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White-Westinghouse® Kelvinator® TAPPAN® Gibson®

Technical Service Manual

Laundry Center

Publication #5995666392

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Table of Content

Read the entire manual before attempting to Install, Assemble or Operate this product. Pay attention to all Warnings, Cautions and Notes. Failure to do so could result in serious personal injury and /or equipment damage.

DEFINITIONS

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTE

Used to address practices not related to personal injury.

IMPORTANT

Information that requires special attention from the user.

1. Purpose of this Manual

Purpose of this Manual

This manual provides repairing procedures for appliances. It also provides information regarding Laundry Center with gas and electric dryers fitted with the Electronic Control System. This manual is intended to use for service engineers of Electrolux.

The manual includes:

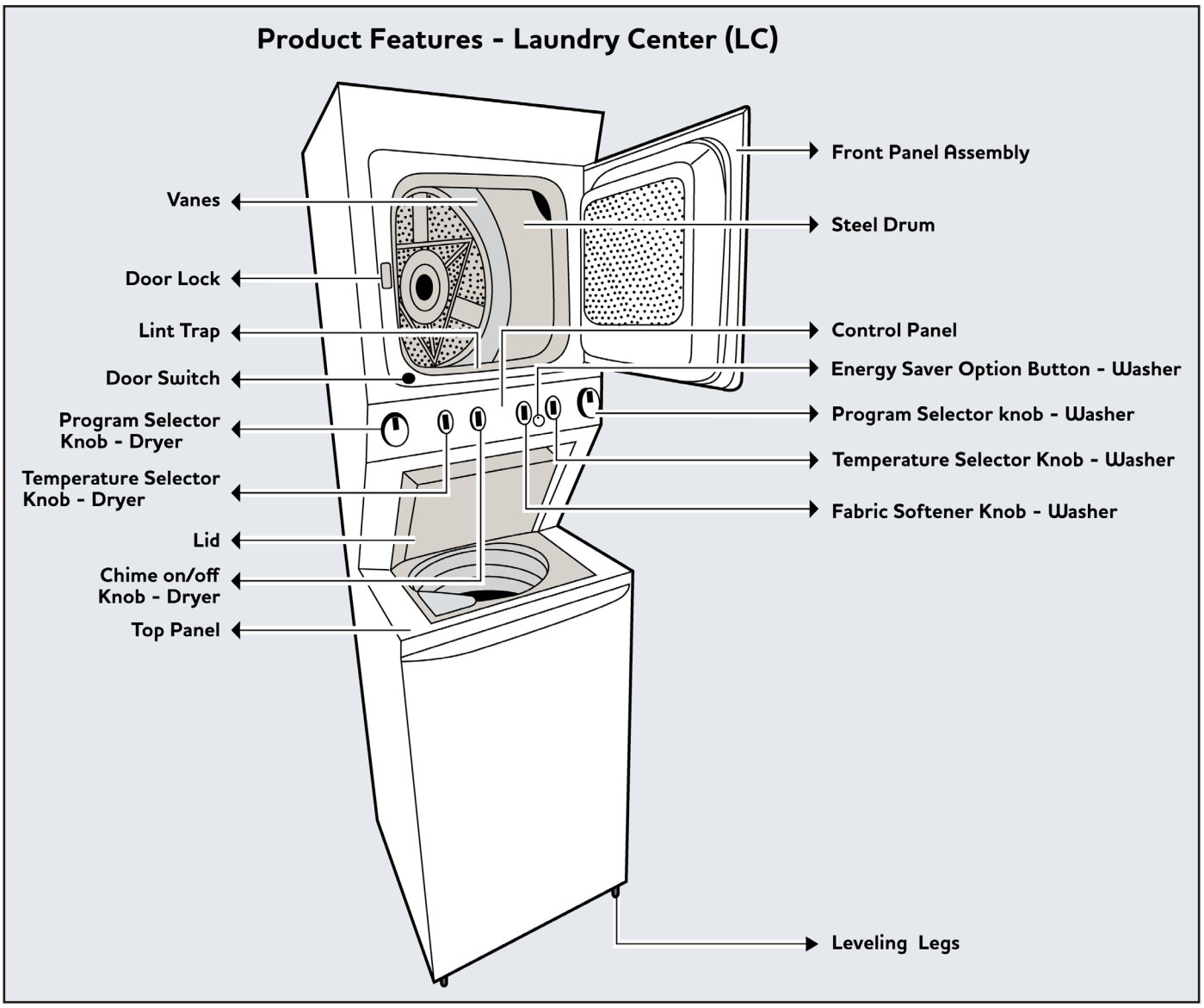
- Product Features, Specifications, Exploded Views and Bills of Materials (BOM)
- Installation
- Operating Instructions
- Electrical Characteristics and Specifications
- Accessibility to the Electrical Components
- Settings: Diagnostics
- Error alarm codes
- Troubleshooting based on alarm codes

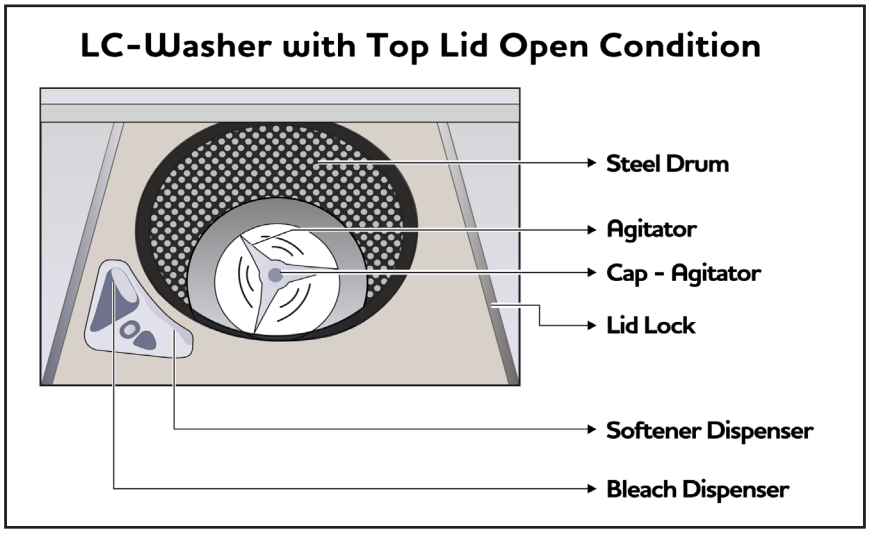
Warnings

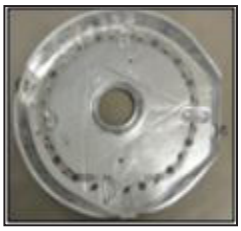
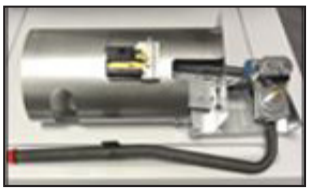
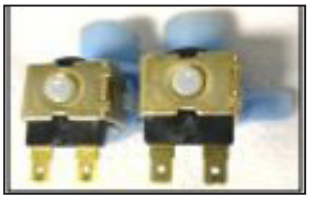
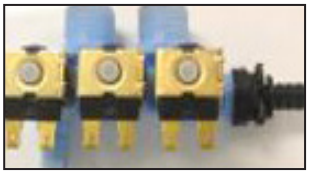
- Any work on electrical appliances must be carried out by qualified professionals.
- Confirm that the power system is operational before working on the appliance.
- Check that the appliance is restored to its original safety condition after the operation is complete.
- Take the plug out of the socket to disconnect the power supply before you access internal componenets. This platform is not fitted with an ON / OFF switch.
- Warning sensors located on the display board could be at a potential of 220 Volts (If applicable).
- Do not place any container under the appliance to avoid collecting drips of water.
- Always empty the appliance before laying it on its side for any servicing.
- The resistance values of the components shown in this Service Manual (SM) are purely indicative and approximate.
- Replace the heating element with one that has the same characteristics to maintain safety measures for the appliance.

- Ensure gas pipelines are connected properly as mentioned in the installation section for gas dryer models.
- Lay down the machine on either side while servicing the unit. In such cases, some water in the detergent dispenser could sip into the electrical / electronic components and cause these to burn.
- Always place the cotton cloth below the machine to absorb water. There is a possibility of water leakage while servicing the Drain Pump and Dispenser.

