



CLOTHES DRYER

Basic Model : DV419AEW/XAA
(ACE-PROJECT)

Model Name : DV409SEL
(ACE-PROJECT)

Model Code : DV409SEL/XAC

SERVICE Manual

CLOTHES DRYER



DV409A*

CONTENTS

1. Safety Instructions
2. Features and Specifications
3. Disassembly and Reassembly
4. Troubleshooting
5. Exploded views and Parts list
6. PCB diagram
7. Wiring diagram
8. Schematic diagram

Refer to the service manual in the GSPN (see the rear cover) for the more information.

CONTENTS

1. Safety Instructions	1
1-1. Caution for safety during servicing	1
1-2. Important safety information	2
2. Features and Specifications	5
2-1. Features	5
2-2. Specifications	6
2-3. Comparing specifications with existing models	7
2-4. Options specifications	8
3. Disassembly and Reassembly	9
3-1. Tools for disassembly and reassembly	9
3-2. Standard disassembly drawings	10
4. Troubleshooting	24
4-1. Error items and diagnostic codes	24
4-2. Test mode	25
4-3. Trouble diagnosis	26
4-4. Symptoms, diagnoses and actions	28
4-5. Component testing procedures	33
5. Exploded views and Parts list	37
5-1. MAIN	38
5-2. FRAME FRONT & DOOR	40
5-3. ASS'Y PANEL CONTROL	42
5-4. ASS'Y DRUM	44
5-5. ASS'Y MOTOR	48
5-6. ASS'Y DUCT HEATER	50
5-7. SMALL PARTS	52
5-8. PARTS LIST (SA/SC OTHERS)	53
5-9. PARTS LIST (SCREW TYPE)	54
6. Pcb Diagram	55
6-1. Main PCB	55
6-2. Detailed descriptions of contact terminals (main pcb)	56
6-3. Sub PCB	57
6-4. Detailed descriptions of contact terminals (sub pcb)	58
7. Wiring Diagram	59
7-1. Wiring diagram	59
8. Schematic Diagram	60
8-1. Main control	60
8-2. Sub control	61

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	240 VAC, 60 Hz, 30 Amps, 3-wire or 4-wire installations
Gas Dryers	120 VAC, 60 Hz, 15 Amps, 3-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 gas line.
- 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.

■ Gas dryer power supply

This equipment **MUST** be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electrical current. This unit is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.

Consult a qualified electrician or servicer if grounding instructions are not completely understood, or if doubt exists as to whether the equipment is properly grounded.

Do not use an extension cord. If the product power cord is too short, have a qualified electrician install a three slot receptacle. This unit should be plugged into a separate 60 hertz circuit with the electrical rating as shown on the serial plate.

■ Proper grounding and polarization for 120 volts wall outlets

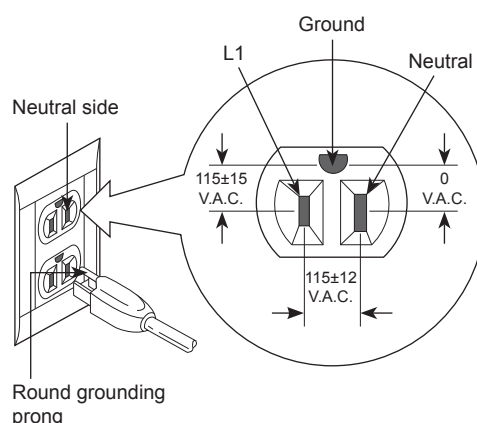
For the safety of our customers and the service technician ALL gas dryers have a three-prong power cord and **MUST** be connected to a properly polarized and grounded wall outlet. This information was written for those who do not understand grounding and polarization of a wall outlet. A 120 VAC wall outlet must always be wired as shown right.

Polarization - This means that the larger slot must be neutral and the small slot must be hot (live).

MispolariZed - The outlet is miswired so that the larger slot is hot (live) and the smaller slot is neutral.

Grounded - This means the round hole connection is connected to ground through a connection to the main power panel.

Ungrounded - The round hole connection is not connected to a ground and/or the main power panel.



⚠ 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.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department. Installation and service must be performed by a qualified installer, service agency or the gas supplier.


⚠ 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.

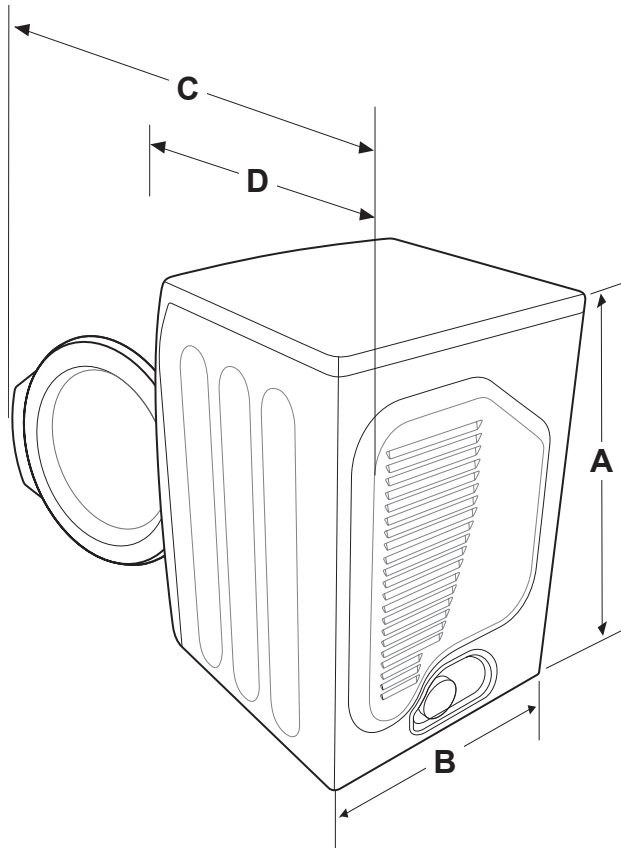
2. FEATURES AND SPECIFICATIONS

2-1. FEATURES



Features	Description
Extra Large Capacity	Ultra drying capabilities are at your fingertips! Now you can dry extra-large loads. Our ultralarge 7.4 cu.ft. capacity dryer circulates more air through your clothes getting them dry faster, for a wrinkle-free result.
Various Drying Cycles & Fuzzy Logic Algorithm	Simply turn the Jog Dial to select one of the 11 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.
Freshen Up (Refresh)	Want to freshen up a garment that doesn't need washing, but could use a little help after last night's party. Our Freshen Up Cycle removes odors, adding that extra freshness to give more mileage to your clothes.
Time Saving	Our cycles are designed with you in mind. All our dryers are designed to dry your clothes in less time... just 44 minutes! Giving you time for more important things in life.
Energy Saving	Samsung dryers are super energy efficient, that you can dry up to 3.01 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 with just four screws.
Pedestal with Storage Drawers	An optional 15" pedestal is available to raise the washer for easier loading and unloading. It also offers a built-in storage drawer that can hold a 100 oz. bottle of detergent
Stacking	Samsung's Washer and Dryer can be stacked to maximize usable space.  The Dryer legs need to be removed to stack the Washer and Dryer. An optional stacking kit is available for purchase from your Samsung retailer.
Steam cycle	This cycle sprays steam using little water, removes bad odors from clothing that ARE difficult to remove when washing with water, and removes wrinkles from clothing such as shirts that need to be ironed.
Sanitize course	This course allows you to sanitize garments by permeating high temperature heat deep into the fabric during the drying cycle. Use this course to keep your bedding and curtains clean through sanitization.
4-way Vent (electric model only)	You can install the exhaust vent in the following four (4) positions: back, either side, bottom.

2-2. SPECIFICATIONS

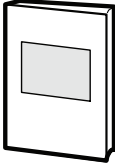
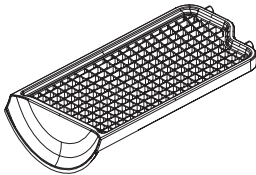

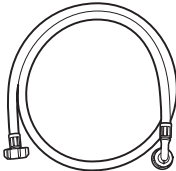
Model name		DV409
Type		Front loading dryer
Dimension	A: High	39" (99.1 cm)
	B: Width	27" (68.6 cm)
	C: Depth with door open 90°	50.9" (129.4cm)
	D. Depth	31.2" (79.3cm)
Weight		55.16 kg
Heater rating		5300 W
Power consumption	No heat	268 W
	Heating	5445 W



2-3. COMPARING SPECIFICATIONS WITH EXISTING MODELS

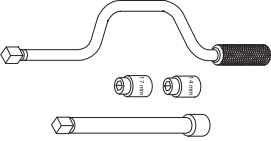


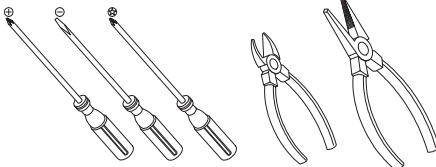
Model name			DV409	DV419
Image				
Capacity			7.4 cu.ft	7.4 cu.ft
Dryer Type			Electric/Gas	Electric/Gas
Matching Washer			WF409	WF419
Cycle Selection	Sensor Dry	Number of Drying Cycle	11	11
		Normal	Yes	Yes
		Heavy Duty	Yes	Yes
		Towels	Yes	Yes
		Perm Press	Yes	Yes
		Delicates	Yes	Yes
		Sanitize	Yes	Yes
	Manual Dry	Time Dry	Yes	Yes
		Air Fluff	Yes	Yes
		Quick Dry	Yes	Yes
		Freshen Up	No	No
		Wrinkle Release	No	No
	Steam Cycles	Refresh	Yes	Yes
		Wrinkle-Care	Yes	Yes
Option Selection		Number of Option	5	5
		Adjust Time	Up/Down	Up/Down
		My Cycle	Yes	Yes
		Rack Dry	Yes	Yes
		Wrinkle Prevent	Yes	Yes
		# of Temp Level	5	5
		# of Dryness Level	5	5
		Sound Level	3	3
Control Type			Electric/Dial	Electric/Dial
Drum Material			STS Steel	STS Steel
Drum Light			Yes	Yes
Door Type			Glass Transparent	Glass Transparent
Reversible Door			Yes	Yes
Vent Exhaust			4-way(Elec)	4-way(Elec)

2-4. OPTIONS SPECIFICATIONS

Item		Code	QTY	Remarks
	MANUAL-BOOK	DC68-02709A	11	All
	DIE-RACK DRY	DC61-01522A	1	
	ASSY CONNECTOR	DC97-15103A	1	
	ASSY HOSE WATER	DC97-15692A	1	

3. DISASSEMBLY AND REASSEMBLY

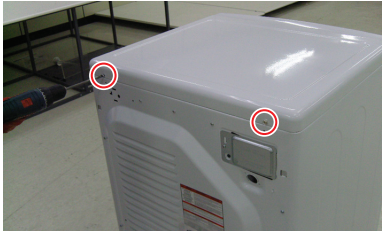

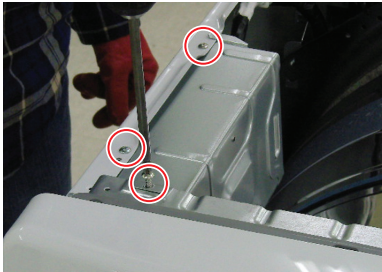
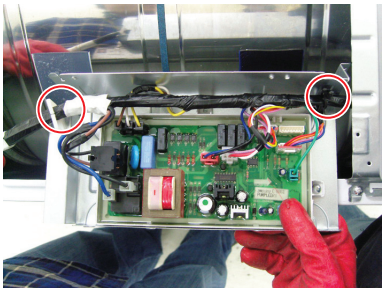

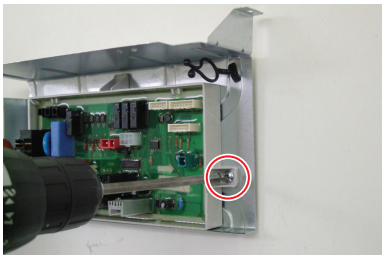
3-1. TOOLS FOR DISASSEMBLY AND REASSEMBLY

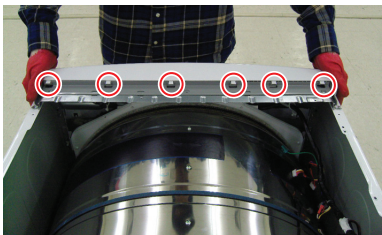
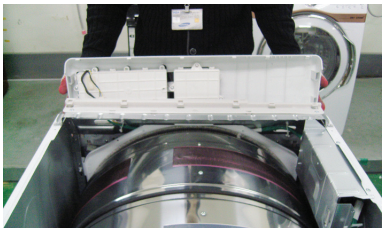


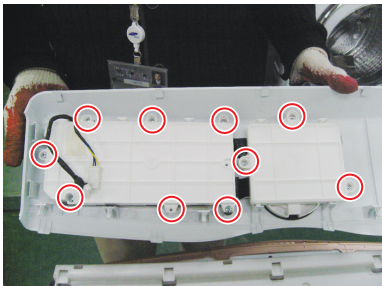
Tool	Type	Remarks
	Socket set with 6" extention 14 mm 17 mm	Fan (1) Roller Shaft (4)
	Wrench 8 mm	Tool to fix the Roller Shaft on removing the nuts.
	Vice pliers	Tool to protect the idle and abrasion of the bolt for the box driver.
	Other (Driver, Diagonal Cutter, Long Nose Pliers)	General tools for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

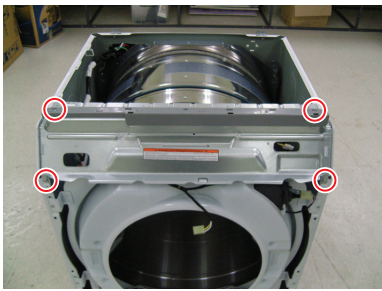
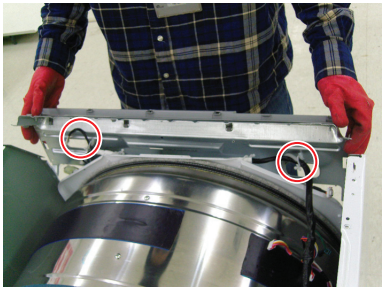
- This is a standard disassembly diagram and may differ from the actual product.
Use this material as a reference when disassembling and reassembling the product.

Part	Figure	Description
Top Cover Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply and to the unit 2. Remove 2 screws from the Top- Cover
		<ol style="list-style-type: none"> 3. Slide Top Cover towards the rear and lift from the unit. <p>⊘ Scratch and impact to the top cover is prohibited.</p>
Main PCB Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply and to the unit 2. Remove the Top Cover 3. Remove 3 screws from the frame+plate
		<ol style="list-style-type: none"> 4. Remove the Wire holder
		<ol style="list-style-type: none"> 5. Remove the Housings <p>⊘ Shaking the heater terminal side ways to pull it out is prohibited.</p>
		<ol style="list-style-type: none"> 6. Remove 1 from the Holder PCB

Part	Figure	Description
Console Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the top cover, and the main PCB 3. Separate 6 Hook from Guide Panel
		<ol style="list-style-type: none"> 4. Remove Console
		<ol style="list-style-type: none"> 5. Remove Each Housing
		<ol style="list-style-type: none"> 6. Remove the Knob
		<ol style="list-style-type: none"> 7. Remove 10 screw from the Holder PCB <input checked="" type="checkbox"/> Be careful of external scratch on the console.

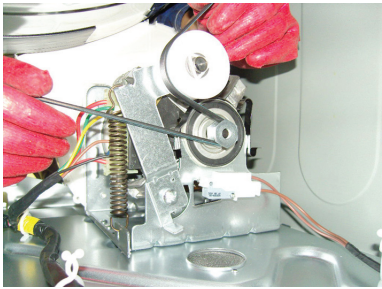



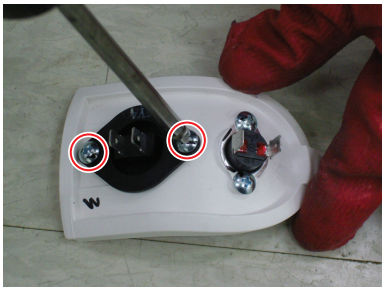
Part	Figure	Description
Door Removal		<ol style="list-style-type: none"> 1. Door Opening 2. Remove 2 Screw from the Frame panel 3. Separate the temporary fixation part of the assembly door.
		<ol style="list-style-type: none"> 4. Remove 15 screw from the Holder Glass
		<ol style="list-style-type: none"> 5. Remove the Door cover
		<ol style="list-style-type: none"> 6. Remove 8 screw from the Support-Hinge
		<ol style="list-style-type: none"> 7. Remove the Support-Hinge, Hinge
		<ol style="list-style-type: none"> 8. Remove the Door Seal <ol style="list-style-type: none"> A. Be careful not to scratch the door cover. B. Be careful of the damage to the door glass. C. Check the door seal condition after the assembly.


