LG

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ELECTRIC & GAS DRYER
SERVICE MANUAL

CAUTION

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

MODEL : Electric DLEX3470* **Gas DLGX3471***

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.

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.

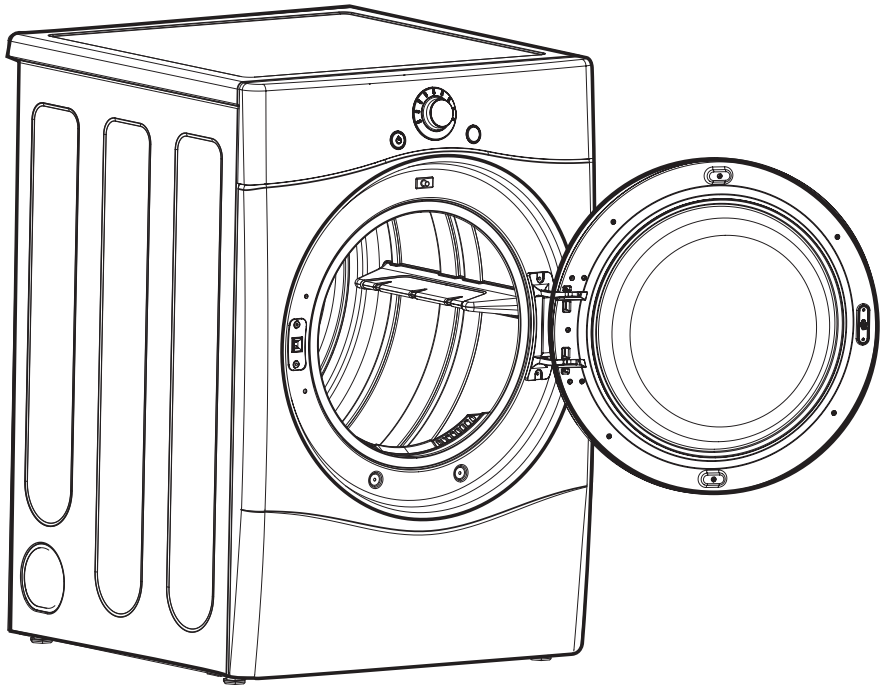
- OR -

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.

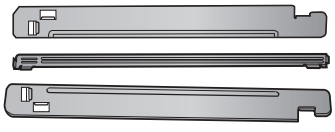
SPECIAL FEATURES

1 SPECIFICATIONS



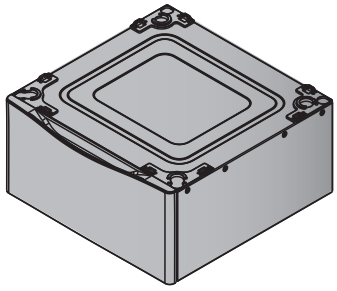
Model	DLEX3470* DLGX3471*
Name	Electric and Gas Dryer
Power supply	Please refer to the rating label regarding detailed information
Size	27” (W) X 30” (D) X 3811/16” (H), 51” (D with door open) 68.6 cm (W) X 76.1 cm (D) X 98.3 cm (H), 129.7 cm (D with door open)
Dryer capacity	- Normal Cycle IEC 7.3 cu.ft. (22.5 lb/10.2 kg) - Steam Cycle IEC 7.3 cu.ft. (8 lb/3.6 kg)
Weight	136 lbs (62 kg)

■ ACCESSORIES



Stacking kit (1 each)
Purchased Separately

See page 7



Pedestal (1 each)
Purchased Separately

See page 8

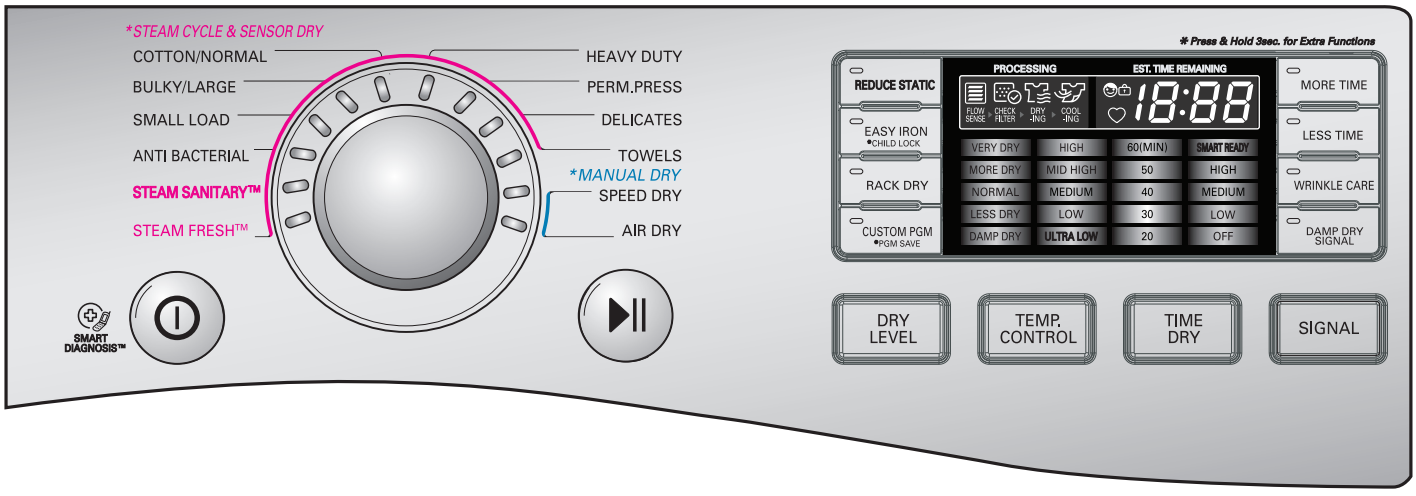
Wi-Fi Modem (1 each)
Purchased Separately

See page 9

ITEM		DLEX3470* DLGX3471*		REMARK
Material & Finish	Color	Blue White / Stainless Silver		
	Top Plate	Powder coating		
	Door Trim	Chromate		
POWER SUPPLY		ELEC.	120/240V 60Hz (26A)/120/208V 60Hz (23A)	
		GAS	120V/60Hz (11.5A)	
ELECTRICITY CONSUMPTION	MOTOR	250W (4.5A)		
	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)
	AG HEATER	1100W (9.2A)		AC 120V (STEAM MODEL)
	PUMP	2.4W (0.15A)		DC 9V (STEAM MODEL)
CONTROL TYPE		Electronic		
DRUM CAPACITY		7.3 cu.ft.		
Weight (lbs) - Net/Gross		126 / 146		
No. of Programs		12		
No. of Dry Options		5		
No. of Temperature Controls		5		
No. of Dry Levels		5		
Sound levels		High / Medium / Low / Off		
Sensor	Moisture	Available		Electrode sensor
	Temperature	Available		Thermistor
Reversible Door		Available		
Drum		Stainless		
Dryer Rack		Available		
Child Lock		Available		
Interior Light		Available		
Product (WxHxD)		27" x 42 3/4" x 28 1/3"		
Packing (WxHxD)		29 1/2" x 44 3/4" x 30 3/4"		

2 FEATURES AND BENEFITS

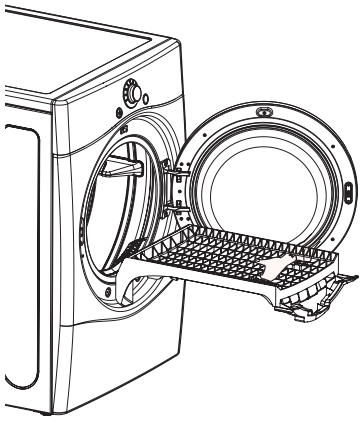
DLEX3470* / DLGX3471*



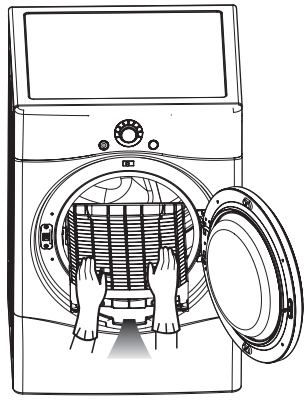
3 INSTALLATION INSTRUCTIONS

Dryer Rack Installation Instructions

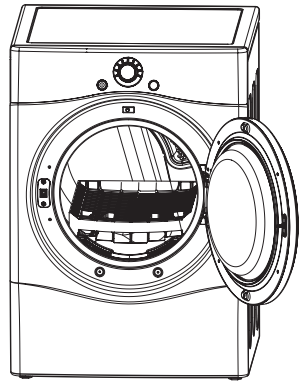
1 Open the door. Hold the dryer rack with both hands.



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.



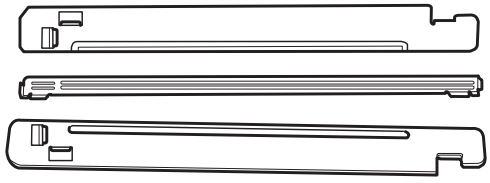
Stacking Kit Installation Instructions

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

WARNING

Do not attempt this alone!

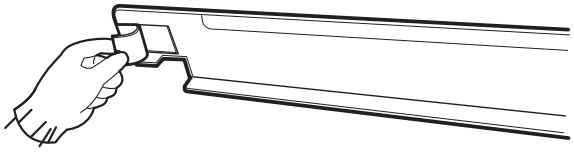
At least two people are required to lift and position the dryer on top of a washing machine!
Failure to heed this warning can result in serious physical injury and damage to the appliance.
To reduce the risk of Injury to persons adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.



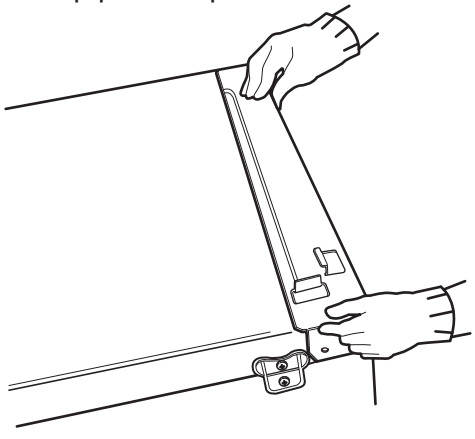
Stacking kit

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

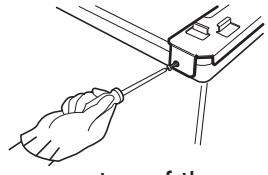
2 Peel the protective paper from the tape on the side bracket.



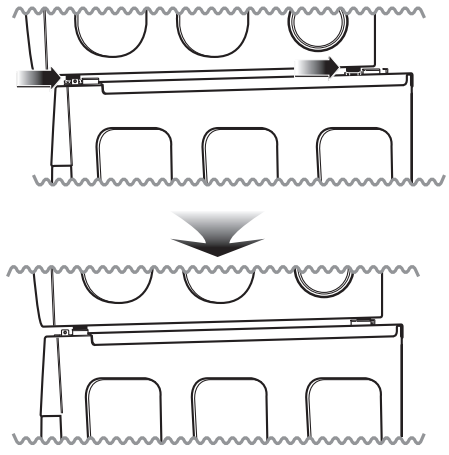
3 Fit the side bracket firmly to the side of the top plate by attaching the double-faced tape to the top plate as picture shown.



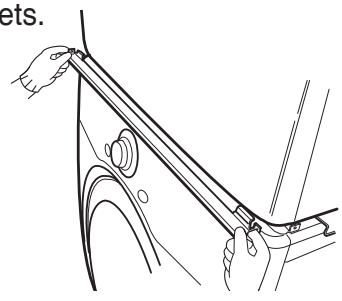
4 Secure the side bracket to the washer with a screw on the back of the bracket. Repeat Steps 2, 3, and 4 for the other side.



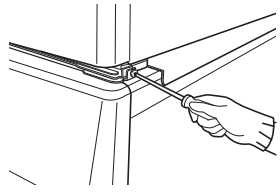
5 Place the dryer on top of the washer by placing the legs as shown. Be careful not to pinch fingers between the washer and dryer. Slide the dryer back against the stop on the side rail.



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



7 Attach the front bracket to the side rails with a screw on each side.

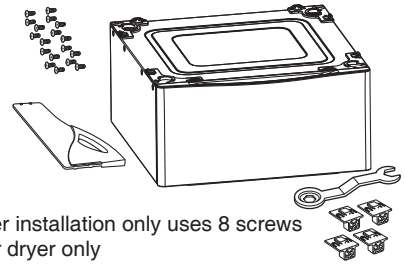


- Do not use a stacking kit with a gas dryer in potentially unstable conditions like a mobile home.

Pedestal Installation Instructions

The pedestal accessory includes:

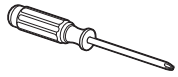
- Drawer divider (1)
- Screws (18) †
- Wrench (1)
- T-clips (4) ††



† Dryer installation only uses 8 screws
†† For dryer only

Tools Needed for Installation:

- Phillips screwdriver
- Wrench (supplied)



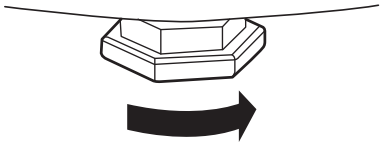
To ensure safe and secure installation, please thoroughly follow the instructions below.

⚠ WARNING

- **Incorrect installation can cause serious accidents.**
- **The appliances are heavy. Two or more people are required when installing the pedestal.** There is a risk of serious back injury or other injuries.
- **Do not allow children to play in or on the drawer.** There is a risk of suffocation or injury.
- **Do not step on the handle.** There is a risk of serious injury.
- **If appliances are already installed, disconnect them from all power, water, or gas lines and from draining or venting connections.** Failure to do so can result in electrical shock, fire, explosion, or death.
- **To reduce the risk of Injury to persons adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.**

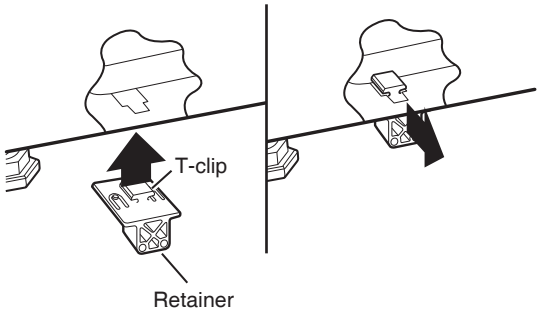
1 Make sure the leveling feet of the dryer are fully retracted.

NOTE: The appliance and pedestal assembly must be placed on a solid, sturdy, level floor for proper operation.

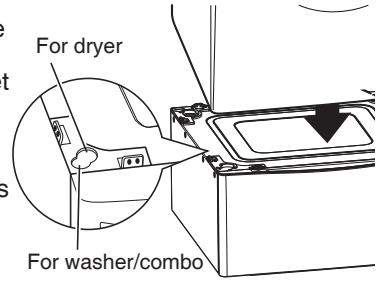


Retract fully

2 Insert the T-clip of the 4 retainers into the dryer base as shown. Press up on the back of the clip and pull outward to lock into place.



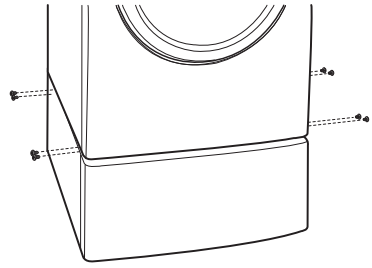
3 Place the dryer on the pedestal. Make sure the front and back feet are in the correct positions. The dryer feet will fit into the innermost positions as shown.



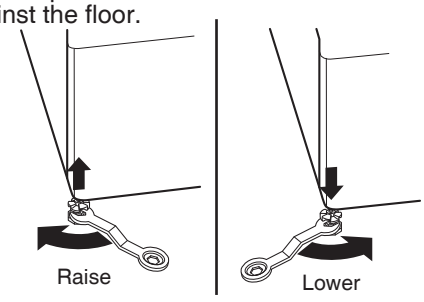
4 Make sure the screws on the pedestal align with the holes in the retainers, then install 4 screws on each side to securely attach the appliance to the pedestal.

NOTE: If the screws are not installed properly, noise and vibration may result.

Move the appliance to the desired location.



5 Loosen the locknuts on all 4 leveling feet of the **pedestal** until you can turn them with the wrench. Turn clockwise to raise or counterclockwise to lower until the pedestal is level and all 4 feet are solidly against the floor.

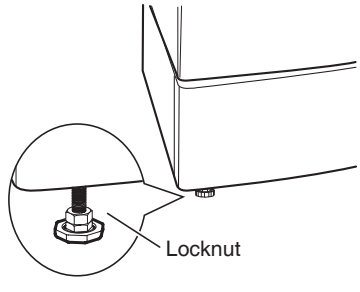


6 Securely tighten all locknuts by hand.

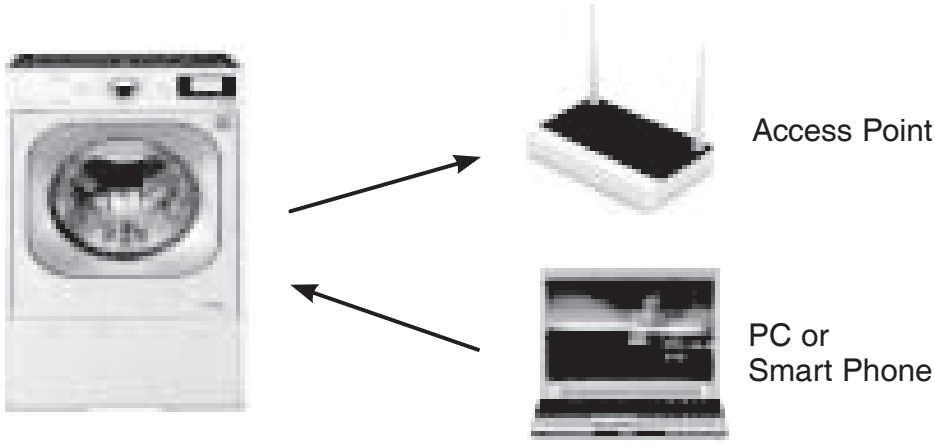
NOTE: Noise and vibration may result if locknuts are not tightened.

Be sure to connect the appliances to all water, power, or gas lines and draining or venting connections before operation.

If there is excessive vibration during the first operation after installation, slightly adjust the leveling feet.



