# TRAINING MANUAL

# **DLE9577/DLG9588 Dryer Training**

Spring 2007



# **DLG9577/DLE9588**

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# **SPECIFICATIONS**

г	ITEM		DLE9577WM DLG9588WM	DLE9577SM DLG9588SM	REMARK
50 500		Color	Blue White	Titanium	
Material & Finish	Т	op Plate	Pord	elain	
	D	oor Trim	Silv	/er	
POWER	SUP	PLY	120V/240	V 60Hz (26A)	
FLEOTOLOG	D/	MOTOR	250V	/ (4.5A)	AC 120V
CONSUMPT		HEATER	5400W	(22.5A)	AC 240V (ELECTRIC MODEL
0011001111	1011	LAMP	15 W (1	25mA)	AC 120V
		GAS VALVE	13 W (110	)mA) x 2	AC 120V (GAS MODEL)
CONTR	CONTROL TYPE		Electronic		
DRUM (	DRUM CAPACITY		7.3 cu.ft.		
Weight (Ib	s) - N	let/Gross	124/144		
No. of	Progr	rams	9		
No. of [	Ory O	ptions	3		
No. of Tempe	eratur	e Controls	5		
No. of [	Dry Le	evels	5		
Sound	d leve	ls	High/Low/Off		
C	N	Moisture	Available		Electrode sensor
Sensor	Temperature		Avail	able	Thermistor
Revers	sible [	Door	Avail	able	
D	Drum		Stainless	Steel	
Dryer Rack		ck	Available		
Child Lock		k	Available		
Interior Light		ght	Available		
Product	(WxI	HxD)	27" x 38 3	3/5" x 30 1/10"	
Packing	(WxI	HxD)	29 7/10" x 4	4 7/10" x 31 2/5"	

#### **SAFETY**

#### **GAS**

### **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.

Check the local laws and regulations concerning the installation and connection of gas. In most localities, it is illegal to connect gas piping, re-jet or adjust burners, or repair gas-fired equipment unless you are certified so to do.

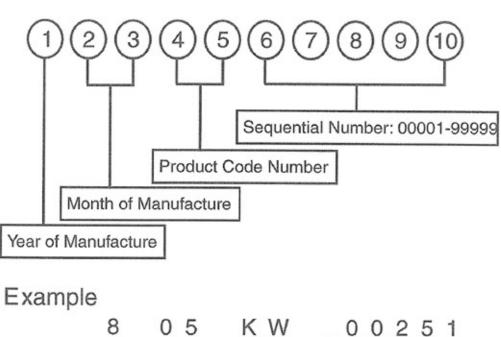
#### **ELECTRIC**

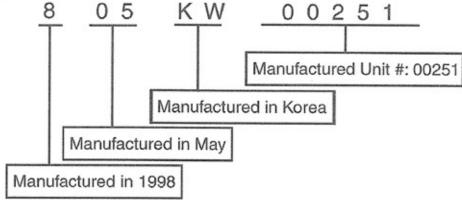
The gas dryer uses 120  $V_{AC}$ . The electric dryer uses 240  $V_{AC}$ . Even when these products are turned OFF, there is live voltage on some of the internal terminals. Always unplug the appliance before opening the case or servicing.

#### SERIAL NUMBER IDENTIFICATION

The serial number is unique to each product. It gives information concerning the time and place of manufacture. The serial number is required to be paid for warranty service and to get the correct part in the event a running production change was made. Some models may have four (4) letters instead of two (2) for the product code number. The third and fourth letters are significant only to the manufacturing facility.

This chart will help you decode the serial number.

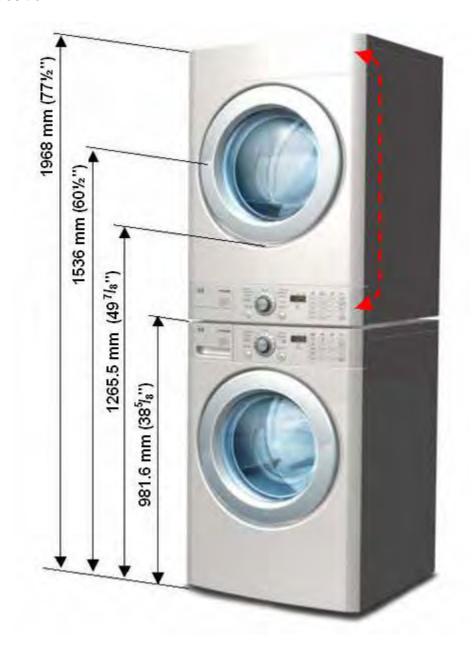




#### INTRODUCTION

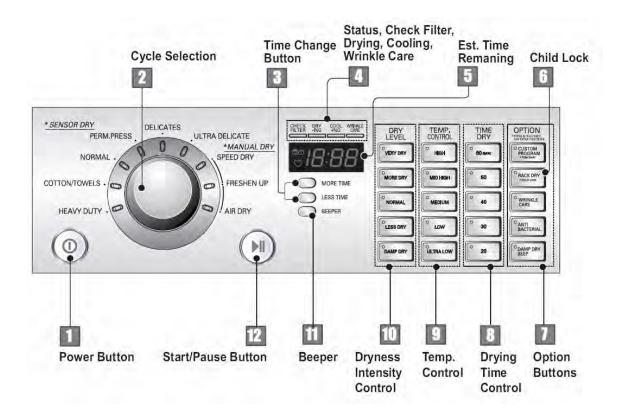
The 9577/9588 dryer is very similar to other LG dryers with the exception of the front panel and the control panel. The control panel is designed to allow the customer to choose the location of either the top or the bottom, which allows for easier access to the controls when the dryer is stacked on top of the washer. (See

page 42.) The dryer is shipped from the factory with the control panel in the lower position.



#### **CONTROLS**

The control panel features discrete buttons for each selection rather than requiring the user to cycle through numerous choices to pick one.

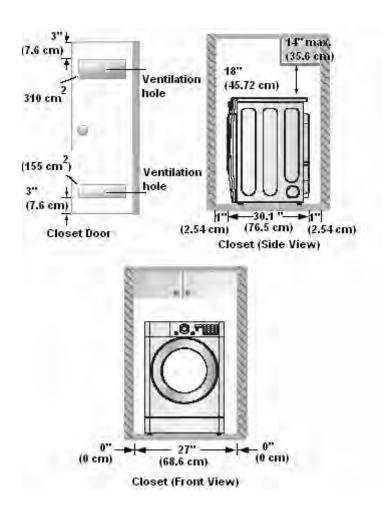


A couple of buttons serve double functions. Pressing and holding RACK DRY will turn the Child Lock ON or OFF. Pressing and holding CUSTOM PROGRAM will store the customer's favorite setting (one that is used most of the time.)

The main control board is located in the top of the machine rather than in the front panel. The communication between the main control board and the control panel is handled by a UART (Universal Asynchronous Receiver Transmitter) and a 7-wire cable rather than by a 28-wire cable as in previous models. This simplification is what makes it possible to have a re-locatable control panel.

#### INSTALLATION

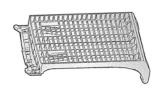
The 9577/9588 dryer is designed to be used stacked on top of a WM2496 washer, so the control panel is shipped in the lower position. It can be converted easily to be used as a conventional dryer next to a washer. The customer can do this himself. (See page 42 of this training manual.)



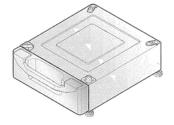
The 9577/9588 dryer can be installed in a laundry closet if the clearance guidelines are met. (See drawing, above.) It does not matter whether the dryer is stacked, as long as the closet door opening provides the appropriate vertical clearance for lifting and stacking in the closet.

### **ACCESSORIES**

The 9577/9588 dryer is shipped with a drying rack and a stacking kit. The pedestal is optional. The dryer is designed to stack on the matching WM2496 washer. Both products can be stacked on a single pedestal, if desired, but the dryer must always be on top of the washer.







**DRYING RACK** 

STACKING KIT

**PEDESTAL** 

### **INSTALLATION (RACK)**



It's simple!

Open the dryer door.

Set the rack in place.

Select RACK DRY.

(2<sup>nd</sup> button from top on the option row on the right of the panel)

Press **START**.

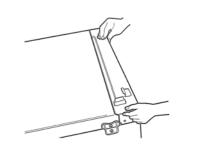
Be sure the front of the rack is properly situated in the notches on either side of the filter. The back of the rack should rest on the drum and allow the drum to rotate.

