SAMSUNG

CLOTHES DRYER

Basic Model : DCVH480EK0WW
(GE24 DRYER PROJECT)
Model Name : DV22K6800*
(DV6800K DRYER PROJECT)
Model Code : DV22K6800EW/A1
DV22K6800EW/AC
DV22K6800EX/AC

SERVICE Manual

CLOTHES DRYER

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1. SAFETY INSTRUCTIONS

1-1. CAUTION FOR SAFETY DURING SERVICING

1. Do not allow the customer to repair the product.
   ✔ The person may be injured or the product life may be shortened.

2. Execute A/S after unplugging the power supply unit.
   ✔ Be careful of the electric shocks.

3. Do not plug several plugs in the same outlet.
   ✔ It may cause a fire due to overheat.

4. Check for damage, pinching or burning of the power plug the outlet.
   ✔ Replace it promptly if it has a problem.(It may cause the electric shocks or fire)

5. Do not clean the main body with water.
   ✔ It may cause electric shocks and fire and shorten the product life)

6. The wiring harness shall be free from moisture and tightened during serving.
   ✔ It shall not be deviated by certain impact.

7. Remove any dust or dirt on the housing section,wiring section,connection section during servicing.
   ✔ Protect from possible cause of fire such as the tracking,shortage etc.

8. Check for any marks of moisture on the electrical parts, harness section etc.
   ✔ Replace the parts or remove the moisture.

9. Check the assembly status of the parts after servicing.
   ✔ Maintain the status before servicing.

10. Pull out the power cord by holding the plug.
    ✔ Be careful of electric shocks and when the cord is damaged.

11. Unplug the power plug from the outlet when the dryer is not used.
    ✔ Be careful of electric shocks and fire due to the strike of lightning.

12. Do not use or store sprays or flammable materials(including gasoline,alcohol etc.) around the dryer.
    ✔ Be careful of explosions or fire due to electric sparks.

13. Do not put bowls of water or wet laundry on the dryer.
    ✔ If water has penetrated into the dryer, this may cause electric shocks or fire.

14. Do not install the dryer outside exposed to moisture.
    ✔ It may cause electric shocks and fire and shorten the product life.

15. Do not push the control buttons with an awl,pin, or sharp materials.
    ✔ It may cause electric shocks and damage.

16. Check the dryer is leveled horizontally and installed properly on the floor.
    ✔ The vibration may shorten the product life.

1-2. IMPORTANT SAFETY INFORMATION

To avoid risk of fire, electric shock, serious injury, or death when using your dryer, follow these basic precautions:

1. Read all instructions before using the dryer.

2. Install dryer according to Installation Instructions. Refer to the Grounding Instructions in the Installation Instructions for proper grounding of the dryer.

3. Do not dry articles that have been cleaned in, washed in, soaked in, or spotted with gasoline, drycleaning solvents, or other flammable or explosive substances. Vapors could ignite or explode.

4. Do not use the dryer to dry clothes which have traces of any flammable substance, such as vegetable oil, cooking oil, machine oil, flammable chemicals, thinner, etc., or anything containing wax or chemicals, such as mops and cleaning cloths. Flammable substances may cause the fabric to catch fire by itself.

5. Do not store or use gasoline or other flammable vapors and liquids near this or any other appliance.

6. Do not allow children to play on or in dryer. Close supervision of children is necessary when the dryer is used near children, a safety rule for all appliances.

7. Before the dryer is removed for service or is discarded, remove doors to drying compartment.

8. Do not reach into the dryer if cylinder is rotating.

9. Do not install or store the dryer where it will be exposed to water and/or weather.

10. Do not tamper with dryer controls.

11. Do not repair or replace any part of the dryer or attempt any service, unless specifically recommended in user-maintenance instructions or in published user-repair instructions that you understand and have skills to carry out, if you are a consumer.

12. To reduce risk of electric shock or fire, do not use extension cords or adapters to connect the dryer to electrical power source.

13. Use the dryer only for its intended purpose, drying clothes.

14. Always disconnect the dryer from electrical supply before attempting any service. Disconnect the power cord by holding the plug, not the cord.

15. Do not use heat to dry articles containing foam rubber or similarly textured rubberlike materials.

16. Always clean the lint filter after every load. A layer of lint in the filter reduces drying efficiency and pro longs drying time.

17. Use only fabric softeners or products to eliminate static that are appropriate for automatic dryers.

18. Keep your dryer in good condition. Bumping or dropping the dryer can damage safety features. If damage occurs, have the dryer checked by a qualified service technician.

19. Replace worn power cords and/or loose plugs.

20. Do not tumble fiberglass curtains and draperies unless the label says it can be done. If they are dried, wipe out the cylinder with a damp cloth to remove particles of fiberglass.

21. Always read and follow manufacturers instructions on packages for laundry aids. Heed all warnings or precautions. To reduce risk of poisoning or chemical burns, keep products away from children at all times, preferably, in a locked cabinet.

22. Never operate the dryer with the guards and/or the panels removed.

23. Do not operate the dryer with missing or broken parts.

24. Do not bypass safety devices.

25. Keep area around the exhaust opening and adjacent surrounding areas free from accumulation of lint, dust, and dirt.

26. Interior of dryer and exhaust duct should be cleaned periodically by qualified service personnel.

27. The dryer will not operate with loading door open. DO NOT bypass the door safety switch by permitting the dryer to operate with door open. The dryer will stop tumbling when the door is opened. Do not use the dryer if it does not stop tumbling when door is opened or starts tumbling without pressing or turning the START mechanism. Stop using the dryer and contact a qualified service technician.

28. Remove laundry immediately after the dryer stops.

29. ALWAYS follow the fabric care instructions supplied by the garment manufacturer.

■ Electrical service information

Electrical Dryers	120/240 VAC, 60 Hz, 30 Amps, 3-wire or 4-wire installations

⚠ WARNING

To reduce the risk of fire, electric shock, serious injury or death, all wiring and grounding must conform with the latest edition of the National Electric Code, or the Canadian Electrical Code, and such local regulations as might apply. It is the customers responsibility to have the wiring and fuses checked by a qualified electrician to make sure your home has adequate electrical power to operate the dryer.

⚠ WARNING

To avoid risk of personal injury or death due to electrical shock:

- Observe all local codes and ordinances.
- Disconnect the electrical power to the unit before servicing.
- Ground the appliance properly.
- Check with a qualified electrician if you are not sure this appliance is properly grounded.
- DO NOT ground to a cold water pipe if pipe is interrupted by plastic, nonmetallic gaskets, or other insulating (nonconducting) materials.
- DO NOT modify the plug on the power cord. If plug does not fit electrical outlet, have proper outlet installed by qualified electrician.
- DO NOT have a fuse in the neutral or ground circuit. A fuse in the neutral or ground circuit could result in an electrical shock.
- DO NOT use an extension cord with this appliance.
- DO NOT use an adapter plug with this appliance.
- DO NOT pinch the power cord.

⚠ WARNING

To reduce the risk of fire and exposure to combustion gases, the dryer MUST be exhausted to the outdoors.

DO NOT exhaust dryer air into a window well, gas vent, chimney or enclosed, unventilated area, such as an attic, wall, ceiling, crawl space under a building or concealed space of a building.

⚠ WARNING

To avoid death, personal injury or property damage, from fire or explosion, information in this manual must be followed exactly.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

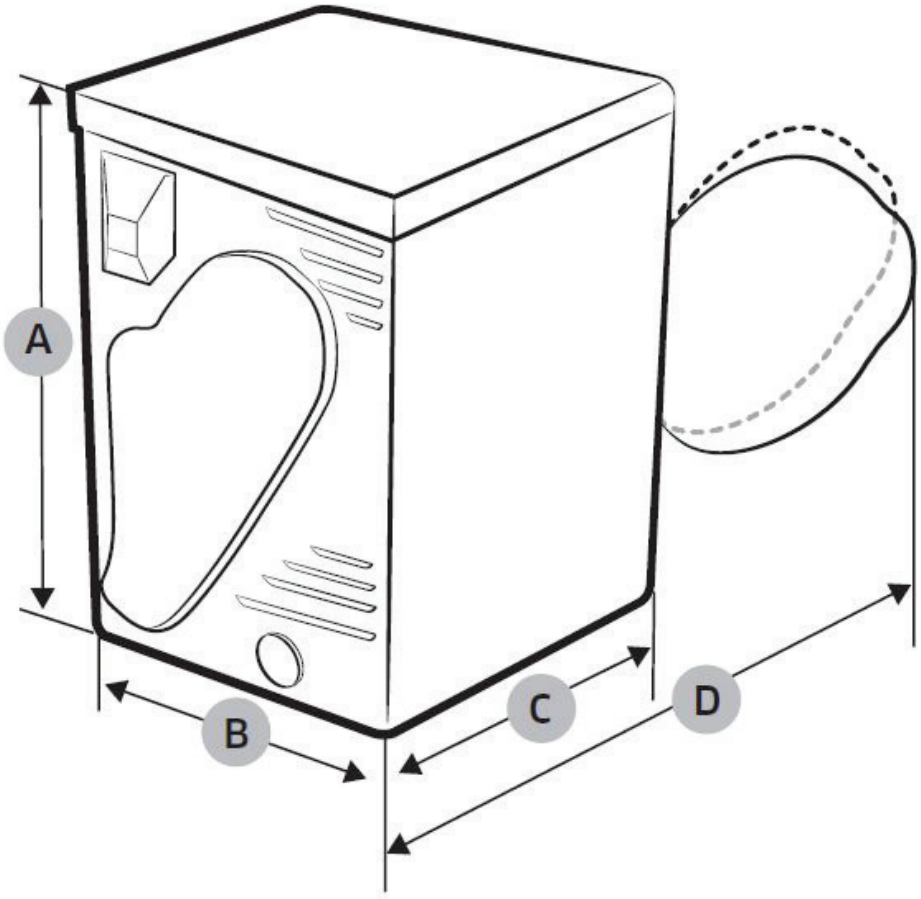
2. FEATURES AND SPECIFICATIONS

2-1. FEATURES

Features	Description
Largest Capacity	The largest capacity front-loading dryer, with a massive 4.0 cu. Ft. capacity.
Various Drying Cycles & Fuzzy Logic Algorithm	Simply turn the Jog Dial to select one of the 8 automatic drying cycles, including normal, heavy duty and towels, or let the Fuzzy Logic Control measure the degree of dampness and automatically set the drying time. Precision drying has never been easier than with Samsung.
Time Saving	Our cycles are designed with you in mind. All our dryers are designed to dry your clothes in less time. Giving you time for more important things in life.
Energy Saving	Samsung dryers are super energy efficient, that you can dry up to 3.27 pounds of laundry with 1kWh. Also, both the large capacity and Fuzzy Logic Control save energy by automatically drying your clothes the most efficient way.
Easy Reversible Door	Our dryers will fit just about anywhere and without a door conflict. The direction of our easy reversible door can be changed.
Sanitize Cycle	This cycle sanitizes garments by infusing high temperature heat deep into the fabric during the drying cycle and eliminating 99.9% of certain bacteria.Use this cycle for clothing, bedding, towels, or other items needing sanitization. The Sanitize cycle is certified by NSF International, an independent third-party testing and certification organization.
4-way Vent	Customer can install the exhaust vent in the following four (4) positions: back, either side, bottom.