Wi-Fi Modem Installation



- The installation instructions for the Wi-Fi modem are supplied with the modem.
- Connecting your appliance to Wi-Fi allows you to monitor your appliance using your Smart Phone.
- The optional Wi-Fi Modem, Access Point and a Smart Phone are essential in order to use the Wi-Fi functions on your appliance.
- Disassemble the Wi-Fi modem before moving your appliance.

Electric Dryer Only

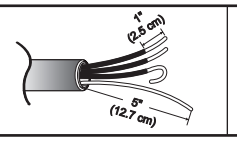
Review the following options to determine the appropriate electrical connection for your home:

4-wire receptacle (NEMA type14-30R)

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

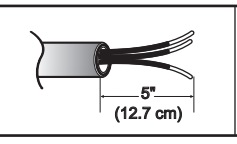
3-wire receptacle (NEMA type10-30R)

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



4-wire direct

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



3-wire direct

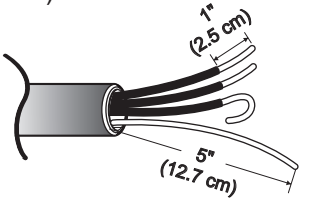
If this type is available at your home. you will be connecting to a fused disconnect or circuit breaker box

4-wire connection : Direct wire

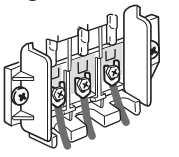
Important : Grounding through the neutral conductor is prohibited for (1) new branch-circuit installations, (2) mobile homes, and (3) recreational vehicles, and (4) areas where local codes prohibit grounding through the neutral conductor.

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

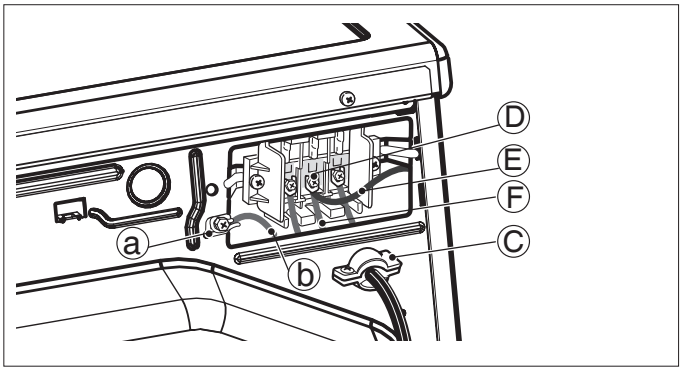
First, peel 5 inch (12.7cm) of covering material from end. Make a 5 inch of ground wire bared. After cutting 1½ inch (3.8cm) from 3 other wires. peel insulation back 1inch (2.5cm). Make ends of 3 wires a hook shape.



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



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

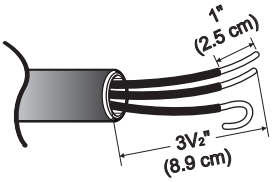


3-wire connection : Direct wire

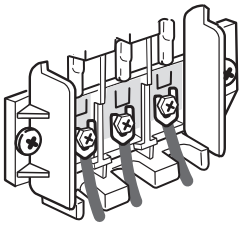
Important : Grounding through the neutral conductor is prohibited for (1) new branch-circuit installations, (2) mobile homes, and (3) recreational vehicles, and (4) areas where local codes prohibit grounding through the neutral conductor.

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

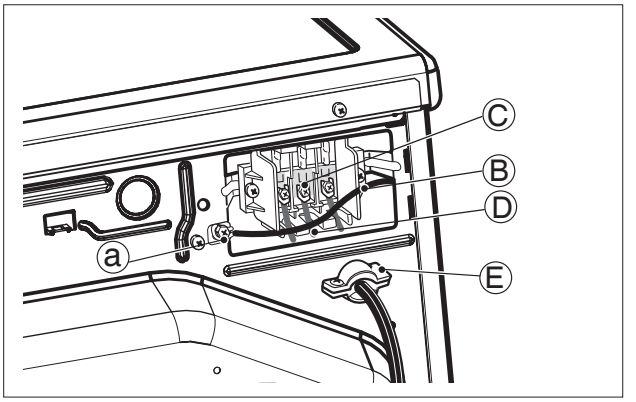
First, peel 3 ½ inch (8.9cm) of covering material from end and bare 1 inch from the ends.



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

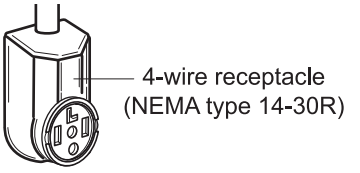


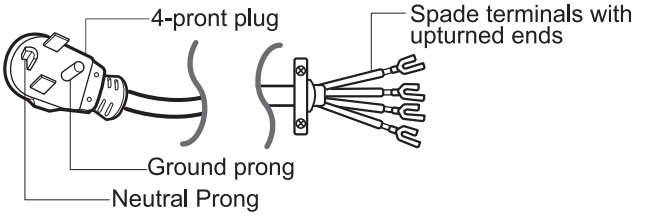
1. Connect neutral wire(white) of power cord to center terminal block screw.
2. Connect red and black wire to the left and right terminal block screws.
3. Make sure that the strain relief screw is tightened and be sure that all terminal block nuts are on tight and power cord is in right position.

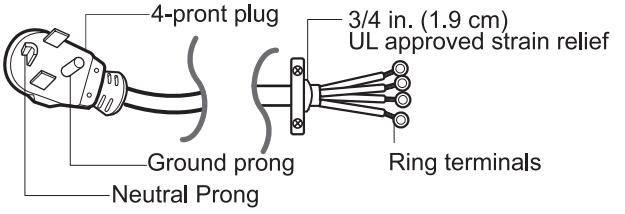


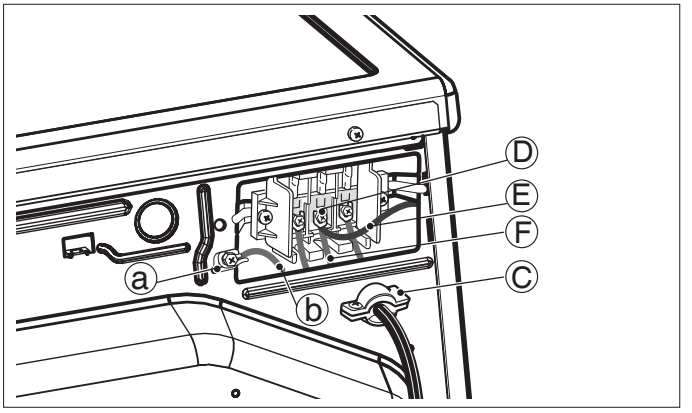
Option 1: 4-wire connection with a Power supply cord.

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





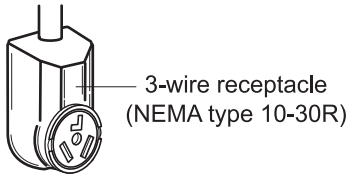


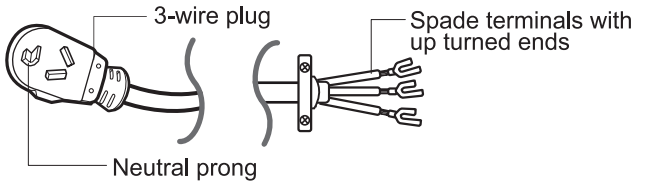


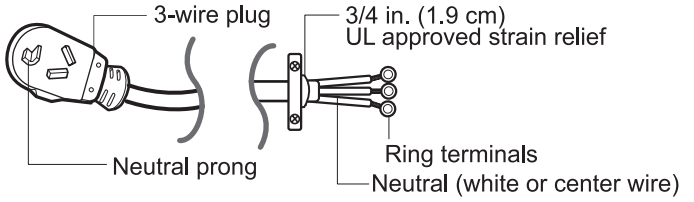
1. Connect the neutral wire (white) of the power cord to the center terminal block screw.
2. Connect the red and black wires to the left and right terminal block screws.
3. Connect the ground wire (green) of the power cord to the external ground screw. Remove the neutral ground wire of appliance and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

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

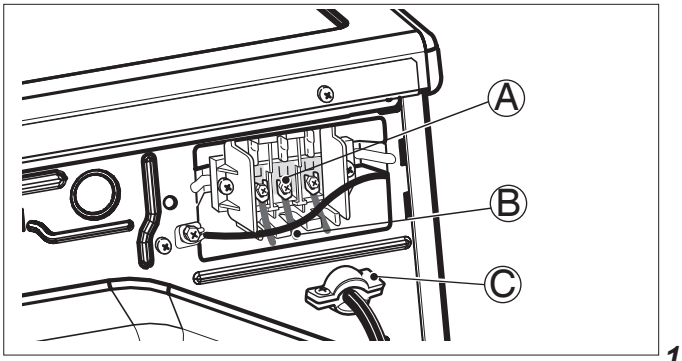
If your local codes or ordinances permit the connection of a frame-grounding conductor to the neutral wire, use these instructions. If your local codes or ordinances do not allow the connection of a frame-grounding conductor to the neutral wire, use the instructions under **Option 3: Optional 3-wire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





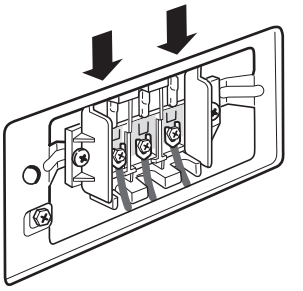


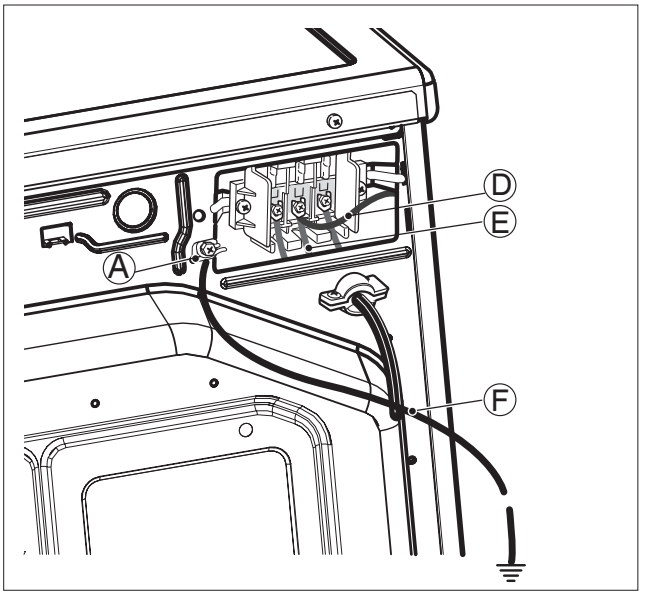
1. Connect the neutral (white or center) wire (B) to the center, silver colored, screw (A) and tighten securely.
2. Connect the other two power cord wires (red and black) to the left and right terminal block screws and tighten securely.
3. Tighten the strain relief screws (C) securely.



Option 3: Optional 3-wire connection.

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



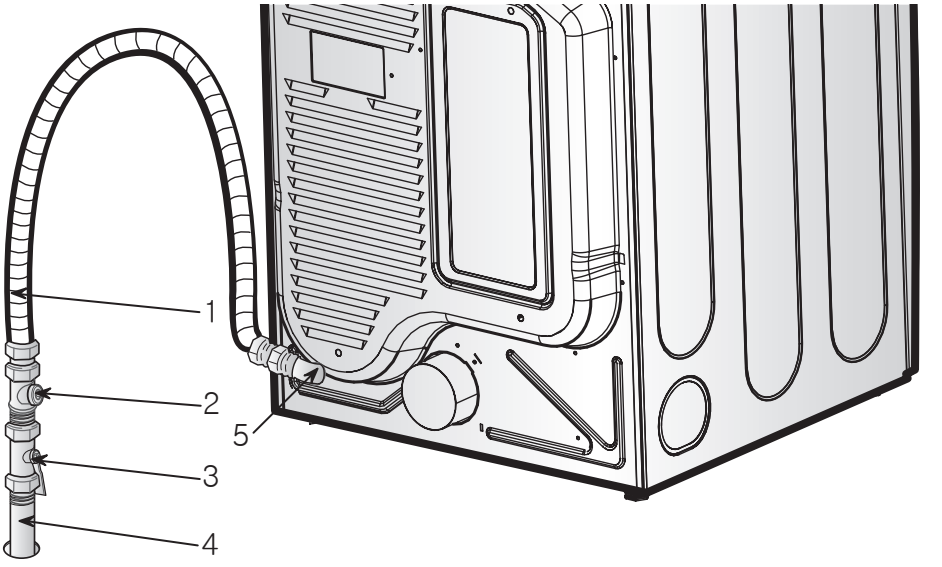


1. Remove the appliance ground wire (D) (green) fromthe external ground connector screw and reconnect it, together with the center, white, neutral wire (E) to the center, silver colored, terminal block screw.
2. Connect the other two power cord wires (red and black) to the left and right terminal block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

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

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

1. Make certain your dryer is equipped for use with the type of gas in your laundry room. Dryer is equipped at the factory for Natural Gas with a 3/8" NPT 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 and 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

4 DRYER CYCLE PROCESS

DLEX3470* / DLGX3471*

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 *	STEAM FRESH™	MID HIGH	OFF	20min ADJUSTABLE	Saturation	66±4˚C	5min	45 ±5˚C	3Hr
	STEAM SAINTARY™	HIGH	OFF	39min	Saturation	68±4˚C	5min	45 ±5˚C	
	ANTI BACTERIAL	HIGH	VERY DRY	70min	Saturation	68±4˚C	5min	45 ±5˚C	
	BULKY / LARGE	MEDIUM	NORMAL ADJUSTABLE	55min	Saturation	60±4˚C	5min	45 ±5˚C	
	HEAVY DUTY	HIGH	NORMAL ADJUSTABLE	54min	Saturation	68±4˚C	5min	45 ±5˚C	
	PERM PRESS CASUAL	LOW	NORMAL ADJUSTABLE	32min	Saturation	52±3˚C	5min	45 ±5˚C	
	COTTON / NORMAL	MEDIUM	NORMAL ADJUSTABLE	41min	Saturation	60±4˚C	5min	45 ±5˚C	
	DELICATES	LOW	NORMAL ADJUSTABLE	28min	Saturation	52±3˚C	5min	38 ±5˚C	
	TOWELS	MID HIGH	NORMAL ADJUSTABLE	55min	Saturation	66±4˚C	5min	45 ±5˚C	
	SMALL LOAD	HIGH	NORMAL ADJUSTABLE	30min	Saturation	68±4˚C	5min	45 ±5˚C	
Manual Dry **	SPEED DRY	HIGH	OFF	25min	Saturation	(68±5˚C)	5min	(47±5˚C)	3Hr
	AIR DRY	NO HEAT	OFF	30min	Saturation	(66±5˚C)	5min		
Load			Motor		→				Off Time: 6min --→ On Time: 10sec
			Heater		Temperature Control for each cycle - - - - - - - - - - - - →				

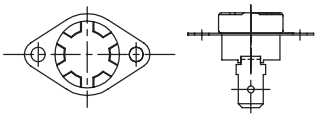
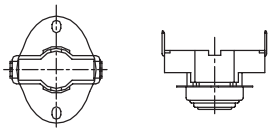
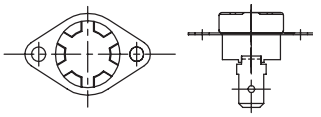
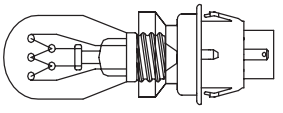
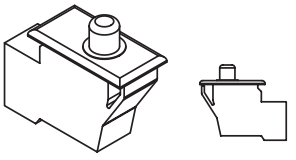
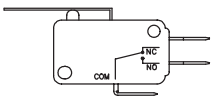
*Sensor dry : Dry Level is set by users.

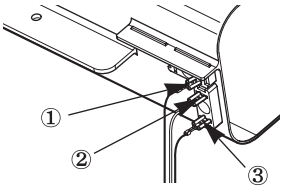
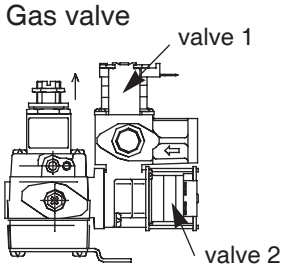
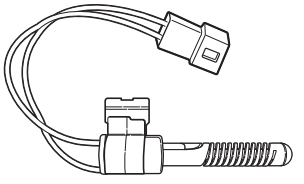
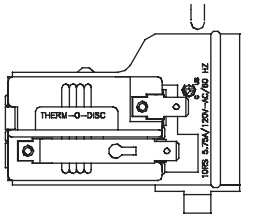
**Manual dry : Temperature control is set by users.

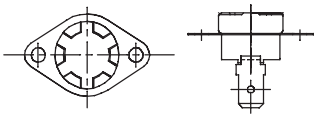
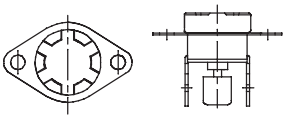
Default settings can be adjusted by users.

