LG

U.S.A Website: http://us.lgservice.com
Canadian Website: http://lg.ca

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.

DLE1501W DLG1501W

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.

⚠ WARNING !

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. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses. Failure to follow all of the safety warnings in this manual could result in property damage, personal injury or death.

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.

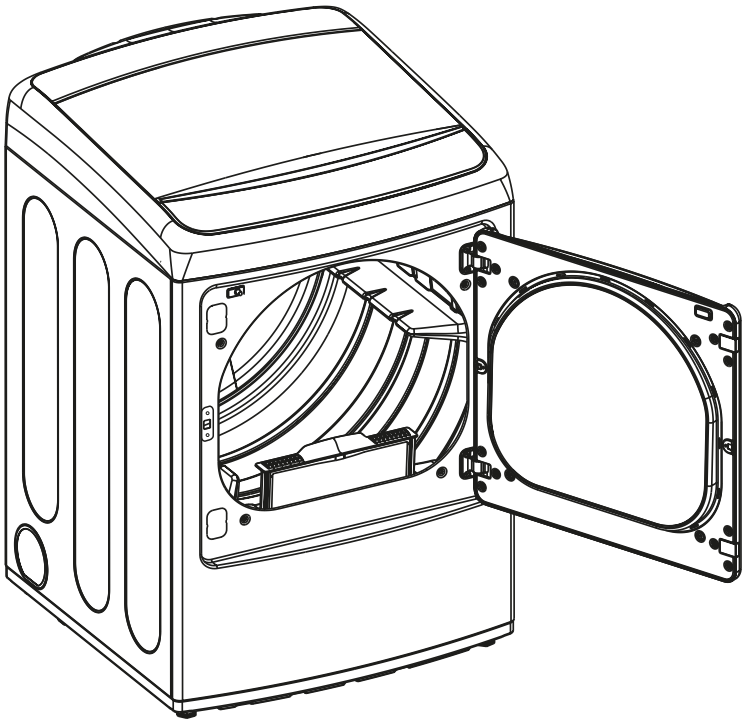
- OR -

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.

CONTENTS

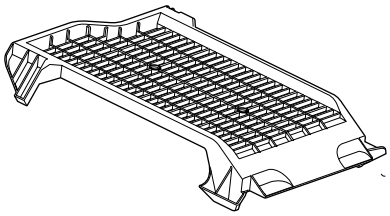
1 SPECIFICATIONS



- Name: Electric and Gas Dryer
- Power supply: Refer to the rating label on the dryer.
  Gas: 120 VAC Electric: 240VAC
- Size: 27″ X 40 3/16″ X 29″ (inch)
- Dryer capacity: IEC 7.3 cu.ft.
- Weight: Gas 136.4 lbs (61.89kg)
  Electric 133.7lbs (60.63kg)

Specifications are subject to change by manufacturer.

■ ACCESSORY (Optional accessory)

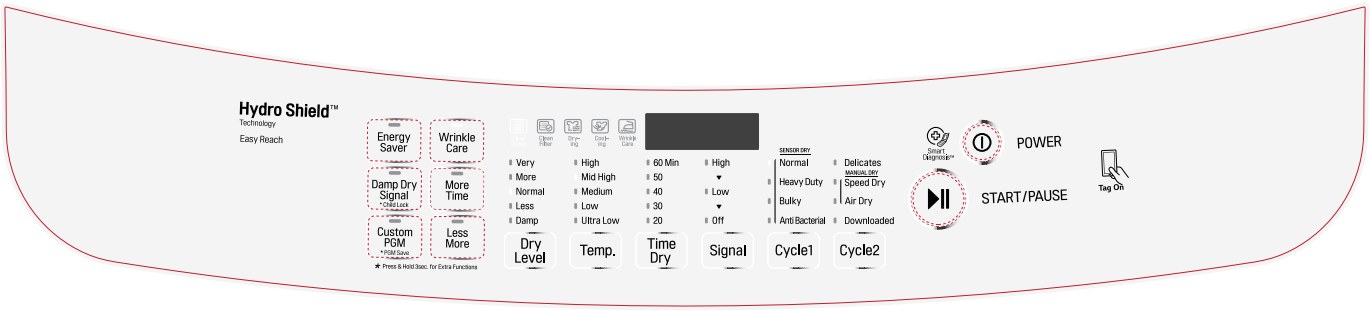


Dryer rack (1 each)

See page 6 of this manual for usage instruction.

ITEM		DLE1501W DLG1501W		REMARK
Material & Finish	Color	Blue White		
	Top Plate	Blue White		
	Door Trim	Silver		
POWER SUPPLY		ELEC.	120/240V 60Hz (26A)/120/208V 60Hz (23A)	
		GAS	120V/60Hz (11.5A)	
ELECTRICITY CONSUMPTION	MOTOR	250W (4.5A)		AC 120V
	HEATER	5400W (22.5A)		AC 240V(ELECTRIC MODEL)
		4100W (21A)		AC 208V(ELECTRIC MODEL)
	LAMP	15 W (0.2A)		AC 120V
	GAS VALVE	13 W (0.11A) x 2		AC 120V(GAS MODEL)
	INLET VALVE	14W (1.2A)		DC 12V
CONTROL TYPE		Electronic		
DRUM CAPACITY		7.3 cu.ft.		
Weight (lbs) - Net		Gas 136.4lbs (61.89kg), Electric 133.7lbs (60.63kg)		
No. of Programs		12		
No. of Dry Options		7		
No. of Temperature Controls		5		
No. of Dry Levels		5		
Sound levels		3(High/Low/off)		
Sensor	Moisture	Available		Electrode sensor
	Temperature	Available		Thermistor
Reversible Door		Available		
Drum		Alcosta		
Child Lock		Available		
Interior Light		Available		
Product (WxHxD)		27″ x 40 3/16″ x 29″ (inch)		
Packing (WxHxD)		29 ½″ x 40 3″x 30 ¾″ (inch)		

2 FEATURES AND BENEFITS

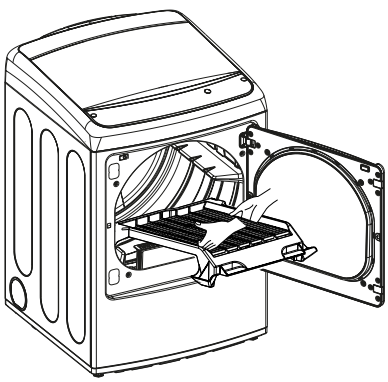


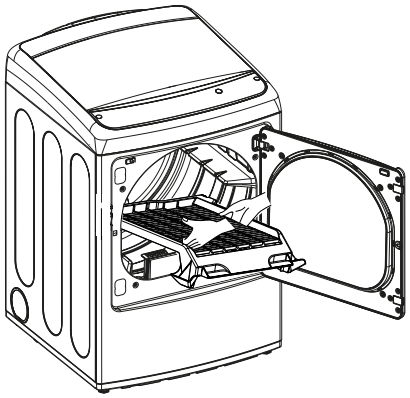
3 INSTALLATION INSTRUCTIONS

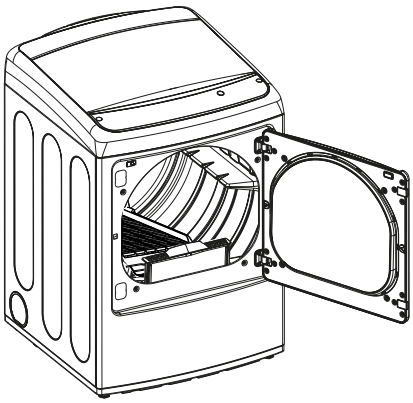
1 Open the door. Hold the dryer rack with both hands.

2 Put the dryer rack into the drum

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

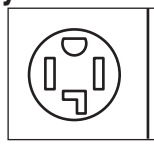






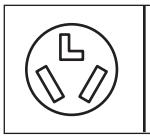
* Optional accessory

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).

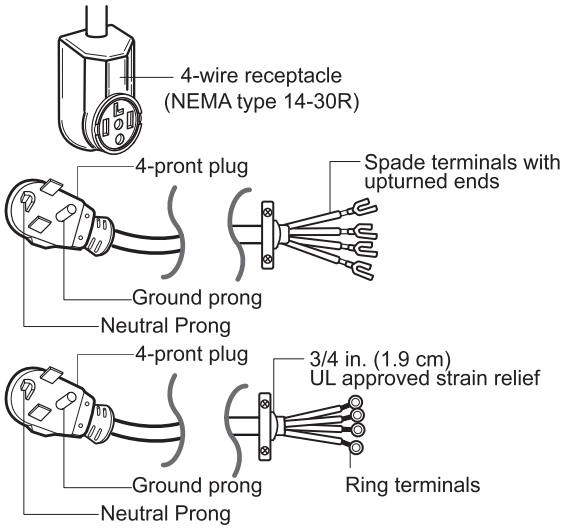


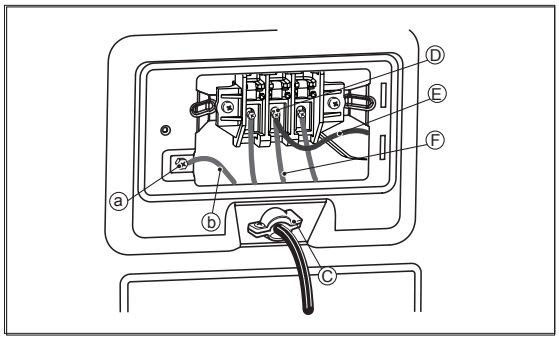
3-wire receptacle (NEMA type10-30R)

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.

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.

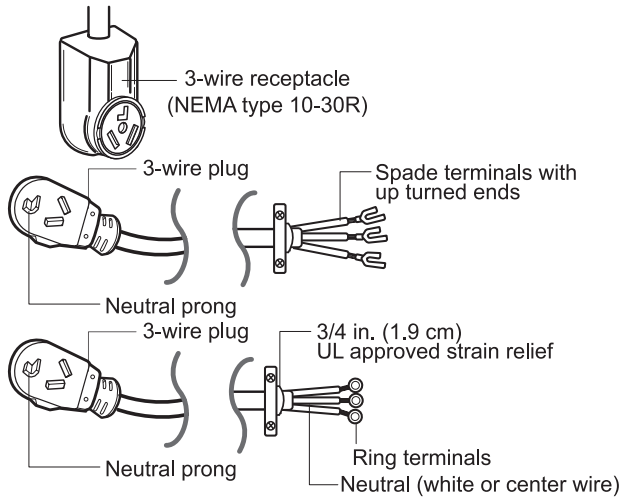




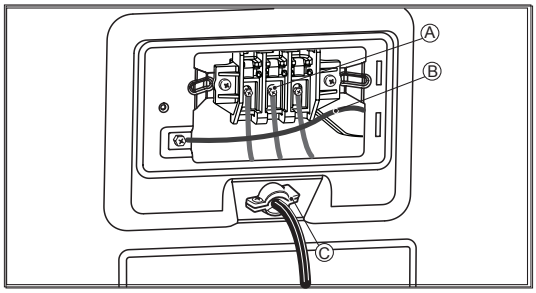
1. Connect the neutral wire (white) of the power cord to the center terminal block screw.
2. Connect the red and black wires to the left and right terminal block screws.
3. Connect the ground wire (green) of the power cord to the external ground screw. Remove the neutral ground wire of appliance and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

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

lf 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.**



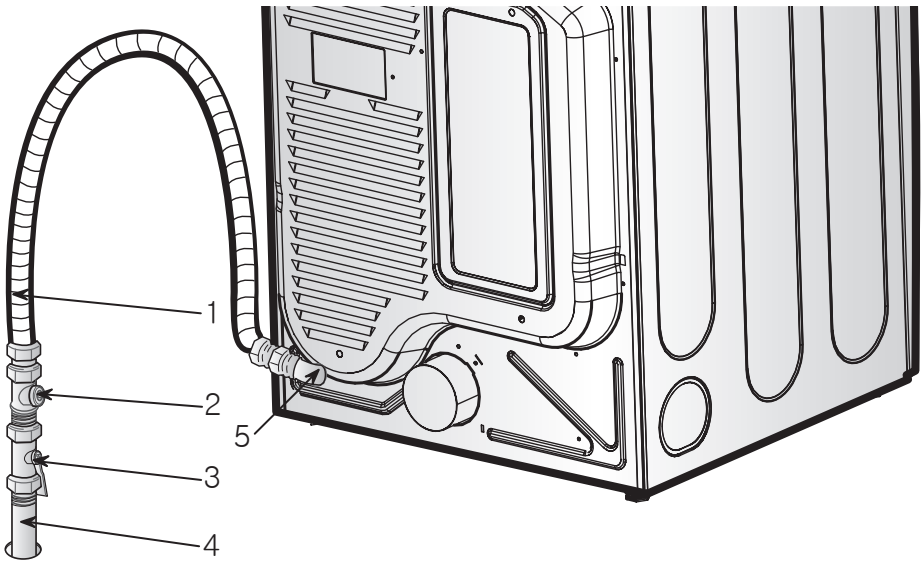
1. Connect the neutral (white or center) wire (B) to the center, silver colored, screw (A) and tighten securely.
2. Connect the other two power cord wires (red and black) to the left and right terminal block screws and tighten securely.
3. Tighten the strain relief screws (C) securely.



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 LP (Liquefied Petroleum) gas connection, refer to section on Gas Requirements.



1 New Stainless Steel Flexible Connector
– Use only if allowed by local codes (Use Design A.G.A. Certified Connector)

2 1/8"NPT Pipe Plug (for checking inlet gas pressure)

3 Equipment Shut-Off Valve
-Installed within 6'(1.8 m) of dryer

4 Black Iron Pipe
Shorter than 20' (6.1 m) – Use 3/8" pipe
Longer than 20' (6.1 m) – Use 1/2" pipe

5 3/8" NPT Gas Connection

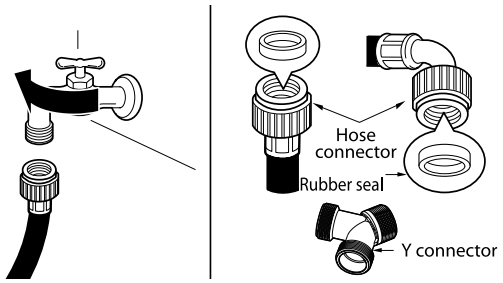
Connect Inlet Hose (Only for Steam model)

The dryer must be connected to the cold water tap using the new water supply hose. Do not use old hoses

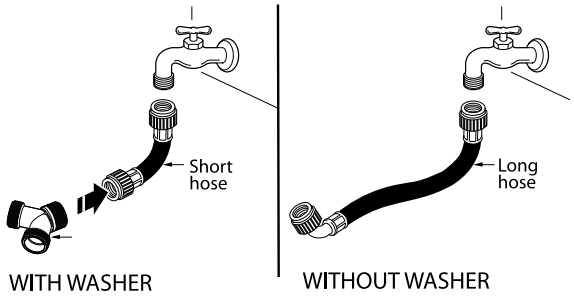
NOTE

- Water supply pressure must be between 21.8 PSI and 116 PSI (150~800 kPa).
- Do not strip or cross-thread when connecting inlet hose to the valve.
- If the water supply pressure is more than 800 kPa, a decompression device should be installed.
- Periodically check the condition of the hose and replace the hose if necessary.
- Replace inlet hoses after 5 years of use to reduce the risk of hose failure.
- Record hose installation or replacement dates on the hoses for future reference.

