>
<tr><td rowspan="2">(V) & (W)</td><td>8 ~ 11 Ω</td><td>Check Test Points (U) & (W)</td></tr>
<tr><td>Other</td><td>Replace Harness</td></tr>
<tr><td rowspan="2">(U) & (W)</td><td>8 ~ 11 Ω</td><td>Replace Main PCB</td></tr>
<tr><td>Other</td><td>Replace Harness</td></tr>
</table>
</td></tr>
</table>

Title : Door Does not Open or Close (DE Error)

Major Cause can be: Door Latch. Not PCB.

※ **Precondition:** Items to Check first

a) Check for Loose Connections.
b) Check Door Installation and confirm Door is Not hanging
c) Confirm the door hook latches with door switch
d) Confirm Door Hook spring is operational

Step No.	Check Item	Result & SVC Action
1	Select Normal Cycle or Test Mode* *Refer to Tech Sheet for Test Mode	**Result** / **SVC Action** Door Locks but Does NOT Unlock → Mechanical Issue Check Switch Cycle Starts, but Door does NOT Lock → Electrical Issue Go to Step 2
2	Check if Door Switch makes clicking noise (1-3 times) when START button is pressed	**Result** / **SVC Action** Clicking Noise → Go to Step 3 No Clicking Noise → Replace PCB
3	Check Door Switch resistance at Test Points below. Test at 77ºF 	**Test Points** / **Result** / **SVC Action** (2) & (4) → 700-1500 Ω → Check Test Points (3) & (4) (2) & (4) → Other → Replace Door Switch (3) & (4) → 60-90 Ω → Check Test Points (4) & (5) (3) & (4) → Other → Replace Door Switch (4) & (5) → INFINITE / OPEN → Replace Main PCB (4) & (5) → Other → Replace Door Switch

Title : Keypad / Button / Display Not Working

※ **Precondition:** Items to Check first

a) Check for Loose Connection
b) Check if any of the Buttons are stuck in the Panel

Step No.	Check Item	Result & SVC Action
1	Check if Machine is Front Load and Power On. All other Washer Go to Step 4	**Result** / **SVC Action** Does NOT Power ON → Go to Step 2 Does Power ON → Go to Step 4
2	Spin Drum with Hands	**Result** / **SVC Action** Display Light Up → Replace Display PCB Display NOT Light Up → Go to Step 3
3	Check LED on Main PCB	**Result** / **SVC Action** LED DOES Light UP → Replace Display PCB LED Does NOT Light UP → Replace Main PCB
4	Check if sound comes from the Buzzer and the LED light turns on when selecting different Cycles	**Result** / **SVC Action** Cracked / Broken PCB → Replace Display PCB Display PCB NOT Defective → Replace Main PCB
5	Check if Display PCB cracked or broken	

Title : Water Go In or Out of Washer (PE Error)

Major Cause can be: Pressure Switch. Not PCB.

※ **Precondition:** Items to Check first

a) Check for Loose Connection
b) Check the Air Chamber
c) Check if the Tube is clogged or has water leakage
d) Check if Inlet Valve is Defective
e) Check if the Drain Pump is Defective

Step No.	Check Item	Result & SVC Action
1	Disconnect the Pressure Switch Connector	
2	Check Resistance of Pressure Switch  **Check Point**	<table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>21 ~ 23 kΩ</td><td>Replace Pressure Switch</td></tr><tr><td>Other</td><td>Replace Main PCB</td></tr></table>

Title :

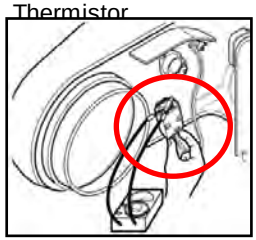
Title : Temperature is not correct (t1 / t2 Error)

Major Cause can be: Thermistor Connection. Not PCB.

※ **Precondition:** Items to Check first

a) Check for Loose Connection

b) Check that distance between igniter and flame holder is between 3~6mm (Gas Dryer Only)

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Is Dryer Gas or Electric?</td><td><table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>Gas Dryer</td><td>Go to Step 2</td></tr><tr><td>Electric Dryer</td><td>Go to Step 4</td></tr></table></td></tr>
<tr><td>2</td><td>Check if Gas Dryer produces Heat while running Normal Cycle.</td><td><table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>Heat is output</td><td>Go to Step 3</td></tr><tr><td>Heat is NOT output</td><td>Go to Step 4</td></tr></table></td></tr>
<tr><td>3</td><td>Check Gas Valve Manufacturer
Starion Kanbishi
  </td><td><table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>STARION Gas Valve</td><td>Replace with KANBISHI Gas Valve</td></tr><tr><td>KANBISHI Gas Valve</td><td>Go to Step 4</td></tr></table></td></tr>
<tr><td>4</td><td>Disconnect Thermistor
  </td><td></td></tr>
</table>

Title : Temperature is not correct (t1 / t2 Error)

Dryer

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>5</td><td>Check Resistance of Heating Thermistor.

Verify with Table 1.</td><td><table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>Resistance Value NOT Match Temperature</td><td>Replace Thermistor</td></tr><tr><td>Resistance Value Match Temperature</td><td>Go to Step 6</td></tr></table><u><Table 1></u> (R : kΩ ±30%)<table><tr><th>Temp (°F)</th><th>Resistance</th><th>Temp (°F)</th><th>Resistance</th></tr><tr><td>50</td><td>18</td><td>110</td><td>5.2</td></tr><tr><td>60</td><td>14.2</td><td>120</td><td>4.3</td></tr><tr><td>70</td><td>11.7</td><td>130</td><td>3.9</td></tr><tr><td>80</td><td>9.3</td><td>140</td><td>3.0</td></tr><tr><td>90</td><td>7.7</td><td>15</td><td>2.5</td></tr><tr><td>100</td><td>6.2</td><td>160</td><td>2.2</td></tr></table></td></tr>
<tr><td>6</td><td colspan="2">Reconnect Thermistor Connector</td></tr>
<tr><td>7</td><td colspan="2">From PCB side, disconnect Thermistor Connector

Refer to Tech Sheet for Thermistor Connector location on PCB</td></tr>
<tr><td>8</td><td>Check Resistance of Thermistor at Connector Test Points.

Refer to Tech Sheet for Hall Sensor Test Points</td><td><table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>Resistance Value NOT Match Temperature</td><td>Replace Wire Harness</td></tr><tr><td>Resistance Value Match Temperature</td><td>Replace Main PCB</td></tr></table></td></tr>
</table>

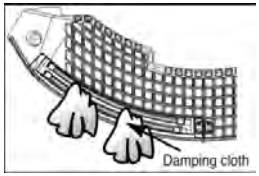
Title : Clothes are not Dry / Long Drying Time

Major Causes can be: Venting, Long Vent, Clogging. Not PCB.