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) ② Auto reset 31°F (35°C) Same shape as Outlet Thermostat.	If thermal fuse is open must be replaced 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 - NO (1-2) 2) Door switch push: push ① Terminal: COM - NC (1-3) ② Terminal: COM - NO (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: 10Ω ② Resistance value: 10Ω ③ Resistance value: 20Ω	• Electric type
8. Thermistor 	Measure resistance of terminal to terminal Temperature condition: 58°F ~ (10~40°C) 58°F ~ 104F (10~40°C)	Resistance value: 10Ω	• 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: > 1.5~2.5 kΩ	• 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	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 158 ± 9°F (70 ± 5°C)	① Resistance value ≒ ∞ ② Continuity < 1Ω	• Gas type • Gas funnel
14. Outlet Thermostat (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

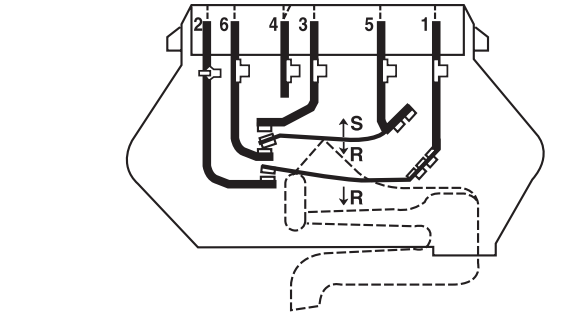
6 MOTOR DIAGRAM AND SCHEMATIC

NOTE *When checking component, be sure to turn power off, then do voltage discharge sufficiently.*

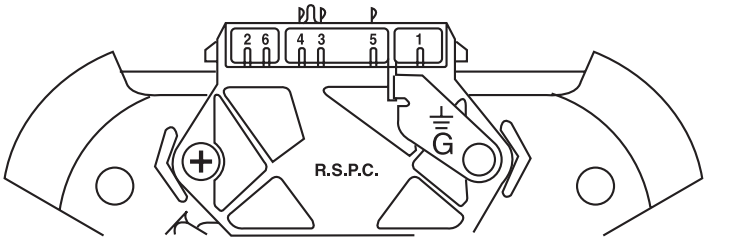
■ Contact On / Off by Centrifugal Switch

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)

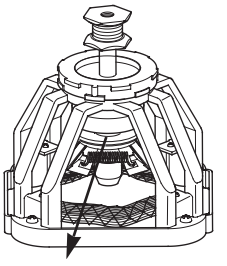
Open
Close



SWITCH SHOWN IN START POSITION

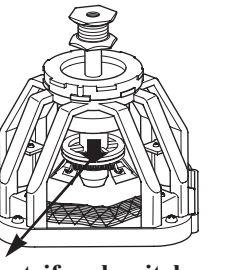


■ STOP MODE
(When Motor does not operate)



Centrifugal switch

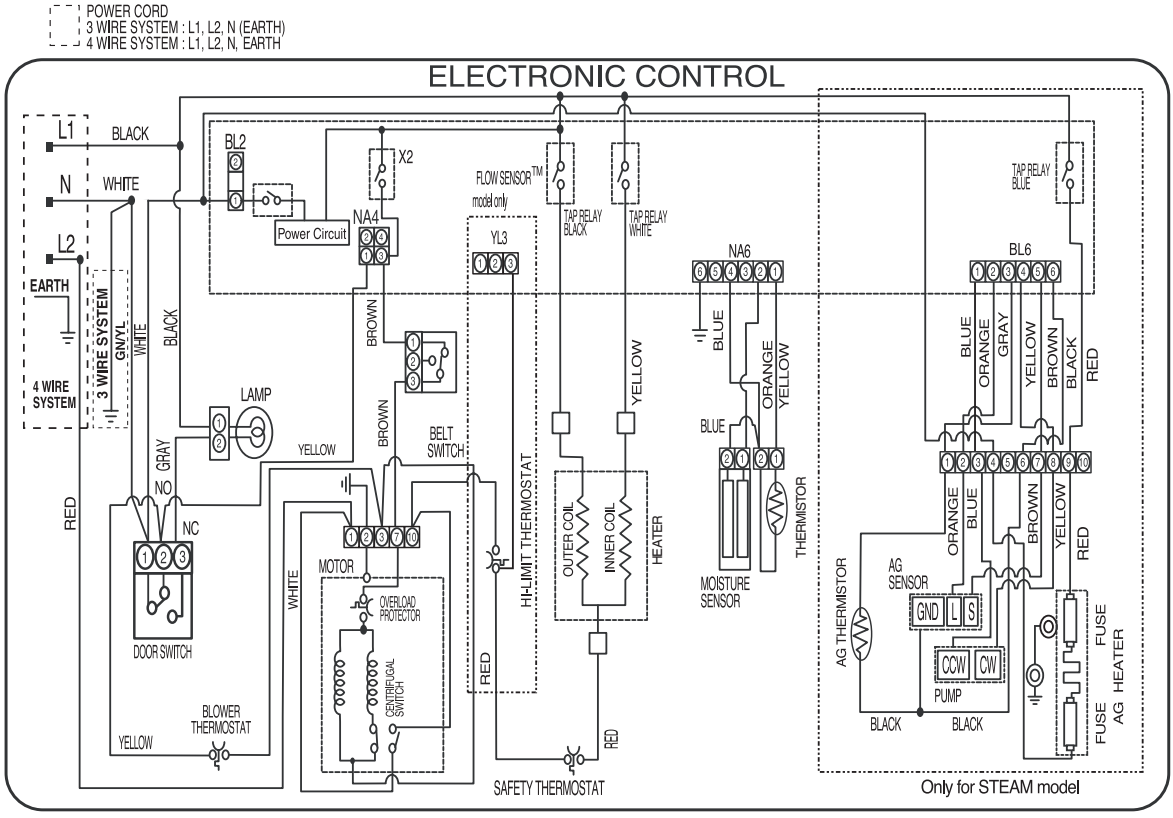
■ RUN MODE
(Motor operates)



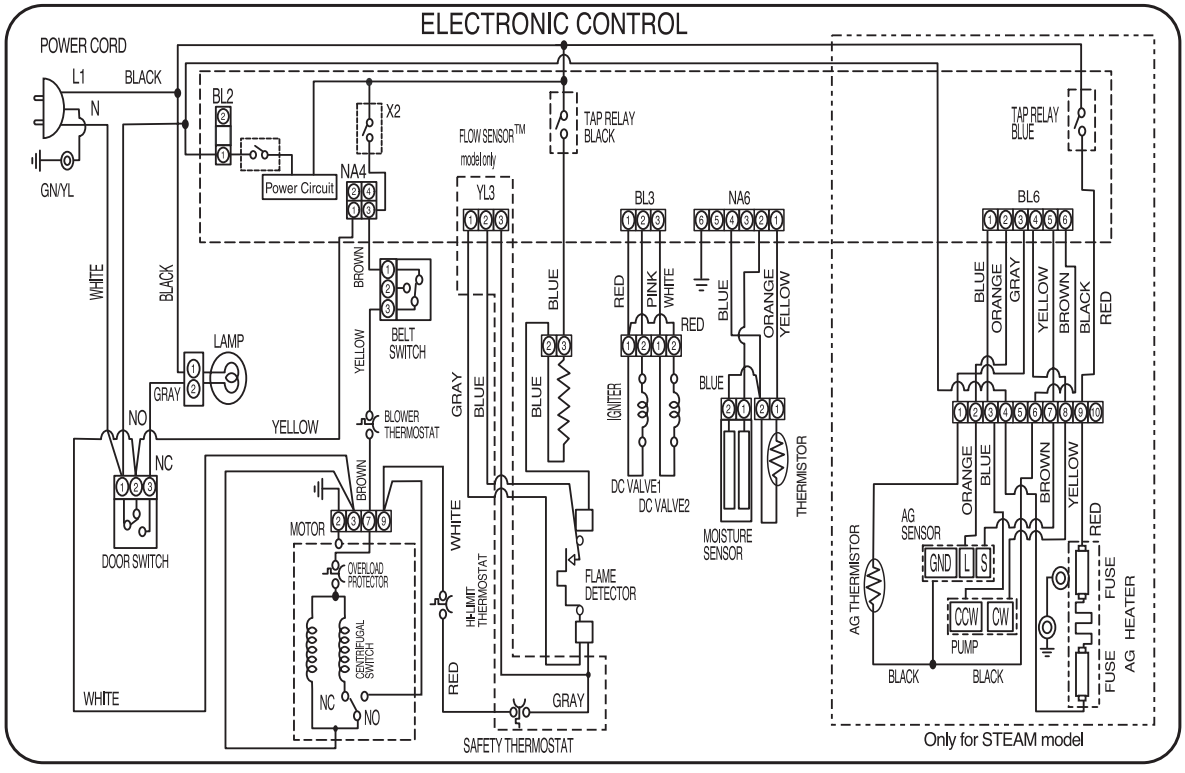
Centrifugal switch
(Pull Drive forward)

7 WIRING DIAGRAM

ELECTRIC DRYER WIRING DIAGRAM



GAS DRYER WIRING DIAGRAM



8 STEAM FUNCTION

8-1. Steam Cycle Guide for Steam Dryer

	STEAM	DEFAULT TIME	TEMP. CONTROL	DRY LEVEL	FABRIC STATE	FABRIC TYPE	MAXIMUM AMOUNT
STEAM SANITARY™		STEAM SANITARY™ (39 minutes)			Dry	Comforter Bedding	Single (1 each)
						Children's clothing	3 lbs.
STEAM FRESH™		STEAM FRESH™ (20 minutes)	O		Dry	Comforter	Single (1 each)
						Shirts*	5 each
	+ REDUCE STATIC	STEAM FRESH™ (10 minutes)			Dry	Shirte*	8 lbs. (18 Items.)
	+ EASY IRON	STEAM FRESH™ (12 minutes)			Dry	Shirte*	Shirts* (5 each)
STEAM OPTION	+ REDUCE STATIC	HEAVY DUTY COTTON/TOWELS NORMAL PERM.PRESS DELICATES		O	Wet	Varies by selected cycle	8 lbs. (18 Items.)
	+ EASY IRON			O	Wet	Varies by selected cycle	Shirts* (5 each)
TIME DRY	+ REDUCE STATIC	TIME DRY (45 minutes)	O		Wet	Varies by selected	8 lbs. (18 Items.)
	+ EASY IRON	TIME DRY (47 minutes)	O		Wet	Varies by selected	Shirts* (5 each)

*Shirt: 70% cotton/30% poly blend. Except especially delicate fabrics.

- When the lint filter or exhaust duct is clogged, steam options will not give proper results.
- For best results, load articles of similar size and fabric type. Do not overload.

IMPORTANT NOTES ABOUT STEAM CYCLES:

- The steam feeder must be filled with water up to the MAX line. Otherwise, an error message will be displayed.
- If the lint filter or exhaust duct is clogged, the steam options will not give proper results.
- For best results, load articles of similar size and fabric type. Do not overload.
- Water only - Do not add any additives or other materials as these will damage your dryer.
- Before moving the dryer, make sure the steam feeder is empty.
- Best results are obtained with cotton/poly blend fabrics.

8-2. Troubleshooting for Steam Dryer

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
 **indicator lights is on during the drying cycle**	• Water supply error.	• Check steam feeder drawer: (1) Make sure steam feeder is filled with water to MAX line. (2) Make sure steam feeder is seated properly and drawer is fully cloased. (3) Turn the dryer off then restart the steam cycle. • Do not use distilled water; the water level sensor in steam generator will not work. • Pump not working. Unplug dryer and call for service.
Water drips from nozzle when Steam Cycle starts.	• This is normal.	• This is steam condensation. The dripping water will stop after a short time.
Steam doesn't generate but no error code is shown.	• Water level error.	• Unplug dryer and call for service.
Garments still wrinkled after STEAM FRESH™.	• Too many or to different types of garments in dryer.	• Small loads of 1 to 5 items work best. • Load fewer garments. Load similar-type garments.
There are no creases left on garment after STEAM FRESH™.	• The function of this cycle is to remove wrinkles from fabric.	• Use an iron to make creases.
Garments have static after REDUCE STATIC.	• This is normal.	• Depends on individual moisture level in skin.
Garments are too damp or too dry after REDUCE STATIC.	• Correct drying options not selected.	• Select load weight manually before starting REDUCE STATIC option.
Garments are not uniformly damp after EASY IRON.	• This is normal.	• Depends on the amount or type of garments.
Water drips from door during Steam Cycle.	• This is normal.	• This is steam condensation on door surface.
Steam is not visible during Steam Cycle.	• This is normal.	• Steam vapor is difficult to see when the door is closed.
Drum does not turn during Steam Cycle.	• This is normal.	• The drum is turned off so that the steam vapor remains in the drum.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Cannot see steam vapor at the beginning of cycle.	• This is normal.	• Steam is released at different stages of the cycle for each option.
The display shows: bl 9	• MORE TIME pressed.	• Pressing the MORE TIME button adjusts the load size from 1to 5 articles or a big load indicated by bl 9 in the display.
Odors remain in clothing after STEAM FRESH™.	• STEAM FRESH™ did not remove odor completely.	• Fabrics containing strong odors should be washed in a normal cycle.

8-3. Display Fault/Error Codes for Steam Dryer

The error codes below will be displayed when attempting to start a drying cycle or after activating the Diagnostic Test mode.

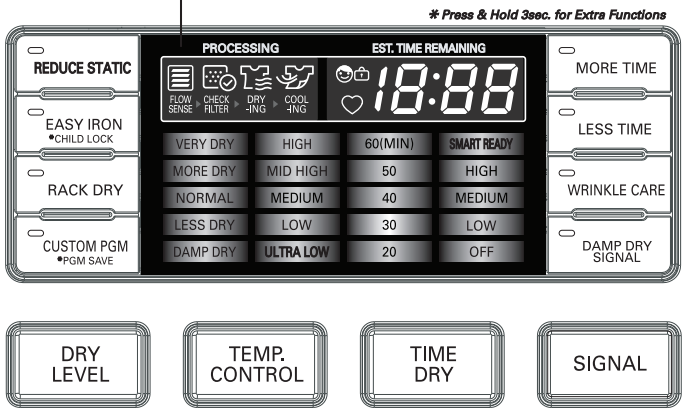
DISPLAY	CHECKING PART	CAUSE	REMARK
tE1	Thermistor of blower housing	Outlet thermistor open or shorted.	• tE1 error is displayed in the drying cycle or test mode. • Replace the steam generator.
tE2	Thermistor of blower housing	Outlet thermistor open or shorted.	• tE2 error is displayed in the drying cycle or test mode. • Replace the steam generator.
tE4	Thermistor of steam generator	Steam generator thermistor open or shorted.	• tE4 error is only displayed in the test mode. • Replace the steam generator.
E5	Water supply pump	When the pump valve is less than 10 in the test mode	• tE5 error is only displayed in the test mode. • Check the connection between harness wire and connector. • Replace the water supply pump.
Add	Steam generator	Sensors do not detect that steam generator is full within 60 seconds.	• If water in the steam feeder is not enough this error may be displayed. Fill the feeder and restart the cycle.

9 FLOW SENSOR FUNCTION

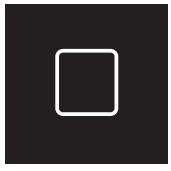
9-1 Flow sensor

This FlowSense™ function detects the clogging or blocking of ducts.
Clogged duct vents or hoses decrease efficiency in drying cloths. Clogged vents can also cause fire.
This function alerts you to the need of cleaning the duct.
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



■ How does the Flow sense function display the clogging of duct ?

	
4 Bars	NO Bars
CLOGGED Check and Clean Duct.	**NORMAL** Duct OK. The Dryer can work.

The FlowSense™ display consists of four bars inside a box. The display has only three possible displays as only three possible displays as shown here (Also see the figure shown below):

① No bars displayed.

② 4 bars displayed.

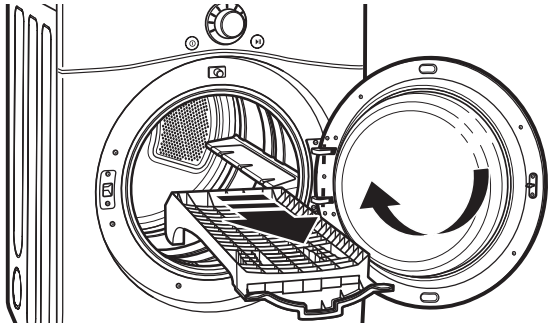
9-2 Installation Test (Exhaust check)

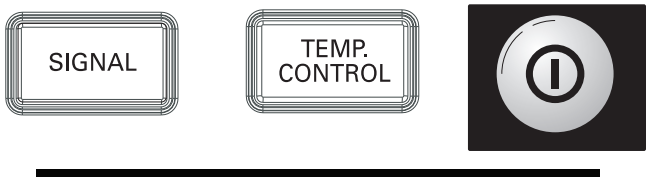
Once you have completed the installation of the dryer, use this test to make sure the condition of the exhaust system is adequate for proper operation of the dryer. This test should be performed to alert you to any serious problems in the exhaust system of your home.

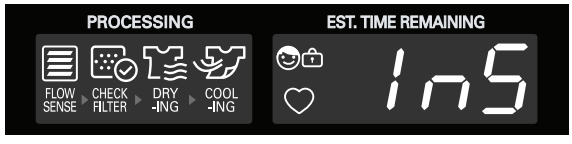
- Your dryer features FlowSense, an innovative sensing system that automatically detects blockages and restrictions in dryer ductwork. Keeping ductwork clean of lint buildup and free of restrictions allows clothes to dry faster and reduces energy use.

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 :



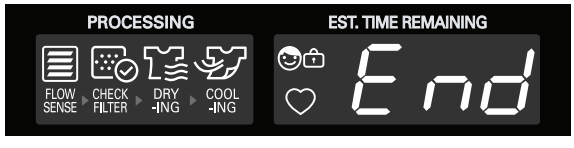




NO BARS:
OK

FOUR BARS:
RESTRICTED

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



1. Remove the drying rack and literature, and then close the door.
   Do not load anything in the drum for this test, as in may affect the accuracy of the results.

2. Press and hold the SIGNAL and TEMP CONTROL buttons and then press the POWER button.
   This button sequence activates the installation test. The code InS will display if the activation is successful.

3. Press START/PAUSE button.
   The dryer will start the test, which will last about two minutes. The heat will be turned on and the temperatures in the drum will be measured.

4. Check the display for results.
   During the two minute test cycle, monitor the FlowSense display on the control panel. If no bars are displayed, when the cycle ends, the exhaust system is adequate. If the exhaust system is severely restricted, the display will show four bars. Other problems may also be shown with error codes. Refer to the next page for error code details and solutions.

5. 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.

• Check the Error Code before you call for service

Error Code	Possible Causes	Solutions
tE1 *or* tE2	• Temperature sensor failure	• Turn off the dryer and call for service.
HS	• Humidity Sensor failure.	• Turn off the dryer and call for service.
PS *or* PF *or* nP	• Electric dryer power cord is not con – nected correctly, or house power supply is incorrect. • House fuse is blown, circuit breaker has tripped, or power outage has oc – curred.	• 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 over – load, have it corrected by a qualified electrician.

• Check the duct condition

If the test displays four bars, check the exhaust system for restrictions and damage. Repair or replace the exhaust system as needed.