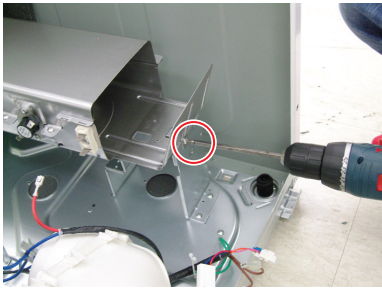
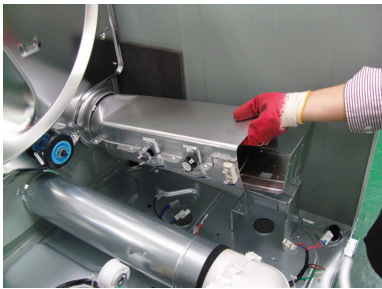
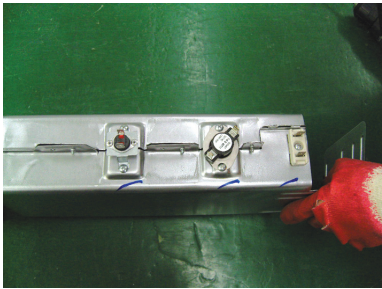
Part	Figure	Description
Frame Panel Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, and the Console 3. Remove the filter
		<ol style="list-style-type: none"> 4. Remove 2 Screw from the Frame front
		<ol style="list-style-type: none"> 5. Remove 4 Screw from the Plate (u)
		<ol style="list-style-type: none"> 6. Push the flange
		<ol style="list-style-type: none"> 7. Remove the Door switch Housing
		<ol style="list-style-type: none"> 8. Lift the Front Panel off the three tabs across the bottom and remove
		<ol style="list-style-type: none"> 9. Remove 4 Screw from the Frame Panel
		<ol style="list-style-type: none"> 10. Remove the Decoration-Front from the Frame Panel <p> <input checked="" type="checkbox"/> Always wear the protective gloves. </p>


Part	Figure	Description
Plate Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, the console, and the front panel 3. Remove 4 Screw from the Plate (u)
		<ol style="list-style-type: none"> 4. Separate the Wire in the Wire Holder




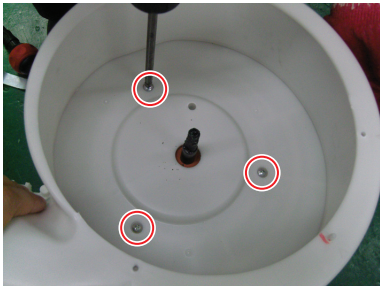
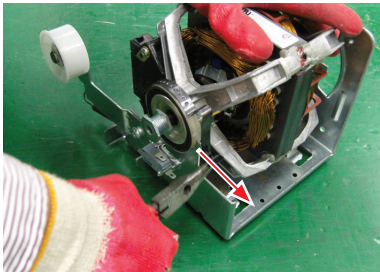
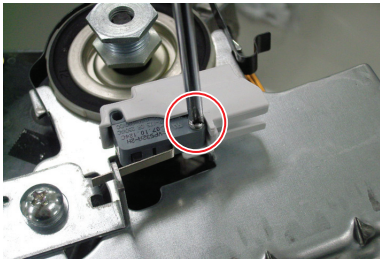
Part	Figure	Description
Front Bulkhead Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, the Console, the front panel and the Plate(u) 3. Separate the wire in the wire Holder (2EA) 4. Disconnect Interior Light wiring Harness
		<ol style="list-style-type: none"> 5. Remove the four bulkhead retaining 5 screws.
		<ol style="list-style-type: none"> 6. Disconnect the moisture Sensor wiring Harness
		<ol style="list-style-type: none"> 7. Lift Bulkhead from the cabinet then remove it.
		<ol style="list-style-type: none"> 8. Remove 2 screw from the Duct Outlet
		<ol style="list-style-type: none"> 9. Remove the Duct Outlet

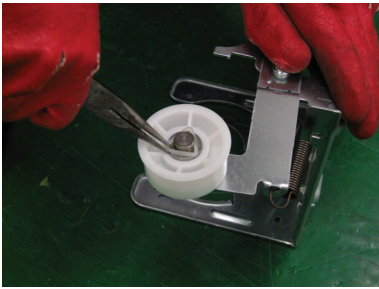
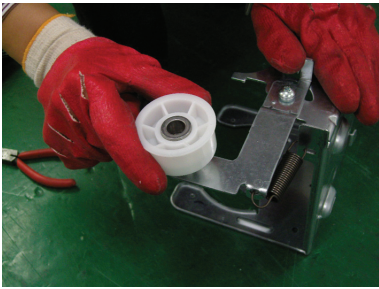
Part	Figure	Description
Front Bulkhead Removal (Continued)		10. Remove 1 screw from the Touch Sensor
		11. Remove the Touch Sensor
		12. Remove the Roller
		13. Remove 2 Screw from the Case Filter (B)
		14. Remove 1 Screw from the Case Filter (F)
		15. Remove the Case Filter (B/F) <input checked="" type="checkbox"/> Make sure the Filter does not get damaged by the roller.

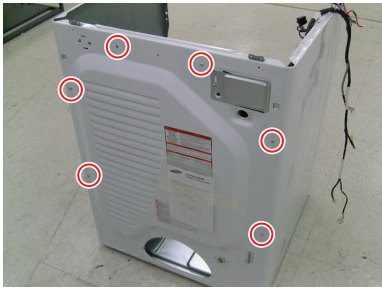



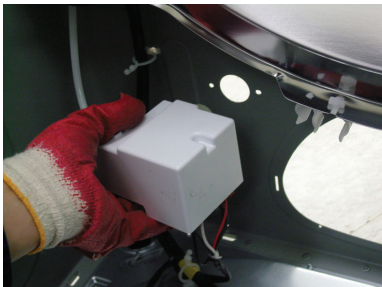

Part	Figure	Description
Drum Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, the console, the Front panel, the Plate(u), and the Front Bulkhead 3. Remove Belt
		<ol style="list-style-type: none"> 4. Remove the Drum
Sensor (Thermistor, Thermostat) Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, the console, and the Front panel 3. Remove 2 Housing Sensor
		<ol style="list-style-type: none"> 4. Remove the Sensor Cover
		<ol style="list-style-type: none"> 5. Remove the Sensor <ul style="list-style-type: none"> ⓧ Do not apply excessive force to the terminal.


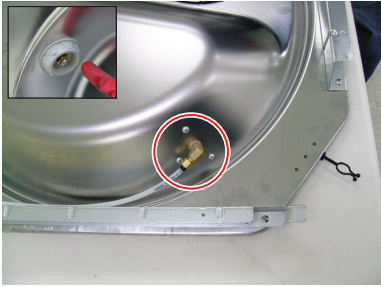
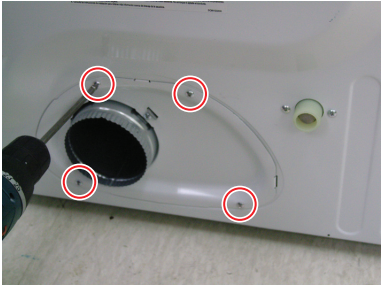

Part	Figure	Description
Heater Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, the console, and the Front panel 3. Removal 6 Housing Heater-Terminals
		<ol style="list-style-type: none"> 4. Remove 1 screw from the Heater
		<ol style="list-style-type: none"> 5. Separate the Heater from the Drum-back
		<ol style="list-style-type: none"> 6. Remove 4 screw from the thermostats <input checked="" type="checkbox"/> Do not apply excessive force to the terminal.

Part	Figure	Description
Assy Motor Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, the console, the Front panel, the Plate(u), the Front Bulkhead and the Drum 3. Remove 2 screw from the Duct Connector
		<ol style="list-style-type: none"> 4. Separate the duct Connector
		<ol style="list-style-type: none"> 5. Remove 1 Housing Motor
		<ol style="list-style-type: none"> 6. Remove 2 Housing Belt Cut Off Switch
		<ol style="list-style-type: none"> 7. Remove 2 Screw from the motor-bracket
		<ol style="list-style-type: none"> 8. Remove 2 screw from the Cover-Dust Fan

Part	Figure	Description
Assy Motor Removal (Continued)		9. Separate the motor ASSY at the bottom Plate
		10. Remove 1 Nut Fan
		11. Remove the Fan
		12. Remove 3 screws from the Cover-Duct fan
		13. Remove the 2 Spring Plate
		14. Remove the 1 screw Belt cut Off Switch

Part	Figure	Description
Assy Motor Removal (Continued)		15. Remove the Holder Shaft
		16. Remove the Roller-Idler

Part	Figure	Description
Drum Back Removal		<ol style="list-style-type: none"> 1. Disconnect the power supply to the unit 2. Remove the Top Cover, the console, the Front panel, the Plate(u), the Front Bulkhead and the Drum 3. Remove 6 screws from the Drum-Back
		<ol style="list-style-type: none"> 4. Remove 2 screws from the Valve-Water.
		<ol style="list-style-type: none"> 5. Separate the wire in the wire Holder
		<ol style="list-style-type: none"> 6. Separate the Drum Back from the Frame.
		<ol style="list-style-type: none"> 7. Separate the Cover Valve-Water
		<ol style="list-style-type: none"> 8. Remove the terminals from the Valve-Water

Part	Figure	Description
Drum Back Removal (Continued)		9. Remove 4 Screw from the Air Duct ☑ Be careful of the frame edge
		10. Remove the 3 screws from the Guide Nozzle
Duct Exhaust Removal		1. Disconnect the power supply to the unit 2. Remove 4 screws from the Back-Cover
		3. Remove 1 screw from the Duct-Exhaust

☑ Reassembly procedures are in the reverse order of dissassembly procedures.

4. TROUBLESHOOTING

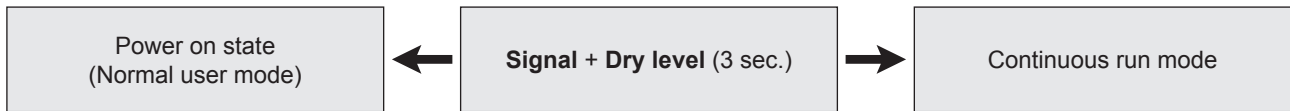
4-1. ERROR ITEMS AND DIAGNOSTIC CODES

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
LED	LCD		
tS tO	Error! Temperature Sensor Problem	The Thermistor resistance is very low or high.	Check for : - Clogged lint screen - Restricted vent system. - Check Thermistor resistance.
dO	Error! Door is open.	Running the dryer with door open	Check for : - Close the door, and run the dryer - Loose or open wire terminals at the Door sensor circuit.
dF	Error! Door Open Sensing Problem	Invalid state for more than 0.25 seconds	Check for : - Loose or open wire terminals at the Door sensor circuit.
bE	Error! A button is either stuck or is being pressed continuously.	Invalid state of key circuit short for 30 secs	Check for : - If the display PCB key circuit is shorted or not
od	Error! Time Limit Exceeded	Invalid Dry time in excess Dry time	Check for : - Sensor bar Open - Using Adjust time Up excessively
hE	Error! Overheated	Invalid heating Temp in running the dryer	Check for : - Restricted vent system. - Check Thermistor resistance.
Et	Error! Electronic Control Problem	Invalid state of EEprom communication	Check for : - PCB with EEprom circuit
FE	Error! Power Intermption	Invalid power source Frequency	Check for : - Not using regular power source frequency - Invalid power frequency sensor circuit

4-2. TEST MODE

■ Continuous run mode



Continuous run mode:

1. Press Signal + Dry Level buttons for 3 sec during Power On State (Normal User Mode).
2. Once in Continuous Run Mode, the 7-segment will toggle display “total cycle” and the remaining time.
3. The previous cycle will restart during Continuous Run Mode until continuous run mode is disabled.
4. During Continuous Run Mode, press Signal + Dry Level for 3 seconds to return to normal user mode. The 7 segment will no long display “total cycle” and only display the remaining time.

■ Special test mode

Definition of special test mode:

- The dryer must be on before Service Mode can be entered.
- Press Signal and Temp buttons for 3 seconds, or until 3 beeps are heard.
- The machine will now be in Service Mode.
- Upon entry into Service Mode, the Sensor Bar Touch Data will be shown (Default Special Test Mode).

How to enter:

- To enter Special Test Mode press Signal and Temp Buttons for 3 seconds or until the control beep. (same for all Frontier models.)

■ Cycle count mode

Definition of cycle count mode:

- While in Service Mode pressing the Signal button will put the dryer into the cycle count mode
- Cycle number executed will display.

How to enter:

- To enter Special test mode, while in service mode, press the signal button until the control beep. (same for all Frontier models.)

■ Software version mode

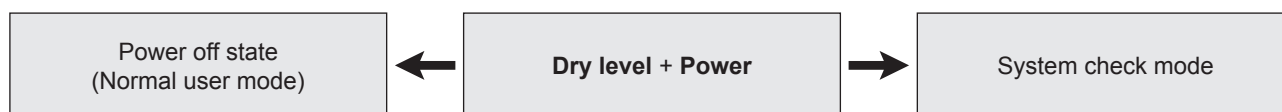
Definition of software version mode:

- While in Service Mode pressing the Temp button will put the dryer into the software version mode

How to enter:

- To enter Special Test Mode press Temp Button until the control beep. (same for all Frontier models.)
ex) In case of “U105”, U0 means major version “v1” 05 means minor version “05”

■ System check mode



Special test mode:

- While in Power Off, pressing the Dry Level + Power buttons simultaneously will put the dryer into the System Check mode
- "t2" will display.
- System Check Mode Progress

t2 mode Function Performed Start/Pause Motor(CW) Relay On → Heater Relay On → Heater Relay Off → Motor(CW) Relay Off (Circulation)

4-3. TROUBLE DIAGNOSIS

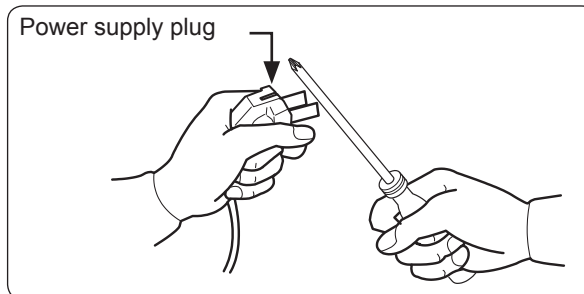
As the micom dry machine is configured for the complicate structure, there might be a service call.

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.



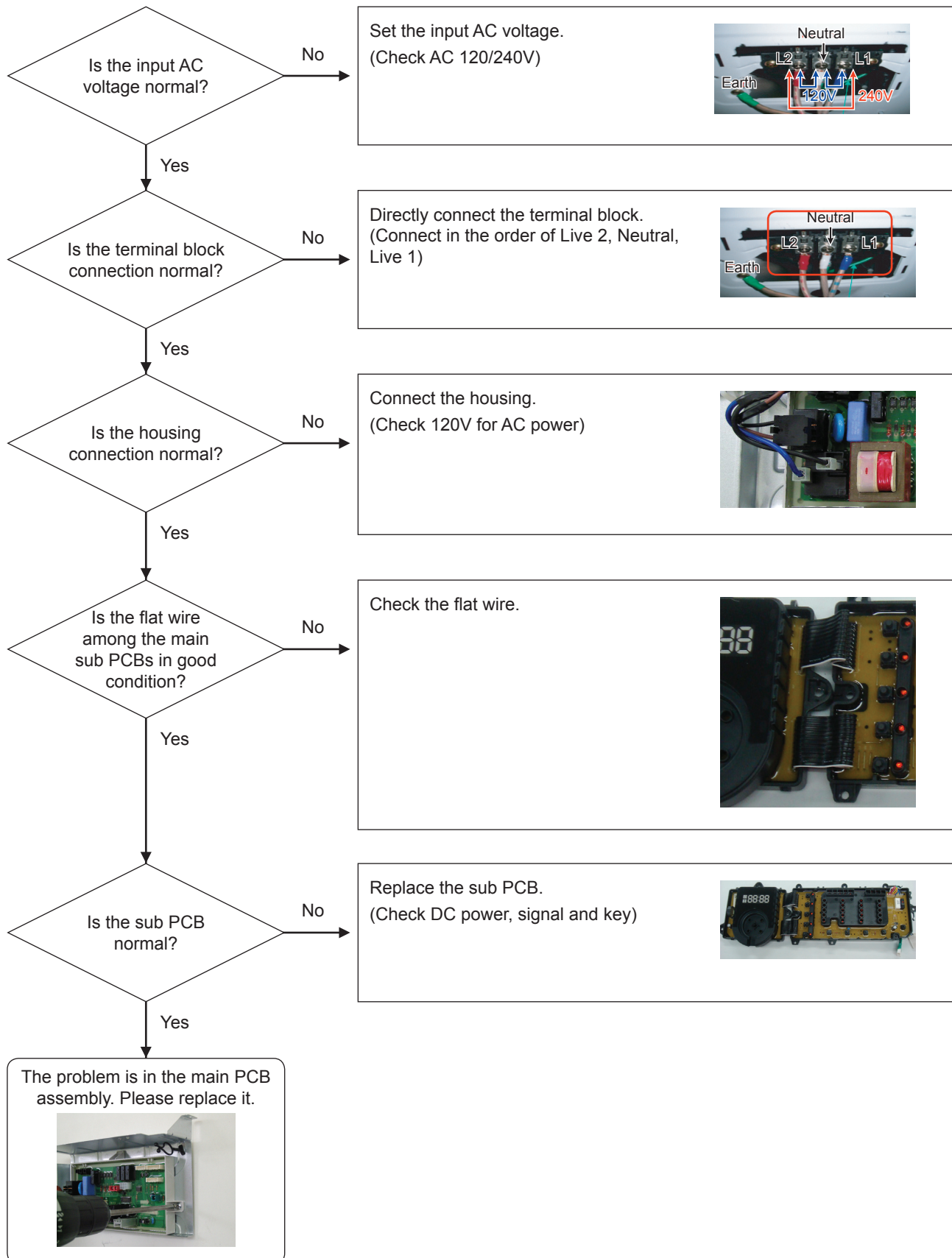
2. Since AC220~240V is applied to the triac T1 and T2 on P.C.B, the electric shock may occur by touching. Be careful the strong and weak electricity are mixed each other.
3. As the P.C.B assembly is designed for no trouble, do not replace the P.C.B assembly by the wrong diagnosis and follow the procedure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

No	Problem	What to do
1	Will Not Start or Run	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Lint buildup around drive motor. • Low voltage present. • Blower impeller blocked in blower housing. • Check the actuator of motor.

