

HEAT PUMP DRYER SERVICE MANUAL

CAUTION

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

MODEL: RC9055*P*Z (RH9051WH)

RC8055*P*Z (RH8051WH) RC7055*P*Z (RH7050WH)

IMPOR TANT SAFETY NOTICE

The information in this service maual is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

To reduce the risk of injury to persons, follow all industry recommended safety procedures including the use of long sleeved gloves and safety glasses. Failure to follow all of the safety warnings in this manual could result in property damage, injury to persons or death.



To avoid personal injury, , disconnect power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks.

RECONNECT ALL GROUNDING DEVICES

If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

IMPORTANT

Electrostatic Discharge (ESD)
Sensitive Electronics

ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

¡Æ Use an anti-static wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance.

- OR -

Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.

- ¡Æ Before removing the part from its package, touch the anti-static bag to a green ground connection point or unpainted metal in the appliance.
- ¡Æ Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- ¡Æ When repackaging failed electronic control assembly in anti-static bag, observe above instructions.

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SPECIFICATIONS

ITEMS	RC9055*P*Z / RC8055*P*Z / RC7055*P*Z RH9051WH / RH8051WH / RH7050WH	REMARK
DRYING TYPE	Condensation	
WEIGHT	Opaque : 56kg (Gross : 61kg)	
WEIGHT	Glass : 57kg (Gross : 62kg)	
DIMENSION	600(W) x 640(D) x 850(H)	
STANDARD DRYING CAPACITY	9.0kg / 8.0kg / 7.0kg	
CONTROL TYPE	Electronic Control	
POWER SUPPLY	AC230V, 50Hz(16A)	
MOTOR	210W	
HEATER	1000W	
COMPRESSOR	690W	
LED LAMP	DC12V (30mA)	
DOOR SWITCH	250V(5A)	
THERMOSTAT	240V(25A)	
DRUM VOLUME	121 Liter	
	Over current protect (Motor)	
SAFETY DEVICES	Over Load Protect (Compressor)	P/N:LPLN7269
	Thermostat	
	Micom electronic Control	
	1. Pipe Temperature:2 thermistors (Eva in and Comp out)	
	2. Drum Temperature:1 thermistor	
SENSOR	3. Main Heater: 1 thermistor	
	4. Humidity : Electrode sensor	
	5. Filter Sensing : Magnet , Reed switch	
	6. Sump water Sensing : Electrode sensor	
FILTER	Removable	
DRUM SPEED	52~53 rpm	
DRUM	Stainless steel	
DRYER RACK		
CHILD LOCK		
BUZZER		Dafault : High
ANTI-CREASE	Assistants	Dafault : Off
FAVORITE	Available	Dafault : Off
▲ (MORE)		Maximum: 100 min
▼ (LESS)]	Minimum : 15 min
TIME DELAY]	3~19 hours
DRUM INTERIOR LIGHT]	
	Running status indicator (all)	
LED DISPLAY	Error display (all)	

FEATURES AND LOOK







The ultra big 9.0kg capacity drum on this LG dryer allows you to dry more washing at once, saving time!

Lower Energy Consumption

LG Heat pump dryers use less energy than conventional dryers due to optimized heat exechanger and auto cleaning TM technology. This LG Heat pump dryer has been designed to save your money.



Reduced Drying Times

Drying times are now shorter due to Hybrid heating system and optimized heat exechanger on this LG dryer.



Reduced noise levels

We have reduced the operating noise of this LG dryer by using innovative sound-absorbing and noise-screening technologies, making it much quieter than conventional dryers.

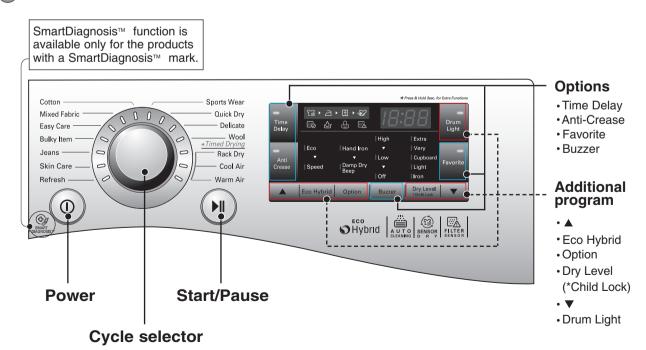


Easy of Use

The wide, electronically controlled LCD display on this machine is very easy to use. Simply select the cycle you require and your LG dryer will do the rest.

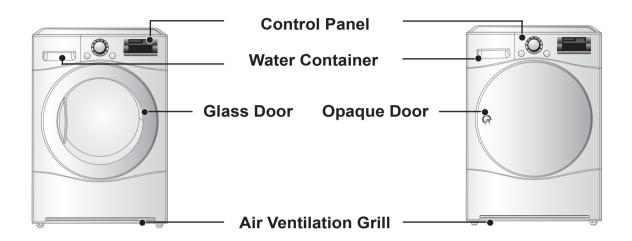
SmartDiagnosis™ is available by a Phone.

Control Panel



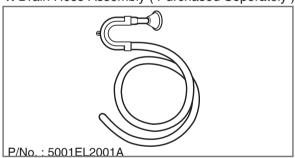
Product Layout

- RC*055*PZ / RC*055*P2Z / RC*055*P3Z RH9051WH / RH8051WH
- RC*055*P1Z / RH7050WH

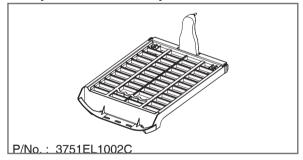


Accessory parts

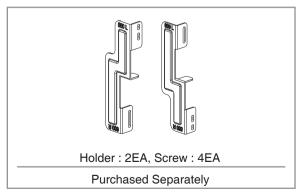
1. Drain Hose Assembly (Purchased Seperately)



2. Dryer Rack Assembly



3. Stacking kit Assembly (Purchased Seperately)



PROGRAM CYCLE



Time Delay

You can use the Time Delay option to delay the finishing time of drying cycle. Maximum Time Delay is 19 hours.

Minimum Time Delay is 3 hours.

- 1. Turn the dryer on.
- 2. Select a cycle.
- 3. Set time delay hour by press the "▲". "▼" button.
- 4. Press Start/Pause button.

Anti-Crease

The Anti-Crease option prevents creases that are formed when the laundry is not unloaded promptly at the end of the drying cycle. When Anti Crease is selected, the dryer repeatedly runs and pauses, giving you 2 hours to unload the laundry. If the door is opened during the Anti-Crease option, the option is cancelled.

Favorite

Favorite option allows you to store a customized dry cycle for future use.

- 1. Turn the dryer on.
- 2. Select a cycle.
- 3. Select the option or additional program. (Anti-Crease, Eco Hybrid TM etc.)
- 4. Press and hold Favorite option button for 3 seconds.

The Favorite option is now stored for future use. To reuse the stored cycle, select Favorite option and press the Start/Pause.

Drum Light

Whilst the dryer is running it is possible to see inside the drum if you select the Drum Light function.

Light on: Door is opened.

For 3 sec drum light button are

Light off: Door is closed. Off automatically. **Eco Hybrid** TM

This additional program is able to save energy or time.

Eco: energy saving course. (Heat Pump only) Hybrid: time saving course. (Heat Pump +

> Heater) You will see "speed" indication on the LED.

Option

Hand Iron

This function remains more moist than the condition for ironing.

Note

Cycle	Dry Level	Option
Cotton		I land luan
Mixed Fabric	Iron	Hand Iron is available
Fasy care		is available

Damp Dry Beep

This function lets you know when the clothes are ready for ironing.

Note

Cycle	Dry Level	Option
Cotton	Extra	
Mixed Fabric	Very Cupboard	Damp Dry Beep is available
Easy care	Light	is available

Child Lock (& / /)



For the safety of your children, press Dry Level button for about 3 seconds. You will see "indication on the LED."

You can see "L" sign on LED window.

- All controls except Child Lock and Power buttons will be disabled.
- Child Lock lasts after the end of cycle.

Note

For "Child Lock is off", press Dry Level button for about 3 seconds.

Buzzer

This is a option to enable you to adjust volume of beeper sound.