2-2. SPECIFICATIONS

Model name			DV22K6800E*
Type			Front loading dryer
Dimension (inches)	A: Height	Product	33.5
		Install	50.5
	B: Width	Product	23.6
		Install	25.6
	C: Depth	Product	25.8
		Install	32.3
	D: Depth with door open 90°	Product	44.2
		Install	49.7
	E. Width with door open 130°	Product	46.47
		Install	51.97
NET weight (lb (kg))			89.1 (40.4)
Heater rating	Electric (W)		2200



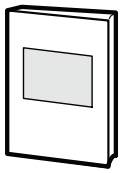
2-3. SPECIFICATIONS

Model Code (SEA)★			DV22K6800EW/A1	DV22K6800EW/AC DV22K6800EX/AC
				
USP & Features	Capacity (cu.ft / DOE)		4.0	4.0
	Power Resource		Electric	Electric
	Vent Sensor		-	-
	Smart Care (Diagnosis)		Y	Y
	Steam		-	-
	Drum Material	Drum Material	STS	STS
	Internal Drum Light		Y	Y
	Reversible Door		Y	Y
	Drying Rack	Drying Rack	-	-
	Door Safety	Door Safety	Y	Y
	Filter Check Indicator	Filter Check Indicator	Y	Y
	Vent Exhaust	Vent Exhaust	4 ways	4 ways
	Heater		Dual	Dual
	Heating Element (W)	Heating Element (W)	2200 (1600+600)	2200 (1600+600)
	Motor Spec. (DC31-00055K)		1/3HP(1630rpm) Main 3.35Ω±5 % (@ 25℃) Sub 3.05Ω±5 % (@ 25℃)	1/3HP(1630rpm) Main 3.35Ω±5 % (@ 25℃) Sub 3.05Ω±5 % (@ 25℃)
	Cycle Time (AHAM 8lbs)		70 MIN	70 MIN
ENERGY & Performance	* DOE Energy Factor		3.27(lb/kWh)	1.32(kg/kWh)
	Voltage / Frequency		120V/240V/60Hz	120V/240V/60Hz
	* EnergyGuide(kWh/cycle / Liter/cycle)		0.92 kWh↓	1.05 kWh↓
	* Yearly Energy Consumption(kWh/year)		260(kWh/year)	428(kWh/year)
Cycles	Number Of Cycles		12	12
	Steam Cycles	Refresh	-	-
		Wrinkle Away	-	-
	Sensor Dry	eco Normal	-	-
		Normal	Y	Y
		Heavy Duty	Y	Y
		Towels	Y	Y
		Perm Press	Y	Y
		Active wear	Y	Y
		Bedding	-	-
		Delicates	Y	Y
		Wool	Y	Y
		Sanitize	Y	Y
	Manual Dry	Time Dry	Y	Y
		Air Fluff	Y	Y
		Quick Dry	Y	Y
		Wrinkle Release	Y	Y

Model Code (SEA)★			DV22K6800EW/A1	DV22K6800EW/AC DV22K6800EX/AC
Options	Number Of Options / Dual /Long		8	8
	Mixed Load Bell	Mixed Load Bell	Y	Y
	Wrinkle Prevent	Wrinkle Prevent	Y	Y
	AntiStatic		-	-
	Small Load Care		-	-
	My Cycle	My Cycle	Y	Y
	Adjust Time	Adjust Time (Up / Down)	Y	Y
	Sound (Long)		Y	Y
	Child Lock (Dual Long)		Y	Y
	Smart Care (Long)		Y	Y
	Drum Light (Long)		Y	Y
Dry Level			5	5
Temp.			5	5
Time			5	5

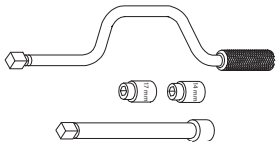
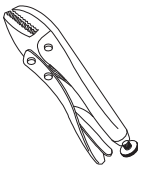
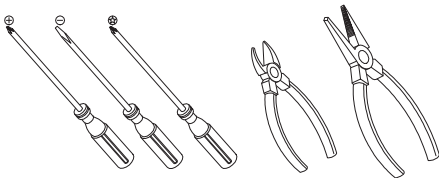
* Marked parts are different in their values are different DOE Energy factor calculated laws of the United States and Canada.

2-4. OPTIONS SPECIFICATIONS

Item		Code	QTY	Remarks
	MANUAL-USERS	DC68-03650A	1	default
	STACKING KITS	DC98-02886A	1	Canadian model Only
	CAP-EXHAUST	DC81-00167A	1	default

3. DISASSEMBLY AND REASSEMBLY

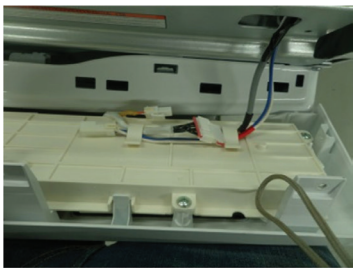
3-1. TOOLS FOR DISASSEMBLY AND REASSEMBLY

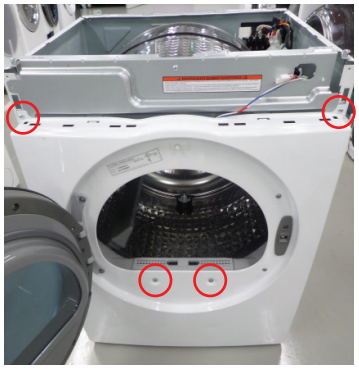
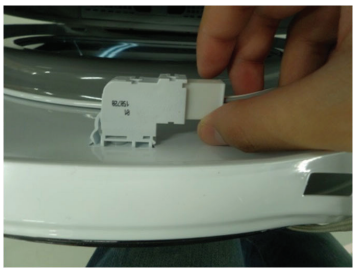
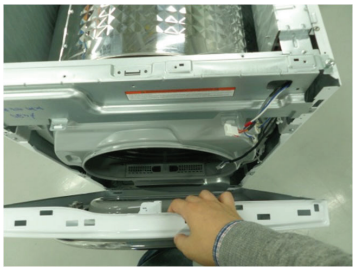
Tool		Type	Remarks
	Socket set with 6” extention	14 mm 17 mm	Fan (1) Roller Shaft (4)
	Wrench	8 mm	Tool to fix the Roller Shaft on removing the nuts.
	Vice pliers		Tool to protect the idle and abrasion of the bolt for the box driver.
	Other (Driver, Diagonal Cutter, Long Nose Pliers)		General tools for the after service.

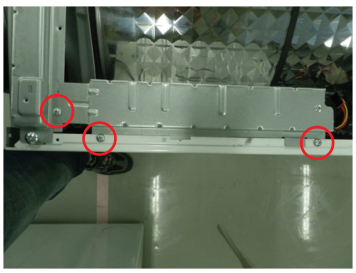
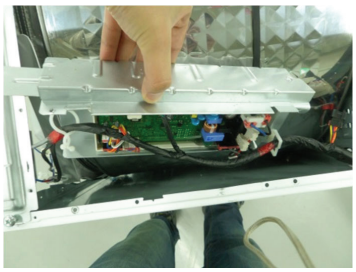
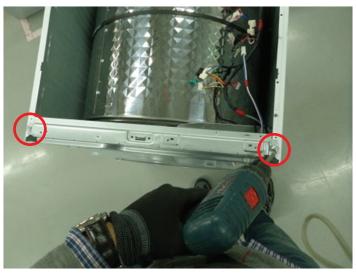
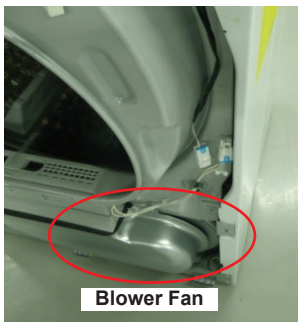
3-2. STANDARD DISASSEMBLY DRAWINGS

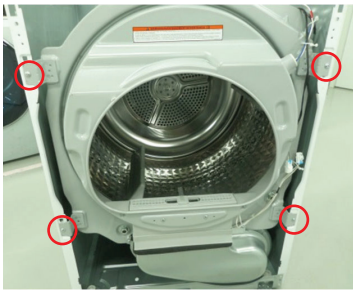
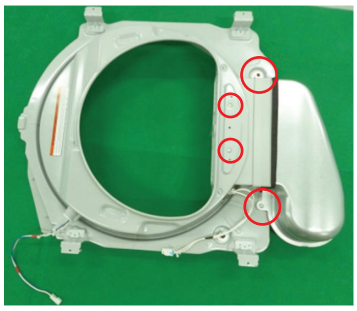
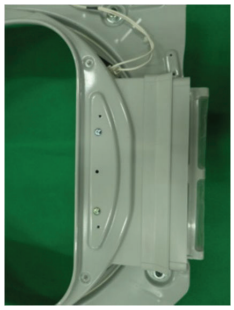
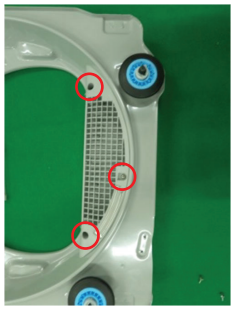
⚠ **To avoid risk of electrical shock, personal injury or death, disconnect the power to the Clothes Dryer.**

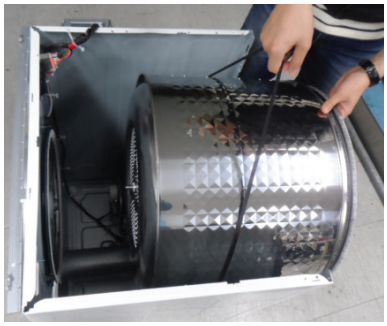
► This is a standard disassembly diagram and may differ from the actual product.
Use this material as a reference when disassembling and reassembling the product.