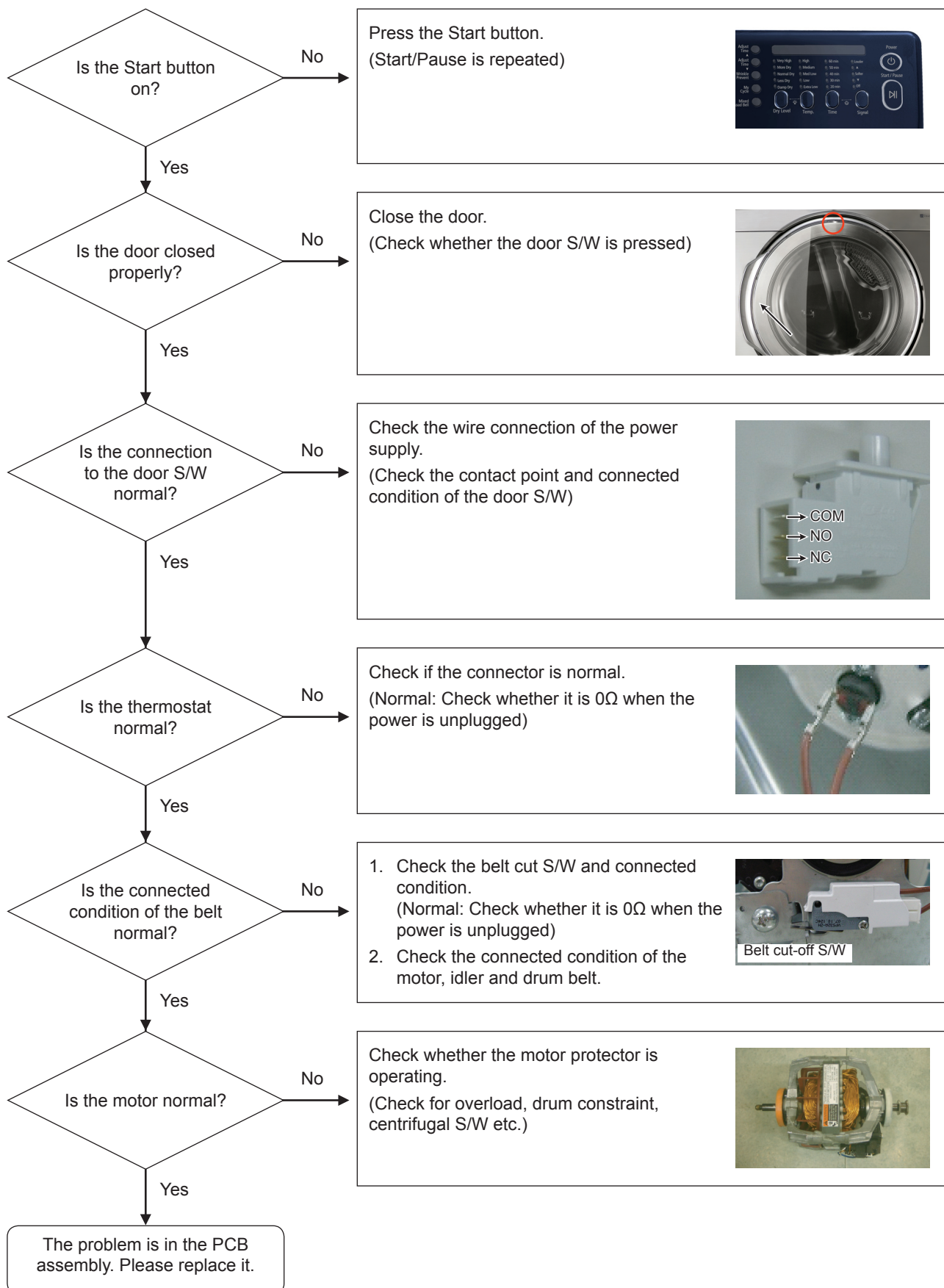
No	Problem	What to do
4	Blows fuses or trips circuit breaker	<ul style="list-style-type: none"> - Is the belt connected well? - Is the winding of the motor continuous? (Rotor winding, stator winding, generator) - Is the motor protector normal? • If above points are not found, the PCB assembly is out of order. Replace it.
5	Blows fuses or trips circuit breaker (Gas Model)	<ul style="list-style-type: none"> • During ignition the dryer will draw 6 amps. With the burner ON, the dryer will draw 4.5 amps. If the dryer is drawing amperages above this, then the house wiring, fuse box or circuit breaker is suspected to be at fault. • Igniter harness loose and shorted to base. • Incorrect wiring or wire shorted to ground. • Drive motor winding shorting to ground.
6	Will not heat (motor runs)	<p>Open heating element.</p> <ul style="list-style-type: none"> • Hi-Limit trips easily or is open. • Regulating thermostat trips easily or is open. • Membrane switch open. • Check Thermistor.
7	Will Not Dry Gas Model Poor Gas Ignition	When the dryer is operated on a heat setting, the igniter should be energized and burner shall fire within 45 seconds at 120 VAC. The failure of a component in this system will usually be indicated by one of three symptoms (No.8, No.9, No.10)
8	The igniter does not glow	<p>If the igniter does not heat up, remove power and using an ohmmeter, check the following:</p> <ul style="list-style-type: none"> • Open flame sensor • Open igniter • Shorted booster coil • Open wiring • Bad motor switch (Neutral supply) • No power from control (L1 supply)
9	Igniter glows - No gas ignition	<p>If the igniter heats up but the main burner flame is not ignited, remove power and using an ohmmeter, check the following:</p> <ul style="list-style-type: none"> • Open secondary coil • Open holding coil • Open wire harness • Stuck flame sensor (Stuck closed)
10	The gas is ignited but the flame goes out	<p>If a normal ignition takes place and after a short while the flame goes out, check for the following:</p> <ul style="list-style-type: none"> • Radiant sensor contacts opening prematurely. • Weak gas valve coil may open when stressed by higher Temps. • Weak Hi-Limit • Poor venting • Bad drum seals
11	Improper drying clothes wrinkled Rough texture long dry time	<ul style="list-style-type: none"> • 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.
12	Noisy and/or Vibration	<ul style="list-style-type: none"> • "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, DIAGNOSES AND ACTIONS

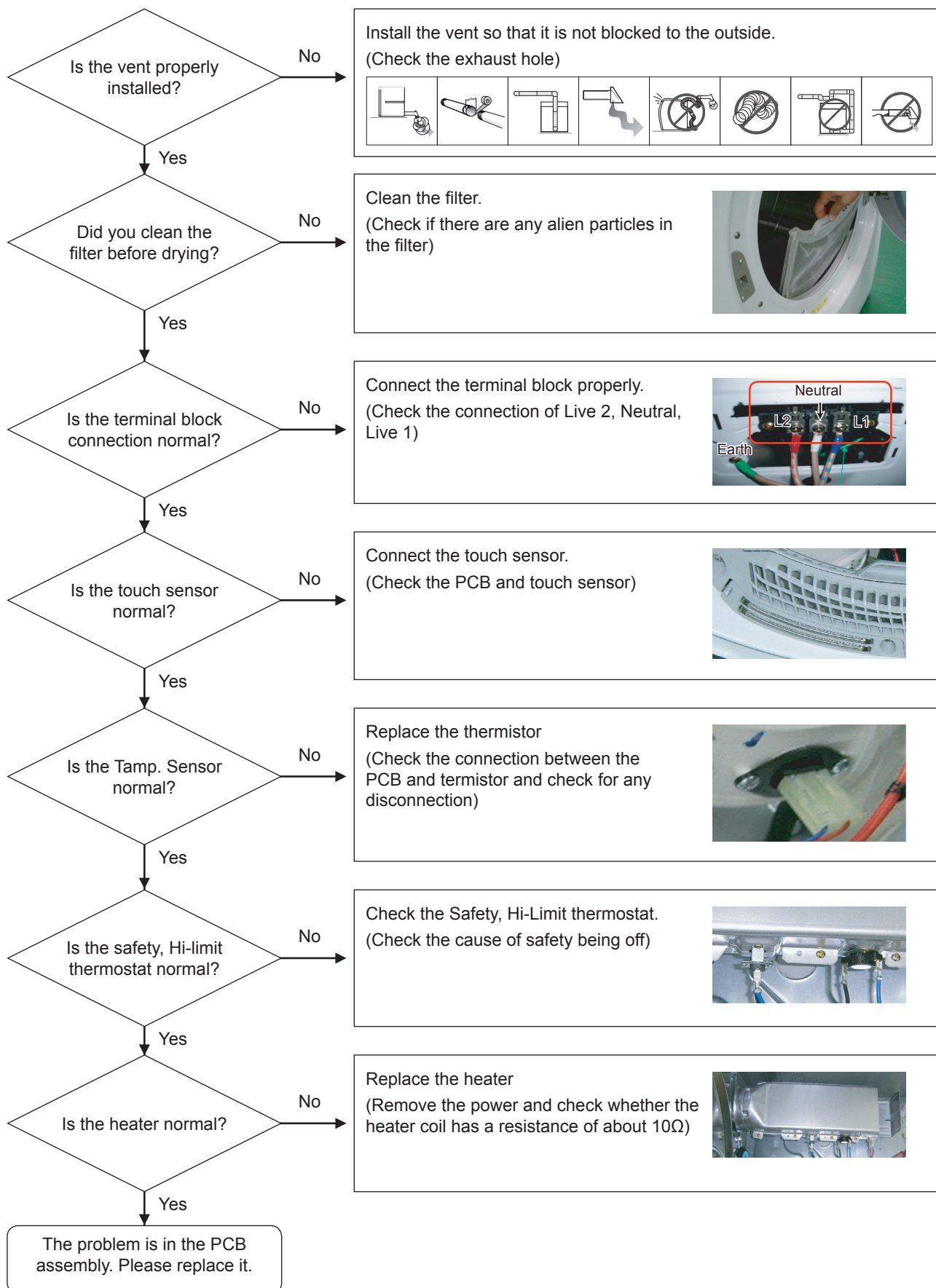
■ The power does not work.



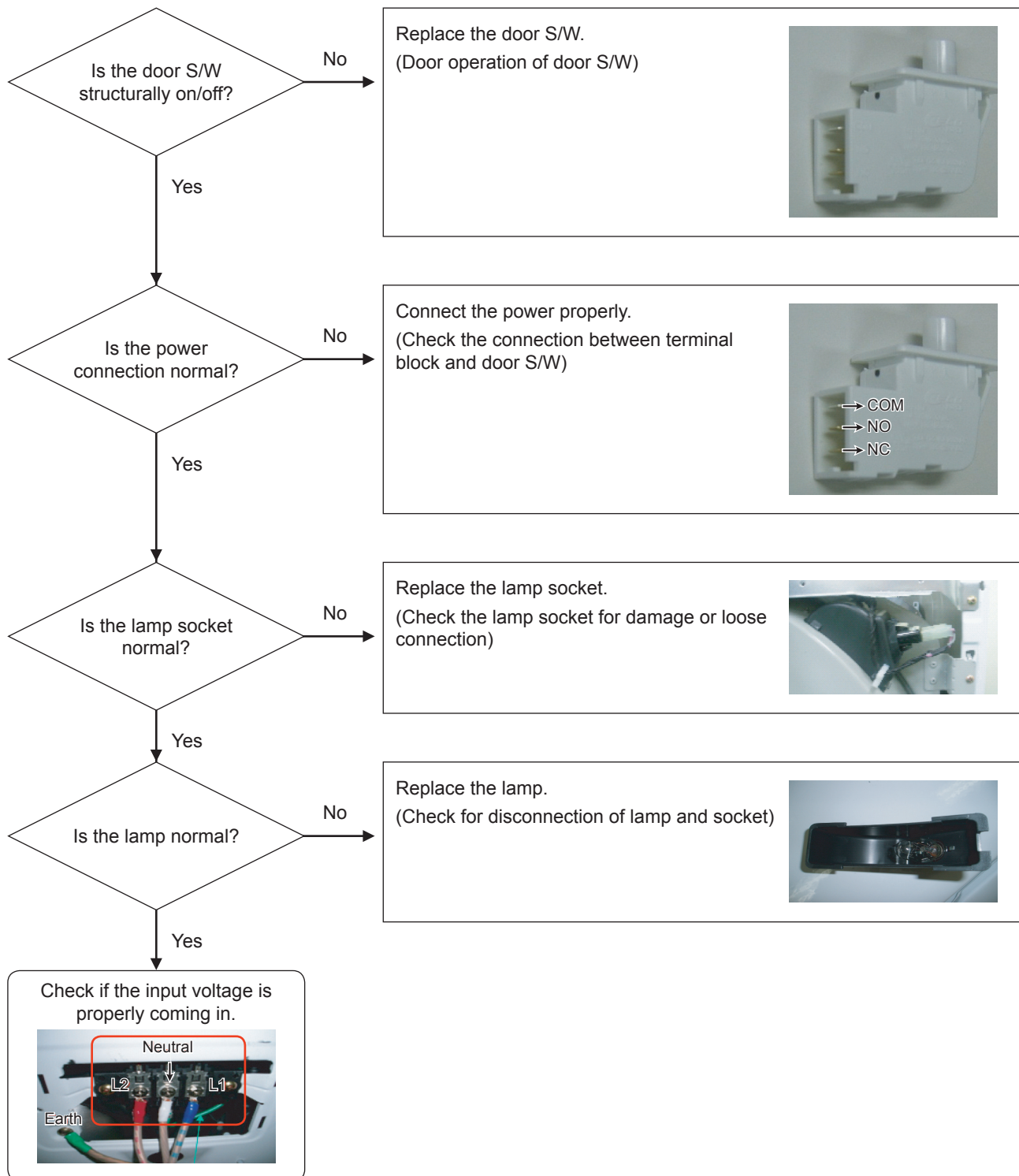
■ The drum does not work.



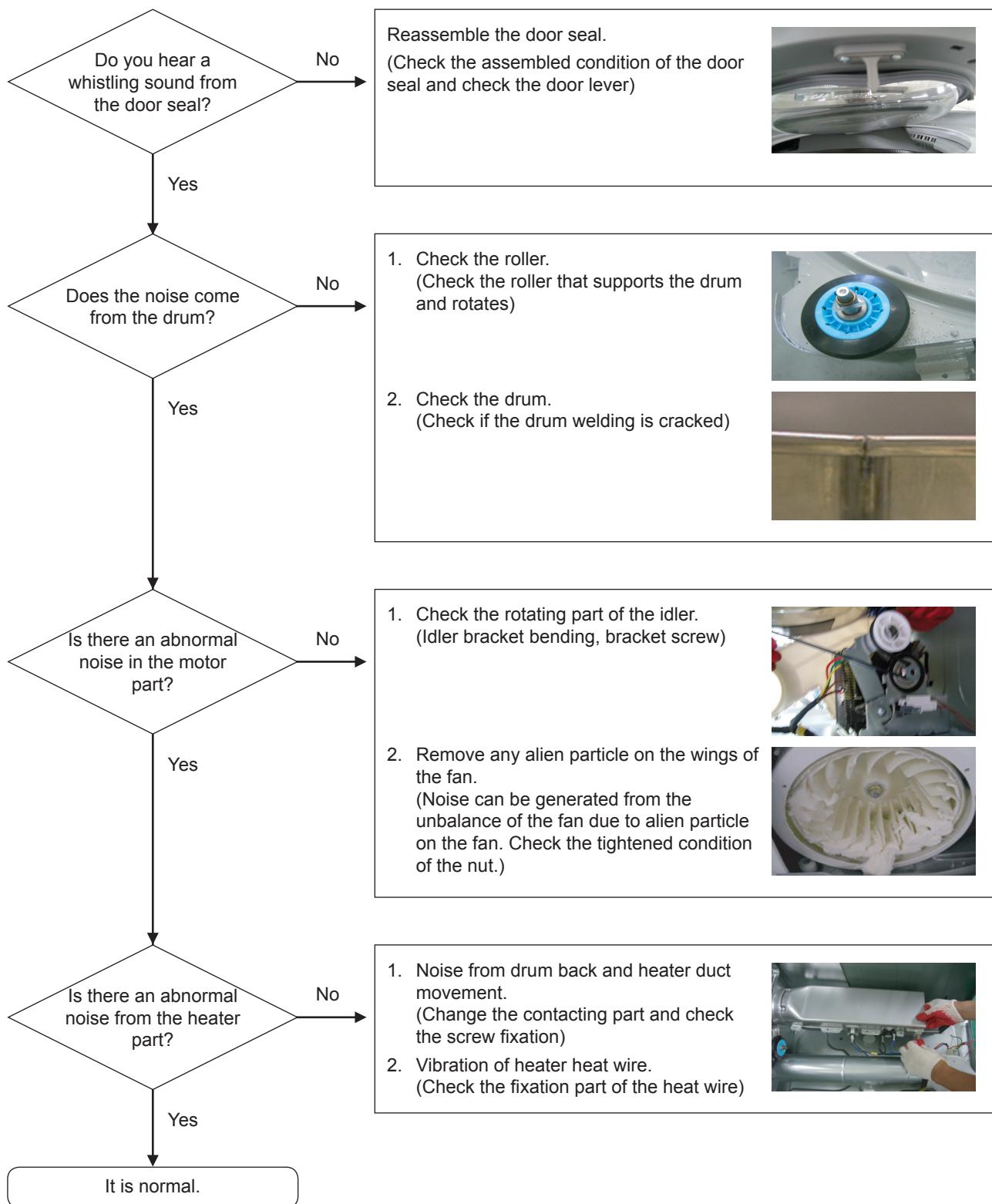
■ The clothes are not dried.