PROGRAM CYCLE

Cycle Selection Table

		Sensor Dry Cycle	
Cycle	Laundry Type	Detail	Drying Level
	Towels, dressing gowns and bed linen	For thick and quilted fabrics	Extra
Cotton	Terry towels, tea towels, towels and bed linen	For thick and quilted fabrics that do not need to be ironed	Very
	Bath towels, tea towels, underwear and cotton socks	For fabrics that do not need to be ironed	Cupboard
	Sheets, pillowcase and towels	For fabrics that do not need to be ironed	Light
	Bed linen, table linen, towels, T-shirts, polo shirts and work clothes	For fabrics that do need to be ironed	Iron
	Bed linen, table linen, tracksuits, anoraks and blankets	For thick and quilted fabrics that do not need to be ironed	Very
Mixed Fabric	Shirts and blouses	For fabrics that do not need to be ironed	Cupboard
	Trousers, dressers, skirts and blouses	For fabrics that do need to be ironed	Iron
F	Shirts, T-shirts, trousers, under-wear and socks	For polyamide, acrylic, and polyester that do not need to be ironed	Cupboard
Easy care	Shirts, T-shirts, under-wear, anoraks and socks	For polyamide, acrylic, polyester that do need to be ironed	Iron
Bulky Item	Bed clothes, sheets	For bulky items	-
Jeans	Jeans and colour fading garments.	For jeans which do not need to be ironed	-
Skin Care	T-shirts, pillowcase, and towels	For cotton fabrics which do not need to be ironed	-
Refresh (Refer to the Note)	Shirts and blouses	Odor removal of fabric (For fabrics in need of odor removal)	-
Sports Wear	Soccer kit and training wear	For polyester material	_
Quick Dry	Linen and towels, excluding fabrics applied to delicate, sports wear, bulky Item cycle.	For small loads of suitable fabrics with short drying times	-
Delicate	Silk, fine fabrics and lingerie	For fabrics that are heat-sensitive like synthetic fabrics	-
Wool	Wool	For wool fabrics	-
	Timed	Drying Cycle	
Rack Dry	Silk, wool, delicate lingerie	Refresh clothes without tumble drying	-
Cool Air	All fabrics that need refreshing	Tumbles without heat	-
Warm Air	Bath towels, bath robes, dishcloth and quilted fabrics made of acrylic	Small Items & damp clothing Everyday items suitable for heat drying	-

Note

When using the "Refresh" course, please spray cold or warm water on the fabric for a fresher outcome. (The recommend amount is 20cc of water per shirt.)

A CAUTION

If the load is less than 1kg, please use the "Warm Air" Cycle in Timed Drying Cycle. Wool items should be dried using the "Wool" Cycle and heat-sensitive fabrics including silk, underwear and lingerie should be dried using the "Delicate" Cycle. Please comply with the recommended laundry load when you select your desired Cycle- found on page 19. Otherwise, your clothes may be damaged.

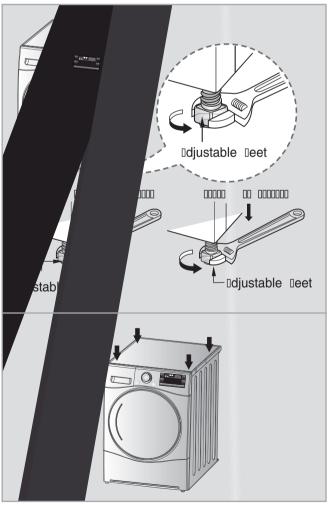
PROGRAM CYCLE

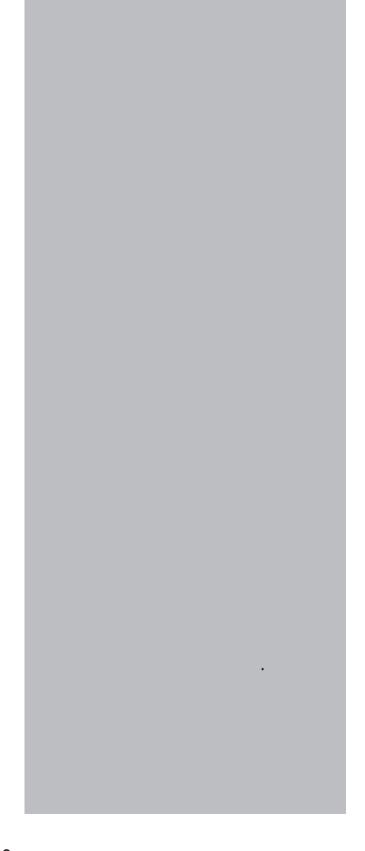
	Drying	I.	Sensor																					
Warm Air	Cool Air	Rack dry	Wool	Delicate	Quick Dy	Sports Wear	Refresh	Skin Care	Jean	Bulky Item	Care	Easy		Mixed Fabric				Cotton				Cycle		
ı	-	1	_	ı	ı	I	ı	ı	I	I	Iron	Cupboard	Iron	Cupboard	Very	Iron	Light	Cupboard	Very	Extra		Drying Level		
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1	60	60	29	ı	ı	ı	ı	1	ı	1	1	ı	ı	ı	1	ı	ı	1	ı	ı	d Off		D)	
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40	ı	1	ı	ı	50	ı	39	135	60	70	35	41	41	48	53	67	79	85	90	95	Speed			
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Buzzer		

INSTALLATION INSTRUCTIONS

Level the Dryer



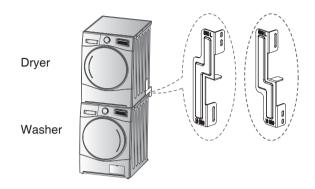




INSTALLATION INSTRUCTIONS

Stacking Kit

In order to stack this dryer an LG stacking kit is required.

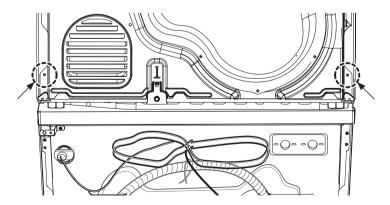


This dryer may only be stacked on top of an LG washer. DO NOT attempt to stack this dryer on any other washer, as damage, injury or property damage could result.

	Washer To	p plate size
	21.7 inch (550mm)	23.6 inch (600mm)
Shape and assembly direction	550 R S S S S S S S S S S S S S S S S S S	

Installation Procedure

- 1. Place the LG dryer on the LG washing machine.
- 2. Remove the two screws from the bottom of the rear cover on each side as illustrated below.

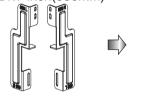


AWARNING

- ¥ Incorrect installation can cause serious accidents.
- ¥ The weight of the dryer and the height of installation makes the stacking procedure too risky for one person. This procedure should be performed by 2 or more experienced service personnel.
- ¥ The dryer is not suitable for a built-in installation. Please do not install as a built-in appliance.
- ¥ Do not operate if the dryer is disassembled.
- Align the stacking kit holes and the rear cover holes.
- 3-1) 23.6 inch(600mm)

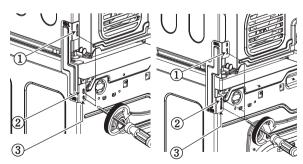








- ¥ Fasten the 2 screws that were removed earlier from dryer to stacking kit.
- ¥ Use 4 screws in accessory box [0.6inch(16mm)] to assemble washer rear cover and stacking kit.
- ¥ The procedure for the opposite side will be the same.



INSTALLATION INSTRUCTIONS

Earthing Instructions

This appliance must be earthed. In the event of malfunction or breakdown, earthing will reduce the risk of electric shock by providing a path of least resistance for the electric current. This appliance is equipped with a earthed cord and an earthing plug. The plug must be plugged into an appropriate outlet that is properly installed and earthed in accordance with Standard.

Additional Grounding Procedure

Some countries may require a separate ground. In such cases, the required accessory ground wire, clamp and screw must be purchased separately.

Condensed Water Drain

This appliance can be plumbed directly into the mains waste with the adaptor supplied. Condensed water will drain away. A plumber will be required.

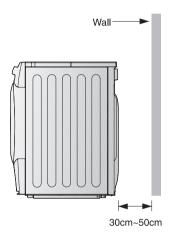
A WARNING

The dryer should not be installed next to a refrigeration appliance.

▶ Do not install the Heat pump dryer next to the high-temperature appliance like refrigerator, oven or stove etc. which can cause bad drying performance and duration, and adversely affect the proper functioning of the compressor. The Heat pump dryer gives the best work with the room temperature(23°)

Note

- The damper in the door locker assembly and the packing for the rack assembly in the drum should be removed before use.
- For better drying performance, Please keep the rear of product away from wall.
- Do not install the dryer where there is a risk of frost (dust).
 - The tumbles dryer may not be able to operate properly or may be damaged by freezing of condensed water in the pump and drain hose.



A WARNING

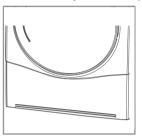
Avoid installing the product around the place with the heat.

The warm air venting from the rear side of the dryer must be well ventilated. If not, this can bring on problems.

MAINTENANCE INSTRUCTIONS

I entiliation ariale and Cool air and trime

acuum the front ventilation grille times a year to make sure there is no build up of lint or dirt that may cause improper air flow.





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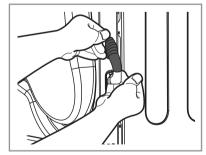
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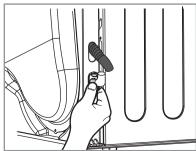
Conlense later arainaout

□ormall y, condensed water is pumped up to the water container where water is collected until manually emptied. Water can also be drained out directly to a mains drain, especially when the dryer is stacked on top of a washing machine. With a connecting kit for the mains drain hose, simply change the water path and re□route to the drainage facility as below□

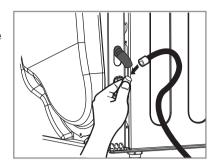
1. Take connecting kit out.



