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# ELECTRIC & GAS DRYER SERVICE MANUAL

#### CAUTION

READ THIS MANUAL CAREFULLY IN ORDER TO PROPERLY DIAGNOSE PROBLEMS AND TO SAFELY PROVIDE QUALITY SERVICE ON THESE DRYERS.

MODEL : DLE5955W / DLG5966W DLE5955G / DLG5966G



MAR. 2007 PRINTED IN KOREA

P/No.:3828EL3005L

# **IMPORTANT SAFETY NOTICE**

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



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

# **RECONNECT ALL GROUNDING DEVICES**

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

# WHAT TO DO IF YOU SMELL GAS:

- Do not try to light a match, or cigarette, or turn on any gas or electrical appliance.
- Do not touch any electrical switches. Do not use any phone in your building.
- Clear the room, building or area of all occupants.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions carefully.
- If you cannot reach your gas supplier, call the fire department.

# **IMPORTANT**

Electrostatic Discharge (ESD)

Sensitive Electronics

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

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

#### - OR -

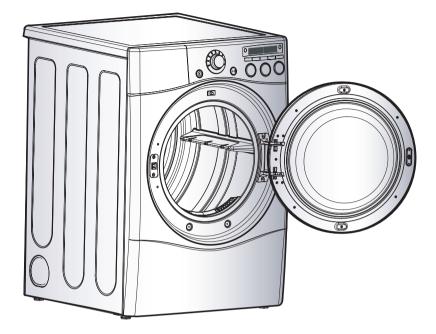
Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.

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

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# SPECIFICATIONS

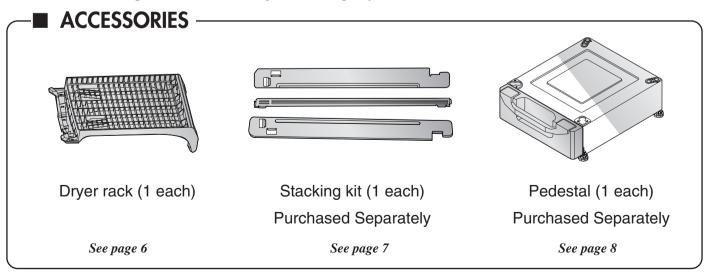


■ Name: Electric and Gas Dryer

■ Power supply: Please refer to the rating label regarding detailed information.

- Size: 27 X 29.9 X 38.7 (inch)
- Dryer capacity: IEC 7.3 cu.ft.
- Weight: 126(Ibs)

Specifications are subject to change by manufacturer.



г	TEM		DLE5955W DLG5966W	DLE5955G DLG5966G	REMARK	
		Color	Blue White	Blue White Pearly Gray		
Material & Finish	Т	op Plate	Porc	elain		
	D	oor Trim	Chror	nate		
POWER	SUP	PLY	120V/240	V 60Hz (26A)		
		MOTOR	250W	/ (4.5A)	AC 120V	
ELECTRICIT CONSUMPT		HEATER	5400W	(22.5A)	AC 240V (ELECTRIC MODEL)	
		LAMP	15 W (1	25mA)	AC 120V	
		GAS VALVE	13 W (110	)mA) x 2	AC 120V (GAS MODEL)	
CONTF	ROL T	YPE	Electro	onic		
DRUM	DRUM CAPACITY		7.3 c	7.3 cu.ft.		
Weight (Ib	os) - N	let/Gross	124/			
No. of	Progr	ams	ç	9		
No. of [	Dry O	ptions	3			
No. of Temp	eratur	e Controls	5			
No. of I	Dry Le	evels	5			
Sound	d leve	ls	On/	On/Off		
Correct	Ν	/loisture	Avail	Available		
Sensor	Те	mperature	Avail	Available		
Revers	sible [	Door	Avail	able		
D	rum		Stainless	Steel		
Drye	er Rad	ck	Avail	able		
Chil	d Loc	k	Avaia	able		
Interi	or Lig	ght	Avaia	able		
Product	(Wxł	HxD)	27" x 42 3	8/4" x 28 1/3"		
Packing	(Wxl	HxD)	29 1/2" x 44	3/4" x 30 3/4"		



#### **INSTALLATION INSTRUCTIONS** 3

#### **Dryer Rack Installation Instructions**



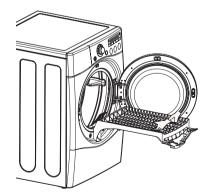
Open the door. Hold the dryer rack with both hands.

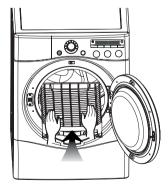


Put the dryer rack into the drum



Check and be sure that the front of the rack is properly seated behind the lint filter.







#### Stacking Kit Installation Instructions

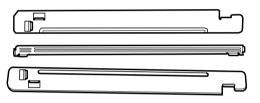
To ensure safe and secure installation, please observe the instructions below.

#### WARNING

#### Do not attempt this alone!

At least two people are required to lift and position the dryer on top of a washing machine!

Failure to heed this warning can result in serious physical injury and damage to the appliance.



Stacking kit

Place the washer firmly on a stable, even and solid floor as product installation instructions describe in the owner's manual.

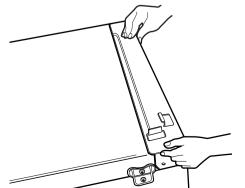


Peel the protective paper from the tape on the side bracket.



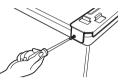


Fit the side bracket firmly to the side of the top plate by attaching the double-faced tape to the top plate as picture shown.

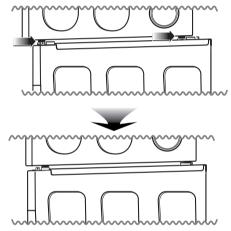




Secure the side bracket to the washer with a screw on the back of the bracket. Repeat Steps 2, 3, & 4 for the other side.



Place the dryer on top of the washer by placing the legs as shown. Be careful not to pinch fingers between the washer and dryer. Slide the dryer back against the stop on the side rail.

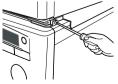


Insert the front rail of the stacking kit. Push the front rail back against the stops on the side brackets.



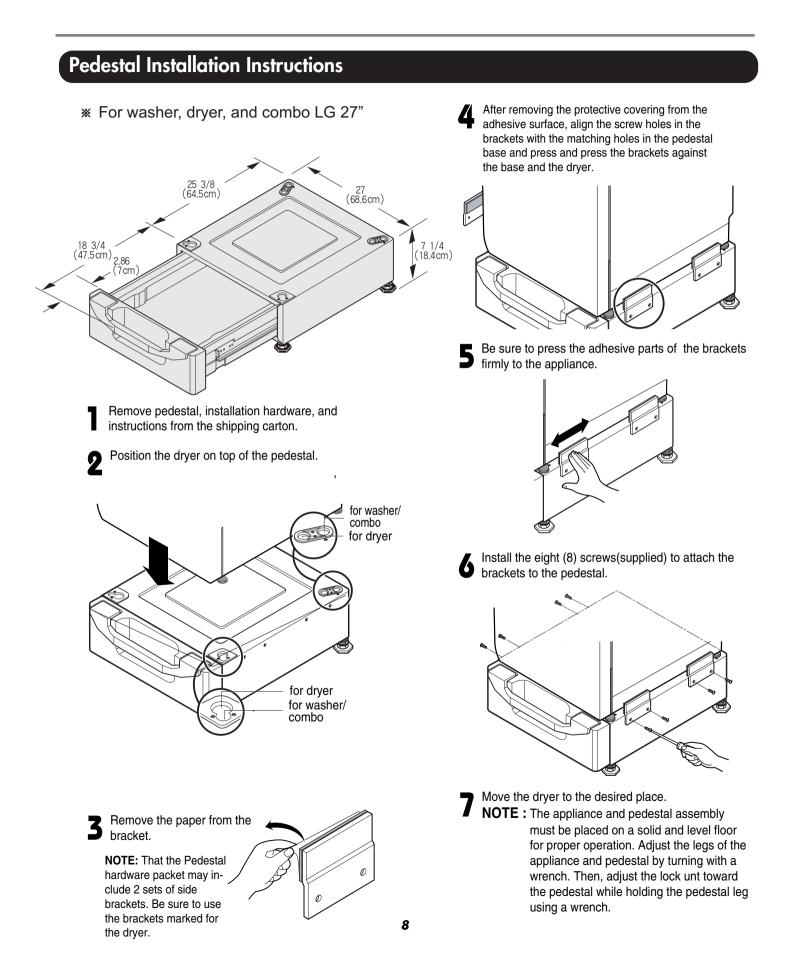


Screw both sides of the front rail to the side brackets.