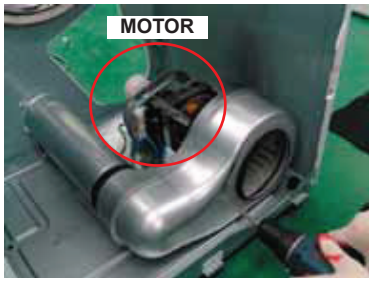
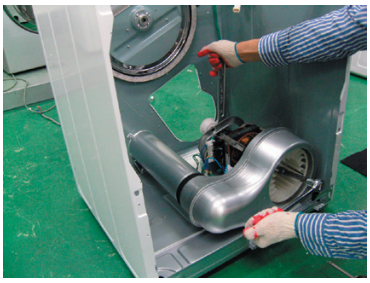
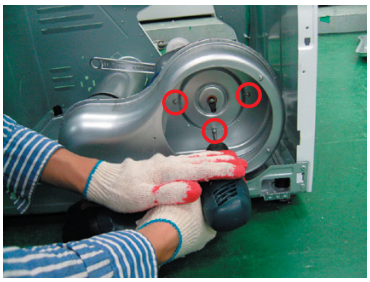
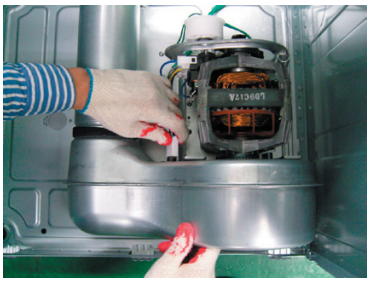
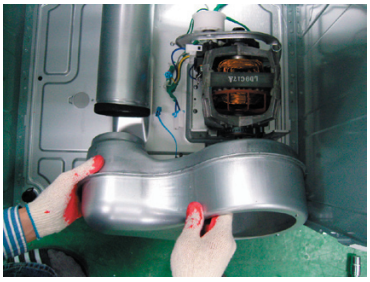
Part	Figure	Description
Top Cover Removal		1. Remove the 2 screws and by pulling it back.
Panel Control Removal (Continued)		1. Remove the 3 screws and by pulling it back.
		2. Separate the 2 housing.
		3. Remove the Knob.
		4. Remove the 2 screws. - Be careful of external scratch on the Control Panel.

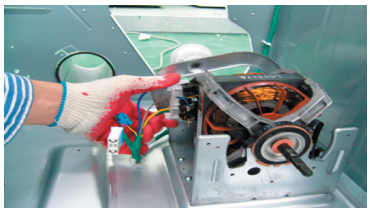
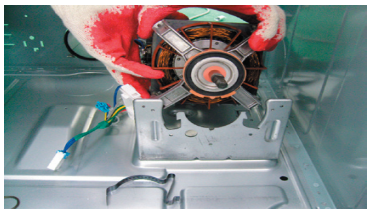
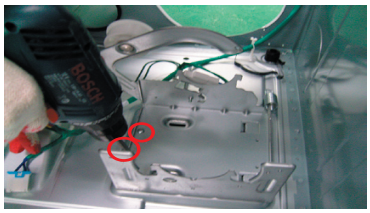
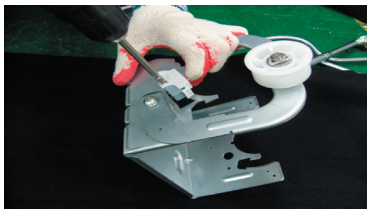
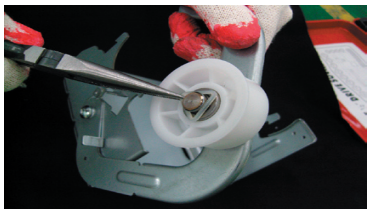
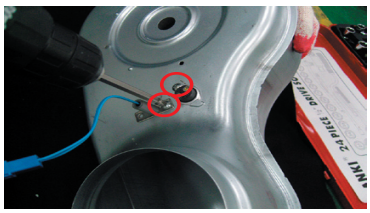
Part	Figure	Description
Panel Control Removal	 	5. Removes both the hook fastener and remove the Sub PCB.
		6. Remove the housing.
Frame Front Removal		1. Disconnect the power supply to the unit. 2. Remove the Panel Control, the Sub PCB and the Cover Top. 3. Remove 4 screws from the Frame Front.
		4. Remove the Door Switch Housing. When reassemble Door Switch to Frame Front, be careful for insert direction.
		5. Give out give for Frame front slightly.

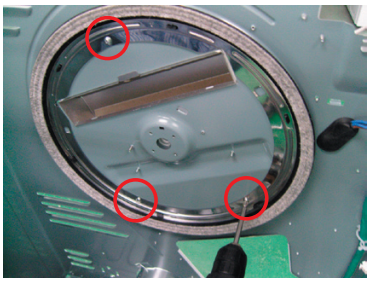
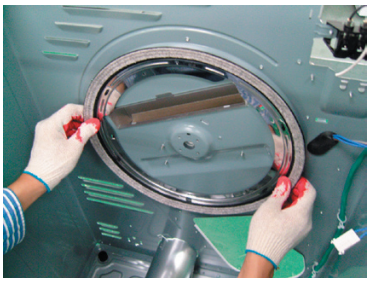
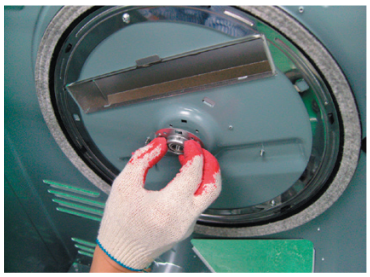
Part	Figure	Description
PCB MAIN Removal		1. Remove the three screws and produce the example out of the holder part.
		2. Remove the housing.
		3. Removal of one screw and remove the PCB ASSY (M)
Drum Front Removal (Continued)		1. Disconnect the power supply to the unit. 2. Remove the Panel Control, the Main PCB, the Cover Top and the Frame Front. 3. Disconnect Interior Light wiring Harness. 4. To remove the 2 screws.
		5. Removing the screw, which is fastened to the right to remove the upper plate.
		6. Disconnect the Moisture Sensor wiring Harness.

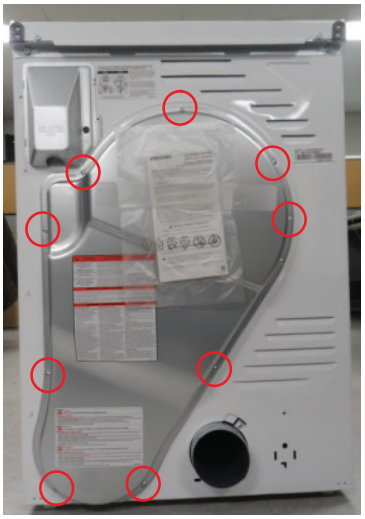
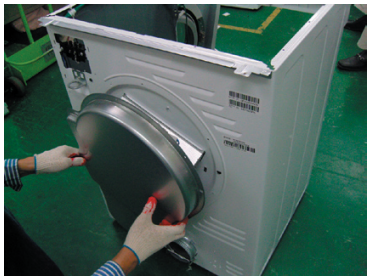
Part	Figure	Description
Drum Front Removal		7. Remove the four Bracket Drum Front 4 screws.
		8. Remove 4 screws from the Duct Outlet.
		9. Disconnect 2 Housing Sensor-Plate.
		10. Remove 3 screws from the Case Filter(F).

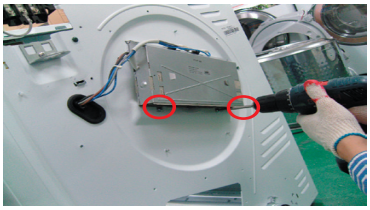
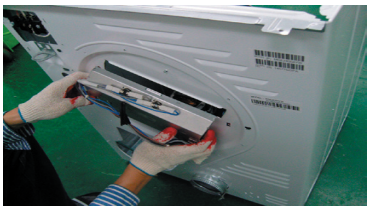
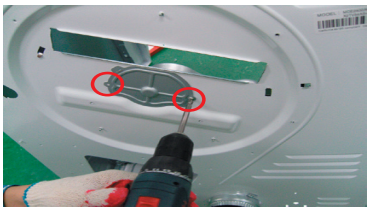
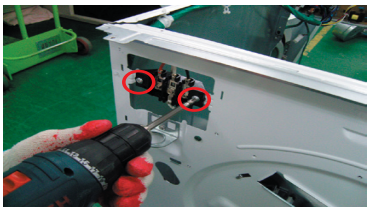
Part	Figure	Description
Assy Drum Removal		1. Disconnect the power supply to the unit. 2. Remove the Top Cover, the Panel Control, the Frame Front and the Assy Drum Front. 3. Remove Belt.
		4. Remove the Assy Drum Wrapper.

Part	Figure	Description
Assy Motor Removal (Continued)		1. Disconnect the power supply to the unit. 2. Remove the Top Cover, the Panel Control, the Frame Front, the Assy Drum Front and Assy Drum Wrapper. 3. Remove 1 screw from the Duct Connector.
		4. Remove 1 Nut from the Asst Motor.
		5. Remove the Fan from the Asst Motor.
		6. Remove 3 screw from the Asst Cover Duct.
		7. Remove Each Housing from the Thermistor and Thermostat.
		8. Remove the Assy Cover Duct from the Assy Motor.