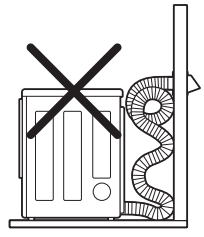
NOTE: When the dryer is first installed, this test should be performed to alert you to any existing problems with the exhaust duct in your home. However, since the test performed during normal operation provides more accurate information on the condition of the exhaust duct than does the installation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

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

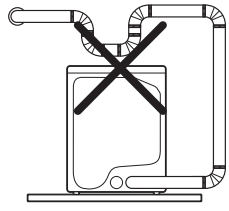
NOTE: Even if no bars are displayed during the test cycle, some restrictions may still be present in the exhaust system. Refer to the Venting the Dryer section of this manual for complete exhaust system and venting requirements.

Restricted or Blocked Airflow

Avoid long runs or runs with multiple elbows or bends.

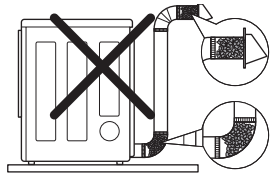


Excess or crushed transition duct



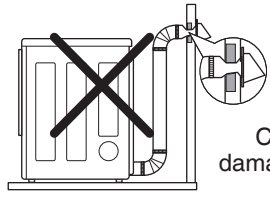
Too many elbows or exhaust too long

Check for blockages and lint buildup.



Lint buildup or blockage

Make sure the ductwork is not crushed or restricted.



Crushed or damaged exhaust

10 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 FOR STEAM DRYER

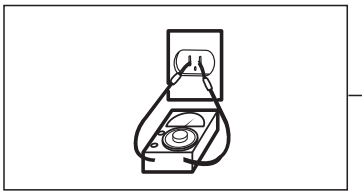
1. UNIT must be in standby (unit plugged in, display off)
2. Press POWER while pressing MORE TIME and LESS TIME simultaneously.
3. Press START/PAUSE button to advance through diagnostics.

Pressing the START/PAUSE	CHECKING ACTION	DISPLAY	CHECKPOINT
None	Electric control & Temperature sensor	1nES(Elec Type) 1n9S(Gas Type)	Standard
		U03	MAIN PGM ver(1nES - U03 - d02)
		d02	DISPLAY PGM
		tE1	Thermistor open
		tE2	Thermistor shorted
		tE4	AG Thermistor open or shorted
Once	Motor+Controller	255 = Low moisture 30 = High moisture	Motor runs
			Displays Moisture Sensor Operation If moisture sensor is contacted with damp cloth. The display number is below180innormalcondition
Twice	■ELECTRIC TYPE Motor+Heater1(2700W) ■GAS TYPE Motor	Current Temp. (5~70)	■ELECTRIC TYPE Heater 1 is energized - 2700 W ■GAS TYPE is not opened (Temperature in the drum is displayed in degrees C.)
3 times	■ELECTRIC TYPE Motor+Heater1+Heater2 (5400W) ■GAS TYPE Motor+Gasvalve	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.) ■DUAL SENSOR FAILURE CHECK : Values of TEMPERATURE2 and HUMIDITY are '000', the display shows SE ERROR.
4 times	Motor+Pump+ Heater2(runs for 1sec) (Heater1 off)	Pump AD valve (11~255)	Pump runs
		E5	Pump Error
5 times	Motor, Pump, Heater2 off	OO	
6 times	Loads off, Controller off		Power off

✳ To check pump operation:
When pressed 4 times in 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 1	When measuring power, be sure to wear insulated gloves to avoid an electric shock.
Trouble Symptom	No power was applied to Controller. Display (LCD or LED) off.
Measurement Condition	Dryer power on, collector plugged in.

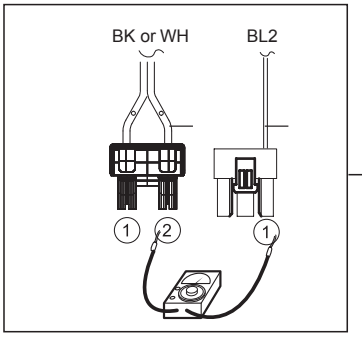


Check the outlet, is the voltage 110V ~ 125V AC?

NO

- Check the fuse or circuit breaker

YES

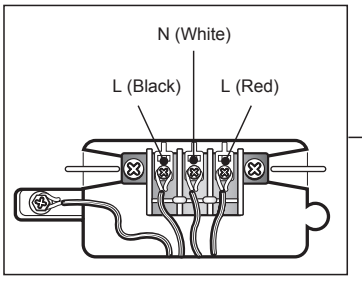


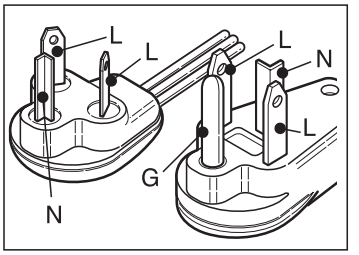
Check if the voltage measured Between Connector BK-② or WH-② (Black Wire) Linked to the Controller and BL2-① (White Wire) Is 110~125V?

NO

- 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 (Naturall) line match to Terminal Center N (Natural) line?

NO

- Reconnect the controller.

YES

Replace controller.

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

1. Power Connection

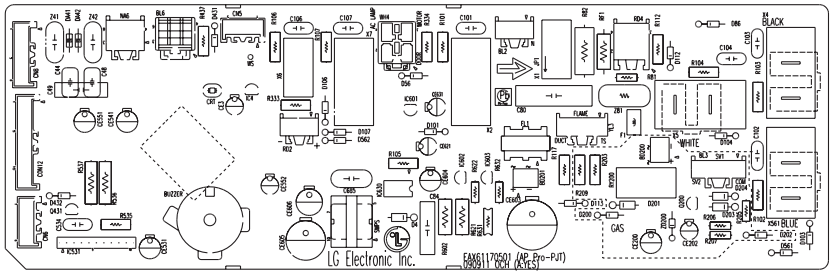
< Table1 > : Connection of the tap relay with Heater (Electric)

	Tab Relay	Tab Relay	2Heater 1	Heater	2 Remark
High Mid High Medium	on	on	on	on	Temperature Control below 68 ± 4℃ Turn on Heater1 and Heater2.
Low Extra Low	on	off	on	off	Temperature Control below 52 ± 4℃ Only Turn on Heater1.

< Table 2 > : Connection of the Tab Relay with Burner (Gas)

	Tab Relay 1	Burner	Remark
High Mid High Medium	O	O	Temperature Control below 70 ± 4℃ Turn on Burner
Low Extra Low	O	O	Temperature Control below 47 ± 4℃ Turn on Burner

Tab Relay 1 Tab Relay 2 Trans



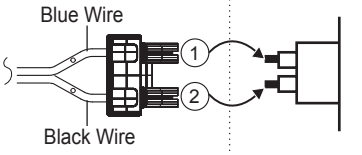
∗ PCB ASSEMBLY LAYOUT

2. Status Mode Of The Connection

< Table1 > : Connection of tap relay with the tap relay of the PCB ASSEMBLY Electric

	Color	Connection		Remark
		Harness	PCB	
Connector Housing	Black	Yellow wire Black wire **Connector Housing**	**Tap relay 1**	Check the Matching color Between Harness wire and tap relay. (Black Housing – Black tap relay)
	White	Blue wire Black wire **Connector Housing**	**Tap relay 2**	Check the Matching color Between Harness wire and tap relay. (White Housing – White tap relay)

< Table 2 > : Connection of tap relay with PCB ASSEMBLY (Gas)

	Color	Harness	PCB	Remark
Connector Housing	Black	 Connector Housing	Tap relay 1	Check the Matching color Between Harness wire and tap relay. (Black Housing – Black tap relay)

3. Status Mode Of wrong Connection

< Table1 > : incorrect Connection of the tap relay and connector housing (Electric)

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

< Table2 > : incorrect Connection of the tap relay and connector housing (Gas)

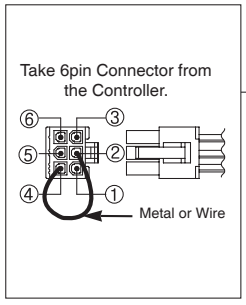
Items	Case	Heater1 Operation (black)	Heater2 operation (White)	PCB condition Of operation
1.Black and White Housing	Wire ①, ② CROSS	Off	Off	Power Off

⚠ CAUTION

CAUTION! Improper connection of the heater can damage the heater or the main board.

■ 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 the power cord with ground.)
Trouble Symptom	① During diagnostic test, tE1 and tE2, an error occurs. ② During operation, the heater does not turn off. ③ Difference between actual and sensed temperature is significant.
Measurement Condition	After turning power off, measure the resistance.

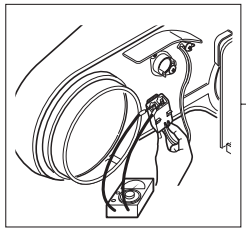


Put a jumper between NA6-② (OR) and NA6-④ (BL) to create a circuit connection for the continuity test in the next step.

YES

- Check if control and the 6 pin connector are properly connected.
- 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

- Replace thermistor.

YES

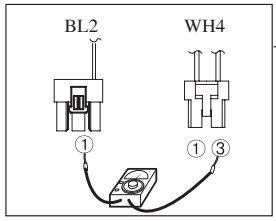
Check harness-linking connector.

■ Thermistor temperature/resistance chart (±5%)

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
70 ℉(21 ℃)	11.7	110 ℉(43 ℃)	5.2	150 ℉(66 ℃)	2.5
80 ℉(27 ℃)	9.3	120 ℉(49 ℃)	4.3	160 ℉(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 does not rotate, fan and heater do not operate.
Measurement Condition	Unplug dryer, then measure resistance.



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

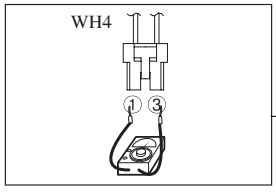
YES → • Replace Control. (Relay check) • Check Controller connector.

NO

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

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

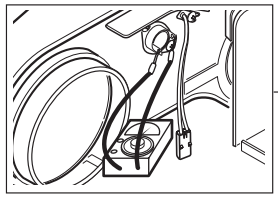
YES



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

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

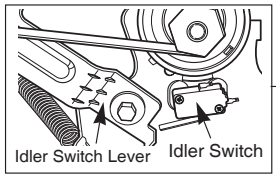
NO



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

NO → • Replace Outlet • Thermostat. (Refer to 'Component')

YES

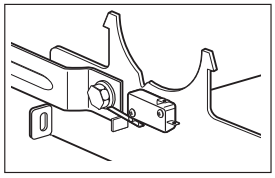


Does Idle Switch attached to Motor Bracket operate Level by drum belt?
(Not operating Lever is normal.)

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

Is resistance below 1Ω between Idler Switch terminals?

NO → • Replace Idler Switch.



YES

• Check Motor. (Refer to 'Motor Diagram & Check')
• Check if Control Connector is contacted.

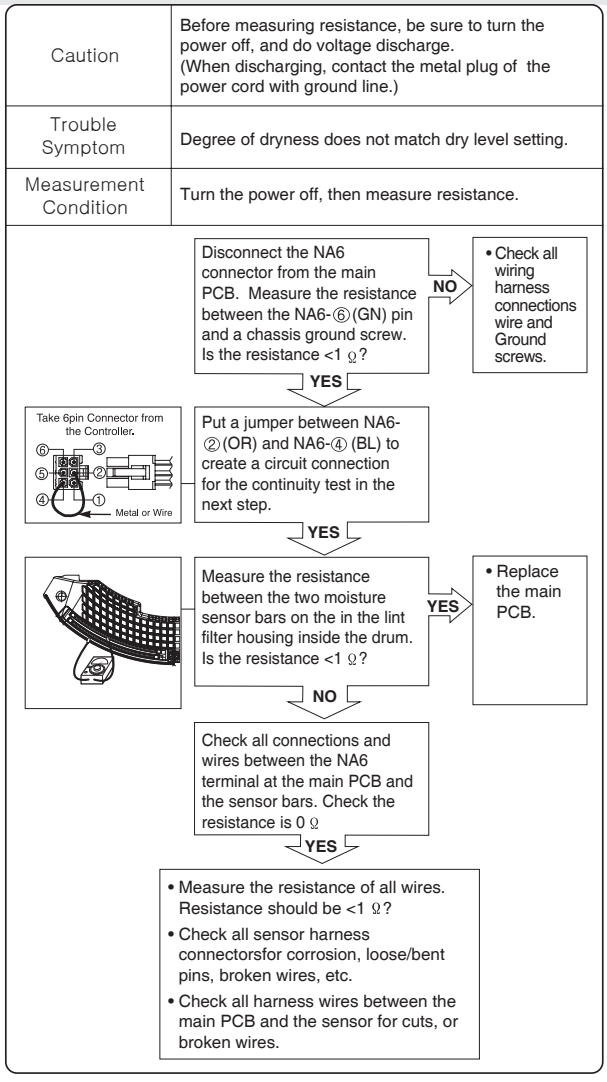
■ Test 4 Moisture sensor

NOTE: This test has two parts. The best test of the moisture sensing system is done in the diagnostic mode. This FUNCTIONAL TEST will test the sensor bars, wiring harness and PCB operation. If the results of this test are normal, the sensor system and PCB response are normal. The problem is somewhere else.

FUNCTIONAL TEST (Control)

1. Enter the diagnostic mode. (See DIAGNOSTIC TEST MODE on page 30.)
2. With the door closed, press the START/PAUSE button once. The dryer will start tumbling without heat.
3. Open the door. The drum will stop tumbling and the “dE” error code will be displayed and the chime will sound several times (if turned on).
4. With one hand, reach into the drum and place your fingers across the moisture sensor bars.
   (CAUTION: The dryer drum will turn in this test. Your hand will be close to the rotating drum vanes. Keep your hand close to the filter housing to avoid being hit by the moving vanes.)
5. Use your other hand to press the door switch. The dryer drum will start rotating automatically.
6. Observe the numerical display. Depending on conditions, the number displayed should be between 30 and 239. The numbers should start decreasing as the control senses the moisture in your skin.
7. After you have observed the number decreasing, remove your fingers from the sensor bars. The numbers will continue to decrease for a few seconds (minimum 30) and the begin to increase (maximum 239).
8. If this test fails, proceed with the MECHANICAL TEST below.

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



■ Test 5 Door swich test

NOTE: This test has two parts. The best test of the door switch system is done in the diagnostic mode. This FUNCTIONAL TEST will test the door switch, wiring harness and PCB operation. If the results of this test are normal, the door switch system and PCB response are normal. The problem is somewhere else.

FUNCTIONAL TEST (Control)

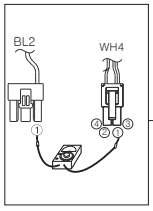
1. Enter the diagnostic mode. (See DIAGNOSTIC TEST MODE on page 30.)
2. With the door closed, press the START/PAUSE button once. The dryer will start tumbling without heat.
3. Open the door. The drum will stop tumbling. The “dE” error code should be displayed, the chime should sound seven times (if turned on), and the drum light (if equipped) should come on. If the “dE” error code is not displayed or the light does not come on, proceed with the MECHANICAL TEST below. If the error displays and light comes on, the door switch is working properly.

Caution	Before measuring resistance, be sure to turn the power off, and do voltage discharge. (When discharging, contact the metal plug of the 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 half second intervals.)
Measurement Condition	After turning the dryer power off, measure the resistance.

Disconnect the WH1 and BL3 connector from the main PCB. Measure the resistance between the NA6-⑥ (GN) pin and a chassis ground screw. Is the resistance <1 Ω?

NO → • Check all wiring harness connections wire and ground screws.

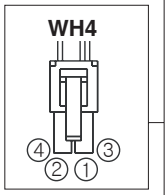
YES ↓



Disconnect the BL2 and WH4 connector from the main PCB. Measure the resistance between BL2-① (WH) and WH4-① (YL). Is the resistance <1 Ω with the door closed and ∞ Ω with the door open?

YES → • Replace the main PCB.

NO ↓



*Skip this step if the dryer does not have a drum light.

Disconnect the WH4 and the black tab relay connectors from the main PCB. Measure the resistance between WH4-① (YL) and WH4-④ (BK). Is the resistance <1 Ωwith the door opened and ∞ Ωwith the door closed?

NO → • Replace the light bulb.
• Replace the light socket.

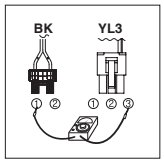
YES ↓

Refer to the individual door switch and light bulb/socket component tests.

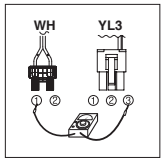
■ Test 6 Heater switch test - Electric Type

Caution	Before measuring resistance, be sure to turn the power off, and do voltage discharge. (When discharging, contact the metal plug of the power cord with a ground line.)
Trouble Symptom	While operating, Heating will not work. Drying time takes longer.
Measurement Condition	After turning the power off, measure the resistance.

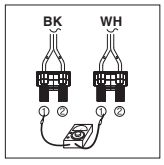
Enter diagnostic mode and press the START/PAUSE button twice. Measure the voltage between YL3- ③ (WH) and the YL wire on the black tab relay. Is the voltage 240 VAC?
- NO → • Check power supply.
- YES ↓



Disconnect the YL3, black tab relay and white tab relay connectors at the main PCB. Measure the resistance between YL3-③(WH) and the BL wire on the black tab relay connector. Is the resistance 18-22 Ω?
- NO → • Check wiring and connectors to the element. • See element component test.
- YES ↓



Measure the resistance between YL3-③(WH) and the YL wire on the white tab relay connector. Is the resistance 18-22 Ω?
- NO → • Check wiring and connectors to the element. • See element component test.
- YES ↓

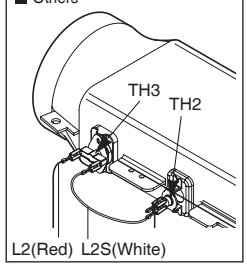


Measure the resistance between the BL wire on the black tab relay and the YL wire on the white tab relay connectors. Is the resistance 36-44 Ω?
- NO → • Check wiring and connectors to the element. • See element component test.
- YES ↓

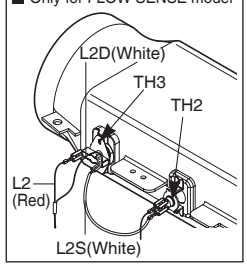
Measure the resistance between terminals 1 (RD) and the heater housing. Is the resistance <1 Ω?
- NO → • Replace the element.
- YES ↓

Refer to the hi-limit thermostat and thermal cut off component tests.