1. Check rubber seal in the inlet hose. Two rubber seals are supplied with each inlet hose. They are used for preventing water leaks. Make sure the connection to the cold water tap is tight.



2. Check the installation type.



Connect all water supply hoses tightly by hand and then tighten another 2/3 turn with plier.

WITH WASHER: When connecting the dryer to the same faucet as a washer.

a. Shut off the cold water tap and remove the washer hose.

b. Connect the short hose to the Y-conncetor using one of the hose washers.

c. Connect the other end of the short hose to the cold water faucet.

d. Connect the long dryer hose to one side of theY-connector and connect the washer hose to the other side.

WITHOUT WASHER: If the dryer does not share the cold water tap with a washer.

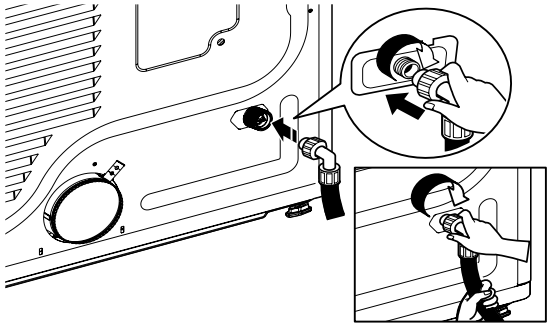
a. Connect the straight end of the long hose to the cold water faucet.

NOTE

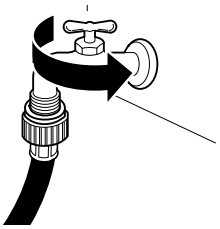
- Before connecting the water line to the dryer, flush several gallons of water into a drain or bucket. This will help prevent foreign particles such as sand and scale from cloggong the dryer inlet valve.
- Do not overtighten. Damage to the coupling can result.

3. Connect hose to dryer.

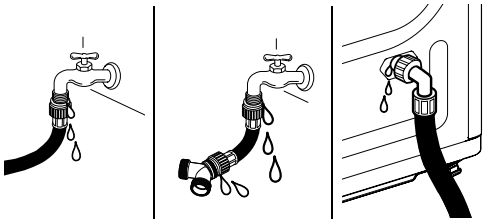
- Connect the water supply hose to the dryer inlet valve tightly by hand and then tighten another 2/3 turn with plier.
  Make sure that there are no kinks in the hoses and that they are not crushed.



4. Turn on cold water faucet.



5. Check for leaks at the Y-connector (if used) and all hoses.



NOTE

- If any leaks are found, shut off the water faucet, remove the hose and check the condition of the hose washer.

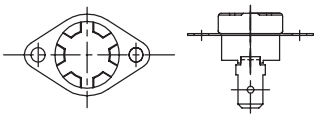
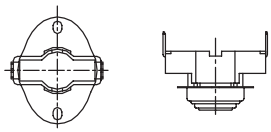
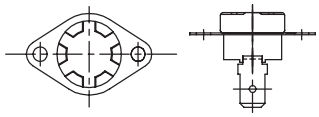
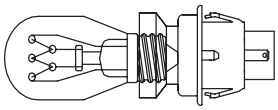
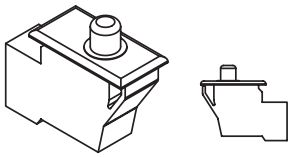
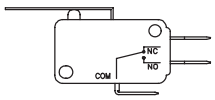
4 DRYER CYCLE PROCESS

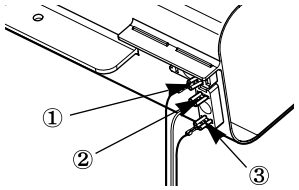
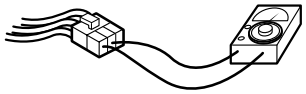
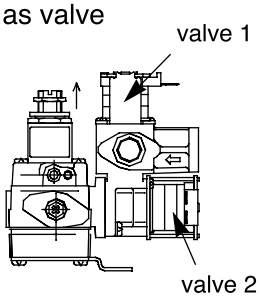
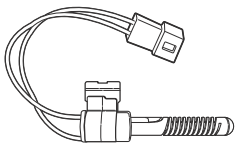
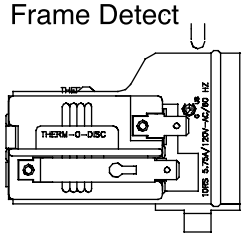
Cycle		Default			Conditions of operation and termination				
					Drying		Cooling		Wrinkle care
		Temp-erature	Dry Level	Display time	Electro-sensor	Temp-Control	Default time	Temp-Control**	Time
Sensor Dry *	ANTI BACTERIAL	HIGH	Very Dry	70min	Saturation	68±4℃ 155±7°F	5min	47±5℃ 113±9°F	3Hr
	BULKY	MEDIUM	Normal / Adjustable	55min	Saturation	60±4℃ 140±7°F	5min	47±5℃ 113±9°F	
	HEAVY DUTY	HIGH	Normal / Adjustable	54min	Saturation	68±4℃ 155±7°F	5min	47±5℃ 113±9°F	
	NORMAL	MEDIUM	Normal / Adjustable	41min	Saturation	60±4℃ 140±7°F	5min	47±5℃ 113±9°F	
	DELICATES	LOW	Normal / Adjustable	**28min**	Saturation	52±3℃ 126±5°F	5min	47±5℃ 113±9°F	
Manual Dry **	SPEED DRY	HIGH	Off	25min	Saturation	(68±4℃) (155±7°F)	5min	47±5℃ 113±9°F	3Hr
	AIR DRY	NO HEAT	Off	30min	Saturation	NO HEATER	5min	N/A	
Load			Heater		→				Off Time: 6min / On Time: 10sec
			Motor		Temperature Control for each cycle				

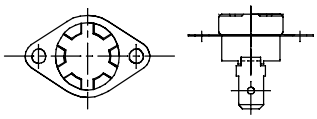
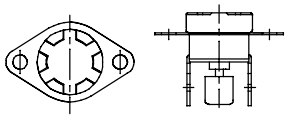
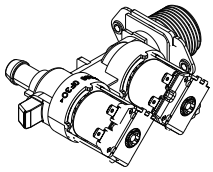
* Sensor dry: Dry Level is set by users.
** Manual dry: Temperature control is set by users.
Default settings can be adjusted by users.

5 COMPONENT TESTING INFORMATION

⚠ 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  • Check Top Marking: N130	Measure resistance of terminal to terminal ① Open at 266 ± 12°F (130 ± 7°C) ②Auto reset 31°F (-1°C) Same shape as Outlet Thermostat.	If thermal fuse is open must be replace ① Resistance value ≒∞ ② Continuity (250°F ↓) < 1Ω	• Heater case-Safety • Electric type
2.Hi limit Thermostat (Auto reset) 	Measure resistance of terminal to terminal ① Open at 257 ± 9°F (125 ± 5°C) ② Close at 221 ± 9°F (105 ± 5°C)	① Resistance value ≒∞ ② Resistance value < 5Ω	• Heater case - Hi limit • Electric type
3.Outlet Thermostat (Auto reset)  • Check Top Marking: N85	Measure resistance of terminal to terminal ① Open at 185 ± 9°F (85 ± 5°C) ② Close at 149 ± 9°F (65 ± 5°C) Same shape as Thermal cut off.	① Resistance value ≒∞ ② Resistance value < 5Ω	• Blow housing - Safety • Electric type
4. Lamp holder 	Measure resistance of terminal to terminal	Resistance value: 80Ω ~ 100Ω	
5. Door switch 	Measure resistance of the following terminal 1) Door switch knob: open ① Terminal: COM - NC(1-3) ② Terminal: COM - NC (1-2) 2) Door switch push: push ① Terminal: COM - NC (1-3) ② Terminal: COM - NC (1-2)	① Resistance value < 1Ω ② Resistance value ≒∞ ① Resistance value ≒∞ ② Resistance value < 1Ω	The state that knob is pressed is opposite to open condition.
6. Idler switch 	Measure resistance of the following terminal: COM - NC	1. lever open ① Resistance value < 1Ω 2. Lever push (close) ② Resistance value ≒∞	

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	① Resistance value: 20Ω ② Resistance value: 20Ω ③ Resistance value: 40Ω	• Electric type
8. Thermistor 	Measure resistance of terminal to terminal Temperature condition: 58°F ~ (10~40°C) 58°F ~ 104°F (10~40°C)	Resistance value: 10Ω	• Heater case Hi limit • Electric type
9. Motor			• See Page 13
10. Gas valve 	Measure resistance of the following terminal ① Valve 1 terminal ② Valve 2 terminal	Resistance value : 1.5~2.5kΩ	• Gas type
11. Igniter 5318EL3001 	Measure resistance from terminal to terminal.	Resistance value : 100~800 kΩ	• Gas type
12. Frame Detect 	Measure resistance of termina to terminal ① Open at 370°F (Maximum) ② Close at 320°F	① Resistance value ≒∞ ② Resistance value < 1Ω	• Gas type

Component	Test Procedure	Check result	Remark
13. Outlet Thermostat (Auto reset)  Check Top Marking: N95	Measure resistance of terminal to terminal ① Open at 203 ± 7 F (95 ± 5 C) ② Close at 159 ± 9 F (70 ± 5 C)	① Resistance value ≒∞ ② Continuity < 1Ω	Gas type Gas funnel
14. Outlet Thermostatt (Manual reset)  Check Top Marking: N110	Measure resistance of terminal to terminal ① Open at 212 ± 12 F (110 ± 7 C) ② Manual reset	If thermal fuse is open must be replaced ① Resistance value ≒∞ ② Continuity < 1Ω	Gas type Gas funnel
15. Inlet. valve 	Measure resistance of the Following terminal • Left picture -.plate	DC 12V Limit current: 550mA Coil resist: 24Ω±10%	Electric type

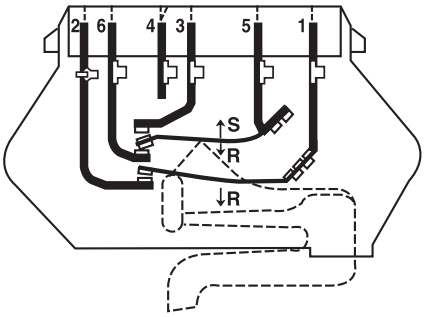
6 MOTOR DIAGRAM AND SCHEMATIC

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

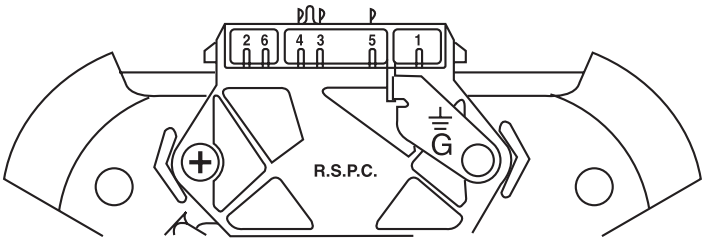
■ Contact On / Off by Centrifugal Switch

Terminal No		①	②	③	④	⑤	⑥	Remark
Mode	Resistance							
Motor STOP	2 ~ 3Ω				●	●		Motor
	≒ ∞	●	●					Heater (Electric Models)
	≒ ∞			●			●	Gas Valve (Gas Models)
Motor RUN	3 ~ 5Ω				●	●		Motor
	< 1Ω	●	●					Heater (Electric Models)
	< 1Ω			●			●	Gas Valve (Gas Models)

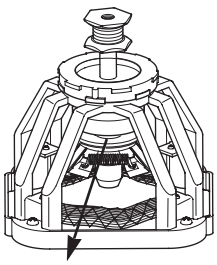
····· Open
——— Close



SWITCH SHOWN IN START POSITION

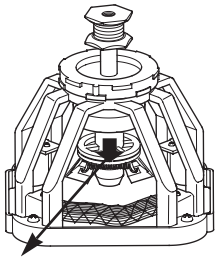


■ STOP MODE
(When Motor does not operate)



Centrifugal switch

■ .RUN MODE
(Motor operates)

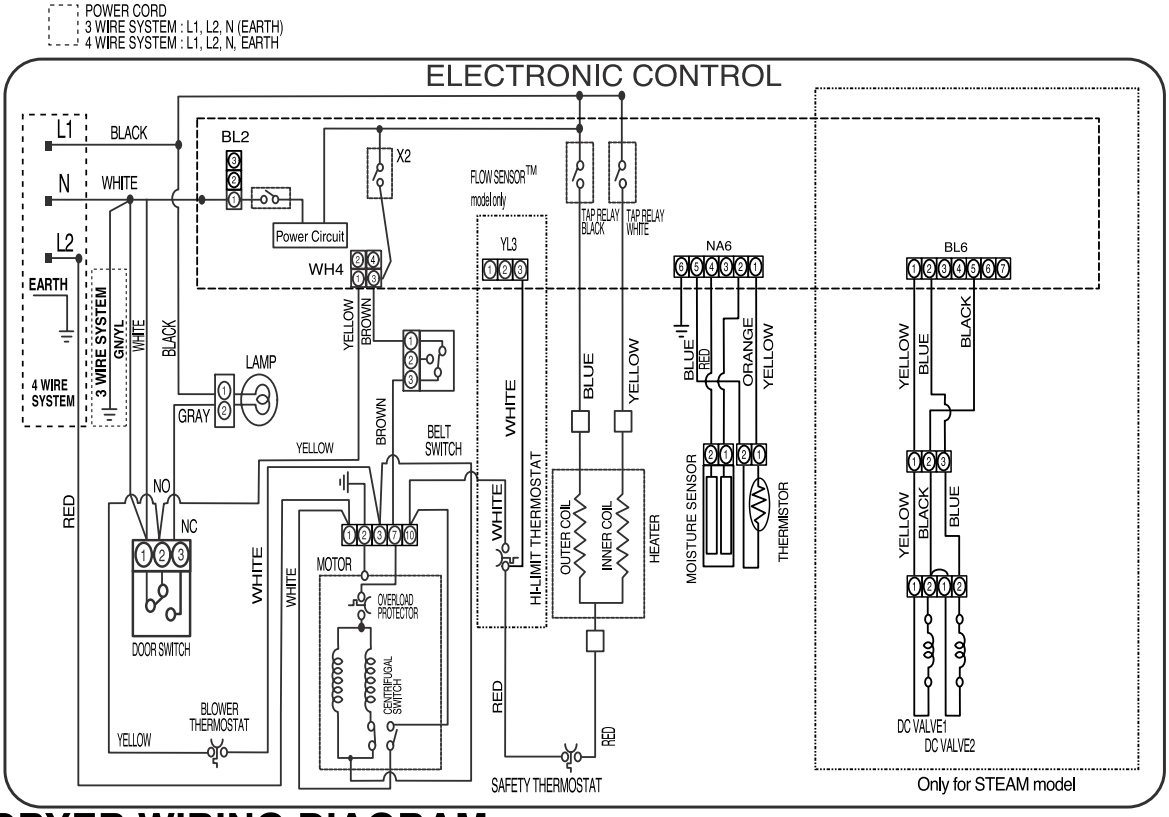


Centrifugal switch
(Pull Drive forward)