• Do not use a stacking kit with a gas dryer in potentially unstable conditions like a mobile home.

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### **Electric Dryer Only**

Review the following options to determine the appropriate electrical connection for your home:



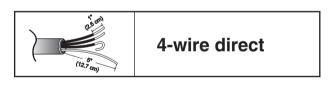
4-wire receptacle (NEMA type14-30R)

Use the instructions under option 1 if your home homehas a 4-wire receptacle (NEMA type 14-30R).



#### 3-wire receptacle (NEMA type10-30R)

Use the instructions under option 2 or 3 if your home has a 3-wire receptacle (NEMA type 10-30R). Use option 2 if local codes and ordinances permit the connection of a chassis ground to the neutral connector. If this is not permitted, use option 3.



If this type is available at your home. you will be connecting to a fused disconnect or circuit breaker box



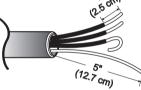
If this type is available at your home. you will be connecting to a fused disconnect or circuit breaker box

#### 4-wire connection : Direct wire

**Important :** Grounding through the neutral conductor is prohibited for (1) new branch-circuit installations, (2) mobile homes, and (3) recreational vehicles, and (4) areas where local codes prohibit grounding through the neutral conductor.

Prepare minimum 5ft(1.52m) of length in order for dryer to be replaced.

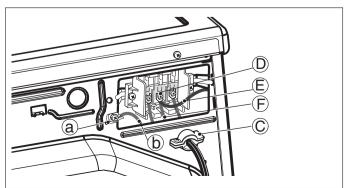
First, peel 5 inch (12.7cm) of covering material from end. Make a 5 inch of ground wire bared. After cutting  $1^{1/2}$  inch (3.8cm) from 3 other wires. peel insulation back 1inch (2.5cm). Make ends of 3 wires a hook shape.



Then, put the hooked shape end of the wire under the screw of the terminal block(hooked end facing rightward) and pinch the hook together and screw tightly.



- 1. Connect neutral wire(white) of power cord to center terminal block screw.
- 2. Connect red and black wire to the left and right terminal block screws.
- 3. Connect ground wire(green) of power cord to external ground screw and move neutral ground wire of appliance and connect it to center screw.
- 4. Make sure that the strain relief screw is tightened. and be sure that all terminal block nuts are on tight and power cord is in right position.

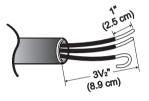


#### **3-wire connection : Direct wire**

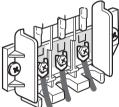
**Important :** Grounding through the neutral conductor is prohibited for (1) new branch-circuit installations, (2) mobile homes, and (3) recreational vehicles, and (4) areas where local codes prohibit grounding through the neutral conductor.

Prepare minimum 5ft(1.52m) of length in order for dryer to be replaced.

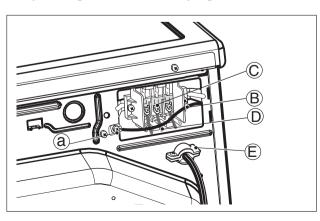
First, peel 3  $\frac{1}{2}$  inch (8.9cm) of covering material from end and bare 1 inch from the ends.



Then, put the hooked shape end of the wire under the screw of the terminal block(hooked end facing rightward) and pinch the hook together and screw tightly.

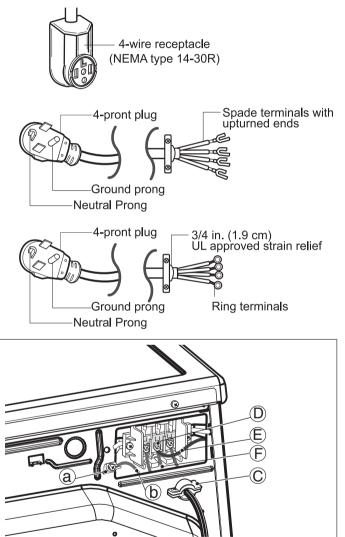


- 1. Connect neutral wire(white) of power cord to center terminal block screw.
- 2. Connect red and black wire to the left and right terminal block screws.
- 3. Make sure that the strain relief screw is tightened and be sure that all terminal block nuts are on tight and power cord is in right position.



#### Option 1: 4-wire connection with a Power supply cord.

• If your local codes or ordinances do not allow the use of a 3 wire connection, or you are installing your dryer in a mobile home, you must use a 4-wire connection.



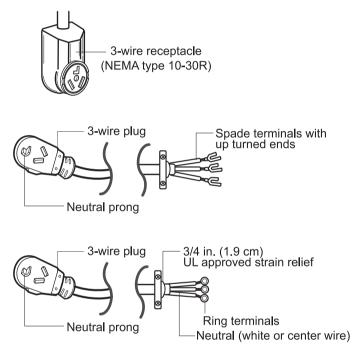
- 1. Connect the neutral wire (white) of the power cord to the center terminal block screw.
- 2. Connect the red and black wires to the left and right terminal block screws.
- 3. Connect the ground wire (green) of the power cord to the external ground screw. Remove the neutral ground wire of appliance and connect it to center screw.

4. Make sure that the strain relief screw is tightened and that all terminal block nuts are tight and the power cord is in the right position.

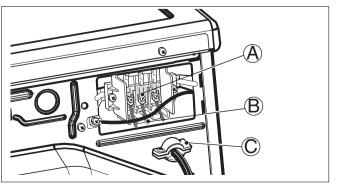
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#### Option 2: 3-Wire Connection with a Power Supply Cord

If your local codes or ordinances permit the connection of a frame-grounding conductor to the neutral wire, use these instructions. If your local codes or ordinances do not allow the connection of a frame-grounding conductor to the neutral wire, use the instructions under **Section 3: Optional 3-wire connection.** 

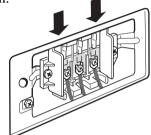


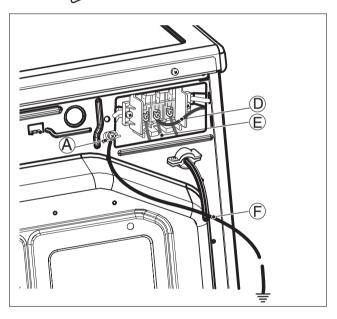
- 1. Connect the neutral (white or center) wire (B) to the center, silver colored, screw (A) and tighten securely.
- 2. Connect the other two power cord wires (red and black) to the left and right terminal block screws and tighten securely.
- 3. Tighten the strain relief screws (C) securely.



# Option 3: Optional 3-wire connection.

• If your local codes or ordinances do not allow the connection of a frame-grounding conductor to the neutral wire, use the instructions under this section.