■ Others



■ Only for FLOW SENSE model

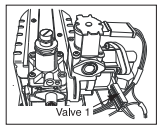


※ Wires
- L2(Red)
- L2D(White) : Go to the duct(YL3 in main pcb)
- L2S(White) : Go to the safety.

■ Test 7 CAS Valve test - Gas Type

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

Caution	When measuring power, be sure to wear insulated gloves to avoid electric shock.
Trouble Symptom	Dryer runs but no heat. Drying time takes longer.
Measurement Condition	With dryer power on

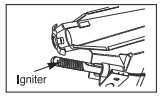


Power On & Start (Normal Cycle)

NO

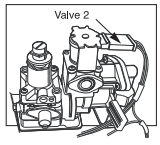
Does the voltage at valve 1 measure greater than 90 VDC? — NO → • Check thermostat hi-limit safety

YES



Igniter operates? (after 1 minute, igniter becomes reddish) — NO → • Check igniter and flame detector.

YES



Does the voltage at valve 2 measure greater than 90 VDC 10 seconds after the igniter is turned off? — YES → • Check gas connection or gas supply

NO

Does the terminal resistance at valves 1 and 2 measure greater than 2.5 KΩ? (Measure after power is turned off? — YES → • Replace valve.

NO

If valves 1 and 2 measure less than 10 VDC, are the valves off? — NO → • Replace valve.

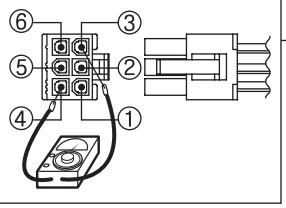
YES

• Harness check
• Controller change

■ Test 8 Semi Conductor

Caution	Before measuring resistance, be sure to turn Power off, and do voltage discharge. (When discharging, contact the metal plug of Power cord with earth line.)
Trouble Symptom	Degree of Resistance is not in 300°æ30 Ω
Measurement Condition	Turn the Dryer's Power Off, then measure resistance.

Take 6pin Connector from the Controller.



When measuring resistance ③−④, ④−⑤
Is resistance 300± 20 Ω?

NO

- Check Semi-conductor and Harness Connector
- Check Harness linking connector

YES

■ Test 9 Motor Assembly, DC, Pump

* This only applies to a steam dryer

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	During Diagnostic Test, E5 Error occurs.
Measurement Condition	Turn the Dryer's Power Off, then measure resistance.

After activating the *diagnostic test, press START/PAUSE button 4 times.
Is AD value displayed higher than 10 ?

NO

- Replace the DC Pump

YES

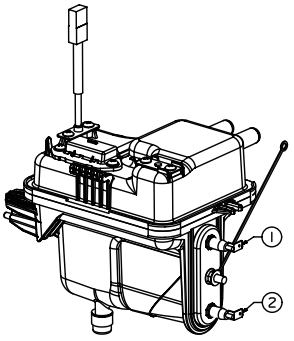
Normal condition

*** diagnostic test : go to page 22**

■ Test 10 Generator Assembly

* This only applies to a steam dryer

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	① During Steam cycle, Generator Assembly is not heating. ② During Diagnostic Test, tE4 Error occurs.
Measurement Condition	Turn the Dryer's Power Off, then measure resistance.



Is resistance 14.3 Ω (± 5%) between Heater terminal ① and ② ?

NO

- Replace the Generator Assembly
- If measured resistance value is ∞, replace the Generator Assembly too.

YES

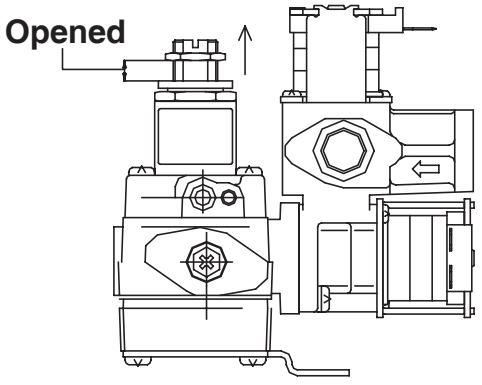
Normal condition

11 CHANGE GAS SETTING (NATURAL GAS, PROPANE GAS)

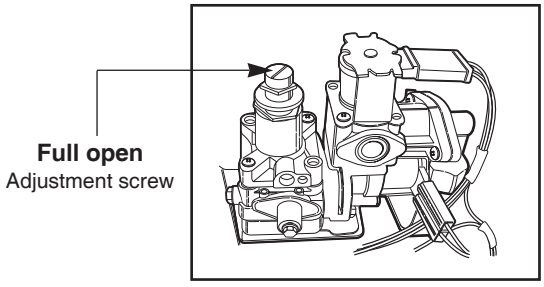
⚠ Warning *Changing orifices and gas valve adjustments improperly can result in explosion and/or fire. Conversion must be made by a qualified techni*

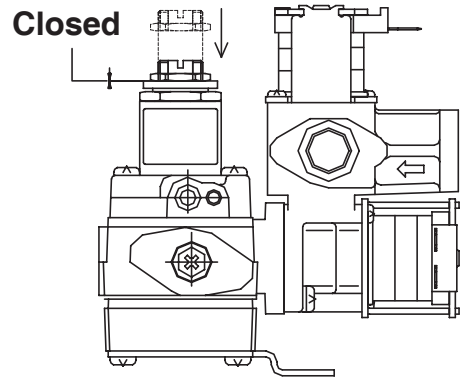
Initially, The burner is set for natural gas at the factory. The propane orifice conversion kit is sold as a service part to autherized servicers only. Part numbers are shown below.

STEP 1 : VALVE SETTING

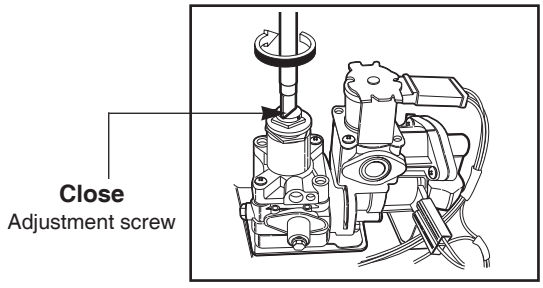


NATURAL GAS SETTING

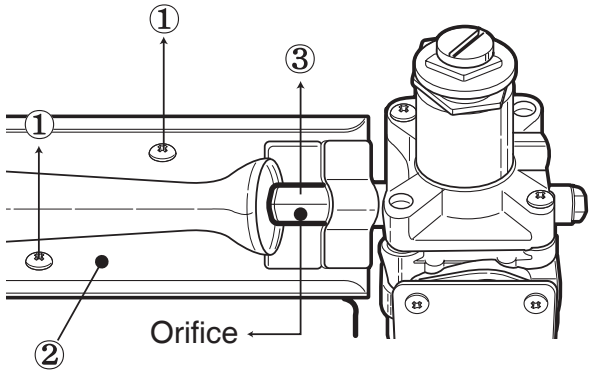




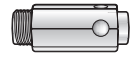
PROPANE GAS SETTING



STEP 2 : ORIFICE CHANGE

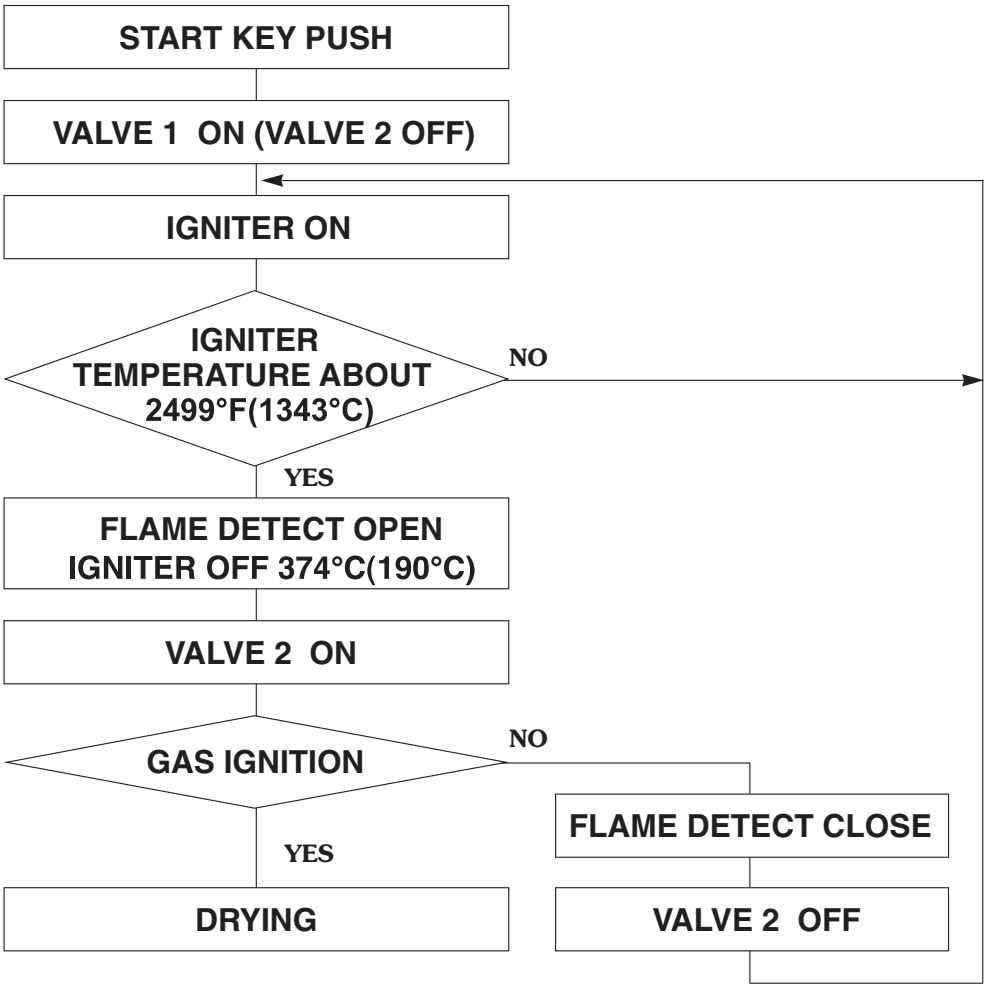


① Remove 2 screws.
② Disassemble the pipe assembly.
③ Replace Natural Gas orifice with Propane Gas orifice.

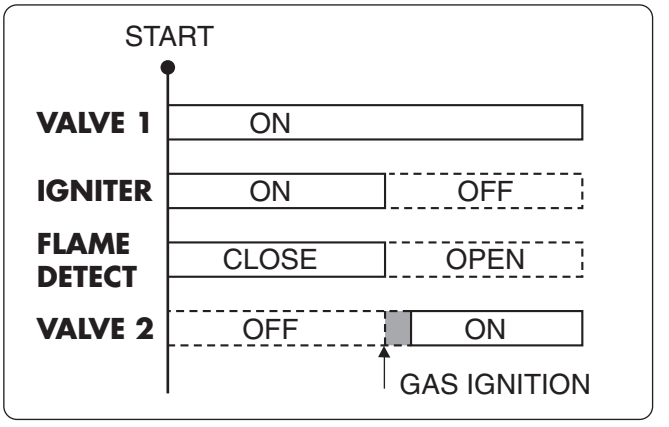
Gas type	Orifice P/No	Marking	Shape
Natural Gas	4948EL4001B	NCU	
Propane Gas	4948EL4002C	PCK	

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

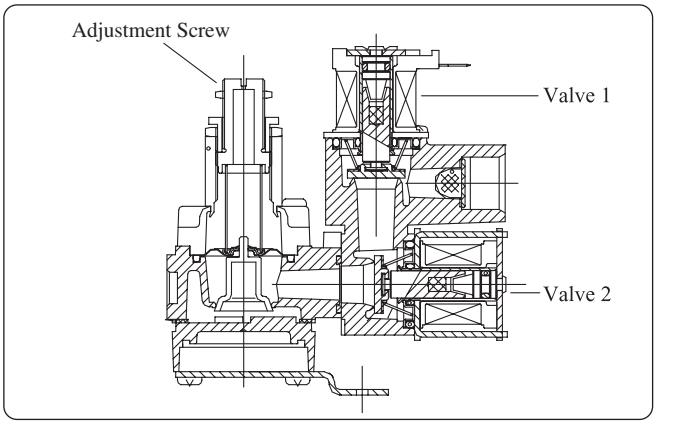
■ GAS VALVE FLOW



GAS IGNITION



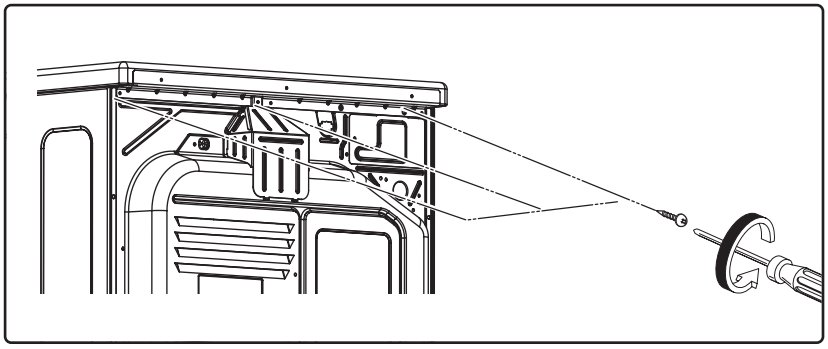
GAS VALVE STRUCTURE



12 DISASSEMBLY INSTRUCTIONS

※ Unplug the dryer before servicing.

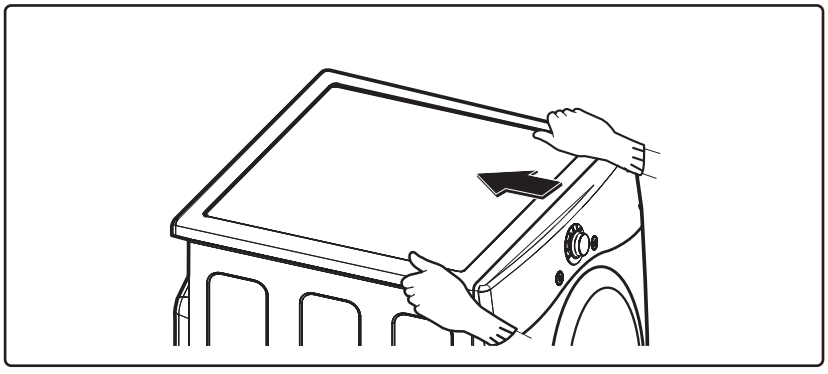
TOP PLATE



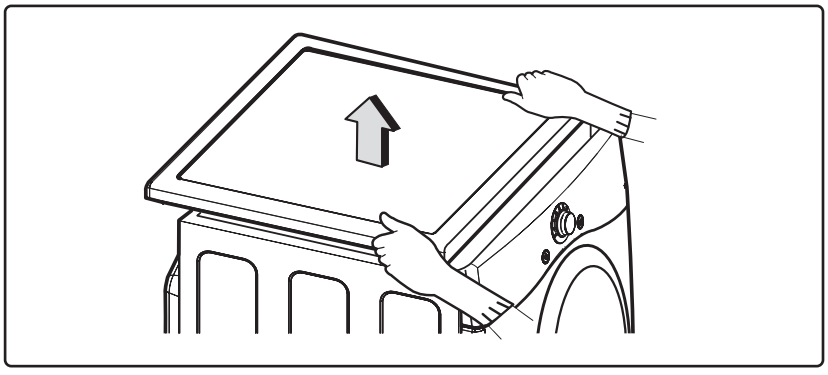
⚠ WARNING !

When you disassemble the top plate, 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 Injury to persons adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

1. Remove 3 screws on the upper plate.



2. Push the top plate backward.

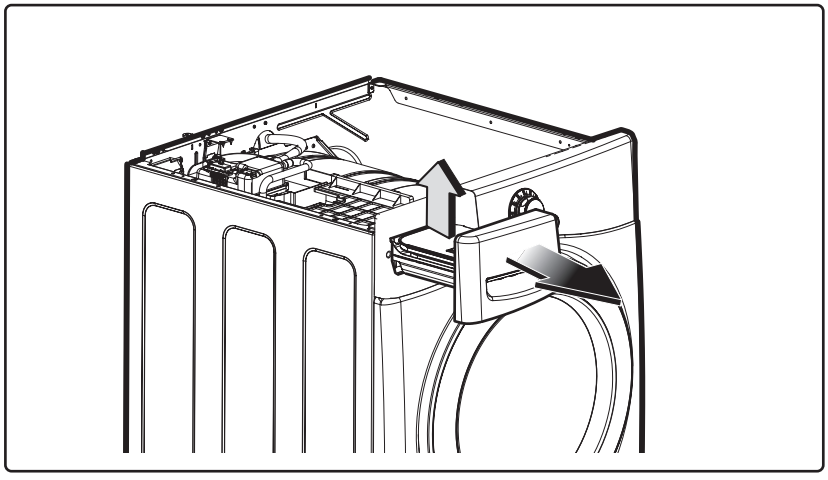


3. Lift the top plate.

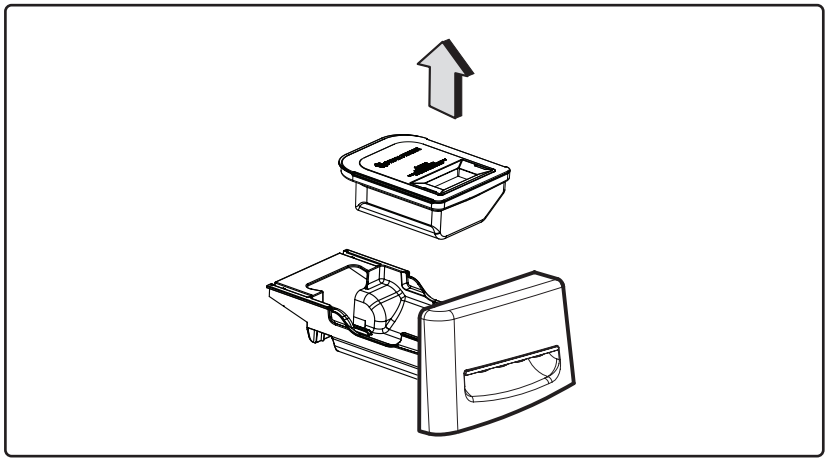
⚠ WARNING !