※ **Precondition:** Items to Check first

a) Check for Loose Connection
b) Verify that enough clothes are in dryer to come in contact with Moisture Sensor
c) Check Dryer Function on Timed Cycle

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td colspan="2">Perform Test Mode to tumble the Dryer without Heat. Refer to Tech Sheet for Test Mode</td></tr>
<tr><td>2</td><td>Verify Moisture Sensor Operation display while touching Moisture Sensor.

CAUTION: Keep hand close to filter housing to avoid being hit by moving vanes
 
</td><td>
<table>
<tr><th>Test</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Damp Cloth to Moisture Sensor</td><td>Display Number Decrease Below 100</td><td>Remove Hand from Moisture Sensor</td></tr>
<tr><td>NOT Decrease or NOT Below 100</td><td>Replace Moisture Sensor</td></tr>
<tr><td rowspan="2">Remove Cloth from Moisture Sensor</td><td>Display Number Increase</td><td>Go to Step 3</td></tr>
<tr><td>Display Number NOT Increase</td><td>Replace Moisture Sensor</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Check if Dryer produces Heat while running Normal Cycle.</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>Heat is NOT output</td><td>Gas Dryer – Check Ignitor Condition
Electric Dryer – Check Heater Condition</td></tr>
<tr><td>Heat is Output</td><td>Replace Main PCB</td></tr>
</table>
</td></tr>
</table>

Title : Dryer Drum Won't Tumble

※ **Precondition:** Items to Check first

a) Check if anything is causing the motor to be stuck
b) Check the Belt Assembly between Idle Switch and Motor Switch
c) Check the Roller Assembly
d) Verify Dryer Load size is appropriate

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Perform Test Mode to tumble the Dryer while Door is Closed.

Refer to Tech Sheet for Test Mode</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>DE Error</td><td>Replace Door Switch</td></tr>
<tr><td>No DE Error</td><td>Go to Step 2</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Check Resistance of Door Switch</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>0 ~ 3 Ω</td><td>Replace PCB</td></tr>
<tr><td>Other</td><td>Replace Door Switch</td></tr>
</table>
</td></tr>
</table>

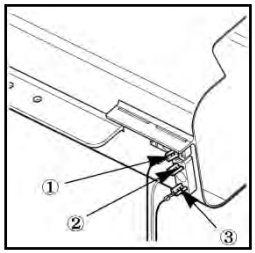
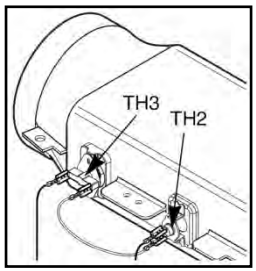
Title : Dryer does not Heat (Electric Dryer)

Major Causes can be: Exhaust is clogged, Thermostat, or Heat Element. Not PCB.

※ **Precondition:** Items to Check first

a) Check Power Check Vents for Twists, Clogs, Foreign Material
b) Check for Foreign Material in Blower
c) Check Filter installation
d) Check Correct Power Cable installation

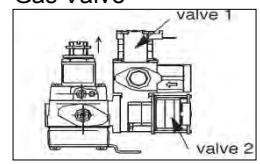
<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Disconnect Heater Wire Connector

Check Resistance at Heater Check Points
 
</td><td>
<table>
<tr><th>Test</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">① - ②</td><td>18~22 Ω</td><td>Check ① - ③</td></tr>
<tr><td>Other</td><td>Replace Heater</td></tr>
<tr><td rowspan="2">① - ③</td><td>18~22 Ω</td><td>Check ② - ③</td></tr>
<tr><td>Other</td><td>Replace Heater</td></tr>
<tr><td rowspan="2">② - ③</td><td>36~44 Ω</td><td>Go to Step 2</td></tr>
<tr><td>Other</td><td>Replace Heater</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Check TH Thermostat Check Points
 
</td><td>
<table>
<tr><th>Test</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">TH2 & TH3</td><td>Less than 1Ω</td><td>Replace Main PCB</td></tr>
<tr><td>Other</td><td>Replace Thermostat</td></tr>
</table>
</td></tr>
</table>

Title : Gas Smell / Does not Dry (Gas Dryer)

※ **Precondition:** Items to Check first

a) Check for Loose Connection
b) Check if enough voltage being provided to Dryer (over 100 VAC)
c) Check that distance between igniter and flame holder is between 3~6mm

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Check Gas Valve Manufacturer
Starion Kanbishi
 
</td><td></td></tr>
<tr><td>2</td><td>Check Gas Valve Voltage</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>Other</td><td>Replace Main PCB</td></tr>
<tr><td>Under 90 VDC</td><td>Go to Step 3</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Check Resistance of Gas Valve
 
</td><td>
<table>
<tr><th>Test</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Valve 1</td><td>Below 1.5 kΩ</td><td>Replace Valve 1</td></tr>
<tr><td>Above1.5 kΩ</td><td>Replace Main PCB</td></tr>
<tr><td rowspan="2">Valve 2</td><td>Below 1.5 kΩ</td><td>Replace Valve 1</td></tr>
<tr><td>Above1.5 kΩ</td><td>Replace Main PCB</td></tr>
</table>
</td></tr>
</table>

Title : Dishes Do Not Dry (HE Error)

Major Cause can be: Heater. Not PCB.

※ **Precondition:** Items to Check first

a) Check for Loose Connection

b) Check PCB Serial Number
Serial Number Before 909** should be replaced

Step No.	Check Item	Result & SVC Action
1	Disconnect connector for Heater in Sump Pump Check Heater Resistance at Check Points **Heater assembled in the sump**	<table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>INFINITE / OPEN</td><td>Replace Sump Heater</td></tr><tr><td>10 ~ 14 Ω</td><td>Replace Main PCB</td></tr></table>

Check Point

Title : No Water Going Out (OE Error)

Major Cause can be: Drain Pump. Not PCB.

