

# SAMSUNG

## CLOTHES DRYER

Basic Model : DV3000J

Project Name : DV3200T

Model Code : DVE45T3200W/A3  
DVG45T3200W/A3

Model Name : DVE45T3200W  
DVG45T3200W

# *SERVICE* Manual

### CLOTHES DRYER



DVE45T3200W/A3

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2. Features and Specifications
3. Disassembly and Reassembly
4. Troubleshooting
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# 1. SAFETY INSTRUCTIONS

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## 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 service 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.
17. Operate time dry for 20 minutes after service and check wheter HE error occurs or not.
  - When HC error occurs, check the terminal wiring of compressor.
  - ✓ It may cause desorption phenomenon of the pin for the wiring of compressor.

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## 1-2. IMPORTANT SAFETY INFORMATION

To reduce the risk of fire, electric shock, or injury to persons when using your appliance, follow basic precautions, including the following:

1. Read all instructions before using this appliance.
2. Do not dry articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry-cleaning solvents, or other flammable or explosive substances, as they give off vapors that could ignite or explode.
3. 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, paint 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.
4. Do not store or use gasoline or other flammable vapors and liquids near this or any other appliance.
5. Do not allow children to play on or in the appliance. Close supervision of children is necessary when the appliance is used near children.
6. Before the appliance is removed from service or discarded, remove the door to the drying compartment.
7. Do not reach into the appliance if the drum is moving.
8. Do not install or store this appliance where it will be exposed to the weather.
9. Do not tamper with internal controls.
10. Do not repair or replace any part of the appliance or attempt any service unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that you understand and have the skills to carry out.
11. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
12. Clean the lint screen before or after each load.
13. Do not use heat to dry articles containing foam rubber or similarly textured rubber-like materials.
14. Keep area around the exhaust opening and adjacent surrounding areas free from the accumulation of lint, dust, and dirt.
15. The interior of the appliance and exhaust duct should be cleaned periodically by qualified service personnel.
16. Do not place items exposed to cooking oils in your dryer. Items contaminated with cooking oils may contribute to a chemical reaction that could cause a load to catch fire. To reduce the risk of fire due to contaminated loads, the final part of a tumble dryer cycle occurs without heat (cool down period). Avoid stopping a tumble dryer before the end of the drying cycle unless all items are quickly removed and spread out so that the heat is dissipated.
17. This appliance must be grounded. See "Electrical requirements" and "Grounding" in "Installation" section.
18. Do not allow children to play on or in the appliance. Close supervision of children is necessary when the appliance is used near children.
19. Do not insert your hand under the dryer. This may result in injury.
20. Take care that children's fingers are not caught in the door when closing it. This may result in injury.
21. The control board and inlet valve are intentionally not grounded and may present a risk of electric shock only during servicing. Do not contact these parts while the appliance is energized.

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## ■ Electrical service information



### **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.

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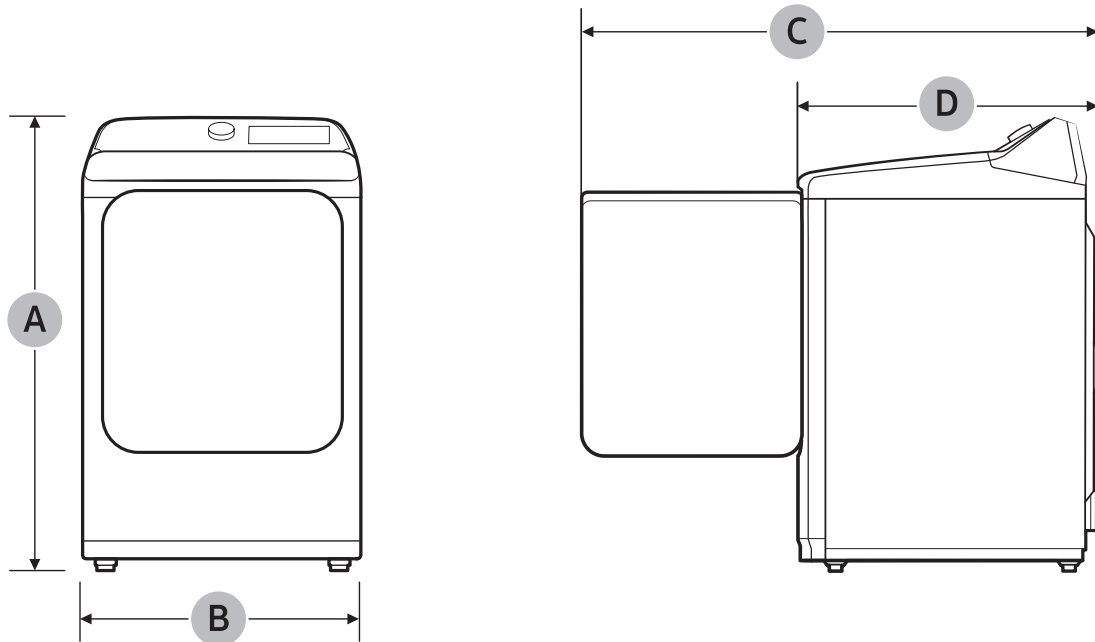
## 2. FEATURES AND SPECIFICATIONS

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### 2-1. MAIN FEATURES

- Delicate Dry (Low Temperature dry)
- Various Drying Cycles & Fuzzy Logic Algorithm
- Time Saving
- Easy Reversible Door
- 4-way Vent (Elec model only)

## 2-2. PRODUCT DIMENSION



Type			Front Loading Dryer
Dimentions	A.Height	Product-inches(mm)	43.9(1114)
	B. Width	Product-inches(mm)	27.0(686)
	C. Depth with door open 90°	Product-inches(mm)	50.1(1273)
	D. Depth	Product-inches(mm)	30.2(768)
Water pressure-psi(kPa)			20 - 116(137 - 800)
NET weight		lb(kg)	119(54)
Heater Rating		Electric(W)	5300
Power consumption(W)			5400

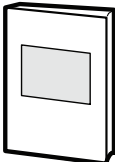
## 2-3. SPECIFICATION

Project		DV3000J(Basic)	DV3200T(New)
Model		DV40J3000E(G)*	DVE(G)45T3200*
USP & Features	Capacity (cu.ft / DOE)	7.2	7.2
	Power Resource	Electric / Gas	Electric / Gas
	Vent Sensor	-	-
	Vent Blockage Test	-	Y
	Steam	-	-
	Smart Control	-	-
	Smart Care	-	-
	Drum Material	Powder Coat(Gray)	Powder Coat(Gray)
	E-Star	-	-
	Reversible Door	Y	Y
	Drying Rack	-	-
	Filter Check Indicator	Y	Y
	Vent Exhaust (Electric / Gas)	4 Ways / 3 Ways	4 Ways / 3 Ways
	Heating Element (KW)	5300W/22,000BTU	5300W/20,000BTU
	Cycle Time (AHAM 8lbs) *( ) - Gas model / Elec. Eco Dry off	42 min	42 min
Design	Control panel	Rear	Rear
		Jog + Silk Print	Jog + Silk Print
	Main display	LED Bar	18:88 G.LED
	LED color	Red	Red
	Door	Solid	Solid
ENERGY & Performance	DOE Combined Energy Factor (CEF, lb/kWh, Appendix D1/D2)		3.73 (lb/kWh)-Elec 3.30 (lb/kWh)-Gas
	Voltage / Frequency	120V/ 240V / 60Hz (Elec)	120V/ 240V / 60Hz (Elec)
		120V / 60Hz (Gas)	120V / 60Hz (Gas)
	Energy Guide (kWh/cycle // Liter/cycle)	Electric - 2.4 Kwh Gas - 270 liter ↓	Electric - 2.4 Kwh Gas - 270 liter ↓
	Yearly Energy Consumption (kWh/year)	644 kWh/year (Elec)	644 kWh/year (Elec)



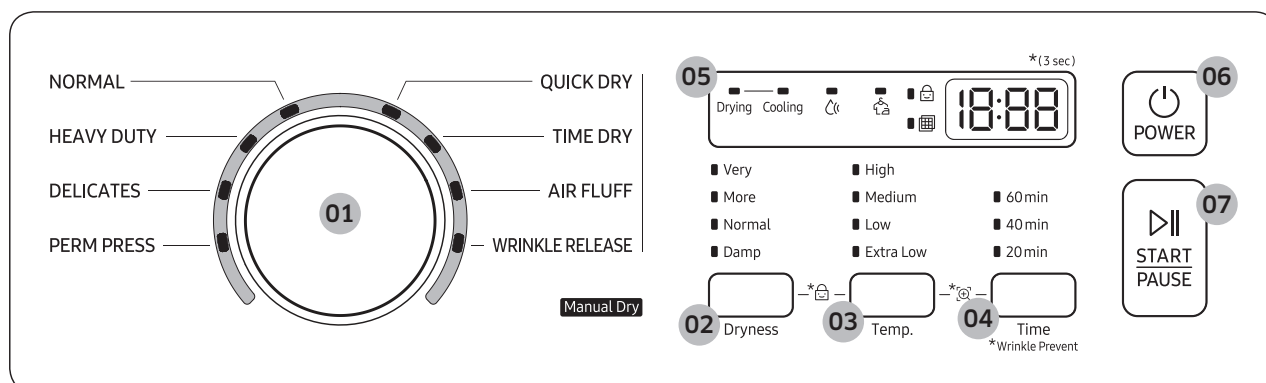
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## 2-4. OPTIONS SPECIFICATIONS