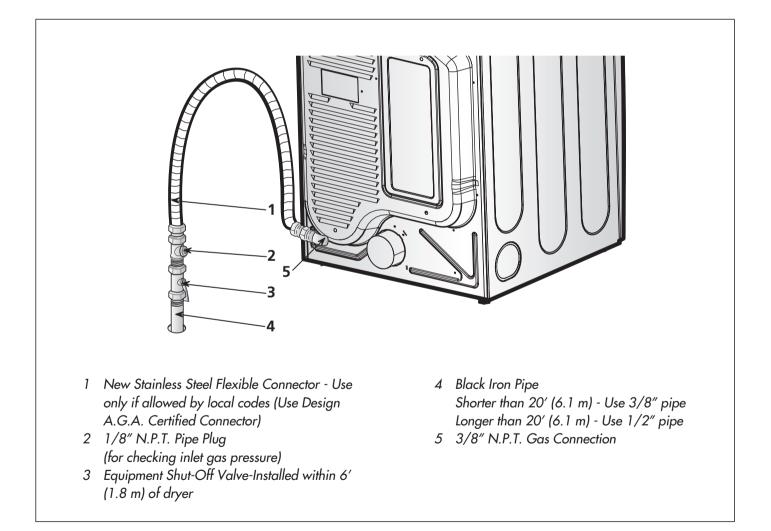


- 1. Remove the appliance ground wire (D) (green) from the external ground connector screw and reconnect it, together with the center, white, neutral wire (E) to the center, silver colored, terminal block screw.
- 2. Connect the other two power cord wires (red and black) to the left and right terminal block screws and tighten securely.
- 3. Tighten the strain relief screws securely.
- 4. Connect an independent ground wire (F) from the external ground connector screw to a proper ground. (The ground wire must be long enough to allow the appliance to be moved, if necessary, for service or cleaning.)

## **3-2. Connect Gas Supply Pipe (Gas Dryer ONLY)**

#### For further assistance, refer to section on Gas Requirements.

- 1. Make certain your dryer is equipped for use with the type of gas in your laundry room. Dryer is equipped at the factory for Natural Gas with a 3/8" N.P.T. gas connection.
- 2. Remove the shipping cap from the gas connection at the rear of the dryer. Make sure you do not damage the pipe thread when removing the cap.
- 3. Connect to gas supply pipe using a new flexible stainless steel connector.
- 4. Tighten all connections securely. Turn on gas and check all pipe connections (internal & external) for gas leaks with a non-corrosive leak detection fluid.
- 5. For L.P. (Liquefied Petroleum) gas connection, refer to section on Gas Requirements.



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# **DRYER CYCLE PROCESS**

			Default	t	Condit	ions of	operat	ion and	termination								
	Cycle		Cycle		Cycle		Cycle		Cycle		Dry	Diamlary	Dryi	ng	Coc	oling	Wrinkle care
		Temp- erature	Level	Display time	Electro- sensor	Temp- Control	Default time	Temp- Control**	Time								
	HEAVY DUTY	HIGH	(Normal)	54min	Saturation	68±4°C	(5min)	47±5°C									
	COTTON/ TOWELS	MID HIGH	(Normal)	55min	Saturation	66±4°C	(5min)	47±5°C									
Sensor	NORMAL	MEDIUM	(Normal)	41min	Saturation	60±4°C	(5min)	47±5°C	211								
Dry *	PERM PRESS	LOW	(Normal)	36min	Saturation	52±3°C	(5min)	47±5°C	3Hr								
	DELICATES	LOW	(Normal)	32min	Saturation	52±3°C	(5min)	38±5°C									
	ULTRA DELICATE	ULTRA LOW	(Normal)	34min	Saturation	45±3°C	(5min)	38±5°C									
	SPEED DRY	(HIGH)	-	25min	Saturation	(70±5°C)	(5min)	(47±5°C)									
Manual Dry **	FRESHEN UP	(MID HIGH)	Ι	20min	Saturation	(66±5°C)	(5min)	(47±5°C)	3Hr								
	AIR DRY	-	-	30min	Saturation	No heater	N/A	N/A									
			N						Off Time: 6min								
		T . 1	Мо	otor					On Time: 10sec								
		Load	Hea	ater	Temperati	ure Contr	ol for eac	ch cycle									

\* Sensor dry : "Dry Level" is set by users.

Default settings can be adjusted by users.

<sup>\*\*</sup> Manual dry : "Temperature control" is set by users.

#### **ACAUTION** When checking the Component, be sure to turn the power off, and do voltage discharge sufficiently.

Component	Test Procedure	Check result	Remark
1. Thermal cut off	Measure resistance of terminal to terminal	If thermal fuse is open must be replaced	Heater case- Safety
	<ol> <li>Open at 266 ± 12°F (130 ± 7°C)</li> </ol>	(1) Resistance value $= \infty$	Electric type
Check Top Marking: N130	<ul><li>② Auto reset 31°F (35°C)</li><li>Same shape as Outlet Thermostat.</li></ul>	② Continuity (250°F ↓) < 1Ω	
2. Hi limit Thermostat (Auto reset)	Measure resistance of terminal to terminal		• Heater case - Hi limit
	① Open at 257 ± 9°F (125 ± 5°C)	(1) Resistance value $= \infty$	<ul> <li>Electric type</li> </ul>
	② Close at 221 ± 9°F (105 ± 5°C)	2 Resistance value < $5\Omega$	
3. Outlet Thermostat ( Auto reset)	Measure resistance of terminal to terminal		• Blow housing - Safety
	① Open at 185 ± 9°F (85 ± 5°C)	(1) Resistance value $= \infty$	<ul> <li>Electric type</li> </ul>
Check Top Marking:	② Close at 149 ± 9°F (65 ± 5°C)	(2) Resistance value < $5\Omega$	
N85	Same shape as Thermal cut off.		
4. Lamp holder	Measure resistance of terminal to terminal	Resistance value: $80\Omega \sim 100\Omega$	
5. Door switch	Measure resistance of the following terminal		The state that Knob is
	<ol> <li>Door switch knob: open         <ol> <li>Terminal: "COM" - "NC" (1-3)</li> <li>Terminal: "COM" - "NO" (1-2)</li> </ol> </li> <li>Door switch push: push         <ol> <li>Terminal: "COM" - "NC" (1-3)</li> <li>Terminal: "COM" - "NO" (1-2)</li> </ol> </li> </ol>	<ol> <li>Resistance value &lt; 1Ω</li> <li>Resistance value ≒ ∞</li> <li>Resistance value ≒ ∞</li> <li>Resistance value &lt; 1Ω</li> </ol>	pressed is opposite to Open condition.
6. Idler switch	Measure resistance of the following terminal: "COM - NC"	<ol> <li>lever open         <ol> <li>Resistance value &lt; 1Ω</li> <li>Lever push (close)                  <ul></ul></li></ol></li></ol>	

Component	Test Procedure	Check result	Remark
7. Heater	Measure resistance of the following terminal ① Terminal: 1 (COM) - 2 ② Terminal: 1 (COM) - 3 ③ Terminal: 2 - 3	<ol> <li>Resistance value: 10Ω</li> <li>Resistance value: 10Ω</li> <li>Resistance value: 20Ω</li> </ol>	• Electric type
8. Thermistor	Measure resistance of terminal to terminal Temperature condition: 58°F ~ (10~40°C) 58°F ~ 104F (10~40°C)	Resistance value: 10Ω	<ul> <li>Heater case - Hi limit</li> <li>Electric type</li> </ul>
9. Motor			• See Page 13
10. Gas valve valve 1 valve 2	Measure resistance of the following terminal ① Valve 1 terminal ② Valve 2 terminal	<ol> <li>Resistance value: &gt; 1.5 kΩ</li> <li>Resistance value: &gt; 1.5~2.5 kΩ</li> </ol>	• Gas type
11. Igniter	Measure resistance of terminal to terminal	Resistance value: 100~800Ω	• Gas type
12. Frame Detect	Measure resistance of terminal to terminal ① Open at 370°F ((Maximum) ② Close at 320°F	<ol> <li>Resistance value ≒ ∞</li> <li>Resistance value &lt; 1Ω</li> </ol>	• Gas type