I. Ileparate water container hose from the kit.

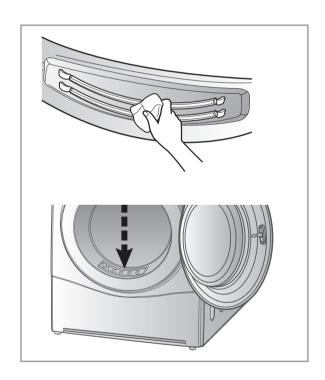


I onnect drain hose to the kit.



Moisture Sensor?

The device senses the moisture level of the laundry during operation, which means it must be cleaned regularly to remove any build up of lime scale on the surface of the sensor. Wipe the sensors inside drum. (as illustrated)



MAINTENANCE INSTRUCTIONS

A CAUTION

- Power cord must be unplugged before this work to avoid danger of electric shock.
- The bulb itself could be very hot when the dryer just finishes its operation. So before changing the bulb, be sure that the inside of the drum is cool down.
- **1.** Disassemble Top Cover, Drawer and Control Panel Assembly as explained in Page No.34
- 2. 1 Disassemble Panel Frame.
 - ② Disconnect the Red Connector

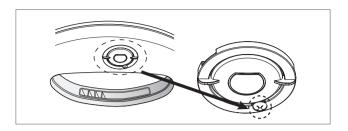




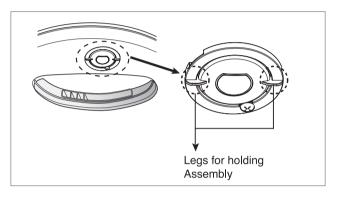


3. Open the Door, Put your one hand inside the Drum and unscrew the screw on Lamp Cover with the help of a screw driver.





4. Rotate the lamp cover in anti-clockwise direction (from your side) till it stops to rotate and pull it with certain amount of force, and take out the LED Lamp Cover Assembly.



- **5.** Now insert new LED Lamp Cover assembly from inside and pull the connector and its wire toward outside through the hole, at same time rotate the lamp cover in clockwise direction, till it stops to rotate.
- Screw the screw taken out during disassembly.
- 7. Connect the Red Connector.



8. Assemble the control panel, Drawer and Top plate.

(DO NOT forget to connect the connectors of Control Panel Assembly in PCB Assembly).

COMPONENT TESTING TIPS

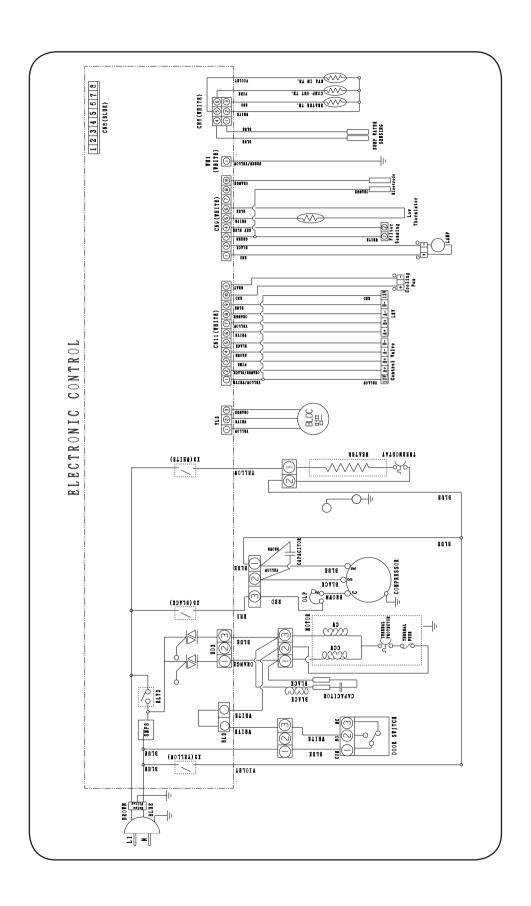
Component	Test procedure	Check result	Remark
1. Thermostat assembly	Measure resistance of Terminal to terminal 1) Open at 170°C (-10/+5°C)	Measure resistance by pressing button When resistance becomes ∞ Resistance value < 5Ω	Safety Thermostat
2. Thermistor (Low temperature)	Measure resistance of terminal to terminal	Resistance value : 10KΩ±5% (at 25°C)	Cover, Front
3. Heater, Thermistor	Measure resistance of Terminal to terminal	Resistance value : Yellow/White : $50.7 \pm 1.52 \Omega$	Heater
Thermistor	Measure resistance of therminal to terminal	Resistance value : 200KΩ±5% (at 25°C)	High thermistor
4. Motor	Measure resistance of Terminal to terminal	Resistance value(25°C): Gray / White : 15.2(\pm 7%) Ω Blue / White : 25.5(\pm 7%) Ω	
5. Motor capacitor	Measure capacitance of Terminal to terminal	POWER SUPPLY AC230V: $8.5 \mu \text{F} \pm (-3\%/+7\%) \mu \text{F}$	
6. Pump	Measure capacitance of Terminal to terminal	Resistance value(25°C): Yellow/ White : $15.2(\pm7\%)\Omega$ Orange/ White : $25.5(\pm7\%)\Omega$	

COMPONENT TESTING TIPS

Component	Test procedure	Check result	Remark
7. Door S/W	Measure resistance of the Following terminal 1) Door switch knob: open 1 Terminal: "COM"- "NC" (1-3) 2 Terminal: "COM"- "NO" (1-2) 2) Door switch Knob: close 1 Terminal: "COM"- "NC" (1-3) 2 Terminal: "COM"- "NO" (1-2)	① Resistance value < 1‰ ② Resistance value ÷ ∞ ① Resistance value ÷ ∞ ② Resistance value < 1‰	The state that knob is Pressed is opposite to open condition
8.LED Lamp.asm	Measure resistance of the Following terminal • Red housing2wire (BL & RED)	DC 12V Power on → Check the voltage in terminal.	
9.Compressor set	Measure resistance of the Following terminal 1 Terminal: "C"- "R" at 25°C 2 Terminal: "C"- "S" at 25°C	Measure resistance of the Following terminal Resistance value(25°C) ① Resistance: 8.64 ± 7‰ RED & BLUE ② Resistance: 2.59 ± 7‰ BL & RED	
10.OLP	Measure resistance of the Following terminal 1 Terminal: "1"- "3" at 25°C	① Resistance value ≠∞	
11. Cooling fan	Measure resistance of the Following terminal • Red housing2wire (BL & RED)	DC 12V Start-up Voltage: Up 6V Rate current: 0.5A + 10% Locked current: Under 1A	
12. Comp capacitor	Measure capacitance of Terminal to terminal	Capacitance value : $35^{\pm}1.75^{\mu}$ F Check resistance Stanby condition : 11.5% (25°C) Comp operation condition : $35\sim38\%$ (25°C)	

COMPONENT TESTING TIPS

Component	Test procedure	Check result	Remark
13.Steam generator	Measure resistance of the Terminal to terminal	Resistance value(25 °C) Plate and Another plate :49 (± 5%) Ω	
10. Onlet. Dalie	Measure resistance of the Following terminal • Deft Dicture D.Dlate	DC 12V Limit current: 550mA Coil resist: 24Ω±10%	
10.0on0ert.0al0e	Measure resistance of the Following terminal Thite housing Two of file colors	Resistance value(25 °C) Two wire terminal of five colors :70 (±7%)Ω	
10.000 switch	Measure resistance of the Following terminal • Ilue housing I.I.wire	Contact resistance: Under 250mΩ	
10.Thermistor inomi outi	Measure resistance of the Following terminal • ©hite housing ©.©wire	Nominal resistance: 10K ±1%Ω	
10.Thermistor	Measure resistance of the Following terminal • □lue housing □.□wire	Nominal resistance: 10K ±1%Ω	