Item		Code	QTY	Remarks
	MANUAL-BOOK	DC68-03784N	1	Default

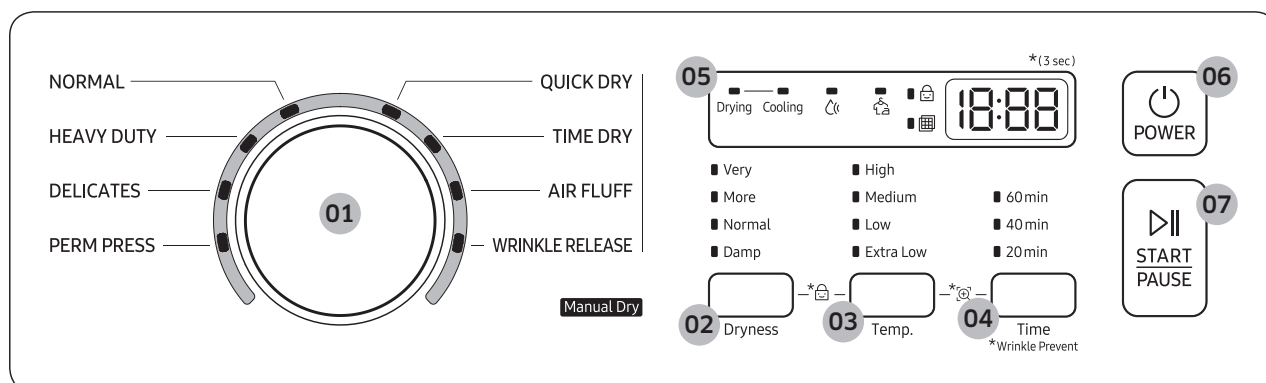
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## 2-5. CONTROL PANEL



<b>01 Cycle Selector</b>	<p>Turn the Cycle Selector to select the desired cycle. When a cycle is selected, the cycle indicator lights up.</p> <ul style="list-style-type: none"> <li>• <b>Manual Dry</b> : The drying time is fixed.</li> </ul>
<b>02 Dry Level</b>	<p>Press to select a dry level. You can select from 5 different options. Please refer to following recommendations to select the appropriate dryness.</p> <ul style="list-style-type: none"> <li>• For larger or bulkier loads, select Very Dry or More Dry for complete dryness.</li> <li>• Less Dry is best suited for lightweight fabrics or for leaving some moisture in the clothing at the end of the cycle.</li> <li>• Damp Dry is designed to partially dry items. Use for items that lay flat or hang to dry.</li> </ul> <p><b>NOTE</b> This option is not available with <b>TIME DRY</b>, <b>QUICK DRY</b>, <b>AIR FLUFF</b>, and <b>WRINKLE RELEASE</b>.</p>
<b>03 Temp.</b>	<p>Temperature can only be adjusted in <b>TIME DRY</b> and <b>WRINKLE RELEASE</b> cycle. Press to change the temperature of the current cycle. You can select from 3-4 different options. Please select the appropriate temperature depending on the items in the load.</p> <ul style="list-style-type: none"> <li>• <b>High</b> : For sturdy cottons or those labeled Tumble Dry.</li> <li>• <b>Medium</b> : For permanent press, synthetics, lightweight cottons, or items labeled Tumble Dry Medium.</li> <li>• <b>Low</b> : For heat sensitive items labeled Tumble Dry Low or Tumble Dry Warm.</li> <li>• <b>Extra Low</b> : Provides the lowest heated drying temperature possible.</li> </ul>
<b>04 Time</b>	<p>Press to adjust the drying time for the Manual Dry cycles. This is not available with the Sensor Dry cycles because the dryer determines the drying time by sensing the current moisture level of the load.</p>
<b>05 Digital Graphic Display</b>	<p>Displays all cycle information, including the cycle time, information code, and operating status.</p> <div>  Filter Check          Child Lock          Sensor Dry          Wrinkle Prevent       </div>
<b>06 Power</b>	<p>Press to turn on/turn off the dryer.</p>
<b>07 Start/Pause</b>	<p>Press to start or stop operation.</p>
<b>* Wrinkle Prevent</b>	<p>Wrinkle Prevent provides approximately 180 minutes of intermittent tumbling in unheated air at the end of the cycle to reduce wrinkling. Press <b>Wrinkle Prevent</b> to activate this feature. The load is dry and can be removed at any time during the Wrinkle Prevent cycle.</p>

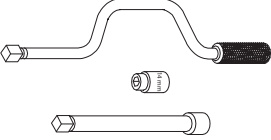

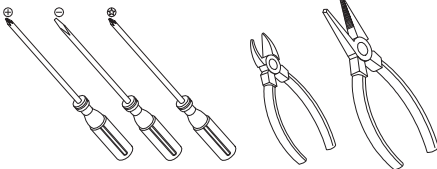

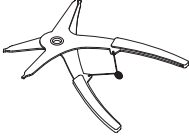
## 2-6. CYCLE OVERVIEW



Cycle	Description
<b>NORMAL</b>	For most fabrics including cottons and linens.
<b>HEAVY DUTY</b>	For drying items made out of heavy fabrics, such as jeans, corduroys, or work clothes, with high temperature heat.
<b>DELICATES</b>	For heat-sensitive items at a low drying temperature.
<b>PERM PRESS</b>	Dry wrinkle-free cottons, synthetic fabrics, knits, and permanent press fabrics automatically.
<b>QUICK DRY</b>	A quick drying cycle running for 30 minutes. The default cycle time is 30 minutes. However, you may manually change the cycle time if necessary.
<b>TIME DRY</b>	You can specify a cycle time in minutes. If <b>TIME DRY</b> is selected, the Eco Dry function is enabled by default.
<b>AIR FLUFF</b>	Tumbles the load in room temperature air.
<b>WRINKLE RELEASE</b>	The WRINKLE RELEASE cycle will release wrinkles from items that are clean, dry, and only slightly wrinkled, such as clothes from a crowded closet, suitcase or items that have been in the dryer too long after the cycle has ended. WRINKLE RELEASE can be used with any temperature selection.

### 3. DISASSEMBLY AND REASSEMBLY

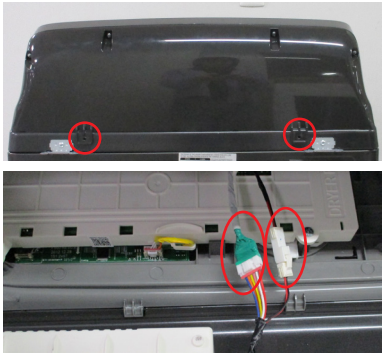
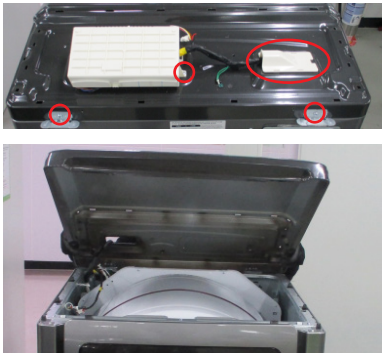

#### 3-1. TOOLS FOR DISASSEMBLY AND REASSEMBLY

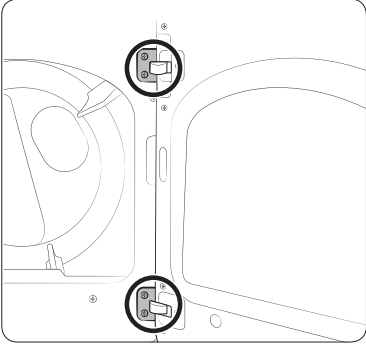
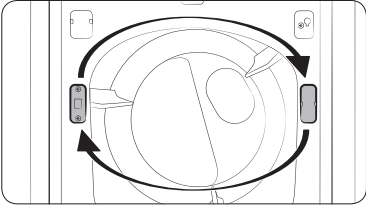
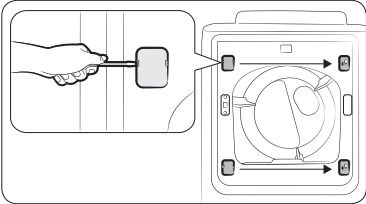
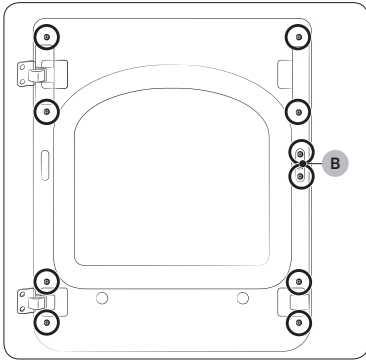
Tool	Type	Remarks
	Socket set with 6" extention 14 mm	Fan (2)
	Vice pliers	Tool to protect the idle and abrasion of the bolt for the box driver.
	Other (Driver, Diagonal Cutter, Long Nose Pliers)	General tools for the after service.
	Jig	The tool for disassembling the fan on the back.
	C-Ring Jig	Ease insertion and separation of C-Ring.

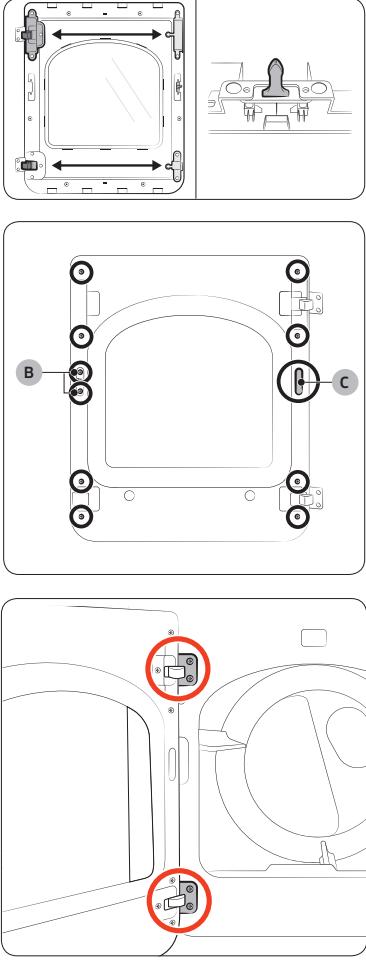

### 3-2. STANDARD DISASSEMBLY DRAWINGS



**⚠ 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.

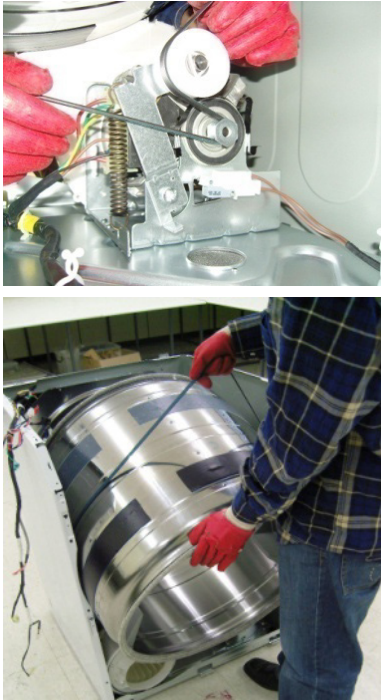

Part Name	Figure	Description
Control Panel		<ol style="list-style-type: none"><li>1. Unplug the unit.</li><li>2. Remove 2 screws from the Cover Panel.</li><li>3. Unplug 2 housing.</li><li>4. Remove the Control Panel.</li></ol>
Cover Top		<ol style="list-style-type: none"><li>1. Unplug the unit.</li><li>2. Remove the Control Panel.</li><li>3. Remove 1 screw from the Cover PCB.</li><li>4. Remove the housings.</li><li>5. Remove the Cap-Cover Top and 2 screws from the Bracket Cover Top.</li><li>6. Slide the Cover Top towards the front and lift from the unit.</li></ol> <p> Scratch and impact to the Cover Top is prohibited.</p>