Part	Figure	Description
Assy Motor Removal		9. Remove 2 the Plate Spring from the Bracket Motor.
		10. Remove the Housing from the Assy Motor.
		11. Remove the Assy Motor from the Bracket Motor.
		12. Remove 2 screw from the Bracket Motor.
		13 Remove the Bracket Motor from the Plate Bottom.
		14. Remove 1 screw from the Cover Switch. 15. Remove Switch Micro from the Bracket Motor.
		16. Remove the Holder Shaft.
		17. Remove each 1 screw from the Assy Cover Duct. 18. Remove Thermistor and Thermostat from the Assy cover Duct.

Part	Figure	Description
Assy Gasket Felt Removal		1. Disconnect the power supply to the unit. 2. Remove the Top Cover, the Panel Control, the Frame Front, the Assy Drum Front and Assy Drum Wrapper. 3. Remove 3 screw from the Bracket Gasket Felt.
		4. Remove the Assy Gasket Felt from the Frame.
Assy Housing Bearing Removal		1. Disconnect the power supply to the unit. 2. Remove the Top Cover, the Panel Control, the Frame Front, the Assy Drum Front and Assy Drum Wrapper. 3. Remove 4 screw from the Housing Bearing.
		4. Remove the Assy Housing Bearing from the Frame.
Cover Power Removal		1. Remove 1 screw from the Cover Power.
		2. Remove the Cover Power from the Frame.

Part	Figure	Description
Cover Duct Removal		1. Remove 9 screw from the Cover Duct.
		2. Remove the Cover Duct from the Frame.

Part	Figure	Description
Assy Heater Removal		1. Disconnect the power supply to the unit. 2. Remove the Top Cover, the Panel Control, the Frame Front, the Assy Drum Front, Assy Drum Wrapper and Cover Duct. 3. Disconnect each Housing.
		4. Remove 2 screw from the Frame.
		5. Remove the Assy Heater from the Frame.
Cover Bearing Removal		1. Disconnect the power supply to the unit. 2. Remove the Top Cover, the Panel Control, the Frame Front, the Assy Drum Front, Assy Drum Wrapper and Cover Duct. 3. Remove 2 screw from the Cover Bearing.
Bracket Power Removal		1. Disconnect the power supply to the unit. 2. Remove the Cover Power. 3. Remove 1 screw from the Bracket Power.
Terminal Block Removal		1. Disconnect the power supply to the unit. 2. Remove the Cover Power. 3. Remove 2 screw from the Terminal Block.

Part	Figure	Description
Duct Exhaust Removal		1. Remove 1 screw from the Frame. 2. Remove the Duct Exhaust from the Frame.

Reassembly procedures are in the reverse order of dissasembly procedures.

4. TROUBLESHOOTING

4-1. ERROR ITEMS AND DIAGNOSTIC CODES

An occurrence of an Error will make a sound of error melody for 5sec and continuously show one of the Error Displays from the following errors.

Error Display	Trigger	Action Taken
tC	The Thermistor resistance is very low or high.	Check for: - Clogged lint screen - Restricted vent system. - Check Thermistor resistance
dC	Running the dryer with door open.	Check for: - Close the door, and run the dryer - Loose or open wire terminals in Door sense circuit.
dF	Invalid state of the switch for checking door open/close.	Check for: - Loose or open wire terminals in Door sense circuit.
bC2	Invalid state of key circuit short for 30secs.	Check for: - Display PCB key circuit short or not.
HC	Invalid heating Temp in running the dryer.	Check for: - Restricted vent system. - Check Thermistor resistance.
FC	Invalid power source Frequency.	Check for: - Not using regular power source frequency. - Invalid power frequency sense circuit.
AC	Communication error between SUB PBA and MAIN PBA.	Check for : - Main PBA, SUB PBA and Wire harness. - Replace PCB.
9C1	Invalid power source voltage.	Check for : - Not using regular power source.

4-2. TEST MODE

■ Data Display Mode

Continuous Run Mode :

1. Press Mixed Load Bell + Dry Level for 7 sec during Power On State (Normal User Mode) .
2. Once in Continuous Run Mode, display “CC” for 1 sec and the number of Cycle for 1 sec and the remaining time for 1sec in turns.
3. The previous cycle will restart during Continuous Run Mode until the mode is deactivated.
4 During Continuous Run Mode, press Wrinkle Prevent + Dry Level for 7 seconds to return to normal user mode.

● **Data display mode :**

How to enter:

- After turning on the dryer, press Dry Level → Time → Temp. → Time within 2 seconds to enter the display mode.
- To change the mode, use the cycle selector.

Display mode number					
1	Main micom version	2	Display micom version	3	Touch-sensitive module version
4	Option value	5	Temperature data	6	Average temperature data for 1 minute
7	Temperature data for detecting if the vent is clogged	8	Average touch sensor data for 1 minute	9	Cycle count

Information code Recall

Information code Recall mode reminds users of the last Information code that was detected. Press and hold both the Wrinkle prevent and Dry Level buttons for 7 seconds to enter this mode. In Information code Recall mode, the last Information code that was detected appears. If no Information code has been found, nothing is displayed.

● **Smart Install**

Smart Install allows service personnel to check if the dryer is installed properly.
To enter Smart Install
Turn on the dryer, and press and hold the Adjust Time + Temp buttons for 7 seconds.
A message of “AS” appears.

Step 1. Check the touch sensor

Enter Smart Install mode, and open the door. The state of the touch sensor appears.
- 0 : Touch sensor open
- 1 : Touch sensor short

Put a wet cloth on the touch sensor to display “1”. Removing the cloth displays “0”.

Step 2. Check the motor and heater

Press the Start button to enter the diagnosis mode. The diagnosis result appears.
- OK : Both motor and heater work normally
- HC : Motor or heater doesn’t work normally

To exit Smart Install mode, turn off the dryer.

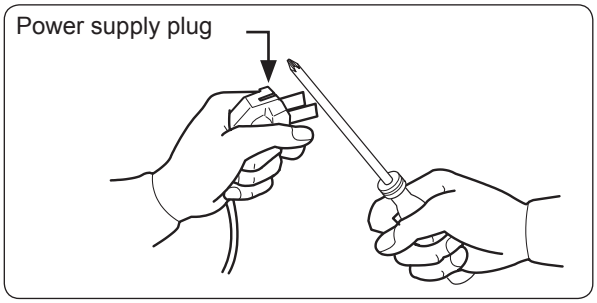
4-3. TROUBLE DIAGNOSIS

As the micom dry machine is configured for the complicate structure, there might be a service call.
The below information is prepared for exact trouble diagnosis and suitable repair guide.

● Caution for the repair and replacement

Please follow below instruction for the trouble diagnosis and parts replacement.

1. As some electronic components can be damaged by static electricity from the resin part of dryer or the human body, remove the potential difference of the human body and the dryer by contacting the power plug before you start working at PCB.



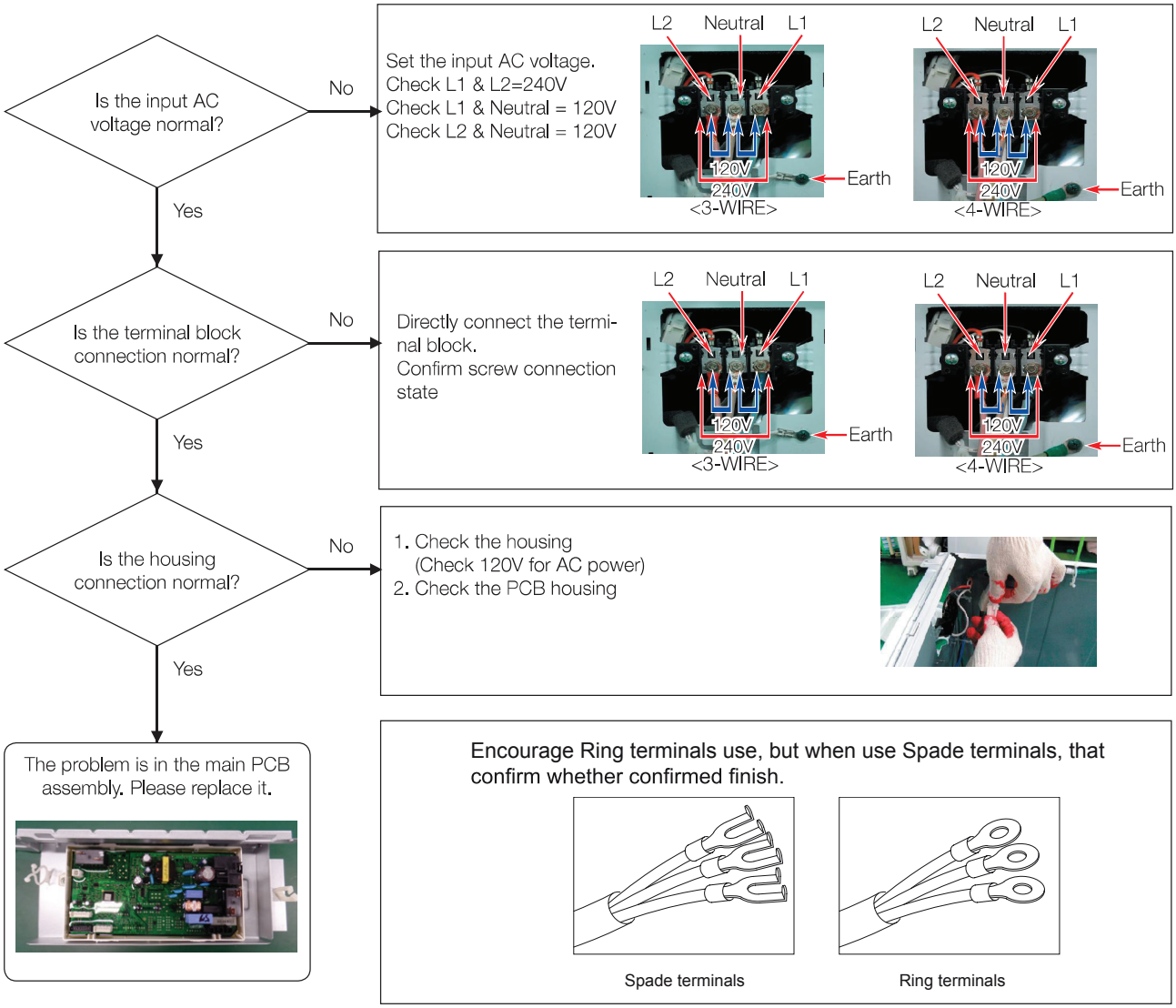
2. Since AC220~240V is applied to the triac T1 and T2 on P.C.B, the electric shock may occur by touching. Be careful the strong and weak electricity are mixed each other.
3. As the P.C.B assembly is designed for no trouble, do not replace the P.C.B assembly by the wrong diagnosis and follow the procedure of the trouble diagnosis when the micom is not operated normally.