TROUBLESHOOTING

Pressing the "START/PAUSE"button	CHECKING ACTION	DISPLAY	CHECKING POINTS
None	Electric control.	Time Delay Ball Promise Delay Ball Promise Delay Ball Promise Ball Pro	Check the below 1. All LED Lamp On 2. Display data in LED window ①1:HH ②18:d1 (19:d1) ③1U:20 [Main Version ::20] ④1d:09 [Display Version ::09]
Once	Check the Motor operating conditions and Power Consumption. Motor CCW (1sec) → Off (0.5sec) → Motor CW(Twice, Off)	Crease Speed Belg Of Iron A Eco Hybrid Option Bluzzer Dry Level V	Check the below 1. Course LED Lamp On 2. Display data in LED window
Twice	Check the BLDC pump power consumption. BLDC pump On (3 times , Off)	Time Delay Delay High Estra Arti Crease Speed Damp Dry Llow Lughord Crease Speed Damp Dry Llow Lughord Light	Check the below 1. Display data in LED window0 ~35 [Drain pump RPM] 2. Check Drain RPM
3 times	Check Compressor power consumption. Comp out thermistor temperature. Evaporator thermistor temperature. LEV pulse (145) :Motor CCW (1sec) → Off (0.5sec) → Motor CW :Compressor On (5sec) → LEV 35Pulse(2sec) → 55Pulse(after 1min, Buzzer) → 145Pulse(after 1min, Buzzer)	Time Dalay	Check the below 1. All LED Lamp On 2. Display data in LED window ①C: 22 [Comp out thermistor temp= 22 °Δ] ②E: 22 [Eva In thermistor temp= 22 °Δ] ③0: 55 [LEV pulse = 55]
4 times	Check Comp + Heater power consumption. Hot thermistor temperature. Low thermistor temperature. LEV pulse (95) :3times , Load operation + LEV 95 Pulse(1sec) → Heater On	Time Delay Light Light Light Crease Speed Bamp Dry Light Crease Speed Bamp Dry Light Light Light Crease Speed Bamp Dry Light Light Light Light Light Crease Speed Bamp Dry Light Light Light Light Crease Speed Bamp Dry Light Light Light Crease Speed Bamp Dry Light Light Light Crease Speed Bamp Dry Light Light Light Light Light Crease Speed Bamp Dry Light Light Light Light Crease Speed Bamp Dry Light	Check the below 1. All LED Lamp On 2. Display data in LED window ①H: 22 [High thermistor temp= 22 °Δ] ②L: 22 [Low thermistor temp= 22 °Δ] ③2: 39 [Humidity sensor data = 239]
5 times	Check Cooling Fan power consumption. : Cooling Fan On (6times Off)	Time Delay Eco Hybrid Option Buzzer	Check the below 1. All LED Lamp Off 2. Check the Cooling fan on (hear the cooling fan operate)
6 times	Check Steam water supply valve power consumption. Steam Low / High water sensor data. :Steam valve On(2sec) → Off(1sec)	Time Delay Eco Hybrid Option Duran Duran Drum Light Low Custoom Favorito Delay A Co Hybrid Option Duran Drum Light A Co Hybrid Option Duran Duran Duran Drum Light A Co Hybrid Option Duran Duran Duran Drum Light A Co Hybrid Option Duran Duran Duran Drum Light A Co Hybrid Option Drum Light A Co Hybrid Option Drum Drum Light A Co Hybrid Drum Drum Drum Drum Drum Drum Drum Drum	Check the below 1. Power off 2. End Buzzer sound (if sound on)

"START/PAUSE"	LOAD OPERATION	DISPLAY	REMARKS
(Over Flow Inspection)	2.Control valve position "2"	*Entry key set up: OF display *Water sensor detect for 3 sec and 3 times: → OE	

- Data Display
 Tested under normal operation mode.
 Press the button as follows.

No. of Button pressing	Display	Remarks
▲ + ▼ + Power key	LQC line inspection, display the LQC TEST1	
Anti Crease + Favorite + Power key	Over Flow inspection	

TROUBLESHOOTING

Pressing the "START/PAUSE"button	CHECKING ACTION	DISPLAY	CHECKING POINTS
		Time Code And Code Code Code Code Code Code Code Cod	
Anti Crease + Favorite + Power Key	Water Sensor Dection: Sump W "001" Control Valve Position "1" Display: "Empty Water" Pumping Start until Power Off or Pause	Titles Delay Delay D	
		Down Light Eco Hand Iron Light	

TROUBLESHOOTING

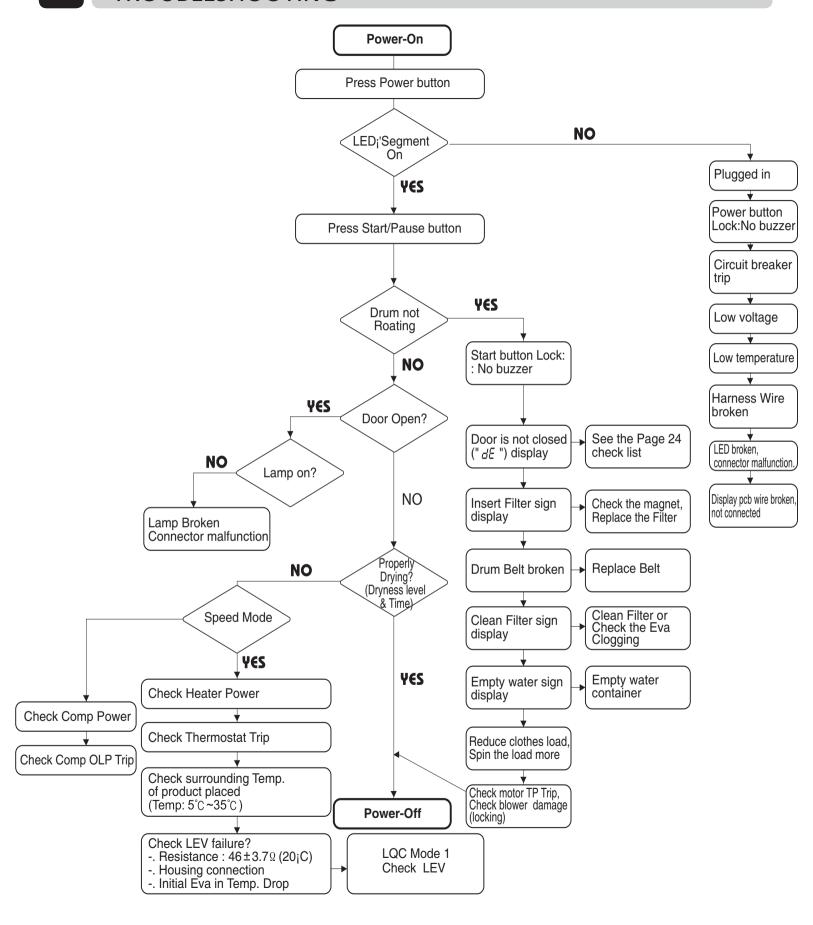
Error Mode

Display	symptom	Check point
ŁE!	Low temperature themistor open/short (Drum out)	 Connector → not assembled?- Open Check weather connector in connected correct or not? If the covering has been peeled away or touch? - Short If the penetration of water? - Short Check if any damage in harness or not? Thermistor element → dead Check if thermistor resistance in normal or not? Check the voltage from main PCB to thermistor High or low voltage? → Replace Main PCB * See page No.17 * Thermistor Resistance : 10k \(\Omega \pm 5\)% at 25°C
£ E 2	High temperature themistor open/short (Comp out)	 Connector → not assembled?- Open Check weather connector in connected correct or not? If the covering has been peeled away or touch? - Short If the penetration of water? - Short Check if any damage in harness or not? Thermistor element → dead Check if thermistor resistance in normal or not? Check the voltage from main PCB to thermistor High or low voltage? → Replace Main PCB * See page No.17 * Thermistor Resistance : 234~364k \(\Omega\) at 25°C
EE3	Heater themistor open/short (Drum in)	 Connector → not assembled?- Open Check weather connector in connected correct or not? If the covering has been peeled away or touch? - Short If the penetration of water? - Short Check if any damage in harness or not? Thermistor element → dead Check if thermistor resistance in normal or not? Check the voltage from main PCB to thermistor High or low voltage? → Replace Main PCB * See page No.17 * Thermistor Resistance : 158~240k \(\mathcal{Q} \) at 25°C
LEY	Low temperature themistor open/short (Evaporator In)	 Connector → not assembled?- Open Check weather connector in connected correct or not? If the covering has been peeled away or touch? - Short If the penetration of water? - Short Check if any damage in harness or not? Thermistor element → dead Check if thermistor resistance in normal or not? Check the voltage from main PCB to thermistor High or low voltage? → Replace Main PCB * See page No.17 * Thermistor Resistance : 10k \(\mathcal{L} \pm 5\% \) at 25°C
[EI	①T(temperature) comp_out > 115°C ②Comp off and re-operation after 3minutes. ③if case ① repeat for three	 Check the environment temperature is high. (35 °C or more) Check the cooling fan is working properly (in speed option) Check the connection of connector. Replace the Compressor.
dE	The door must be closed and start Button must be pressed for reoperation	 Check the Door switch Connection. Check the connection of connector (PCB). Disassemble the Control panel asm. And check the door switch housing properly connected. Replace the PCB
0E	Drain pump error ① check the drain pump properly work. ② if ① is ok , you need to check sump sensor.	1.Check the PCB Holder Connection. 2.Check the Pump connection of connector (Pump). 3.Disassemble the pump cover asm. And check the lint material. 4.Replace the PCB

TROUBLESHOOTING

Error Mode

Display	symptom	Check point
F¦	Fire detection of drum through low thermistor temp detectingLow Thermistor Open/Short Error.	 Connector; not assembled?- Open Check weather connector in connected correct or not? If the covering has been peeled away or touch? - Short If the penetration of water? - Short Check if any damage in harness or not? Thermistor element; dead Check if thermistor resistance in normal or not? Check the voltage from main PCB to thermistor High or low voltage?; Replace Main PCB * See page No.17 Thermistor Resistance: 10k¥; 5% at 25;
	Filter is not replaced. Dryer does not work	1.Check the filter is properly seated.2.Check the magnet in filter.3.Check the Reed switch is normal or not.