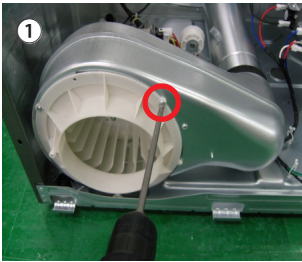
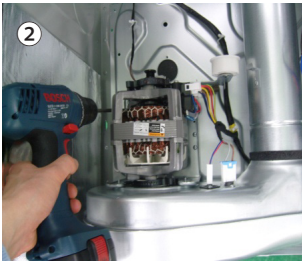
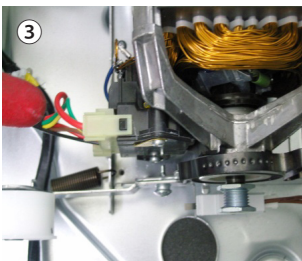
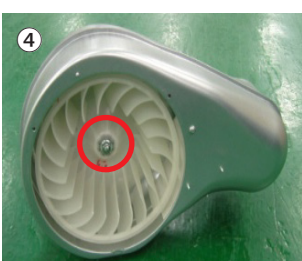
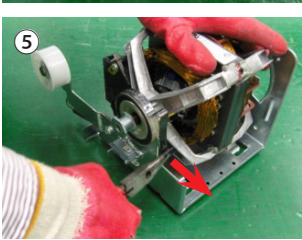

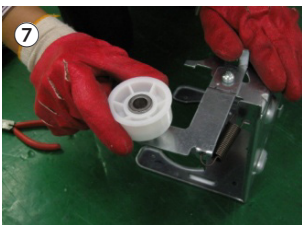
Part Name	Figure	Description
Door Reversal		<ol style="list-style-type: none"><li>1. Unplug the power cord of the dryer.</li><li>2. Remove the four hinge screws from the door, and then remove the door by lifting it up slightly.</li><li>3. Remove the two screws from the lever holder, and then remove the holder cover.</li><li>4. Put the lever holder on the other side as shown, and then tighten the screws. Install the holder cover on the opposite side as shown.</li><li>5. Use a flat-head screwdriver to remove the two hinge covers from the original side. Install the hinge covers on the opposite side as shown.</li><li>6. Locate and remove the 10 screws as shown. Note that screw B (x2) is longer than the others.</li></ol>
		
		
		

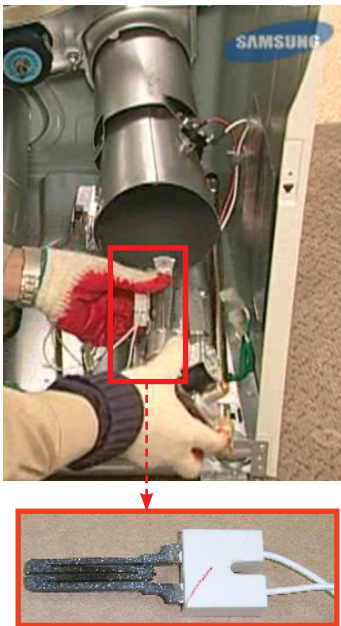
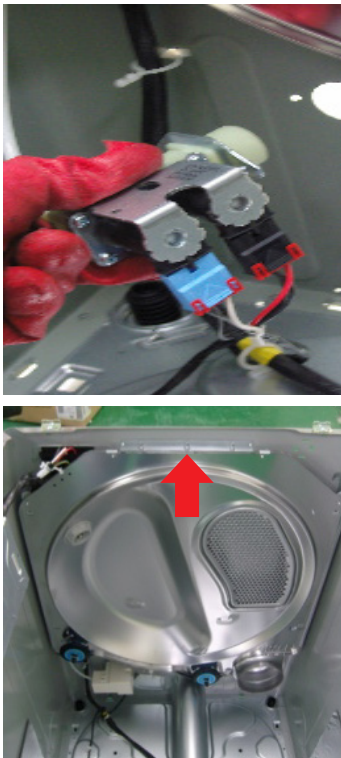

Part Name	Figure	Description
Door Reversal		<ol style="list-style-type: none"> <li>Remove the glass holder, and switch the positions of : <ol style="list-style-type: none"> <li>the hinge cover and the door handle.</li> <li>the hinge holder and the glass-guide holder.</li> </ol> </li> <li>Remove the door lever, and then move it to the other side as shown.</li> <li>Remove the hole cover (C), and then insert and tighten the glass holder using the removed 10 screws.</li> <li>Install the hole cover on the opposite side as shown.</li> <li>Reinstall the door on the front frame, and then carefully insert and tighten the 4 hinge screws.</li> </ol>
Frame Front		<ol style="list-style-type: none"> <li>Unplug the unit.</li> <li>Remove Control Panel.</li> <li>Remove Cover Top.</li> <li>Remove 3 screws from the Plate(U).</li> <li>Remove 3 screws from the Frame Front.</li> <li>Separate Door-Switch Housing.</li> <li>Lift and Frame Front off the 3 tabs across the bottom and remove. <ul style="list-style-type: none"> <li>After reassembly check Frame Front fixed on the Frame well, and Door-Switch work properly.</li> </ul> </li> </ol>




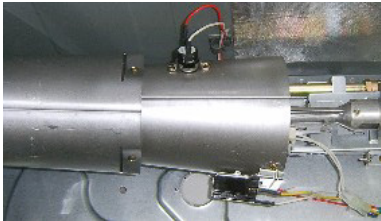

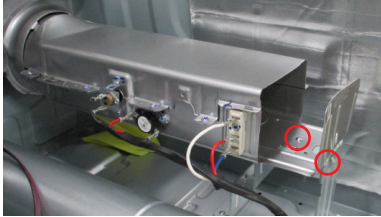

Part Name	Figure	Description
Drum Front		<ol style="list-style-type: none"> <li>1. Unplug the unit.</li> <li>2. Remove Top Cover.</li> <li>3. Remove Control Panel.</li> <li>4. Remove Frame Front.</li> <li>5. Remove Plate(U)</li> <li>6. Remove Drum Front retaining 5 screws.</li> <li>7. Disconnect Moisture Sensor Wiring Harness.</li> <li>8. Lift Drum Front from Cabinet and remove.</li> </ol>
Moisture Sensor		<ol style="list-style-type: none"> <li>1. Unplug the unit.</li> <li>2. Remove Top Cover.</li> <li>3. Remove Control Panel.</li> <li>4. Remove Frame Front.</li> <li>5. Remove 2 screws from the Duct Outlet.</li> <li>6. Remove 3 screws from the Case Filter(F).</li> <li>7. Remove 1 fixing screws from the Case Filter(B).</li> <li>8. Disconnect 2 Housing Sensor-Plate. <ul style="list-style-type: none"> <li>☑ After reassembly check the Touch Sensor work properly through test mode.</li> </ul> </li> </ol>



Part Name	Figure	Description
Drum		<ol style="list-style-type: none"> <li>1. Disconnect Power Supply to Unit.</li> <li>2. Remove Top Cover, Console, Front Panel, Plate(u), Drum Front.</li> <li>3. Remove Belt.</li> <li>4. Lift Drum and Pull out. <ul style="list-style-type: none"> <li>☑ Carefully spread the cabinet as needed to get extra clearance. But, take care not to deform the cabinet.</li> </ul> </li> </ol>
Front & Rear Roller (After removing Drum Back)		<ol style="list-style-type: none"> <li>1. After remove Nut-Hex, separate each Roller.</li> </ol>

Part Name	Figure	Description
Motor/Blower	      	<ol style="list-style-type: none"> <li>1. After remove Drum, do the following.</li> <li>2. Remove the 2 screws from Duct Connector.</li> <li>3. Separate Duct Connector.</li> <li>4. Remove 1 Housing Motor.</li> <li>5. Remove 2 Housing Belt Cut. Off Switch.</li> <li>6. Remove 3 Screw from Motor-Bracket.</li> <li>7. Separate Assy Motor in Bottom Plate.</li> <li>8. Lock Blower Wheel with a screwdriver and separate the 14mm nut from Fan.</li> <li>9. Remove Blower Fan.</li> <li>10. Remove the three screws from Cover-Duct Fan.</li> <li>11. Remove 2 Spring Plate Using a long-nose plier.</li> <li>12. Remove 1 Screw Belt Cut Off Switch.</li> <li>13. Remove Holder Shaft and Roller-Idler.</li> </ol> <p>☑ After reassembly check the Motor work properly.</p>

Part Name	Figure	Description
Burner		<ol style="list-style-type: none"> <li>1. After the knock-down to Motor/Assy-Motor, do the following.</li> <li>2. Shut off gas supply.</li> <li>3. Disconnect gas pipe.</li> <li>4. Remove all the connectors.</li> <li>5. Remove two screws (one at the front and the other one at the back) securing Burner to Frame.  <input checked="" type="checkbox"/> The Igniter Bar is easy to fragile. So, take care when removing Burner Assy.</li> <li>6. Remove the two screws attaching the housing to Burner Bracket.</li> <li>7. Remove Burner Assy from the unit.</li> </ol>
Drum Back		<ol style="list-style-type: none"> <li>1. Remove 7 screws at the back of the unit and 2 screws at the Valve-Water.</li> <li>2. Separate the Cover-Valve.</li> <li>3. Remove the terminal from the valve-Water.</li> <li>4. Separate Assy-Drum Back in Frame.</li> </ol>
Duct Exhaust		<ol style="list-style-type: none"> <li>1. After separate Assy-Drum Back, do the following.</li> <li>2. Remove 1 screw from the Frame.</li> <li>3. Remove the Duct-Exhaust.</li> </ol>

Part Name	Figure	Description
Thermistor		<ol style="list-style-type: none"> <li>1. Unplug the unit.</li> <li>2. Remove Top Cover.</li> <li>3. Remove 1 screw from the Assy Drum Back.  <input checked="" type="checkbox"/> To remove the screw, use long tools.</li> </ol>
Sensors (Thermostat, Thermistor, Radiant/Flame)	  	<ol style="list-style-type: none"> <li>1. Remove each securing screws to remove each of the sensors.</li> </ol> <p>For differences between Gas and Electric.</p>
Heater	  	<ol style="list-style-type: none"> <li>1. After separate Motor, Duct-Fan, do the following.</li> <li>2. Remove 6 Housing Heater-Terminals.</li> <li>3. Remove 2 screw from Heater Die.</li> <li>4. Separate Heater in Drum-Back.</li> </ol>

☒ Reassembly procedures are in the reverse order of disassembly procedures.