THE DRYER TOP PLATE IS VERY LARGE AND HEAVY. Fallure to follow instructions can result in damage to the dryer, property damage or Injury to persons.

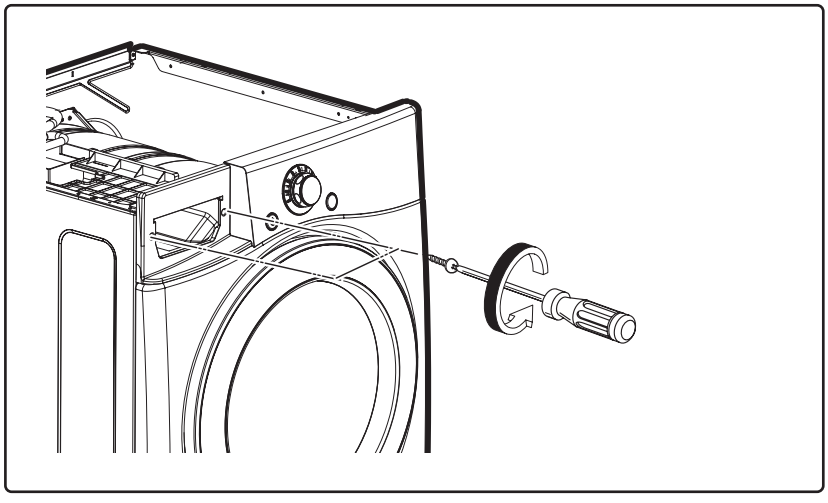
PANEL DRAWER ASSEMBLY



1. Pull out the drawer

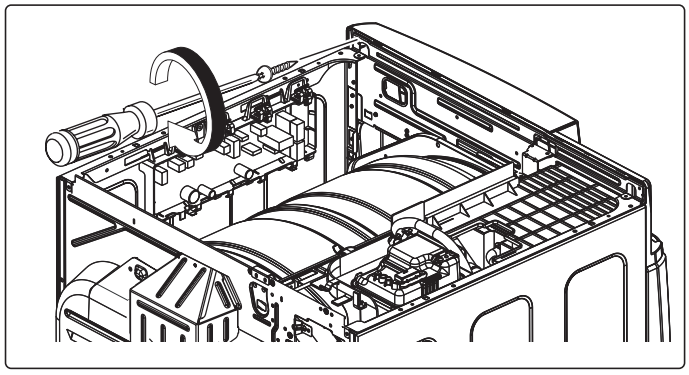


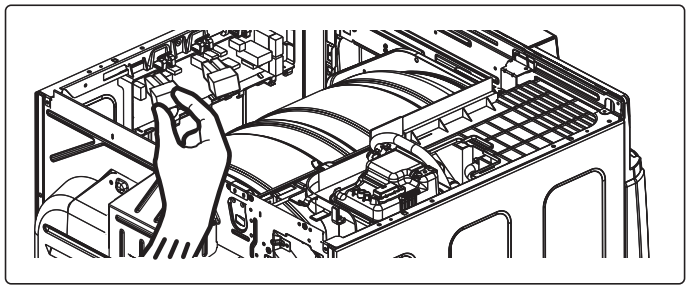
2. Lift out the steam feeder.

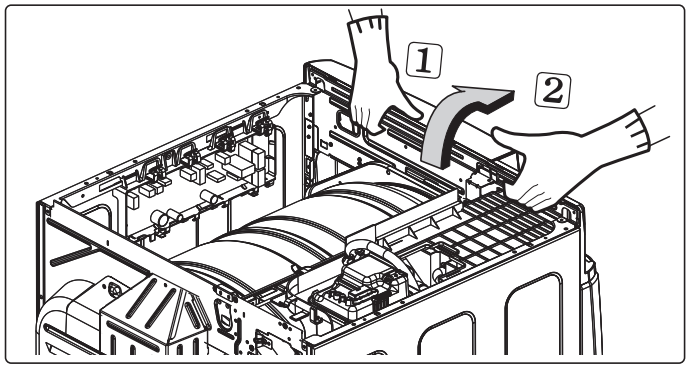


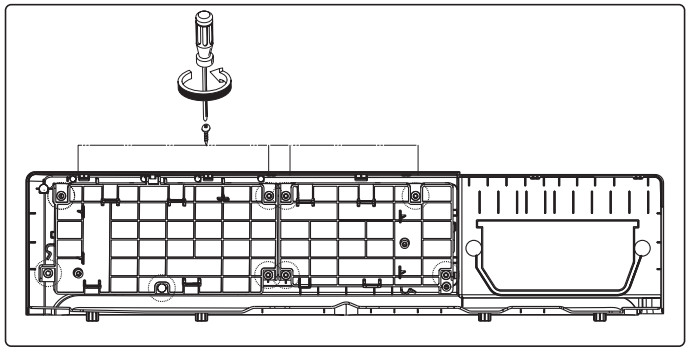
3. Remove 2 screws on the control panel.

CONTROL PANEL ASSEMBLY









⚠ WARNING !

When you disassemble the control panel, 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 Injury to persons adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

1. Remove 3 screws on the control panel frame.

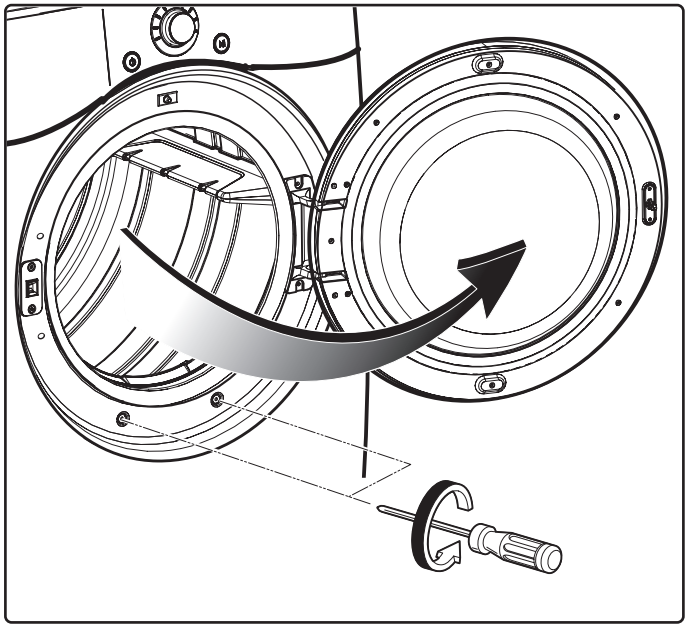
2. Disconnect the connectors.

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

4. Remove 8 screws on the PCB PCB) assembly, display.

5. Disassemble the control panel assembly.

COVER CABINET



⚠ WARNING !

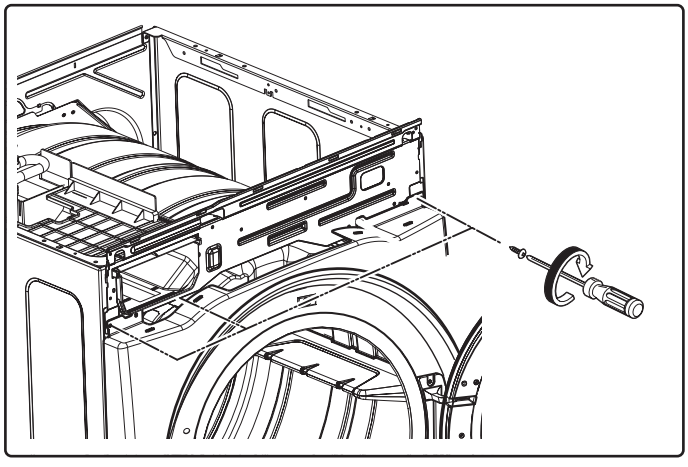
When you disassemble the door switch connector, be sure to disconnect the dryer from its electrical supply. Protect your hands and arms from sharp edges when working. To reduce the risk of Injury to persons adhere to all industry recommended safety procedures including the use of long sleeved gloves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

1. Disassemble the top plate.

2. Disassemble the control panel assembly.

3. Disassemble the door assembly.

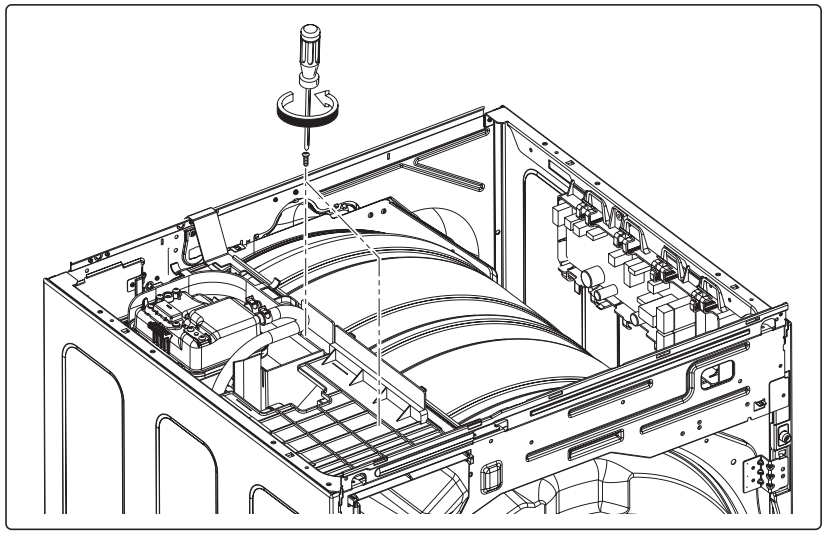
4. Remove 2 screws.



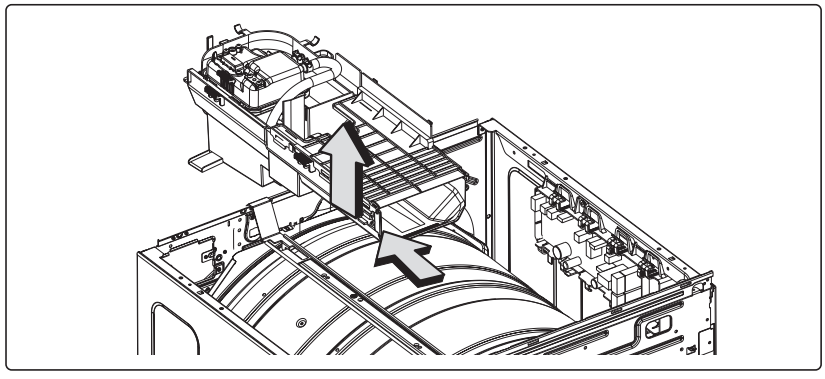
5. Remove 3 screws from the top of cabinet cover.

6. Disconnect the harness of door switch.

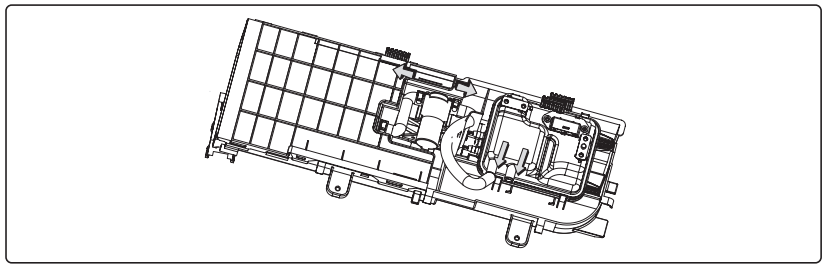
GUIDE ASM



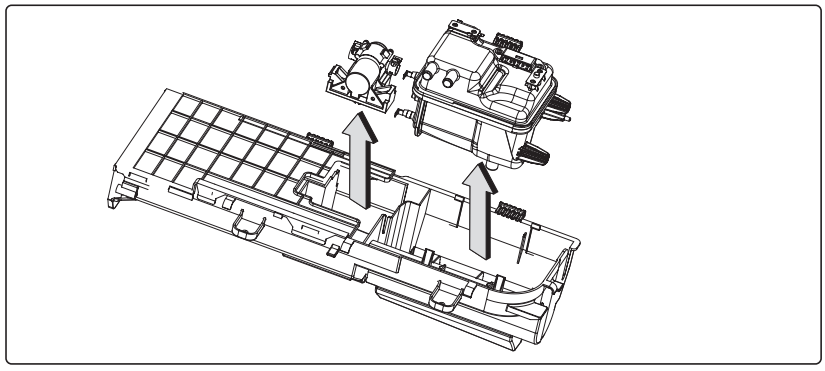
1. Remove 3 screws on the frame body.



2. Push the Guide assembly to the back side and then lift it.

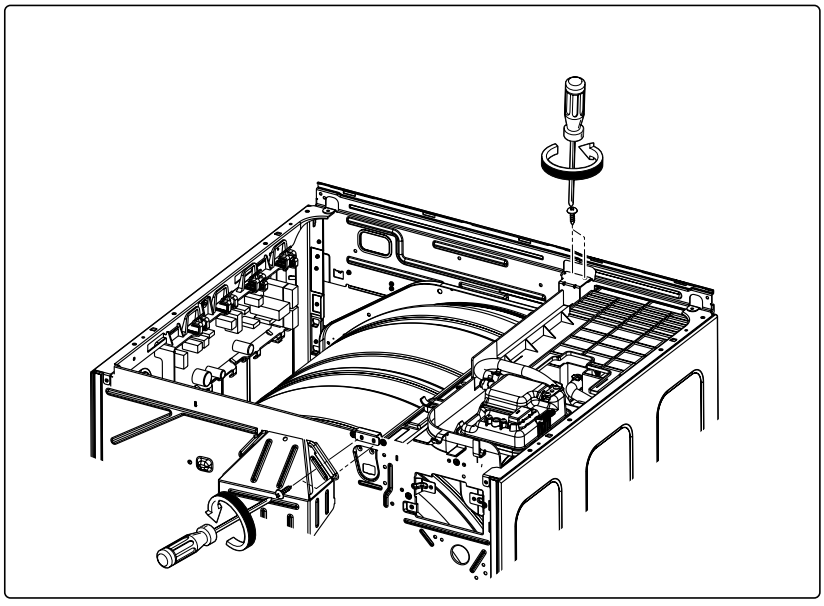


3. Separate 2 hoses from the pump and generator.

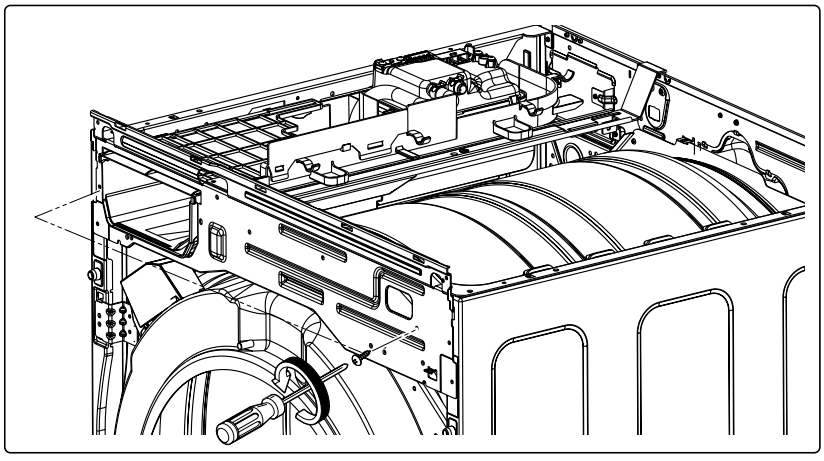


4. Lift a pump and generator up.

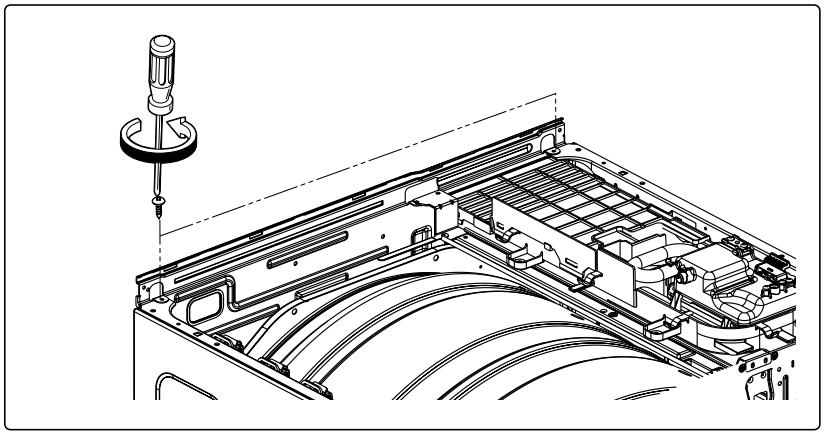
FRAME BODY & PANEL FRAME



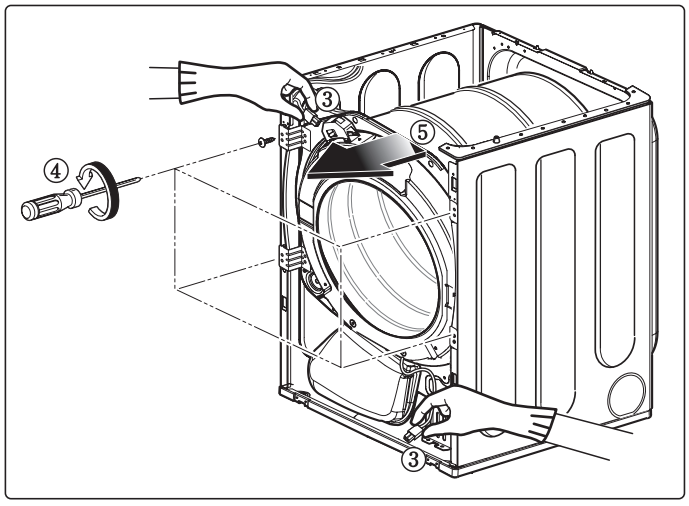
1. Remove 3 screws on the frame body. and then disassemble the frame body.