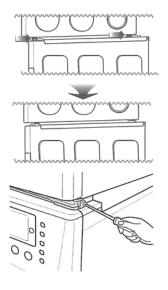
### **INSTALLATION** (STACKING KIT)

**Warning!** Do not attempt this alone! At least two people are required to lift the dryer and place it properly on top of the washer. Failure to observe this warning could result in serious physical injury and damage to the appliances.









- Place the washer on a solid, even floor. If you plan to use a pedestal, install it now, before going any further. (See page 12.)
- 2. Attach the side bracket loosely to the top plate of the washer but don't tighten the screw all the way.
- 3. Hold the bracket away from the top plate and peel the protective paper from the adhesive tape on the side bracket. Hold the adhesive surface off the top as you tighten the screw. When the screw is tight, attach the adhesive tape to the top plate.

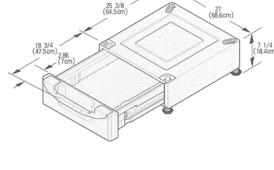
Repeat steps 2 and 3 for the other side.

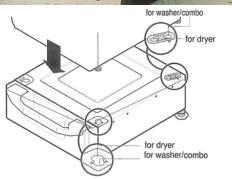
- 4. Level the legs on the dryer on a flat floor before setting the dryer on top of the washer.
- 5. Slide the dryer back into the stops on the rails. Attach the front bar with 2 screws to hold the feet in place.

### **INSTALLATION** (PEDESTAL KIT)

This procedure covers installing and leveling the 7½" and 13" pedestals for 27" washers, dryers, and combos. If the products are stacked, the washer must be below the dryer, and you'll use only one pedestal.



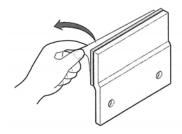




- 1. Remove the pedestal, installation hardware, and instructions form the shipping carton. Set the pedestal as close to the installation position as possible.
- 2. Level the pedestal on a flat, solid floor before proceeding. Lock down the rear adjusters but leave the front ones free for now.

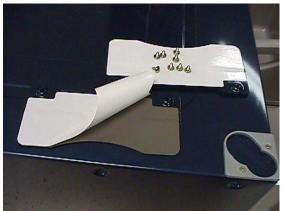


3. Note which holes are for the washer and which are for the dryer. (See drawing, above.) If you are stacking the appliances, the washer **must** be on the bottom.

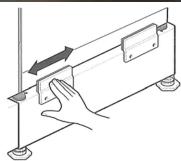


4. Remove the protective paper from the adhesive surface of the bracket. Be particularly careful, because when the adhesive makes contact, there is no adjustment possible.

#### PEDESTAL, continued



5. Depending upon the model, your pedestal may have straight or curved brackets. The curved ones are to be used on the rear positions when mounting a dryer to a pedestal, but can also be used in any other position on the pedestal.



- 6. Holding the exposed adhesive away from the appliance, insert the screws and get them started. Then press the brackets to the appliance and tighten all the screws. Rub the bracket from side to side to ensure a complete bond.
- 7. Use the wrench to turn each leg of the appliance approximately 1/4 turn to put a little pressure between the appliance and the pedestal. This will eliminate any rattles.
- 8. It is usually easier to set the pedestal and washer into place and connect the water and drain hoses before placing the dryer on top of them.

## **ELECTRICAL CONNECTION (Electric Dryer Only)**

#### PIGTAIL INSTALLATION

Install the appropriate power cord for the power outlet available. Grounding through the neutral conductor is prohibited in new branch circuits, mobile homes, recreational vehicles, and where prohibited by local code.

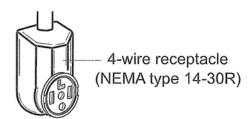


4-wire receptacle (NEMA type14-30R)

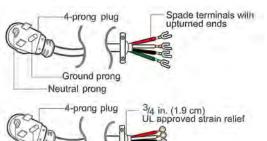


3-wire receptacle (NEMA type10-30R)

#### 4-wire Connection



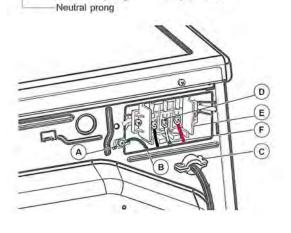
The 4-wire receptacle looks like this.



Ring terminals

Ground prong

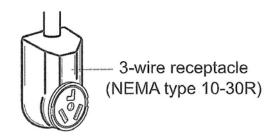
Your power cord may have spade or ring connectors.



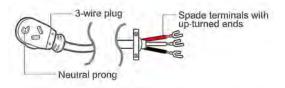
Install a strain relief on the power cord. Then connect the terminals to the terminal block, matching the wire colors.

- A. Ground screw on chassis
- B. Green wire from power cord
- C. Strain relief
- D. Neutral screw on terminal block
- E. Terminal block
- F. Neutral wire from power cord

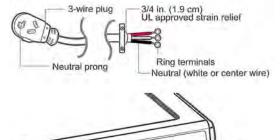
#### **3-wire Connection**



The 3-wire receptacle looks like this.



Your power cord may have spade or ring connectors.



Install a strain relief on the pigtail. Then connect the terminals to the terminal block, matching the wire colors. Add a wire to connect the chassis ground to neutral.

- A. Ground screw on chassis
- B. Green wire from pigtail
- C. Strain relief
- D. Neutral screw on terminal block
- E. Ground-to-neutral connection
- F. Neutral wire from pigtail

### **ELECTRICAL CONNECTION (Electric Dryer Only) (Continued)**



Be sure to tighten all screws firmly, but do not strip them or distort the contact area. Be sure to install a strain relief on the power cord.



Replace the terminal block cover by inserting the tabs into the slots and letting them slide down to engage. Fold it over to the back of the dryer so it covers the access to the terminal block. Be sure no wires are exposed or could touch any metal surface.



Secure the cover with a screw.

# **ELECTRICAL CONNECTION (Gas Dryer Only)**

The dryer requires a 120  $V_{AC}$  single-outlet dedicated circuit. The cord is installed at the factory and no user-intervention is required.

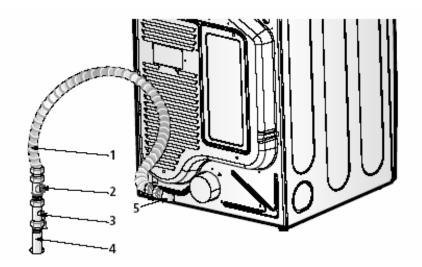
# **GAS CONNECTION (Gas Dryer Only)**

#### **CAUTION!** (This warning applies to both natural gas and propane.)

Gas is both flammable and explosive. Use caution when working with gas. In most locations, installing and connecting gas is restricted to properly trained, certified, and licensed persons.

Always inspect joints and connections for a leak with a soapy solution. If you see bubbles, turn the gas off and open a window. **DO NOT** use a match or flame.

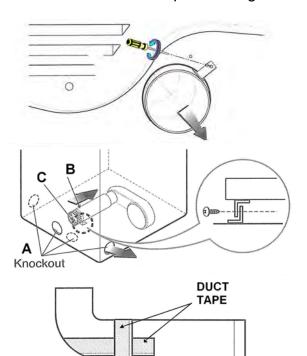
If you smell gas, turn off the main valve and open a window.



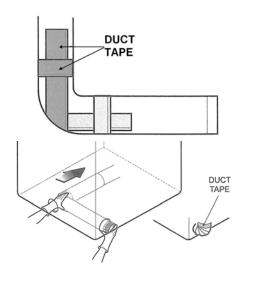
- 1. Flex line (Bought in the length needed, with fittings attached to both ends)
- 2. Bleeding and pressure check port
- Cut-off valve
- 4. Gas supply pipe
- 5. Point of attachment to dryer

#### **VENT PIPE CONNECTION**

The dryer is shipped from the factory vented out the back. With the optional vent kit (Part # **3911EZ9131X**), the dryer can be vented out either side (left side only for gas dryers because of gas piping interference) or the bottom (through the floor). It is important to remember the vent must exhaust to outside air. The dryer cannot be vented into a garage, an attic, or a crawl space beneath a house or trailer. Follow these steps to change the vent output direction.