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## 4. TROUBLESHOOTING

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### 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.

Information Code	Meaning	Action
<b>dC</b>	The dryer is running with the door open.	<ul style="list-style-type: none"><li>• Close the door, and run the dryer again.</li><li>• Check if the door sensor unit is loose or short.</li></ul>
<b>FC</b>	Invalid power source frequency.	<ul style="list-style-type: none"><li>• Check if you are using regular power source frequencies.</li><li>• Check the power frequency sensor circuit.</li></ul>
<b>AC</b>	Electronic control problem (Invalid Communication).	<ul style="list-style-type: none"><li>• First check the PCB and wire harness.</li><li>• Replace the PCB if the problem persists.</li></ul>
<b>HC</b>	Invalid heating Temp in running the dryer.	<ul style="list-style-type: none"><li>• Check the PCB and Thermistor.</li></ul>
<b>9C1</b>	Electronic control problem (Invalid Voltage).	<ul style="list-style-type: none"><li>• Check the PCB and wire harness.</li><li>• Check if power is supplied properly.</li></ul>
<b>tC</b>	The thermistor1 resistance is very low or high.	<ul style="list-style-type: none"><li>• Check for a clogged lint screen.</li><li>• Check if the vent system is restricted.</li><li>• Check the thermistor resistance.</li></ul>
<b>tC5</b>	The thermistor2 resistance is very low or high.	<ul style="list-style-type: none"><li>• Check for a clogged lint screen.</li><li>• Check if the vent system is restricted.</li><li>• Check the thermistor resistance.</li></ul>
<b>dF</b>	Incorrect door switch.	<ul style="list-style-type: none"><li>• Check if the door sensor unit is loose or short.</li></ul>
<b>bC2</b>	Incorrect button state.	<ul style="list-style-type: none"><li>• Check if the display PCB is loose or short.</li></ul>
<b>3C</b>	Motor Relay short problem	<ul style="list-style-type: none"><li>• Check the Motor.</li></ul>



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## 4-2. SPECIAL FEATURES

### ■ Child Lock

- Child Lock prevents children from playing with the dryer. When Child Lock is activated, all buttons except for the **Power** button are disabled.
- To activate/deactivate Child Lock, simultaneously press and hold **Dryness** and **Temp.** for 3 seconds.

#### NOTE

Once Child Lock is activated, it will remain active even after you restart the dryer. If other buttons, except for the **Power button**, do not respond, check the Child Lock indicator. If the indicator is on, follow the instructions above to turn Child Lock off.

### ■ Vent blockage test

After the dryer is installed, start the Vent Blockage Test to check if the duct system is properly installed. The Vent Blockage Test automatically detects the status of the ducts and reports any blockage or problems. Proper ducting can reduce drying time and save energy.

#### NOTE

The Vent Blockage Test must run with the dryer in a cool state. If the dryer warms up after the installation check, run the **AIR FLUFF** cycle for several minutes to reduce its internal temperature. Running the vent blockage test

### ■ Running the vent blockage test

1. Make sure the drum is empty, and then close the door.  
(If there are any clothes or other items in the drum, the test will not give accurate results.)
  2. Press the **POWER** button to turn the dryer on, then simultaneously press and hold the **Time** and **START/PAUSE** buttons for 3 seconds. "**InS** or **In**" appears in the dryer's display. (If you have started other procedures before the Vent Blockage Test, the dryer will not enter the Vent Blockage Test mode.)
  3. Press the **START/PAUSE** button. The Vent Blockage Test starts immediately. During the test, the number indicator makes a circle in 6 clockwise steps. The test takes about 2 minutes. Do not open the door during the test.
  4. After 2 minutes, when the test is complete, the results is displayed and the dryer sounds a tone.  
If status of the duct system is normal, "**0**" appears and the dryer sounds a completion tone.  
If the duct system can not exhaust properly, 'Check mode' appears and the dryer sounds an alarm tone.  
If there are any other problems, an information code appears in the display. For information about the code, see "Information codes" section.
- To stop or cancel the Vent Blockage Test, press the **POWER** button to turn off your dryer.
  - The results remain on the display for about 5 minutes and then automatically turn off. You can turn the result off immediately by pressing the **POWER** button.

#### NOTE

- During or after the test, the internal drum is hot. Use caution to prevent burns. The Vent Blockage Test is used to check for problems to the current duct system when the dryer is installed for the first time.
- If the test result displays 'Check mode' (the duct system is blocked), refer to the "**Ducting requirements**" section and the "**Exhaust ducting guide**" section below, and then take proper measures to correct any problems. If the test is suspended, it could result in incorrect results. Follow the proper procedures when testing the dryer.
- Even if the test result is normal ("**0**"), the duct system could be blocked slightly. Properly install all duct work according to the installation instructions in this manual.

Check code	Meaning	Solution
<b>0</b>	Vent condition is good.	
<b>Clg(Cg)</b>	The vent is clogged.	1. Clean the lint filter. 2. Check your vent condition. (Refer to the “.Ducting requirements” section) * You must take measures (such as cleaning) through expert personnel.
<b>C80(C8)</b>	About 80% of the vent is clogged. (This may decrease the drying performance.)	
<b>C90(C9)</b>	Over 90% of the vent is clogged. (This may lead to poor drying performance or cause malfunction)	
<b>Ct</b>	The internal temperature of the dryer is too low (below 32 °F) or too high (over 104 °F) and therefore vent blockage cannot be detected.	Leave the dryer at room temperature (41~95 °F) for an hour and check again.
<b>tC</b>	Temperature sensor error	Contact a service center.
<b>C1</b>	Unit is detecting items inside the drum or there is an error on the dry sensor.	Remove items from the drum and check again. If the problem continues, contact a service center.
<b>dC</b>	Unit is detecting door is open	Close the door properly and check again. If the problem continues, contact a service center.
<b>9C1</b>	Abnormal voltage detected	Check the power connection. (Refer to the “Connect the electrical Wiring” section) If the problem continues, contact a service center.

---

## 4-3. CLEANING

### ■ Feature Panel

- Clean with a soft, damp cloth. Do not use abrasive substances.
- Do not spray liquid cleaning agents directly on the display of the dryer.
- Some laundry pre-treatment soil and stain removers may damage the feature panel.
- When using liquid cleaning agents, apply them to the cleaning cloth. Do not apply them directly to the dryer. Wipe up any spills or overspray immediately.

### ■ Tumble

- Remove any stains from the tumbler with an all-purpose cleaner.
- Tumble old towels or rags to remove any remaining stains or cleaning substances. Stains may still be visible, but will not affect subsequent loads.

### ■ Powder Coat Tumbler

- To clean the powder coat tumbler, use a damp cloth with a mild, non-abrasive cleaner suitable for easily marred surfaces. Remove cleaner residue and dry with a clean cloth.

### ■ Dryer Exterior

- Clean with a soft, damp cloth. Do not use abrasive substances.
- Protect the surface from sharp objects.
- Do not place any heavy or sharp objects or a detergent container on the dryer. They can scratch or damage the top cover of the dryer.
- The dryer has a high-gloss finish on the entire surface. Be careful not to scratch or damage the surface.

### ■ Exhaust System

- Check and clean the exhaust system on a yearly or regular basis to maintain optimum performance.
- The external exhaust hood must be cleaned more frequently to ensure proper air flow

## 4-4. ERROR RECALL

- Error Recall mode reminds users of the last error that was detected.  
To Enter Error Recall mode Press and hold **Temp. + START/PAUSE** buttons for 8 seconds.
- In Error Recall mode, the last error that was detected appears. If no error has been found, nothing is displayed.



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## 4-5. 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 **Dryness + Time** buttons for 7 seconds. A message of “**SC**” 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.

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## 4-6. TROUBLE DIAGNOSIS

Problem	Action
Does not run.	<ul style="list-style-type: none"><li>• Make sure the door is latched shut.</li><li>• Make sure the power cord is plugged into a live electrical outlet.</li><li>• Check your home's circuit breakers or fuses.</li><li>• Press or tap Start/Pause (Hold to Start) again if the door was opened during a cycle.</li><li>• Clean the lint filter.</li></ul>
Does not heat.	<ul style="list-style-type: none"><li>• Check your home's circuit breakers or fuses.</li><li>• Some cycles do not require heat. Check the selected cycle again.</li><li>• For a gas dryer, make sure the gas supply is on.</li><li>• Clean the lint filter and exhaust duct.</li><li>• The dryer may have moved into the cool-down phase of the cycle.</li></ul>
Does not dry.	<ul style="list-style-type: none"><li>• Check all of the above, plus.</li><li>• Make sure the exhaust hood outside your home can open and close freely.</li><li>• Check the exhaust system for lint buildup. Ducting should be inspected and cleaned annually.</li><li>• Use a "4" rigid metal exhaust duct.</li><li>• Do not overload. 1 wash load = 1 dryer load.</li><li>• Dry heavy items and light weight items separately.</li><li>• Large, bulky items, such as blankets or comforters, may require repositioning to ensure even drying.</li><li>• Make sure that your washer is draining properly and extracting adequate water from the load.</li><li>• The load may be too small to tumble properly. Add a few towels and restart the dryer.</li><li>• The load may be too large to tumble properly. Remove some items and restart the dryer.</li><li>• Clean the lint filter.</li><li>• Turn off the Eco Dry option for the <b>NORMAL</b> or <b>TIME DRY</b> cycles. When the Eco Dry option is on, the dryer performs an air dry process in the beginning of the cycle to reduce energy consumption. The air dry process does not use heated air, so the items may not be completely dry at the end of the cycle.</li></ul>
Is noisy.	<ul style="list-style-type: none"><li>• Check the load for objects such as coins, loose buttons, nails, etc. Remove promptly.</li><li>• It is normal to hear the dryer gas valve or heating element cycle on and off during the drying cycle.</li><li>• Make sure the dryer is leveled properly as outlined in the installation instructions.</li><li>• It is normal for the dryer to hum due to the high velocity of air moving through the dryer drum, fan, or exhaust system.</li></ul>
Dries unevenly.	<ul style="list-style-type: none"><li>• Seams, pockets, and other similarly heavy areas may not be completely dry when the rest of the load has reached the selected dryness level. This is normal. You can choose a higher dryness level or a cycle that involves a higher dryness level.</li><li>• If one heavy item is dried with a light weight load, such as one towel with sheets, it is possible that the heavy item will not be completely dry when the rest of the load has reached the selected dryness level.</li><li>• For the best drying results, dry heavy items and light weight items separately.</li></ul>
Has odors.	<ul style="list-style-type: none"><li>• Household odors from paint, varnish, strong cleaners, etc. may enter the dryer with the surrounding room air. This is normal as the dryer draws the air from the room, heats it, pulls it through the tumbler, and exhausts it outside.</li><li>• When these odors linger in the air, completely ventilate the room before using the dryer.</li><li>• Use a cycle featuring the Refresh function. If odors persist, wash and dry the items again.</li></ul>