No	Problem	What to do
1	Will Not Start or Run	• All wires are hooked up to their corresponding terminals. • Is the dryer is plugged in. • Blown fuse or circuit breaker. • Is the Door switch functional...door closed. Check for error code 3 (See Table for code definition). • Start/Pause rotary selector dial functional. • Is the control Board operational. • Belt off or broken and Belt Cut-off Switch operates. • Is the motor functional. • Check motor winding resistance: 2.88ohms between pin #3 and 4, 3.5ohms between pin #4 and 5.
2	Motor runs/ tumbler will not turn	• Belt off or broken/damaged. • Idler tension spring too weak or stretched. • Idler pulley jammed or stuck.
3	Runs a few minutes and then stops	• Lint buildup around drive motor. • Low voltage present. • Blower impeller blocked in blower housing. • Check the actuator of motor.
4	Blows fuses or trips circuit breaker	- Is the belt connected well? - Is the winding of the motor continuous? (Rotor winding, stator winding, generator) - Is the motor protector normal? • If above points are not found, the PCB assembly is out of order. Replace it.
5	Will not heat (motor runs)	Open heating element. • Hi-Limit trips easily or is open. • Regulating thermostat trips easily or is open. • Membrane switch open. • Check Thermistor.

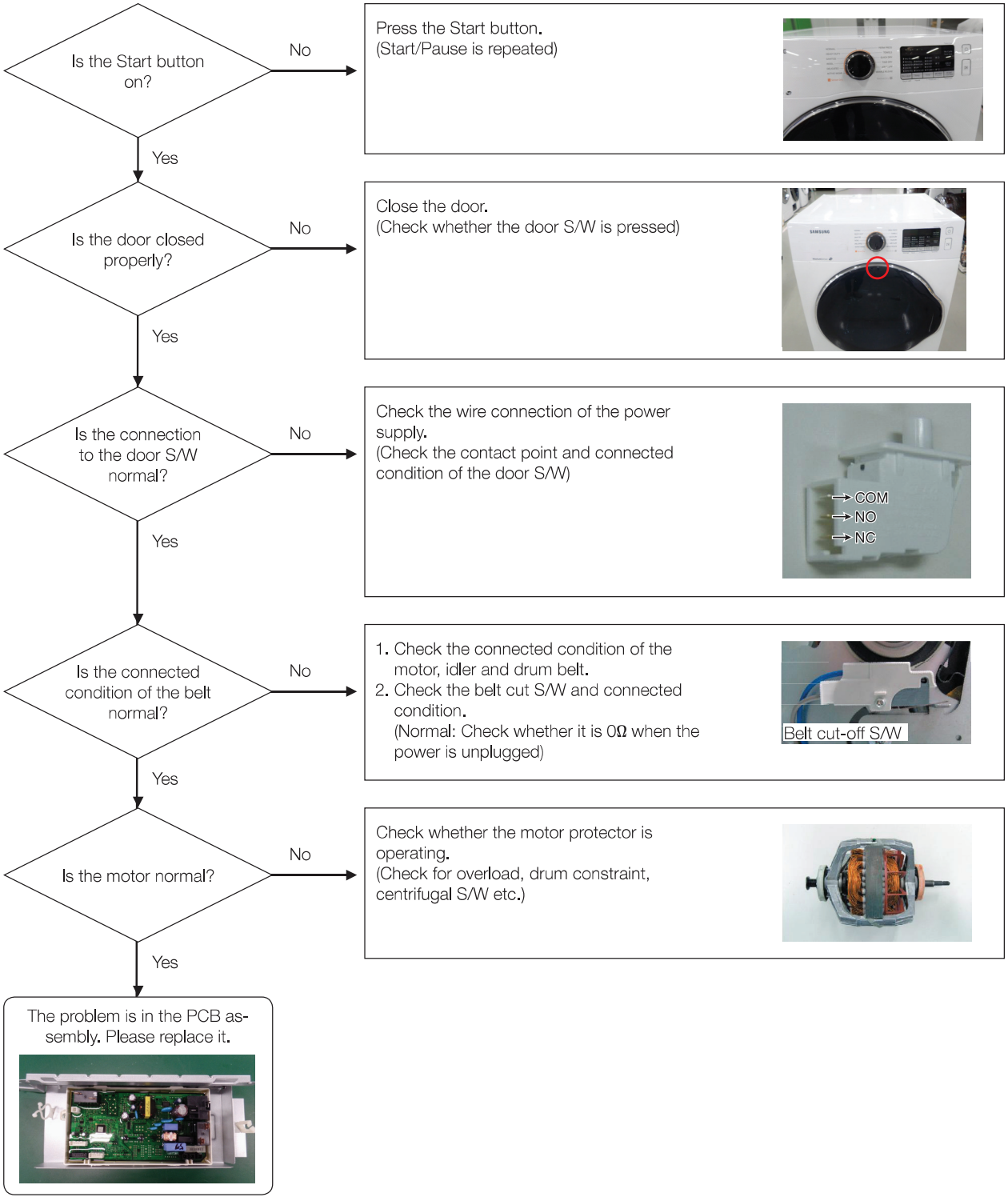
No	Problem	What to do
6	Improper drying clothes wrinkled Rough texture long dry time	• The lint filter is not clean. • Any restriction in the exhaust. • The outside exhaust hood damper door stuck closed. • Is the exhaust too long, too many elbows, flex ductwork installed. • Poor intake air available for the dryer. • Incorrect tumbler speed. Tumbler belt slipping. • Blower impeller bound; check for foreign material in blower area. • Customer overloading dryer. • Check clothing labels for fabric content and cycle selected. • Clothes too wet due to insufficient spin out by washer.
7	Noisy and/or Vibration	• “Thumping” Check for loose tumbler baffle, rear tumbler roller(s) worn or misaligned, out-of-round tumbler or high weld seam on tumbler. • “Ticking” Check for loose wire harness or object caught in blower wheel area. • Scraping Check for front or rear bulkhead felt seal out of position or worn tumbler front bearings. • “Roaring” Check for blower wheel rubbing on blower housing or bad motor bearings. • Popping or squealing sound. Check for a sticky or frayed belt.

4-4. SYMPTOMS, DIAGNOSIS AND ACTIONS

■ The power does not work.



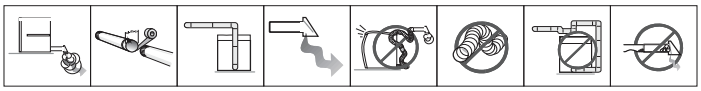
■ The drum does not work.



■ The clothes are not dried.

Is the vent properly installed?

No → Install the vent so that it is not blocked to the outside.
(Check the exhaust hole)



Yes

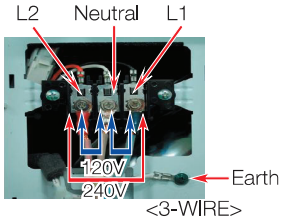
Did you clean the filter before drying?

No → Clean the filter.
(Check if there are any alien particles in the filter)

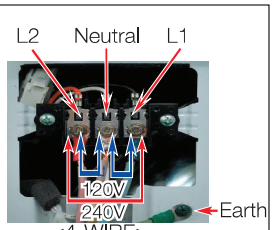
Yes

Is the terminal block connection normal?

No → Connect the terminal block properly.
(Check L1 & L2=240V)



<3-WIRE>



<4-WIRE>

Yes

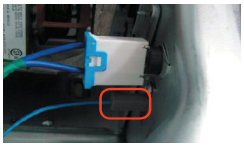
Is the touch sensor normal?

No → Connect the touch sensor.
(Check short of the plate sensor)

Yes

Is the Tamp. Sensor normal?

No → Replace the thermistor
(Check the connection between the PCB and termistor and check for any disconnection)



Yes

Is the safety, thermostat normal?

No → Check the Safety, thermostat.
(Check the cause of safety being off)

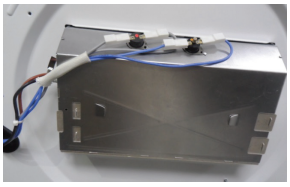
Yes

Is the heater normal?