3. Product Features





Laundry Center (LC) Key Features Difference		
Description	**FFLE/FFLG3911QW**	**FFLE/FFLG4033QW**
Heater Assembly	Electric  Gas 	Electric  Gas 
Moisture Bar	No	
Softener Valve	2 Valve 	3 Valve 
Bleach / Softener Dispenser	Bleach Dispenser 	Bleach, Softner Dispenser 
Energy Saver Option	No	

4. Model Specifications

4.1 Specification – Top Load Laundry Center - FFLE/FFLG3911QW and FFLE/FFLG4033QW

	Model No.	
	FFLE/FFLG3911QW	**FFLE/FFLG4033QW**
	HE Top Load	HE Top Load
Total Capacity D.O.E. (Cu. Ft.)	2.95	3.3
Controls	Ready-Select®	Ready-Select®
Washer Interior	Polypropylene	Polypropylene
Vibration Control System	Yes	Yes
Suspension System	Sure-Spin™	Sure-Spin™
Wash System	Immersion Care™ Action	Immersion Care™ Action
Fresh Water Rinse	Yes	Yes
Automatic Temperature Control	-	Yes
Water Level Adjustments	Yes	Yes
Bleach Dispenser	Yes	Yes
Fabric Softener Dispenser	-	Yes
Agitate Speeds (Strokes / Min.)	Variable	Variable
Spin Speeds (RPM)	600	600
Sound Package	-	Silent Design™
Wash Cycles		
Wash Cycles / Specialty Cycles	8 / 0	9 / 0
Washer Options		
Temperature Selections	3 (Rotary)	3 (Rotary)
Water Levels	3	Automatic
Energy Saver Option	-	Yes
Dryer Features		
Total Capacity D.O.E. (Cu. Ft.)	5.5	5.5
Dryer Drum Interior	Painted Steel	Painted Steel
Interior Light	-	No
DrySense™ Technology	-	Yes
Moisture Sensor	-	Yes
Cycle Signal	-	Chime
Cycle Signal "On/Off "	-	Yes
Tumble Speed (RPM)	50	50
Lint Screen	Yes	Yes

4.1 Specification – Top Load Laundry Center - FFLE/FFLG3911QW and FFLE/FFLG4033QW

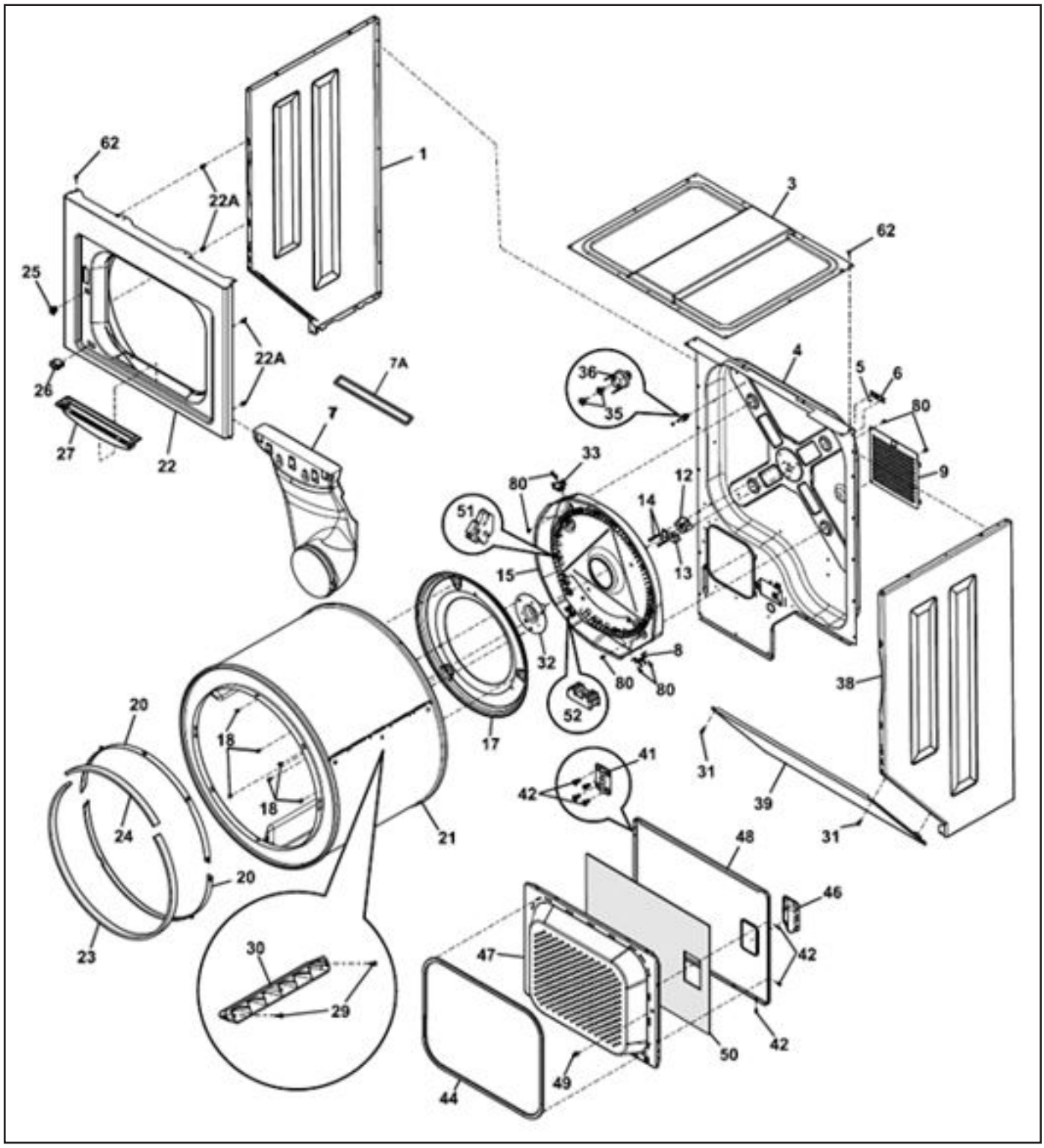
	Model No.	
	FFLE/FFLG3911QW	**FFLG/FFLE4033QW**
Sound Package	-	Silent Design™
Dry Cycles	-	
Dry Cycles / Specialty Cycles	8 / 0	9 / 0
Dryer Options		
Temperature Selections	3	4
Dryness Level Selections	0	0
Timed Dry (Minutes)	15, 30, 60, 90	60, 90
Optional Accessories		
Drain Hose Extension Kit	PN # 134592700	PN # 134592700
LP Gas Conversion Kit		PN # PCK3100
Drying Rack	PN # DRLC	PN # DRLC
Certifications		
ENERGY STAR®	-	Yes
Specifications		
Maximum Exhaust Duct Length1 (Ft.)	56	56
Gas Connection	-	Rear
Power Supply Connection Location	Middle Rear	Middle Rear
Water Inlet Connection Location	Middle Rear	Middle Rear
Voltage Rating	240V / 60Hz / 30A	120V / 60Hz / 15A
Connected Load (kW Rating) @ 240 Volts	5.1	1.03
Amps @ 240 Volts	22	13 @ 120 Volts2
Heating Element @ 240 Volts (Watts)	4,500	20,000 (BTU / HR)
Shipping Weight (Approx.)	275 Lbs.	275 Lbs. (Approx.)
Product Dimensions	-	-
A - Height	76"	76"
B - Width	27"	27"
C - Depth	31-1/2"	31-1/2"
Depth with Door Open 90°	47-1/2"	47-1/2"

The following specifications are subject to change:

- For planning purposes only. Always consult local and national electrical and plumbing codes. Refer to Product Installation Guide on the web at www.frigidaire.com for detailed installation instructions.
- 1 Rigid metal duct preferred, semi-rigid optional and allow deductions for elbows and vents. Refer to Installation Guide on the web at www.frigidaire.com for additional information.
- 2 For use on adequately wired 120 V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.

5.1 FFLE3911QW

5.1.1 Upper Cabinet / Drum Heater



5.1.1 Upper Cabinet / Drum Heater

POS. NO	DESCRIPTION
1	Panel, left side, white
3	Panel, top
4	Panel, Rear, Dryer, stainless
5	Ball, grounding
6	Clip, Ball, Steel, flat nut
7	Duct, air
7A	Seal, air duct
8	Limiter, thermal, heater
9	Panel, motor access, washed
12	Bearing, drum support
13	Bracket, bearing support
14	Screw, bracket mtg., 10-16B x 1.375, cr/sq drive
15#	Heater Asmy w/hsg, w/thermistor
17	Baffle, heater shield
18	Screw,10-16AB x 0.375,
20	Glide, flat dryer
21	Drum, dryer svc kit, galv. steel
22	Panel, Front weld, white
22*	Plug, light hole
22A	Pin, panel locator
23	Seal, felt ,lower
24	Seal, felt, upper
25	Door Catch, upper
26#	Switch, door
27	Lint Trap
29	Screw, quadrex head, 10-14 x 1.00, vane mtg., special
30	Vane, straight, low
31	Screw, 10-16AB x 0.625
32	Shaft, drum support, ball hitch
33#	Thermostat, safety
35	Screw, 6-20B x 0.230
36#	Thermal Limiter
38	Panel, right side, white
38A*	Seal, exhaust tube
39	Panel, access
41	Hinge, dryer door
42	Screw, flat head, 8-18AB x 0.44, quad drive
44	Gasket, door