Component	Test Procedure	Check result	Remark
13. Outlet Thermostat (Auto reset)	Measure resistance of terminal to terminal ① Open at 203 $\pm$ 7°F (95 $\pm$ 5°C) ② Close at 158 $\pm$ 9°F (70 $\pm$ 5°C)		• Gas type • Gas funnel
Check Top Marking: N95      14. Outlet Thermostat (Manual reset)	Measure resistance of terminal	If thermal fuse is open must be replaced	• Gas type
	<ol> <li>Open at 212 ± 12°F (100 ± 7°C)</li> <li>Manual reset</li> </ol>	(1) Resistance value $= \infty$ (2) Continuity < 1 $\Omega$	• Gas funnel
Check Top Marking: N100			

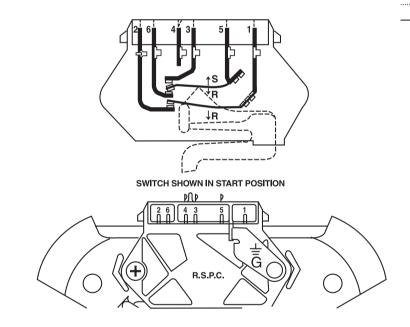
#### **NOTE** When checking Component, be sure to turn Power off, then do voltage discharge sufficiently.

Contact On / Off by Centrifugal Switch

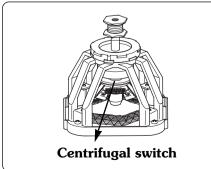
6

Term	inal No							
Mode	Resistance	1	2	3	4	5	6	Remark
	2 ~ 3Ω				•	•		Motor
Motor STOP	≒ ∞	•	•••••					Heater (Electric Models)
	÷.∞			•			•••••	Gas Valve (Gas Models)
	3 ~ 5Ω				•	•		Motor
Motor RUN	< 1Ω	•	•					Heater (Electric Models)
	< 1Ω			•			•	Gas Valve (Gas Models)

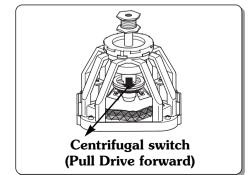
···· Open – Close



 STOP MODE (When Motor does not operate)

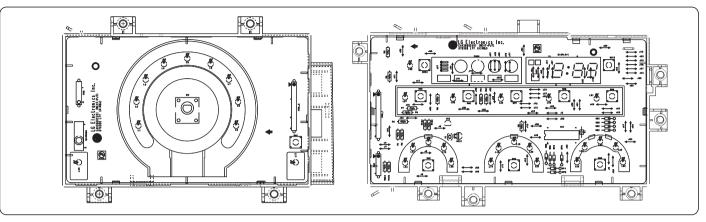


 RUN MODE (Motor operates)



# **CONTROL LAY-OUT**

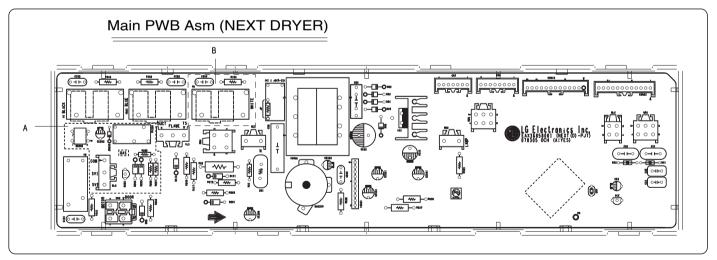
#### PWB ASSEMBLY DISPLAY LAYOUT



#### ※ 7-SEG Display in QC-Test MODE

DISPLAY P/NO	MAIN P/NO	7-SEG DISPLAY	NOTE
	EBR36858801	18:88	Electric, NEXT(D) LED, North America
EBR36858901	EBR36858802	18:88	Gas, NEXT(D) LED, North America

#### **PWB ASSEMBLY LAYOUT**



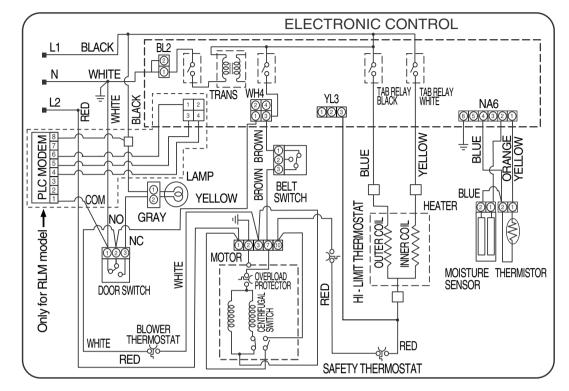
#### \* MODEL AS DIAGNOSTIC TEST

P/N	(A)	B	GAS	Elec	STEAM O	STEAM X	М		(110V/2	(110V/220V)		(110V/220V)		місом	Bare PCB	NOTE
.,		x5	R226	R178	R227	R179	R228	R180	TRANS	R112,334	R117		Dalei OD	NOTE		
01	х	0	x	0	х	0	x	0	6170EC1006F	100K, 1/2W	200K, 1/2W	BOM	EAI36858001	Elec NEXT(D) LED North America		
02	0	x	0	х	х	0	x	0	6170EC1006F	100K, 1/2W	100K, 1/2W	BOM	EAI36858001	Gas NEXT(D) LED North America		

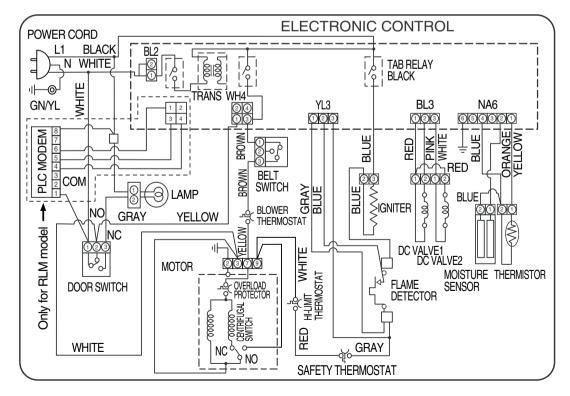
8

# WIRING DIAGRAM

#### ELECTRIC DRYER WIRING DIAGRAM



#### GAS DRYER WIRING DIAGRAM



9

# **DIAGNOSTIC TEST**

1. This TEST should be used for Factory test /Service test. Do not use this DIAGNOSTIC TEST other than specified.

2. Activating the Heater manually with the Door open may trip the Thermostat attached to the Heater, therefore do not activate it manually. (Do not press the door switch to operate the heater while the door is open )

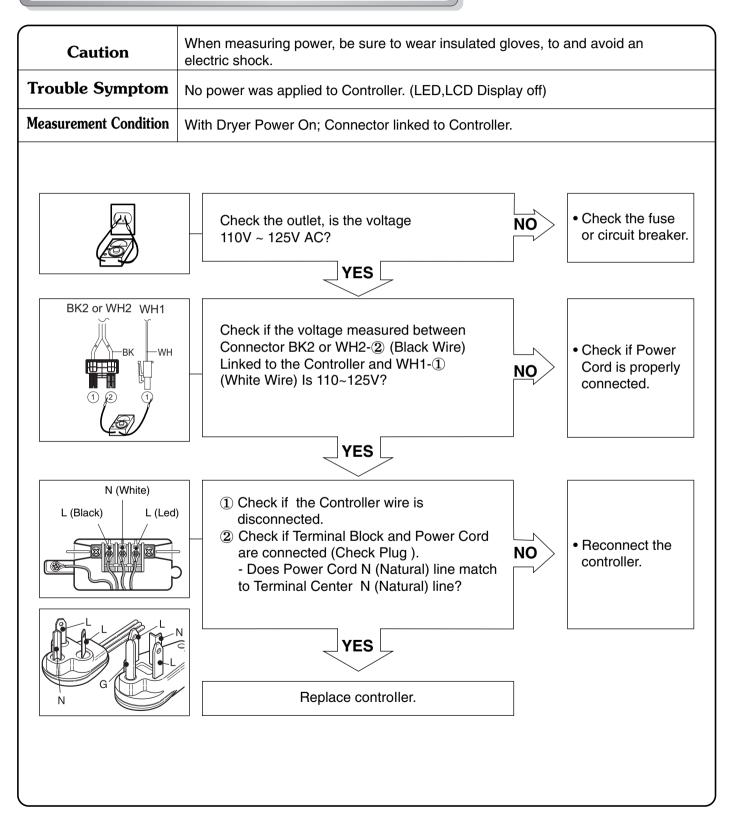
#### ■ ACTIVATING THE DIAGNOSTIC TEST MODE