■ The lamp does not work.



■ There is an abnormal noise in the dryer.



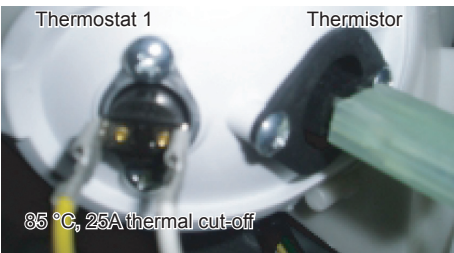
4-5. COMPONENT TESTING PROCEDURES

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 @ 25°C 77°F (2P-Blue & Red wire)
- Thermostat 1 resistance < 1 Ω (White & Yellow wire)



- Thermostat 3 resistance < 1 Ω (Red & Black wire)
 - If resistance is infinity, replace thermostat 3.
- Thermostat 2 resistance < 1 Ω (Blue & Black wire)
 - If resistance is infinity, replace thermostat 2.
- Heater resistance 10 Ω (Blue & Blue wire)
 - If resistance is infinity, replace Heater.

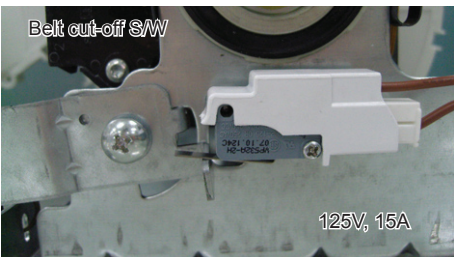


- Measure resistance of the following terminal

1. Door switch knob: open
Terminal : "COM" - "NC" (1-3) : $\infty \Omega$
Terminal : "COM" - "NO" (1-2) < 1 Ω
2. Door switch push: On
Terminal : "COM" - "NC" (1-3) : $\infty \Omega$
Terminal : "COM" - "NO" (1-2) < 1 Ω



- Belt Cut-off S/W
 - Lever open: Resistance value < 1 Ω
 - Lever push: Resistance value $\infty \Omega$



- Lamp resistance 80~100 Ω (Violet & gray)

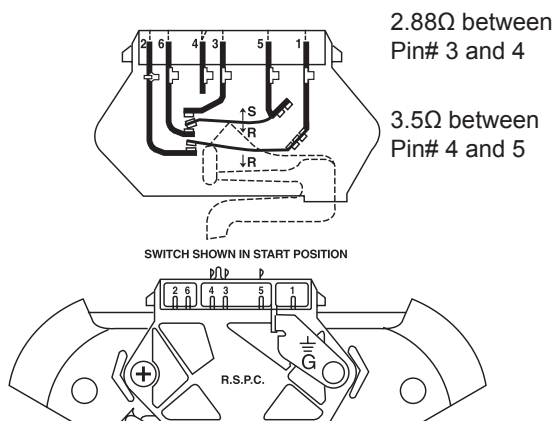


- Motor (Electronic & GAS)

Contacts (● : Contact closed)

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

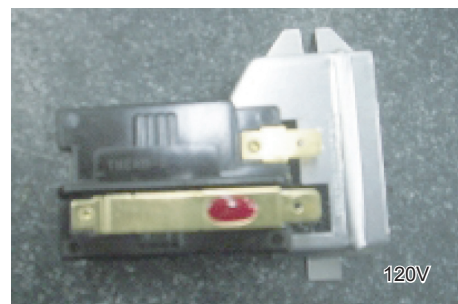
■ Centrifugal Switch (Motor)



■ GAS MODEL

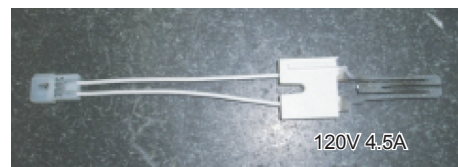
Radiant Sensor(10RS)

- Resistance value $< 1 \Omega$
- If resistance is infinite, replace Radiant sensor



Igniter(101D)

- Resistance value 40~400 Ω
- If resistance is infinite, replace Igniter



Gas Valve(25M01A)

- Valve 1-2 : Resistance value 1.2K Ω
- Valve 1-3 : Resistance value 0.5K Ω
- Valve 4-5 : Resistance value 1.2K Ω
- If resistance is infinity, replace Valve



Thermostat (60T21 Hi-Limit)230F-50F

- Resistance value $< 1 \Omega$
- If resistance is infinity, replace Thermostat



■ Sensor Bars & temperature sensor check

Sensor Bars

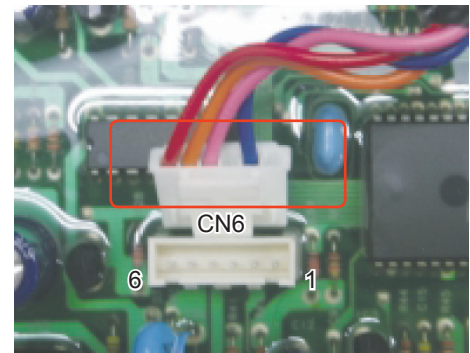
Disconnect harness and test Pink wire Pin 4 to Orange wire Pin 5.

- Approx $\infty\Omega$ without laundry
- Approx $190\Omega \pm 10\%$ with wet clothes

Cycling Thermostat

Disconnect harness and test Blue wire Pin 2 to Red wire Pin 6.

- Approx $10\text{ K}\Omega$ at $25\text{ }^{\circ}\text{C}/77\text{ }^{\circ}\text{F}$



MEMO

5. EXPLODED VIEWS AND PARTS LIST



[MATERIAL CODE STANDARDS]

Material codes and names and their respective naming rules are managed in accordance with the prescribed standards. Please refer to these standards when requesting a material.

1. Material Code Type

● : Number

■ : Letter (Alphabet)

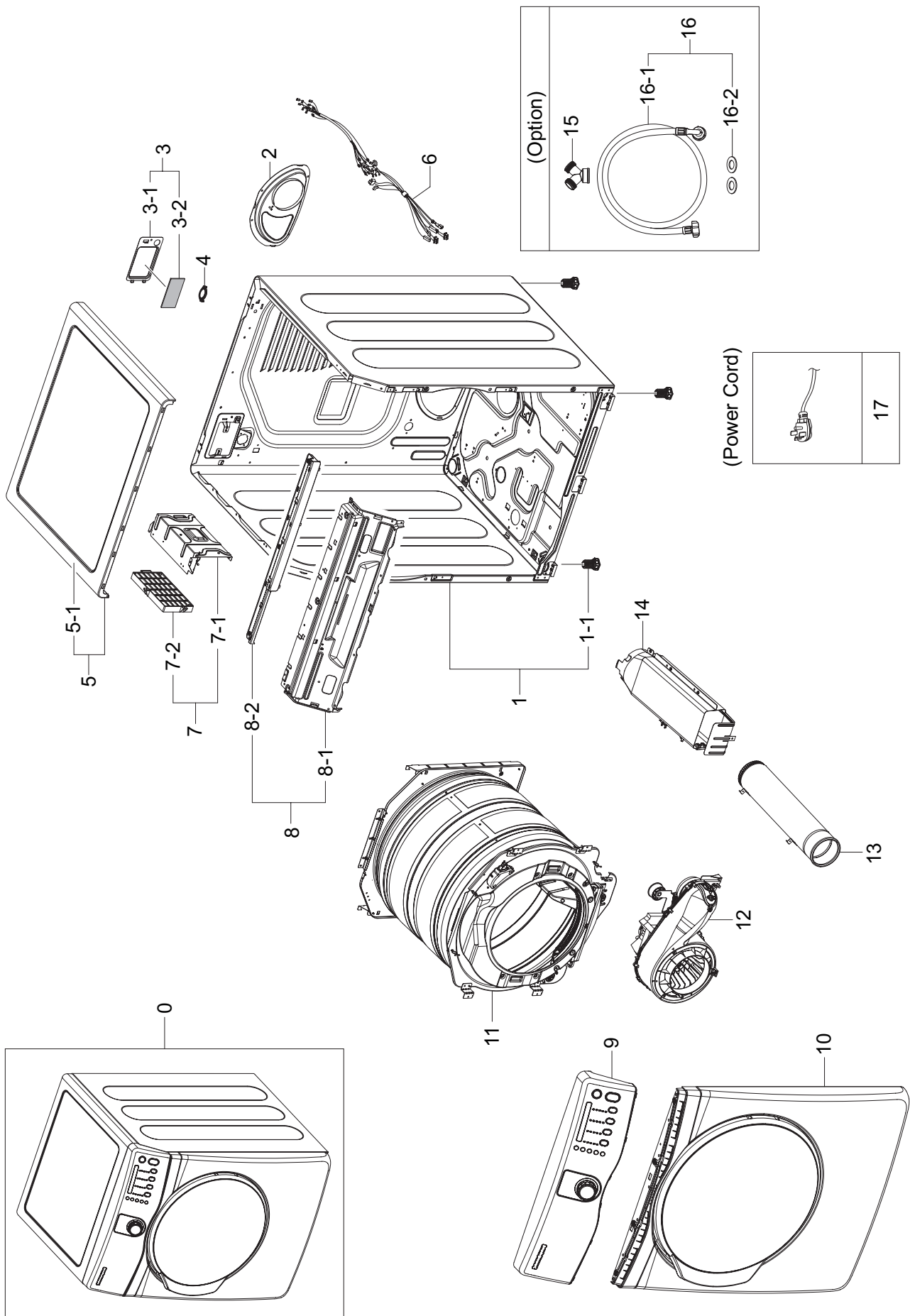
Type 1	 ex) 0204-000418 FREON	Enterprise-wide parts Type 1 materials can be used for all Samsung Electronics products. (Most electrical parts belong to this type.)
Type 2	 ex) DC96-01390A ASSY-CONTROL	Division-wide parts (DC**-Washing machine) Type 2 materials can be used for specific products. (Most instruments and tools belong to this type.)

2. Ass'y Materials

All ass'y material codes start with DC9*.

An ass'y material is created by combining more than two materials. If a requested material cannot be provided, you can request an ass'y material that contains that material.

5-1. MAIN

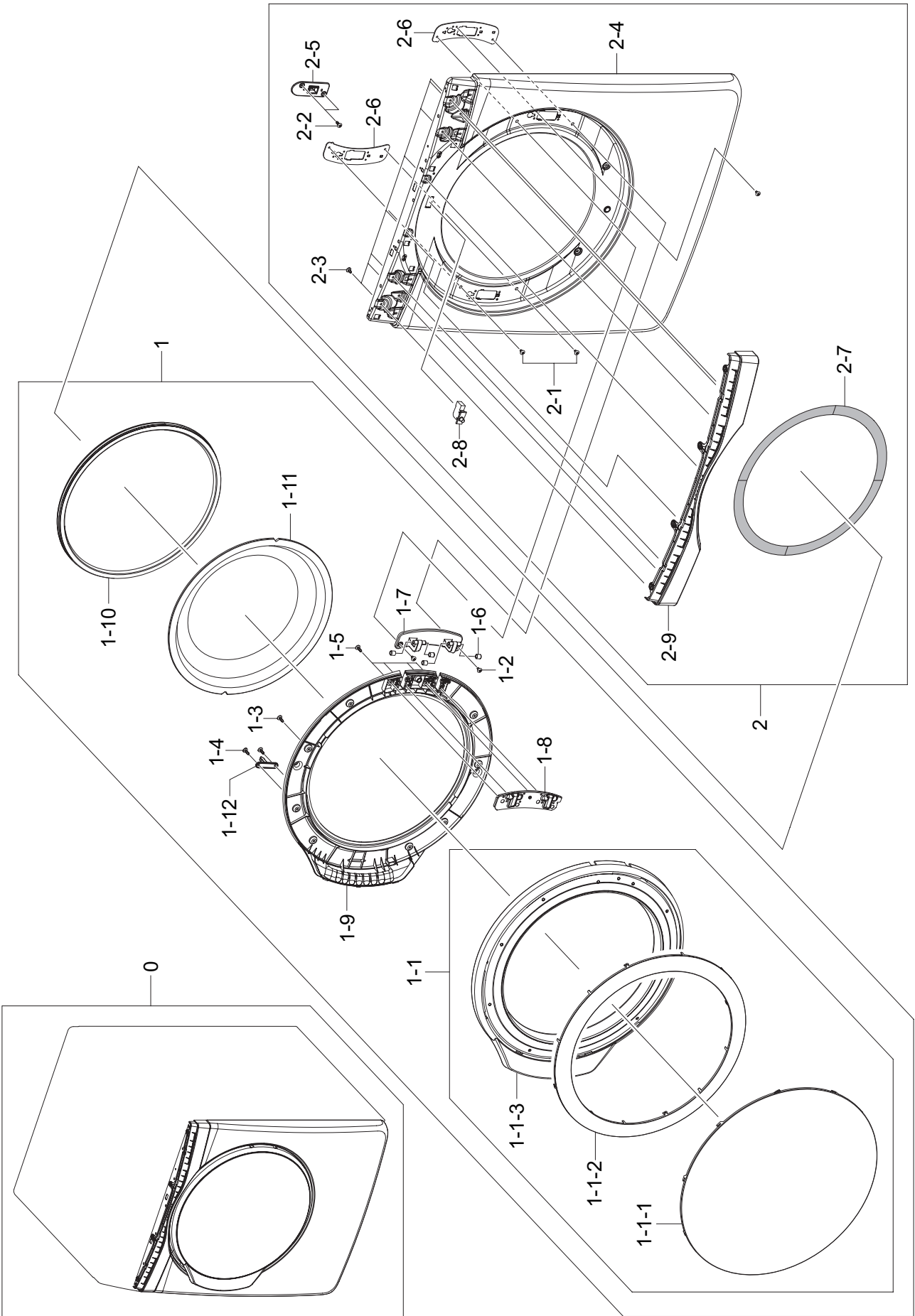


MODEL CODE: DV409SEL/XAC

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Drawing No.	Code No.	Description	Specification	QTY	Un	SA/SNA
0	DV409SEL/XAC	ASSY-CLOTHES DRYER	CANADA			
1	DC97-15162M	ASSY FRAME	PURPLE-DRYER,DV438AEL,PCM,AND	1	PC	SA
1-1	DC61-01693A	LEG	MARS-PJT,FRPP,-,-,-,-	4	PC	SNA
2	DC63-00534D	COVER-BACK	27-DRYER,GI,T0.8,NATURAL,SCRA	1	PC	SA
3	DC97-08855A	ASSY-COVER POWER	MDE9700AYW,-	1	PC	SA
3-1	DC63-00540A	COVER-POWER	WINGS-DRYER,GI,T0.6,-,-,-,-	1	PC	SNA
3-2	DC72-00056A	SPONGE-CUSHION	27-DRYER,UN2,-,T3.0,W50,L	1	PC	SNA
4	DC61-01428A	HOLDER-POWER	MDE9700AYW,PP,-,-,-,WHT,POW	1	PC	SA
5	DC97-14840G	ASSY COVER TOP	PURPLE-DRYER,DV428AEL,EGI	1	PC	SA
5-1	DC63-00877C	COVER-TOP	WF428AAL/XAC,EGI,T0.8,W684,L57	1	PC	SA
6	DC93-00067A	ASSY M. WIRE HARNESS	27" ACE PJT DRYER,D	1	PC	SA
7	DC97-10875J	ASSY HOLDER PCB	ACE-DRYER,DV419AEW,-,-,-	1	PC	SNA
7-1	DC61-01229A	HOLDER-PCB	WINGS-DRYER,GI,T0.6,NTR,MAIN	1	PC	SA
7-2	DC92-00257A	ASSY PCB MAIN	ACE-PJT,DV419AEC,-,120V/60	1	PC	SA
8	DC97-14796A	ASSY FRAME PLATE(U)	PURPLE-PJT,DV438AEG/	1	PC	SNA
8-1	DC61-01969A	FRAME-PLATE(U)	DV438AEW,GI,T0.8,W676.3,L	1	PC	SA
8-2	DC61-02008A	GUIDE-PANEL	WF448AAW,PP,T2.0,W51.2,L638.	1	PC	SA
9	DC97-15654A	ASSY PANEL CONTROL	ACE-DRYER(BETTER),DV4	1	PC	SNA
10		ASSY-FRAME FRONT & DOOR	Refer to 5.2 ASS'Y-FRONT	1		
11	DC97-14816A	ASSY DRUM	DV438AEG/XAA,PURPLE DRYER,-,-,	1	PC	SNA
12	DC96-00791A	ASSY MOTOR DUCT	MDE7800AYW,-,-,60HZ,240V	1	PC	SNA
13	DC97-07519A	ASSY DUCT EXHAUST	WINGS-DRYER,MDE9700AYW	1	PC	SA
14	DC97-14486A	ASSY DUCT HEATER	27-DRYER,-,-,-,ELECTRIC	1	PC	SA
15	DC97-15103A	ASSY CONNECTOR	DV448AEW,-,PACKING/HOSE C	1	PC	SA
16	DC97-15692A	ASSY HOSE WATER	ACE,WF419AAW,COLD,L1240,	1	PC	SA
16-1	DC62-00075B	HOSE-WATER(C)	-,NBR+NYLON,ID10.2,OD16.5,	1	PC	SC
16-2	DC62-40178A	SEAL-WATER	-,NR,BLK,-,-,-,ID12XOD25XT3	2	PC	SA
17	DC96-00762A	ASSY POWER CORD	NOMA/66"/BLK/DRT-30,30A	1	PC	SA