No → Replace the heater
(Remove the power and check whether the heater coil has a resistance)

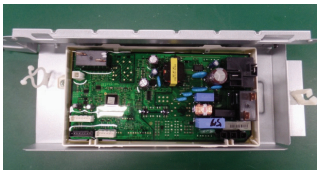
Heater resistance

1(Black) & 3(Grey) : 93Ω
3(Grey) & 5(Brown) : 35Ω

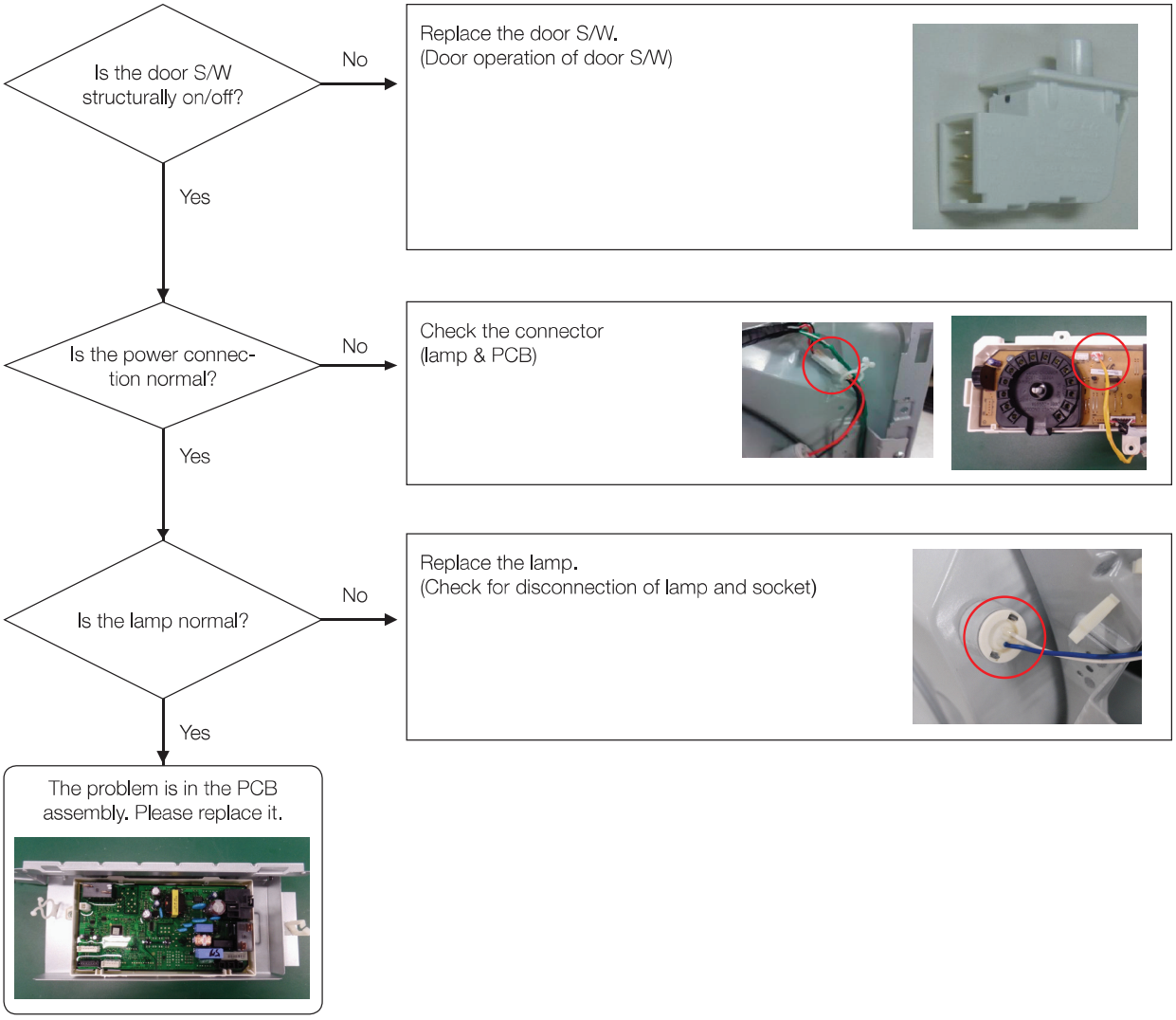


Yes

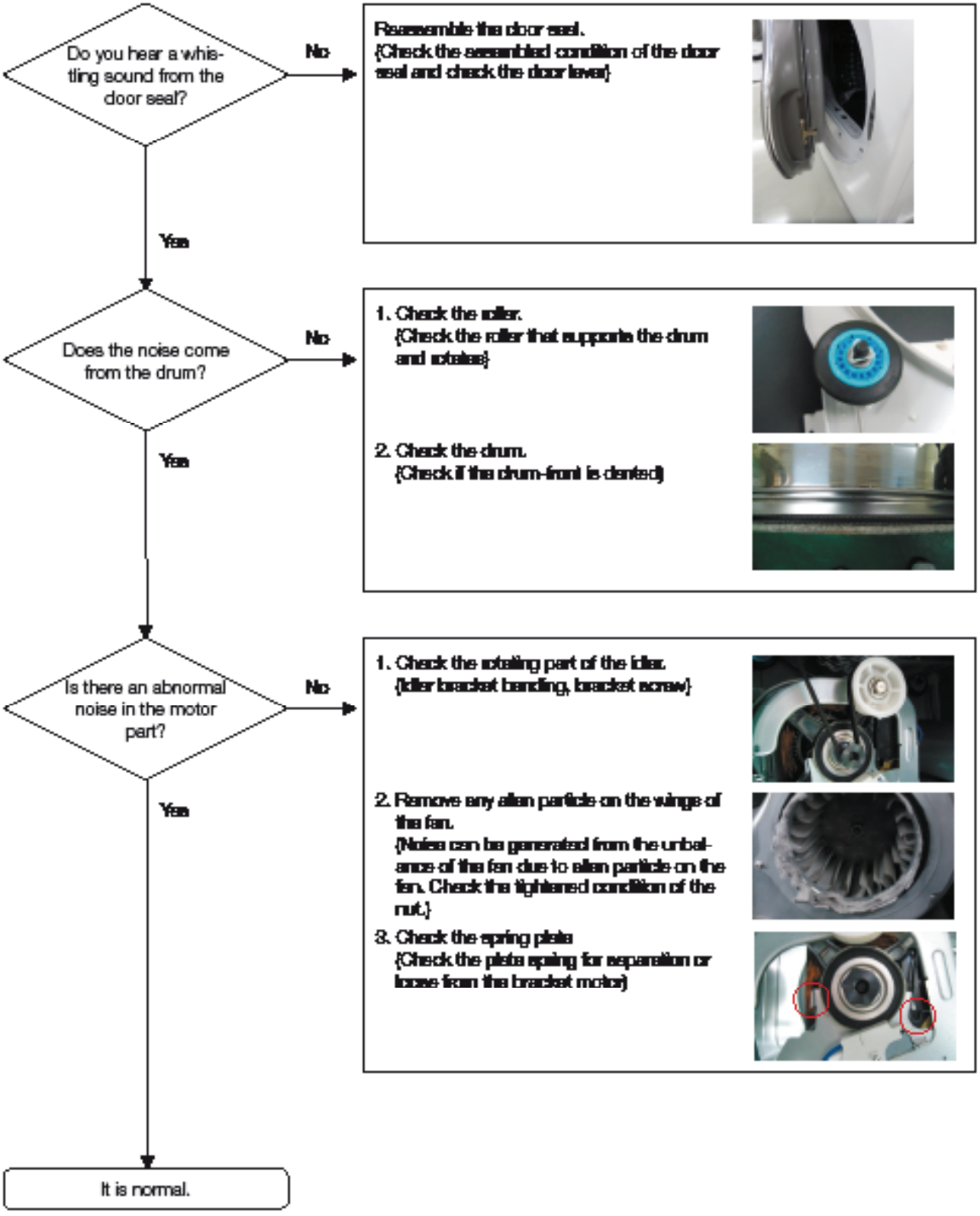
The problem is in the PCB assembly. Please replace it.



■ The lamp does not work.



■ The is an abnormal noise in the dryer.



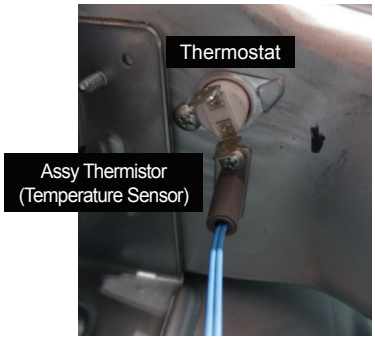
4-5. COMPONENT TESTING PROCEDURES

⚠ WARNING

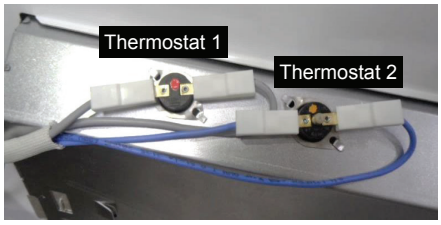
To avoid risk of electrical shock, personal injury or death; disconnect power to dryer before servicing, unless testing requires power.

■ Component electrical testing (with ohmmeter)

- Thermistor resistance 10K Ω at 25°C 77°F
- Thermostat resistance < 1Ω

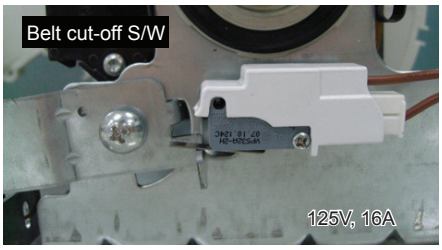


- Thermostat 1 resistance < 1Ω
  - If resistance is infinity, replace thermostat 1.
- Thermostat 2 resistance < 1Ω
  - If resistance is infinity, replace thermostat 2.
- [DUAL] Heater resistance 13Ω (PIN 2-3) Heater resistance 34 Ω (PIN 1-2)
  - If resistance is infinity, replace Heater.

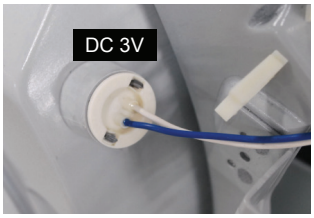


- Measure resistance of the following terminal
  1. Door : open
     Terminal : “COM” - “NC” (1-3) < 1Ω
     Terminal : “COM” - “NO” (1-2) : ∞ Ω
  2. Door switch : close
     Terminal : “COM” - “NC” (1-3) : ∞ Ω
     Terminal : “COM” - “NO” (1-2) < 1Ω

- Belt Cut-off S/W
  - Lever open: Resistance value < 1Ω
  - Lever push: Resistance value ∞ Ω



- When voltage (DC6V) is linked, Lamp confirms that is lighted up.