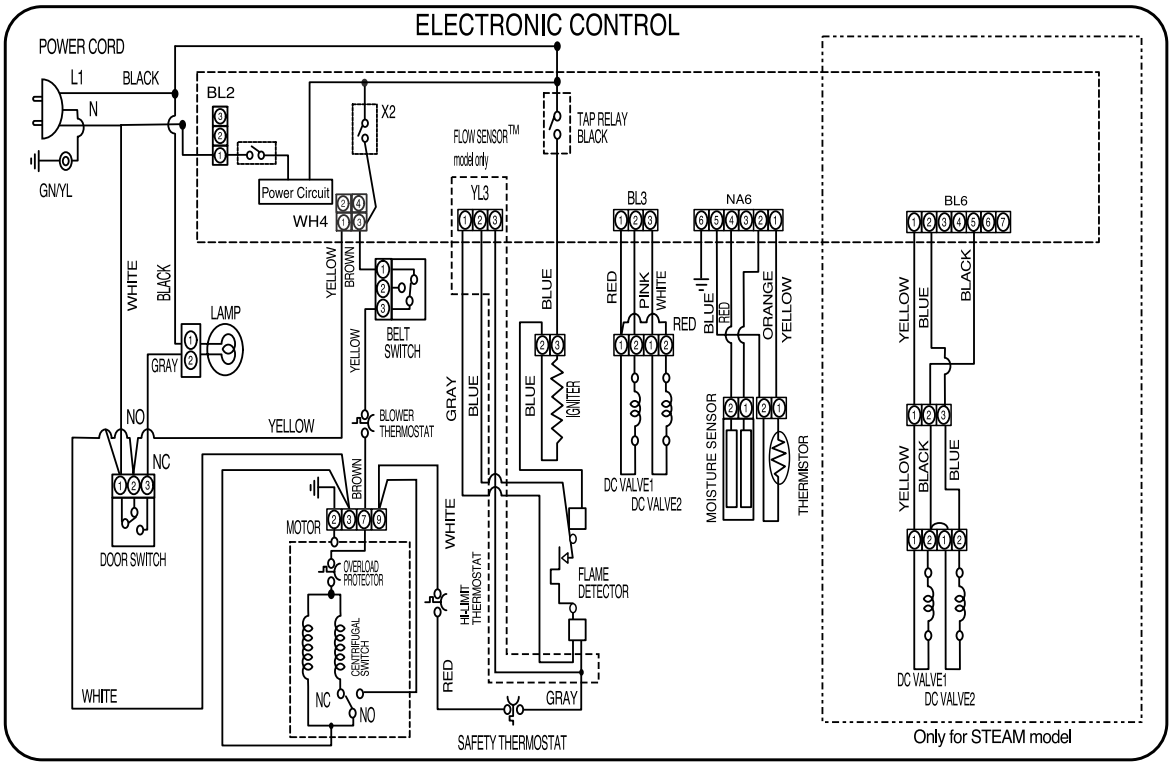
7 WIRING DIAGRAM

⚠ CAUTION Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangrous operation. Verify proper operation after servicing.

ELECTRIC DRYER WIRING DIAGRAM



GAS DRYER WIRING DIAGRAM

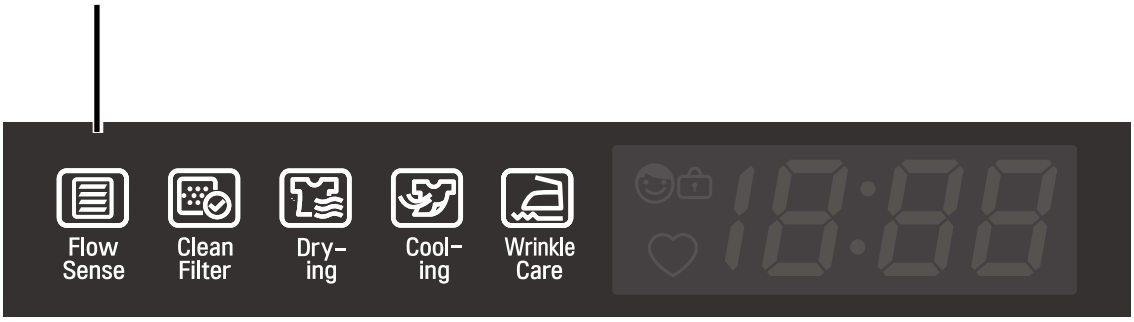


8 FLOW SENSOR FUNCTION

8-1 Flow sensor

This FlowSense™ function detects the clogging or blocking of ducts.
Clogged duct vents or hoses decrease e fficiency in drying clothes. Clogged vents can also cause fire.
This function alarms you, when to clean the ducts.
When the alarm about duct clogging is on display of the panel, your duct vents should be cleaned by yourself or serviceman.

Flow Sensor Function



8-2 Installation test

Installation test (Exhaust check)

Once you have completed the installation of the dryer, use this test to make sure the condition of the exhaust system is adequate for proper operation of the dryer. This test should be performed to alert you to any serious problems in the exhaust system of your home.

- Your dryer features FLOW SENSE™, an innovative sensing system that automatically detects blockages and restrictions in dryer ductwork. Keeping ductwork clean of lint buildup and free of restrictions allows clothes to dry faster and reduces energy use.

NOTE

The dryer should be cool before starting this test. If the dryer was warmed up during installation, run the AIR DRY cycle for a few minutes to reduce the interior temperature.

To activate the Installation test:

1. Press and hold TEMP.CONTROL and Signal buttons at the same time. While holding these buttons, press POWER ON/OFF

2. The dryer will show InS in the number display to indicate that it is in duct condition testing mode.

3. Press the START/PAUSE button.
   The dryer will run for approximately 2 minutes to test for blockages or restrictions to air flow in the ductwork.

Check the display for results.
During the two minute test cycle, monitor the FLOW SENSE display on the control panel. If FLOW SENSE is displayed, when the cycle ends, the exhaust system is adequate. If the exhaust system is severely restricted, the display will show FLOW SENSE. Other problems may also be shown with error codes. Refer to the next page for error code details and solutions.

Lighting : Restricted

FLOW SENSE indicates that the exhaust system is severely restricted. Have the system checked immediately, as performance will be poor.

END of Cycle.
At the end of the test cycle, End will display. The test cycle will end and the dryer will shut off automatically after a short delay.

Installation test (Exhaust check) (cont.)

- **Check the Error Code before you call for service**

Error Code	Possible Causes	Solutions
tE	• Temperature sensor failure	• Turn off the dryer and call for service.
HS	• Humidity Sensor failure.	• Turn off the dryer and call for service.
PS , PF *or* nP	• Electric dryer power cord is not connected correctly, or house power supply is incorrect. • House fuse is blown, circuit breaker has tripped, or power outage has occurred.	• Check the power supply or the connection of power cord to the terminal block. Refer to the Connecting Electric Dryers section of this manual for complete instructions. • Reset circuit breaker or replace fuse. Do not increase the fuse capacity. If the problem is a circuit overload, have it corrected by a qualified electrician.

- **Check the duct condition**
  If the test displays FLOW SENSE, check the exhaust system for restrictions and damage. Repair or replace the exhaust system as needed.

NOTE

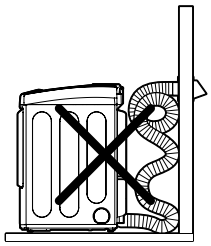
When the dryer is first insralled, this test should be performed to alert you to any existing problems with the exhaust duct in your home. However, since the test performed during normal operation provides more accurate information on the condition of the exhaust duct than does the installation test, FLOW SENSE displayed during the two tests may not be the same.

Do not interrupt the test cycle, as this could result in the wrong results.

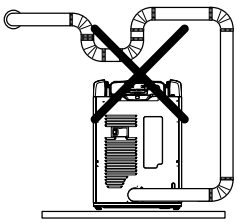
Even if FLOW SENSE is not displayed during the test cycle, some restrictions may still be present in the exhaust system.
Refer to the Venting the Dryer section of this manual for complete exhaust system and venting requirements.

Restricted or blocked airflow

Avoid long runs or runs with multiple elbows or bends.

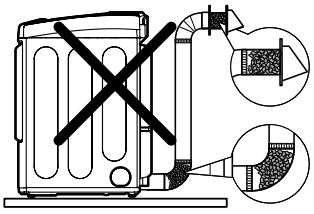


Excess or crushed transition duct

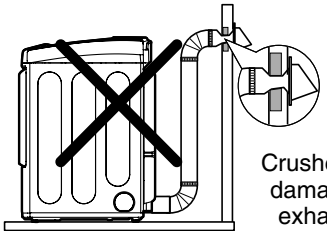


Too many elbows or exhaust too long

Check for blockages and lint buildup.



Make sure the ductwork is not crushed or restricted.



Crushed or damaged exhaust

8-3 Troubleshooting for flow sensor dryer

1. FLOW SENSE indicator light is on

Is lint filter full? → Yes → Clean lint filter before every load

No ↓

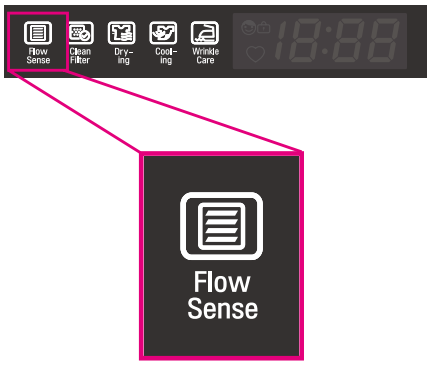
Is duct clogged? → Yes → Check & clean duct.

2. FLOW SENSE indicator light is on and does not disappear.

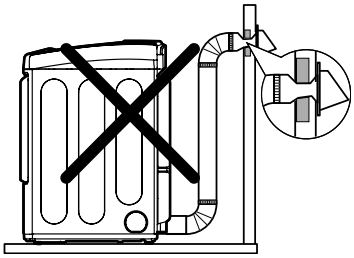
1. FLOW SENSE indicator light is on even when vents have been clean and even when the vents are off.
   → **This is Normal.** After flow sensor recheck full next cycle, flow sensor is reset.
   (Flow sensor bars will disappear after dryer has operated two cycle)

■ Bars Are Displayed but Don't Disappear

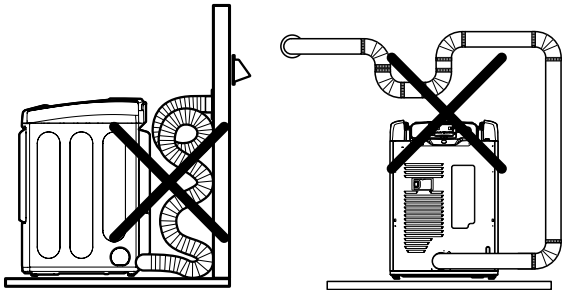
*Control Panel



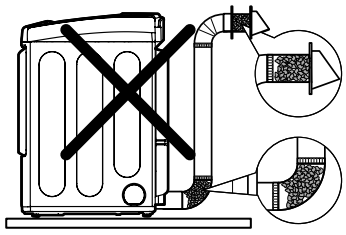
Make sure that the ductwork is not crushed or restricted.



Avoid long runs of ducts or runs with multiple elbows or bends.



Check for blockages and lint build up.



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

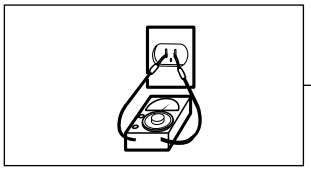
1. UNIT must be in standby (unit plugged in, dispaly off)
2. press POWER while pressing MORE TIME and LESS TIME simultaneously.
3. press START/PAUSE button to advance through diagnostics.

Pressing the START/PAUSE	CHECKING ACTION	DISPLAY	CHECKPOINT
None	Electric control & Temperature sensor	L04(Elec Type) L05(Gas Type)	Standard
		U-	MAIN PGM
		d-	DISPLAY PGM
		tE	Thermistor open
			Thermistor shorted
Once	Motor+Controller	235 = Low moisture 30 = High moisture	Motor runs
			Displays Moisture Sensor Operation If moisture sensor is contacted with damp cloth. The display number is below180 in normal condition.
Twice	■ ELECTRIC TYPE Motor+Heater1(2700 W) ■ GAS TYPE Motor	Current Temp. (5~70)	■ ELECTRIC TYPE Heater 1 is energized - 2700 W ■ GAS TYPE Valve not energized (Temperature in the drum is displayed in degrees C.)
3 times	■ ELECTRIC TYPE Motor+Heater1+Heater2 (5400W) ■ GAS TYPE Motor+Gas valve	Current Temp. (5~70)	■ ELECTRIC TYPE: Heater 1 and heater 2 are energized - 5400 W ■ GAS TYPE: Gas valve is energized (Temperature in the drum is displayed in degrees C.)
4 times	Motor, Heater off, Steam on	0:00	
5 times	Steam off	0:00	
6 times	Loads off, Controller off		Power off

✳ To check pump operation:
At the fourth press of the test mode, if the AD value of the pump is higher than 10 on the display, the pump is normal.
If it is lower than 10, E5 error will be displayed.