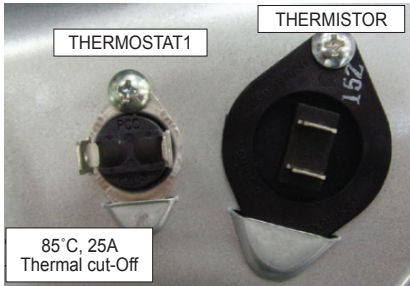
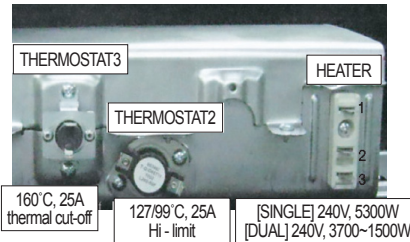
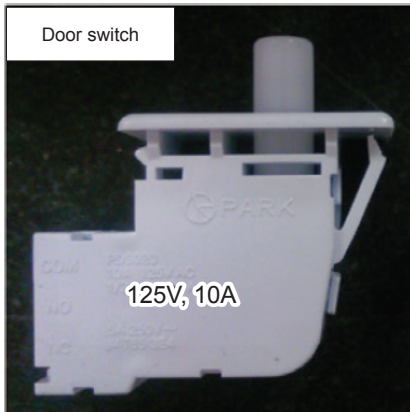
Problem	Action
Lint on clothes.	<ul style="list-style-type: none"> <li>• Make sure the lint filter is cleaned before every load. For clothes that naturally build up lint, clean the filter during the cycle.</li> <li>• Some fabrics are lint producers (for example, a fuzzy white cotton towel) and they must be dried separately from clothes that are lint trappers (for example, a pair of black linen pants).</li> <li>• Divide larger loads into smaller loads for drying.</li> <li>• Check pockets thoroughly before drying, then dry clothes.</li> <li>• Remove lint inside the drum before drying a load.</li> </ul>
Items still wrinkled after Wrinkle Prevent (Wrinkle Away, Wrinkle Release).	<ul style="list-style-type: none"> <li>• Small loads of 1 to 4 items work best.</li> <li>• Load fewer items. Load similar-type items.</li> <li>• Take out the items immediately after drying is complete.</li> </ul>
Water drips from the nozzle when the Steam cycles starts.	<ul style="list-style-type: none"> <li>• This is steam condensation.</li> <li>• The dripping water will stop after a short time.</li> </ul>
Sprayed water is not visible during Steam cycles.	<ul style="list-style-type: none"> <li>• Sprayed water is difficult to see when the door is closed.</li> </ul>
Extended time.	<ul style="list-style-type: none"> <li>• Sensor Dry automatically senses the moisture in the load and shuts the dryer off when the selected dryness level is reached. The drying time can change according to the type and amount of laundry. See the cycle chart for reference.</li> </ul>

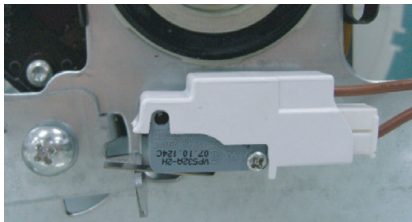

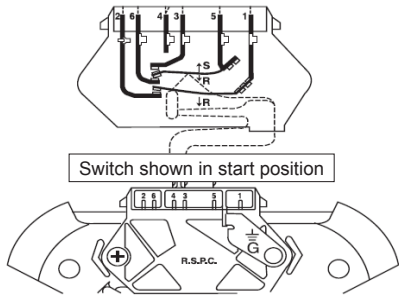

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## 4-7. Q & A

Question	Answer
What does it mean when chasing light appear in the display?	The chasing lights appear in the display when Wrinkle Prevent is selected. This lets you know that the dryer is tumbling intermittently for 95 minutes with room temperature air after the cycle is complete to reducing wrinkling. The load is dry and can be removed at any time during Wrinkle Prevent.
Why is the estimated drying time so long?	The initial estimated drying time will be longer because the dryer has not yet detected the amount of moisture in the load. After the dryer has been running for several minutes, a more accurate estimate will be displayed. Remember, the times are estimated. The actual drying time may be longer or shorter, depending on the load.
My dryer seems to run longer than I expect. Why?	The dryer automatically senses the dryness level of load. Be careful to avoid overloading your dryer. For best drying results, avoid mixing heavy and lightweight items in the same load.

## 4-8. COMPONENT TESTING PROCEDURES

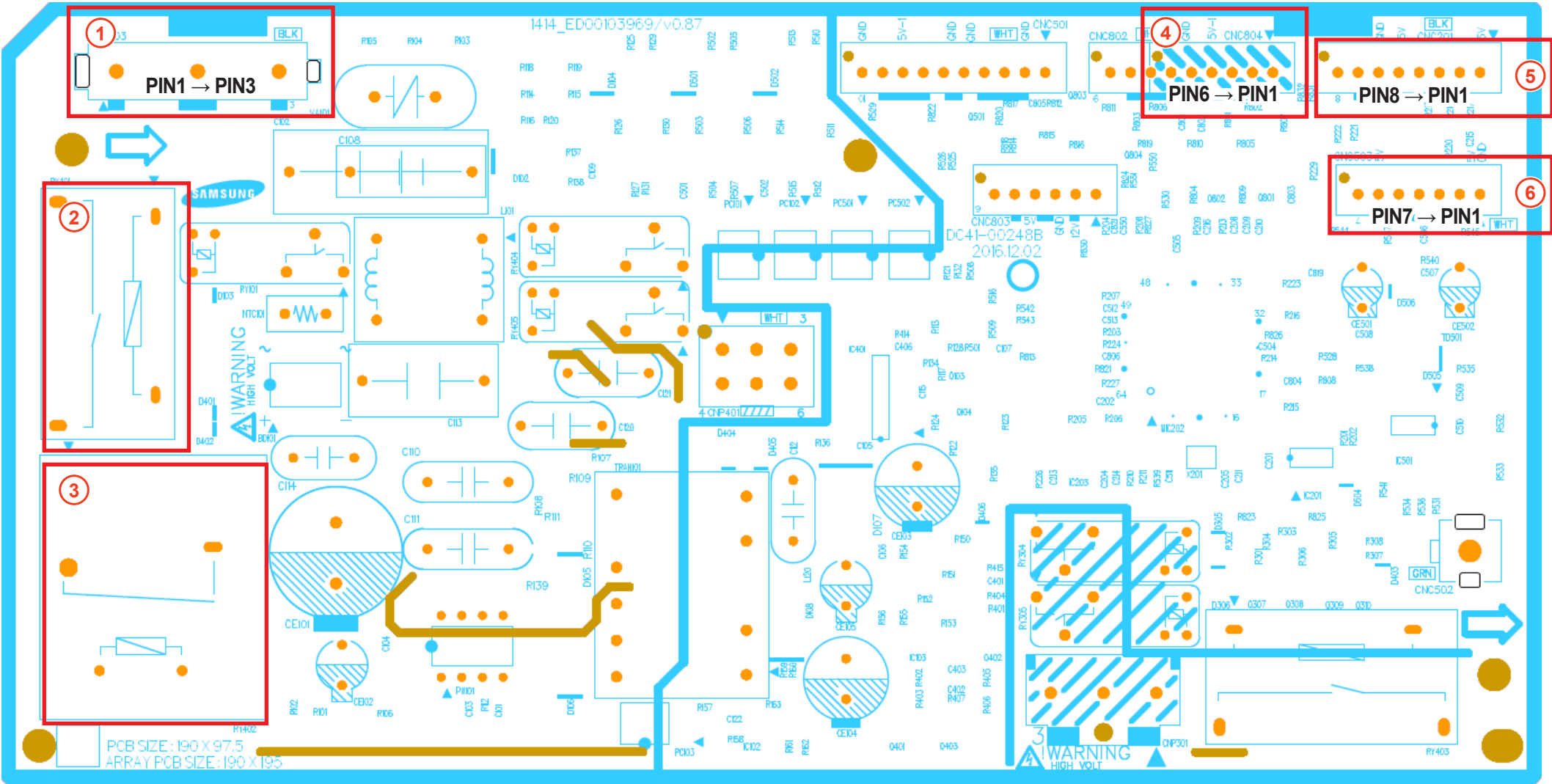
Part	Image	Description
Electric		
Thermistor Thermostat		<ul style="list-style-type: none"> <li>Thermistor resistance 10K <math>\Omega</math> @ 25°C (77°F)</li> <li>Thermostat 1 resistance &lt; 1<math>\Omega</math></li> </ul>
Thermostat heater		<ul style="list-style-type: none"> <li>Thermostat 3 resistance &lt; 1<math>\Omega</math> - If resistance is infinite, replace thermostat 3.</li> <li>Thermostat 2 resistance &lt; 1<math>\Omega</math> - If resistance is infinite, replace thermostat 2.</li> <li>[DUAL] Heater resistance 13<math>\Omega</math> (PIN 2-3) Heater.</li> <li>resistance 34<math>\Omega</math> (PIN 1-2) - If resistance is infinite, replace heater.</li> <li>[SINGLE] Heater resistance 10<math>\Omega</math> (PIN 1-3) - If resistance is infinite, replace heater.</li> <li>Measure resistance on the following terminal.</li> </ul>
Door Switch		<ol style="list-style-type: none"> <li>Door switch: Off - Terminal: "COM" - "NC" (1-3) &lt; 1<math>\Omega</math> - Terminal: "COM" - "NO" (1-2): <math>\infty</math> <math>\Omega</math></li> <li>Door switch: On - Terminal: "COM" - "NC" (1-3): <math>\infty</math> <math>\Omega</math> - Terminal: "COM" - "NO" (1-2) &lt; 1<math>\Omega</math></li> </ol>