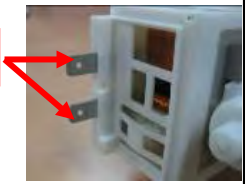
※ **Precondition:** Items to Check first

a) Check for Loose Connections

b) Check if Drain Hose is twisted, clogged, or frozen

c) Check Drain Hose Installation (make sure Drain hose is not too high)

Step No.	Check Item	Result & SVC Action
1	Perform Test Mode for Drain Pump. Refer to Tech. Sheet for Test Mode	<table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>Drain Pump Turn On</td><td>**No Issue Educate Customer**</td></tr><tr><td>Drain Pump NOT Turn On</td><td>Go to Step 2</td></tr></table>
2	Disconnect Drain Pump Connectors	
3	Check Drain Pump Resistance at Check Points Check Point	<table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>24 ~ 29 Ω</td><td>Go to Step 4</td></tr><tr><td>Other</td><td>Replace Drain Pump</td></tr></table>
4	Reconnect Drain Pump Connectors. Perform Test Mode for Drain Pump	
5	Check Drain Pump Voltage at Check Points	<table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>120 VAC</td><td>Replace Drain Pump</td></tr><tr><td>0 VAC</td><td>Replace main PCB</td></tr></table>



D/Washer

Title : Fan Motor defective

Major Causes can be: Freezer Door does not close, Freezer Fan Motor, and Cycle System. NOT PCB

※ Precondition: Items to Check first

1)Check for Loose Connection (Fan Motor housing).
2)Check if the fan housing or motor is frozen .
3)Check if Fan blade was stuck or damaged.
4)Confirm the temperature setting of the freezer.

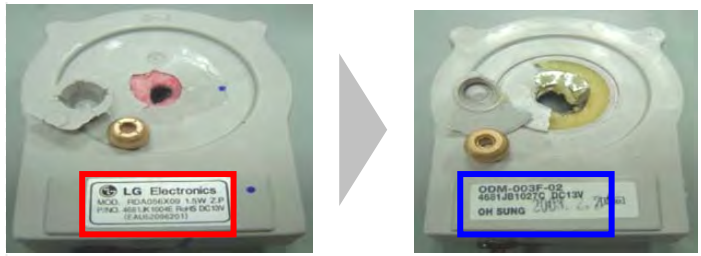
<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Check Serial Number and Maker of motor.

(See Fig.1)</td><td>
<table>
<tr><th>Part</th><th>Result</th><th>SVC Action</th></tr>
<tr><td>Serial Number</td><td>After 902**</td><td>refer to page R-11, 13</td></tr>
<tr><td>Serial Number</td><td>Before 902**</td><td>Check Motor Maker</td></tr>
<tr><td rowspan="2">Motor Maker</td><td>LG</td><td>Replace Motor & Main Board</td></tr>
<tr><td>Oh Sung</td><td>Go to Step 2</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Check Voltage Fan Motor

(See fig.2)</td><td>
<table>
<tr><th>Condition</th><th>Part</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="4">Test Mode #1</td><td rowspan="2">Ⓐ</td><td>9 ~ 16 VDC</td><td>Check Ⓑ</td></tr>
<tr><td>Other</td><td>Replace Main PCBA</td></tr>
<tr><td rowspan="2">Ⓑ</td><td>0 ~ 5 VDC</td><td>Go to Step 3</td></tr>
<tr><td>Other</td><td>Replace Main PCBA</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Check condition</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>Fan is Locked</td><td>Adjust Fan</td></tr>
<tr><td>Fan is Frozen</td><td>Remove Ice</td></tr>
<tr><td>Other</td><td>Replace Main PCBA</td></tr>
</table>
</td></tr>
</table>

FAN Motor Maker

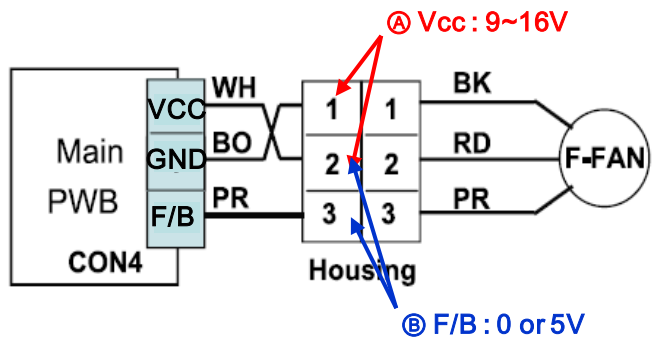
< Fig.1 >



LG　　Oh Sung

Check Point FAN Motor Voltage

< Fig.2 >

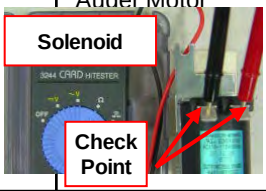


Title : ICE is Not dispensed

Major Causes can be: Auger Motor malfunction, Ice stuck, Dispenser Paddle malfunction, Cap Duct Door not open. NOT PCB

※ **Precondition:** Items to Check first

1)Check Loose connection

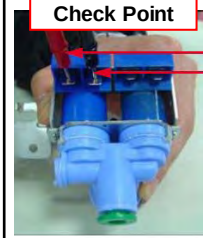
Step No.	Check Item	Result & SVC Action
1	Check Cap Duct Door	<table><tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr><tr><td rowspan="2">Push Pad & Door Close</td><td>Cap Duct Open</td><td>Check ICE is clumped , ICE Outlet is clogged , ICE Pad Stuck</td></tr><tr><td>Do Not Open</td><td>Go to Step 2</td></tr></table>
2	Check Resistance Solenoid & Auger Motor 	<table><tr><th>Part</th><th>Result</th><th>SVC Action</th></tr><tr><td rowspan="2">Solenoid</td><td>44 ~ 54 Ω</td><td>Check Auger Motor</td></tr><tr><td>Other</td><td>Replace Solenoid</td></tr><tr><td rowspan="2">Auger Motor</td><td>9.9 ~ 12.1 Ω</td><td>Go to Step 3</td></tr><tr><td>Other</td><td>Replace Auger Motor</td></tr></table>
3	Check Voltage Solenoid & Auger Motor 	<table><tr><th>Part</th><th>Result</th><th>SVC Action</th></tr><tr><td rowspan="2">Solenoid</td><td>110~120 VAC</td><td>Check Auger Motor</td></tr><tr><td>Other</td><td>Replace Dispenser PCBA</td></tr><tr><td rowspan="2">Auger Motor</td><td>9~12 VDC</td><td>Replace Display PCBA</td></tr><tr><td>Other</td><td>Replace Dispenser PCBA</td></tr></table>

Water is Not dispensed

Major Causes can be: Dispenser Paddle malfunction, Clogged Filter, Frozen Water Tank. NOT PCB

※ **Precondition:** Items to Check first

1)Check if water pipe is clogged
2)Check if water is leaking at a JOINT
3)Check Water pressure might be set too low
4)Check if water filter was installed correctly
5)Adjust the filter and retry test
6)Check if the water pad is jammed
7)Check if the micro switch works properly
8)Check if Water leaks due to a damaged 'Inlet tube'.
9)Check if the drain hose is clogged by a crushed tube
10)Check if water valve and pilot valve have a loose connection