1. Unit must be in Standby (unit plugged in, display off)

2. Press POWER while pressing MORE TIME, and LESS TIME simultaneously.

Pressing the START/PAUSE button	CHECKING ACTION	DISPLAY	CHECKING POINT	REMARK
	Electric control	LQC TEST	Won't power up Detective LED or LCD	See test 1 Display: See page
None	& Temperature	tE1	Thermistor open	See test 2
	sensor	tE2	Thermistor close	066 (63) 2
			Motor runs	See test 3
Once	Motor	70 ~ 239 Measured Moisture Value.	Displays Moisture Sensor Operation: If moisture sensor is contacted with damp cloth. The display number is below 180, in normal condition.	See test 4
Twice	<ul> <li>ELECTRIC TYPE Motor + Heater 1 (2700W)</li> <li>GAS TYPE Motor + Valve</li> </ul>	Current Temp.	<ul> <li>ELECTRIC TYPE: Heater runs</li> <li>GAS TYPE: GAS Valve runs</li> <li>(Display the Temperature of Inside drum.)</li> </ul>	Gas valve See test 7
3 times	<ul> <li>ELECTRIC TYPE Motor + Heater 1 +Heater 2 (5400W)</li> <li>GAS TYPE Motor+Valve</li> </ul>	Current Temp. (5 ~ 70)		
4 times	Motor, Heater	50~230 Measured "SE"(Error Display)	Motor, Heater Off Semi-conductor	See test 8
5 times	Control Off			Auto Off
During check, If the door is open.	Motor & Heater Off + Lamp On + Buzzer beeps seven times	"dE" or "Error" (THE DOOR IS OPEN.PLEASE CLOSE THE DOOR COMPLETELY)	Door switch Lamp	See test 6
During check, If the door is closed.	Motor on & Heater Off + Lamp Off	70 ~ 239	<ul> <li>Press Start button 1 time and then open the door. Proceed again with the step 1 (by pressing start 1 time), step 2 (by pressing start 2 times), step 3 (by pressing start 3 times) and step 4 (by pressing start 4 times) in sequence.</li> <li>Press Start 2 times and then open the door. Proceed again from the step 1 all the way to the step 4.</li> <li>Press Start 3 times and then open the door Proceed with the step 1 and skip the step 2 and press step 3 twice and finish with step 4 by making sure the all the electric devices shut off in the end.</li> </ul>	

#### **Test 1** 120V AC Electrical supply



Caution	When measuring power, be sure to wear insulated gloves, to and avoid an electric shock.
Trouble Symptom	Check the Tab Relays Connection properly.
Measurement Condition	With Dryer Power On; Connector linked to Controller.

#### **1.Power Connection**

	Tab Relay 1	Tab Relay 2	Heater 1	Heater 2	Remark	
High Mid High Medium	on	on	on	on	Temperature Control below 68±4°C. Turn on Heater1 and Heater2.	
∟ow Extra Low	on	off	on	off	Temperature Control below $52 \pm 4^{\circ}$ C. Only Turn on Heater1.	
: Table 2 > :	Connectio	on of the T	ſab Rela	y with Bur	ner (Gas)	
	Tab Relay	/ 1 Buri	ner		Remark	
High Mid High Medium	0	С		Temperature Turn on Burne	Control below 70±4°C. er	
Low Extra Low	0	С	)	Temperature Turn on Burne	Control below 47±4°C. er	
Tab Relay 1		b Relay 2	Trans			* PCB ASSEMBLY LAYOUT

#### 2. Status Mode Of The Connection

< Table1 > : Connection of Tab Relay with the Tab Relay of the PCB ASSEMBLY (Elec)

	0.1	Connection		Demonit	
	Color	Harness	РСВ	Remark	
Connector Housing	Black	Yellow Wire	Tap relay 1	Check the Matching color Between Harness wire and Tab Relay. (Black Housing – Black Tab Relay)	
	White	Blue Wire	Tap relay 2	Check the Matching color Between Harness wire and Tab Relay. (White Housing – White Tab Relay)	

	Color	Harness	РСВ	Remark
Connector Housing	Black	Blue Wire 1 Black Wire Connector Housing	Tap relay 1	Check the Matching color Between Harness wire and Tab Relay. (Black Housing – Black Tab Relay)

< Table 2 > : Connection of Tab Relay with PCB ASSEMBLY (Gas)

#### 3. Status Mode Of wrong Connection

< Table1 > : Wrong Connection of the Tab Relay and Connector Housing (Elec)
---

Items	Case	Heater1 Operation(black)	Heater2 operation(White)	PCB condition Of operation
1.Black and White Housing	Wire ①, ② CROSS	Off	Off	Power Off
2.Black Housing	Wire ①, ② CROSS	Off	Off	Power Off
3.White Housing	Wire ①, ② CROSS	Normal	Normal	Power On
* 4.Black and White Housing	Housing CROSS	Heater2	Heater1	Power On
5.Black and White Housing	Housing and Wire ①, ② CROSS	Off	Off	Power Off

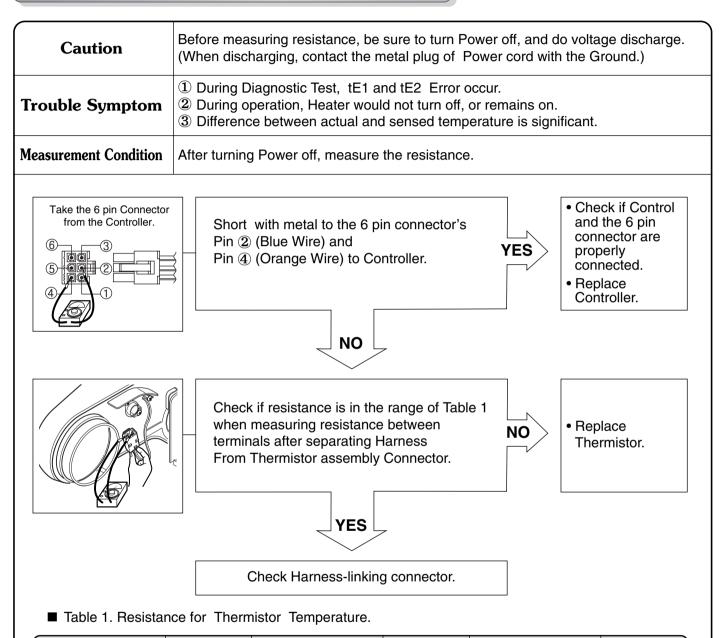
< Table2 > : Wrong Connection of the Tab Relay and Connector Housing (Gas)

Items	Case	Heater1 Operation(black)	Heater2 operation(White)	PCB condition Of operation
1.Black and White Housing	Wire ①, ② CROSS	Off	Off	Power Off