Test 1: ELECTRIC SUPPLY & CONTROL CHECK

Trouble Symptom: No power to the dryer or the controller

Measurement condition: Power is on.

[A Caution] Electric shock. Please test after grounding check.



Power voltage is within standard range (AC 215V~245V)?



¥ Check the

- Circuit breaker





- ¥ Check after disconnecting Yellow relay and Black relay connector of Main PCB.
- ¥ Check the range of Blue and Brown wire is within AC 215 ~245V?



¥ Check the short of harness assembly and the connection.





- ¥ Check or replace the Power cord.
- ¥ Check or replace the Noise filter.
- ¥ Check or replace the Controller.

Test 2 DOOR SWITCH / LAMP CHECK

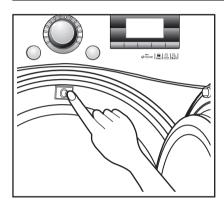
Trouble Symptom: Malfunction of lamp operation and door switch

No operation of pump motor

Displays " $d\mathcal{E}$ " in case of the door closed.

The door must be closed and start.

Measurement condition: Check if they are working while being connected to power supply.



When door is opened, does lamp turn on? (Tumbling stops)



Check door switch movement.

- See the left picture. Check and replace lamp.
- See the 13 page



When door is closed, does lamp turn off?

When "Start" button is pressed, the dryer is working?



¥ Door switch is working normally.



NOL

When door is opened or closed, door switch hook is broken?



¥ Replace door hook and close the door.



¥ Check the electrical conduction by Yellow tab relay -blue wire and White 3pin connector — white wire (By open and close door)



¥ Check door switch - See 15 page





YES

Check or replace Controller Assembly. Replace Harness and connector.

¥ With door closed, when "Start" button is pressed, lamp turns off and controller is working, but the dryer is not working.

Test 3 Motor check

Trouble Symptom: Motor malfunction, Occurrence of the "Clean filter" repeatedly

Measurement condition: ¥ Power cord is unpluged.

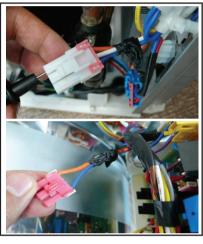
¥ Door is closed.

¥ Check the user condition.
- Put overload into drum?

- Normally Input Voltage and Hertz?

¥ Pre-Check door switch

(If door switch has contact problem, motor should not operate.)



¥ Before check process, Check the motor rotating by the LQC test mode "See the 18 page".

¥ When power is on and pressed the start button, does motor operate?



¥ Check the harness connection.

- Motor part : White 3 pin housing.

- Controller part : Red 3 pin housing (Orange and Blue wire).

Capácitor part : White 2 pin housing.

¥ Check the belt (position / broken).

¥ Check the Controller

- TR1, TR2 Broken?

¥ Check the slide (3 ea).



¥ Is there any abnormal noise during operation?

NO



¥ Check Capacitor volume. Power on & press the start button.

- See the left picture.

¥ Check belt is burst.

¥ Check structural restriction. (Motor supporter / Air guide Blower)





- ¥ Check white 3 pin female connector from motor.
- Resistance check
- ¥ Check white 3 pin male connector from controller. (when power cord is plugged)
 - two wire in white 3pin male connector: 220~240V



¥ Check controller
-See page 17
(PCB Assembly Lay-out)



- ¥ Check or replace Motor
- Check Motor TP
- ¥ Check Harness connection
- ¥ Check the Motor resistance. (see page 15)

DIAGNOSTIC TEST

Test 4 Heater check

Trouble Symptom: Motor malfunction, ventilation error

Trouble Symptom: Heater is not working. Drying failure. The designated

temperature is not reached.

Measurement condition: 1 Power cord is unplugged.



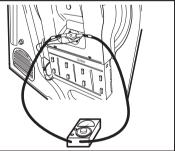
¥ Check the heater resistance.

- 1) Yellow tab relay violet wire ~ White tab relay yellow wire: 50%?
- 2) White connector 2wire: 50% ? (See photo on the left)



¥ Check and replace controller.

- ¥ See page 17, PCB assembly lay-out.
- ¥ Check harness & connection



¥ Check the resistance of thermostat to heater. Is it less than 1%?



¥ Replace Heater

¥ Check harness & connection



Manually reset thermostat (Press button).

And check resistance thermostat.

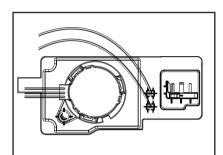
- Heater On/Off occurs frequently
- 1. Check if Lint filter is damaged or clogged.
- 2. Check if condensing unit is clogged or not.

Test 5 Pump check

Trouble Symptom: LED display show "OE" signals.

Measurement condition: Power cord is unplugged.

Check the hose blocked with foreign body or kinked.



(Measure with power on)
On LQC test mode, when
Pump is on,
Can you hear any operating
noise?



- ¥ Disassemble Pump
 - Check foreign objects
 - Check impeller restriction
 - Check connection hose clogged





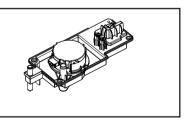
(Measure after power is off.) With Yellow 3pin disconnected from controller,

- ① YL3 white wire YL3 orange wire resistance ranges 4.5‰?
 ② YL3 white wire YL3 yellow
- ② YL3 white wire YL3 yellow wire resistance ranges 4.5%?



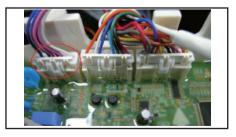
¥ Check or replace pump ¥ Check harness & connection





- ¥ Check Pump sensor With White 6pin disconnected from controller,
- check White6 ① blue ~ White6 ④ blue resistance.
- -. If there is water: 5M% level (25°C)
- -. If there is no water: 0M% level (25°C)





Test 6 Thermister check

Trouble Symptom : Poor drying performance(over-drying or no drying). Abnormal thermistor operation.

Measurement condition: Power cord is unplugged.





With White9,White 6 disconnected from Controller, check

- 1) High temperature thermistor (Wire color: White) White 6 pin ② white ~White 6 pin ③ red resistance ranges table data according to surrounding temperature.
- 2) Low temperature thermistor (Wire color: Blue) White 9 pin ⑤ Blue ~White 9 pin ⑥ white resistance ranges table data according to surrounding temperature.



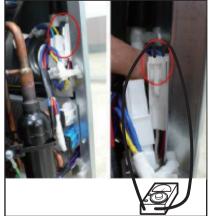
¥ Check and replace thermistor.

- Check disconnected
 Housing or
 severed
- Wire.
 2) Check the resistance

of thermistor.

ABNORMA

 Replace controller and then recheck, if anything else occurs.



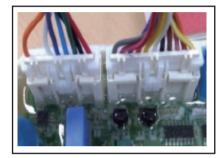
¥ Check harness & connection

Dryer	Resis	tance	Dryer	Resis	tance	Б
Temperature	TH-Heater	TH-Drum	Temperature	TH1	TH2	Remark
10°C↓		19~111k‰	40~50°C	113~75k‰	5~4k‰	
20~30°C	250~180k‰	11~8k‰	50~60°C	75~50k‰	4~2.5k‰	
30~40°C	180~113k‰	8~5k‰	60°C ↑	50k‰↓	2.5k‰↓	

Test 7 Moisture sensor check

Trouble Symptom: Drying Failure

Measurement condition: Power cord is unplugged.



With White 9 disconnected from controller, White 9 pin ③ – White 9 pin ⑨

Resistance is unlimited?

- ③: Green wire
- 9 : Orange wire



- Check Harness
- Check if Sensor tips have foreign objects
 - Refer to the left picture



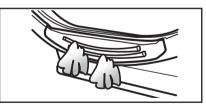


With metal tape attached to sensor tips, White 9pin 3 - White 9pin 9 resistance is less than 10 2 ?



- Check Harness
- Open, Connector is disconnected





After making damp clothes touch sensor tips, the range are within the below table in LQC test mode.



 Check and replace Controller



≉ IMC	DISPLAY	NOTE
40% ~ 60%	50 ~ 130	After Spinning
5% ~ 20%	100 ~ 200	Iron dry
-3 ~ +5 %	205 ~ 240	After normal dry

* IMC : Initial Moisture Contents.

DIAGNOSTIC TEST

Test 8

Once again press the same key fot three seconds

now details

Low Temp

Comp Temp

Eva in Temp

□ump □ ater Level

Drain Pump RP

LEV Pulse

□ain V ersion

⊓ain P⊞

Tilheater (ligh Thermistor)

Tool

Dumidity values

- Turn the Jog Dial in data view state data can be

- Apply the model : Only Touch LED model.

checked as shown below. - Not to enter the Child lock status.