Step No.	Check Item	Result & SVC Action
1	Check Resistance Water valve 	<table><tr><th>Part</th><th>Result</th><th>SVC Action</th></tr><tr><td rowspan="2">Pilot Water Valve</td><td>360~420 Ω</td><td>Check Dispenser Water Valve</td></tr><tr><td>Other</td><td>Replace Pilot Water Valve</td></tr><tr><td rowspan="2">Dispenser Water Valve</td><td>360~420 Ω</td><td>Go to Step 2</td></tr><tr><td>Other</td><td>Replace Dispenser Water Valve</td></tr></table>
2	Check Voltage Pilot valve & Dispenser valve Relay	<table><tr><th>Part</th><th>Result</th><th>SVC Action</th></tr><tr><td rowspan="2">Pilot Valve Relay</td><td>ON : 12VDC OFF : 0V</td><td>Check Dispenser Valve Relay</td></tr><tr><td>Other</td><td>Replace Dispenser PCBA</td></tr><tr><td rowspan="2">Dispenser Valve Relay</td><td>ON : 12VDC OFF : 0V</td><td>Check Loose Connection</td></tr><tr><td>Other</td><td>Replace Main PCBA</td></tr></table>

DIOS

Title : Ice Maker defective, No ice

Major Causes can be: Ice maker system and storage capacity, not PCB

※ **Precondition:** Items to Check first

1)Check if water pipe is clogged or frozen
2)Check if water is leaking at a joint
3)Water pressure might be set too low
4)Check if water filter was installed correctly
5)Check if the ice duct is frosted up and clear it
6)Check if the beta gasket is sealed
7)Check if the ice room door is opened or not sealed
8)Icemaker room temperature should be below 1℉
9)Check if filler arm was frozen and remove frost
10)Check if the sensor is blocked or needs cleaning
11)At least 120 minutes passed to make ice after water comes into icemaker
12)At least 24 hours has passed without a ice bin full of ice (not in case of installation)

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Check Precondition</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>Normal</td><td>Go to Step 2</td></tr>
<tr><td>Abnormal</td><td>Adjust the problem</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Check ICE Maker

※ Caution ICE Maker Type</td><td>
<table>
<tr><th>Condition</th><th>Type</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="4">Function Test</td><td rowspan="2">Heating ICE Maker</td><td>Normal</td><td>Go to Precondition</td></tr>
<tr><td>Abnormal</td><td>Replace ICE Maker</td></tr>
<tr><td rowspan="2">Twisting ICE Maker</td><td>Normal</td><td>Replace Main PCBA</td></tr>
<tr><td>Abnormal</td><td>Replace ICE Maker</td></tr>
</table>
</td></tr>
</table>

ICT Maker Function Test

Type 1. Heating Ice Maker

STAGE	ITEMS	INDICATOR	REMARKS
1	HEATER		Five seconds after heater starts, a heater will go off if the temperature by sensor is higher than 10°C
2	MOTOR		Five seconds after heater starts, you can confirm that a motor is moving.
3	HALL IC I		Check if Ice Bin is full or not. If Ice bin is full, the motor and heater are off and on stand by until Ice bin is empty.
4	HALL IC II		You can confirm HALL IC detection of start position.
5	VALVE		Two seconds after detection of start position, you can confirm that valve is on.
6	Reset	Return to Status prior to TEST MODE	Five seconds after fifth stage is completed, The icemaker resets to initial status.

DIOS

Type 2. Twisting Icemaker

Step 1) Start **Display ALL ON MODE**
Step 2) Check icemaker code

- If **Er-** is displayed,
  clumped ice is blocking the dispenser or icemaker.

- If **Er-Is** error code is displayed,
  the ice sensor is defective.

Title : Refrigerator compartment sensor defective

Major Causes can be: Damper Motor, Damper Freezing, Defrost System, Freezer Fan Motor. NOT PCB

※ Precondition: Items to Check first

1)Check Loose connection

2)Adjust Sensor position

Step No.	Check Item	Result & SVC Action
1	Check Resistance Sensor ※ Refer to the Sensor Table under here	**Condition** / **Result** / **SVC Action** Power OFF & Unplug Sensor Connection / OK / Go to Step 2 Power OFF & Unplug Sensor Connection / NG / Replace Refrigerator Sensor
2	Check Error Code	**Condition** / **Result** / **SVC Action** Reconnect Sensor Connection & Power ON / Appear rS error Code / Replace Main PCBA Reconnect Sensor Connection & Power ON / Do Not Appear Error Code / Explain to customer the unit is normal

Sensor Table

Test Point	Result	Test Point	Result
-30 ℃	129.3 kΩ	10 ℃	19.53 kΩ
-20 ℃	76.96 kΩ	20 ℃	13.03 kΩ
-10 ℃	47.34 kΩ	30 ℃	8.896 kΩ
0 ℃	30 kΩ	40 ℃	6.201 kΩ

Title : Defrost function is defective, ER-DH

Major Causes can be: Damper Motor, Damper Freezing, Defrost System, Freezer Fan Motor. NOT PCB

※ Precondition: Items to Check first

1)Check for Loose Connection

2)Check if Drain Pipe was frozen and remove the ice

3)Make sure Refrigerator temperature is below 41° F

4)If it has a serial number starting after 9**, you need to push Freezer and ICE Plus Button simultaneously to check the error code on the display. Before 9**, it displays the error code as soon as it is plugged in.

5)Plug out and in, Start Test Mode.

(SxS : Push Test Switch 2 time, 3D/4D : Push Test Switch 3 time)

Step No.	Check Item	Result & SVC Action
1	Check Resistance between ends of Fuse-M	**Result** / **SVC Action** 0 Ω / Go to Step 2 Other Value / Replace Fuse-M
2	Check Resistance between ends of Defrost Sensor	**Result** / **SVC Action** Sensor Table Value / Go to Step 2 Other Value / Replace Def Sensor
3	Check the Voltage of defrost heater RELAY on the main PCB	**Condition** / **Result** / **SVC Action** Heater ON / 110~120VAC / Check Heater OFF Heater ON / Other / Replace Main PCBA Heater OFF / 0 ~ 2 VAC / Replace Defrost Heater Heater OFF / Other / Replace Main PCBA

DIOS

Top Mount

Title : Door alarm on / Light always on

Major Causes can be:
1)Refrigerator and freezer doors do not close
2)DOOR SWITCH was pressed when door was CLOSED
3)Alignment of the Door Hinge
4)Gaskets are Torn, Ripped, Dirty

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Check DOOR
DOOR Alignment</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>Normal</td><td>Check & Adjust
Door Switch Location</td></tr>
<tr><td>Abnormal</td><td>Adjust
Door Alignment</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Check Resistance
DOOR SWITCH

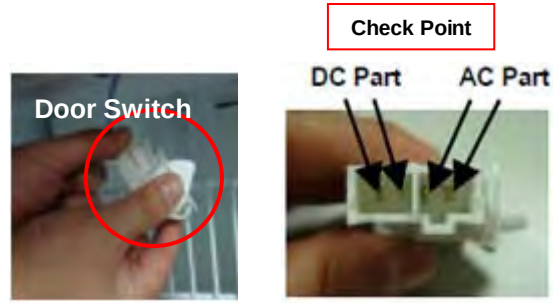
See Fig.1
  </td><td>
<table>
<tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Switch ON</td><td>0 Ω</td><td>Check
Switch OFF</td></tr>
<tr><td>Other</td><td>Replace
Door Switch</td></tr>
<tr><td rowspan="2">Switch OFF</td><td>Infinite</td><td>Go to
Step 3</td></tr>
<tr><td>Other</td><td>Replace
Door Switch</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Check Working of
DOOR LAMP

Check Door Lamp
Voltage at the
Check Points on
the PCB.