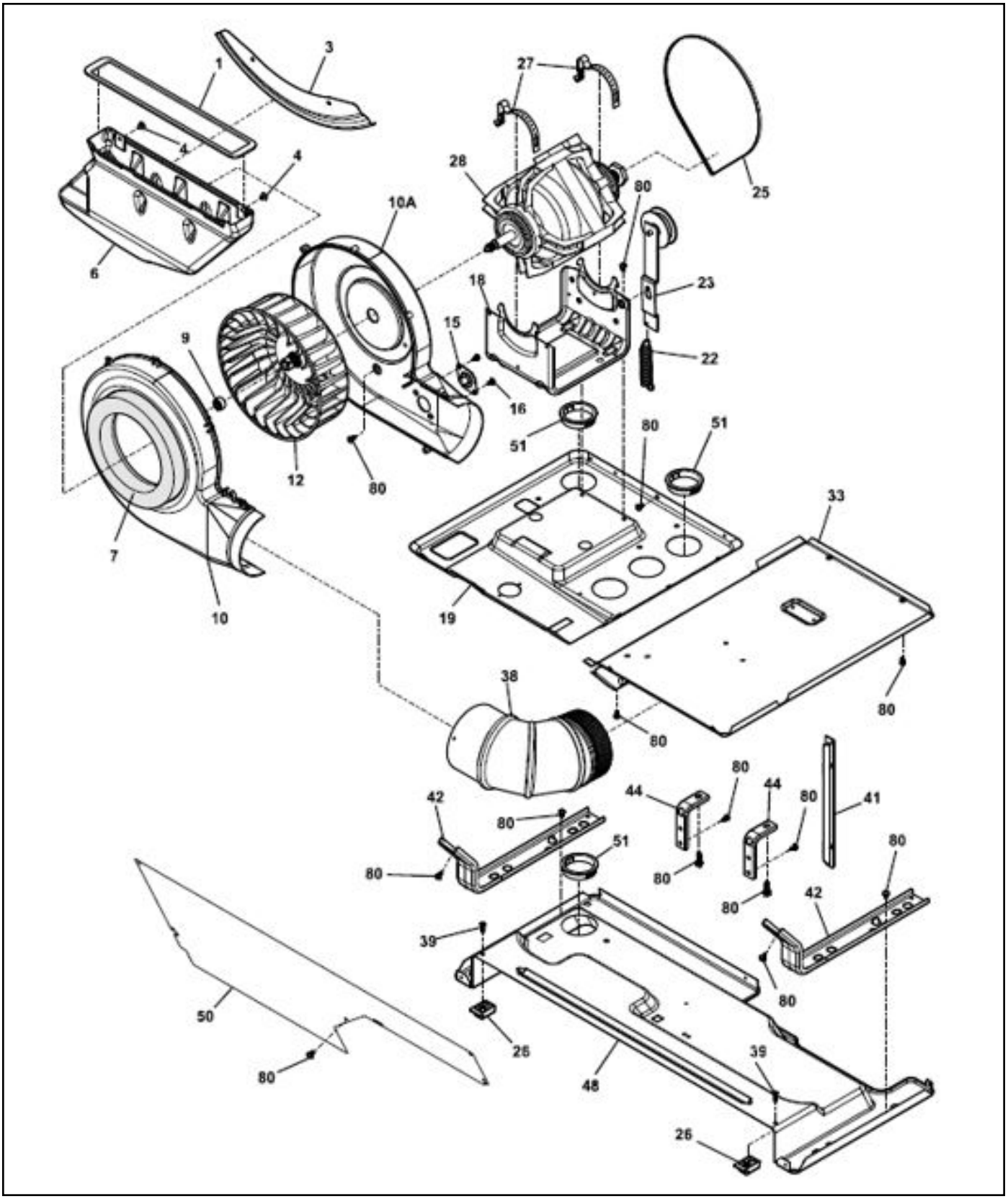
5.1.1 Upper Cabinet / Drum Heater

POS. NO	DESCRIPTION
46	Handle, door, white
47	Panel, inner door, white
48	Panel, outer door, white
49	Door Strike
50	Insulator, heat shield, outer door
51	Insulator, heater housing
52#	Terminal Block, heater housing
54*#	Wiring Harness, door switch, w/o light
62	Screw, 10-16AB x 0.500
80	Screw, pan head, 8-18B x 0.31

Functional parts

* Non-Illustrated parts

5.1.2 Motor/Blower/Belt



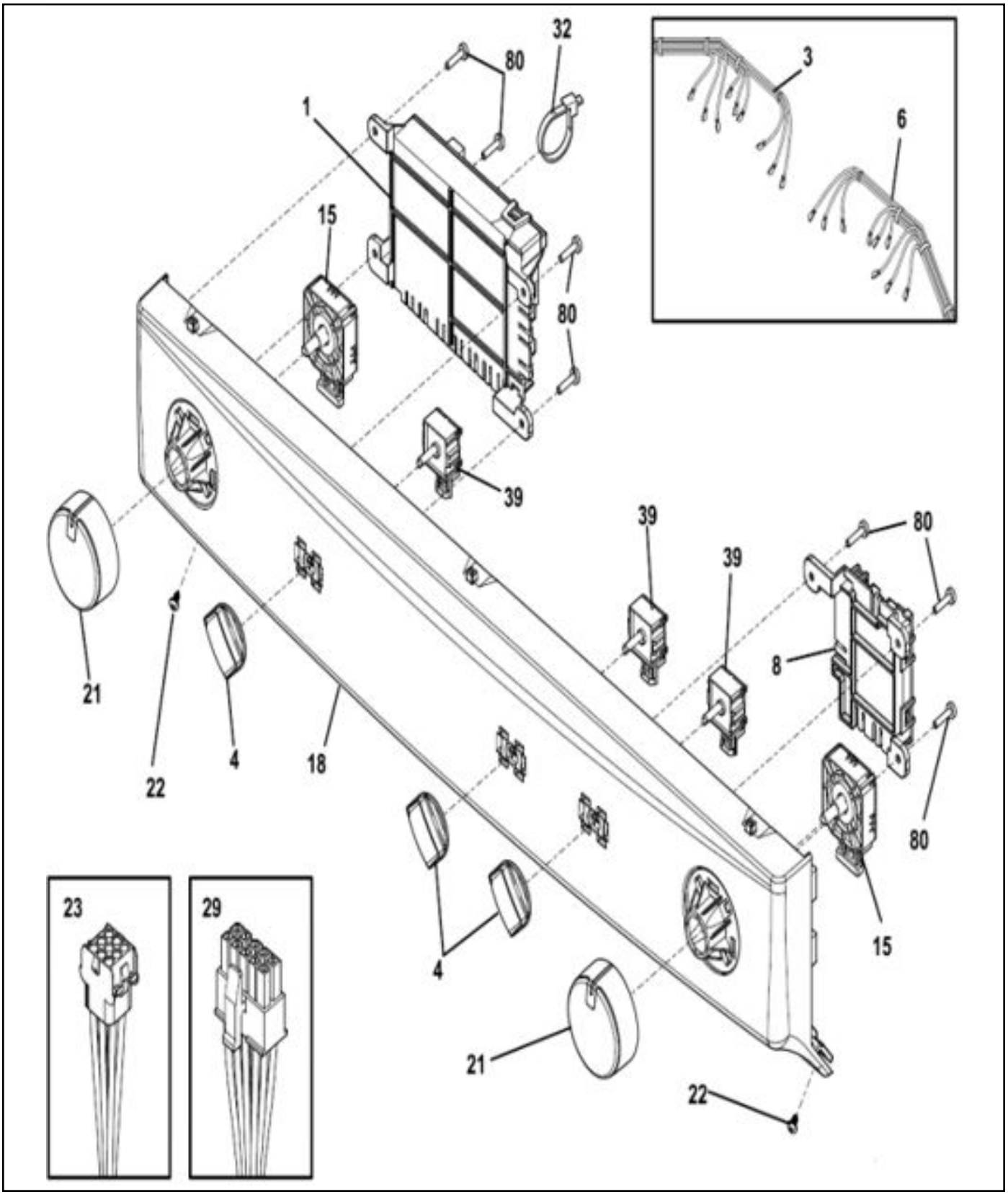
5.1.2 Motor/Blower/Belt

POS. NO	DESCRIPTION
1	Seal, air duct
3	Shield, air duct
4	Fastener, push-in
6	Duct, air
7	Seal, housing, to air duct
9	Clamp
10	Housing, blower, front w/seal
10A	Housing, blower, rear
12	Blower Wheel
15#	Thermistor, control
16	Screw, pan head, 8-18AB x 0.375
18	Cradle, motor w/idler
19	Pan ,Upper L/C, dryer, formed
22	Spring, idler
23	Idler Arm Assy, with pulley
23*#	Terminal Block, main
25	Belt, dryer, LC
26	Block, support
27	Clamp, motor mtg.
28#	Motor, dryer drive ,with pulley
33	Shield-access
38	Elbow, 90 Deg 4" Fixed
39	Screw ,#8 pan head, 10-10B x 0.500, cr/sq drive
41	Bracket, support, side
42	Bracket, marriage, dryer
44	Bracket, L mounting, cabinet rear, external
48	Pan, bottom LC dryer
50	Cover, support, LCD
51	Bushing, snap-in
80	Screw, pan head, 8-18B x 0.31