- Remove the screw and the existing exhaust vent pipe. Install vent kit part number 3911EZ9131X.
- 2. Remove the appropriate knockout (left, right, or bottom.)
  The knockout is easily removed by pressing one of the tabs inside the dryer and popping it out of the hole.
- 3. Insert the short duct piece with the tab inside the dryer through the hole on the back. Attach it to the blower housing and align the tab on the duct with the one on the base. Install the screw.
- 4. Preassemble the elbow and the remaining piece of duct. Seal the joint with duct tape as shown. (Be sure to use real, heatproof duct tape rather than an imitation.)
- 5. Connect the elbow to the duct in the dryer and seal that joint with duct tape.
  - Connect to the outside vent.



### **REMOTE MONITOR and MODEM**

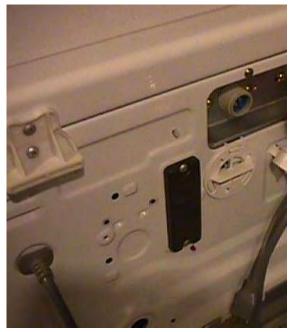


The remote laundry monitor (RLM) allows the user to monitor the progress of both washer and dryer, provided each is equipped with a modem.



Remove the cover and install the modem on the back of the dryer.

Save the small socket cover and screws in the event you need to remove the modem for some reason. The socket should be covered at all times.



For convenience, you can remove the cover and install the modem on the back of the washer.

Save the small socket cover and screws in the event you need to remove the modem for some reason. The socket should be covered at all times.

After installation is complete, plug in the washer, dryer, and monitor, in that order. Turn on the washer and dryer. Press and hold the SET button on the monitor.

### DRYER CYCLE CHART

### **DRYER CYCLE PROCESS**

			Default	:	Conditi	ions of operat	ion and	termination	
	Cycle	Temp-	Dry	Display	Dryii	Drying Cooling		ling	Wrinkle care
		erature		time	Electro- sensor	Temp- Control	Default time	Temp- Control	Time
	HEAVY DUTY	HIGH	(Normal)	54min	Saturation	68±4° C (151±7 ° F)	(5min)	47±5° C (117±9° F)	
	COTTON/ TOWELS	MID HIGH	(Normal)	55min	Saturation	66±4° C (151±7° F)	(5min)	47±5° C (117±9° F)	
Sensor	NORMAL	MEDIUM	(Normal)	41min	Saturation	60±4° C (140±7° F)	(5min)	47±5° C (117±9° F)	
Dry *	PERM PRESS	LOW	(Normal)	36min	Saturation	52±3° C (126±5° F)	(5min)	47±5° C (117±9° F)	- 3Hr
	DELICATES	LOW	(Normal)	32min	Saturation	52±3° C (126±5° F)	(5min)	38±5° C (100±9° F)	
	ULTRA DELICATE	ULTRA LOW	(Normal)	34min	Saturation	45±3° C (113±5° F)	(5min)	38±5° C (100±9° F)	
	SPEED DRY	(HIGH)	-	25min	Saturation	70±5 °C (158±9° F)	(5min)	47±5° C (117±9° F)	
Manual Dry **	FRESHEN UP	(MID HIGH)	-	20min	Saturation	66±5° C (151±9° F)	(5min)	47±5° C (117±9° F)	ЗНr
	AIR DRY	-	-	30min	Saturation	No Heater	N/A	N/A	
			Mo	tor					Off Time: 6min
		Load	Mo	toi					On Time: 10sec
		Load	Hea	ater	Temperatu	re Control for eac	ch cycle		

On **SENSOR DRY** cycles, the dryness level is selected by the user. On **MANUAL DRY** cycles, the drying time and temperature are set by the user. On every cycle, the default settings can be overridden. Not all options will be available, such as HIGH heat on the DELICATE cycle.

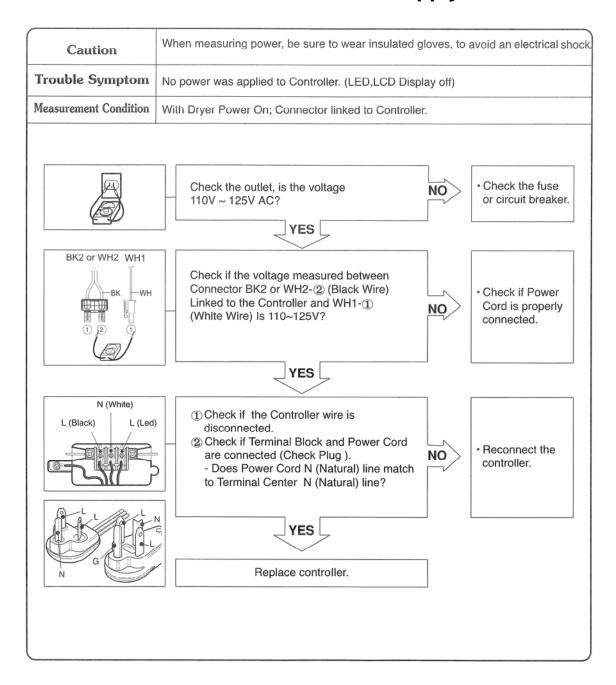
### **DIAGNOSTIC TEST MODE**

The diagnostic test mode is for service testing only. Do not activate the heater manually with the door open or it will trip the thermostat attached to the heater.

- 1. Dryer must be in standby mode. (Plugged in, turned off)
- 2. Press and hold **MORE TIME** and **LESS TIME**, then press **POWER**.
- 3. Press **START/PAUSE** to advance to the next test.
- 4. Unplug the dryer for one minute after using the diagnostic mode.

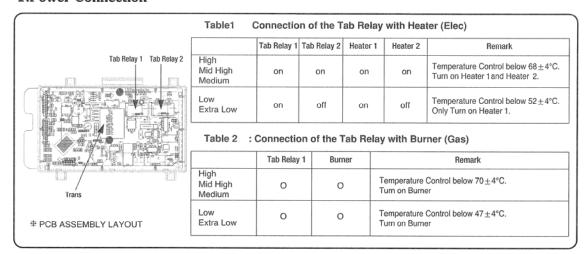
Pressthe START/PAUSE button	CHECKING ACTION	DISPLAY	CHECKING POINT	REMARK
	Electric control	LQC TEST	Won't power up Defective LED or LCD	See test 1
None	& temperature	tE1	Thermistor open	See test 2
	sensor	tE2	Thermistor closed	366 (63) 2
			Motor runs	See test 3
Once	Motor	70 ~ 239 Measured Moisture 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	■ ELECTRIC TYPE Motor + Heater 1 (2700W) ■ GAS TYPE Motor + Valve	Current Temp.	■ ELECTRIC TYPE-Heater runs ■ GAS TYPE-GAS Valve runs (Display the Temperature of inside drum.)	Gas valve See test 7
3 Times	■ ELECTRIC TYPE Motor + Heater 1 +Heater 2 (5400W) ■ GAS TYPE Motor+Valve	Current Temp. (5 ~ 70)		
4 Times	Motor, Heater	50~230 Measured	Motor, Heater Off	
	Motor, Fleater	SE (Error Display)	Semi-conductor	
T 5 times	Control Off			Auto Off
During check,	Motor & Heater Off + Lamp On +	dE or Error (THE DOOR IS OPEN.	Door switch	See test 6
if the door is open.	Buzzer beeps seven times	PLEASE CLOSE THE DOOR COMPLETELY)	Lamp	
During check, if the door is closed.	Motor on & Heater Off + Lamp Off	70 ~ 239	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.  Press Start 2 times and then open the door. Proceed again from the step 1 all the way to the step 4.  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.	