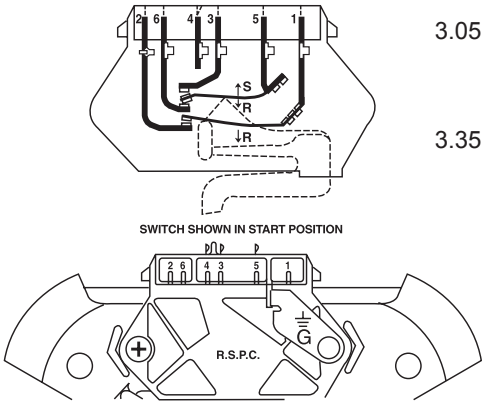


- Motor (Electronic)

Contacts (● : Contact closed)

Function	1M	2M	3M	5M	6M
Start			●	●	
Run	●	●		●	●

■ Centrifugal Switch (Motor)



3.05 Ω ±5% , at 25°C (77°F) between Pin #3 and 4

3.35 Ω ±5% , at 25°C (77°F) between Pin #4 and 5

5. PCB DIAGRAM

5-1. MAIN PCB

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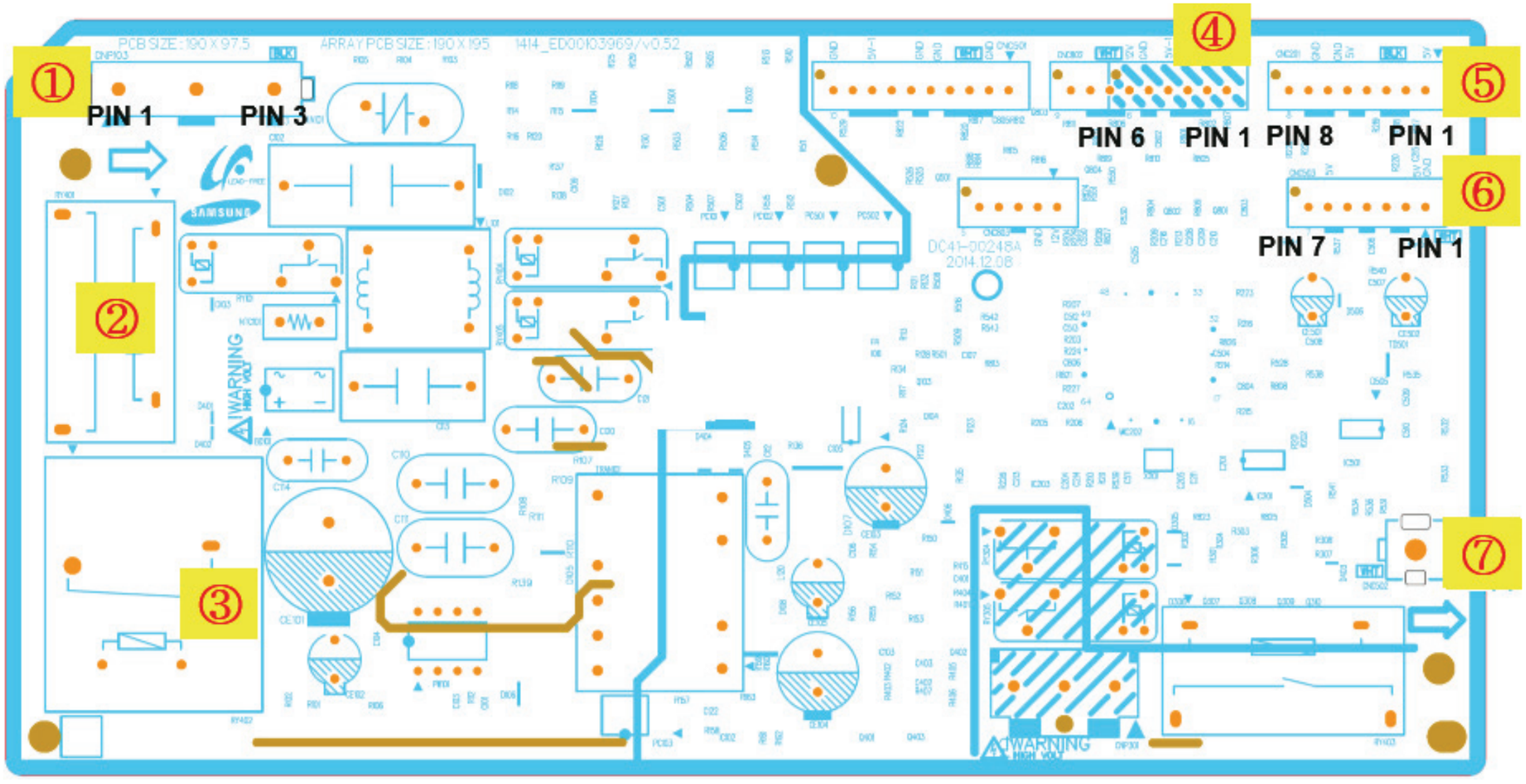

Location	Part No.	Function	
1	CNP103	AC connection connector	Supplies AC power to the PBA
2	RY401	Motor Relay Switch	The relay used for motor control
3	RY402	Heater Relay Switch	The relay used for heater control
4	CNC804	Sub PBA communication	The connector that controls communications with the Sub PBA corresponding to the Display.

Location	Part No.	Function	
5	CNC201	Micom writing & smart test connector	Used for micom writhing and smart test
6	CNC503	Dry sensing & thermistor control relay	Used for the temperature sensing
7	CNC502	LC system control connector	The connector used for the lint clean load control

5-2. DETAILED DESCRIPTIONS OF CONTACT TERMINALS (MAIN PBA)

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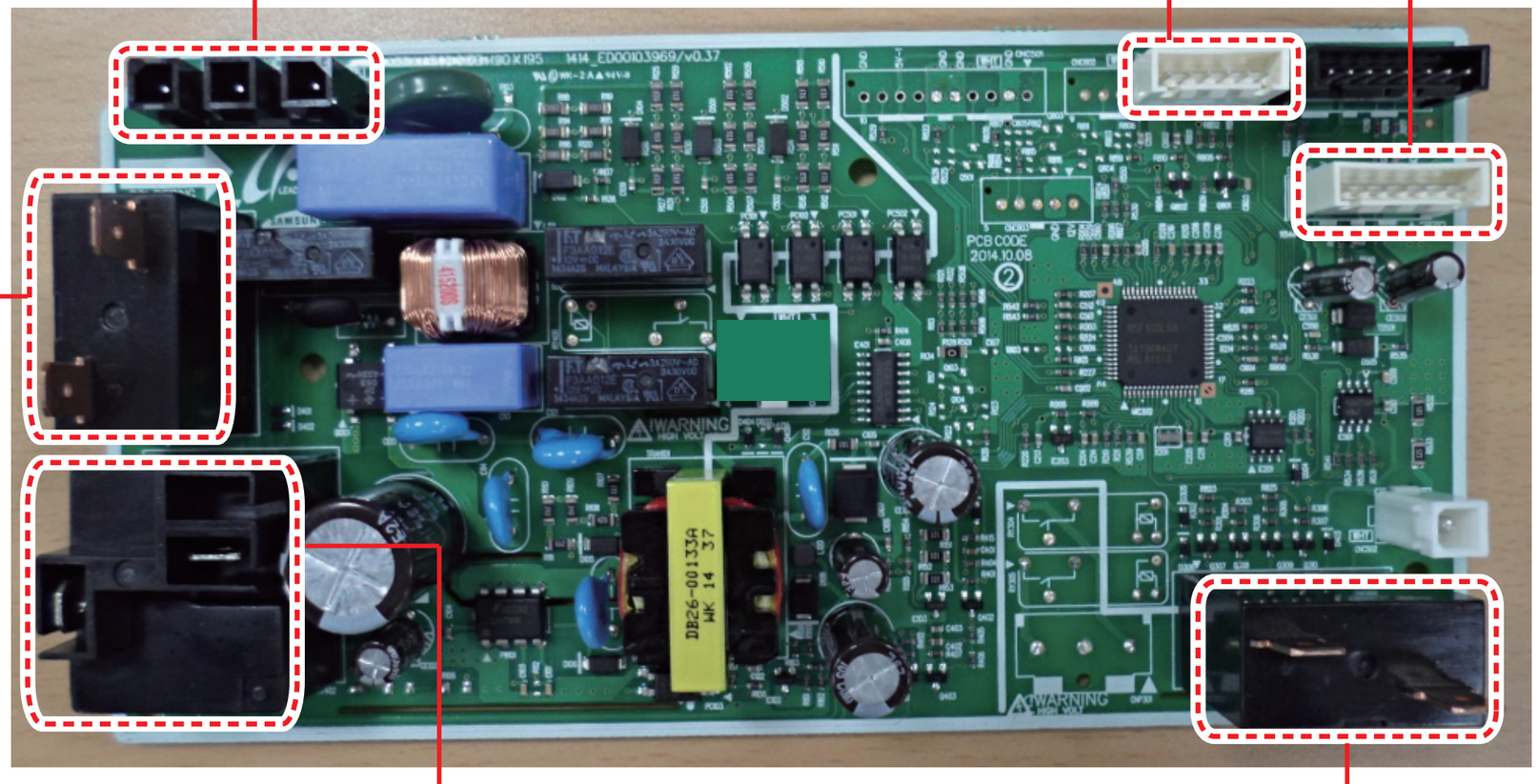
CNP 103
PIN1 - AC Power Port
PIN2 - Door Detection Sensor
PIN3 - N.C

CNC 804
1. RX
2. TX
3. SUB_RESET
4. 5V
5. GND
6. 12V

CNC 503
1. GND
2. 5V
3. Thermistor
4. Moisture Sensor
5. Moisture Sensor
6. 5V
7. N.C