■ Test 1 120V AC Electrical supply

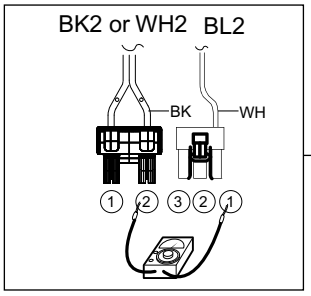
Caution	When measuring power, be sure to wear insulated gloves, to and avoid an electric shock
Trouble Symptom	No power was applied to controller. (LED, LCD Display off)
Measurement Condition	With dryer power on; connector linked to controller.



Check the outlet, is the voltage 110V ~ 125V AC?

NO → ï Check the fuse or circuit breaker.

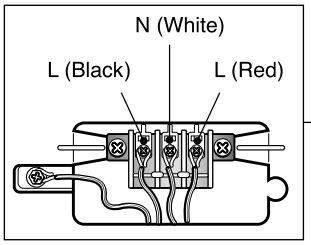
YES ↓



Check if the voltage measured between Connector BK2 or WH2-② (Black Wire) Linked to the Controller and BL2- ① (White Wire) Is 110~125V?

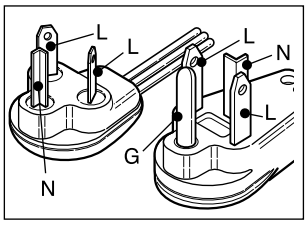
NO → ï Check if Power Cord is properly connected.

YES ↓



① Check if the Controller wire is disconnected.
② Check if Terminal Block and Power Cord are connected (Check Plug).
- Does Power Cord N neutral line match to center terminal N neutral line?

NO → ï Reconnect the controller.

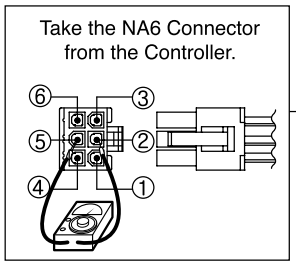


YES ↓

Replace controller.

■ Test 2 Thermistor Test --- Measure with Power Off

Caution	Before measuring resistance, be sure to turn power off, and do voltage discharge. (When discharging, contact the metal plug of power cord with the ground.)
Trouble Symptom	① During Diagnostic Test, tE1 and tE2 error occur. ② During operation, heater would not turn off, or remains on. ③ Difference between actual and sensed temperature is significant.
Measurement Condition	After turning power off, measure the resistance.

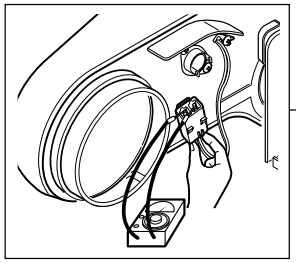


Short with metal to the NA6 connectorís Pin ① (Yellow Wire) and Pin ⑤ (Blue Wire) to controller

YES

ï Check if control and the 6 pin connector are properly connected.
ï Replace controller

NO



Check if resistance is in the range of Table 1 when measuring resistance between terminals after separating harness from thermistor assembly connector.

NO

ï Replace thermistor.

YES

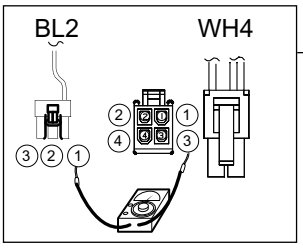
Check harness-linking connector.

■ Table 1. Resistance for Thermistor Temperature.

Air TEMP. [℉(℃)]	RES. [KΩ]	Air TEMP. [℉(℃)]	RES. [KΩ]	Air TEMP. [℉(℃)]	RES. [KΩ]
50℉ (10℃)	18.0	90℉ (32℃)	7.7	130℉ (54℃)	2.9
60℉ (16℃)	14.2	100℉ (38℃)	6.2	140℉ (60℃)	3.0
80℉ (21℃)	11.7	110℉ (43℃)	5.2	150℉ (66℃)	2.5
70℉ (27℃)	9.3	120℉ (49℃)	4.3	160∞F (71℃)	2.2

■ Test 3 Motor test

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	Drum will not rotate; no fan will function; no heater will work.
Measurement Condition	Turn the dryerís power off, then measure resistance.



Is resistance below 3Ω between Connector BL2 (White wire) and WH4 ③ (Brown wire)?
※ Measure while door is closed.

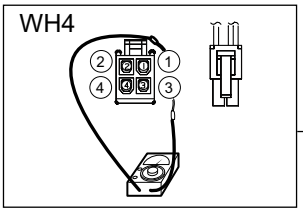
YES → ï Replace Control. (Relay check)
ï Check Controller connector.

NO ↓

Is resistance below 3Ω between Connector BL2(White wire) and WH4 ① (Yellow wire)?
※ Measure while door is closed.

NO → ï Check if Door flame presses door switch knob.
ï Check Door Switch.
ï Check Harness connection.

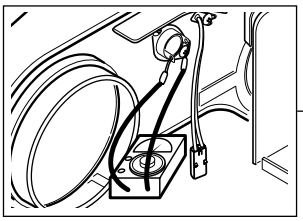
YES ↓



Is resistance below 3Ω between Connector WH4 ①(Yellow wire) and WH4③(Brown wire)?

YES → ï Replace Control. (Relay check)
ï Check Controller connector.

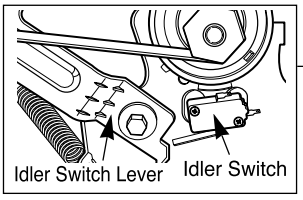
NO ↓



Is resistance below 1Ω between terminals of Outlet Thermostat attached to blower housing?

NO → ï Replace Outlet Thermostat. (Refer to ëComponentí)

YES ↓



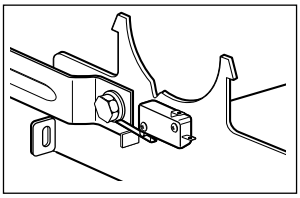
Does Idle Switch attached to Motor Bracket operate Level by drum belt? (Not operating Lever is normal.)

YES → ï Check Idler Assembly.
ï Drum Belt cuts off
ï Drum Belt takes off from Motor Pulley.

Is resistance below 1Ω between Idler Switch terminals?

NO → ï Replace Idler Switch.

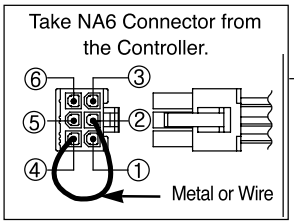
YES ↓



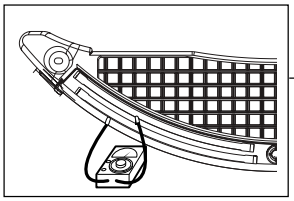
ï Check Motor. (Refer to ëMotor Diagram & Checkí)
ï Check if Control Connector is contacted.

■ Test 4 Moisture sensor

Caution	Before measuring resistance, be sure to turn power off, and do voltage discharge. (When discharging, contact the metal plug of power cord with ground line.)
Trouble Symptom	Degree of dryness does not match with dry Level.
Measurement Condition	Turn the dryerís power off, then measure resistance.



Short with metal to the 6 pin connectorís Pin② (Orange Wire) and Pin④ (Red Wire) to controller.

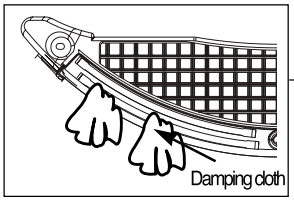


When measuring resistance in electric load, is resistance below 1Ω?

NO

- Check electro Load and harness connector
- Check harness-linking connector.

YES



When contacting cloth to electro load:
1. Is the measurement within the range of Table 2 during Diagnostic Test?
2. Is the measurement within the range of Table 2 when measuring the voltage in the NA6 connectorís Pin ② (Orange wire) and Pin ④ (Blue wire)?

NO

- Replace control and check.

YES

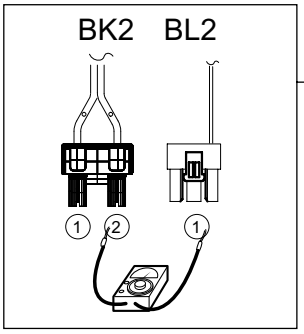
Normal Condition

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

IMC	Display Value	Voltage (DC) (between NA6 terminal ②,④)	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

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	Door opening is not sensed. (During operation, when opening door, drum motor and Heater run continuously) door close is not sensed. (Drum motor will not operate. Display will flash at 0.5 second intervals.)
Measurement Condition	After turning Dryer Power Off, measure resistance.



Measure while door is closed. Check it resistance is below 2500Ω between BL2-①(White wire) and BK2-②Connector
BL2,WH4 after taking BL2,WH4 out from controller.

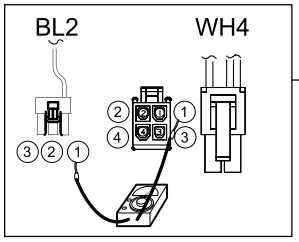
YES → ï Door switch check (Refer to component testing.)

NO

Measure while door is open. Check it resistance is 300~60 Ω between BL2-①(White wire) and BK2-② (Black wire). Connector BL2,WH4 after taking BL2,WH4 out from controller

NO → ï Check lamp. (When opening lamp, replace then measure again.)
ï Door switch check (Refer to component testing.)

YES



Measure while door is open. Check it resistance is below 1Ω between WH4- ①(Yellow wire) and BL2-①(White wire) after taking connector BL2,WH4 out from controller.

YES → ï Door switch check (Refer to component testing.)

NO

Measure while door is closed. Check it resistance is below 1Ω between WH4- ①(Yellow wire) and BL2-①(White wire) after taking connector BL2,WH4 out from controller.

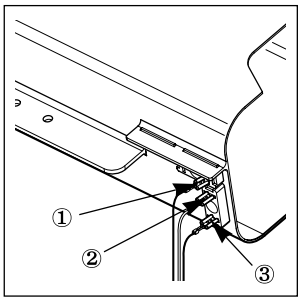
NO → ï Door switch check (Refer to component testing.)

YES

Check controller.
Check Harness-linking connector.

■ 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.

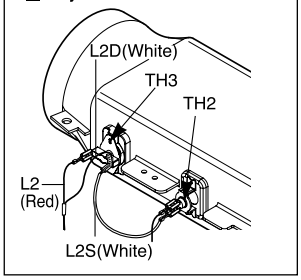


1. Is resistance between heater terminal ① and ② below 18 ~ 22Ω?
2. Is resistance between heater terminal ① and ③ below 18 ~ 22Ω?
3. Is resistance between heater terminal ② and ③ below 36 ~44Ω?

NO → ï Replace heater.

YES ↓

■ Only for FLOW SENSE model



Check if the value of measured resistance is below 1Ω between terminal TH2 (Safety thermostat).

NO → ï Replace TH2 (Safety thermostat) and TH3 (Hi-Limit thermostat)

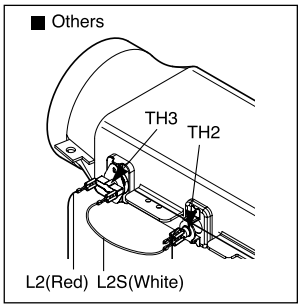
YES ↓

Check if the value of measured resistance is below 1Ω between terminal TH3 (HI-Limit thermostat).

NO → ï Replace TH2 (Safety thermostat) and TH3 (Hi-Limit thermostat)

YES ↓

■ Others



Check motor. Check if the value of measured resistance is below 1Ω between terminal ① and ⑩ at RUN condition.

NO → ï Check motor and replace it.

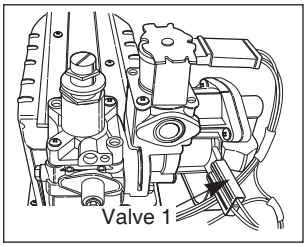
YES ↓

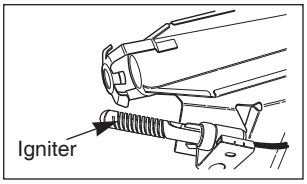
Check controller.
Check Harness-linking connector.

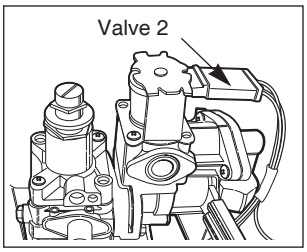
※ Wires
ï L2(Red)
ï L2D(White) : Go to the duct (YL3 in main pcb
ï L2S(White) : Go to the safety.

■ Test 7 GAS Valve test - Gas Type

Caution	When measuring power, be sure to wear insulated gloves, to avoid electric shock.
Trouble Symptom	While operating, heating will not work. Drying time takes longer
Measurement Condition	With dryer power on







Power on & start (Normal cycle)

↓ NO

When measuring Valve 1 voltage, More than DC 90V? — NO → • Check thermostat hi-limit safety

↓ YES

Igniter operates? (after 1 min, igniter becomes reddish) — NO → • Check Igniter & frame detect

↓ YES

When measuring Valve 2 voltage, value is more than DC 90V? (10 sec after Igniter off) — YES → • Check gas connection or gas supply

↓ NO

When measuring terminal resistance on valve 1 and valve 2, valves are more than1.5 ~ 2.5kΩ? (Measure after off) — YES → • Change valve

↓ NO

If valve 1 and valve 2 are under DC 10V, valves are Off? — NO → • Change valve

↓ YES

• Harness check
• Controller change

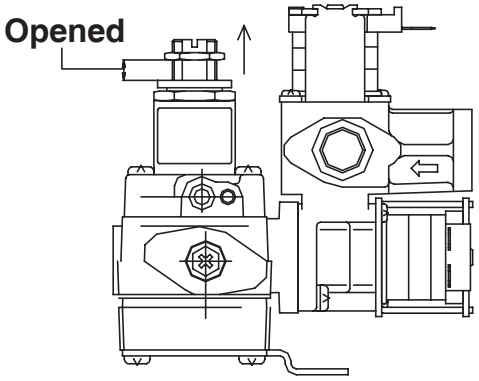
NOTE: When the gas valve operates after disassembling, ignition will be off several seconds.
It is normal because there is no circulation of air

10 CHANGE GAS SETTING (NATURAL GAS, PROPANE GAS)

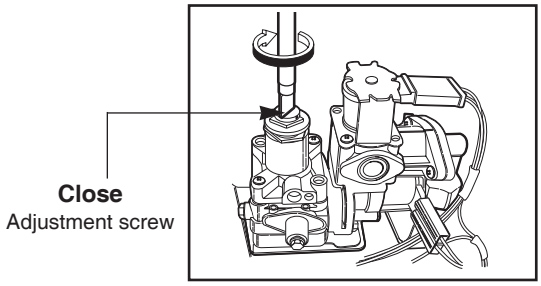
⚠ Warning *Changing orifices and gas valve adjustments improperly can result in an explosion and/or fire. Conversion must be made by a qualified technician.*

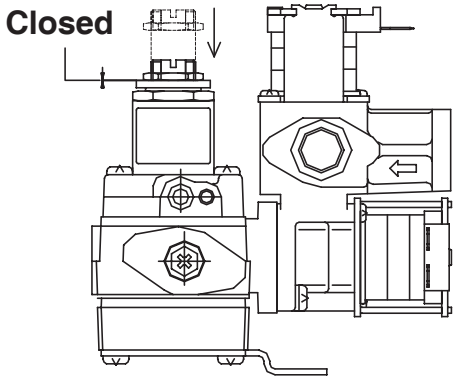
Initially, The burner is set for natural gas at the factory. The propane orifice conversion kit is sold as a service part to autherized servicers only. Part numbers are shown below.