Functional parts

* Non-Illustrated parts

5.1.3 Control Panel



5.1.3 Control Panel

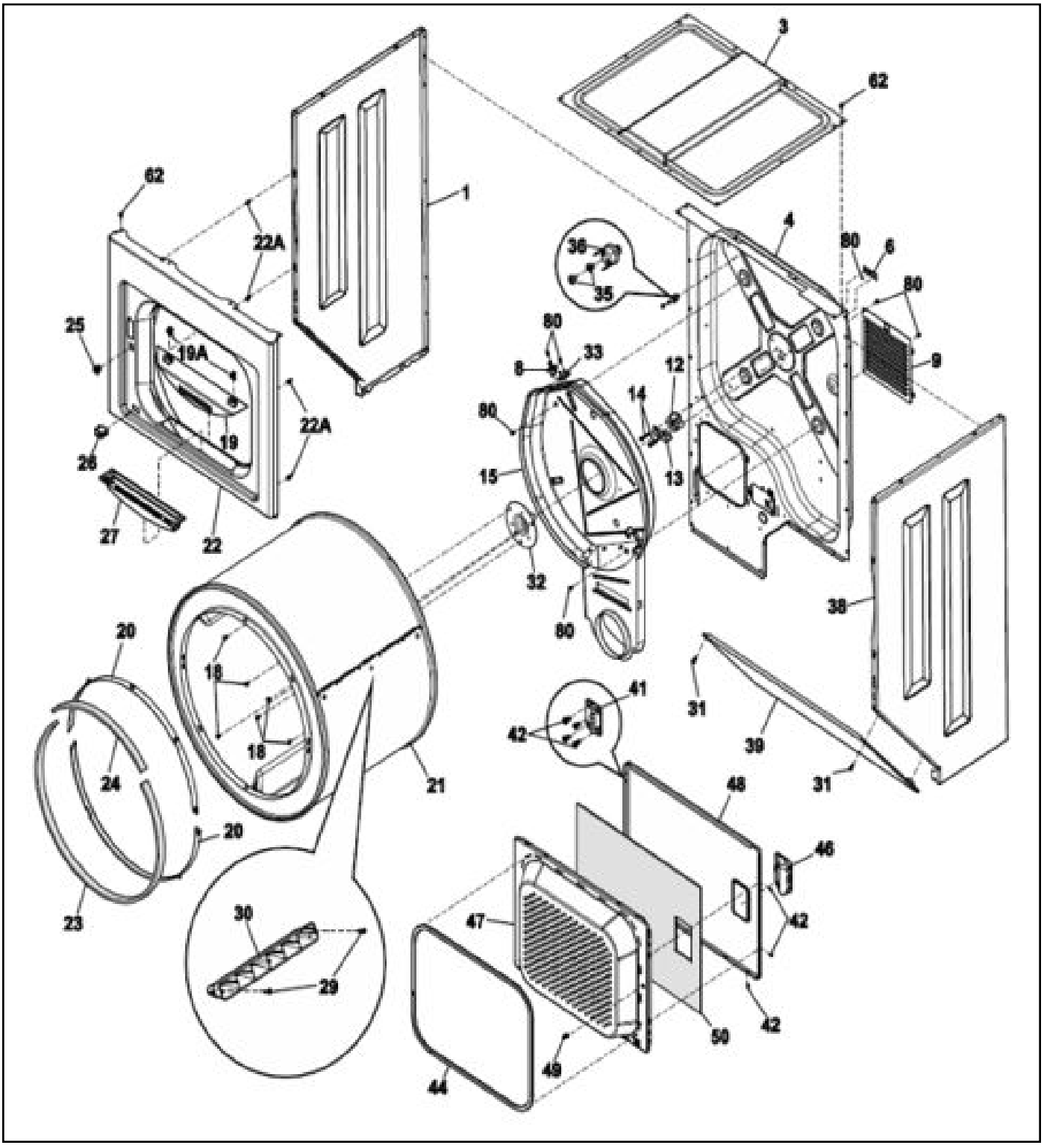
POS. NO	DESCRIPTION
1 #	Control Board, main, with housing
3 #	Wiring Harness, dryer, LC upper
4	Knob,switch
6#	Harness, UI, washer, LC
8#	PC Board, communication, with housing
15#	Switch, PTS cycle select, 8 position
18	Console, decorated, white
21	Knob, Cycle Selector
22	Screw ,#8 pan head, 10-10B x 0.500, cr/sq drive
23 #	Wiring Harness, main, LC
23*#	Terminal Block, main
29 #	Wiring Harness, LC Dryer, electrical
32	Cable Tie, 5.60 inch, plastic
39 #	Switch, Option 3 pos
80	Screw, Phillips, 6-19 x 0.650

Functional parts

* Non-Illustrated parts

5.2 FFLG4033QW

5.2.1 Upper Cabinet / Drum Heater



5.2.1 Upper Cabinet / Drum Heater

POS. NO	DESCRIPTION
1	Panel, left side, white
3	Panel, top
4	Panel, rear, dryer, stainless
6	Clip, ball, steel, flat nut
8	Limiter, thermal, heater
9	Panel, motor access, washed
12	Bearing, drum support
13	Bracket, bearing support
14	Screw, bracket mtg. 10-16B x 1.375, cr/sq drive
15 #	Housing, heater, gas
17	Baffle, heater shield
18	Screw, 10-16AB x 0.375
19	Cover, moisture sensor, assembly
19A	Clip, end cap mtg, U-type
20	Glide, flat, dryer
21	Drum, LC GALV GD
22	Panel, Front, weld asmy LC Dr
22*	Plug, light hole
22A	Pin, panel locator
23	Seal, felt, lower
24	Seal, felt, upper
25	Door Catch, upper
26 #	Switch, door
27	Lint Trap
29	Screw, quadrex head, 10-14 x 1.00, vane mtg. special
30	Vane, straight
31	Screw, 10-16AB x 0.625
32	Shaft, drum support, ball hitch
33 #	Thermostat, safety
35	Screw, pan head, 8-18AB x 0.375
36 #	Thermal Limiter
38	Panel, right side, white
39	Panel, access
41	Hinge, dryer door
42	Screw, flat head, 8-18AB x 0.44, quad drive
44	Gasket, door
46	Handle, door, white

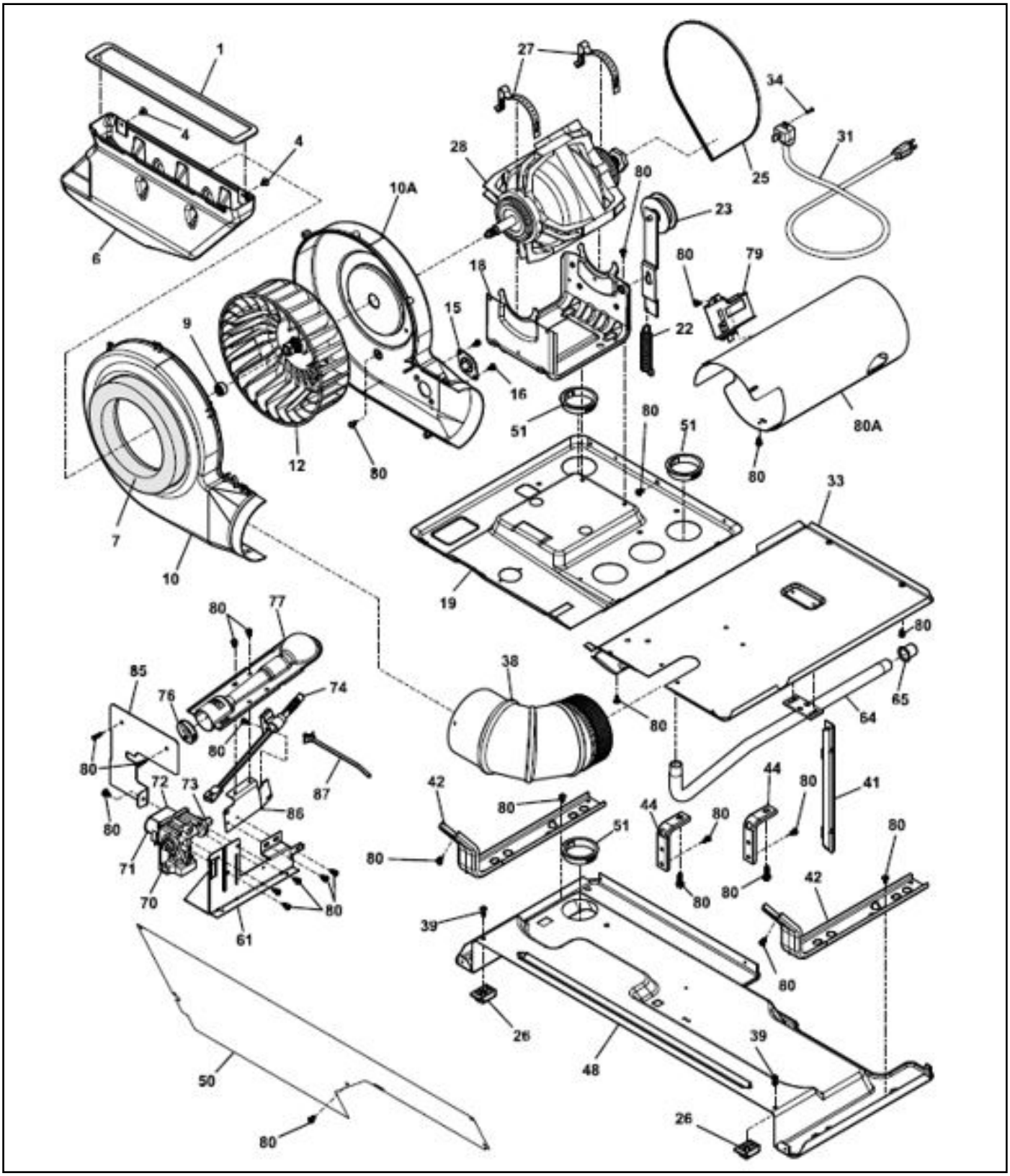
5.2.1 Upper Cabinet / Drum Heater

POS. NO	DESCRIPTION
47	Panel, inner door, white
48	Panel, outer door, white
49	Door Strike
50	Insulator, heat shield, outer door
52 #	Terminal block, heater housing
54*#	Harness, Door, SW w/sensor
62	Screw, 10-16AB x 0.500
80	Screw, pan head, 8-18B x 0.31

Functional parts

* Non-Illustrated parts

5.2.2 Motor / Blower / Belt



5.2.2 Motor / Blower / Belt

POS. NO	DESCRIPTION
1	Seal, air duct
4	Clip, end cap mtg, U-type
6	Duct, air
7	Seal, housing, to air duct
8	Screw, pan head, 6-18AB x 0.60
9	Clamp
10	Housing, blower, front, with seal
10A	Housing, blower, rear
12	Blower Wheel
15 #	Thermistor, control
16	Screw, pan head, 8-18AB x 0.375
18	Cradle, motor w/idler
19	Pan, Upper L/C, dryer, formed
22	Spring, idler
23	Idler Arm Assy, with pulley
25	Belt, poly V
26	Block, support
27	Clamp, motor mtg.
28 #	Motor, dryer drive, with pulley
31	Power Cord, electric svce
33	Shield, access area, cover
34	Screw, hex washer head, 10-32 x 0.375, ground
38	Elbow, exhaust duct
39	Screw, #8 pan head, 10-10B x 0.500, cr/sq drive
41	Bracket, support, side
42	Bracket, marriage, dryer
44	Bracket, L mounting, cabinet rear, external
48	Pan, bottom LC dryer
50	Cover, support, LCD
51	Bushing, snap-in
61	Bracket, gas valve mtg
64	Pipe, gas
65	Cap, pipe
70 #	Valve, gas
71 #	Solenoid, secondary coil
72 #	Solenoid, booster coil
73 #	Orifice,natural gas, size 44
74 #	Igniter, Assy