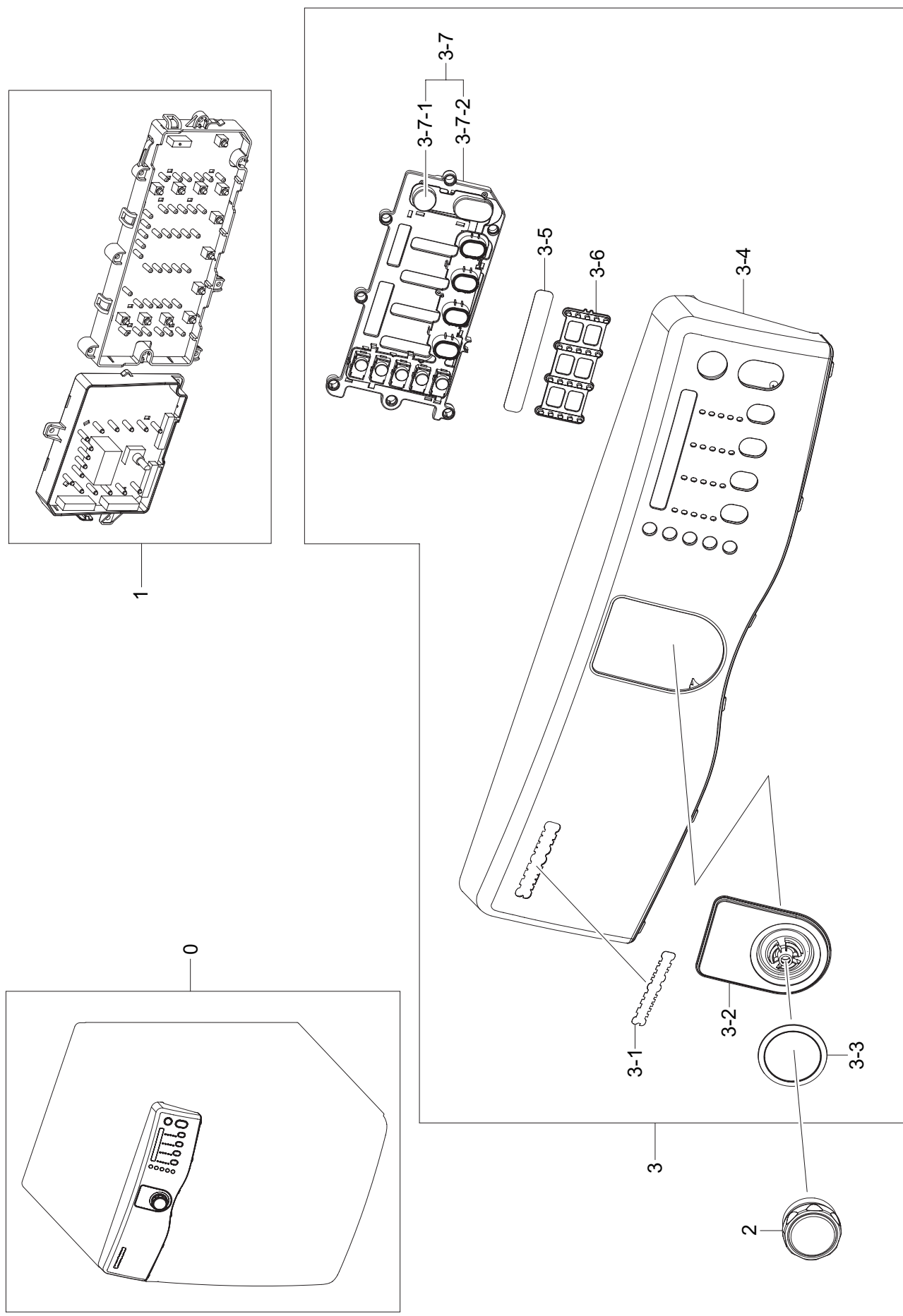
5-2. FRAME FRONT & DOOR



MODEL CODE: DV409SEL/XACService Bom (**SA**: SERVICE AVAILABLE, **SNA**: SERVICE NOT AVAILABLE)

Drawing No.	Code No.	Description	Specification	QTY	Un	SA/SNA
0		ASSY-FRAME FRONT & DOOR		1		
1	DC97-14563E	ASSY DOOR	NORMAN-DRYER(BEST),592-895090,	1	PC	SA
1-1	DC97-14593D	ASSY COVER DOOR	NORMAN-DRYER(BEST),592-8	1	PC	SA
1-1-1	DC64-01552B	DOOR-SAFETY	ACE-PJT,PET,T2.5,-,W514,L514	1	PC	SA
1-1-2	DC64-01366G	DECORATION-DOOR	592-895090,EGI,T0.5,IMPE	1	PC	SNA
1-1-3	DC63-00885A	COVER-DOOR	PURPLE-PJT,ABS,T2.5,W541,L541	1	PC	SNA
1-2	6002-000241	SCREW-TAPPING	TH,+,-,2S,M5,L12,ZPC(WHT),	1	PC	SA
1-3	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	12	PC	SNA
1-4	6002-000445	SCREW-TAPPING	TH,+,-,2S,M4,L18,PASS,STS4	2	PC	SA
1-5	6002-001306	SCREW-TAPPING	TH,+,-,1,M4,L14,ZPC(WHT),S	8	PC	SNA
1-6	DC61-00891A	GUIDE-HINGE	HAUZEN(DOM),POM,-,-,WHT,HI	4	PC	SA
1-7	DC61-01532B	HINGE-DOOR	WF328,ALDC,T3.8,-,-,GRY,-,SPR	1	PC	SA
1-8	DC61-01576A	SUPPORT-HINGE	FRONTIER-PJT,SBHG1-A(SGCC)	1	PC	SA
1-9	DC61-01991A	HOLDER-GLASS	PURPLE DRYER,PP(TB53),T2.8,	1	PC	SA
1-10	DC62-00262A	SEAL-DOOR	DV448AEW,TPE,GRY,-,-,1280mm,PU	1	PC	SA
1-11	DC64-00993A	DOOR-GLASS	WINGS-DRYER,GLASS,T5,-,-,TR	1	PC	SA
1-12	DC66-00395A	LEVER-DOOR	WINGS-DRYER,POM,-,-,-,NTR,-	1	PC	SA
2	DC97-15509D	ASSY FRAME FRONT	ACE-DRYER,DV409SEL,ANDR	1	PC	SA
2-1	6001-001773	SCREW-MACHINE	TH,+,-,M5,L12,PASS,STS430,	2	PC	SA
2-2	6002-000231	SCREW-TAPPING	TH,+,-,2S,M4,L12,ZPC(WHT),	2	PC	SNA
2-3	6002-000239	SCREW-TAPPING	TH,+,-,2S,M4,L8,ZPC(WHT),S	9	PC	SA
2-4	DC61-01990C	FRAME-FRONT	DV428AEL,EGI,-,-,ANDRE-BLUE,	1	PC	SA
2-5	DC97-07510B	ASSY HOLDER LEVER	-,MDE7800AYW,DRYER/DOO	1	PC	SA
2-6	DC61-01222A	BRACKET-HINGE	27-DRYER,HGI,T2.0,-,-,-	2	PC	SA
2-7	DC63-10001C	SPONGE-EPDM	-,EPDM,-,T3.0,W15,L350,BLK,O	8	PC	SNA
2-8	DC64-00828A	DOOR-S/W	GD-PJT,PA,T13.6,H38.5,W44.3,-,W	1	PC	SA
2-9	DC64-01878C	DECORATION-FRONT	592-895090,ABS,T2.5,W70	1	PC	SA

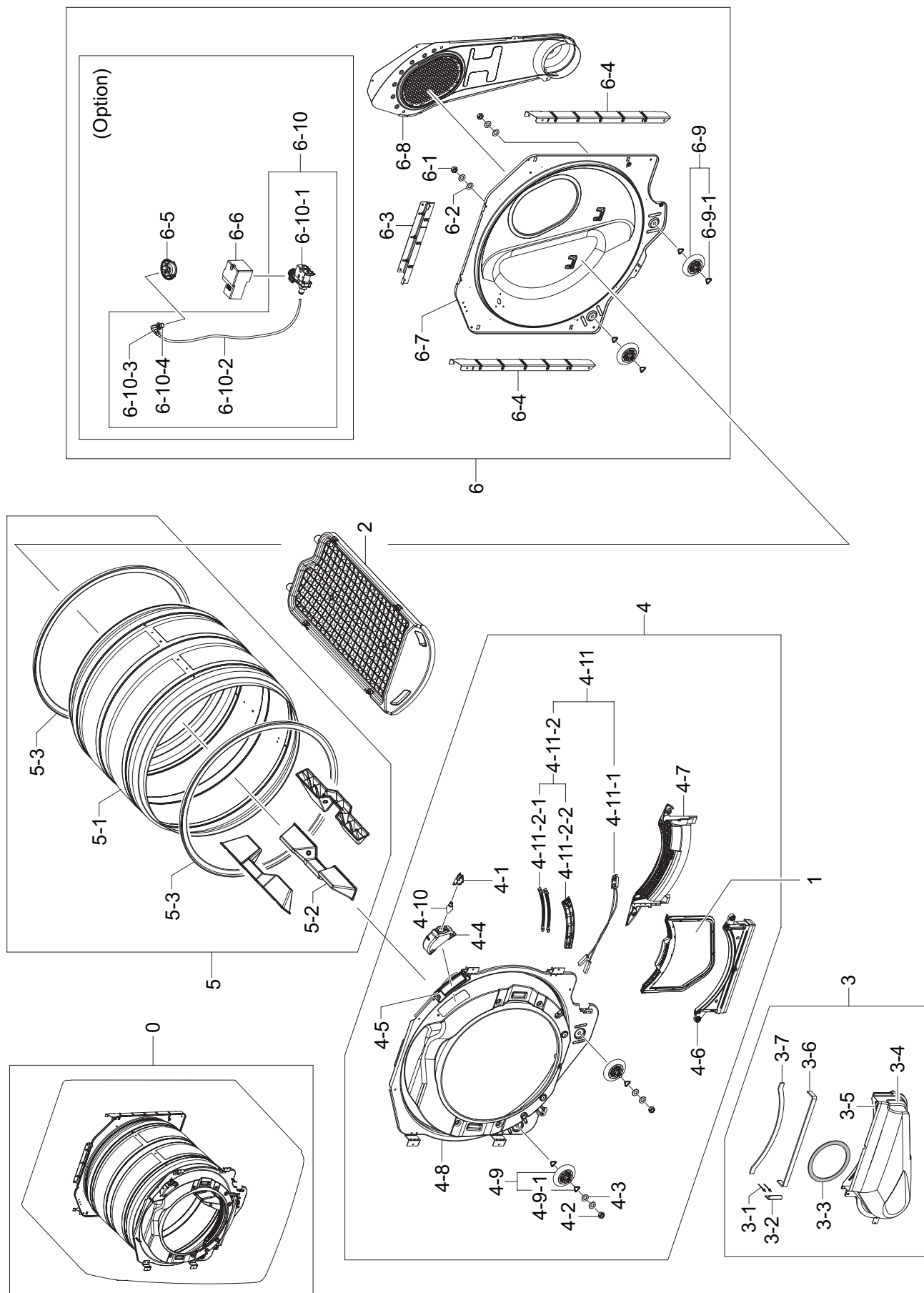
5-3. ASS'Y PANEL CONTROL



MODEL CODE: DV409SEL/XACService Bom (**SA**: SERVICE AVAILABLE, **SNA**: SERVICE NOT AVAILABLE)

Drawing No.	Code No.	Description	Specification	QTY	Un	SA/SNA
0	DC97-15654A	ASSY PANEL CONTROL	ACE-DRYER(BETTER),DV4	1	PC	SNA
1	DC92-00256B	ASSY PCB SUB	ACE-PJT,DV409,-,120V/60Hz,-	1	PC	SA
2	DC97-14447A	ASSY KNOB ENCODER	WF438AAW,-,-,-,-	1	PC	SA
3	DC97-15711A	ASSY S.PANEL CONTROL	ACE-DRYER,DV409SEL/	1	PC	SA
3-1	DC64-01387A	MASCOT	FRONTIER II,NICKEL,-,-,-,-,-	1	PC	SNA
3-2	DC64-01871A	WINDOW-ENCODER	WF419AAW/XAA,ACRYL(PMMA),	1	PC	SNA
3-3	DC64-01873A	DECORATION-ENCODER	WF419AAW/XAA,ABS,T2.8	1	PC	SNA
3-4	DC64-01879A	PANEL-CONTROL	DV409SEL,ABS,T3.0,ANDRE-BL	1	PC	SNA
3-5	DC64-01979B	WINDOW-PANEL	DV409SEL,ABS,T1.0,W20.1,L13	1	PC	SNA
3-6	DC64-01980A	DECORATION-LED	WF409SNL,PMMA,T1.2,W118.2	1	PC	SNA
3-7	DC97-15666A	ASSY BUTTON	ACE,WF409SNL	1	PC	SA
3-7-1	DC64-01845C	BUTTON-PUSH(P)	WF409SNL,ABS,ONYX BLUE,AC	1	PC	SA
3-7-2	DC64-01975A	BUTTON-RUBBER	WF409SNL,SILICON,NTR,ACE-P	1	PC	SNA

5-4. ASS'Y DRUM



MODEL CODE: DV409SEL/XACService Bom (**SA**: SERVICE AVAILABLE, **SNA**: SERVICE NOT AVAILABLE)