# **TEST 1 – AC Electrical Supply**



#### TEST 1 – AC Electrical Supply, continued

#### 1.Power Connection



#### 2. Status Mode Of The Connection

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

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

### **TEST 1 – AC Electrical Supply, continued**

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

	Color	Harness	PCB	Remark
Connector Housing	Black	Blue Wire  2  Black Wire  Connector Housing	Tap relay 1	Check the Matching color Between Harness wire and Tab Relay. (Black Housing – Black Tab Relay)

#### 3. Status Mode Of wrong Connection

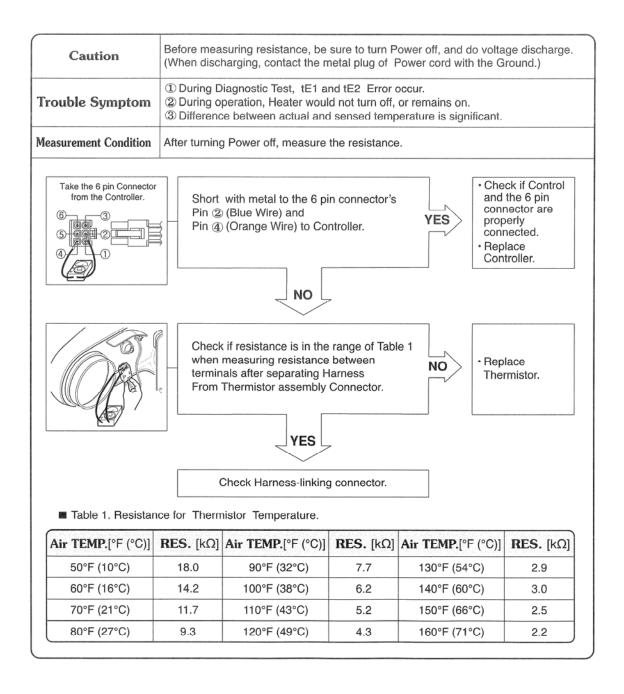
Table1 Wrong Connection of the Tab Relay and Connector Housing (Elec)

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	Heater 2	Heater1	Power On
5.Black and White Housing	Housing and Wire ①, ② CROSS	Off	Off	Power Off

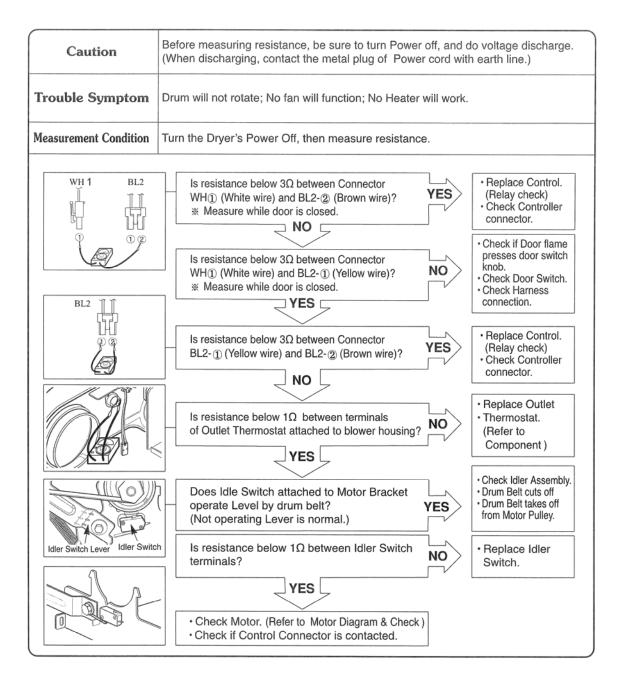
Table2 Wrong Connection of the Tab Relay and Connector Housing (Gas)

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

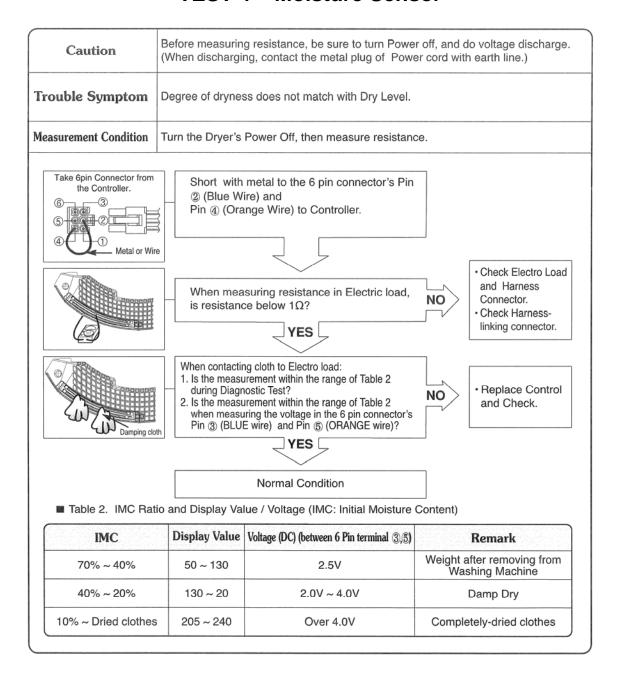
# **TEST 2 – Thermistor (Measure with power OFF)**