IO The course

4 Bulky Item

Easy Care

⊓i⊓ed Fabric 7 Cotten Oports O

Buick Dry

10 Delicate

12 Rack Dry

11 | n ool

2 □kin Care

3 Deans

5

Refresh

Trouble Symptom: Not Drying

Measurement condition : Check if they are working while being connected to power supply.

Is the product leveled? (Check shaking / tilt)

NO

Leg leveling (Refer to how to adjust leveling,

Page 10)

Is other material cloth mixed? (Is thick Cotton + thin Polyester material cloth mixed?)

YES



Dry after separating cloth





- Is installation environment proper?
- 1) ambient temp.: 5°C ~ 35°C
- 2) check gap between product and wall
- 3) Is it installed to Built In / Under environment?



Improve dryer installation environment. (Refer to installation environment, Page 10~12)



- : Check the status of the actions Sensor Is thermistor normal? - Drum Light + Buzzer 3 when entering Pressing enter,
 - 1) Outlet T Open/Short? 2) Comp T Open/Short?
 - 3) Heater T Open/Short?
 - 4) Eva In Open/Short?



Is thermistor resistance normal? (Refer to resistance and measurement method, page 15~17)

NO

Replace thermistor.



- Is comp operation properly?

 1) Power On
- 2) Display dataview mode
- 3) Comp on after 1min from start.
 4) After comp on, check

- corresponding the temp.

 -. Comp T: Is it rising?

 -. Eva in: Is it rising after falling?



- 1. Is OLP normal? 2. Is Comp resistance normal?
- 3. Is capacitor resistance normal?
- (refer to page 16)
 4. Is LEV resistance normal?
- 5. Check trace of oil leakage around Comp.

YES



1. For OLP & Capacitor defect -. Replace the parts

- 2. For Comp defect
- Replace Comp (Refer to R code C145 , Page 45) 3. For LEV defect
- -. Replace LEV.



Is there flow path blocking?

- 1) Check Filter cleaning status
- 2) Check Evaporator clogging status



Clean filter. Clean Evaporator clogging. (Refer to elploded view, Page 45)



Is the humidity sensor operating properly?

Does it operate properly after replacement?

. Refer to humidity sensor inspection method, Page 30)



Replace PCB



Does the defect occur after PCB replacement?



Replace Base ASM or the product

¡ Check the status of the actions Sensor

checked as shown below.

NO The course

Jeans

Cotten

Quick Dry

Delicate

Rack Dry

4

6

7

8

9

10

11 Wool

Skin Care

Bulky Item

Easy Care

Mixed Fabric

Sports Wear

- Not to enter the Child lock status.

to escape.

Once again press the same key fot three seconds

Show details

Low Temp

Comp Temp

Eva in Temp

Sump Water Level

Drain Pump RPM

Main PGM Tool

Main Version

LEV Pulse

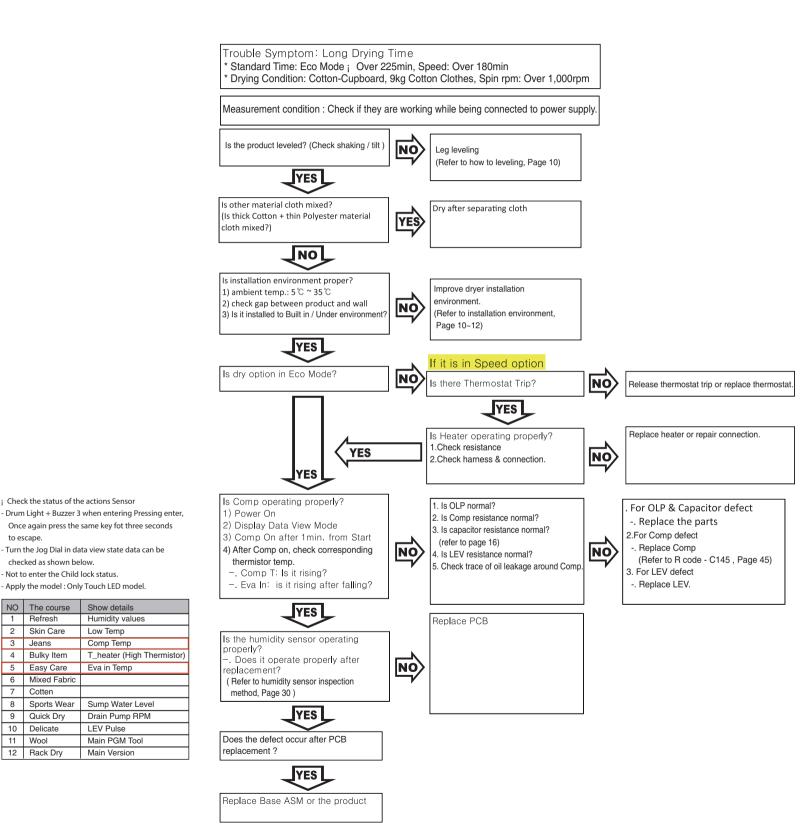
Humidity values

- Turn the Jog Dial in data view state data can be

- Apply the model : Only Touch LED model.

DIAGNOSTIC TEST

Test 9



32

DIAGNOSTIC TEST

Test 10

Trouble Symptom: Abnomal Noise Measurement condition: Check if they are working when connected to power supply. Is the product leveled? Adjust product leveling YES (Check shaking / tilt) (Refer to how to leveling, Page 10) Is the noise by interference between Is Comp operating properly? pipe and Base Cabinet(injected parts) 1) Data View Mode Adjust pipe position to insure minimum or between pipes? 2) After Comp on, check corresponding YES YES 5mm gap with pipe or mold (Noise type: ta ~ ta~ ta~ sound) thermistor temp. -. Comp T: Is it rising? -. Eva In: Is it rising after falling? ; Check the status of the actions Sensor NO - Drum Light + Buzzer 3 when entering Pressing enter, Once again press the same key Adjust pipe position to insure minimum 1.ls Comp reistance normal? fot three seconds to escape. 5mm gap with pipe or mold 2. Comp T < 103℃ - Turn the Jog Dial in data view state data can be YES) (Check in Data View Mode) Is LEV resistance normal? - Not to enter the Child lock status. - Apply the model : Only Touch LED model. NO NO The course Show details Low Temp 2 Skin Care 1. Is Cooling Fan normal? 3 Jeans Comp Temp . Eco: Comp T ≥ 95°C operation 4 Bulky Item T_heater (High Thermistor) -. Speed: Operation after Comp On YES) Easy Care Eva in Temp 2. Is Cooling Fan resistance normal? 6 Mixed Fabric 7 Cotten NO 8 Sports Wear Sump Water Level 9 Quick Dry Drain Pump RPM Replace PCB 10 Delicate LEV Pulse Main PGM Tool 11 Wool Main Version 12 Rack Dry Is there a trace of Belt crack? Refer to picture A, page35 Replace Belt Is noise from Al Pulley part? Is Belt properly assembled to Pulley? (Noise type: chikchikchik~~) YES YES YES NO NO Adjust Belt Replace Pulley (Bearing damage noise) Is the shape of the end part of Drum Is the washer between Drum and Is Journal Bearing grease properly (Noise type: Beek~~ Beek~~) Rear Seal felt normal? Rear cover flat? Sprayed? - There shall be no exposure of YES (Refer to picture D , page35) YES YES (Refer to exploded view , Damper Refer to picture C page35) NO NO NO Replace Journal bearing (D122) Replace real seal (D152) Replace washer

※ Note: The roler noise (dung dung dung) at the initial operation, and pump and water flowing noise during auto cleaning™ are normal noises of the product. If noise of metal materials bumping each other occurs, check if screw is properly locked or if it is properly assembled.

DIAGNOSTIC TEST

Test 11

¡ Check the status of the actions Sensor

- Drum Light + Buzzer 3 when entering

fot three seconds to escape.

checked as shown below.

The course

Refresh

Skin Care

Bulky Item

Easy Care

Quick Dry

Delicate

Rack Dry

Wool

Mixed Fabric Cotten Sports Wear

Jeans

NO

2

3

4

5

6

8 9

10

11

12

Not to enter the Child lock status.Apply the model: Only Touch LED model.

Pressing enter, Once again press the same key

- Turn the Jog Dial in data view state data can be

Show details

Low Temp

Comp Temp

Eva in Temp

Sump Water Level

Drain Pump RPM

Main PGM Tool

Main Version

LEV Pulse

Humidity values

T_heater (High Thermistor)

Trouble Symptom: Water Leakage

Inspection Method

- 1. Separate Top Plate and Cabinet (Left)
- 2. Power On => Select Cool Air Course, and Start.
- 3. Convert LCD Display to Data View Mode.
- 4. After Start, when the first Pumping is completed, put 1/3 water in Drawer, and pour around Dispenser water discharge hole slowly until "Sump W" value becomes "001" among Data View categories.
 - (When it becomes "001", water supply shall be stopped immediately.)
- Check electric parts, mechanical parts, hose connection in the left bottom and water leakage at the bottom of Base.