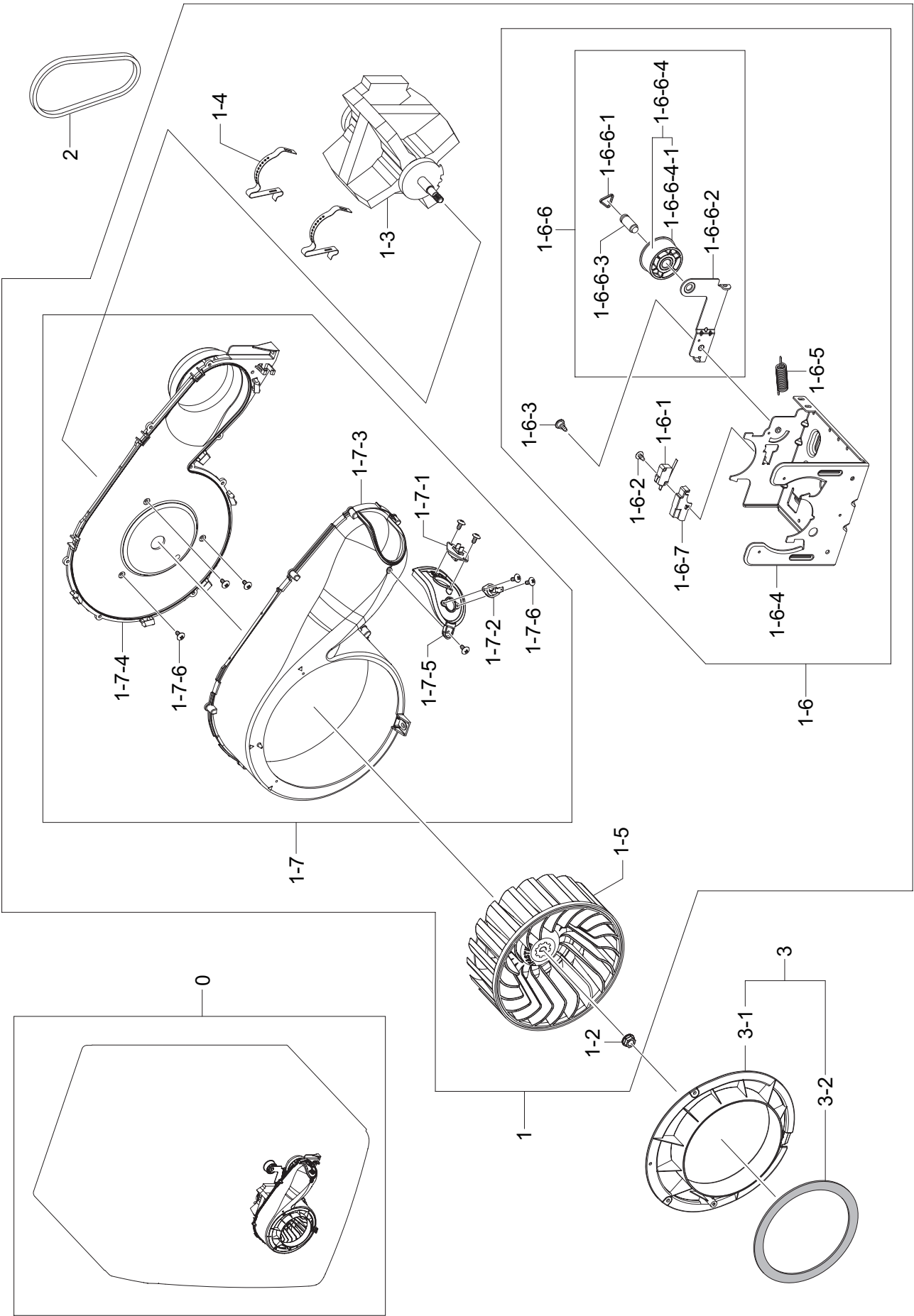
Drawing No.	Code No.	Description	Specification	QTY	Un	SA/SNA
0	DC97-14816A	ASSY DRUM	DV438AEG/XAA,PURPLE DRYER,-,-,	1	PC	SNA
1	DC61-01521A	CASE-FILTER	DV736E4/XAA(FRONTIER),FRPP(G	1	PC	SA
2	DC61-01522A	DIE-RACK DRY	FRONTIER-DRYER,TB-53,-,-,NT	1	PC	SA
3	DC97-07526B	ASSY DUCT OUTLET	DV337AEW,DRYER/BACKET-	1	PC	SA
3-1	6041-001035	RIVET-RH	K1661-0512,AL(A5052),OD3.9,L11,	2	PC	SNA
3-2	DC61-01667A	BRACKET-FILTER(U)	MDE9700AYW,GI,T1.0,-,-	1	PC	SNA
3-3	DC63-10001K	SPONGE-EPDM	SWF-P12,EPDM,-,T3,W15,L530,B	1	PC	SNA
3-4	DC67-00127A	DUCT-OUTLET(F)	WINGS-DRYER,GI,T0.35,-,-,	1	PC	SNA
3-5	DC67-00128B	DUCT-OUTLET(B)	DV337AEW,GI,T0.6,-,-,NTR,	1	PC	SNA
3-6	DC72-00032A	SPONGE-EPDM	MDE9700AYW,EPDM,-,T5,W20,L40	1	PC	SNA
3-7	DC72-00032C	SPONGE-EPDM	MDE9700AYW,EPDM,-,T5,W20,L38	1	PC	SNA
4	DC97-10354A	ASSY DRUM FRONT	DV736E4/XAA,FRONTIER-DRY	1	PC	SNA
4-1	DC47-00021A	SOCKET-LAMP	-,MDE7800,E12,125V,0.6A,-,12	1	PC	SA
4-2	DC60-50145A	NUT-HEX	-,MSWR10,-,-,-,-,M10	2	PC	SA
4-3	DC60-60060A	WASHER	-,T2,-,ID12,OD24,-,YEL,-	4	PC	SA
4-4	DC61-01220A	GUIDE-LAMP	27-DRYER,FH44N,-,-,-,BLK,INTE	1	PC	SA
4-5	DC63-00531A	COVER-LAMP	WINGS-DRYER,PC(LEXAN#141R),-	1	PC	SA
4-6	DC63-00538A	COVER-FILTER(F)	WINGS-DRYER,TI-42,-,-,-,	1	PC	SA
4-7	DC63-00675A	COVER-FILTER(B)	DV736E4/XAA,TI-42,-,-,-,	1	PC	SA
4-8	DC97-10362A	ASSY-S.DRUM FRONT	DV736E4/XAA,FRONTIER-D	1	PC	SA
4-9	DC97-07523B	ASSY ROLLER	-,27-DRYER,DRYER/EPDM,-,-,-	2	PC	SA
4-9-1	DC61-01228A	HOLDER-SHAFT	WINGS-DRYER,NYLON#6,-,-,-,N	2	PC	SA
4-10	4713-001199	LAMP-INCANDESCENT	120V,83mA,10W,NTR,-,-,	1	PC	SA
4-11	DC97-08894A	ASSY GUIDE SENSOR(M)	MDE9700AYW,TOUCH SE	1	PC	SNA
4-11-1	DC96-00766A	ASSY WIRE HARNESS	GR-PJT,-,-,SUB/TOUCH S	1	PC	SA
4-11-2	DC97-08889A	ASSY GUIDE SENSOR	MDE9700AYW,OUCH SENSO	1	PC	SA
4-11-2-1	DC61-01231A	PLATE-SENSOR	27-DRYER,STS304,T0.8,-,-,-,	2	PC	SA
4-11-2-2	DC61-01235A	GUIDE-SENSOR	WINGS-DRYER,TI-42,-,-,-,GRY	1	PC	SA
5	DC97-14849A	ASSY DRUM WRAPPER	DV438AEG/XAA,STS430J1L	1	PC	SA
5-1	DC66-00397C	DRUM-WRAPPER	27-DRYER,STS430,625.3,OD667	1	PC	SNA
5-2	DC66-00511A	DRUM-LIFTER	DV448AEW/XAA,PP-TI42,-,-,455	3	PC	SA
5-3	DC97-07618A	ASSY GASKET PAD	MDE9700AYW,DRYER/DRUM-WR	2	PC	SNA
6	DC97-14999C	ASSY DRUM BACK	DV448AEW/XAA,PURPLE-PJT(E	1	PC	SNA
6-1	DC60-50145A	NUT-HEX	-,MSWR10,-,-,-,-,M10	2	PC	SA
6-2	DC60-60060A	WASHER	-,T2,-,ID12,OD24,-,YEL,-	4	PC	SA
6-3	DC61-01237A	BRACKET-DRUM BACK	WINGS-DRYER,SBHG1-A,T0	1	PC	SNA
6-4	DC61-01238A	BRACKET-DRUM BACK	27-DRYER,SBHG1-A,T0.8,	2	PC	SNA
6-5	DC61-02063A	GUIDE-NOZZLE	DV448AEG/XAA,PP(T142),T2.5,	1	PC	SA

MODEL CODE: DV409SEL/XACService Bom (**SA**: SERVICE AVAILABLE, **SNA**: SERVICE NOT AVAILABLE)

Drawing No.	Code No.	Description	Specification	QTY	Un	SA/SNA
6-6	DC63-00907A	COVER-VALVE WATER	DV448,PP,T2.5,W109.7,	1	PC	SA
6-7	DC66-00398G	DRUM-BACK	DV448AEW/XAA,STS445NF,T0.6,-,-	1	PC	SA
6-8	DC97-07521A	ASSY DUCT AIR	MDE7800AYW,DRYER,-,-,ELECT	1	PC	SA
6-9	DC97-07523B	ASSY ROLLER	-,27-DRYER,DRYER/EPDM,-,-,-	2	PC	SA
6-9-1	DC61-01228A	HOLDER-SHAFT	WINGS-DRYER,NYLON#6,-,-,-,N	2	PC	SA
6-10	DC97-14929A	ASSY STEAM KIT	DV448AEG,100cc/min,120V/6	1	PC	SA
6-10-1	DC62-30042A	VALVE-WATER	DV448,PA66,80.8*97.6*44.7,0.	1	PC	SA
6-10-2	DC67-00331A	HOSE-DRAWER	DV448AEW,NYLON,ID4.3,OD6.35,	0.597	M	SNA
6-10-3	DC97-14928A	ASSY ELBOW	DV448AEG/XAA,C3604,-,-,-	1	PC	SNA
6-10-4	DC97-14931A	ASSY NOZZLE	DV448AEG/XAA,-,-,-,-,NICKEL	1	PC	SNA

MEMO

5-5. ASS'Y MOTOR

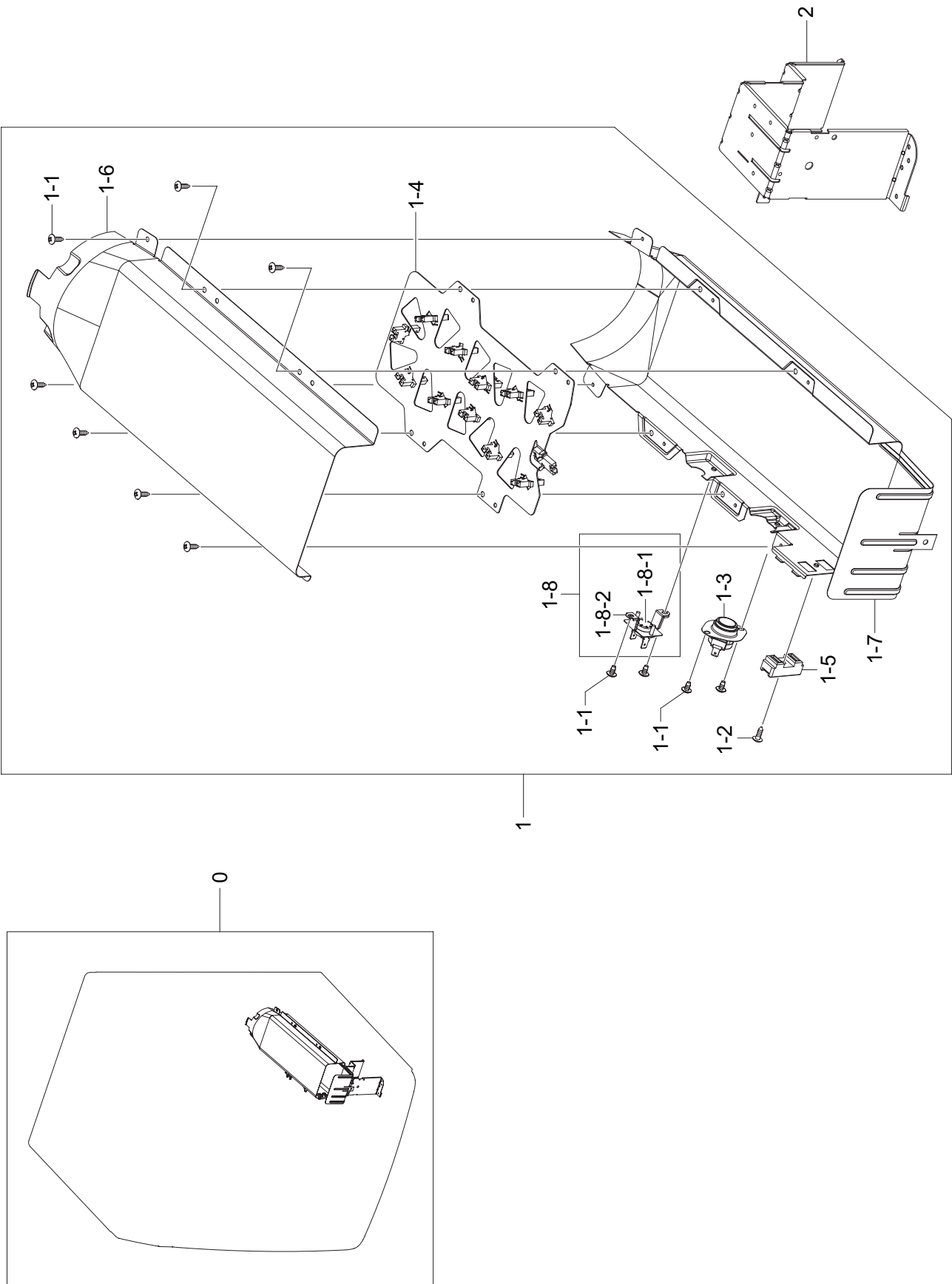


MODEL CODE: DV409SEL/XAC

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Drawing No.	Code No.	Description	Specification	QTY	Un	SA/SNA
0	DC96-00791A	ASSY MOTOR DUCT	MDE7800AYW,-,-,60HZ,240V	1	PC	SNA
1	DC96-01112C	ASSY MOTOR	MDE9700AYW,DRYER,-,-,-,-	1	PC	SNA
1-2	6021-001201	NUT-INCH	LEFT TURN,3/8"-24,ZPC(YEL),MSWR	1	PC	SA
1-3	DC31-00055A	MOTOR INDUCTION-DRYER	WINGS-PJT,S58NXDD-	1	PC	SA
1-4	DC61-01214A	SPRING-PLATE	WINGS-DRYER,SK-5,-,-,-,-,-,	2	PC	SA
1-5	DC67-00180A	FAN	WINGS-DRYER,FRPP(15%),-,-,-,-,MOTOR	1	PC	SA
1-6	DC96-00790C	ASSY BRACKET MOTOR	MDE9700AYW,DRYER,-,-,	1	PC	SNA
1-6-1	3405-001077	SWITCH-MICRO	125V,15A,180gf,2	1	PC	SA
1-6-2	6002-000488	SCREW-TAPPING	PH,+,-,2S,M3,L16,ZPC(WHT),	1	PC	SA
1-6-3	6009-001342	SCREW-SPECIAL	TH,+,-,M5,L11,ZPC(WHT),SWR	1	PC	SA
1-6-4	DC61-01213A	BRACKET-MOTOR	WINGS-DRYER,HGI,T2.0,-,-,-	1	PC	SA
1-6-5	DC61-01215B	SPRING ETC-TENSION	MDE9700AYW,HSWR,D1.8,	1	PC	SA
1-6-6	DC96-00882C	ASSY BRACKET IDLER	MDE9700AYW,DRYER,-,-,	1	PC	SA
1-6-6-1	DC61-01228A	HOLDER-SHAFT	WINGS-DRYER,NYLON#6,-,-,-,N	1	PC	SA
1-6-6-2	DC61-01230B	BRACKET-IDLER	MDE9700AYW,HGI,T2.0,-,-,-,	1	PC	SA
1-6-6-3	DC66-00401A	SHAFT-IDLER	WINGS-DRYER,STS-410,-,-,-,-,	1	PC	SNA
1-6-6-4	DC97-07509B	ASSY ROLLER	-,MDE9700AYW,DRYER/MOTOR/IDL	1	PC	SA
1-6-6-4-1	DC66-00402A	ROLLER-IDLER	WINGS-DRYER,POM,-,-,-,-,MOT	1	PC	SA
1-6-7	DC63-00919A	COVER-SWITCH	DV448,ABS+PC,T2.5,W13.7,L52	1	PC	SA
1-7	DC97-07508A	ASSY COVER DUCT	MDE9700AYW,DRYER,-,-,-,-	1	PC	SNA
1-7-1	DC32-00007A	THERMISTOR	N3S1-K41-S1,10K,10KOHM 25,-40	1	PC	SA
1-7-2	DC47-00016A	THERMOSTAT	B-2,250,25A,-20~150,-40~150,2	1	PC	SA
1-7-3	DC61-01240A	BRACKET-THERMISTOR	27-DRYER,PP,-,-,-,WHI	1	PC	SA
1-7-4	DC61-01241A	GUIDE-DUCT FAN	27-DRYER,TB-53,-,-,-,NATU	1	PC	SA
1-7-5	DC63-00536A	COVER-DUCT FAN	27-DRYER,TB-53,-,-,-,-,-,	1	PC	SA
1-7-6	6002-000470	SCREW-TAPPING	TH,+,-,1,M4,L10,ZPC(WHT),S	5	PC	SA
2	6602-001655	BELT-TIMING GEAR	-,RUBBER,T3*W8,-,L2337,	1	PC	SA
3	DC97-07895A	ASSY DUCT CONNECTOR	MDE7800AYW,DRYER,-,-	1	PC	SA
3-1	DC67-00130A	DUCT-CONNECTOR	27-DRYER,TB-53,-,-,-,NTR,	1	PC	SNA
3-2	DC72-00032E	SPONGE-EPDM	MDE9700AYW,EPDM,-,T3,W15,L74	1	PC	SNA








5-6. ASS'Y DUCT HEATER



MODEL CODE: DV409SEL/XACService Bom (**SA**: SERVICE AVAILABLE, **SNA**: SERVICE NOT AVAILABLE)

Drawing No.	Code No.	Description	Specification	QTY	Un	SA/SNA
0		ASSY-DUCT HEATER & DIE		1		
1	DC97-14486A	ASSY DUCT HEATER	27-DRYER,-,-,ELECTRIC	1	PC	SA
1-1	6002-000239	SCREW-TAPPING	TH,+, -,2S,M4,L8,ZPC(WHT),S	11	PC	SA
1-2	6002-001306	SCREW-TAPPING	TH,+, -,1,M4,L14,ZPC(WHT),S	1	PC	SNA
1-3	DC47-00018A	THERMOSTAT	60T11,-,250V,25A,-20~150,-30~	1	PC	SA
1-4	DC47-00019A	HEATER-DRY	-,GD-PJT,-,5300W,21A,240,10,D	1	PC	SA
1-5	DC65-00013A	TERMINAL-BLOCK	GR-PJT,SERAMIC,2HOLE,1015	1	PC	SNA
1-6	DC67-00132A	DUCT-HEATER(U)	WINGS-DRYER,AL-COAT,T0.5,	1	PC	SNA
1-7	DC67-00133A	DUCT-HEATER(L)	WINGS-DRYER,AL-COAT,T0.5,	1	PC	SNA
1-8	DC96-00887A	ASSY BRACKET THERMOSTAT	MDE9700AYW,DRYER	1	PC	SA
1-8-1	DC47-00015A	THERMOSTAT	B-2,-,250V,25A,-20~150,-40~15	1	PC	SA
1-8-2	DC61-01204A	BRACKET-THERMOSTAT	WINGS-DRYER,SGCC(GI),	1	PC	SNA
2	DC61-02016A	DIE-HEATER	DV438AEW/XAA,SECC(EGI),-,-,NT	1	PC	SA