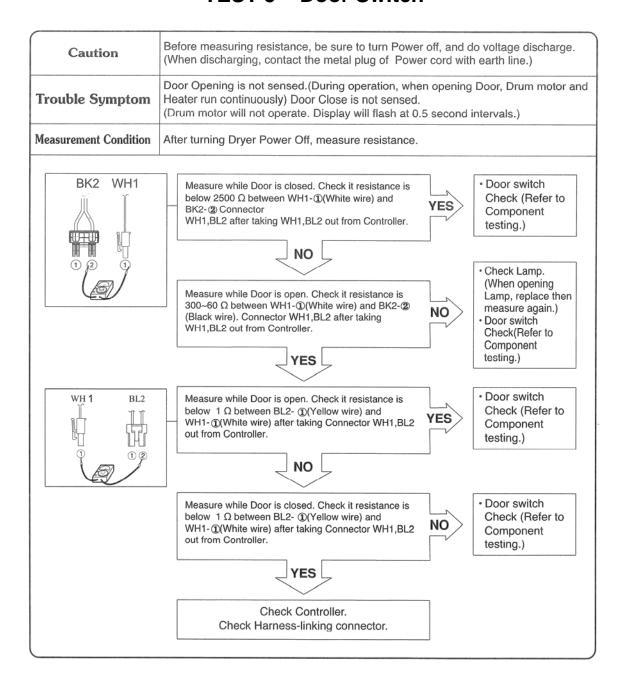
### TEST 3 - Motor



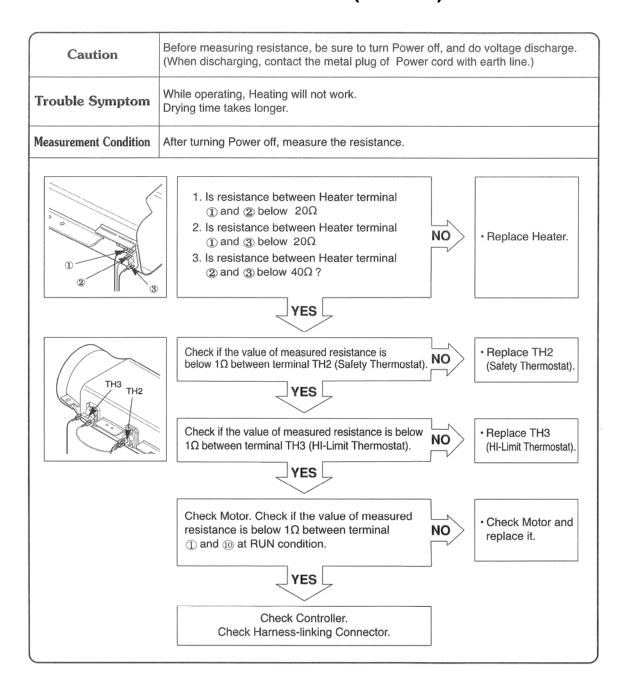
### **TEST 4 – Moisture Sensor**



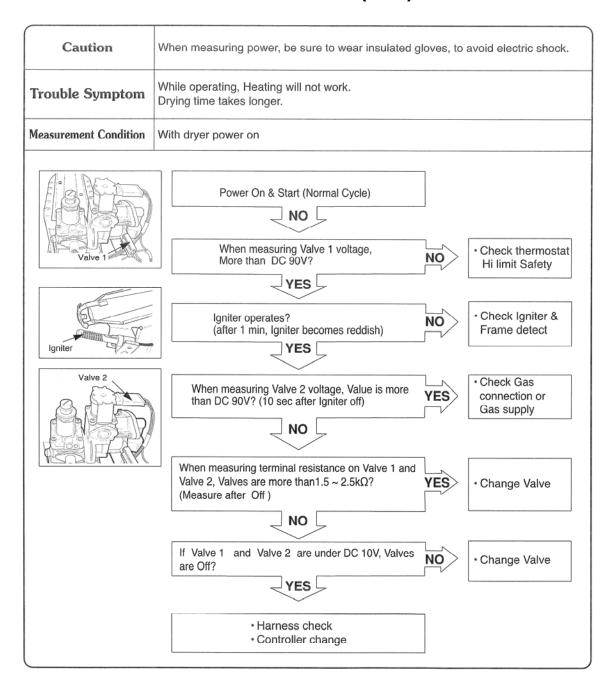
### **TEST 5 – Door Switch**



# **TEST 6 – Heater (Electric)**



# TEST 7 - Valve (Gas)



# **COMPONENT TEST PROCEDURE**

# **COMPONENT TESTING INFORMATION**

**A CAUTION** 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
	① Open at 266 ± 12°F (130 ± 7°C)	① Resistance value ≒ ∞	Electric type
• Check Top Marking N130	② Auto reset 31°F (35°C) Same shape as Outlet Thermostat.	② Continuity (250°F $\downarrow$ ) < 1 $\Omega$	
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 ≒ ∞	Electric type
	② Close at 221 ± 9°F (105 ± 5°C)	② Resistance value < 5Ω	
Outlet Thermostat     ( Auto reset)	Measure resistance of terminal to terminal		<ul> <li>Blow housing - Safety</li> </ul>
	① Open at 185 ± 9°F (85 ± 5°C)	① Resistance value ≒ ∞	• Electric type
• Check Top Marking	② Close at 149 ± 9°F (65 ± 5°C)	② Resistance value < 5Ω	
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
	1) Door switch knob opened  ① Terminal COM - NC (1-3) ② Terminal COM - NO (1-2) 2) Door switch pushed	<ol> <li>Resistance value &lt; 1Ω</li> <li>Resistance value ≒ ∞</li> </ol>	pressed is opposite to Open condition.
	① Terminal COM - NC (1-3) ② Terminal COM - NO (1-2)	<ol> <li>Resistance value ≒ ∞</li> <li>Resistance value &lt; 1Ω</li> </ol>	
6. Idler switch	Measure resistance of the following terminal COM - NC	1. lever open	

# **COMPONENT TEST PROCEDURE**

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: 20Ω</li> <li>Resistance value: 20Ω</li> <li>Resistance value: 40Ω</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: 10kΩ	Heater case -     Hi limit     Electric type
9. Motor			- See Pages 36~37
10. Gas valve valve 1	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. Flame Detect	Measure resistance of terminal to terminal  ① Open at 370°F (Maximum)  ② Close at 320°F	<ul><li>① Resistance value ≒ ∞</li><li>② Resistance value &lt; 1Ω</li></ul>	• Gas type

# **COMPONENT TEST PROCEDURE**

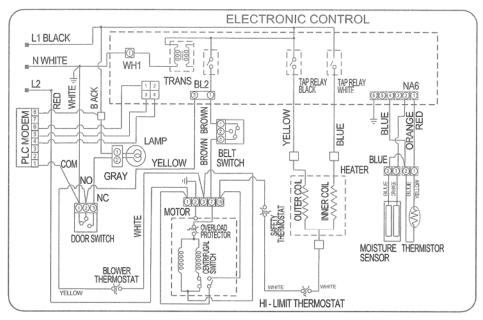
Component	Test Procedure	Check result	Remark
13. Outlet Thermostat (Auto reset)	Measure resistance of terminal to terminal  ① Open at 203 ± 7°F (95 ± 5°C)  ② Close at 158 ± 9°F (70 ± 5°C)		Gas type     Gas funnel
Check Top Marking     N95			
14. Outlet Thermostat (Manual reset)	Measure resistance of terminal to terminal	If thermal fuse is open must be replaced	• Gas type • Gas funnel
<b>6 6 1 9</b>	① Open at 212 ± 12°F (100 ± 7°C)	① Resistance value ≒ ∞	
101	② Manual reset	② Continuity < 1Ω	
Check Top Marking N100			

### **DISASSEMBLY and REPAIR**

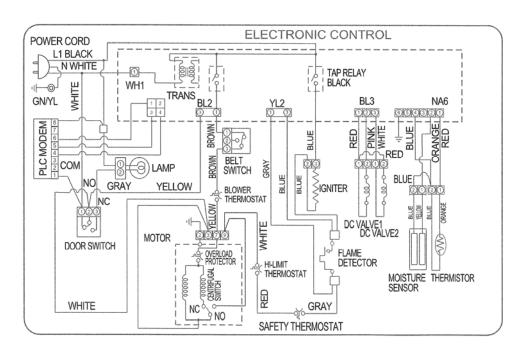
The following pages will show the instructions for disassembly, repair, replacement of parts, and re-assembly. Many times, electrical components may be tested by connecting the appropriate meter to the leads or connectors on the main PC Board. (Refer to the block wiring diagram, following.) Proper diagnosis will eliminate unnecessary labor and expedite repairs.

### **BLOCK WIRING DIAGRAM**

#### **ELECTRIC DRYER**



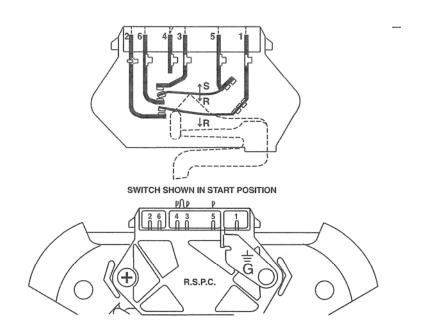
#### **GAS DRYER**



# **Motor Diagram and Schematic**

To check the motor, turn the power off and allow the capacitor to discharge. The centrifugal switch serves as a safety device to turn off the fuel (gas or electricity) to the heater if the motor fails to rotate.

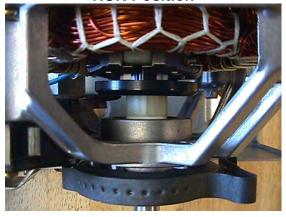
Terminal No								D 1
Mode	Resistance	1	2	3	4	5	6	Remark
Motor STOP	2 ~ 3Ω				•			Motor
	<b>÷</b> ∞	•	•					Heater (Electric Models)
	<u>÷</u> ∞			•			•	Gas Valve (Gas Models)
Motor RUN	3 ~ 5Ω				•			Motor
	< 1Ω	•	-					Heater (Electric Models)
	< 1Ω			6			-	Gas Valve (Gas Models)



#### SAFETY SWITCHES

The centrifugal switch slides back and forth on the motor's shaft to operate the contacts as shown in the previous diagram. This switch provides safety in the event the motor fails. When the motor is running, centrifugal force causes the weight (black wing in the photo) to slide back toward the motor windings. This motion allows electricity to operate the heater (electric element or gas valve).

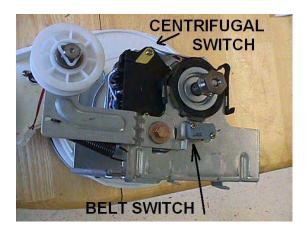




**STOP Position** 



There is an additional safety in the form of a belt switch that shuts off power to the electric motor if the belt breaks. Belt tension holds the bogey pulley off the belt switch. If the belt breaks, the switch opens and power to the motor is cut. When the motor stops, the centrifugal switch functions as a safety device to turn off the fuel (gas or electricity) to the heater.



The centrifugal switch includes a multipin connector (shown).

The belt switch is simple. If the belt breaks, the spring pulls the lever down and it presses the switch.

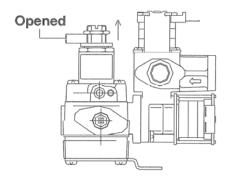
# **Gas Conversion** (Natural to Propane)

WARNING! Improper installation and/or adjustment of orifices and gas valves can result in fire, explosion, and suffocation. Installation and adjustment should be performed ONLY by a trained, licensed, and

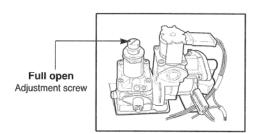
certified gasfitter.

NOTICE! The dryer is shipped from the factory equipped for natural gas.

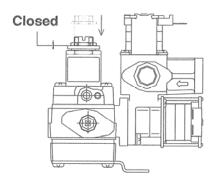
1. Close the adjustment screw.



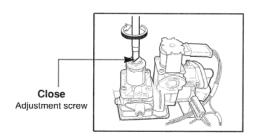
NATURAL GAS SETTING







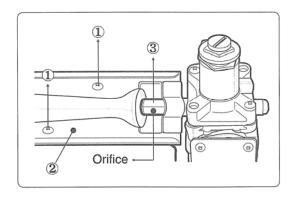
PROPANE GAS SETTING



Notice there is a nut on the adjustment screw. This nut is secured to the thread with a sealing compound. The nut is pre-positioned to the place where the valve is properly adjusted for LP. Its purpose is to provide a shoulder for positioning the adjustment screw if the dryer is converted to operate using propane (LP).