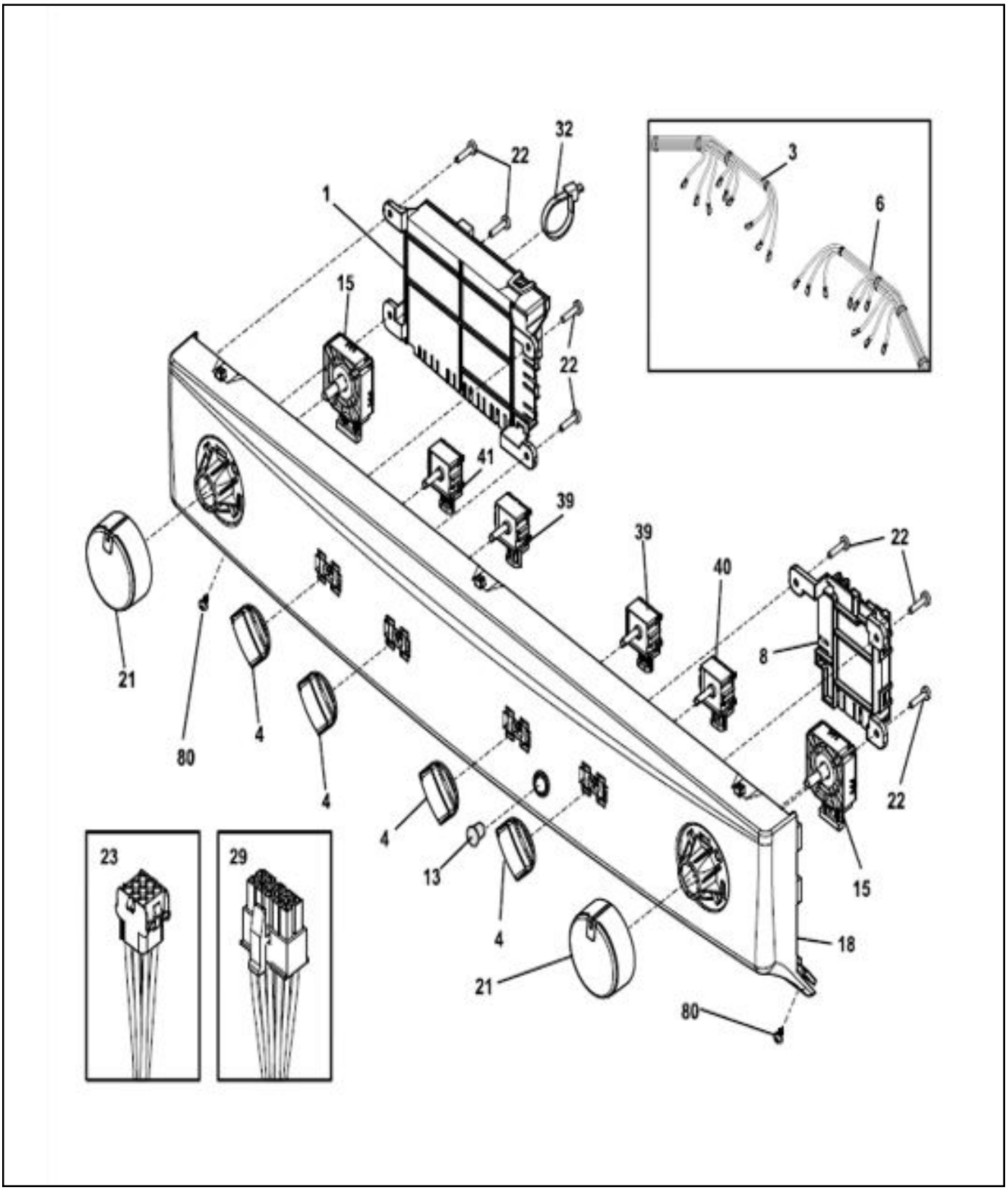
5.2.2 Motor / Blower / Belt

POS. NO	DESCRIPTION
76	Collar, alignment, gas valve
77 #	Burner, gas
79 #	Sensor, radiant
80	Screw, pan head, 8-18B x 0.31
80A#	Tube, burner
85	Shield, heat
86	Plate, adapter
87	Cable Tie, push mount, 5.20 inch
* #	LP Conversion Kit, natural to LP

Functional parts

* Non-Illustrated parts

5.2.3 Control Panel



5.2.3 Control Panel

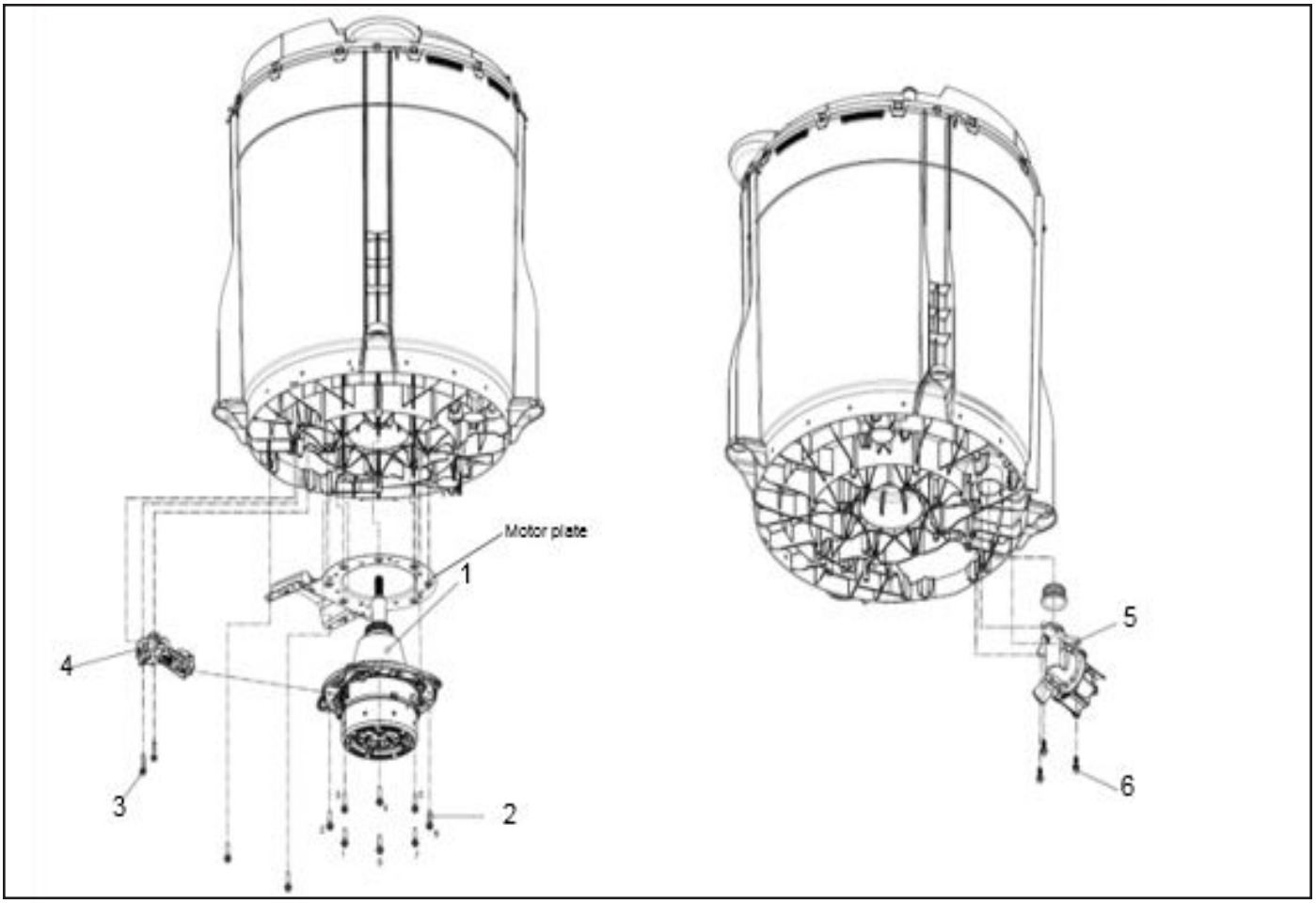
POS. NO	DESCRIPTION
1 #	Control Board, main, with housing
3 #	Wiring Harness, dryer, LC upper
4	Knob, Switch
6 #	Harness, upper LC, wash
8 #	PC Board, communication, with housing
13 #	Switch, on/off, white, round
15 #	Switch, PTS cycle select, 9 pos
18	Console, decorated, control panel
21	Knob, Cycle Selector
22	Screw, #8 pan head, 10-10B x 0.500, cr/sq drive
23 #	Wiring Harness, main
29 #	Harness, main, LC-D-gas
32	Cable Tie, 5.60 inch, plastic
39 #	Switch, rotary, 2 pos
40 #	Switch, rotary, 5 pos
41 #	Switch, rotary, 4 pos
80	Screw, Phillips, 6-19 x 0.650