*Refer to Tech
Sheet for the Door
Lamp Check Points.</td><td>
<table>
<tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr>
<tr><td>Door
Close</td><td>0 ~ 2 VAC</td><td>Check
Door Open</td></tr>
<tr><td rowspan="2">Door
Open</td><td>110 ~ 120
VAC</td><td>Replace
Lamp</td></tr>
<tr><td>Other</td><td>Replace
Main PCB</td></tr>
</table>
</td></tr>
</table>

Door Switch

< Fig.1 >

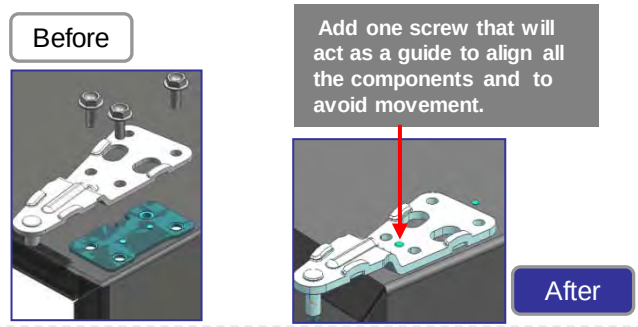


[Improvement History] Door Switch

NG Serial Number From 808MR** to 007MR**

OK Improved After July.2009

[Improvement History] Door Hinge



DIOS

Top Mount

Title : Low Cooling / Freezer Fan not working

Major Causes can be: Freezer Door does not close, Freezer Fan Motor, and Cycle System. NOT PCB

※ **Precondition:** Items to Check first

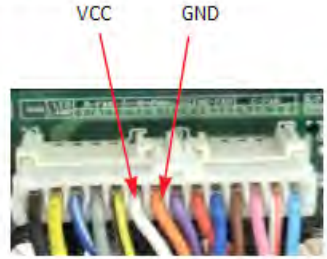
1)Check refrigerator and freezer doors do not close
2)Check if the DOOR SWITCH was pressed when door was CLOSED.
3)Adjust the alignment of the door hinge.
4)Check if the door gasket fits snugly against the case.
5)Check the connection status and fasten the fan motor housing.

Step No.	Check Item	Result & SVC Action
1	Check Fan Motor	**Result** / **SVC Action**: Working → Go to Step 2; Do Not Work → Check Fan Motor is Frozen / Check Fan Blade is Stuck
2	Check Voltage of Freezer FAN RELAY (F-FAN) (See. Check Voltage for F-FAN, Page R-12)	**Part** / **Result** / **SVC Action**: Vcc - GND: 12 ~ 16 VDC → Check GND – F/B.; Other → Replace Main PCB. GND – F/B.: 1 ~ 4 VDC → Go to Step 3; Other → Replace Main PCB
3	Check Voltage DEF Heater (See. Check Voltage for DEF Heater, Page R-14)	**Part** / **Result** / **SVC Action**: Heater ON: 110~120 VAC → Check Heater OFF; Other → Replace Main PCB. Heater OFF: 0 ~ 2 VAC → Go to Precondition; Other → Replace Main PCB

Check Voltage for F-FAN

Reset & Enter the TEST 1 MODE

Is the output voltage between VCC and GND of connector like as below?



Freezer Fan Voltages

Test Point	Result
VCC to GND	12 ~ 16 V

NO → Note: Before replacing MAIN PCB check restance of fan motor

Replace MAIN PWB (Position No : 500A or 501A)

YES

Is the feedback voltage between GND and F/B of connector like as below? (from motor to main board)

NO → Replace MAIN PWB (Position No : 500A or 501A)

Feedback Voltages

Test Point	Result
GND to F/.B	1 ~ 4 V

YES → Explain to the customer!

DIOS

Top Mount

Title : Freezer Fan not working / Frost build-up

Major Causes can be: Freezer Door does not close, Freezer Fan Motor, and Cycle System. NOT PCB

※ **Precondition:** Items to Check first

1)Check refrigerator and freezer doors do not close
2)Check if the DOOR SWITCH was pressed when door was CLOSED.
3)Adjust the alignment of the door hinge.
4)Check if the door gasket fits snugly against the case.
5)Check the connection status and fasten the fan motor housing.

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Check Sealing of DOOR GASKET</td><td>
<table>
<tr><th>Result</th><th>SVC Action</th></tr>
<tr><td>Normal</td><td>Go to Step 2</td></tr>
<tr><td>Abnormal</td><td>Fix or Replace GASKET</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Check Voltage of Freezer FAN RELAY (F-FAN)

(See. Check Voltage for F-FAN, Page R-12)</td><td>
<table>
<tr><th>Part</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Vcc - GND</td><td>12 ~ 16 VDC</td><td>Check GND – F/B.</td></tr>
<tr><td>Other</td><td>Replace Main PCB</td></tr>
<tr><td rowspan="2">GND – F/B.</td><td>1 ~ 4 VDC</td><td>Replace F-FAN Motor</td></tr>
<tr><td>Other</td><td>Replace Main PCB</td></tr>
</table>
</td></tr>
</table>

Check Voltage for DEF Heater

Enter the TEST MODE 3
Is the voltage value between DEF Heater and GND 115 V AC?

Relay Operation

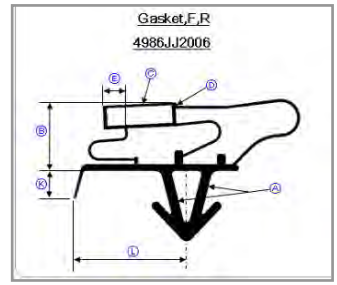
Test Point	Result
DEF to GND	115V

EXIT TEST MODE 3 (Normal) Is the voltage value between DEF Heater and GND 0 ~ 2 VAC?