Part	Image	Description																												
Belt Cut-off S/W	<div><div>Belt Cut-Off Switch</div><div>125V, 16A</div></div>	<ul style="list-style-type: none"><li>Belt Cut-off S/W<ul style="list-style-type: none"><li>- Lever open: Resistance value &lt; 1Ω</li><li>- Lever push: Resistance value: ∞ Ω</li></ul></li></ul>																												
Lamp	<div><div>Lamp</div><div>DC 3V, 45mA, 700Lux</div></div>	<ul style="list-style-type: none"><li>Thermostat 3 resistance &lt; 1Ω<ul style="list-style-type: none"><li>- If resistance is infinite, replace thermostat 3.</li></ul></li><li>Thermostat 2 resistance &lt; 1Ω<ul style="list-style-type: none"><li>- If resistance is infinite, replace thermostat 2.</li></ul></li><li>[DUAL] Heater resistance 13Ω (PIN 2-3) Heater.<ul style="list-style-type: none"><li>- resistance 34Ω (PIN 1-2)</li><li>- If resistance is infinite, replace heater.</li></ul></li><li>[SINGLE] Heater resistance 10Ω (PIN 1-3)<ul style="list-style-type: none"><li>- If resistance is infinite, replace heater.</li></ul></li><li>Measure resistance on the following terminal.</li></ul>																												
Centrifugal Switch (Motor)	<div></div>	<ul style="list-style-type: none"><li>2.88Ω between Pin #3 and 4</li><li>3.5Ω between Pin #4 and 5</li></ul> <table><tr><th colspan="7">Contacts</th></tr><tr><th>Function</th><th>1M</th><th>2M</th><th>3M</th><th>4M</th><th>5M</th><th>6M</th></tr><tr><td>Start</td><td></td><td></td><td>● — ●</td><td></td><td></td><td></td></tr><tr><td>Run</td><td>● — ●</td><td></td><td></td><td></td><td>● — ●</td><td></td></tr></table> <p>● = Contact closed</p>	Contacts							Function	1M	2M	3M	4M	5M	6M	Start			● — ●				Run	● — ●				● — ●	
Contacts																														
Function	1M	2M	3M	4M	5M	6M																								
Start			● — ●																											
Run	● — ●				● — ●																									
Thermistor	<div></div>	<ul style="list-style-type: none"><li>238.23 kΩ at 25°C (77°F)</li></ul>																												

5. PCB DIAGRAM

5-1. MAIN PBA LAYOUT (THE PRINCIPLE PART)

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

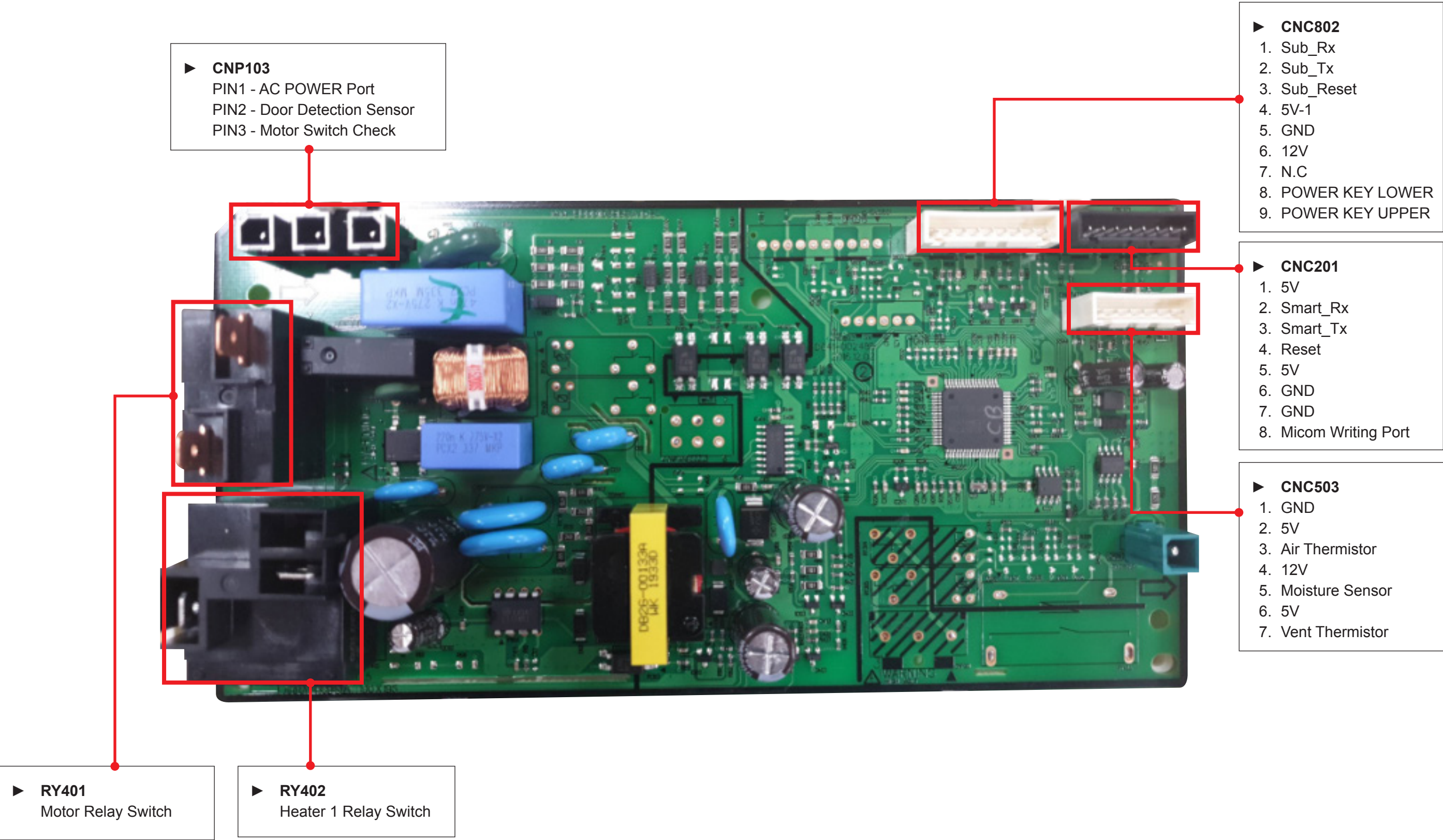


Location	Part No.	Function	Description
1	CNP103	AC CONNECTION CONNECTOR	Supplies AC power to the PBA
2	RY401	MOTOR RELAY SWITCH	The relay used for motor control
3	RY402	HEATER1 RELAY SWITCH	The relay used for heater1 control
4	CNC802	SUB PBA COMMUNICATION	The connector that controls communications with the Sub PBA corresponding to the Display
5	CNC201	MICOM WRITING & SMART TEST CONNECTOR	Micom writing & smart test connector
6	CNC503	DRY SENSING & THERMISTOR CONTROL CONNECTOR	Dryer sensing & thermistor control connector



5-2. CONNECTOR & RELAY TERMINAL DESCRIPTION (MAIN PBA)

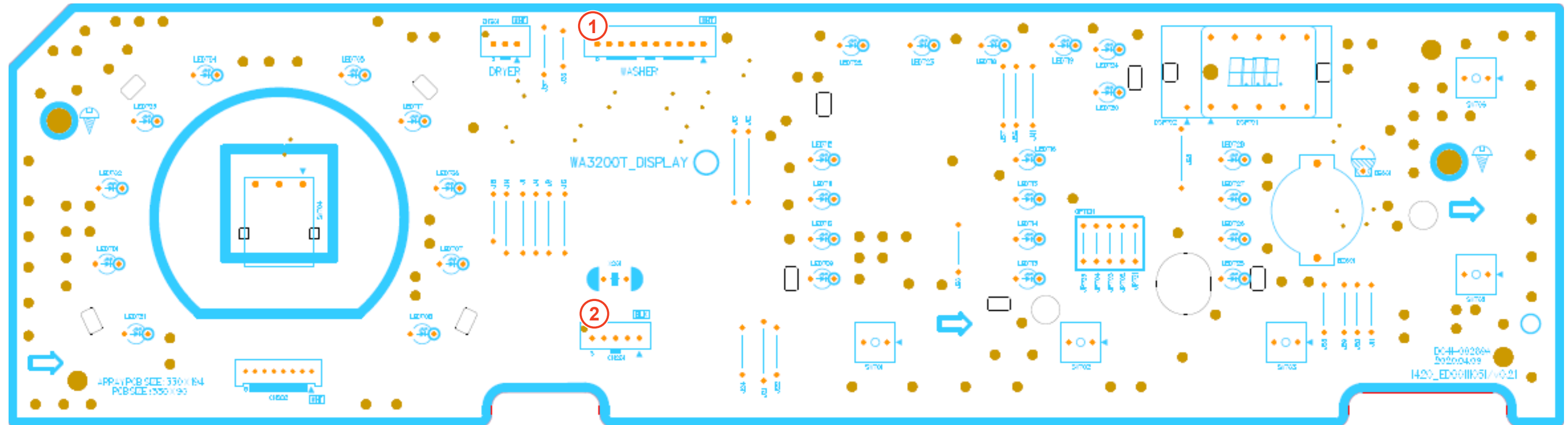
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### 5-3. SUB PBA LAYOUT (THE PRINCIPLE PART)