STEP 1 : VALVE SETTING

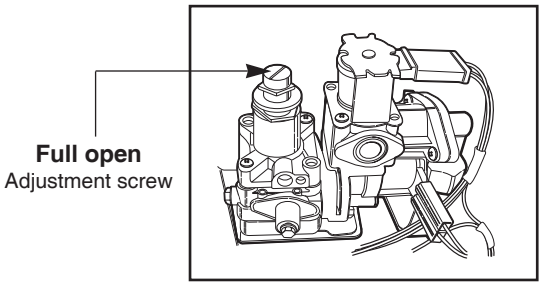


NATURAL GAS SETTING

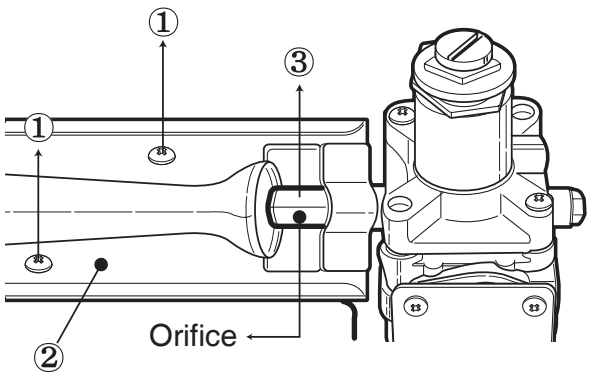




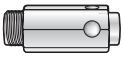
PROPANE GAS SETTING



STEP 2 : ORIFICE CHANGE

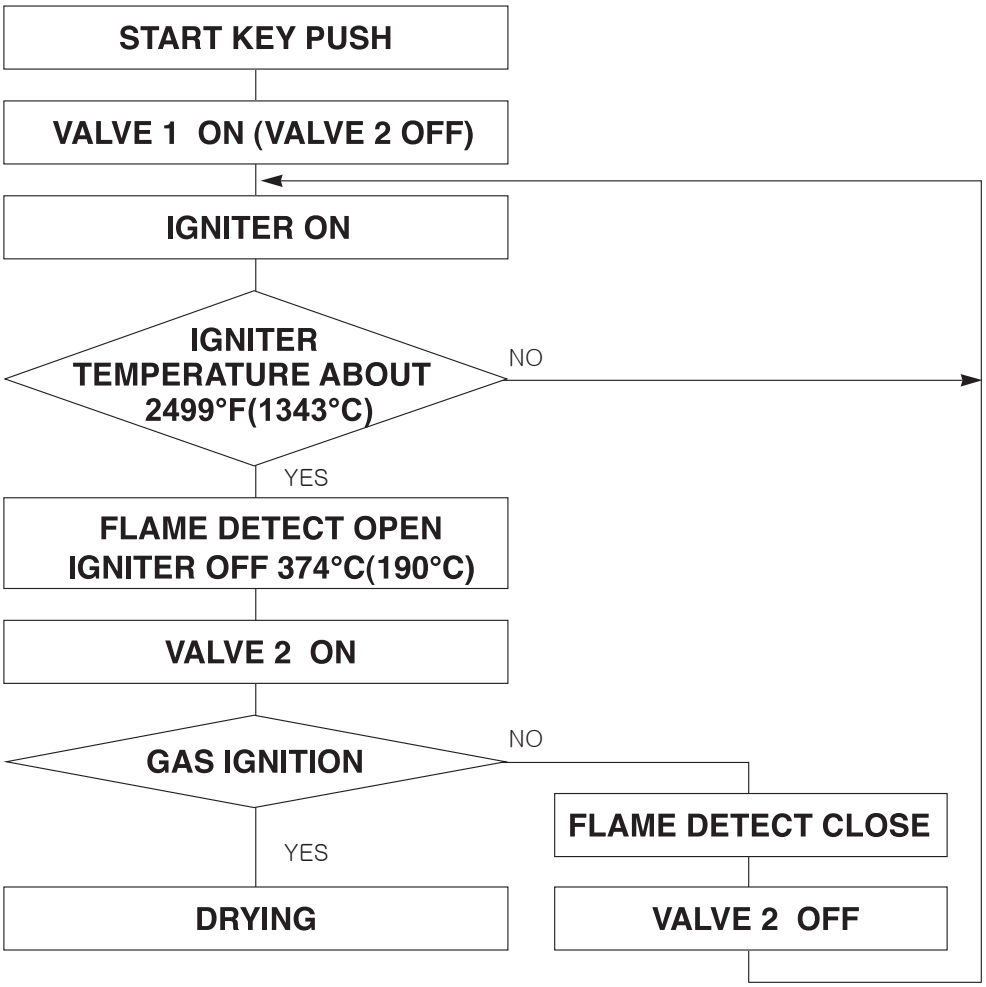


① Remove 2 screws.
② Disassemble the pipe assembly.
③ Replace Natural Gas orifice with Propane Gas orifice.

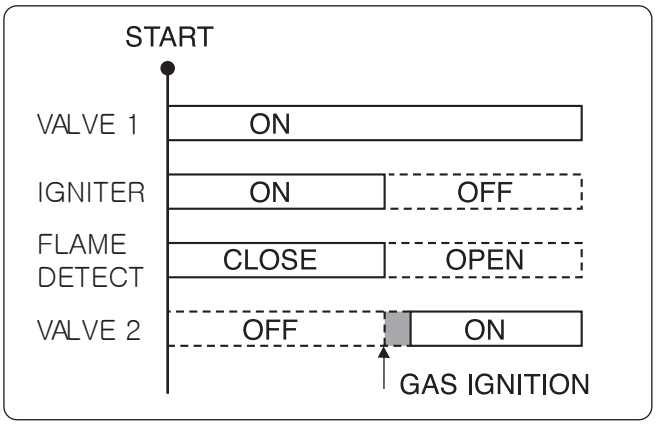
Gas type	Orifice P/No	Marking	Shape
Natural Gas	4948EL4001B	NCU	
Propane Gas	4948EL4002C	PCK	

※ **Kit contents:** Orifice (Dia. = 1.47mm, for Propane Gas)
Conversion Label
Instruction Sheet

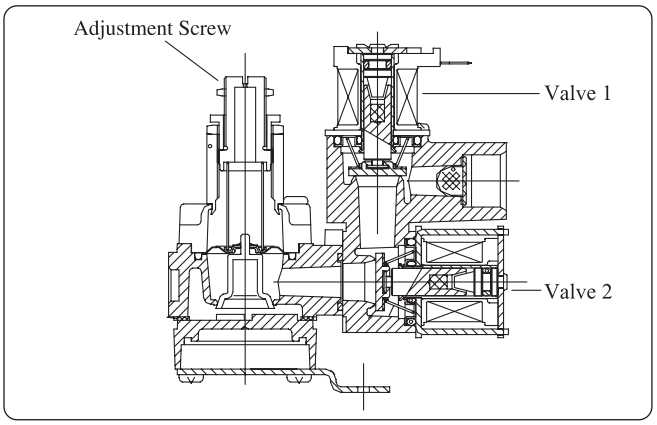
■ GAS VALVE FLOW



GAS IGNITION



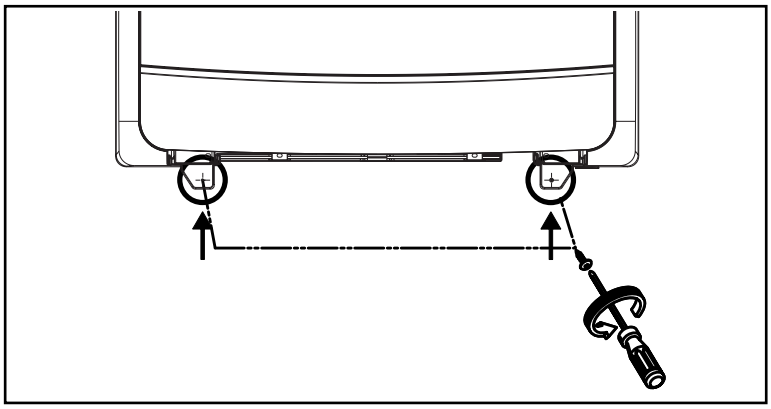
GAS VALVE STRUCTURE



11 DISASSEMBLY INSTRUCTIONS

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

REAR PANEL

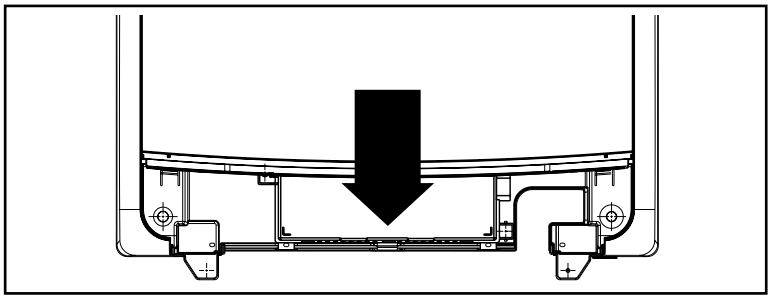


⚠ WARNING!

When you disassemble the Dryer, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

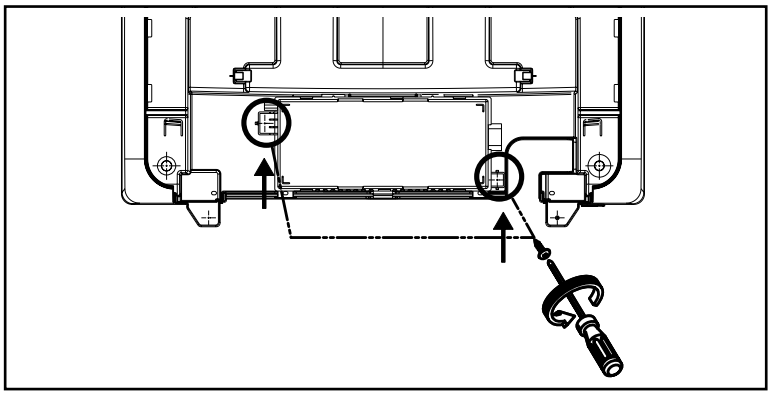
1. Remove the 2 screws on the rear panel
2. Lift and disassemble the rear panel from the cover assembly, top.

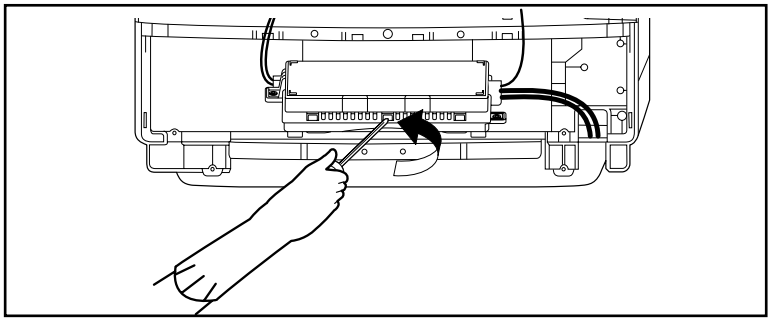
TOP PLATE ASSEMBLY



1. Pull plate assembly top backward from the panel assembly front.
2. Lift and disassemble the top plate from the cover assembly top.

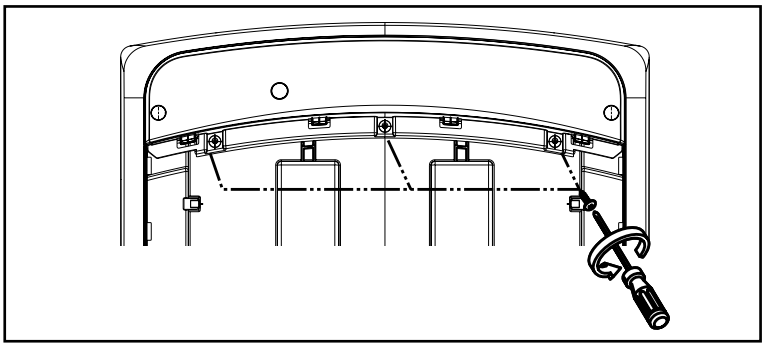
MAIN PCB

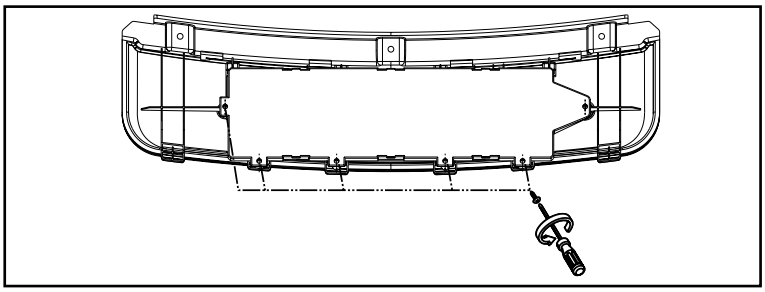




1. Remove the 2 screws that hold the PCB box in place.
2. Slide the PCB box toward the rear of the dryer and lift out.
3. With a flat blade screwdriver, press the tabs on the side of the PCB box and gently pry it open.
4. Disconnect the wiring from the PCB board then remove the PCB board.

CONTROL PANEL



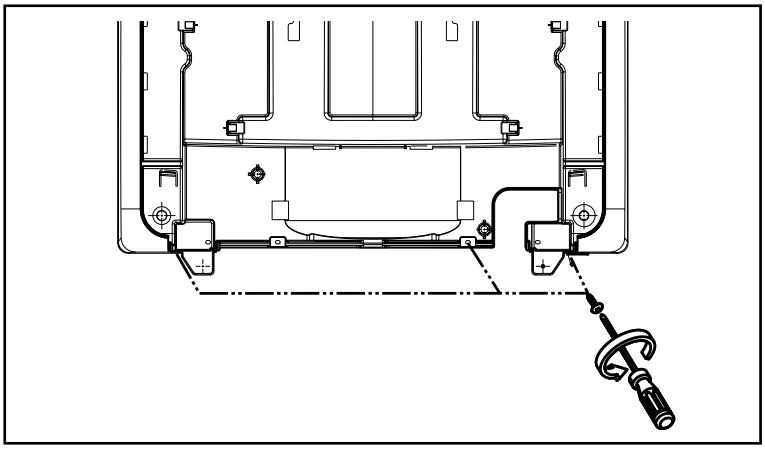


⚠ WARNING!