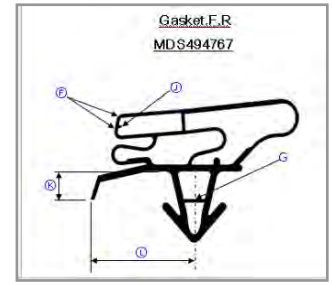
Relay Open

Test Point	Result
DEF to GND	0 ~ 2 V

[Improvement History] Door Gasket



Before



After (Nov.2009)

DIOS

Top Mount

Title : **Keypad Not Working**

Major Cause can be: Loose Connection. Not Main PCB.

※ **Precondition:** Items to Check first

1) Check for Defective Latch
2) Check if Door and Latch are aligned correctly
3) Loose Connections

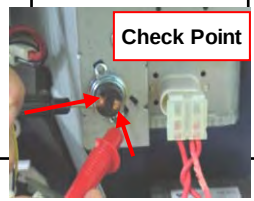
Step No.	Check Item	Result & SVC Action
1	Check ALL Keys Operate	Condition: Door CLOSE START or EZ-ON Do NOT Operate → Go to Step 2 Some Keys Operate → Replace Keypad ALL Keys Do NOT Operate → Replace Keypad
2	Check Secondary Switch Resistance 	Condition: Door OPEN Under 10 Ω → Go to Step 3 Other → Replace Secondary Switch Condition: Door CLOSE Approx. 0 Ω (short) → Go to Step 3 Other → Replace Secondary Switch
3	Check Keypad Operation	Condition: Door CLOSE Some or ALL Keys Do Not Operate → Replace Main Board

Title : **No Power**

Major Cause can be: Fuse or Loose Connection. Not Main PCB.

※ **Precondition:** Items to Check first

1)Loose Connections for Power Connection

Step No.	Check Item	Result & SVC Action
1	Push Any Key	Condition: Power ON No Sound → Go to Step 2 Sound → Replace PCBA
2	Check Fuse Resistance 	Short (0 Ω) → Go to Step 3 Open (Infinite) → Replace Fuse
3	Check Harness Connection Status 	Short (0 Ω) → Go to Step 4 Open (Infinite) → Replace Noise Filter
4	Check Thermostat Resistance 	Short (0 Ω) → Replace PCBA Open (Infinite) → Replace Thermostat

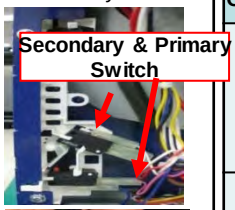
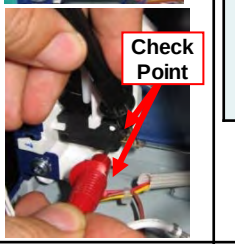
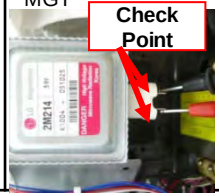
MWO

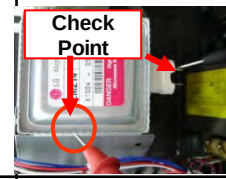
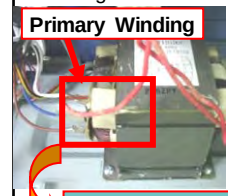
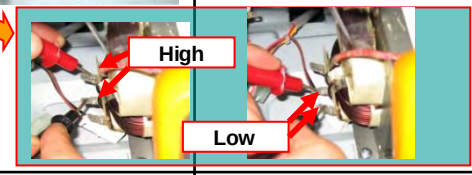
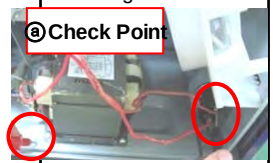
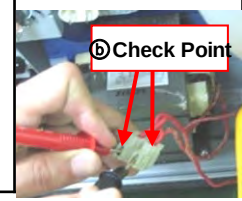
Title : **No Heat**

Major Causes can be: Magnetron, HVT, HV Capacitor, HV Diode. Not Main PCB.

※ Precondition: Items to Check first

1)Loose Connections for PCB, Relay ,MGT, HVD, HVC, Micro S/W.

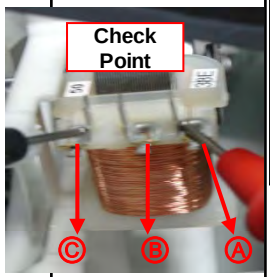
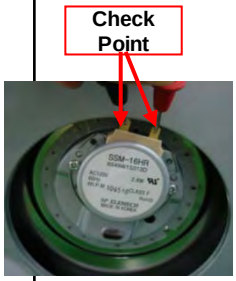
<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Check the Keys Operate</td><td>
<table>
<tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Door CLOSE</td><td>START or EZ-ON Do NOT Operate</td><td>Go to Step 2</td></tr>
<tr><td>START or EZ-ON Do Operate</td><td>Go to Step 3</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Check Resistance Secondary Switch
 
  </td><td>
<table>
<tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Door OPEN</td><td>Under 10 Ω</td><td>Adjust Switch location</td></tr>
<tr><td>Other</td><td>Replace Secondary Switch</td></tr>
<tr><td rowspan="2">Door CLOSE</td><td>Approx. 0 Ω (short)</td><td>Adjust Switch location</td></tr>
<tr><td>Other</td><td>Replace Secondary Switch</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Check Resistance MGT
  </td><td>
<table>
<tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr>
<tr><td>Power Off & Discharge</td><td>Less than 1 Ω</td><td>Go to Step 4</td></tr>
<tr><td></td><td>Any other value</td><td>Replace MGT</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>4</td><td>Check Resistance MGT
  </td><td>
<table>
<tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Power Off & Discharge</td><td>Infinite</td><td>Go to Step 5</td></tr>
<tr><td>Any other value</td><td>Replace MGT</td></tr>
</table>
</td></tr>
<tr><td>5</td><td>Check Resistance HVT Primary Winding
 
  </td><td>
<table>
<tr><th>Part</th><th>Result</th><th>SVC Action</th></tr>
<tr><td>High</td><td rowspan="2">0.2 ~ 0.5 Ω</td><td rowspan="2">Go to Step 6</td></tr>
<tr><td>Low</td></tr>
<tr><td>High</td><td rowspan="2">Any other value</td><td rowspan="2">Replace HVT</td></tr>
<tr><td>Low</td></tr>
</table>
</td></tr>
<tr><td>6</td><td>Check Resistance HVT Secondary Winding
 
  </td><td>
<table>
<tr><th>Part</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">ⓐ</td><td>50 ~ 120 Ω</td><td>Replace PCBA</td></tr>
<tr><td>Any other value</td><td>Replace HVT</td></tr>
<tr><td rowspan="2">ⓑ</td><td>0 Ω</td><td>Replace PCBA</td></tr>
<tr><td>Any other value</td><td>Replace HVT</td></tr>
</table>
</td></tr>
</table>