# Gas Conversion (Natural to Propane), continued

2. Replace the orifice. (See photo, previous page.)



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

You'll have to remove the top plate and front cover to change the orifice.

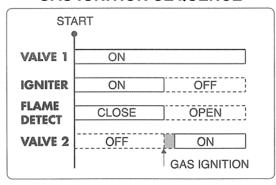
Installing the correct orifice is critical! This should be performed ONLY by trained, licensed, and certified personnel.

3. The conversion kit includes a propane orifice, complete instructions for making the conversion, and a label indicating the conversion kit has been installed. All conversion work, including testing and adjusting, must be completed by a trained, licensed, and certified gasfitter.

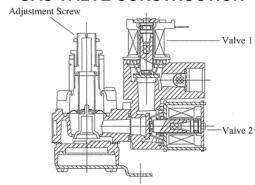
## **GAS VALVE OPERATION**

The gas valve is a two-stage valve. When the ignition sequence begins, the igniter is turned on and valve one opens. When the igniter reaches 370° F (188° C), the igniter is turned off and valve two opens. If the flame detector does not detect ignition, valve two is closed and the process is restarted. If ignition occurs as planned, the drying cycle will operate.

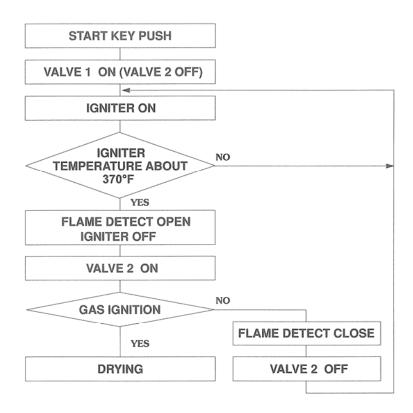
#### **GAS IGNITION SEQUENCE**



#### **GAS VALVE CONSTRUCTION**



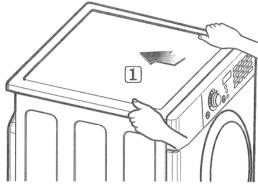
### **IGNITION FLOW CHART**



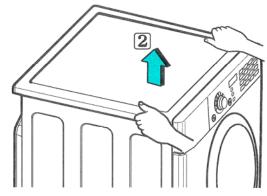
## **TOP PLATE**



1. Remove the three screws at the back of the top plate (cover).

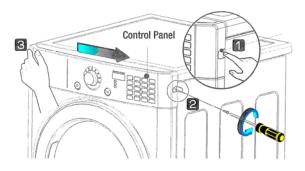


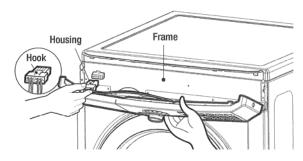
2. Push the top plate backward.

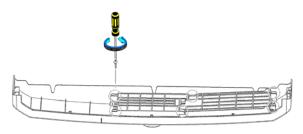


3. Lift the top plate off the machine.

## **Control Panel**

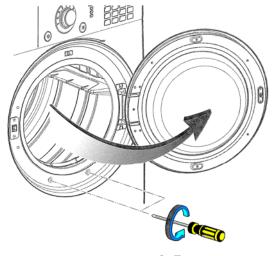




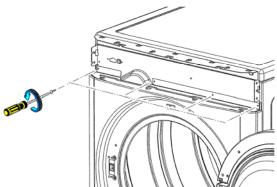


- 1. Open the cap covering the screw on the right end of the control panel.
- 2. Remove the screw.
- 3. Slide the control panel about an inch to the right.
- 4. Fold the control panel down to access the connector.
- 5. Press the tab and unplug the connector.
- **CAUTION!** Be careful! Do not drop the control panel. Do not lay it face down and damage the knob or the surface.
- 6. Remove the 6 screws holding the display board to the control panel and take it off.
- 7. The control panel can be installed on wither the top or the bottom position. Use the blank panel to cover the unused location on the dryer. Be sure to install the cover on the socket in the unused position.

#### **Front Cabinet Cover**

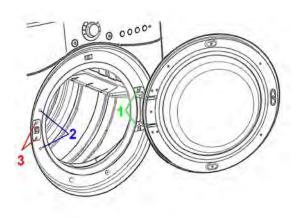


- Remove the control panel assembly or the blank cover on the top is the controls are installed in the lower position.
- 2. Open the door.
- 3. Remove the two screws toward the bottom of the door opening. (See drawing.)



- Remove the four screws along the top of the front cover. (See drawing.)
- Tip the front panel forward to disconnect the door switch before removing the panel.
   Set it aside on a pad or an old blanket with the door closed.

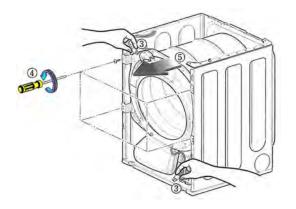
### **Door Reversal**



- Remove the two screws that hold the door. Remove the door and set it aside on a soft, protective pad. Save the hinge shim.
- 2. Remove the two screws near the latch.
- 3. Remove the two screws and the latch piece.
- 4. Rotate everything 180° and reinstall the door so it opens from the other side.

DLE9577/DLG9588 Page 43 of 58 TRAINING MANUAL

## **Drum Front**



- 1. Remove the top plate.
- 2. Remove the front cover.
- 3. Disconnect the drum lamp and sensor harness.

## **Drum Assembly and Belt**



- 1. Remove the top plate.
- 2. Remove the front cover.
- 3. Remove the drum front.
- 4. Push against the pulley to relieve pressure on the belt and take if off the motor shaft. You can then lift the drum out of the cabinet. When replacing the drum, you can replace the belt on the wheels after the dryer is reassembled by reaching into the cabinet either through the front or through one of the vent openings.

## **Drum Lamp**



You might be able to change the bulb without removing the housing unless the bulb or socket is damaged.

- 1. Remove the screw holding the cover inside the dryer.
- 2. Slide the cover away.
- 3. Unscrew the bulb and replace it with an exact replacement part.



The bulb holder (socket) is pushed into the cage from the inside. The locking tabs hold it into place. The cage is also pressed into place from inside the dryer.

Removing the cage may be a little bit more difficult. You can remove the top cover and reach in beside the cage with a screwdriver to release the tabs.



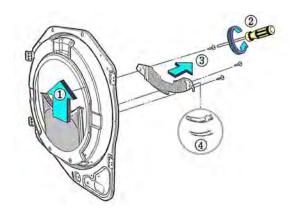
Then pull the cage out in whichever direction it is easier. You'll probably have to remove the cage to get the socket out because of the holding tabs. (See photo, below.)

If the bulb has broken off in the socket, you can probably remove the remains with a small plier. Sometimes this can be done without removing the socket, but be careful to avoid getting glass fragments into the dryer.



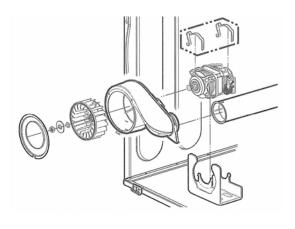
The tabs on the lamp holder (socket) hold it in the cage. You'll have to press both of them and push the lamp holder into the cage.

## **Filter Assembly and Moisture Sensor**



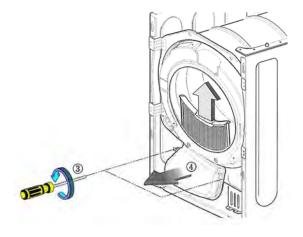
- 1. Remove the filter.
- Remove three screws holding the cover grid to the drum front.
- 3. Remove the cover grid.
- 4. Remove and replace the electrodes of the sensor.

## **Blower Housing**



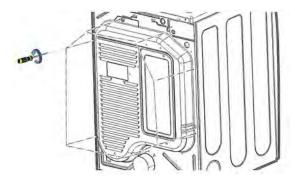
- 1. Remove the top plate.
- 2. Remove the front cover and the drum front.
- 3. Remove the belt and drum assembly. Set the drum aside on an open end so it won't be distorted.
- 4. Remove two screws and the cover (air guide).
- 5. Remove the bolt and washer that secure the fan (blower) to the shaft.
- 6. Remove the fan from the shaft and housing.
- 7. Remove the two motor clamps and lift out the motor. To release the clamps, press the hook end with a large screwdriver and lift it off the retaining tab.