#### 

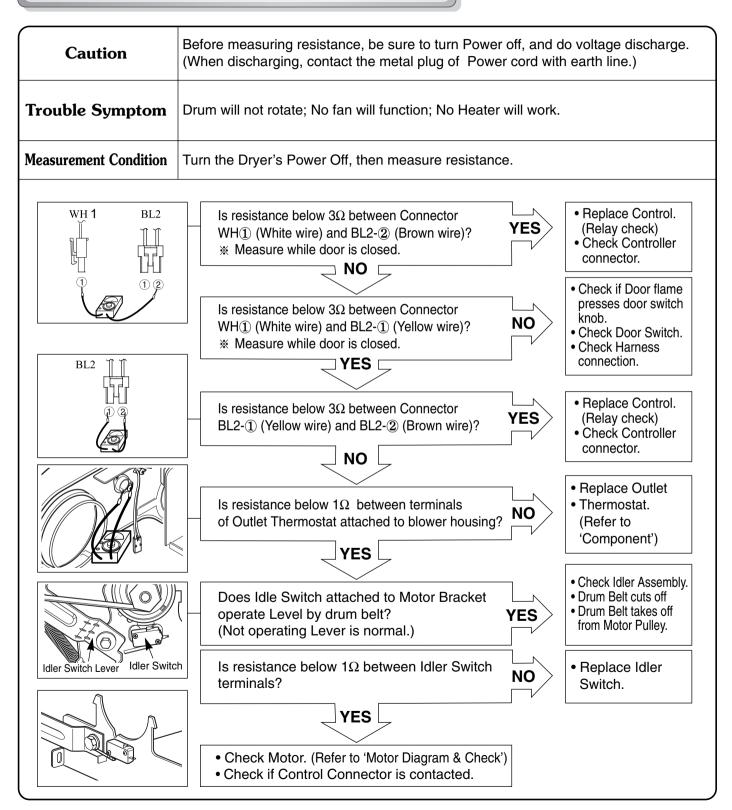
- In case of power failure(<Table 1>-1,2,5,<Table 2>-1), Please check the Connection of "2.Status Table of Connection". In case of power failure(<Table 1>-4), please check the Connection of "2. Status Table of Connection". Because improper Connection of the equipment-dryer can be damaged of changing heater.

#### **Test 2** Thermistor Test --- Measure with Power Off

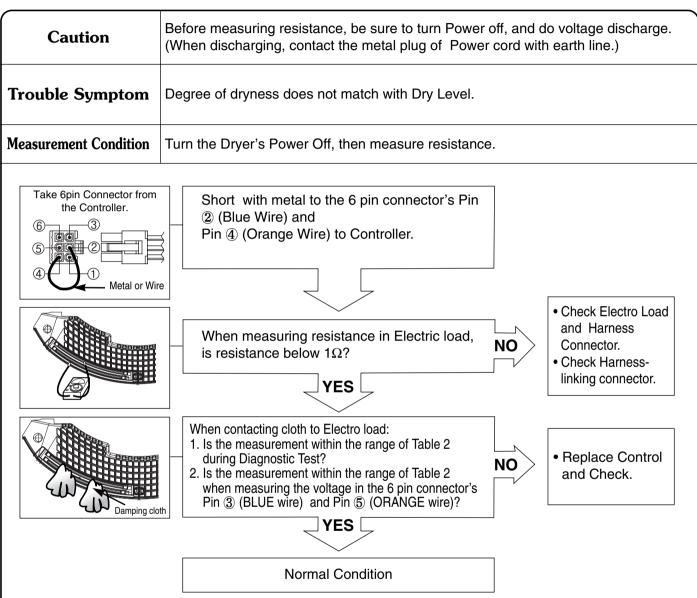


Air TEMP.[°F (°C)]	<b>RES.</b> $[k\Omega]$	Air TEMP.[°F (°C)]	<b>RES.</b> $[k\Omega]$	Air TEMP.[°F (°C)]	<b>RES.</b> [kΩ]
50°F (10°C)	18.0	90°F (32°C)	7.7	130°F (54°C)	2.9
60°F (16°C)	14.2	100°F (38°C)	6.2	140°F (60°C)	3.0
70°F (21°C)	11.7	110°F (43°C)	5.2	150°F (66°C)	2.5
80°F (27°C)	9.3	120°F (49°C)	4.3	160°F (71°C)	2.2

#### Test 3 Motor test



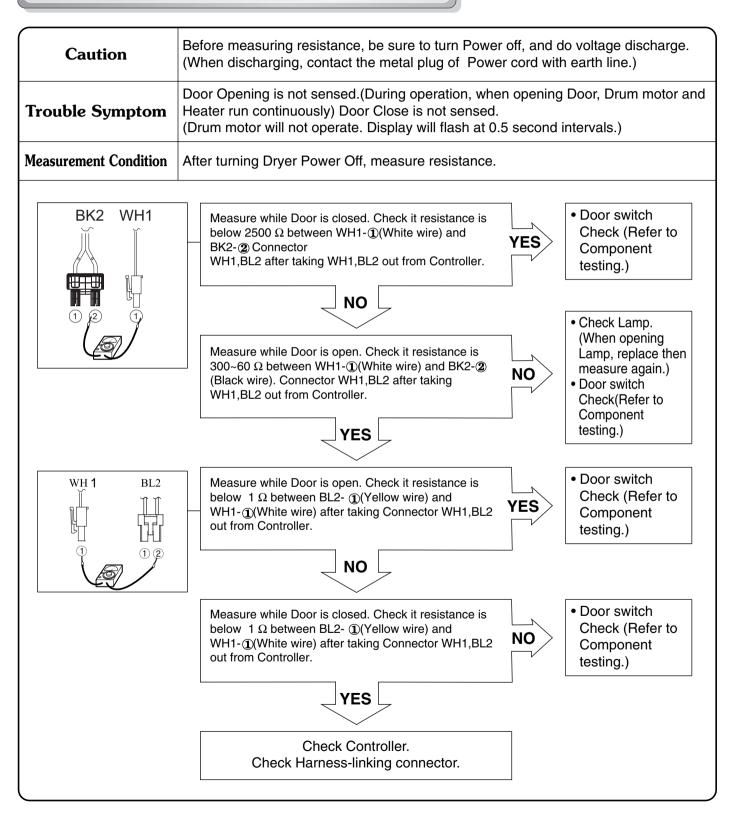
#### **Test 4** Moisture sensor



■ Table 2. IMC Ratio and Display Value / Voltage (IMC: Initial Moisture Content)

IMC	Display Value	Voltage (DC) (between 6 Pin terminal 3,5)	Remark
70% ~ 40%	50 ~ 130	2.5V	Weight after removing from Washing Machine
40% ~ 20%	130 ~ 20	2.0V ~ 4.0V	Damp Dry
10% ~ Dried clothes	205 ~ 240	Over 4.0V	Completely-dried clothes