When you disassemble the Dryer, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

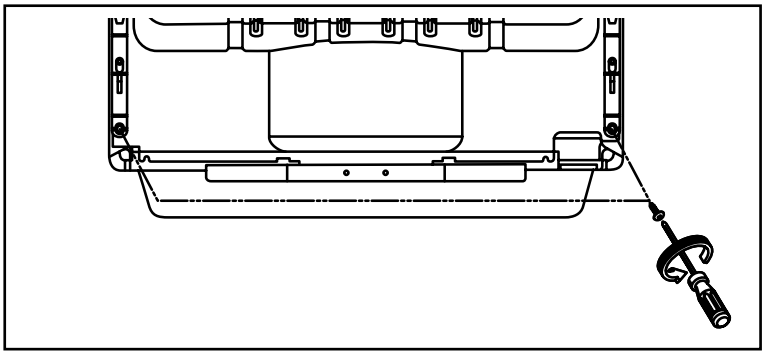
1. Romove the 3 screws on the front panel assmbly.
2. Remove the 5 screws on the PCB assembly from the back of the front panel assembly.
3. Disassemble the front panel assembly.

TOP COVER



1. Remove the 3 screws that hold the top cover in place.
2. Lift the top cover and slide it forward to clear the front tabs.

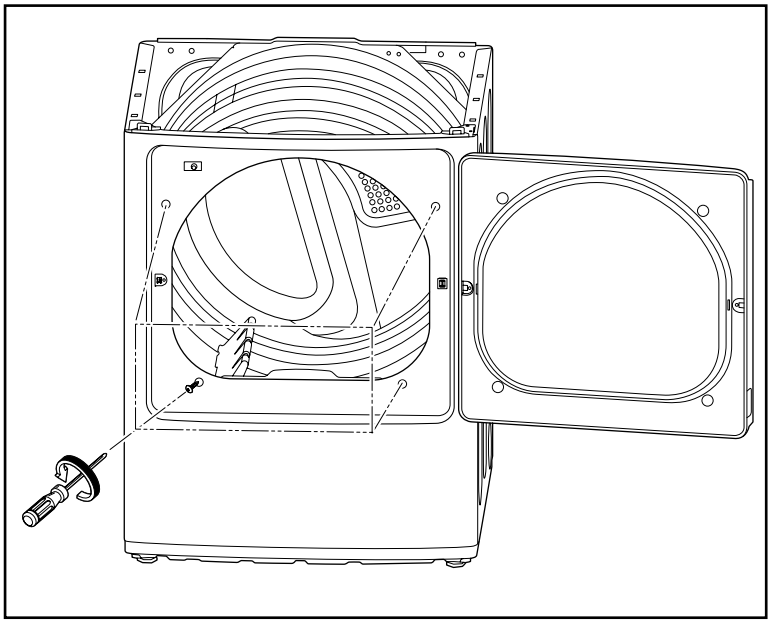
TOP PLATE



The inner top plate is held in place by 2 screws(1 on each side) and the 2 plastic holders.

1. Remove the 2 screws on the top plate that hold the 2 plastic holders.
2. Lift the 2 plastic holders and slide it forward to clear the 3 tabs
3. Lift the top plate.

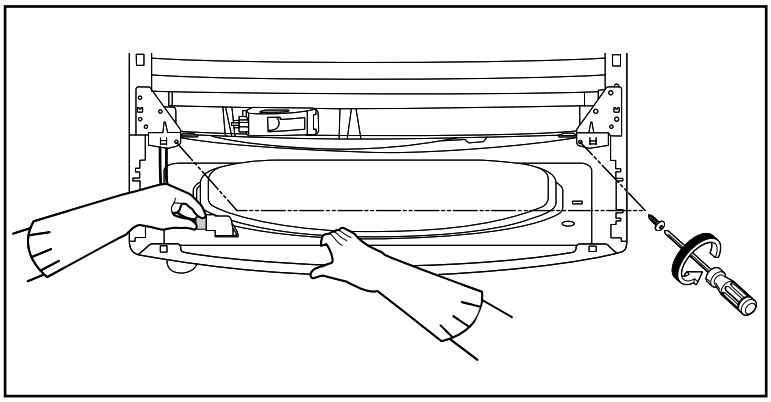
CABINET COVER



⚠ WARNING!

When you disassemble the Dryer, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

1. Open the door and remove the 4 screws from the cabinet cover then close the door.

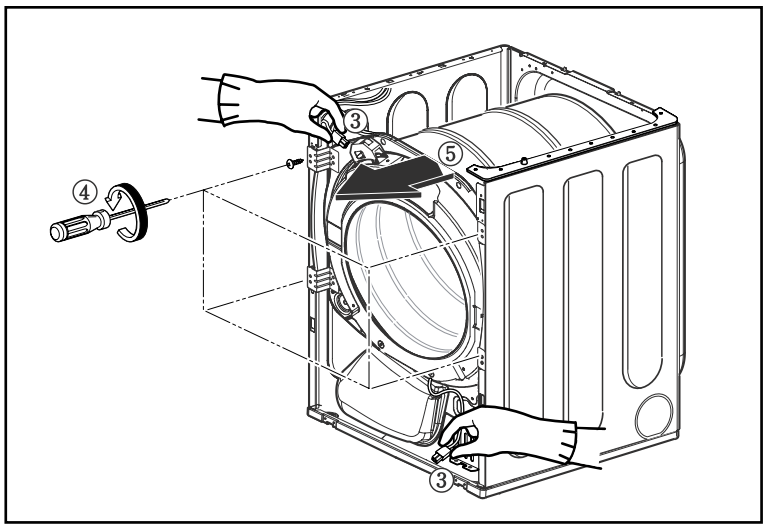


2. Remove the 2 screws than slide the cabinet cover toward the font of dryer.

3. Disconnect wiring to the door switch and lift the cabinet cover.

4. Disconnect wiring to the door switch and lift the cabinet cover.

TUB DRUM [FRONT]

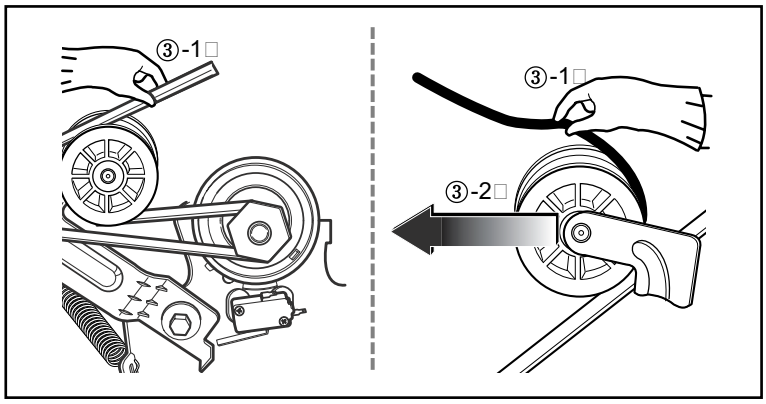


⚠ WARNING!

When you disassemble the Dryer, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

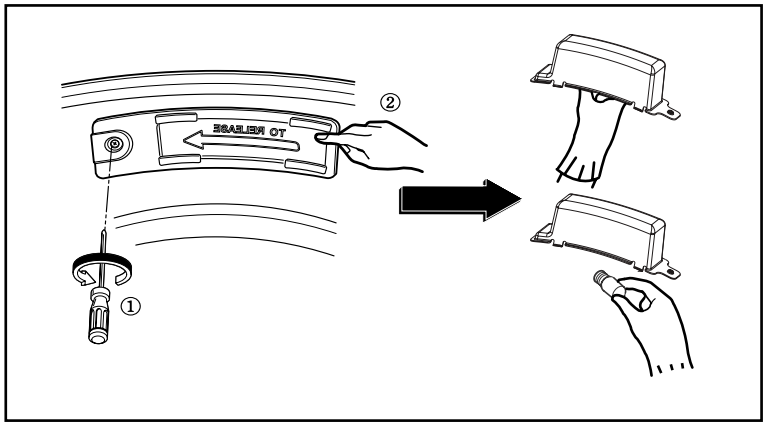
1. Disassemble the top plate.
2. Remove cabinet cover.
3. Disconnect the door lamp and electrode sensor connector.
4. Remove 4 screws.
5. Disassemble the tub drum [Front].

DRUM ASSEMBLY



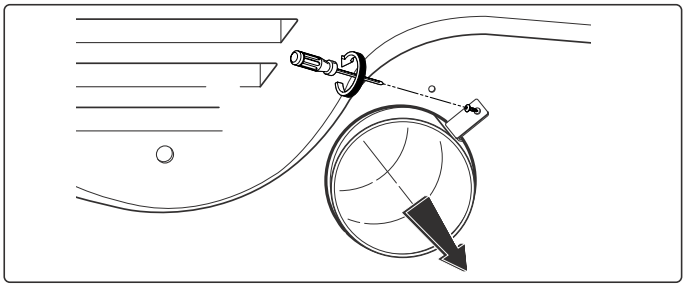
1. Disassemble the top plate.
2. Remove the cabinet cover and tub drum [front].
3. Loosen belt from motor and idler pulleys.
4. Carefully remove the drum.

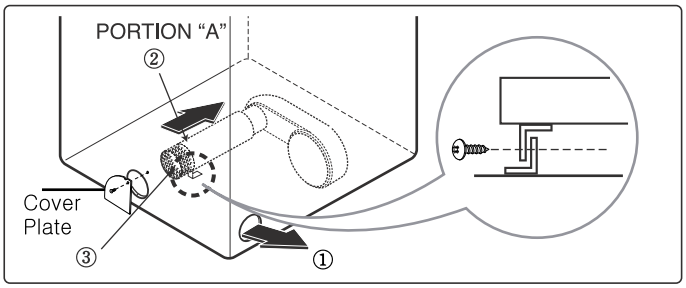
CHANGING THE DRUM LAMP

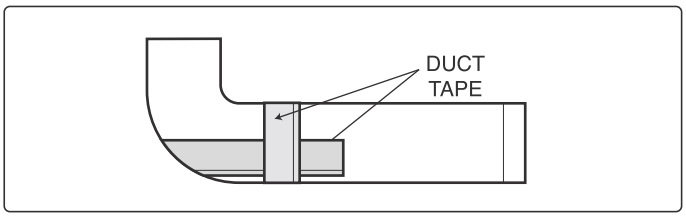


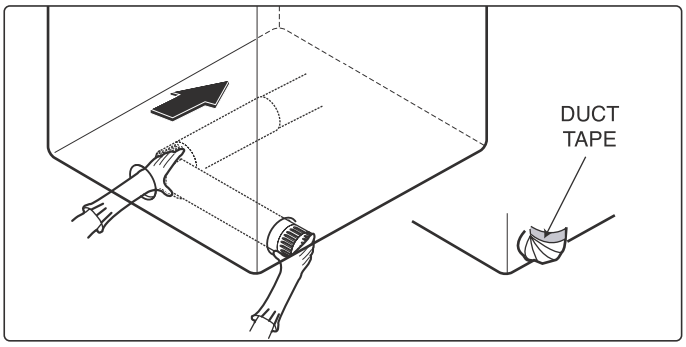
1. Disassemble the door.
2. Hold the lamp shield in place while removing the screw.
3. Slide the shield up and remove.
4. Remove the bulb and replace with a 15 watt, 120 volt, candelabra-base bulb.
5. Replace the lamp shield and screw.

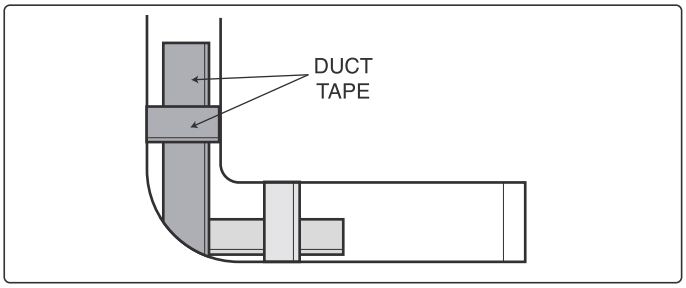
DRYER EXHAUST CHANGE











⚠ WARNING!

Before performing this exhaust installation, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working inside the cabinet. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

1. Remove screw and exhaust duct.

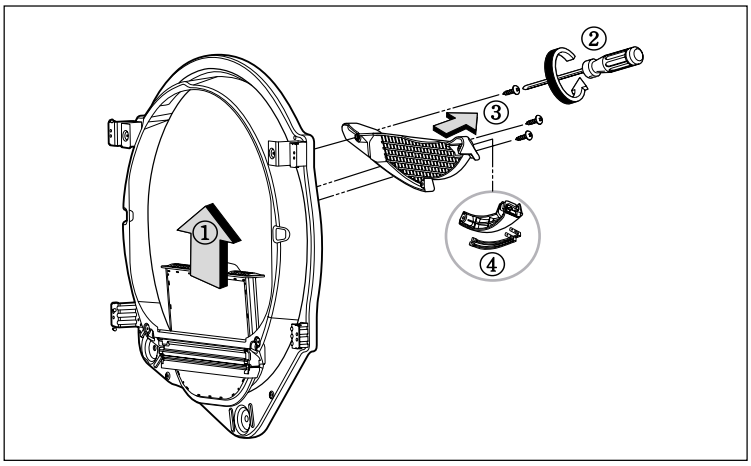
2. Detach and remove the bottom, left or right side knockout as desired. Attach cover plate to the back of the dryer with included screw.