Functional parts

* Non-Illustrated parts

5.3 FFLE3911QW and FFLG4033QW

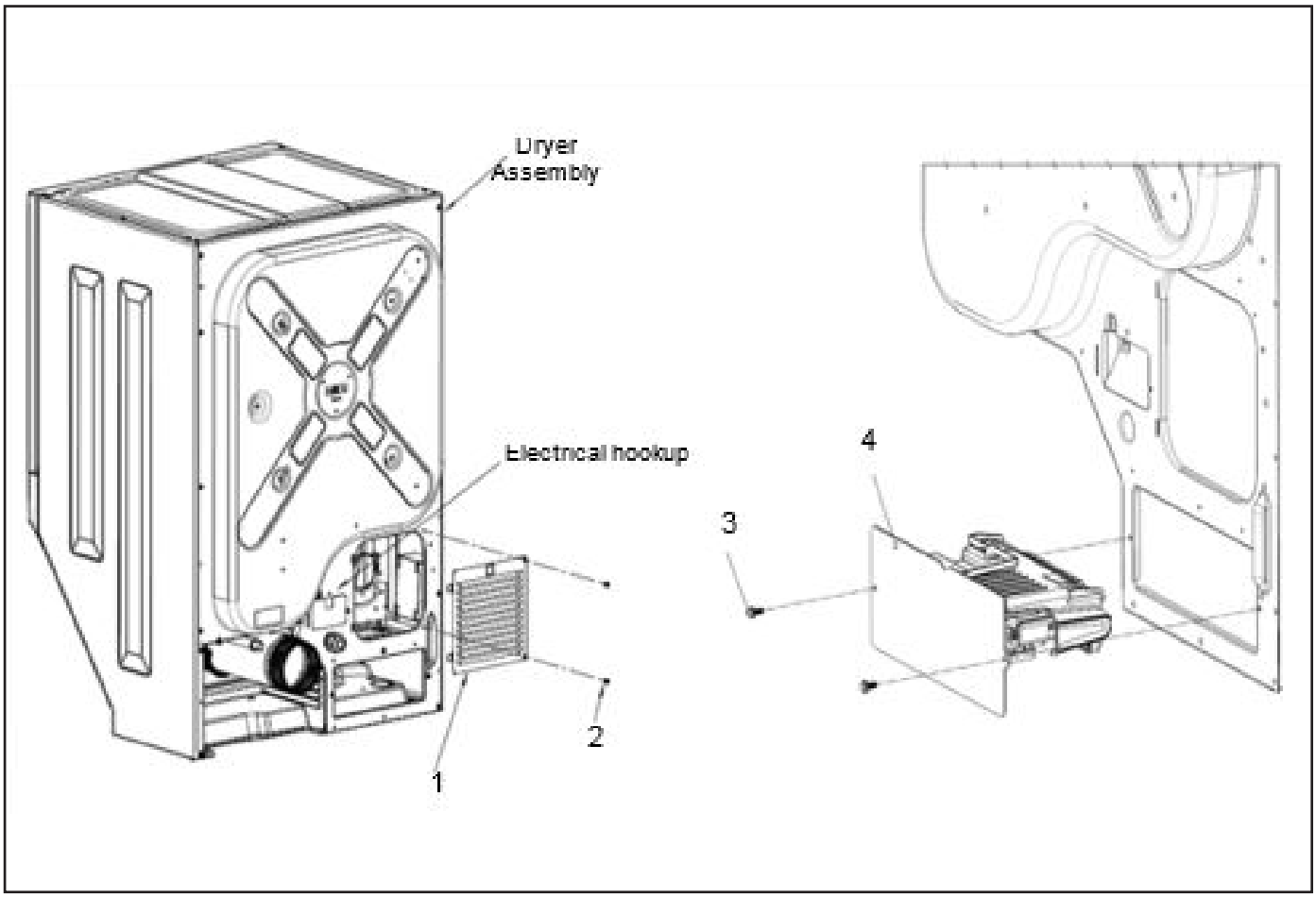
5.3.1 Motor Gear Box Assembly / Tub



5.3.1 Motor Gear Box Assembly / Tub	
POS. NO	**DESCRIPTION**
#1	Motor Gear Box Assembly
2	Screw, 10 PLCS
3	Screw, 2 PLCS
#4	Motor Brake Actuator, Clutch
#5	Drain Pump Assembly
6	Screw, 3 PLCS

Functional parts

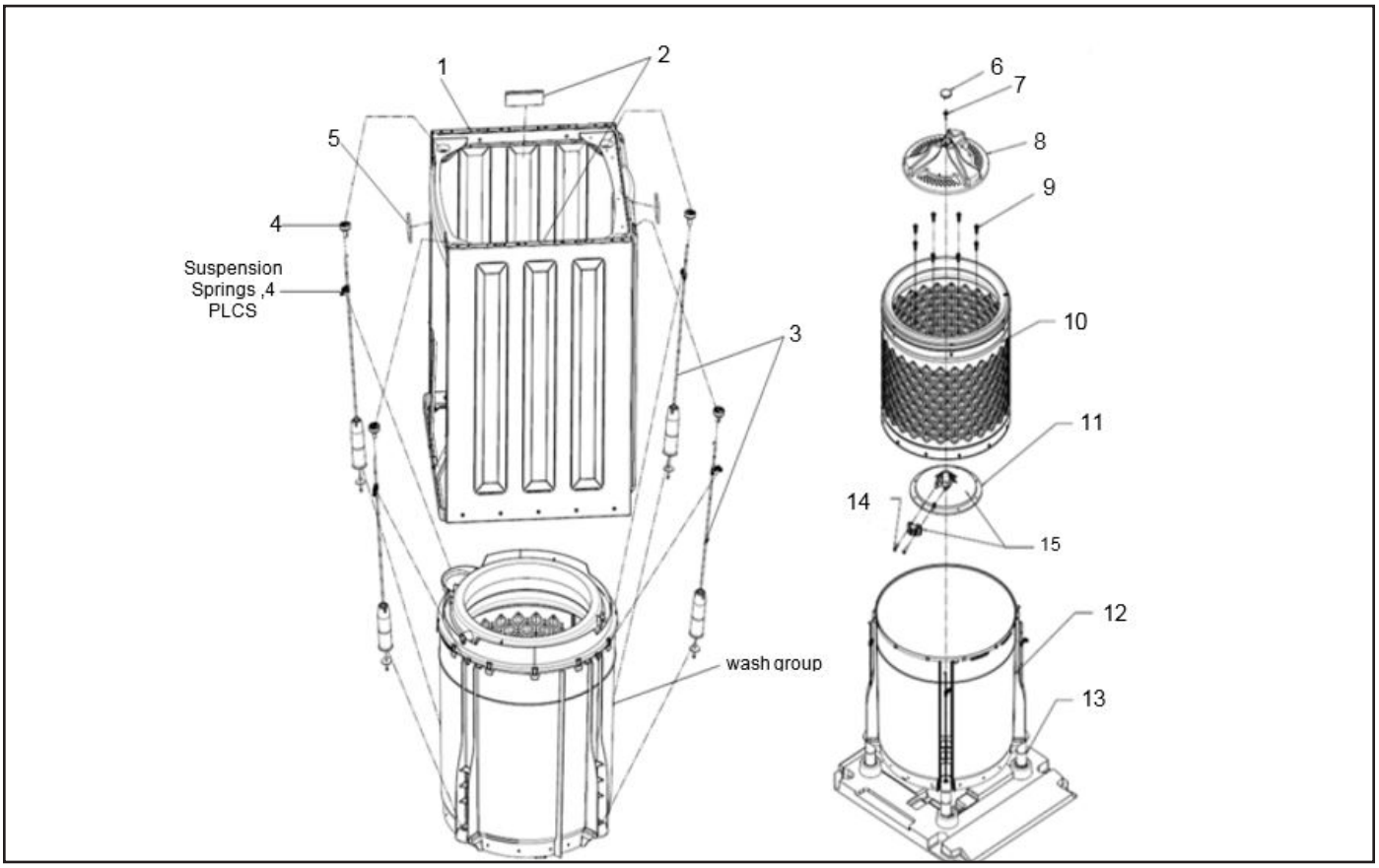
5.3.2 Control Board Washer



5.3.2 Control Board Washer	
POS. NO	**DESCRIPTION**
1	Motor Access Panel
2	Screw, 2 PLCS
3	Screw, 2 PLCS
#4	Main Board Assy UN, Main Board Assy PRO