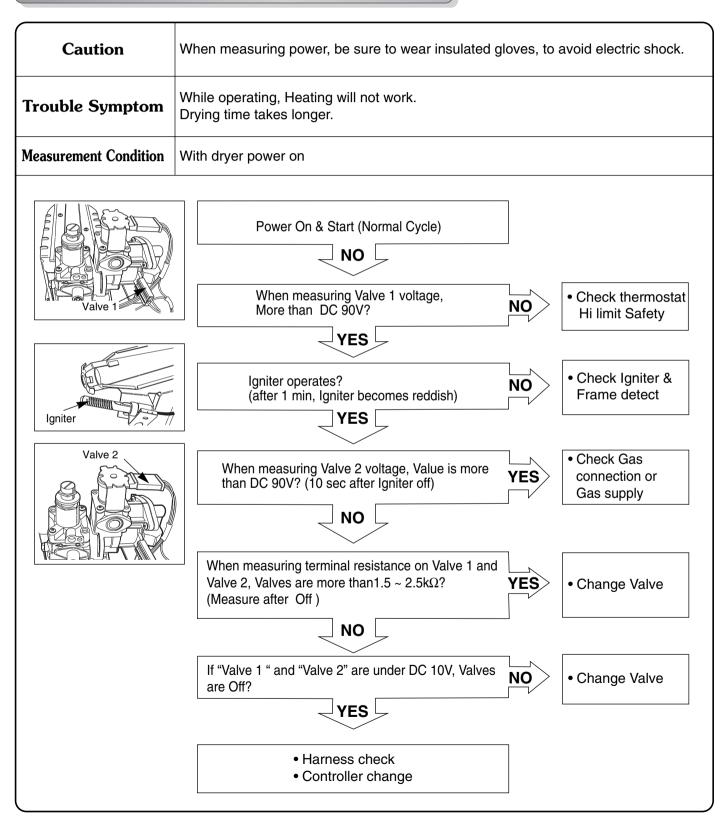
#### **Test 5** Door switch test



# **Test 6** Heater switch test - Electric Type

Caution	Before measuring resistance, be sure to turn Power off, and do voltage discharge. (When discharging, contact the metal plug of Power cord with earth line.)				
Trouble Symptom	While operating, Heating will not work. Drying time takes longer.				
Measurement Condition	After turning Power off, measure the resistance.				
	<ol> <li>Is resistance between Heater terminal         <ol> <li>and 2 below 18 ~ 22Ω?</li> <li>Is resistance between Heater terminal                 <ol></ol></li></ol></li></ol>	NO	Replace Heater.		
	YES	_			
TH3 TH2	Check if the value of measured resistance is below $1\Omega$ between terminal TH2 (Safety Thermostat)	NO	Replace TH2 (Safety Thermostat).		
	Check if the value of measured resistance is below 1Ω between terminal TH3 (HI-Limit Thermostat).	NO	Replace TH3     (HI-Limit Thermostat).		
	YES	_			
	Check Motor. Check if the value of measured resistance is below $1\Omega$ between terminal (1) and (1) at RUN condition.	NO	Check Motor and replace it.		
	YES	_			
	Check Controller. Check Harness-linking Connector.				

#### **Test 7** GAS Valve test - Gas Type



## ■ Test 8 Semi Conductor

Caution	Before measuring resistance, be sure to turn Power off, and do voltage discharge. (When discharging, contact the metal plug of Power cord with earth line.)				
Trouble Symptom	Degree of Resistance is not in 300°æ30 $\Omega$				
Measurement Condition	Turn the Dryer's Power Off, then measure resistance	e.			
Take 6pin Connector from the Controller.	When measuring resistance ③–④, ④–⑤ Is resistance 300±20 Ω? YES	NO	<ul> <li>Check Semi- conductor and Harness Connector</li> <li>Check Harness linking connector</li> </ul>		



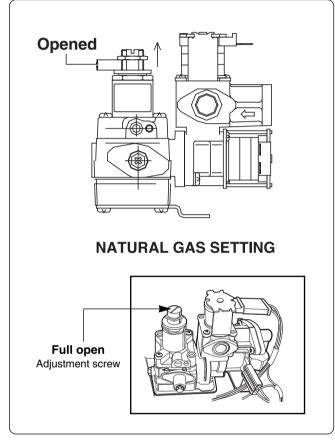
# CHANGE GAS SETTING (NATURAL GAS, PROPANE GAS)

#### A Warning

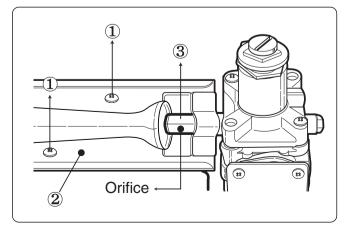
Changing orifices and gas valve adjustments improperly can result in an explosion and/or fire. Conversion must be made by a qualified technician.

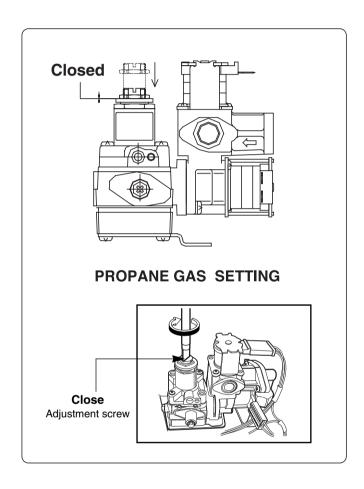
**Initially**, Natural Gas mode is set. Propane Gas Orifice is on sale as a Service Part to authorized servicers only.

#### **STEP 1 : VALVE SETTING**



#### **STEP 2 : ORIFICE CHANGE**



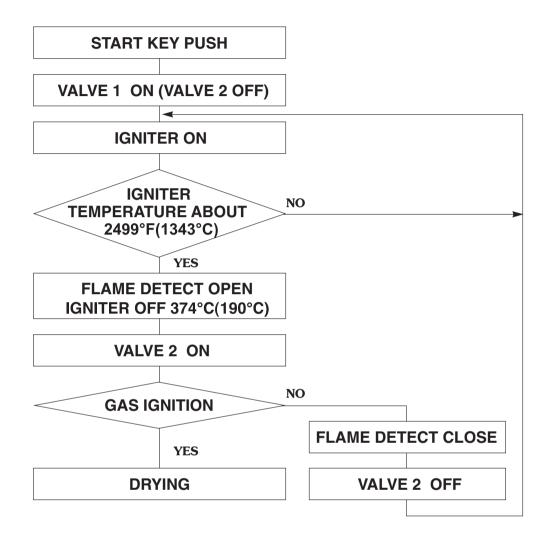


- 1) Remove 2 screws.
- (2) Disassemble the pipe assembly.
- ③ Replace Natural Gas orifice with Propane Gas orifice.

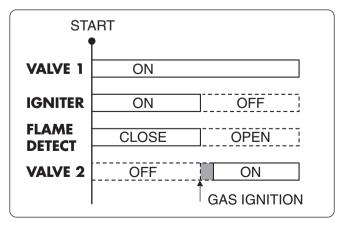
Gas type	Orifice P/No	Marking	Shape
Natural Gas	4948EL4001B	NCU	
Propane Gas	4948EL4002B	PCU	

**Kit contents**: Orifice (Dia. = 1.613mm, for Propane Gas) Replace Label Instruction Sheet

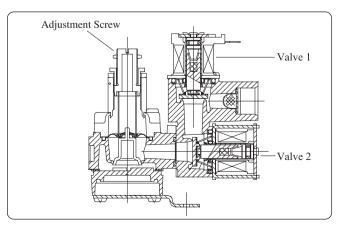
#### ■ GAS VALVE FLOW



#### **GAS IGNITION**



#### GAS VALVE STRUCTURE



# 11

# **DISASSEMBLY INSTRUCTIONS**

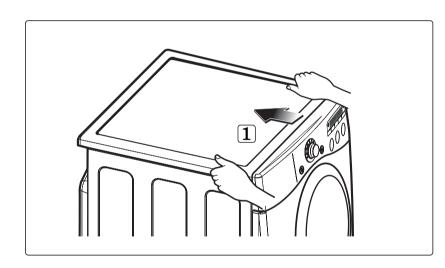
\* Disassemble and repair the unit only after pulling out power plug from the outlet.

TOP PLATE

# **A** WARNING !

When you disassemble the top plate, be sure to take gloves and careful plate's edge. Failure to do so can cause serious injury.

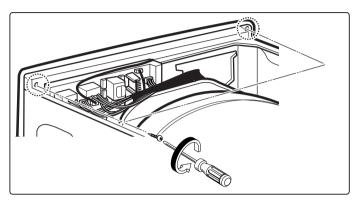
1. Remove 3 screws on the upper plate.

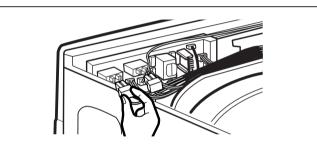


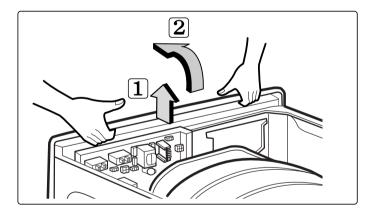
2. Push the top plate back ward.