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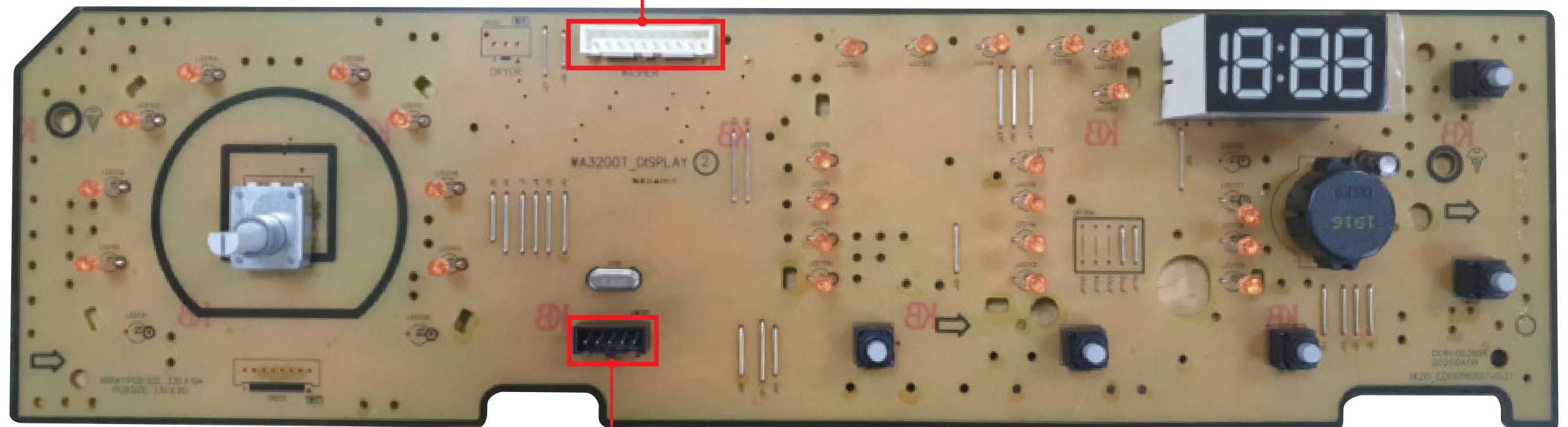
Location	Part No.	Function	Description
1	CN801	Main PBA Communication	The connector that controls communications with the Main PBA
2	CN201	Micom Writing(Update)	Micom writing

#### 5-4. CONNECTOR & RELAY TERMINAL DESCRIPTION (SUB PBA)

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##### ► CN801

1. N.C
2. +5V\_KEY
3. Tx to Main
4. Rx from Main
5. RESET
6. +5V
7. GND
8. +12V
9. Power Key to Main
10. GND



##### ► CN201

1. +5V\_1
2. Rx for Update
3. Tx for Update
4. GND
5. BOOT

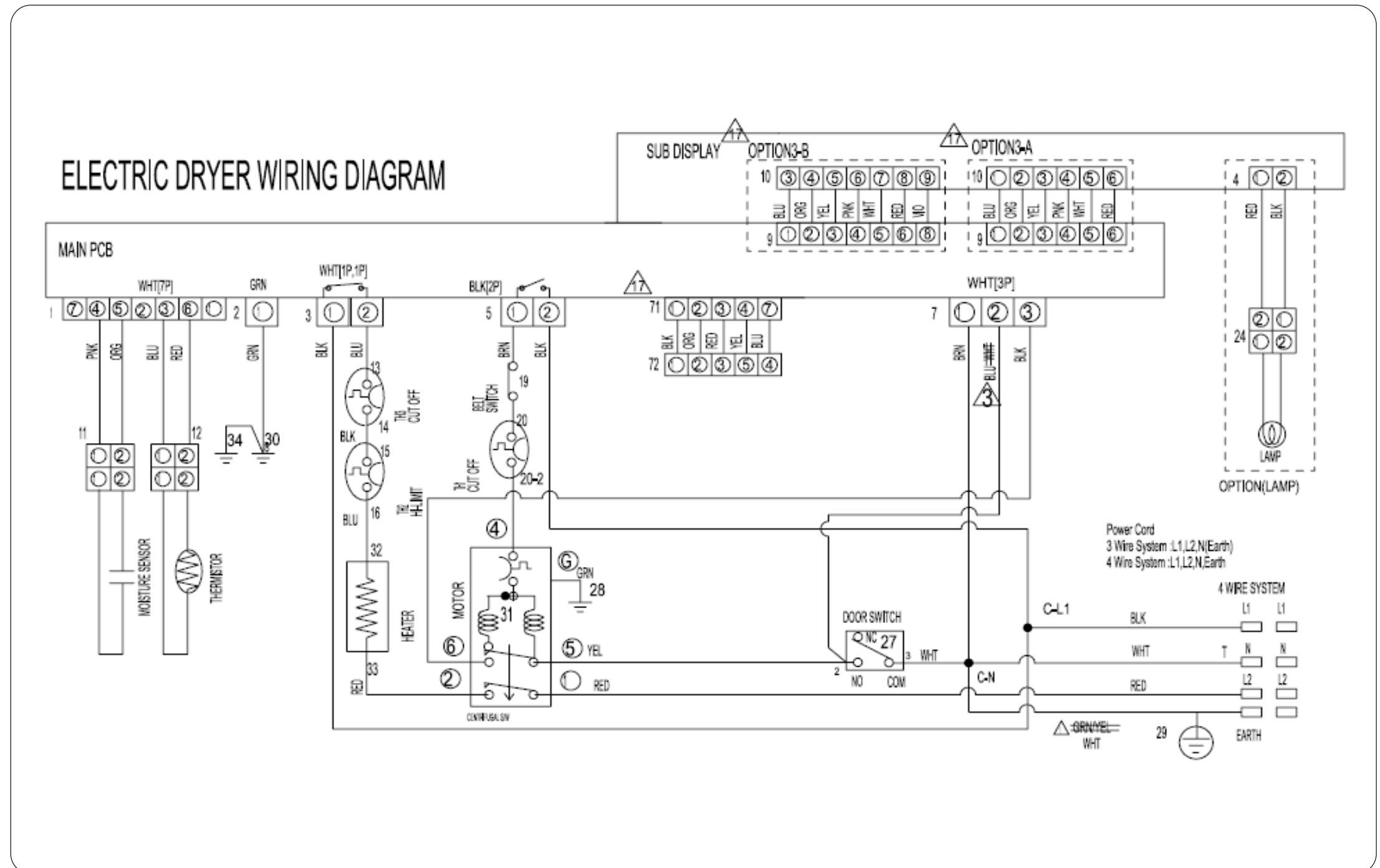
## 6. WIRING DIAGRAM

### 6-1. ELECTRIC DRYER

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#### ■ 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