Functional parts

5.3.3 Wash Assembly



5.3.3 Wash Assembly

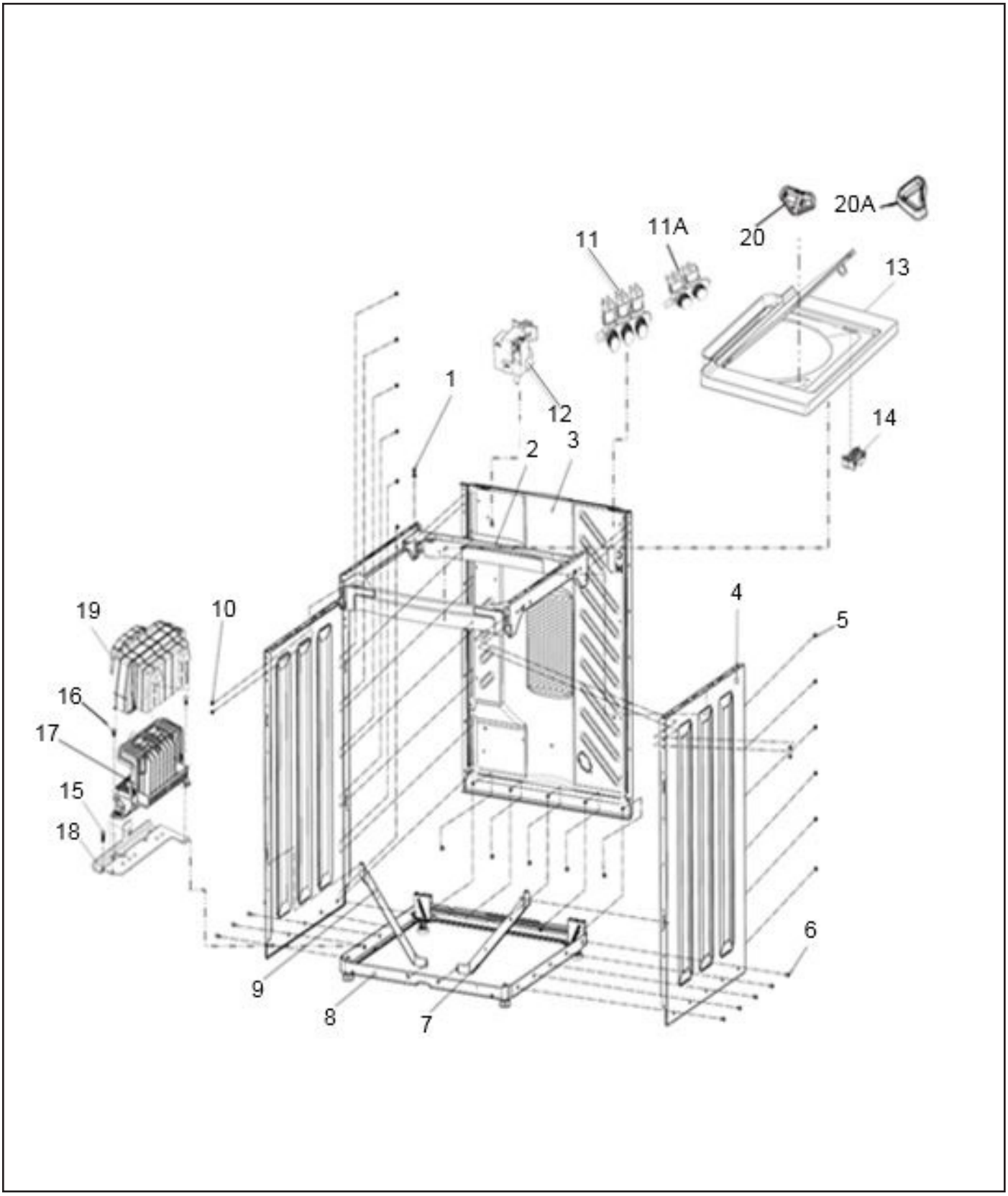
POS. NO	DESCRIPTION
1	Washer Cabinet Assembly
2	Cushion Pads , 2 PLCS
#3	Suspension Rods Assembly, 4 PLCS
4	Pivots , 4 PLCS
5	Cushion Pads (Felt Only), 2 PLCS
6	LPA CAP
7	Screw
#8	Agitator Assembly
9	Screw,8 PLCS
10	Spin Tub Assembly
11	Hub Assembly
12	Splash Tub Assembly
13	Suspension Assembly , 4 PLCS

5.3.3 Wash Assembly

POS. NO	DESCRIPTION
14	Screw ,2 PLCS
15	Lock, Hub

Functional parts

5.3.4 Cabinet Assembly



5.3.4 Cabinet Assembly

POS. NO	DESCRIPTION
1	Screw
2	Upper Bracket Assembly
3	Backsheet Panel
4	Side Panel, 2 PLCS
5	Screw,12 PLCS
6	Screw,15 PLCS
7	Structural Bracket (RH)
8	Base Assembly
9	Structural Bracket (LH)
10	Screw, 4 PLCS
#11	3 Coil water valve (Model FFLG4033QW)
#11A	2 Coil water valve (Model FFLE3911QW)
12	Low Frequency Analog Pressure Sensor
13	Top Panel and Lid Assembly
14	Lid Lock
15	Fastener
16	Screw
17	UIMC Assembly
18	Bracket,UIMC
19	Cover, UIMC
#20	Softener Dispenser Assembly (Model FFLG4033QW)
#20A	Bleach Dispenser (Model FFLE3911QW)

Functional parts

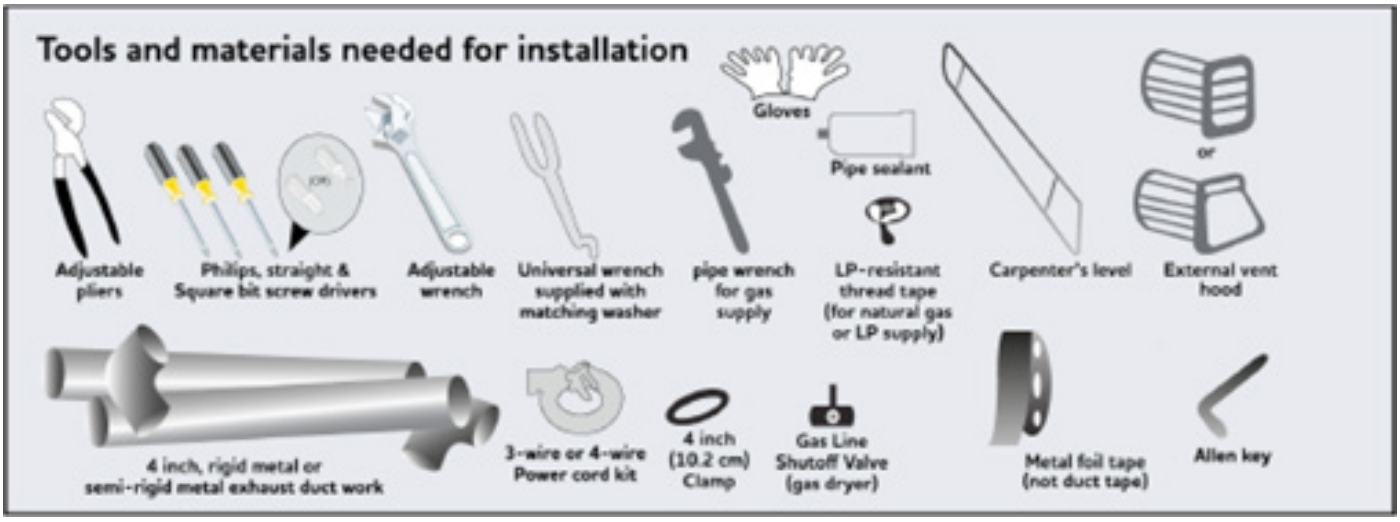
6. Installation-FFLE3911QW and FFLG4033QW

Precautions

- Dispose the carton and plastic bags after the Laundry Center is unpacked. Children might use them for playing. Cartons covered with rugs, bedspreads, or plastic sheets can become air tight chambers causing suffocation. Place all the materials in a garbage container or keep the materials away from children.
- Perform clothes dryer installation and service by a qualified installer, service agency or the gas supplier.
- Install the appliance according to the instructions of the manufaturer and local codes.
- The electrical service to the appliance must conform with local codes and ordinances and the latest edition of the National Electrical Code, ANSI / NFPA 70, or in Canada, the Canadian Electrical Code C22.1 Part 1.
- The gas service to the dryer must conform with local codes and ordinances and the latest edition of the National Fuel Gas Code ANSI Z223.1, or in Canada, CAN / ACG B149.1-2000. An individual manual shut-off valve must be installed within 6 ft (1.83 m) of the dryer in accordance with the National Fuel Gas Code, ANSI Z223.1 / NFPA 54.
- The dryer is designed under ANSI Z 21.5.1 or ANSI / UL 2158 – CAN / CSA C22.2 No. 112 (latest editions) for HOME USE only. This dryer is not recommended for commercial applications such as restaurants, beauty salons, and others.
- Do not install a clothes dryer with flexible plastic or flexible foil venting material. Flexible venting material are known to collapse, crush easily and trap lint. These conditions will obstruct the air flow in the clothes dryer and increase the risk of fire.
- The instructions in this manual and all other literature included with this appliance do not include every possible condition and situation that may occur. Safe practice and caution MUST be applied when installing, operating and maintaining any appliance.
- For your safety, the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or loss of life. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- To avoid injury, have more than one person to move or lift the appliance.

Save these instructions for future reference.

6.1 Pre-installation requirements



6.2 Installation Requirements

6.2.1 Electrical Requirements for Laundry Center with Electric Dryer

NOTE

Use the local utility power source. Do not use the dryer with potentially inconsistent voltage capabilities. For example, power created by gas powered generators, solar powered generators, wind powered generators or any other generator. Local utility power source is recommended.

Electrical Requirements for Laundry Center with Electric Dryer

CIRCUIT - Individual 30 amp. branch circuit fused with 30 amp. time delay fuses or circuit breakers. Use separately fused circuits for washer and dryer. Do not operate a washer and a dryer on the same circuit.

POWER SUPPLY - 3-wire or 4-wire, 240 volt, single phase, 60 Hz, Alternating Current.

IMPORTANT

This Laundry Center is internally grounded to neutral, unless it was manufactured for sale in Canada.

Use only a 4-conductor cord when the appliance is installed in a location where grounding through the neutral conductor is prohibited. Grounding through the neutral link is prohibited for the following:

- New branch circuit installations
- Mobile homes
- Recreational vehicles and areas where local codes does not permit grounding through the neutral conductor.

Outlet Receptable

Locate receptable NEMA 10-30R or NEMA14-30R so that the power supply cord is accessible when the dryer is in the installed position.

Grounding Connection

Refer to "Grounding requirements" in Electrical Installation section

3-Wire Power Supply Cord KIT (not supplied)

3-wire receptacle(NEMA type 10-30R)

The dryer MUST employ a 3-conductor power supply cord NEMA 10-30 type, SRDT rated at 240 volt AC minimum, 30 amp, with 3 open end spade lug connectors with upturned ends or closed loop connectors and marked for use with clothes dryers. For 3-wire cord connection instructions see ELECTRICAL CONNECTIONS FOR A 3-WIRE SYSTEM.