Is hose properly connected?

-. Make sure to check when water discharge is connected outside the product



Is hose properly connected?

 Check water discharge hose & Over Flow hose connection (Refer to page41)



Can you verify Sump W "001" without water leakage at the bottom of Base



Is Water Level Sensor Housing properly assembled?
(Refer to picture E, page35)

YES



Properly assemble Housing



Replace PCB

Is there water leakage of C/Valve during Self Cleaning



Replace Control Valve (Refer to picture F, page35)



Is there water leakage in at least 1 place among 3 nozzles during Self Cleaning?



Replace Nozzle



Is pumping properly performed with the pump activation sound?



Check pump assembly status

- -. Seal missing
- -. Whether pump is properly settled
- -. Pump Cover assembly status (Gap, Screw missing, etc.)



Is there water leakage to bottom of Base without above defects



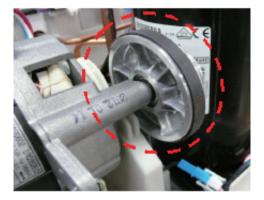
Replace Base ASM

if Base without above defects

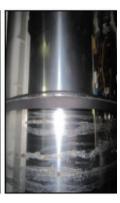
10

DIAGNOSTIC TEST

■ Reference picture









Picture A Picture B Picture C





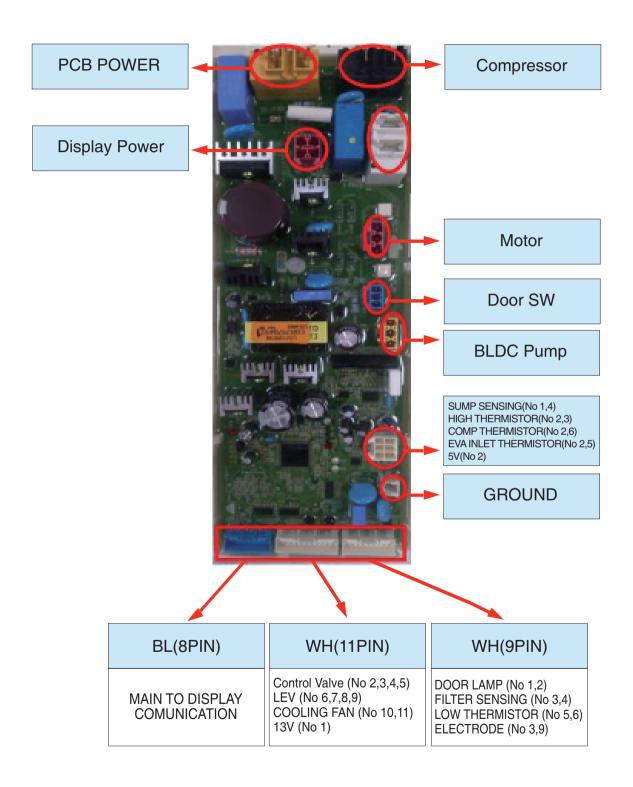






Picture D Picture E Picture F

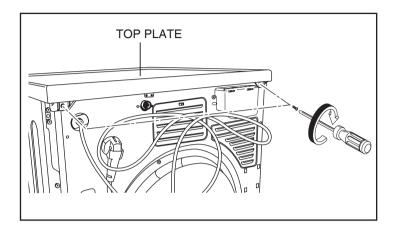
■ PCB Layout (Main)



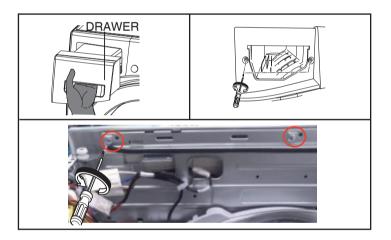
A CAUTION

To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

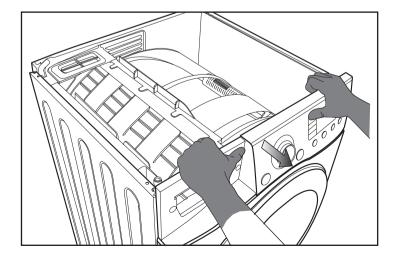
Failure to follow all of the safety warnings in this manual could result in property damage, personal injury or death.



1. Disassemble top plate by unscrewing 2 screws on the rear of the dryer.



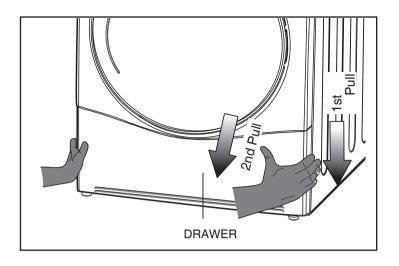
2. After pulling drawer assembly out and unscrew 4 screws.



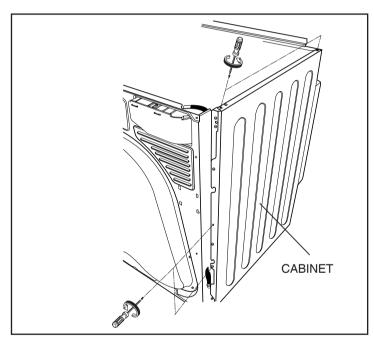
3. Disassemble control panel by unscrewing 2 screws on the Rear of the panel frame.

11

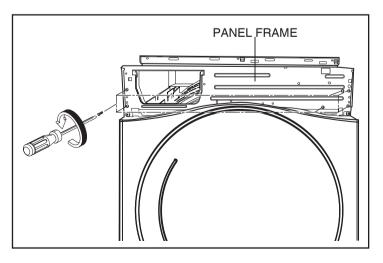
DISASSEMBLE INSTRUCTIONS



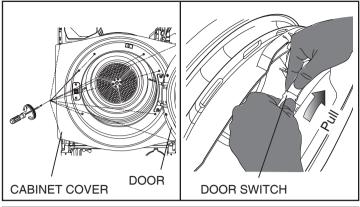
4. Disassemble the lower cover by pulling to the front.



5. Disassemble cabinet by unscrewing 2 at the top and 3 at the rear (Left and right are the same).

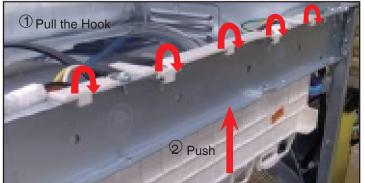


6. Disassemble panel frame by unscrewing 4 at the front.



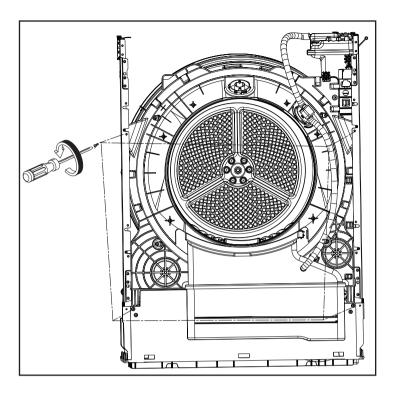




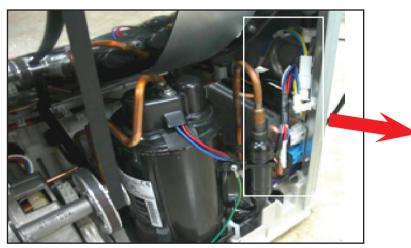


- 7-1. Disassemle the door by releasing the 2 screws.
- 7-2. Disassemble the door switch.
- 7-3. Disassemble the cabinet cover by releasing the 10 screws.
- 7-4. Disassemble the Door Switch.
- 7-5. Disassemble the cover, cabinet.
- 8-1. Disassemble the spring holder.
- 8-2. Releasing the belt on the pulley.

- 9-1. Disassemble the main PWB cover as pulling the hook.
- 9-2. Pull out the harness from the housing.



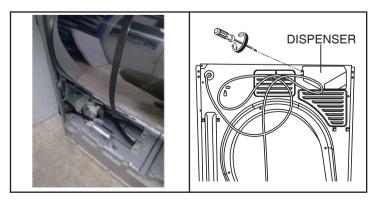
10. Disassembling the side frame by releasing 4 screws



11. Disassemble the housing of motor, compressor, heater and thermistor.



12. Releasing the dispenser by unscrewing 1 screw.

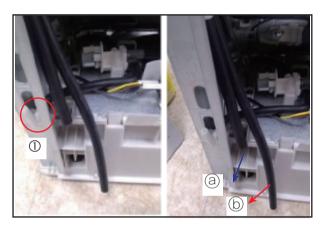


Note

If the hose is assembled unsuitable "empty water" error message will be indicated on the LED or LCD display.