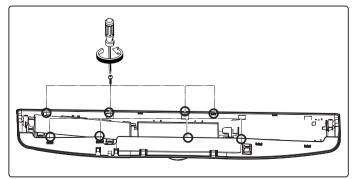
3. Lift the top plate

#### CONTROL PANEL ASSEMBLY









# A WARNING !

When you disassemble the control panel, be sure to take gloves and careful panel frame's edge. Failure to do so can cause serious injury.

- **1.** Remove 2 screws on the control panel frame.
- **2.** Disconnect the connectors.

**3.** Pull the control panel assembly upward and then forward.

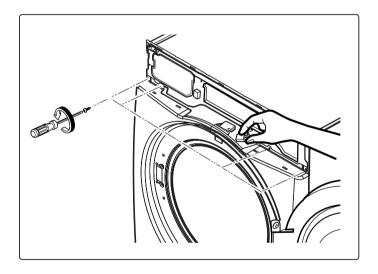
- **4.** Remove 8 screws on the PWB(PCB) assembly, display.
- 5. Disassemble the control panel assembly.

# COVER CABINET

# A WARNING !

When you disassemble the door switch connector, be sure to take gloves and careful cabinet edge. Failure to do so can cause serious injury.

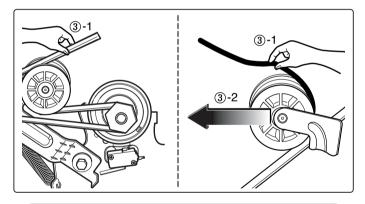
- **1.** Disassemble the top plate.
- 2. Disassemble the control panel assembly.
- 3. Disassemble the door assembly.
- 4. Remove 2 screws.



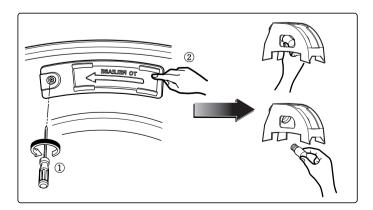
- **5.** Remove 4 screws from the top of cabinet cover.
- **6.** Disconnect the harness of door switch.

# TUB DRUM [FRONT]

#### DRUM ASSEMBLY



#### CHANGING THE DRUM LAMP



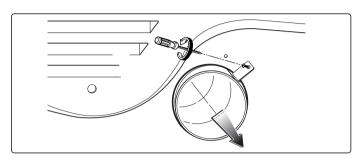
# A WARNING !

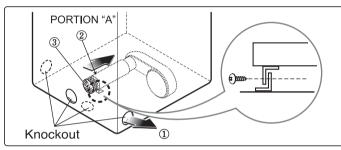
When you disassemble the lamp connector, be sure to take gloves and careful cabinet edge. Failure to do so can cause serious injury.

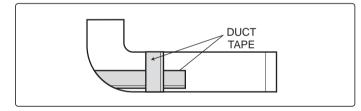
- **1.** Disassemble the top plate.
- 2. Remove Cover Cabinet.
- **3.** Disconnect the door lamp and electrode sensor connector.
- 4. Remove 4 screws.
- 5. Disassemble the Tub Drum [Front].
- **1.** Disassemble the top plate.
- **2.** Remove the Cabinet Cover and Tub drum [front].
- **3.** Loosen belt from motor and idler pulleys.
- **4.** Carefully remove the drum.

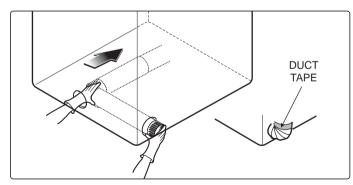
- **1.** Disassemble the door.
- **2.** Hold the lamp shield in place while removing the screw.
- **3.** Slide the shield up and remove.
- **4.** Remove the bulb and replace with a 15 watt, 120 volt candelabra-base bulb.
- 5. Replace the lamp shield and screw.

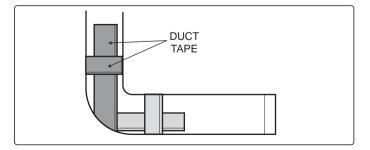
#### DRYER EXHAUST CHANGE











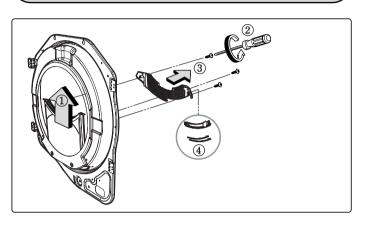
## **A** WARNING !

When you disassemble and install ventilation, be sure to take gloves and careful exhaust edge. Failure to do so can cause serious injury.

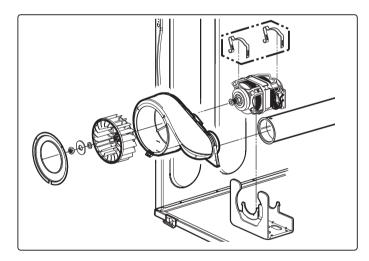
- **1.** Remove a screw and the exhaust duct.
- 2-1. Detach and remove a knockout at the botton, left or right side as desired. (Right Side Vent not available on Gas dryer)
  (1), (2), (3) the order of work.
- **2-2.** Reconnect the another duct [11 in (28cm)] to the blower housing, and attach the duct to the base. (Duct is a SVC part)
- **3-1.** Pre-assemble 4" elbow with 4" duct. Wrap duct tape around joint.

**3-2.** Insert the elbow duct assembly through the side opening and connect the elbow to the internal duct.

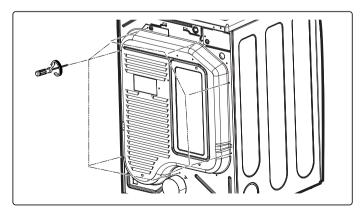
#### FILTER ASSEMBLY



#### **BLOWER HOUSING**

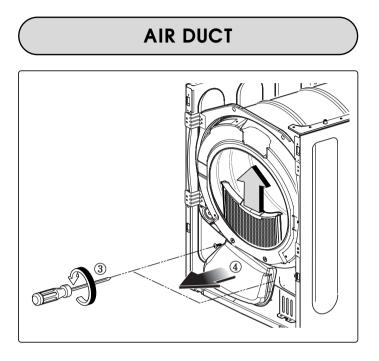


#### BACK COVER



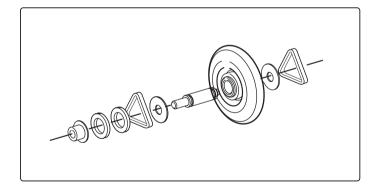
- **1.** Remove the filter.
- 2. Remove 3 screws.
- 3. Remove the Cover Grid.
- **4.** Disconnect the electrode sensor.

- **1.** Disassemble the top plate.
- 2. Remove the Cabinet Cover and Tub Drum [Front].
- **3.** Remove the Drum assembly.
- 4. Remove 2 screws and cover (Air guide).
- 5. Remove the bolt and washer.
- **6.** Remove the fan.
- 7. Disconnect the motor clamp and motor.
- **1.** Disassemble the top plate.
- 2. Remove the Cabinet Cover and Tub Drum [Front].
- **3.** Remove the Drum assembly.
- **4.** Remove 7 screws.
- 5. Remove the Back Cover.



- **1.** Disassemble the top plate.
- 2. Remove the Cover Cabinet.
- **3.** Remove the filter and 2 screws.
- 4. Remove the air duct.

#### ROLLERS



- **1.** Disassemble the top plate.
- 2. Remove the Cover Cabinet and Tub Drum [Front].
- 3. Remove the Drum assembly and Tub Drum [Rear].
- 4. Disconnect the Air duct from the Tub Drum [Front].
- **5.** Remove the roller from the Tub Drum [Front] and Tub Drum [Rear].

**EXPLODED VIEW** 

12

# 12-1. Control Panel & Plate Assembly