RY 401
Motor Relay Switch

RY 402
Heater Relay Switch

RY 403
Heater2 Relay Switch

5-3. SUB PCB

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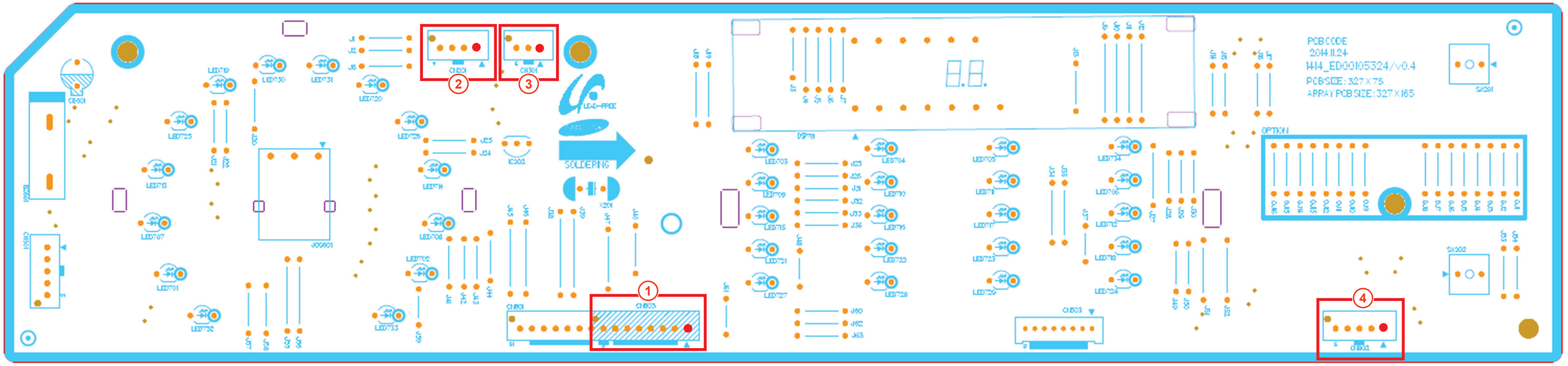


: Pin #1

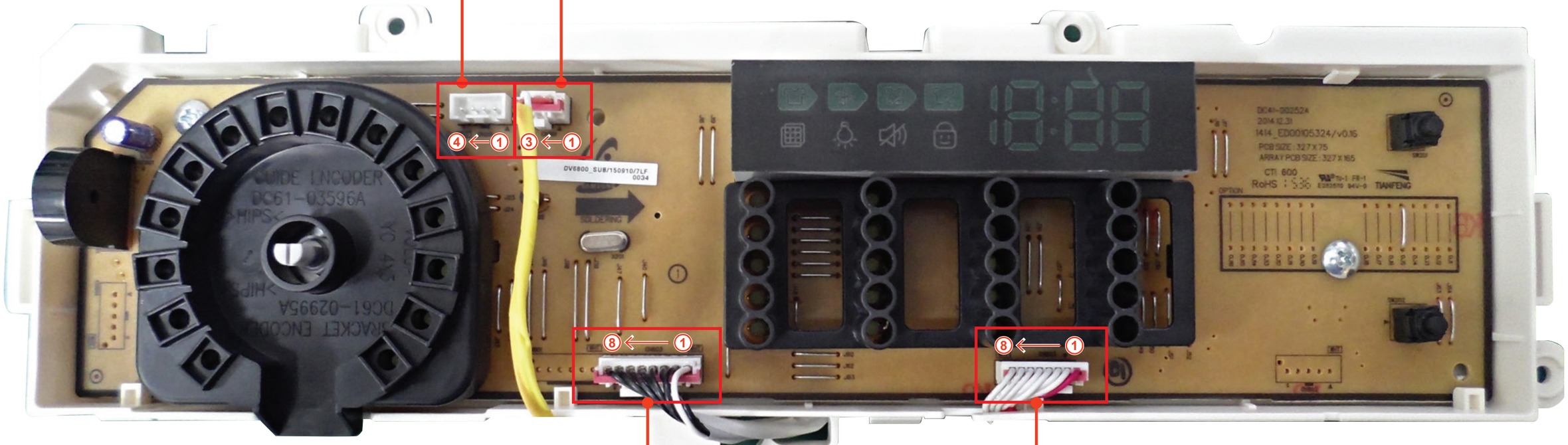
Location	Part No.	Function	Description
1	CN803	Communications Terminal	Communication with Main PBA
2	CN201	Software Update Terminal	Software Update input
3	CN301	Drum Light Terminal	Terminal for Drum Light cont
4	CN503	Touch Sensor Terminal	Terminal for Touch Sensor Connection

5-4. DETAILED DESCRIPTIONS OF CONTACT TERMINALS (SUB PBA)

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

► **CN201**
1. 5V for S/W update
2. GND for S/W update
3. Flash Reset For S/W update
4. Flash Writing for S/W update

► **CN301**
1. 12V to Drum Light
2. N.C
3. Drum Light Signal



► **CN803**
1. RX (from Main PBA)
2. TX (from Sub PBA)
3. Reset
4. 5V
5. GND
6. 12V
7. Water Level from SUB
8. Standby Signal to Main

► **CN503**
1. N.C
2. Data Signal - Touch
3. Clock Signal - Touch
4. 12V input for Touch
5. N.C
6. N.C
7. N.C
8. GND for Touch

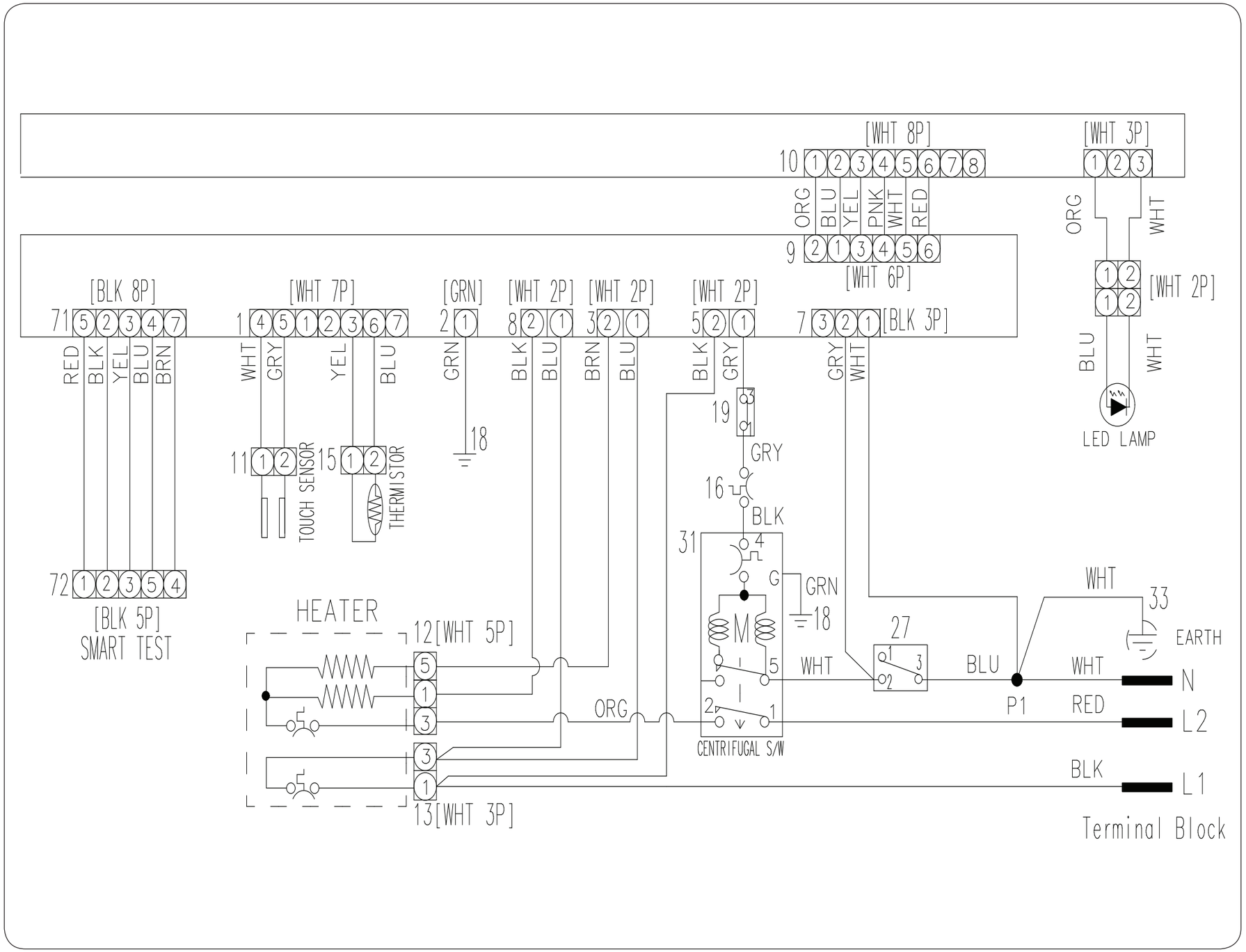
6. WIRING DIAGRAM

6-1. WIRING DIAGRAM

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

■ **Reference Information**

BLK	BLACK
BLU	BLUE
GRN	GREEN
GRY	GRAY
NTR	NATURAL
ORG	ORANGE
PNK	PINK
RED	RED
SKYBLU	SKYBLUE
VIO	VIOLET
WHT	WHITE
YEL	YELLOW



7. REFERENCE

7-1. MODEL NUMBER NAMING RULES

①		②		③	④	⑤			⑥	⑦	⑧	⑨	
Product Type		Capacity (by Market)		Intro. Year	Series	Feature Table			Intro. Region. or TYPE	Color		Buyer	
					Grade	F-Code 1	F-Code 2	F-Code 3		Color Code			
D	V	2	2	K	6	8	0	0	E	W	/	A	1

① Product type (CAN NOT CHANGE) : Auto Dryer Washing machine (SAMSUNG' s Guide Line)
② Market Claim Capacity : Our model: 4.0 cu.ft. (North America dryer same to pair washer : 2.2 cu.ft.)
③ Intro. Year : K – Intro.Year: 2016
④ Series : Grade 6 : Best
⑤ Feature : 800
⑥ Intro. Region. or Dryer type : E – Vent Elec
⑦ Color : W – WHITE
X – INOX
⑧ / : CBU
⑨ Buyer : A1: USA
AC : CANADA

SAMSUNG

GSPN (GLOBAL SERVICE PARTNER NETWORK)

Area	Web Site
Europe, CIS, Mideast & Africa	gspn1.samsungcsportal.com
Asia	gspn2.samsungcsportal.com
North & Latin America	gspn3.samsungcsportal.com
China	china.samsungportal.com

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