5-7. SMALL PARTS

						(Option) 
1	2	3	4	5	6	7

MODEL CODE: DV409SEL/XAC

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Drawing No.	Code No.	Description	Specification		QTY	Un	SA/SNA
1	6046-000310	STAND OFF	ID11.5,L2,NTR,NYLON66,DAWH-3NA	FRAME-PLATE(U)_R	1	PC	SNA
1	6046-000310	STAND OFF	ID11.5,L2,NTR,NYLON66,DAWH-3NA	DRUM-FRONT	3	PC	SNA
1	6046-000310	STAND OFF	ID11.5,L2,NTR,NYLON66,DAWH-3NA	DRUM-BACK	1	PC	SNA
2	DC61-60074A	HOLDER-WIRE	-,NYLON#66(DAWS-6NB),-,-,-,N	HOLDER-PCB	1	PC	SA
2	DC61-60074A	HOLDER-WIRE	-,NYLON#66(DAWS-6NB),-,-,-,N	FRAME(REAR TOP)	1	PC	SA
3	DC61-00553B	HOLDER-WIRE SADDLE	-,NYLON66,-,-,-,NTR,D	GUIDE-LAMP	1	PC	SA
4	DC61-40081A	HOLDER-WIRE	DAWH-2NC,NYLON66,-,-,-,-,NTR	FRAME-PLATE(U)_L	1	PC	SNA
4	DC61-40081A	HOLDER-WIRE	DAWH-2NC,NYLON66,-,-,-,-,NTR	BOTTOM+FRAME	3	PC	SNA
4	DC61-40081A	HOLDER-WIRE	DAWH-2NC,NYLON66,-,-,-,-,NTR	PLATE-BOTTOM	5	PC	SNA
5	6502-000127	CABLE CLAMP	DAWH-18NB,ID15,-,NYLON66,NTR	HOLDER-PCB	1	PC	SNA
5	6502-000127	CABLE CLAMP	DAWH-18NB,ID15,-,NYLON66,NTR	DRUM-BACK	1	PC	SNA
6	DC61-00553C	HOLDER-WIRE SADDLE	-,NYLON66,-,-,-,NTR,D	F/FRONT	1	PC	SA
7	DC61-00133A	CLAMPER HOSE-FIX	P1291,PP,ID24.5,OD29.5,	DRUM-BACK	1	PC	SNA

5-8. PARTS LIST (SA/SC OTHERS)

MODEL CODE: DV409SEL/XAC

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Code No.	Description	Specification	QTY	Un	SA/SNA
3405-001083	SWITCH-MICRO	250Vac,2A,180gf,3	1	PC	SA
3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1Form	4	PC	SA
6001-001668	SCREW-MACHINE	TH,+,M5,L16,PASS,STS430,FP	1	PC	SA
6001-001773	SCREW-MACHINE	TH,+,M5,L12,PASS,STS430,	2	PC	SA
6002-000213	SCREW-TAPPING	TH,+,1,M4,L12,ZPC(WHT),S	2	PC	SA
6002-000213	SCREW-TAPPING	TH,+,1,M4,L12,ZPC(WHT),S	5	PC	SA
6002-000239	SCREW-TAPPING	TH,+,2S,M4,L8,ZPC(WHT),S	1	PC	SA
6002-000239	SCREW-TAPPING	TH,+,2S,M4,L8,ZPC(WHT),S	8	PC	SA
6002-000239	SCREW-TAPPING	TH,+,2S,M4,L8,ZPC(WHT),S	3	PC	SA
6002-000445	SCREW-TAPPING	TH,+,2S,M4,L18,PASS,STS4	3	PC	SA
6002-000470	SCREW-TAPPING	TH,+,1,M4,L10,ZPC(WHT),S	9	PC	SA
6002-001320	SCREW-TAPPING	TH,+,2S,M4,L8,PASS,STS304,	3	PC	SA
6009-001476	SCREW-HEX	HEX,+,M5,L10,ZPC3(BLK),SWRCH	2	PC	SA

5-9. PARTS LIST (SCREW TYPE)

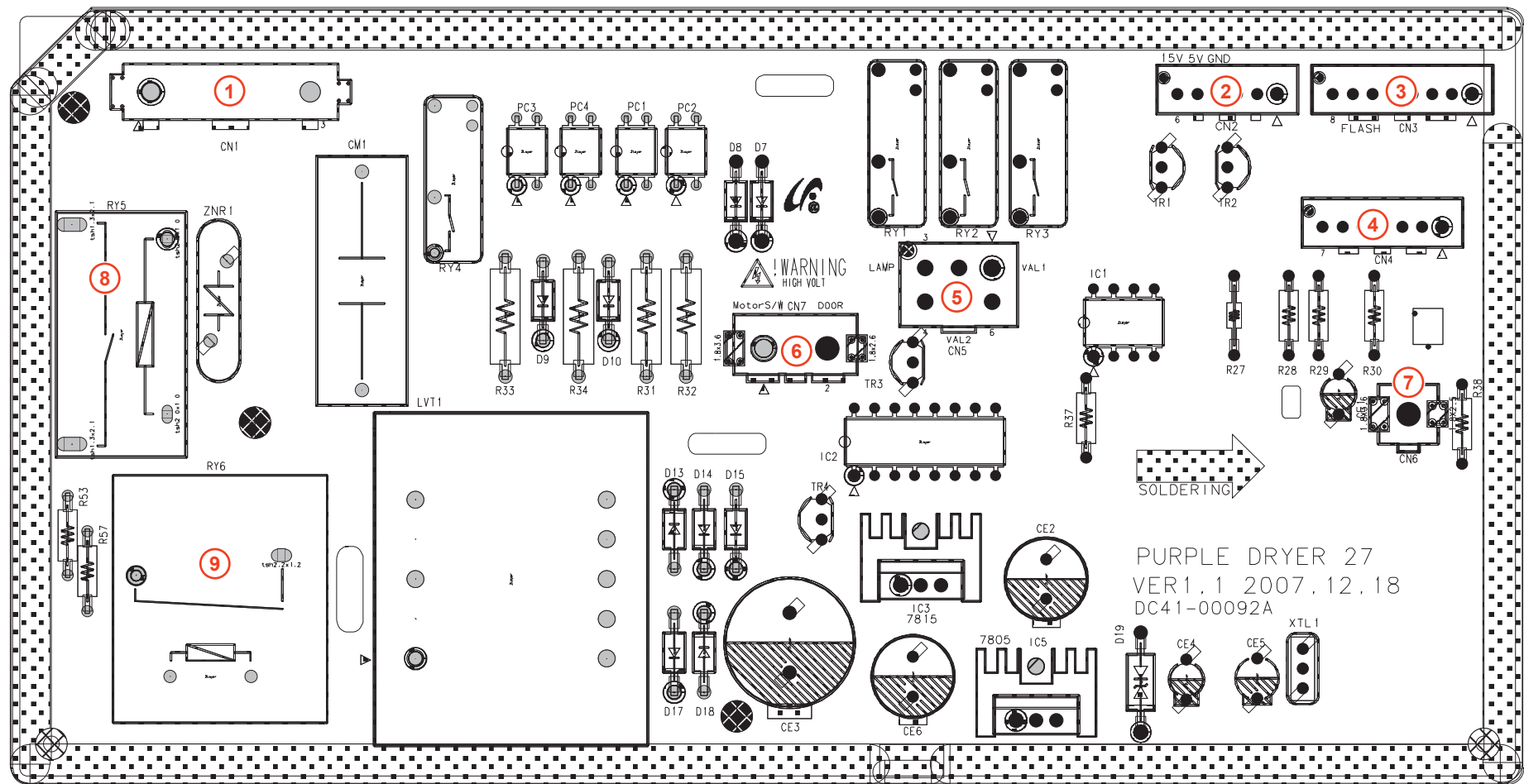
MODEL CODE: DV409SEL/XAC

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Code No.	Description	Specification	QTY	Un	SA/SNA
6001-001668	SCREW-MACHINE	TH,+,M5,L16,PASS,STS430,FP	1	PC	SA
6001-001773	SCREW-MACHINE	TH,+,M5,L12,PASS,STS430,	4	PC	SA
6002-000213	SCREW-TAPPING	TH,+,1,M4,L12,ZPC(WHT),S	7	PC	SA
6002-000215	SCREW-TAPPING	TH,+,1,M4.0,L16,ZPC(WHT)	12	PC	SNA
6002-000231	SCREW-TAPPING	TH,+,2S,M4,L12,ZPC(WHT),	20	PC	SNA
6002-000234	SCREW-TAPPING	TH,+,2S,M4,L16,ZPC(WHT),	2	PC	SNA
6002-000239	SCREW-TAPPING	TH,+,2S,M4,L8,ZPC(WHT),S	32	PC	SA
6002-000241	SCREW-TAPPING	TH,+,2S,M5,L12,ZPC(WHT),	1	PC	SA
6002-000444	SCREW-TAPPING	TH,+,2S,M4,L14,PASS,STS4	12	PC	SNA
6002-000445	SCREW-TAPPING	TH,+,2S,M4,L18,PASS,STS4	5	PC	SA
6002-000470	SCREW-TAPPING	TH,+,1,M4,L10,ZPC(WHT),S	14	PC	SA
6002-000488	SCREW-TAPPING	PH,+,2S,M3,L16,ZPC(WHT),	1	PC	SA
6002-000630	SCREW-TAPPING	PH,+,2S,M3,L8,ZPC(WHT),S	2	PC	SNA
6002-001306	SCREW-TAPPING	TH,+,1,M4,L14,ZPC(WHT),S	19	PC	SNA
6002-001320	SCREW-TAPPING	TH,+,2S,M4,L8,PASS,STS304,	3	PC	SA
6002-001384	SCREW-TAPPING	TH,+,WT,C-TITE,M4,L10,ZPC(1	PC	SNA
6006-001174	SCREW-TAPPING	TH,+,WE,2S,M4,L12,ZPC(WHT)	21	PC	SNA
6009-001342	SCREW-SPECIAL	TH,+,M5,L11,ZPC(WHT),SWR	1	PC	SA
6009-001476	SCREW-HEX	HEX,+,M5,L10,ZPC3(BLK),SWRCH	2	PC	SA

6. PCB DIAGRAM

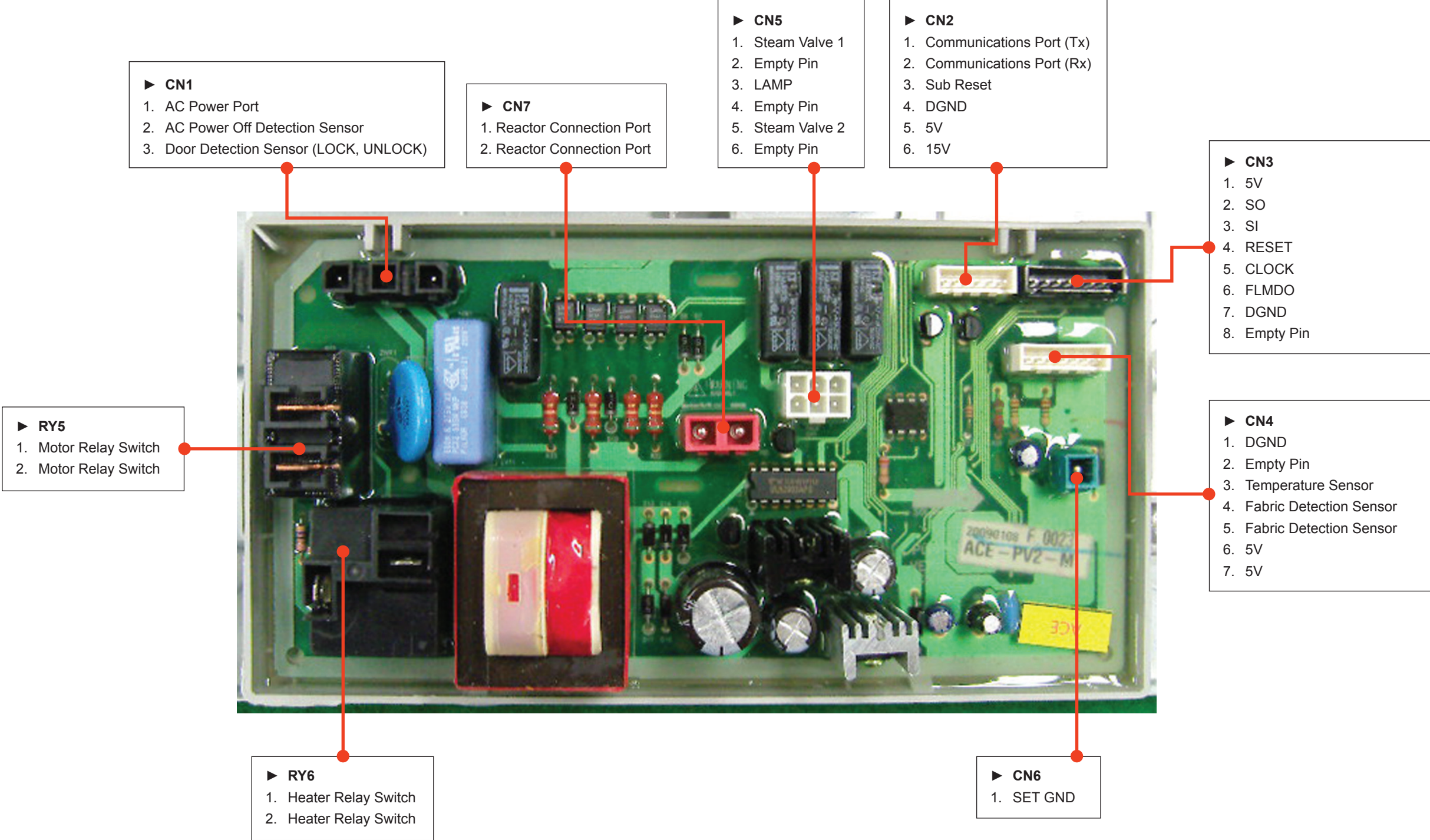
6-1. MAIN PCB



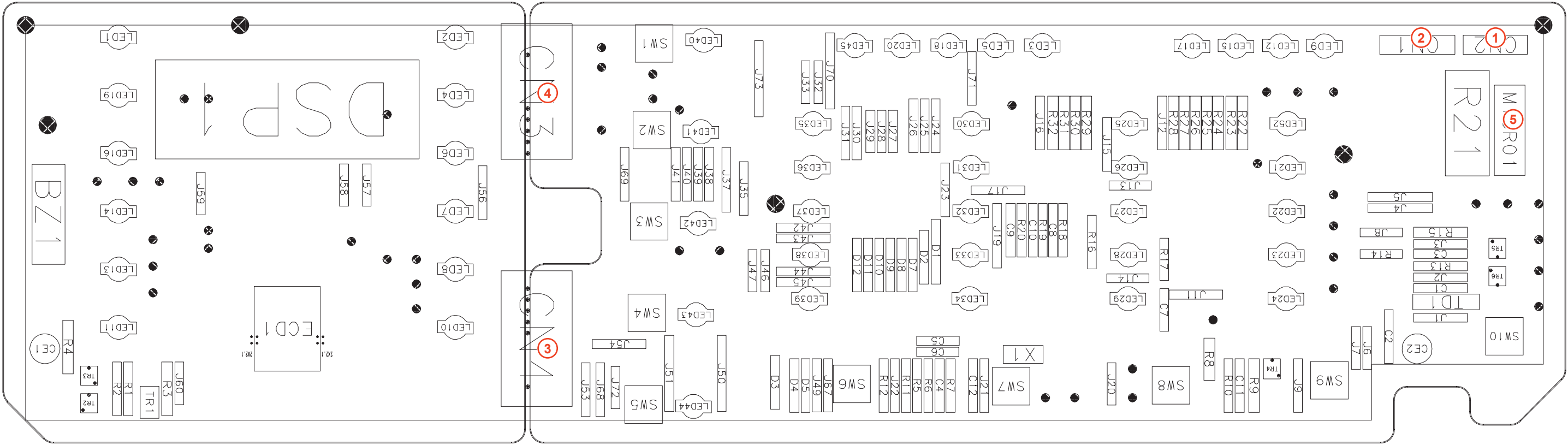
Location	Part No.	Function	
1	CN1	AC CONNECTOR	Supplies AC power to the PBA.
2	CN2	SUB PBA COMMUNICATION CONNECTOR	The connector that controls communications with the Sub PBA corresponding to the Display.
3	CN3	MICOM FLASH CONNECTOR	The connector that writes software onto the Micom.
4	CN4	SENSOR CONNECTOR	Connects the temperature sensor in order to detect the temperature of the heater.
5	CN5	VALVE CONNECTOR	It is connected to the Steam Valve(Steam Models Only) and the Lamp of the Drive Block and controls the ON/OFF signal.