2. Remove 4 screws on the panel Frame and then remove it.



TUB DRUM [FRONT]

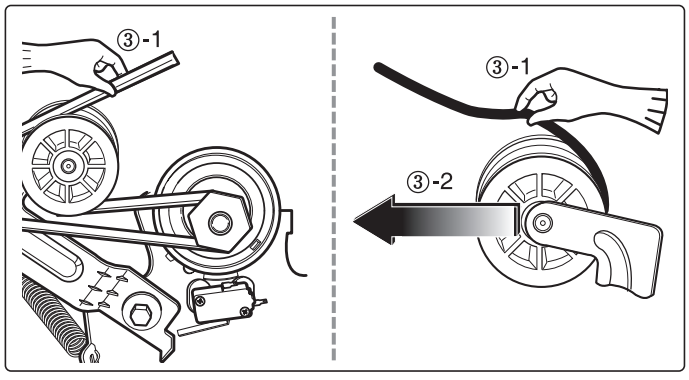


⚠ WARNING !

When you disassemble the lamp connector, 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 Injury to persons adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

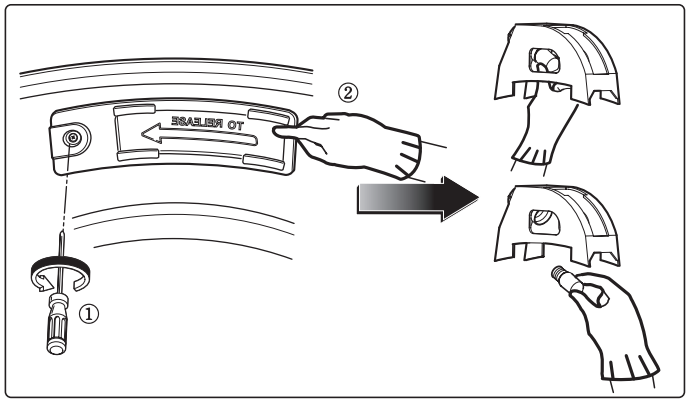
1. Open the top plate.
2. Remove Cover Cabinet.
3. Disconnect the door lamp and electrode sensor connector.
4. Remove 4 screws.
5. Disassemble the Tub Drum (Front) assembly.

DRUM ASSEMBLY



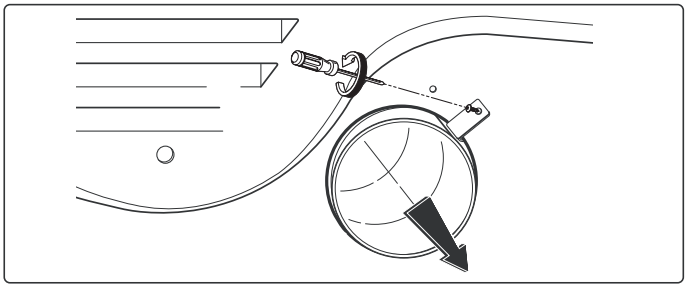
1. Open the top plate.
2. Remove the Cabinet Cover and Tub Drum (Front) assembly.
3. Loosen belt from motor and idler pulleys.
4. Carefully remove the drum.

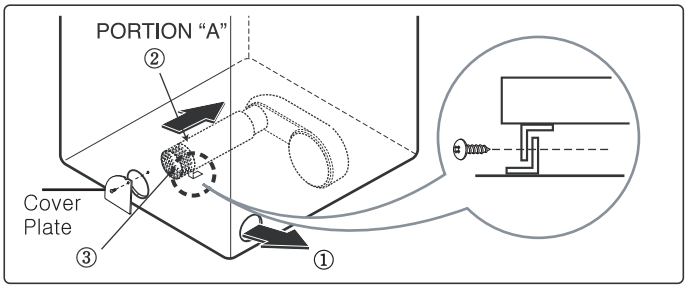
CHANGING THE DRUM LAMP

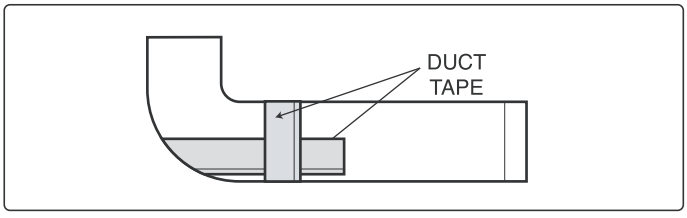


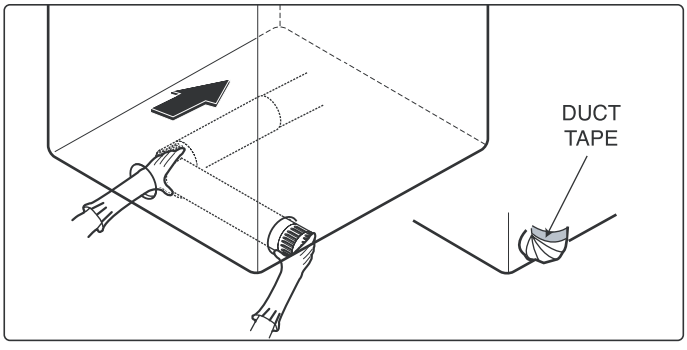
1. Open the door.
2. Hold the lamp shield in place while removing the screw.
3. Slide the shield up and remove.
4. Remove the bulb and replace with a 15-watt, 120-volt candelabra-base bulb.
5. Replace the lamp shield and screw.

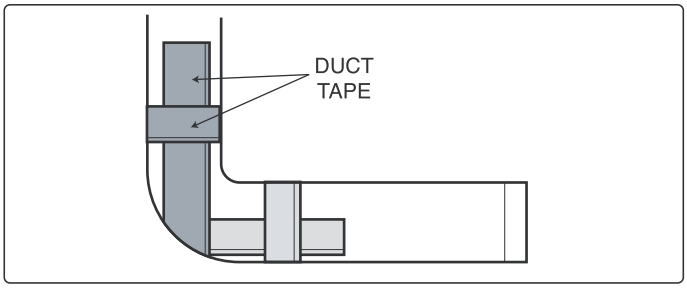
DRYER EXHAUST CHANGE











⚠ 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 Injury to persons adhere to all industry recommended safety procedures including the use of long sleeved gloves and safety glasses.

1. Remove screw and exhaust duct.

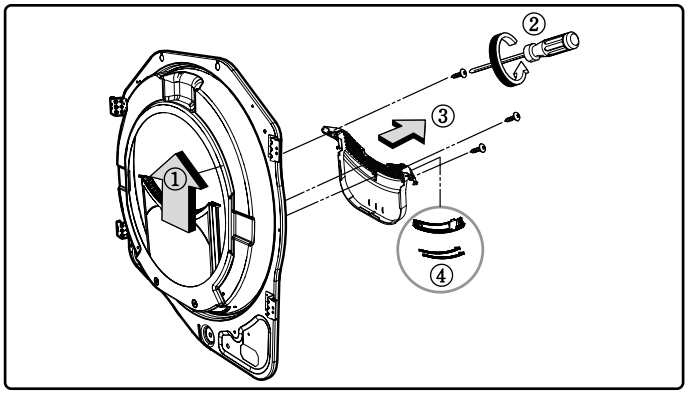
2. Detach and remove the bottom, left or right side knockout as desired. Attach cover plate to the back of the dryer with included screw.

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

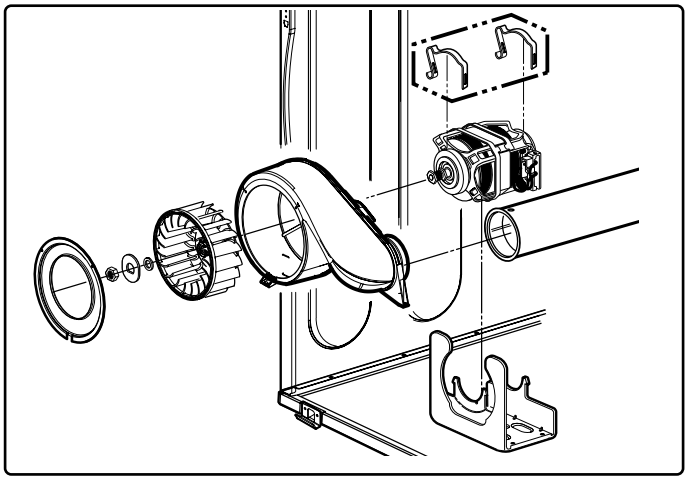
5. Insert duct assembly, elbow first, through the side opening and connect the elbow to the dryer's internal duct.

FILTER ASSEMBLY



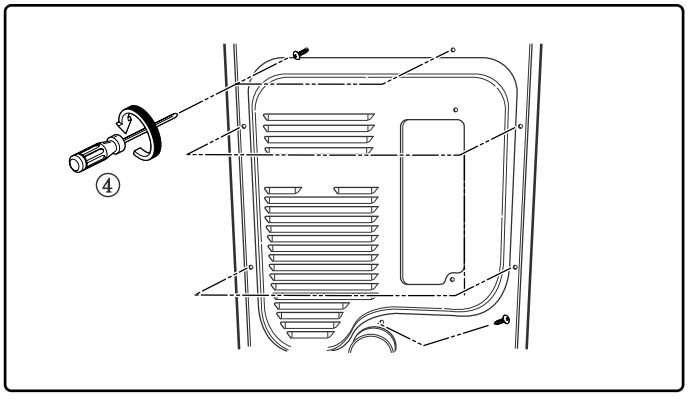
1. Remove the filter.
2. Remove 3 screws.
3. Remove the Cover Grid.
4. Disconnect the electrode sensor.

BLOWER HOUSING



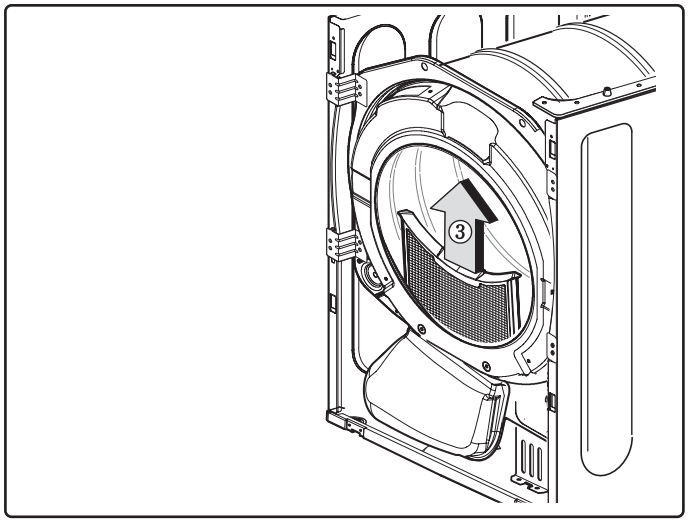
1. Disassemble the top plate.
2. Remove the Cabinet Cover and Tub Drum (Front) assembly.
3. Remove the Drum assembly.
4. Remove 2 screws and cover (Air guide).
5. Remove the bolt and washer.
6. Remove the fan.
7. Disconnect the motor clamp and motor.

BACK COVER

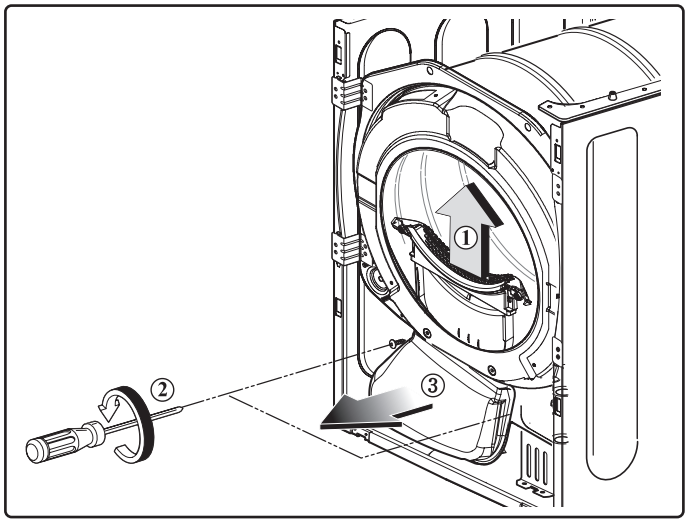


1. Open the top plate.
2. Remove the Cover Cabinet and Tub Drum (Front) assembly.
3. Remove the Drum assembly.
4. Remove 7 screws.
5. Pull theTub Drum (Rear) assembly. Towards the front.

AIR DUCT

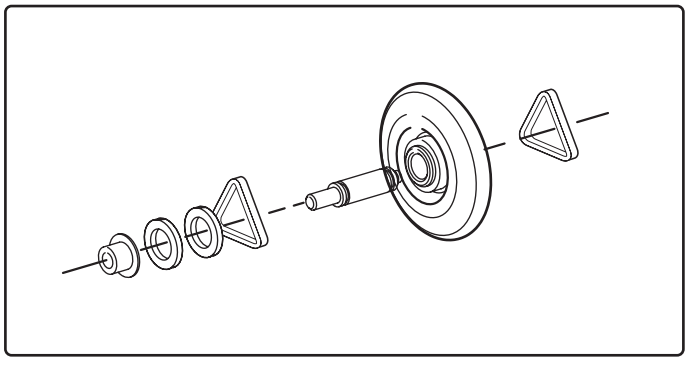


1. Disassemble the top plate.
2. Remove the Cover Cabinet.
3. Remove the filter.



1. Remove the Cover guide.
2. Remove 2 screws.
3. Remove the air duct.

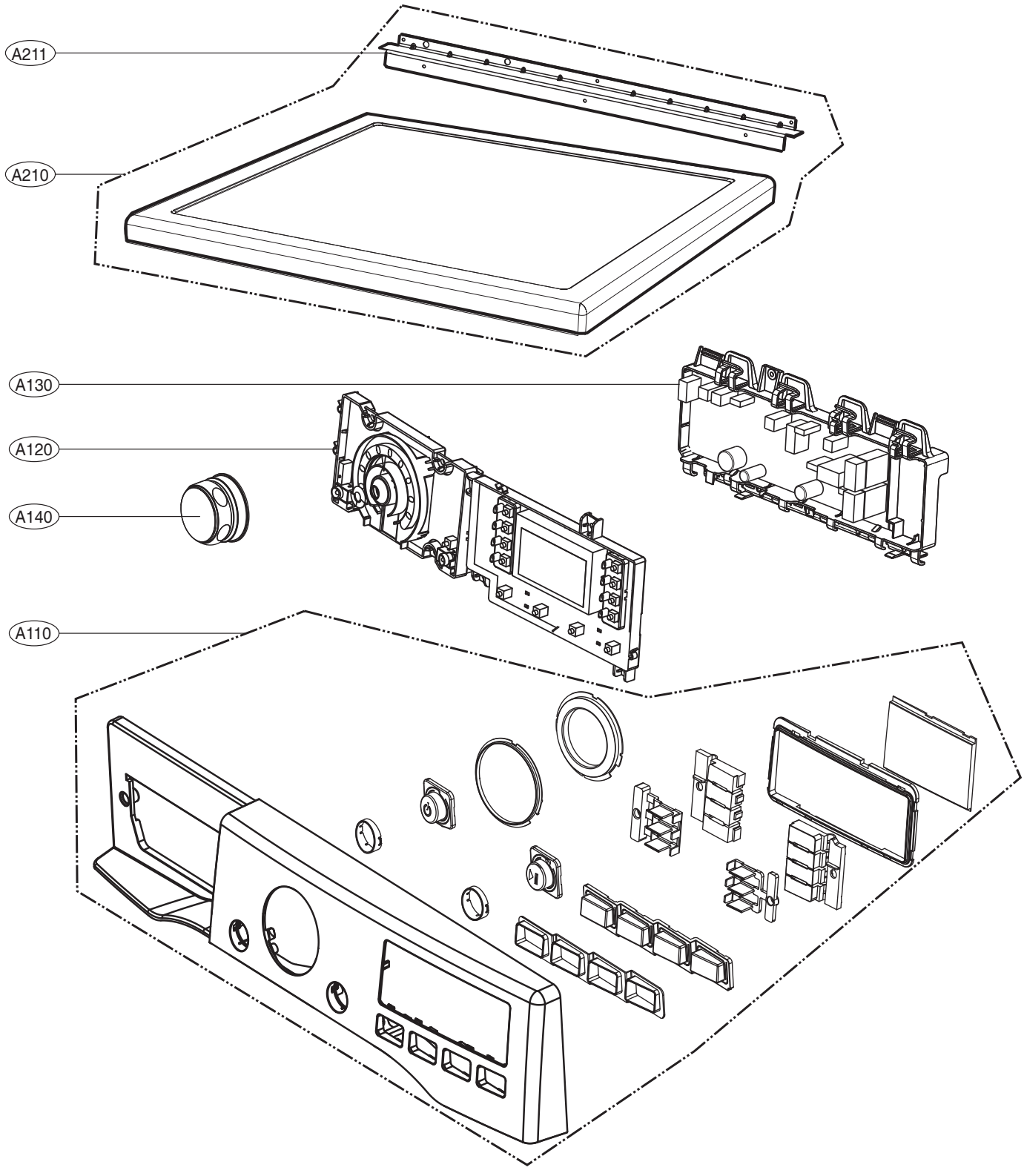
ROLLERS



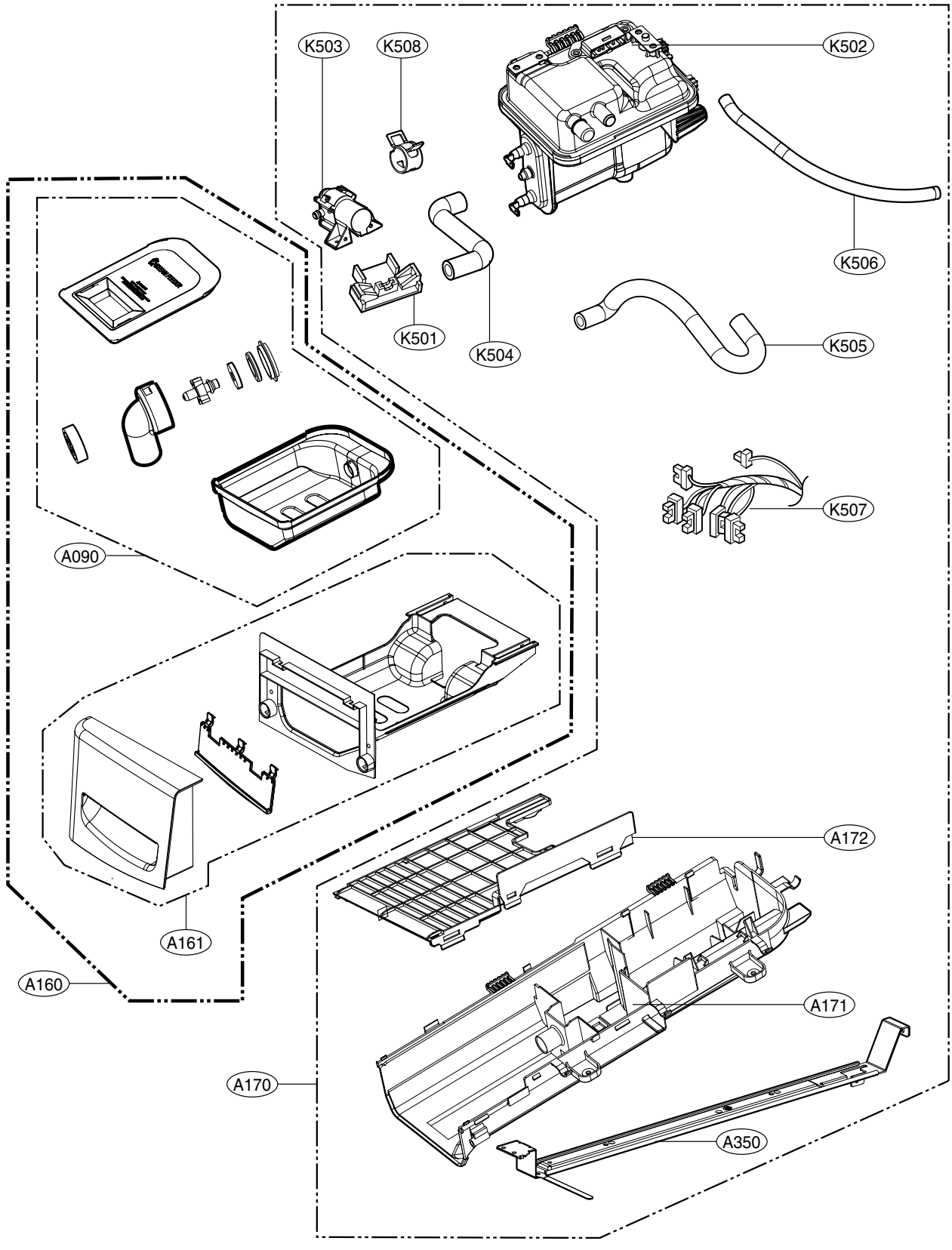
1. Disassemble the top plate.
2. Remove the Cover Cabinet and Tub Drum (Front) assembly.
3. Remove the Drum assembly and Tub Drum (Front) assembly.
4. Disconnect the Air duct from the Tub Drum (Front) assembly.
5. Remove the rollers from the Tub Drum (Front) assembly and Tub Drum (Rear) assembly.