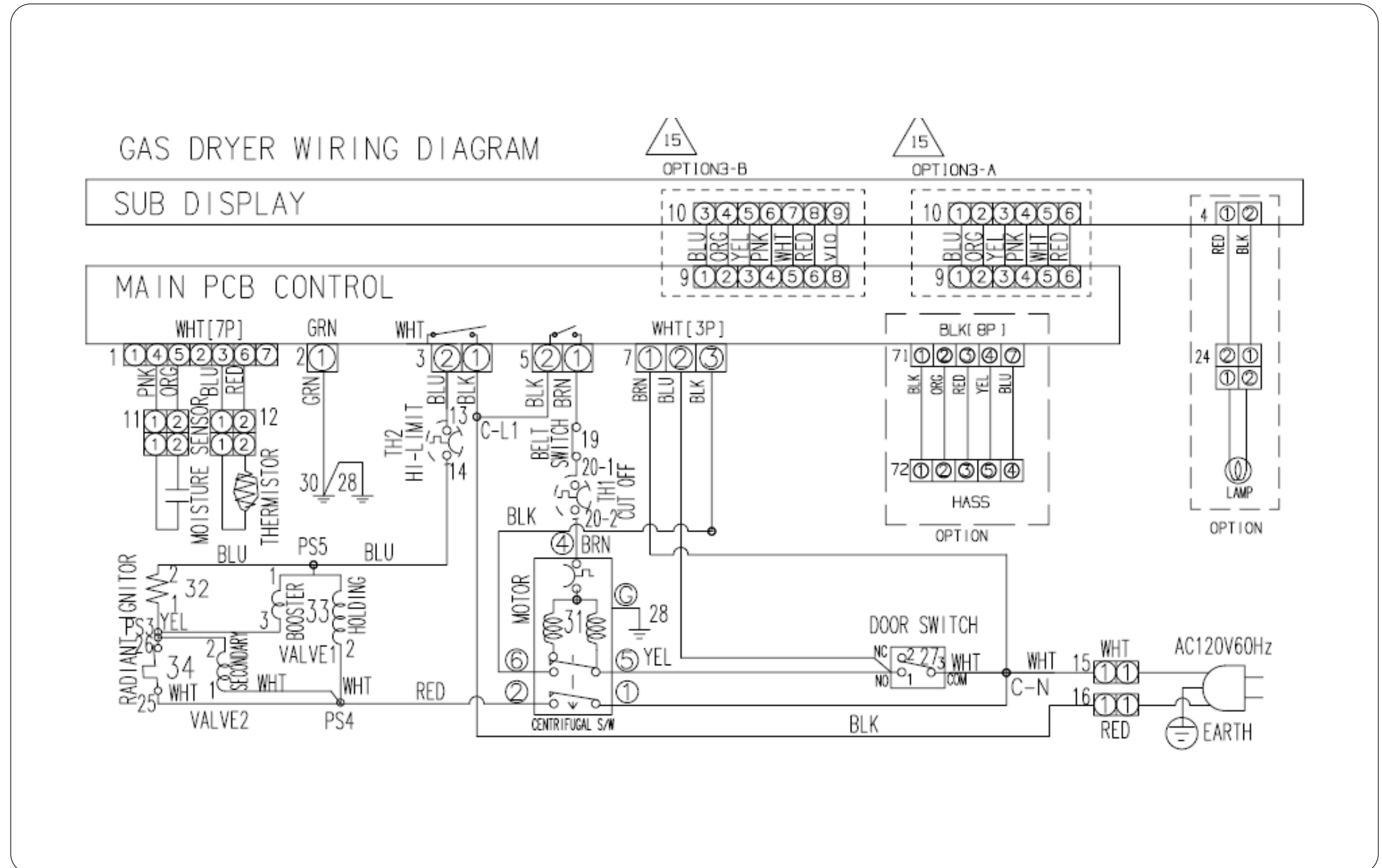


## 6-2. GAS DRYER

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### ■ Reference Information

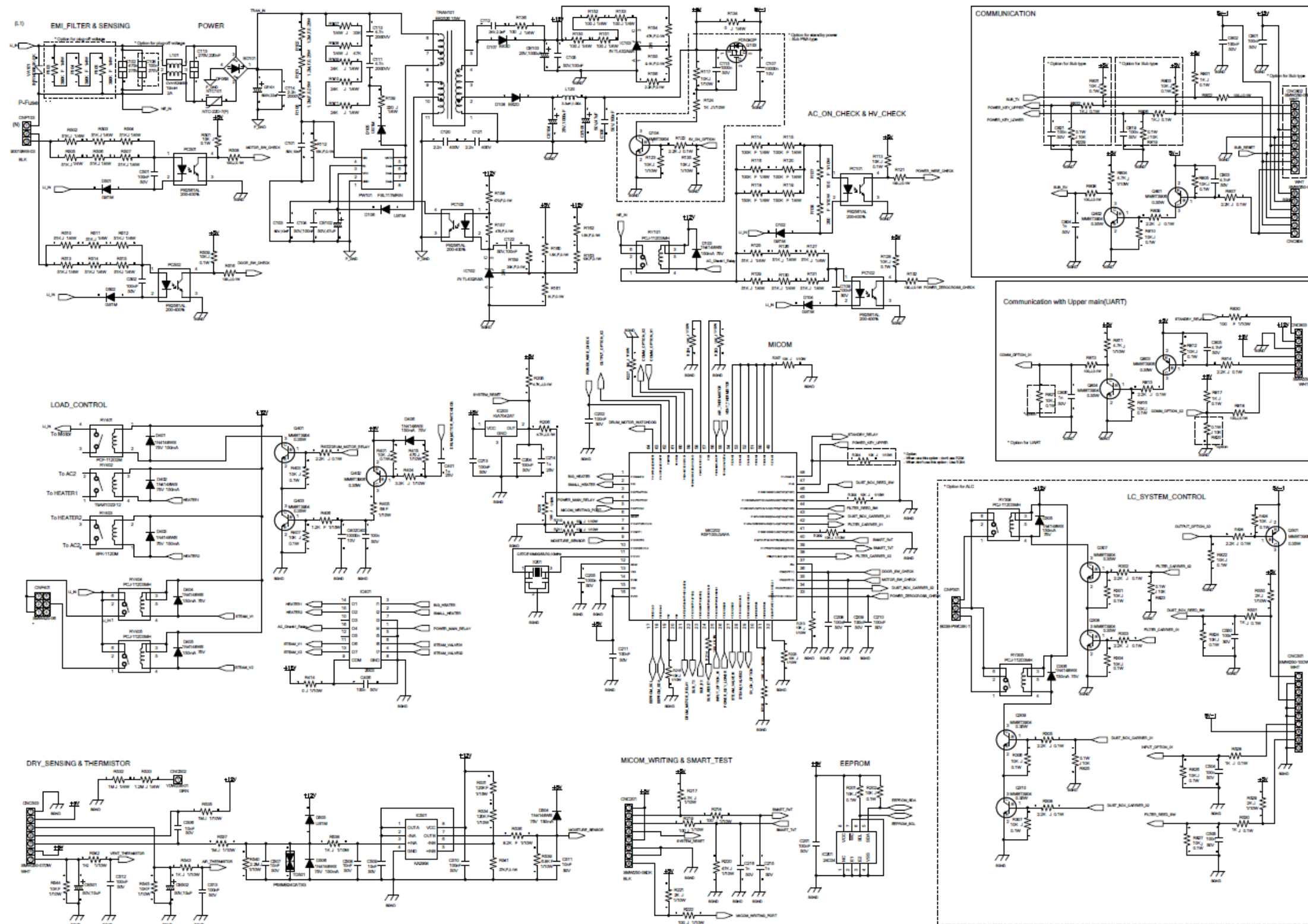
BLK	BLACK
BLU	BLUE
GRN	GREEN
GRY	GRAY
NTR	NATURAL
ORG	ORANGE
PNK	PINK
RED	RED
SKYBLU	SKYBLUE
VIO	VIOLET
WHT	WHITE
YEL	YELLOW



## 7. SCHEMATIC DIAGRAM

### 7-1. SCHEMATIC DIAGRAM OF MAIN PBA

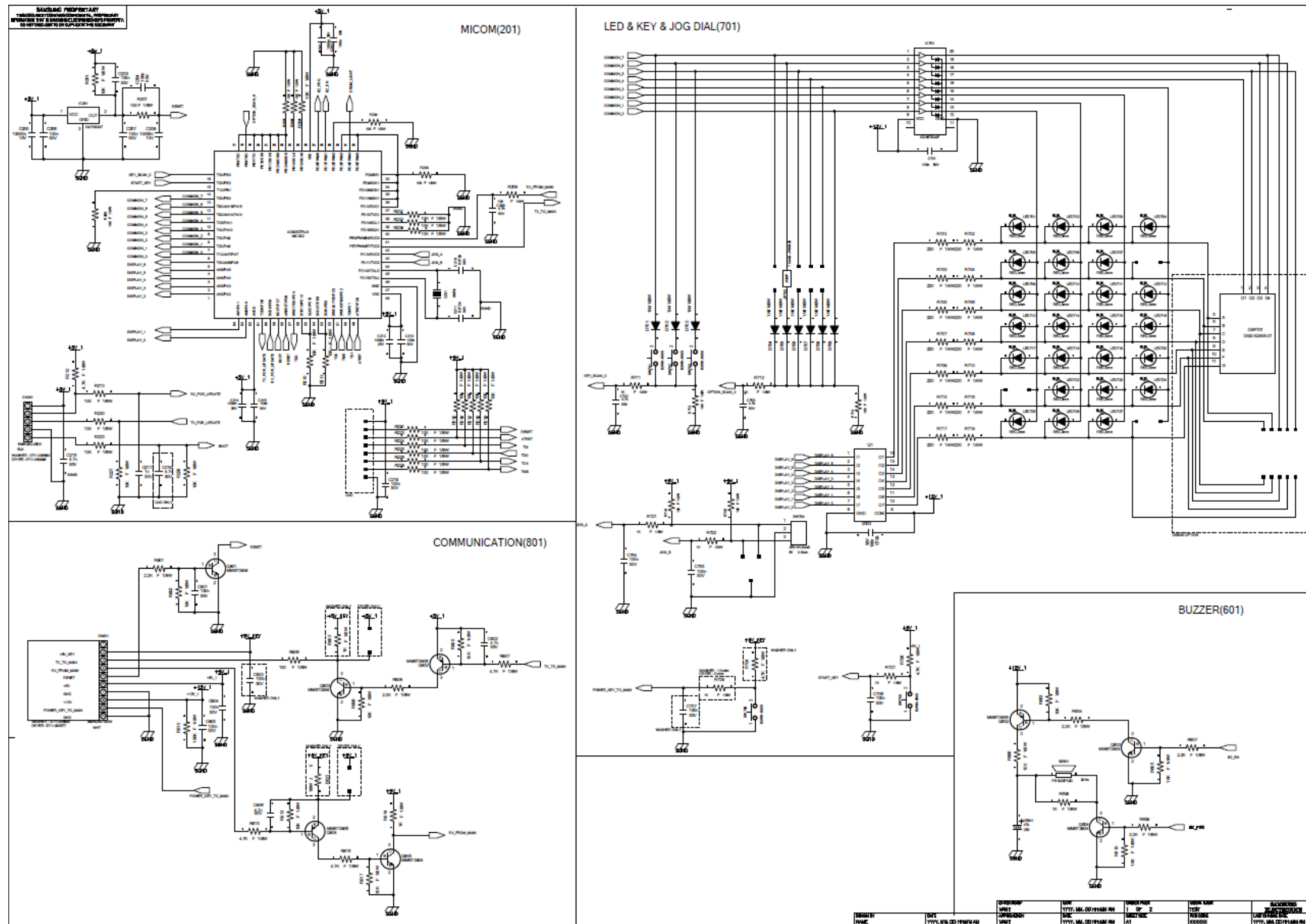
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## 7-2. SCHEMATIC DIAGRAM OF SUB PBA

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



## 8. REFERENCE

### 8-1. NOMENCLATURE

		D	V	E	4	5	T	3	2	0	0	W	/	A	3									
Model Naming Rule																								
	Product Type		Type	Capacity	Year	Series	Features	Color	Divider	Buyer														
Dryer	D	V	Dryer Type	Market Claim Capacity Ex. 7.5kg = 75 10kg = 10 5.0cuft = 50	16 : K	Grade	product / Project Defined by Feature Table Sheet	By color Table Sheet	/ : CBU U : SKD 1 : ver. Service	By Buyer Table Sheet														
					17 : M																			
					18 : N																			
					19 : R																			
					20 : T																			
			Type (Dryer)	* Detail Rule 1. 55.5Kg : Down to 11 2. N.America by DOE rule 3. N.America Dryer Same to pair washer	* Same to VD Division	9 High	* Each Product / Projects have different Feature Table.	V : Black Caviar W : White P : Inox Z : Blue C : Champagne	A3, A2 : USA AC : Canada AX : Mexico															
			E : Vent Elec.			8 High																		
			G : Vent Gas			7 High																		
			H : Heatpump			6 Mid																		
			C : Condensing	* Double Language Option Dutch + French Dutch Only		5 Mid																		
						4 Mid																		
						3 Entry																		
						2 Entry																		
				* Exclusive Code Capacity code의 2번째 자리 사용 ex) 6.0kg, M-video Exclusive : 6M											1 Entry									



#### **GSPN (GLOBAL SERVICE PARTNER NETWORK)**

<b>Area</b>	<b>Web Site</b>
Europe, CIS, Mideast & Africa	<a href="http://gspn1.samsungcsportal.com">gspn1.samsungcsportal.com</a>
Asia	<a href="http://gspn2.samsungcsportal.com">gspn2.samsungcsportal.com</a>
North & Latin America	<a href="http://gspn3.samsungcsportal.com">gspn3.samsungcsportal.com</a>
China	<a href="http://china.samsungportal.com">china.samsungportal.com</a>

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