## **Air Duct**



- 1. Remove the top plate.
- 2. Remove the front cover.
- 3. Remove the filter.
- 4. Remove the two screws at the top of the air duct.
- 5. Remove the air duct.

## **Back Cover**



The back cover actually comes off from the inside of the dryer, but the screws that hold it in place must be removed from the back.

- 1. Remove the top plate.
- Remove the front cover.
- 3. Remove the drum front.
- 4. Remove the drum and belt.
- 5. Remove the seven screws that secure the back cover.

**CAUTION!** There are sharp edges

here! Use extreme

caution to avoid an injury.

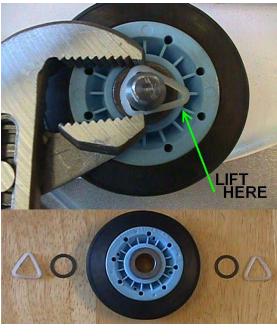
## Rollers



Replacing the rollers is relatively simple.



- 1. Remove the top plate.
- 2. Remove the front cover.
- 3. Remove the tub front.
- 4. Remove the drum and belt (only if you are replacing the back rollers.)
- 5. Use an open-end wrench to remove and replace the shaft.

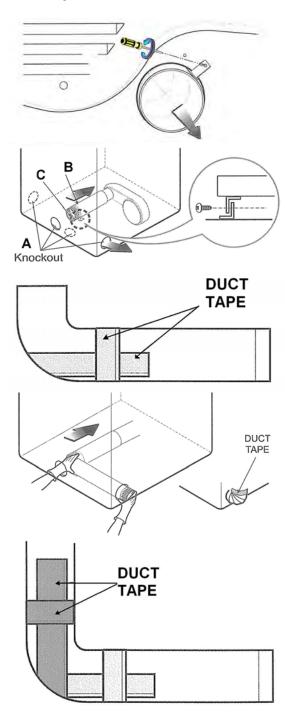


## NOTE:

If the shaft is OK and you are replacing only the roller, you can squeeze the triangular retainer to remove and replace the roller without having to remove the shaft from the machine.

Be sure to install the small bushings. These must be between the roller and the retainer on both sides of the roller.

## **Vent Replacement**



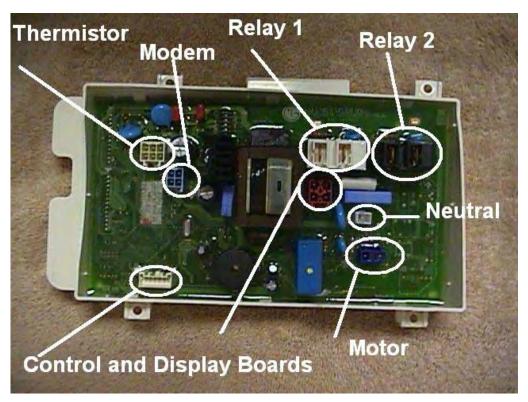
1. Use the VENT KIT to change the exhaust direction. (Part # 383EEL9001B)

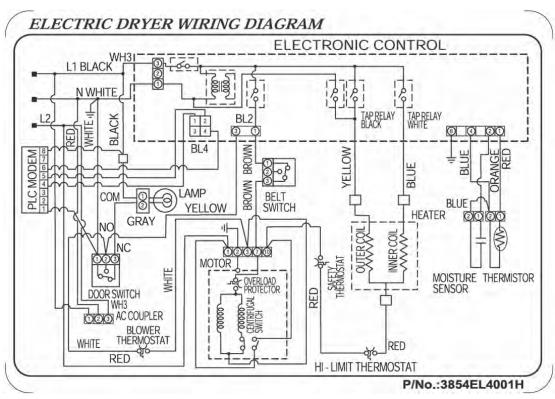
On the back of the dryer, remove the screw securing the exhaust duct and pull it out.

- 2A. Remove the knockout on the left, right\*, or bottom.
  - \* The right vent option is not available on gas dryers due to internal piping interference.
- 2B. Insert the replacement duct.
- 2C. Attach it with a screw.
- 3. Pre-assemble the elbow and the other piece of duct and secure the joint with duct tape.
- 4. Insert the pre-assembled elbow into the dryer through the side vent hole and connect it to the internal duct.
- 5. Tear off some pieces of duct tape about six inches long and secure the internal joint.
- 6. Connect the external vent pipe to the dryer.

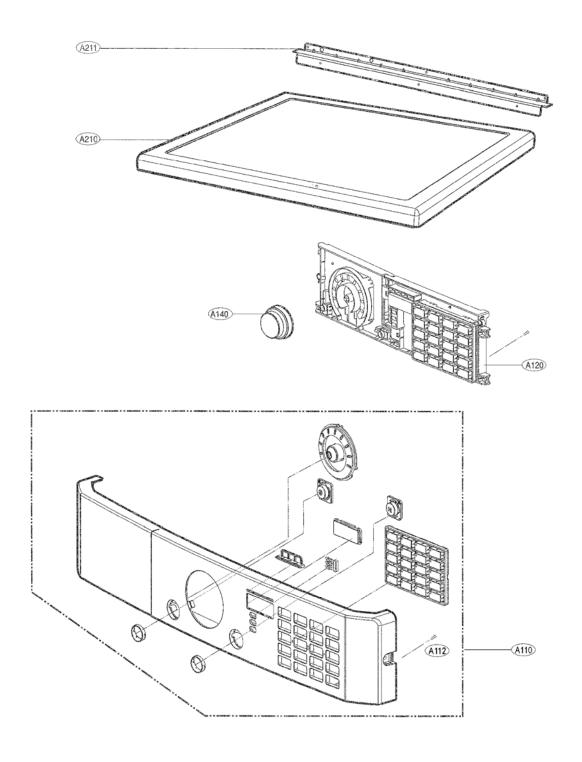
NOTE: Be sure to use real duct tape, which is heat-proof. Some imitation products that look like real duct tape but are not heat sensitive are available and will present a fire hazard.