13 EXPLODED VIEW

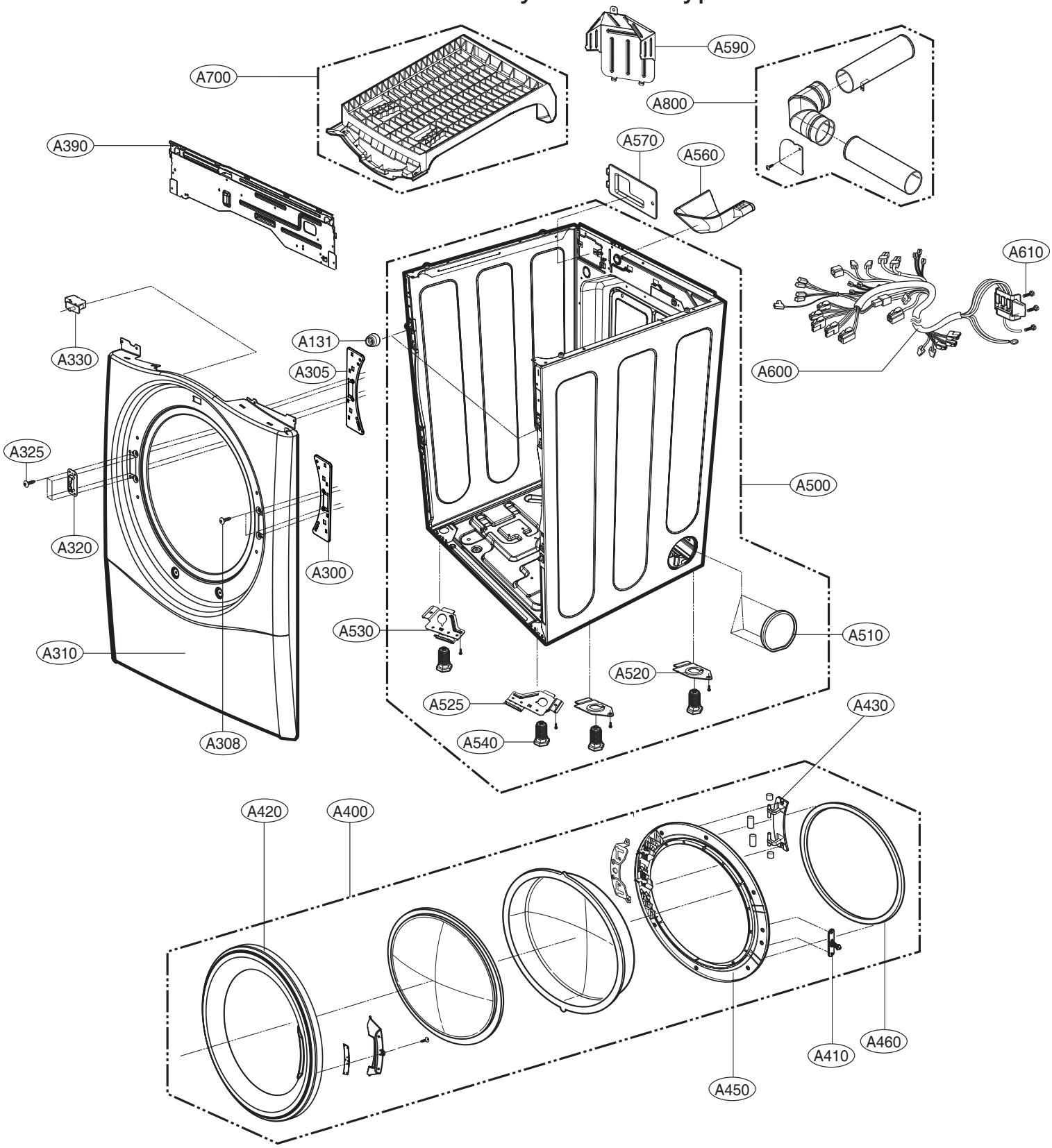
13-1. Control Panel and Plate Assembly



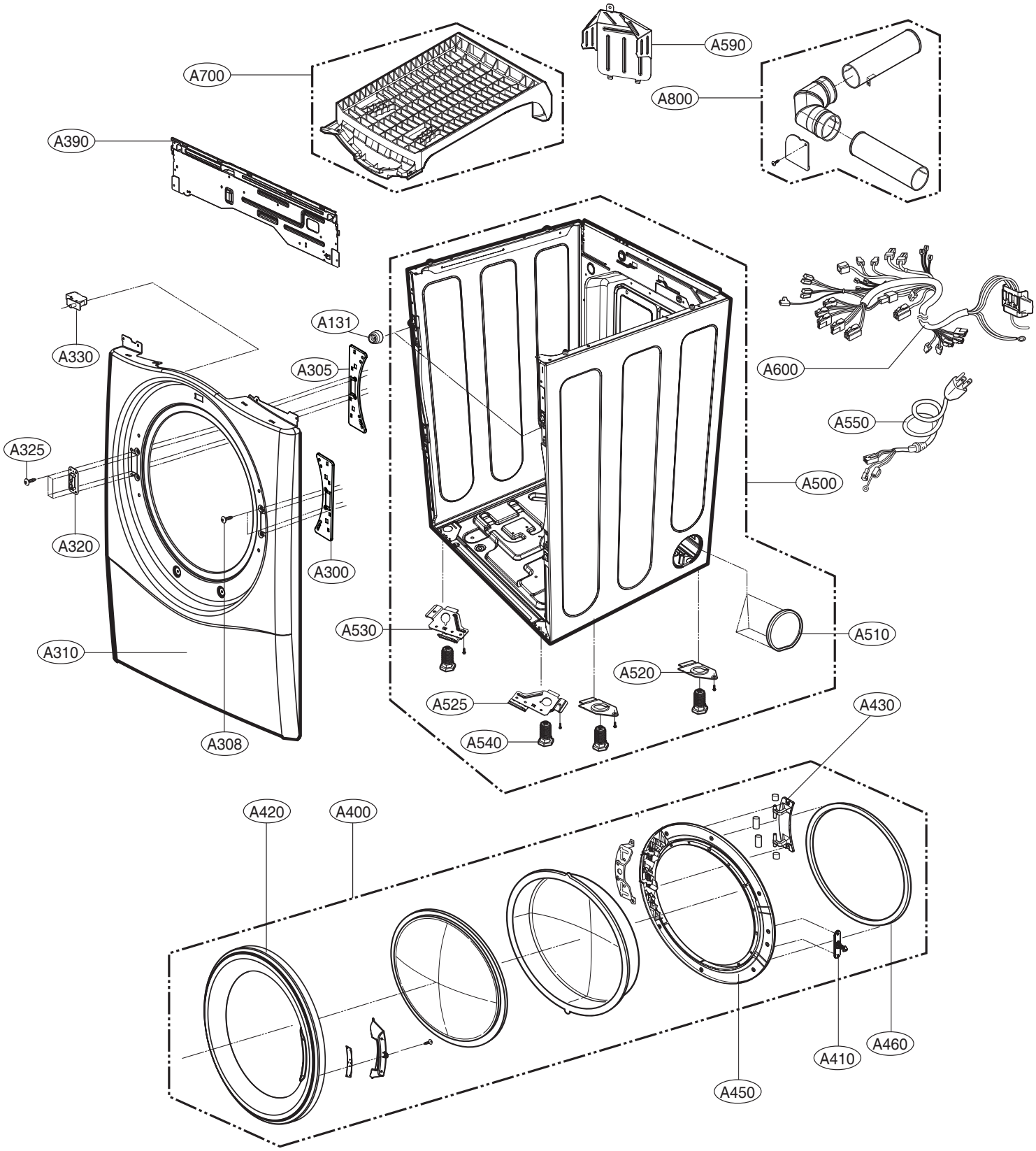
13-2. Panel Drawer Assembly and Guide Assembly



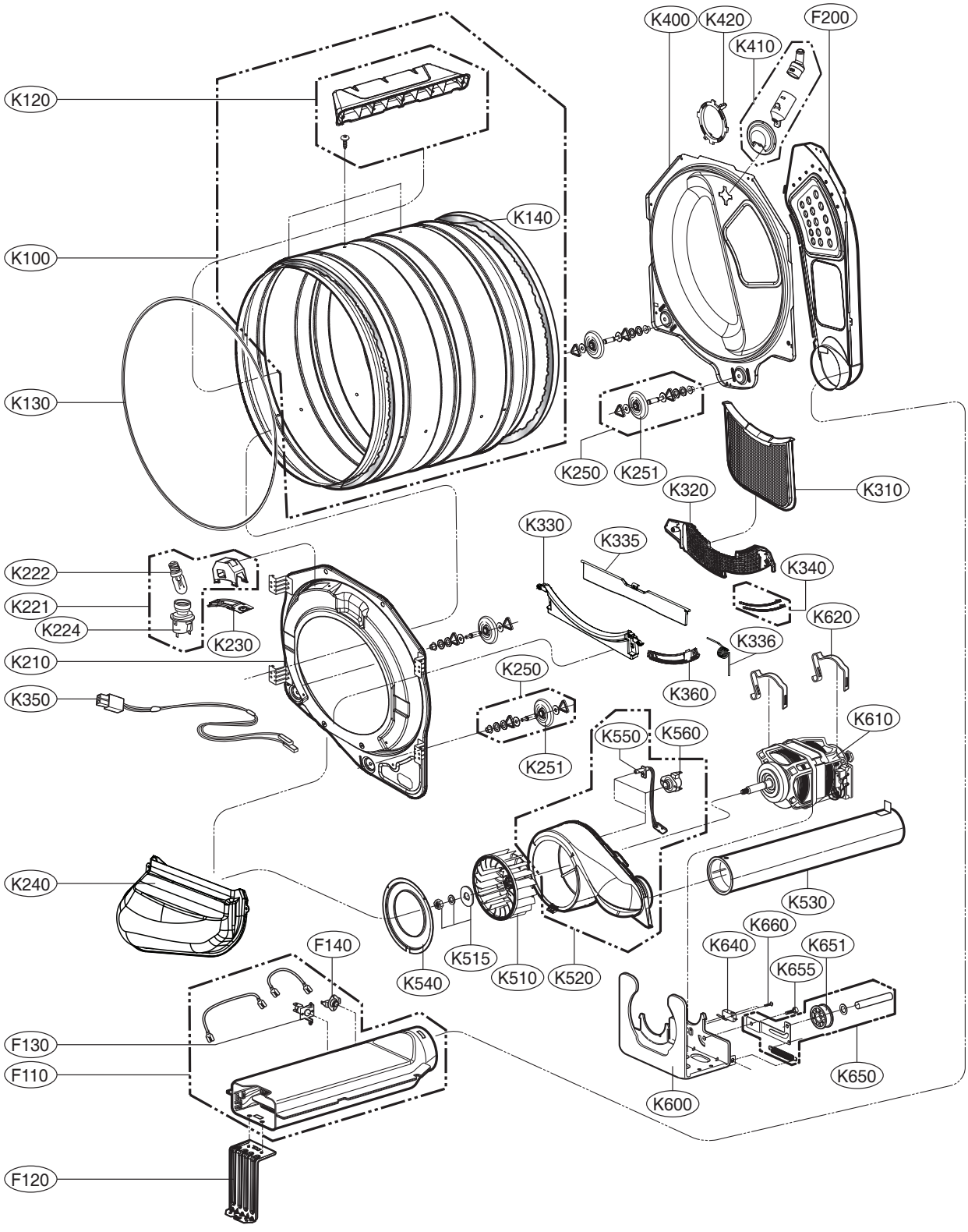
13-3-1. Cabinet and Door Assembly: Electric Type



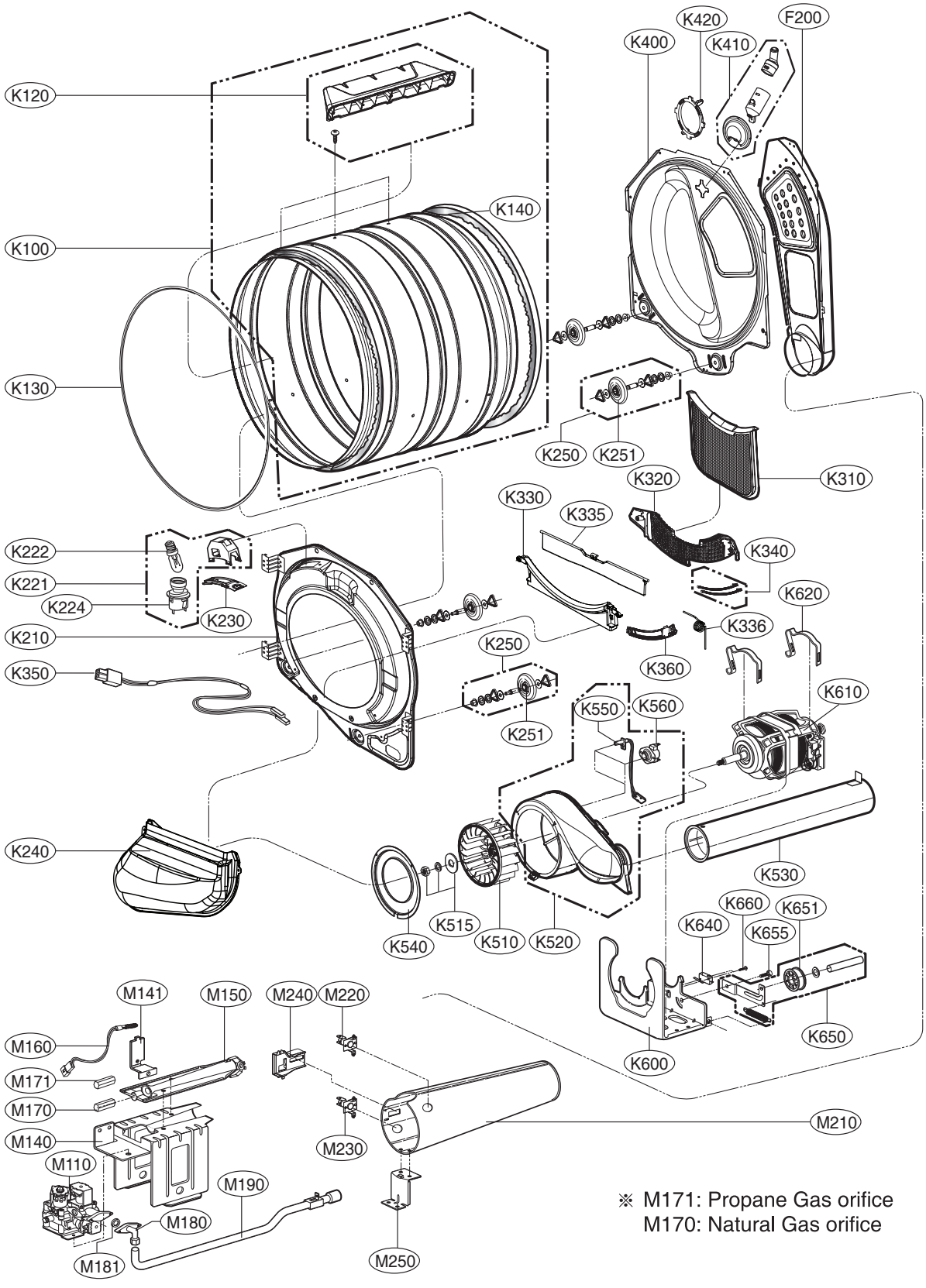
13-3-2. Cabinet and Door Assembly: Gas Type



13-4-1. Drum and Motor Assembly: Electric Type



13-4-2. Drum and Motor Assembly: Gas Type



※ M171: Propane Gas orifice
M170: Natural Gas orifice

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