MWO

Title : **Will Not Work** MWO

※ **Precondition:** Items to Check first
1) Loose Connections
2) Check Defective latch
3) Replace or Adjust Primary or Secondary Micro-switch

<table>
<tr><th>Step No.</th><th>Check Item</th><th>Result & SVC Action</th></tr>
<tr><td>1</td><td>Check Resistance
Fan Motor
 
</td><td>
<table>
<tr><th>Condition</th><th colspan="2">Result</th><th>SVC Action</th></tr>
<tr><td rowspan="4">Power OFF</td><td>Ⓐ-Ⓒ</td><td>23 ~ 50</td><td rowspan="2">Go to Step 2</td></tr>
<tr><td>Ⓑ-Ⓒ</td><td>5 ~ 15 Ω</td></tr>
<tr><td>Ⓐ-Ⓒ</td><td rowspan="2">Any other value</td><td rowspan="2">Replace Fan Motor</td></tr>
<tr><td>Ⓑ-Ⓒ</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Check Resistance
Turn Table Motor
 
</td><td>
<table>
<tr><th>Condition</th><th>Result</th><th>SVC Action</th></tr>
<tr><td rowspan="2">Power OFF</td><td>2.5 ~ 3.5 k Ω</td><td>Replace PCBA</td></tr>
<tr><td>Any other value</td><td>Replace Turn Table Motor</td></tr>
</table>
</td></tr>
</table>

Title :

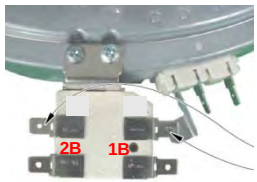
Title : **HS Indicator When Cook Top Cool**

Major Cause is from the Limiter in Element. Not Main PCB.

※ **Precondition:** Items to Check first

a) Check that Cook Top heaters are Turned Off.

b) Check Wire Harness and/or Loose Connections

Step No.	Check Item	Result & SVC Action
1	Unplug Heater Element Check Resistance of Triple Surface Heater Element at Test Points based on Cook Top Temperature 	See table below

Temp.	Result	SVC Action
Below 150°F	INFINITE / OPEN	Normal Result
	Other	Replace Heater Element
Above 150°F	SHORT / CLOSED	Normal Result
	Other	Replace Heater Element

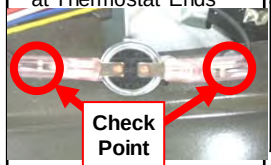
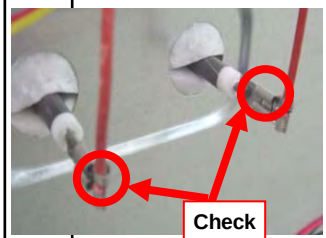
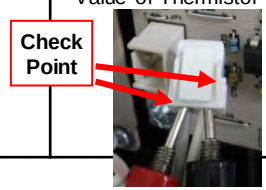
Title : **Oven Not Heating** E/Range

Major Causes can be: Connections to Bake/Broil Element and Relay PCB. Not Main PCB.

※ **Precondition:** Items to Check first

1) Check for Loose Connections at Connectors and Relays

2) Perform Check Items when Oven is at Room Temperature

Step No.	Check Item	Result & SVC Action
1	Check Resistance at Thermostat Ends 	See table below
2	Check Resistance Values of all Heater Elements 	See table below
3	Check Resistance Value of Thermistor 	See table below

Condition	Result	SVC Action
Unplug Thermostat	0 Ω (short)	Go to Step 2
	Any other value	Replace Heater Thermostat

Part	Result	SVC Action
Bake Heater	17 Ω	Check Broil Heater
	Other	Replace Bake Element
Broil Heater	14 Ω	Check Convection Heater
	Other	Replace Broil Heater
Convection Heater	17 Ω	Go to Step 3
	Other	Replace Convection Heater

Condition	Result	SVC Action
Cooling Down	About 1.09 K Ω	Replace PCBA
	Other	Replace Thermistor

E-Range

Title : **Cook Top NO Heat**

Major Causes can be: Element Failure, Loose Connection, Relay PCB. Not MAIN PCB.

※ Precondition: Items to Check first

1)Loose Connections

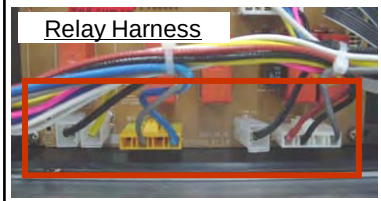
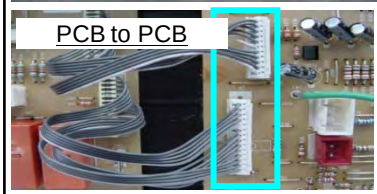
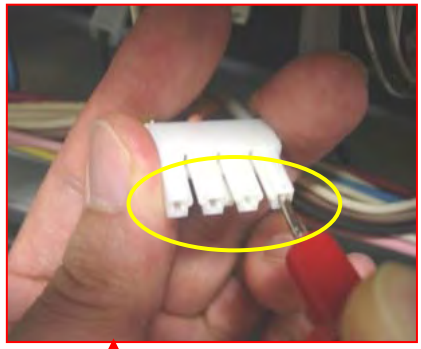
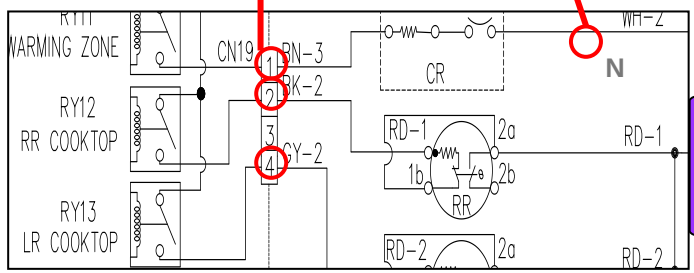
Step No.	Check Item	Result & SVC Action
1	Loose Connection	 
2	Check Resistance Radiant Heater Ⓐ. Relay PCB Connector 13 Pin 1 ↔ Neutral Pin 2 ↔ Neutral Pin 4 ↔ Neutral	**Condition** / **Result** / **SVC Action** Cooling Down Heater: About 100 Ω → Replace PCBA Cooling Down Heater: Infinite → Replace Radiant Heater

Fig. Ⓐ





E-Range

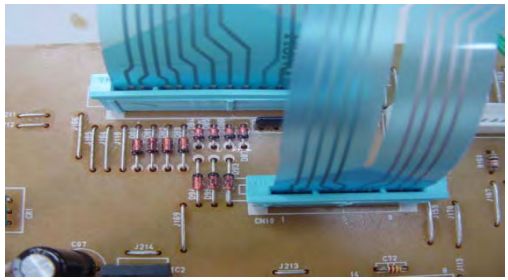
Title : **No Key Operation**

Major Causes can be: Loose Connection or Glass Touch Control Panel. Not Main PCB.