# **MAIN BOARD**

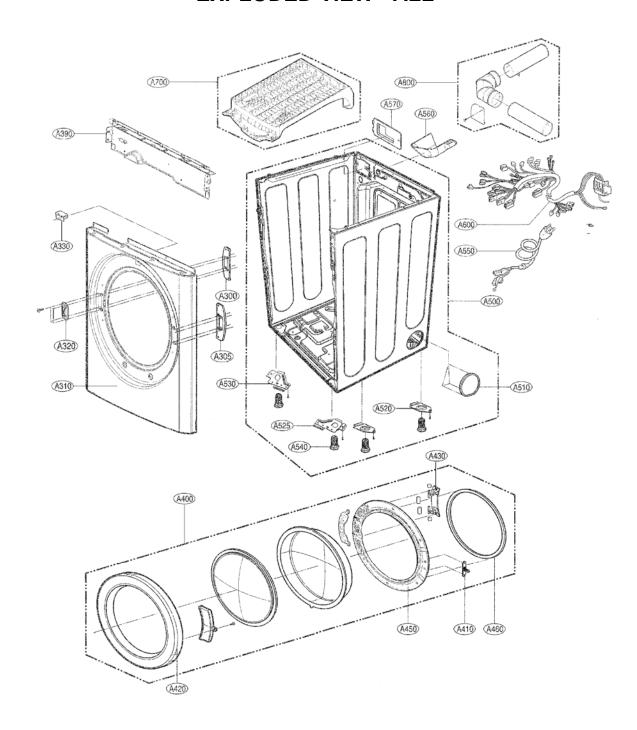




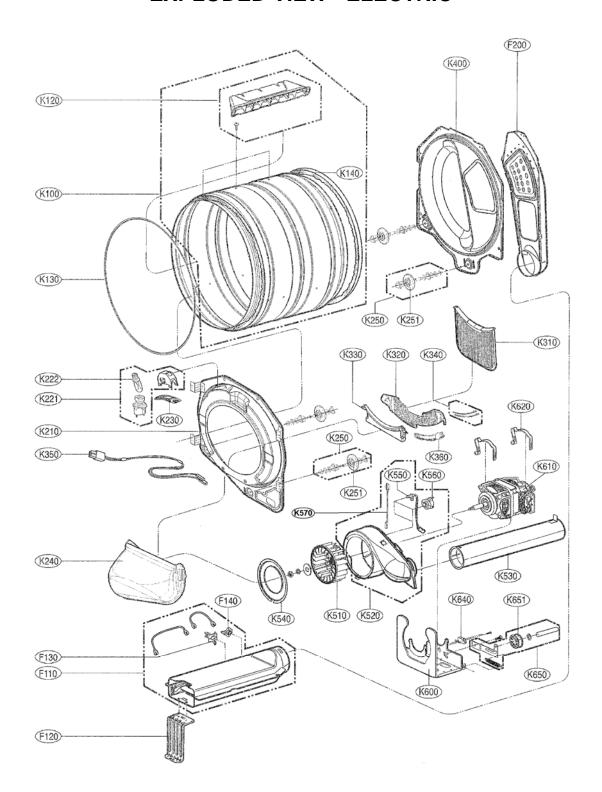
# **EXPLODED VIEW**



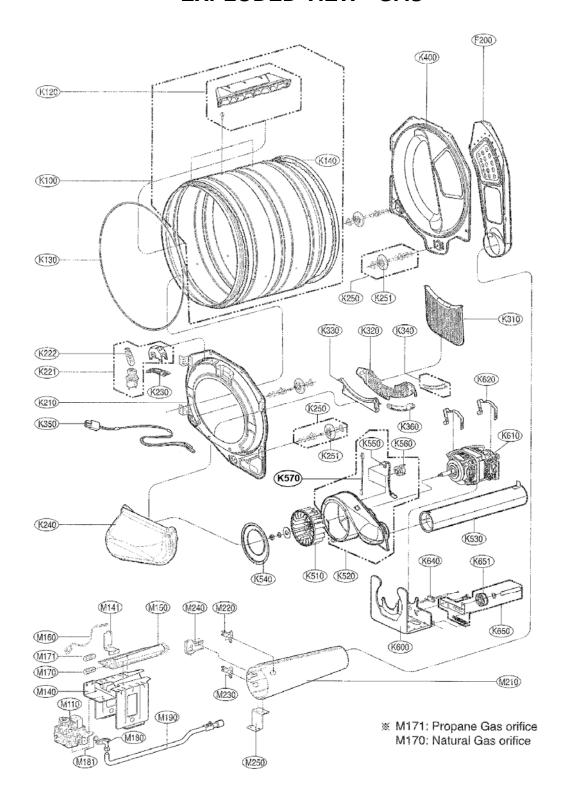
# **EXPLODED VIEW - ALL**



# **EXPLODED VIEW - ELECTRIC**



# **EXPLODED VIEW - GAS**



# **PARTS LIST**

Loc No.	DLE9577	DLG9588	Description
*001	3829EL3011A	3829EL3011A	Manual, Owners
*002	MAY31160801	3890EZ3553A	Box, Carton
*004	3828EL3005F	3828EL3005F	Manual, Service
A110	3721EL0011C	3721EL0011B	Panel Assembly, Control
A112	MBL31426502	MBL31426501	Cap, Screw
A120	6871EL2003A	6871EL1019B	PCB Assembly, Display
A130	6871EL1019A	6871EL2003A	PCB Assembly, Main
A140	4941ER3002A	4941ER3002A	Knob Assembly
A210	3457ER1006K	3457ER1006D	Plate Assembly, Top
A211	3300EL2001A	3300EL2001A	Plate, Upper
A300	4810EL3006A	4810EL3006A	Bracket, Hinge (L)
A305	4810EL3006B	4810EL3006B	Bracket, Hinge (R)
A310	3551EL0011B	3551EL0011B	Cover Assembly, Cabinet
A320	4027EL1001A	4027EL1001A	Locker Assembly
A330	6601EL3001A	6601EL3001A	Switch, Micro
A390	ADV30755801	ADV30755201	Frame Assembly
A400	3581EL0002A	3581EL0002A	Door Assembly
A410	4026EL3007A	4026EL3007A	Locker, Hook
A420	3212EL1014A	3212EL1014A	Frame, Door (Outer)
A430	4774EL2001A	4774EL2001A	Hinge
A450	3212EL1005B	3212EL1005B	Frame, Door (Inner)
A460	4986EL2004A	4986EL2004A	Gasket
A500	3091EL0003H	3091EL0003N	Cabinet Assembly
A510	5006EL3001C	5006EL3001D	Cap, Dryer Vent Option (2)
A520	4810EL3001A	4810EL3001A	Bracket, Base
A525	4810EL3009A	4810EL3009A	Bracket, Base
A530	4810EL3009B	4810EL3009B	Bracket, Base
A540	4778EL3001A	4778EL3001A	Leg (4)
A550		6411ER1005B	Power Cord Assembly (110 V, Gas)
A560	3550EL3007A		Cover, Guide
A570	3550EL3002A		Cover, Safety
A600	6877EL1022A	6877EL1023A	Main Wiring Harness
A700	3750EL1001B	3750EL1001B	Rack
A800	383EEL9001B	383EEL9001B	Side Vent Kit

Loc No.	DLE9577	DLG9588	Description
F110	5301EL1001A		Heater Assembly
F120	4810EL1007A		Bracket, Heater
F130	6931EL3003D		Thermostat
F140	6931EL3001E		Thermostat Assembly
F200	5209EL1001C	5209EL1001E	Duct Assembly
K100	3045EL1002E	3045EL1002E	Drum Assembly
K120	4432EL1002B	4432EL1002B	Lifter
K130	4400EL2001A	4400EL2001A	Belt, Poly V
K140	4036EL3001A	4036EL3001A	Gasket
K210	3044EL1001B	3044EL1001B	Tub, Drum (Front)
K221	6913EL3002C	6913EL3002C	Lamp Assembly
K222	6913EL3001A	6913EL3001A	Lamp, Incandescent
K230	3550EL2001A	3550EL2001A	Cover, Lamp
K240	5209EL1002A	5209EL1002B	Duct Assembly
K250	4581EL2002A	4581EL2002A	Roller Assembly (4)
K251	4581EL3001A	4581EL3001A	Roller (4)
K310	5231EL1003B	5231EL1003B	Filter Assembly, Lint
K320	3550EL1006B	3550EL1006B	Cover, Guide
K330	4974EL1003B	4974EL1003B	Guide, Filter
K340	6500EL3001A	6500EL3001A	Sensor
K350	6631EL3003B	6631EL3003B	Single Harness
K351	6631EL1005A	6631EL1005A	Cable, Assembly
K360	4930EL2004B	4930EL2004B	Holder
K400	3044EL0002B	3044EL0002B	Tub, Drum (Rear)
K510	5835EL1002A	5835EL1002A	Casing Assembly
K520	3661EL1001F	3661EL1001F	Housing Assembly, Blower
K530	5209EL1006A	5209EL1006A	Duct Assembly
K540	4975EL3001A	4975EL3001A	Guide Assembly
K550	6323EL2001B	6323EL2001B	Thermistor, NTC
K560	6931EL3002A	6931EL3002A	Thermostat
K570	6501EL2001A	6501EL2001A	Sensor (Exhaust duct)
K600	4810EL1002A	4810EL1002A	Bracket, Motor
K610	4681EL1008A	4681EL1008A	Motor Assembly, AC, Drum
K620	4860EL3001A	4860EL3001A	Clamp (2)
K640	3W40025D	3W40025D	Switch, Micro
K650	4561EL3002A	4561EL3002A	Pulley Assembly, Motor
K651	4560EL3001A	4560EL3001A	Pulley, Idle

Loc No.	DLE9577	DLG9588	Description
M110		5221EL2002A	Valve Assembly, Gas
M140		4974EL1001A	Guide, Burner
M141		4810EL3002A	Bracket, Base
M150		5201EL3001A	Pipe Assembly
M160		5318EL3001A	Igniter
M170		4948EL4001B	Orifice, Natural Gas
M171		4948EL4002B	Orifice Kit, Propane Conversion
M180		4932EL4001A	Connector, Pipe
M181		4036EL3002A	Gasket
M190		5201EL2001A	Pipe Assembly
M210		3016EL1001A	Funnel
M220		6931EL3004B	Thermostat Assembly
M230		6931EL3003C	Thermostat
M240		6501EL3001A	Sensor Assembly
M250		4980EL3001A	Supporter, Holder

NOTES