- 1.Disassemble the hose.
- -. Check Hose (a) to (1) and
 - (b) to (3) and (2)



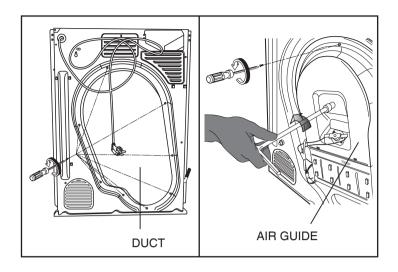
- 2.Remove the hose.
- -. Hose (b) to (2) (Check holder (3))
- -.Hose (a) to (1)



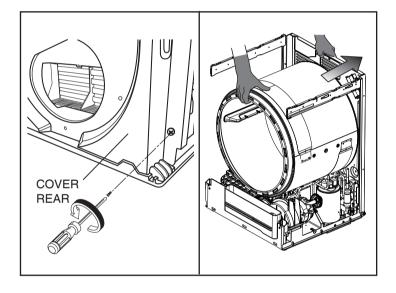
Note

If hoses are not properly connected, there is a risk of leak.



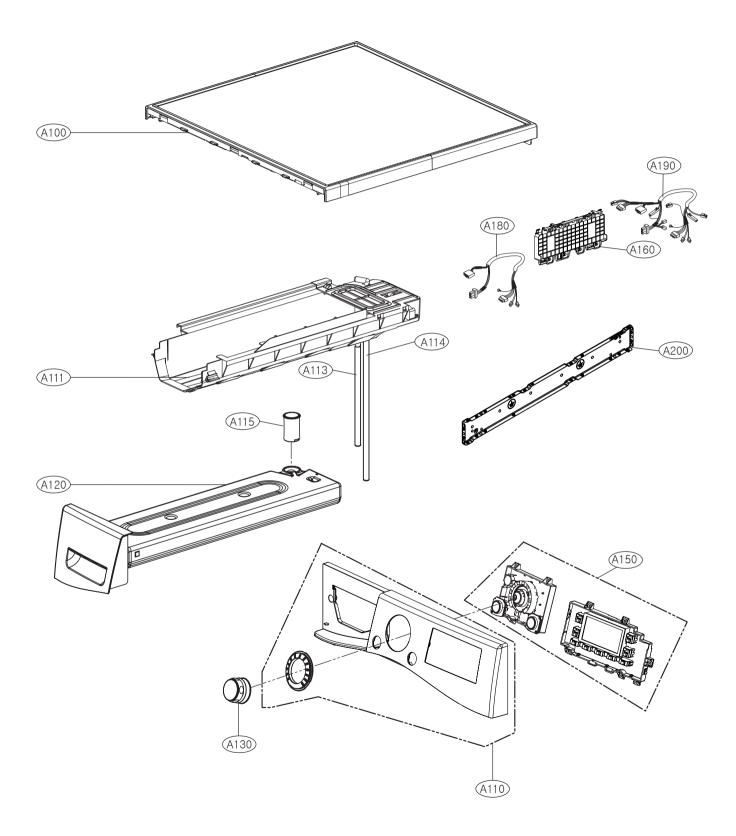


- 13-1. Disassemble the duct by releasing the 7 screws.
- 13-2. Release the drum nut using tool.
- 13-3. Disassemble the air guide by releasing the 1 screw.

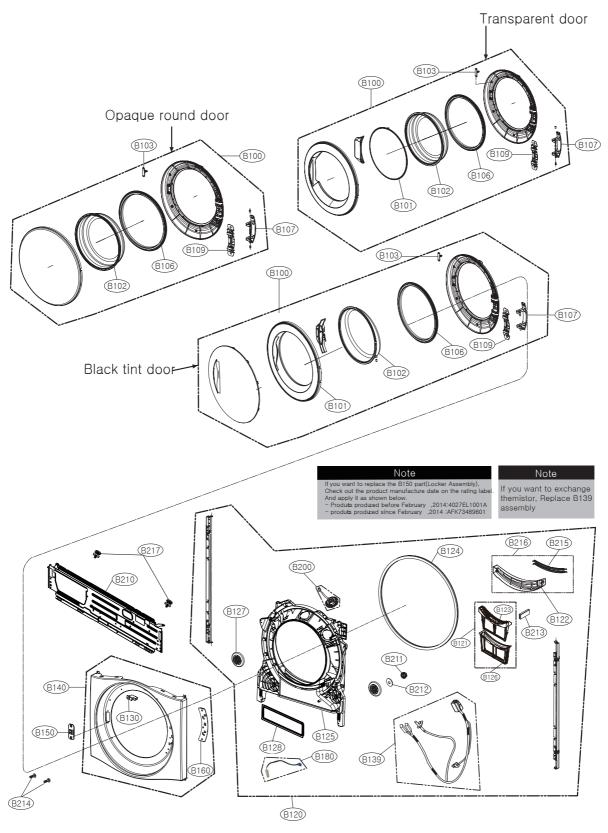


- 14-1. Disassemble the COVER REAR by releasing the 2 screws.
- 14-2. Disassemble the drum.

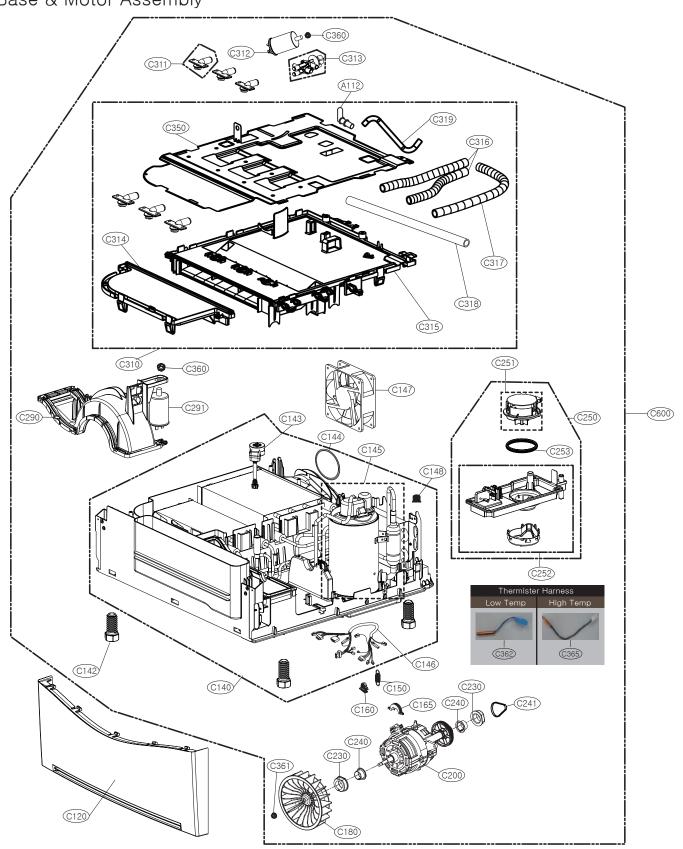
Control Panel & Top plate Assembly



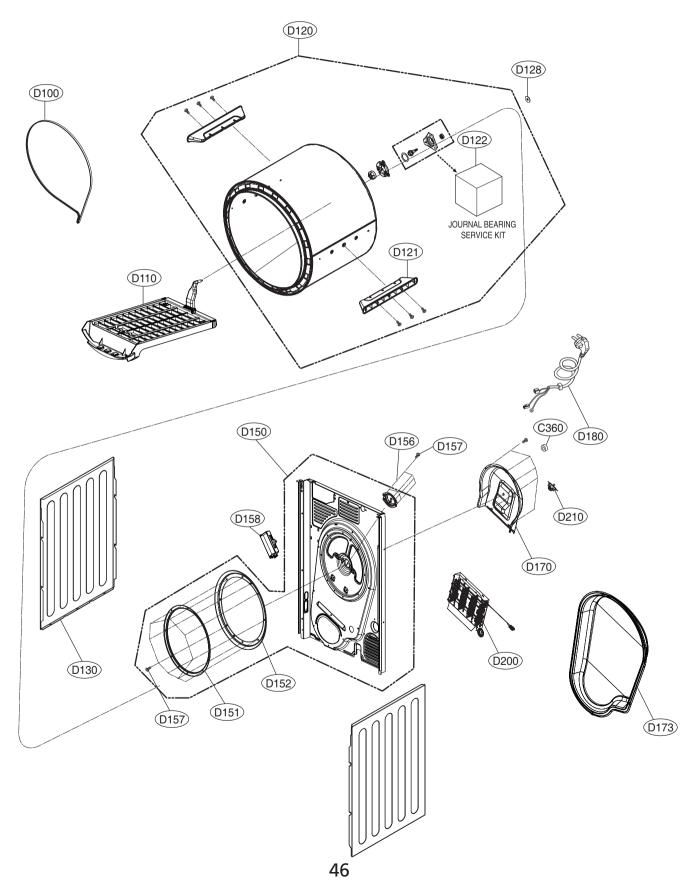
Cabinet Cover & Door Assembly



Base & Motor Assembly



Back Cover & Drum Assembly





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