※ **Precondition:** Items to Check first

1)Loose Connections

Step No.	Check Item	Result & SVC Action
1	Loose Connection Key Pad	**Condition** / **Result** / **SVC Action** Reconnection: Normal Operation → End Reconnection: Abnormal → Go to Step 2
2	Replace Key Pad	**Condition** / **Result** / **SVC Action** Replace Key Pad: Normal Operation → End Replace Key Pad: Abnormal → Replace PCBA



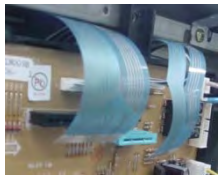
Key Pad Connection

Title : **Key Pad Shorted Error**

Major Causes can be: Loose Connection or Glass Touch Control Panel. Not Main PCB.

※ **Precondition:** Items to Check first

1) Check operation after cooling down, Keypad Short due to Heating during operation.
2) Reset Power (Plug out and in)

Step No.	Check Item	Result & SVC Action
1	Unplug Key-pad tail During **1 minute**. And reconnect. 	**Condition** / **Result** / **SVC Action** Reconnection: Normal Operation → Replace Key Pad Reconnection: Display error → Replace Main PCBA

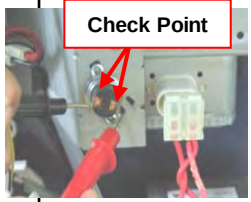
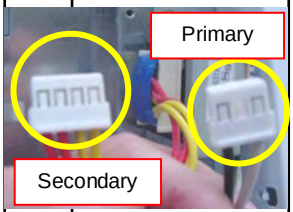
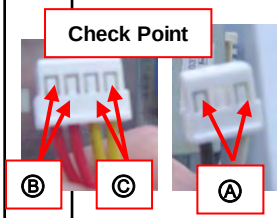
E-Range

Title : **No Power**

Major Causes can be: Power Connection, Power Cord, or LVT. Not Main PCB.

※ **Precondition:** Items to Check first

1)Loose Connections for Power Connection

Step No.	Check Item	Result & SVC Action
1	Check resistance Thermostat 	<table><tr><th>Result</th><th>SVC Action</th></tr><tr><td>Short (0 Ω)</td><td>Go to Step 2</td></tr><tr><td>Open (Infinite)</td><td>Replace Thermostat</td></tr></table>
2	Check resistance LVT (Low Voltage Transformer)  	First, Cooling Down the Oven. <table><tr><th>Part</th><th>Result</th><th>SVC Action</th></tr><tr><td rowspan="2">Ⓐ</td><td>10 ~ 99 Ω</td><td>Check Ⓑ</td></tr><tr><td>Other</td><td>Replace LVT</td></tr><tr><td rowspan="2">Ⓑ</td><td>1 ~ 9 Ω</td><td>Check Ⓒ</td></tr><tr><td>Other</td><td>Replace LVT</td></tr><tr><td rowspan="2">Ⓒ</td><td>1 ~ 9 Ω</td><td>Replace Main PCBA</td></tr><tr><td>Other</td><td>Replace LVT</td></tr></table>

Title : **Hidden Error Code Check**

■ When the oven fails during a cooking cycle,
-. Cancel the cook mode
-. In case of failure, the F-code will not display during normal operation. (Model LRE3091 series)
-. F-code logs are stored in the EEPROM.

■ Check the failure code by following these steps:
1. Press the **CLEAR** button.
2. Press the **BAKE** and **BROIL** buttons at the same time

If the oven fails, a failure code will display, as shown in FIGURE 1.

Type of F-Code Times this failure has occurred

FIG. 1

If the oven has not failed, the oven will display as shown in FIGURE 2.

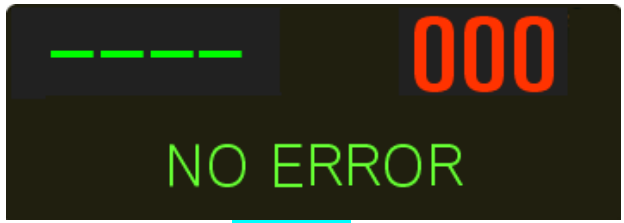


FIG. 2

NOTE:

◆ After checking for the F codes, press **CLEAR** to remove all codes.

E-Range

Title : Error Code

LRE30757 / LRE30453
(All Error codes displayed)

	Description	How to detect	Check point
F-1	**Key Short Error**	When any keys are continuously shorted for over 60 seconds.	Keypad malfunction
F-2	**Door Lock Fail**	In case of door lock failure in operating lock motor.	1. Electric wiring 2. Motor's resistance 3. Micro switch
F-3	**Open Sensor**	Oven sensor (thermistor) remains open for over 1 minute during cooking.	1. Wiring 2. Oven sensor
F-4	**Shorted Sensor**	Oven sensor (thermistor) is short for over 1 minute during cooking.	1. Wiring 2. Oven sensor
F-7	**No Heating**	While door is closed, if starting oven temperature does not exceed 150 °F and oven temperature is less than or equal to starting temperature over 5 minutes during preheating,	1. Electric wiring 2. Heater 3. Oven sensor
F-9	**Oven Hot**	The oven temperature is over 650°F continuously for 2 minutes while cooking. (except self cleaning mode)	1. Oven sensor 2. Relay

Title : Error Code

LRE3091 / LSE3092ST
LRG3097 / LRG3095 / LRG3093

	Description	Error Process	Check point
F-1	**Open Sensor**	-. Cook Clear -. Save error log	1. Wiring 2. Oven Sensor
F-2	**Shorted Sensor**	-. Cook Clear -. Save error log	1. Wiring 2. Oven Sensor
F-3	**Key Short Error**	-. **F3** Display & Cook Clear -. Save error log	1.Keypad malfunction
F-5	**Temp Probe Shorted**	-. Cook Clear -. Save error log	1. Wiring 2. Temp Probe
F-6	**Oven Hot**	-. Cook Clear -. Save error log	1. Oven Sensor 2. Relay
F-10	**Door Lock Fail**	-. Cook Clear -. Save error log	1. Electric Wiring 2. Motor Resistance 3. Micro Switch
F-11	**No Heating**	-. **F11** Display & Cook Clear -. Save error log	1. Electric Wiring 2. Heater 3. Oven Sensor