Location	Part No.	Function	
6	CN6	SET GROUND CONNECTOR	The plug connecting the Dryer Set and the ground of the PBA.
7	CN7	REACTOR CONNECTOR	The plug connecting the motor over-current protection reactor and the motor control circuit.
8	RY5	MOTOR OPERATION RELAY	The relay that turns the Main Motor on and off.
9	RY6	HEATER OPERATION RELAY	The relay that turns the Heater on and off.

6-2. DETAILED DESCRIPTIONS OF CONTACT TERMINALS (MAIN PCB)

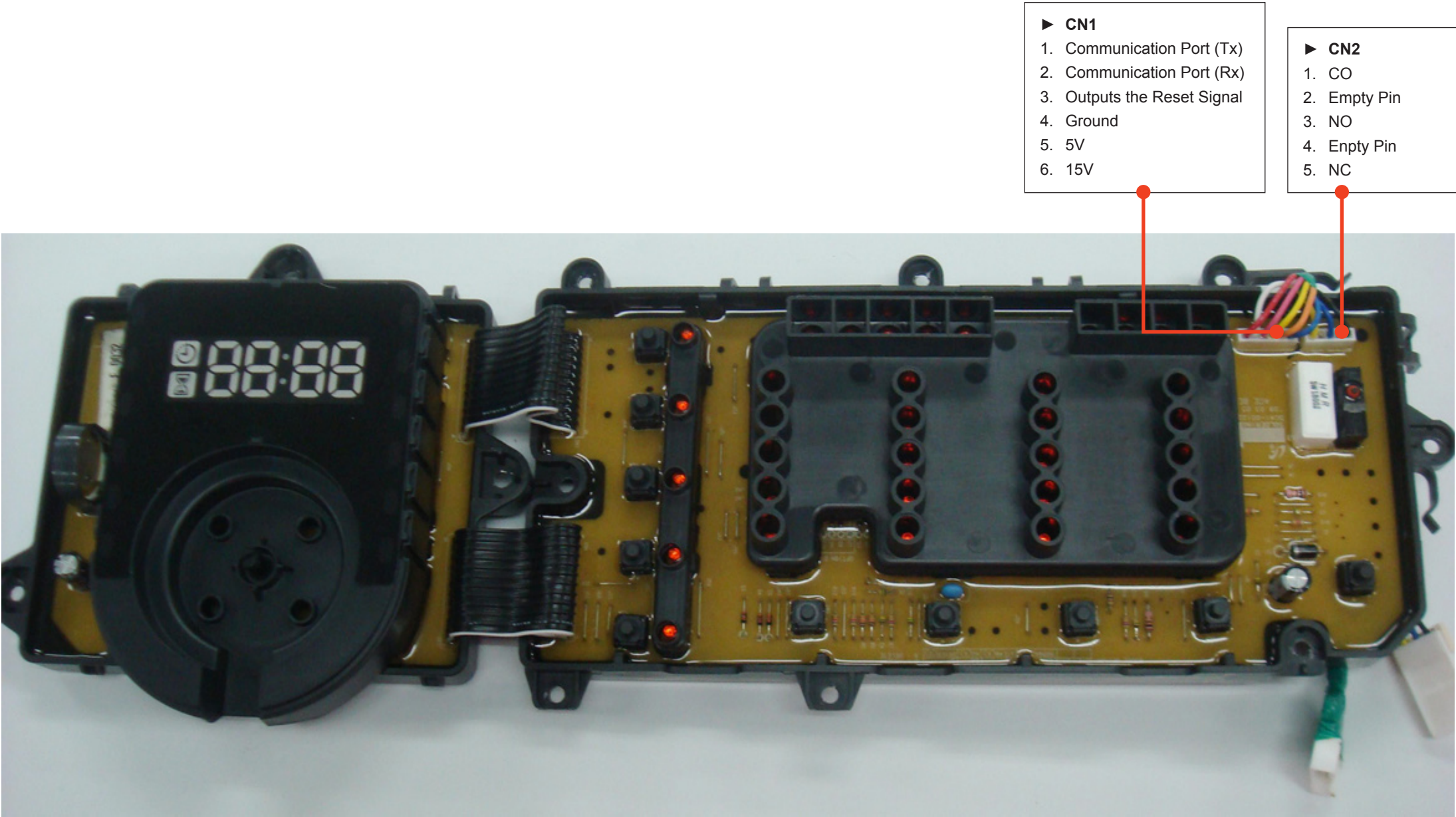


6-3. SUB PCB



Location	Part No.	Function	Description
1	CN2	Power Connection Port	Receives power from the Main PBA and provides a communications function.
2	CN1	Main PBA Connection Port	Connects power.
3	CN4	PBA Connection Port	Connects the LED board and the Encoder switch board
4	CN3	PBA Connection Port	Connects the LED board and the Encoder switch board
5	MICRO1	Main S/W	Main Relay On/Off

6-4. DETAILED DESCRIPTIONS OF CONTACT TERMINALS (SUB PCB)



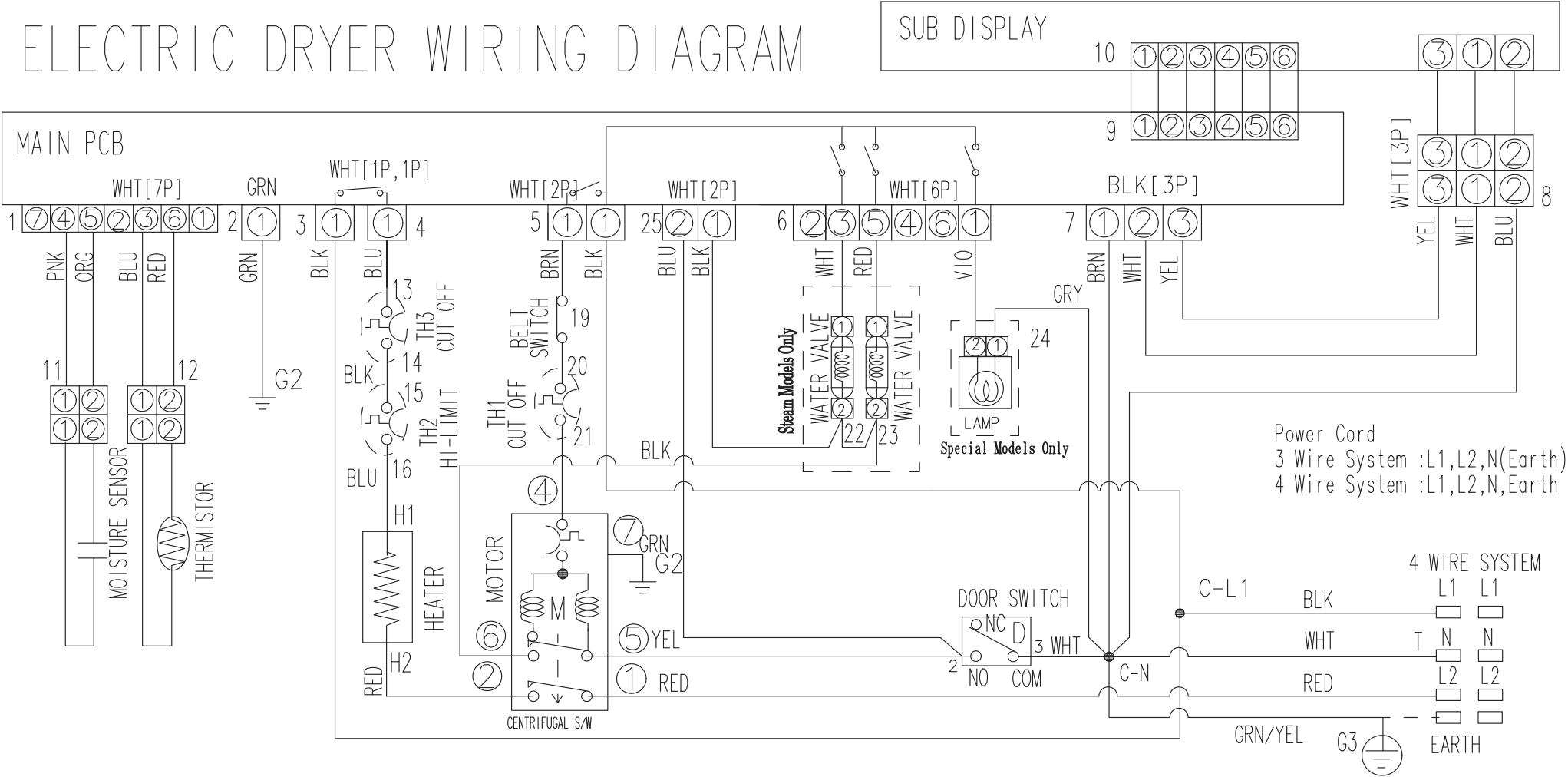
7. WIRING DIAGRAM

7-1. WIRING DIAGRAM

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

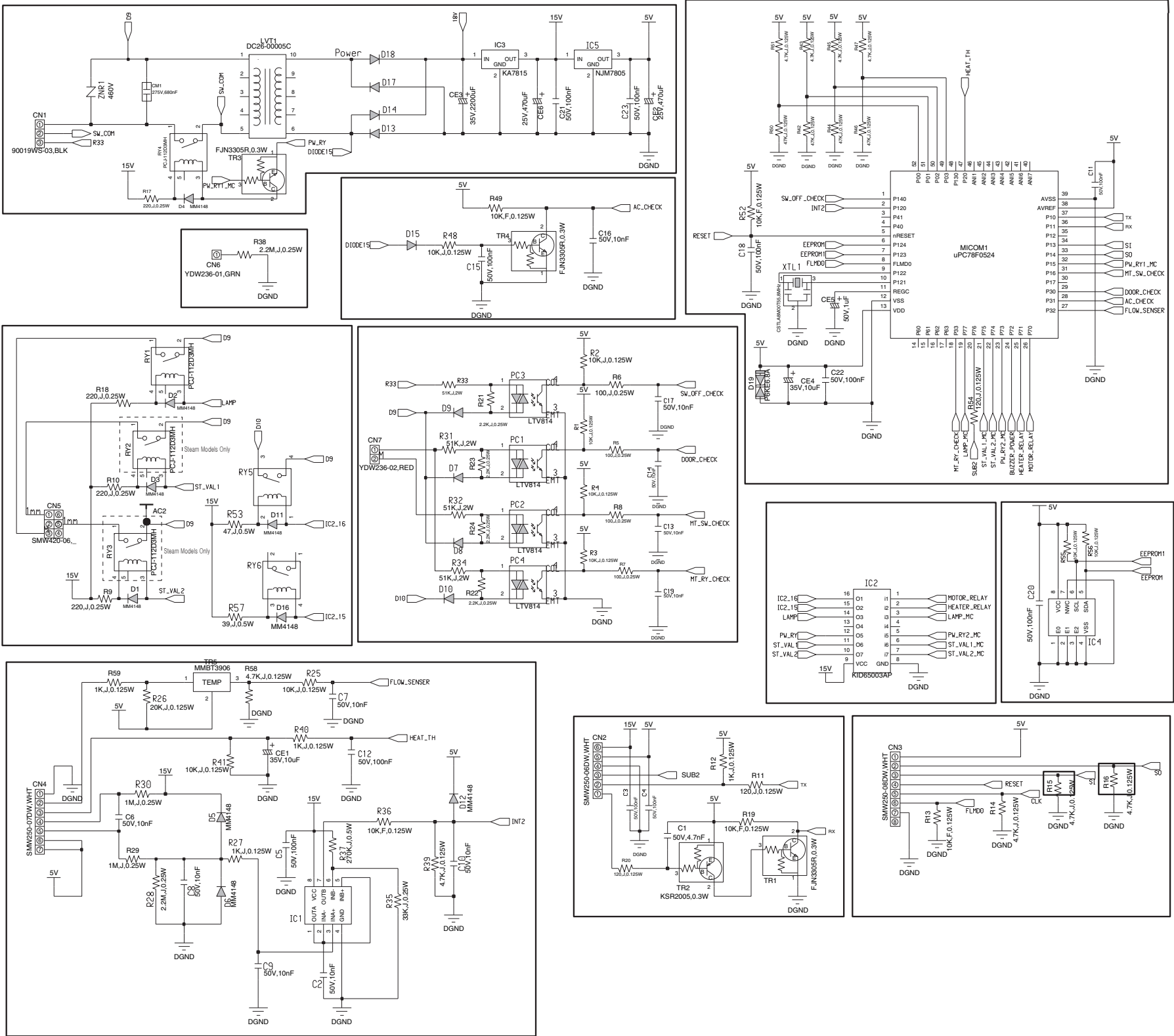
ELECTRIC DRYER WIRING DIAGRAM



8. SCHEMATIC DIAGRAM

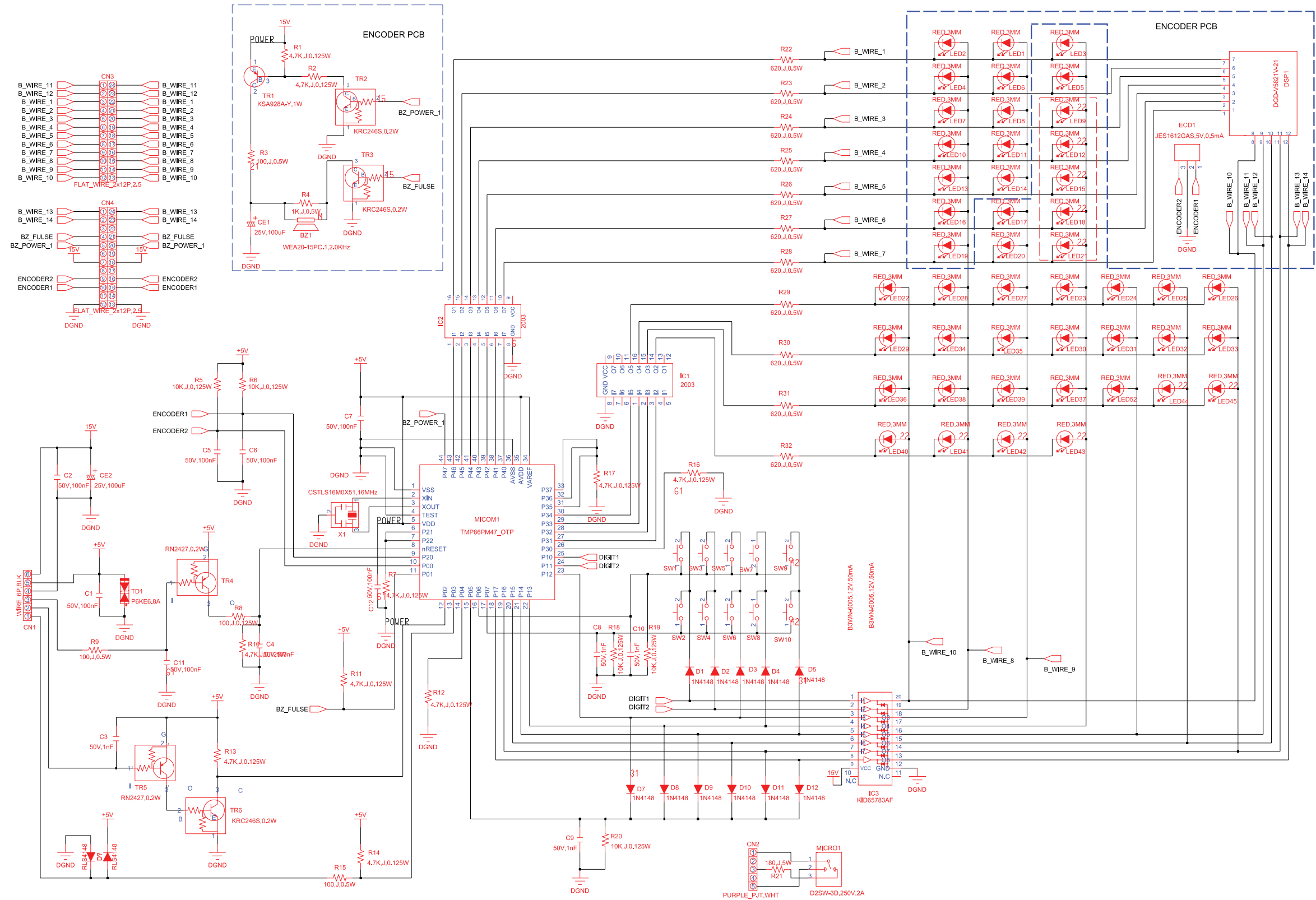
8-1. MAIN CONTROL

► This Document can not be used without Samsungs authorization.



8-2. SUB CONTROL

► This Document can not be used without Samsungs authorization.





GSPN (GLOBAL SERVICE PARTNER NETWORK)

Area	Web Site
North America	http://service.samsungportal.com
Latin America	http://latin.samsungportal.com
CIS	http://cis.samsungportal.com
Europe	http://europe.samsungportal.com
China	http://china.samsungportal.com
Asia	http://asia.samsungportal.com
Mideast & Africa	http://mea.samsungportal.com

This Service Manual is a property of Samsung Electronics Co.,Ltd.
Any unauthorized use of Manual can be punished under applicable
International and/or domestic law.

**© 2009 Samsung Electronics Co.,Ltd. All
rights reserved.**

Printed in Korea

Code No.: DC68-02772A