3. Reconnect the new duct [11°± (28 cm)] to the blower housing, and attach the duct to the base.

4. Pre-assemble a 4°± elbow with a 4°± duct. Wrap duct tape around the joint

5. Insert duct assembly, elbow first, through the side opening and connect the elbow to the dryer°Øs internal duct.

FILTER ASSEMBLY

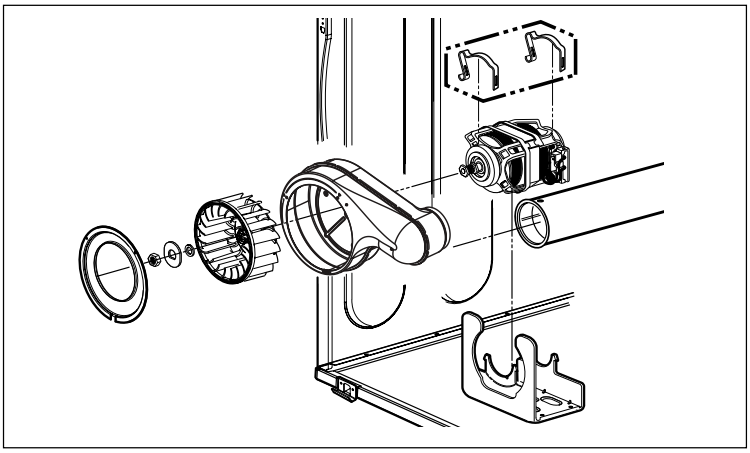


⚠ WARNING!

When you disassemble the Dryer, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

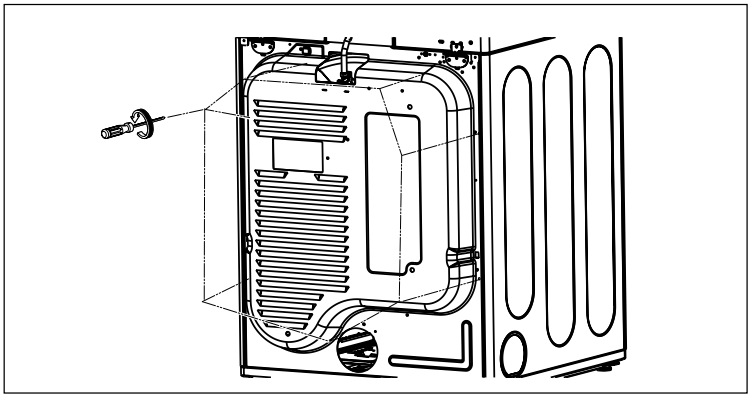
1. Remove the filter.
2. Remove 3 screws.
3. Remove the cover grid.
4. Disconnect the electrode sensor.

BLOWER HOUSING



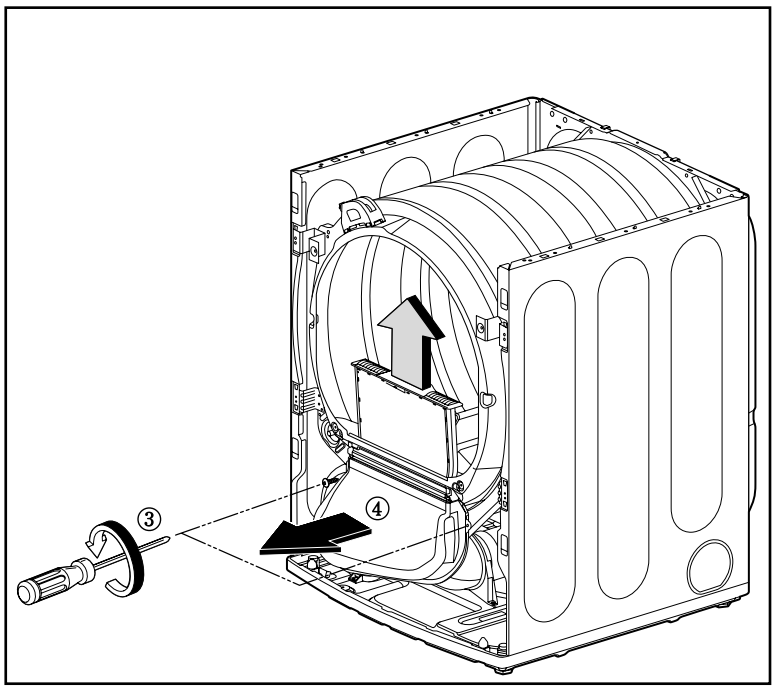
1. Disassemble the top plate.
2. Remove the cabinet cover and tub drum [Front].
3. Remove the drum assembly.
4. Remove 2 screws and cover (Air guide).
5. Remove the bolt and washer.
6. Remove the fan.
7. Disconnect the motor clamp and motor.

BACK COVER



1. Disassemble the top plate.
2. Remove the cabinet cover and tub drum [Front].
3. Remove the drum assembly.
4. Remove 7 screws.
5. Pull the tub drum [Rear] towards the front.

AIR DUCT

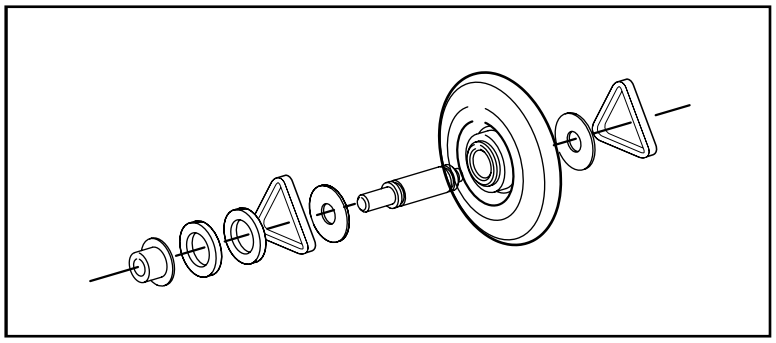


⚠ WARNING!

When you disassemble the Dryer, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working. To reduce the risk of personal injury, adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

1. Disassemble the top plate.
2. Remove the cabinet cover.
3. Remove the filter and 2 screws.
4. Remove the air duct.

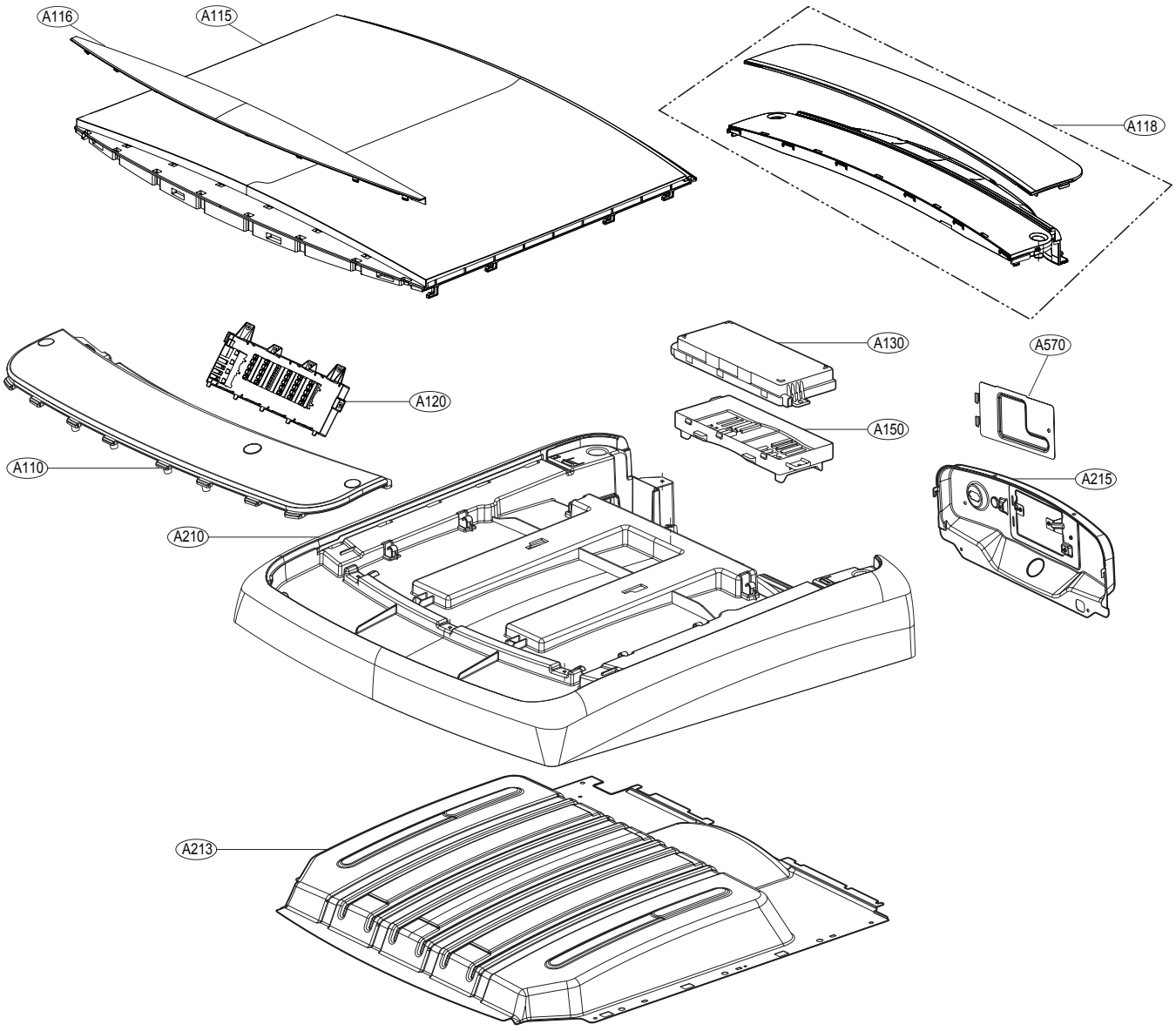
ROLLERS



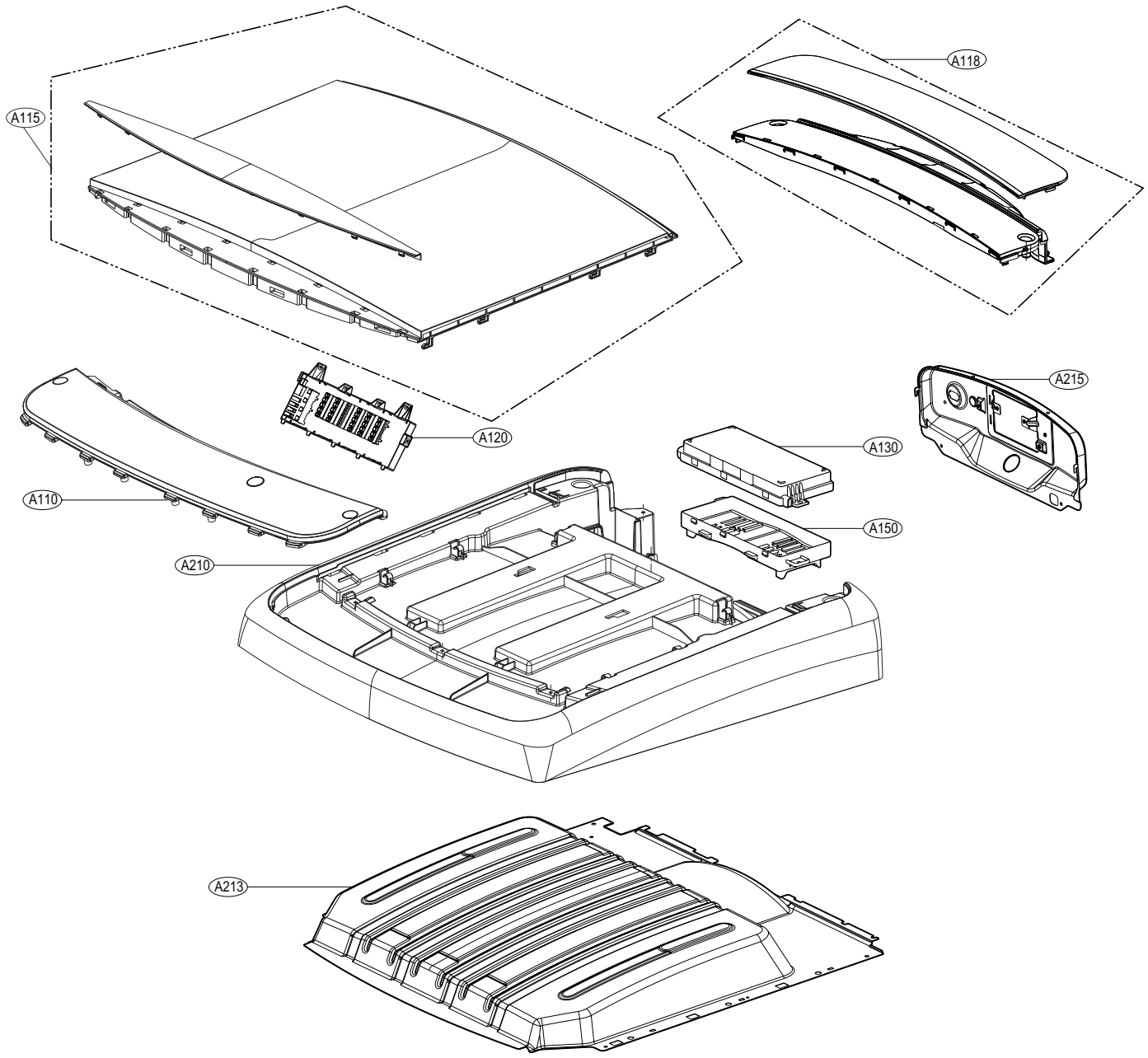
1. Disassemble the top plate.
2. Remove the cabinet cover and tub drum [Front].
3. Remove the drum assembly and tub drum [Rear].
4. Disconnect the air duct from the tub drum [Front].
5. Remove the roller from the tub drum [Front] and tub drum [Rear].

12 EXPLODED VIEW

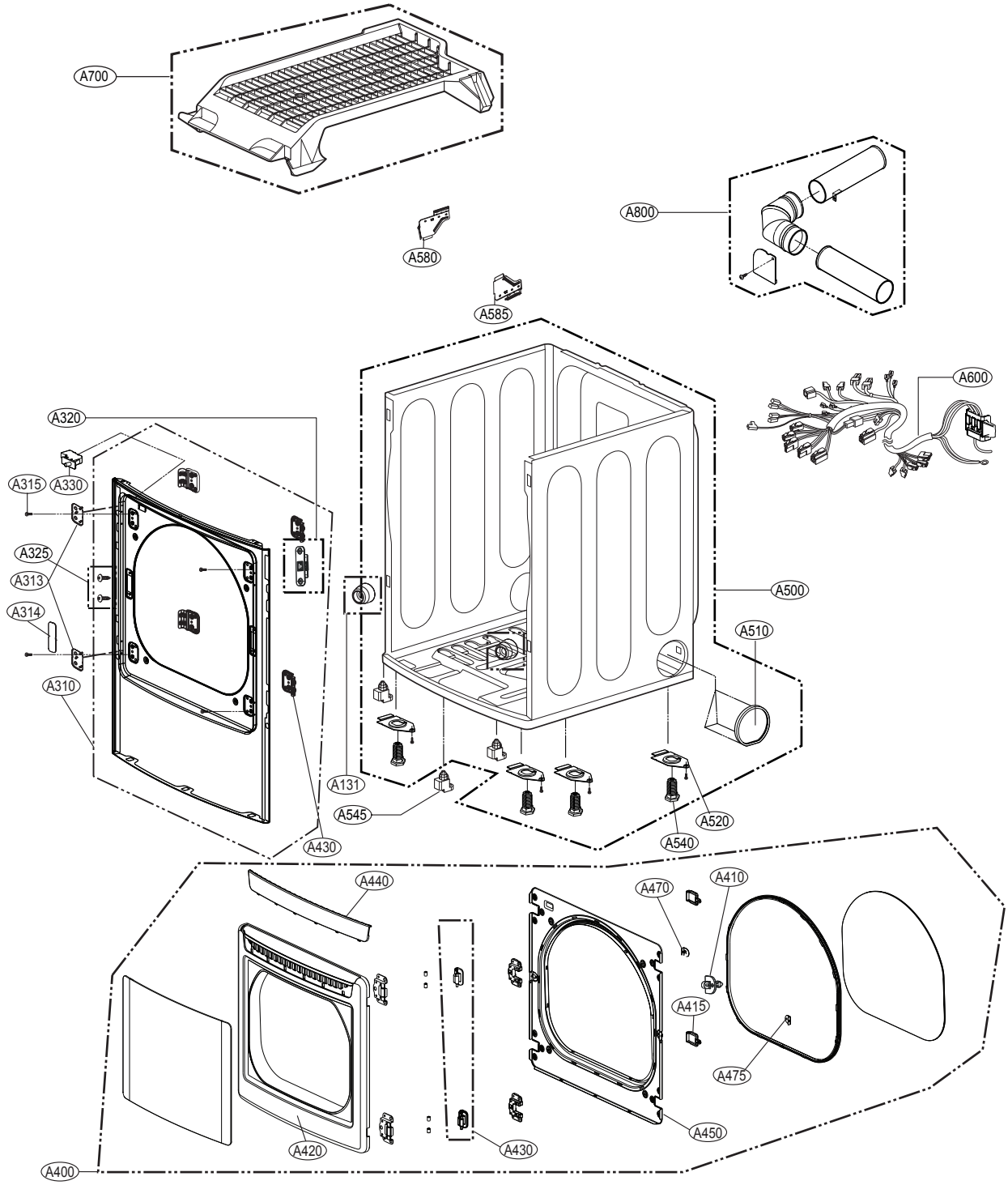
12-1-1. Control Panel and Plate Assembly : Electric Type



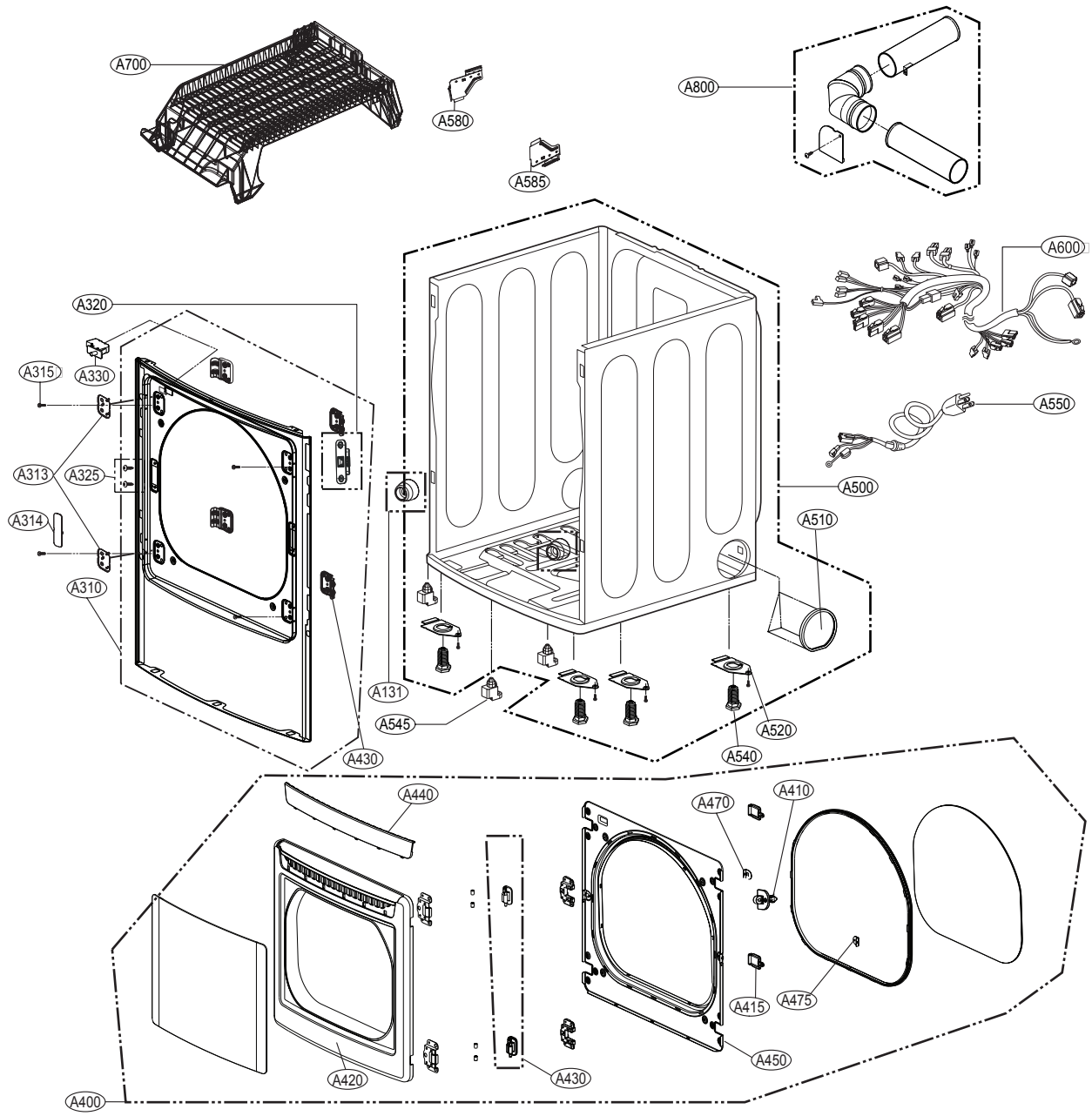
12-1-2. Control Panel and Plate Assembly : Gas Type



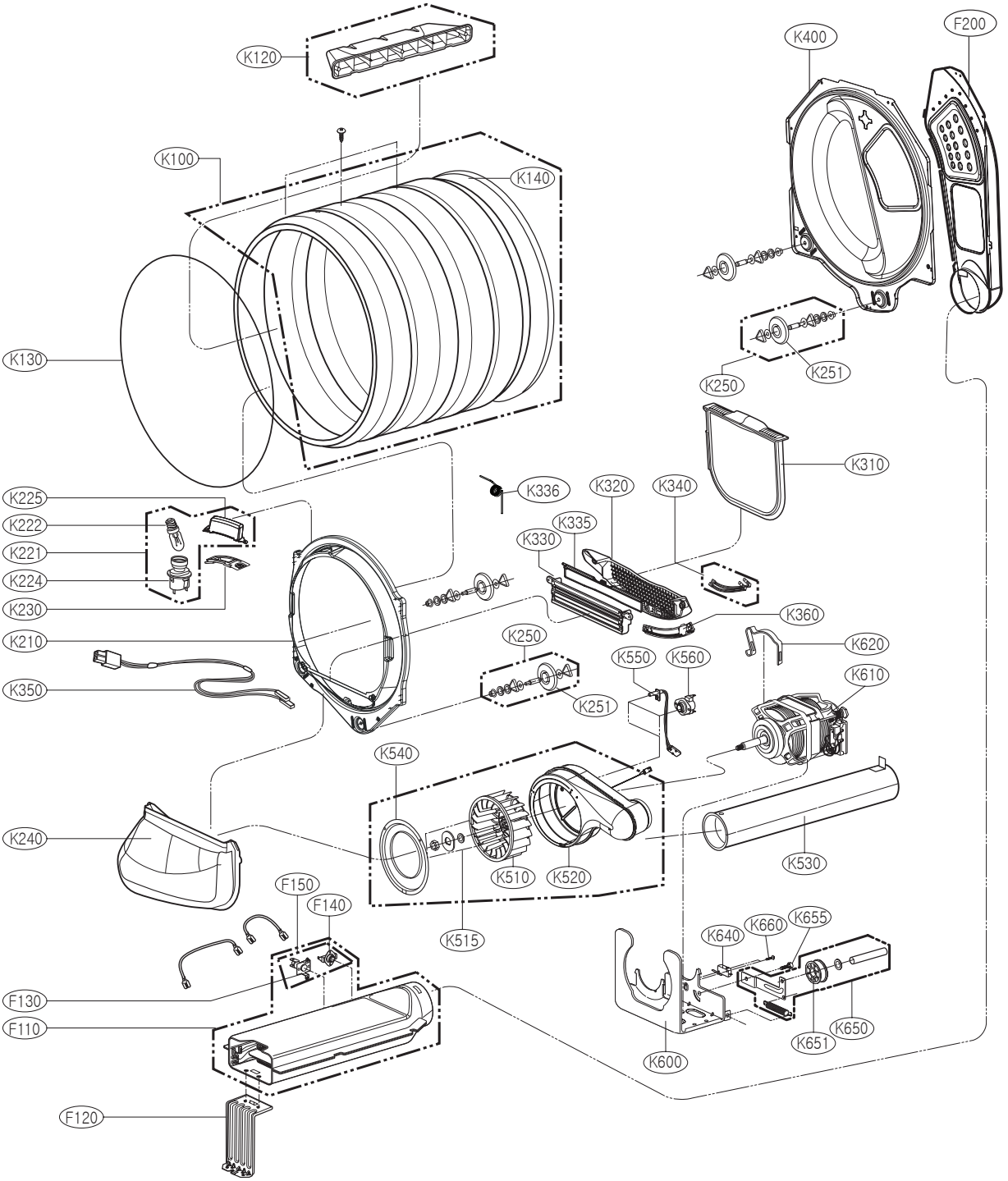
12-2-1. Cabinet & Door Assembly : Electric Type



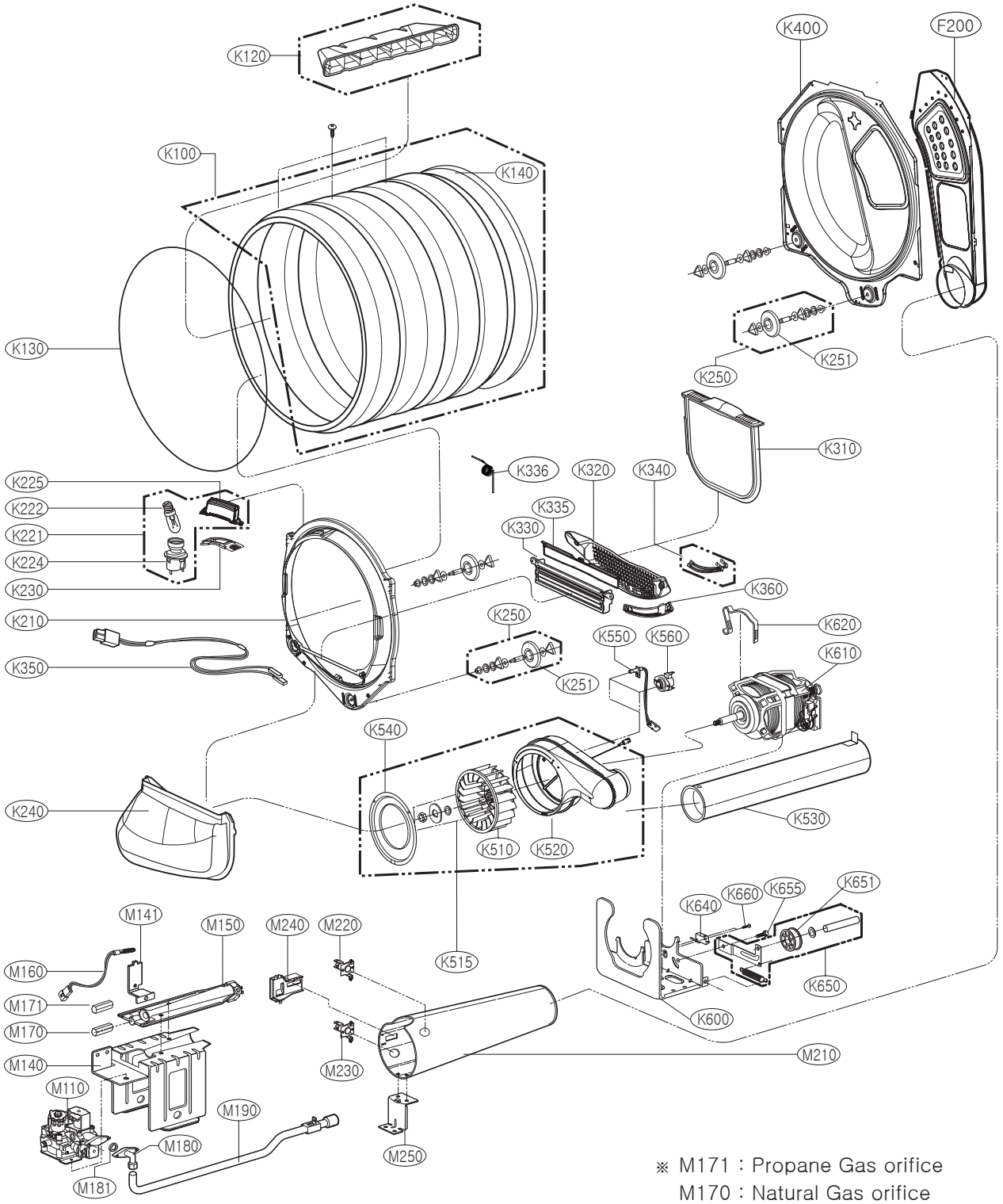
12-2-2. Cabinet & Door Assembly : Gas Type



12-3-1. Drum & Motor Assembly: Electric Type



12-3-2. Drum and Motor Assembly: Gas Type



※ M171 : Propane Gas orifice
M170 : Natural Gas orifice

LG Electronics Inc.

May 2015 PRINTED IN KOREA

P/No. : MFL62119996