4-WIRE POWER SUPPLY CORD KIT (not supplied)

4-wire receptacle(NEMA type 14-30R)

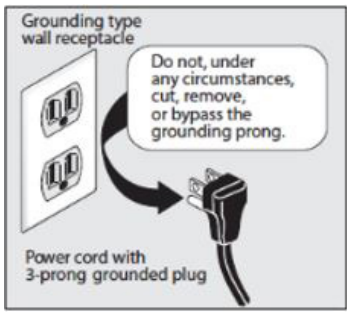
The dryer MUST employ a 4-conductor power supply cord NEMA 14-30 type SRDT or ST (as required) rated at 240 volt AC minimum, 30 amp,with 4 open end spade lug connectors with upturned ends or closed loop connectors and marked for use with clothes dryers. For 4-wire cord connection instructions see ELECTRICAL CONNECTIONS FOR A 4-WIRE SYSTEM.

NOTE

Laundry Centers manufactured for sale in Canada have factory-installed, 4-wire power supply cord (NEMA 14-30R).

6.2.2 Electrical Requirements for Laundry Center with Gas Dryer

CIRCUIT - Individual, properly polarized and grounded 15 amp. branch circuit fused with 15 amp. time delay fuse or circuit breaker.



POWER SUPPLY- 2-wire, with ground, 120 volt, single phase, 60 Hz, Alternating Current.

POWER SUPPLY CORD - The dryer is equipped with a 120 volt 3-wire power cord.

GROUNDING CONNECTION - See "Grounding requirements" in Electrical Installation Section.

WARNING

EXPLOSION HAZARD

Uncoated copper tubing will corrode when subjected to natural gas, causing gas leakages. Use ONLY black iron, stainless steel or plastic coated brass piping for gas supply.

6.2.3 Gas Supply Requirements

1. Ensure that the installation process MUST conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 (latest edition).

2. Ensure that the gas supply line should be 1 / 2 inch (1.27cm) pipe.

3. Use a flexible metal tubing to connect your dryer to the gas supply line, if codes allow. The tubing MUST be constructed of stainless steel or plastic - coated brass.

4. Install an individual shut off valve in the gas supply line in accordance with the B149.1, Natural Gas and Propane Installation Code.

5. Install an 1 / 8 inch (0.32 cm) N.P.T. plugged tapping, accessible for test gauge connection, is installed immediately upstream of the gas supply connection to the dryer.

6. Disconnect the dryer from the gas supply piping system during any pressure testing of the gas supply piping system at test pressures in excess of 1 / 2 psig (3.45 kPa).

7. Isolate the dryer from the gas supply piping system during any pressure testing of the gas supply piping system at test pressures equal to or less than 1 / 2 psig (3.45 kPa).

8. Connections for the gas supply MUST comply with the Standard for Connectors for Gas Appliances, ANSI Z21.24.

6.2.4 Water Supply Requirements

Install hot and cold water faucets within 42 inches (107 cm) of your washer's water inlet. The faucets MUST be 3 / 4 inch (1.9 cm) with threading for laundry hose connection. Water pressure MUST be between 10 psi (0.69 bars) and 120 psi (8.27 bars). Pressure difference between hot and cold water cannot be more than 10 psi. The water department can advise you on the water pressure.

6.2.5 Drain System Requirements

- The drain system requirements are as follows:
- Drain capable of eliminating 17 gals (64.3 L) per minute.
- A standpipe diameter of 1-1/4 inches (3.18 cm) minimum.

The standpipe height above the floor should be:

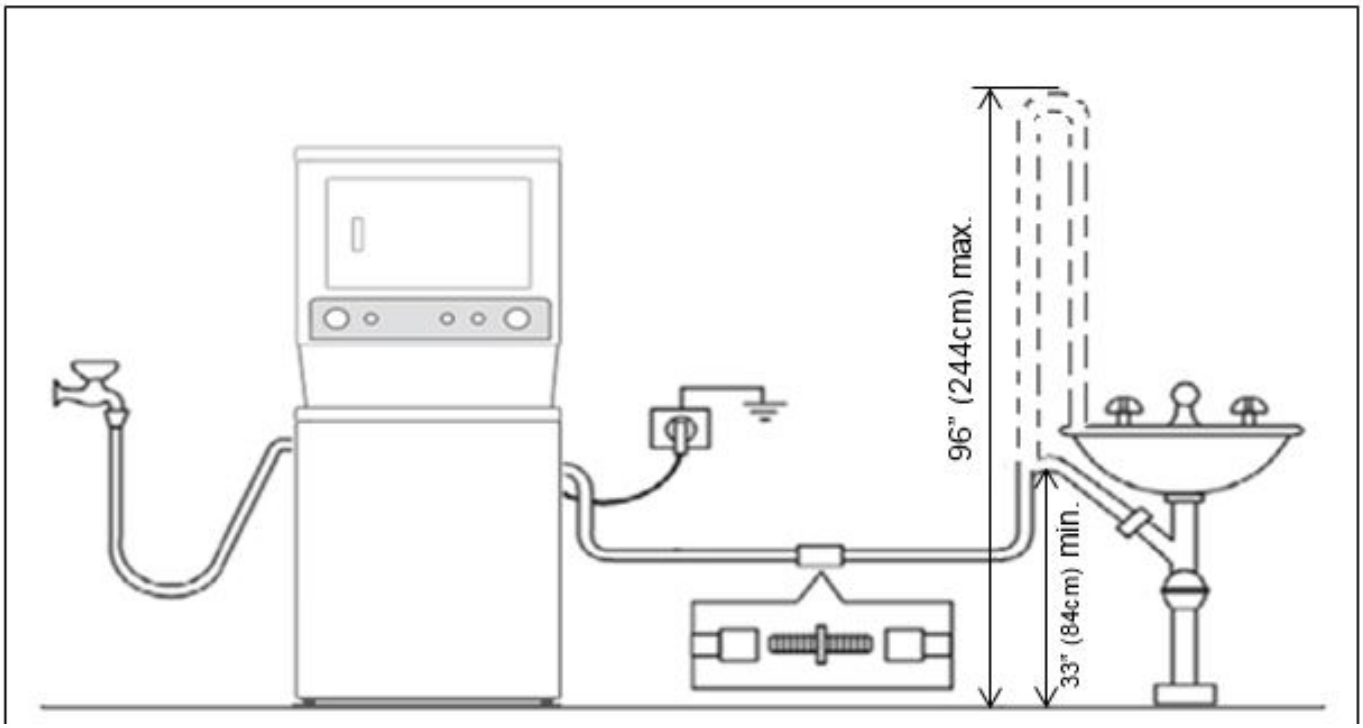
— Minimum height: 33 inches (84 cm)

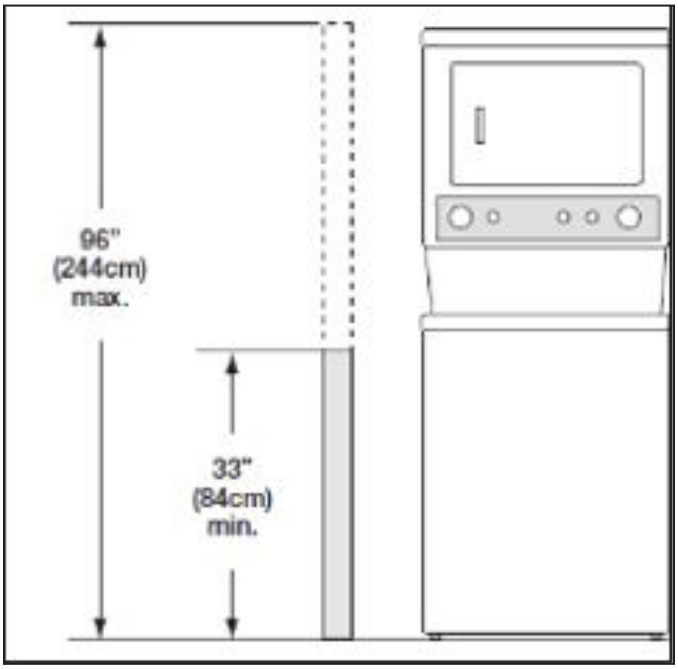
— Maximum height: 96 inches (244 cm)

NOTE

For installations requiring a longer drain hose, have a qualified technician install a longer drain hose

(according to your model number) available from an authorized parts distributor. For drain systems in the floor, install a syphon break kit available from your local hardware store.





6.2.6 Exhaust System Requirements

Use only 4 inches (102 mm) diameter (minimum) rigid or flexible metal duct and approved vent hood, which has a swing-out damper(s) that opens when the dryer is in operation mode. When the dryer stops, the dampers automatically close to prevent drafts and the entrance of insects and rodents. To avoid restricting the outlet, maintain a minimum of 12 inches (30.5 cm) clearance between the vent hood and the ground or any other obstruction.

⚠ WARNING

FIRE HAZARD

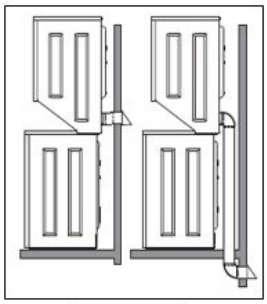
Failure to follow these instructions can create excessive drying times and fire hazards.

The following are the specific requirements for proper and safe operation of your dryer.

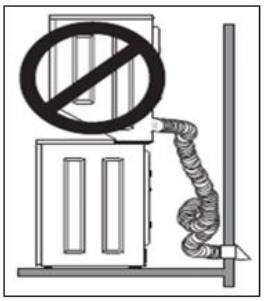
⚠ WARNING

FIRE HAZARD

Do not install a clothes dryer with flexible plastic or metal foil venting materials. Flexible venting materials are known to collapse, get easily crushed and trap lint. These conditions will obstruct air flow in the clothes dryer and increase the risk of fire.



CORRECT



INCORRECT

If your product is made up of plastic duct or metal foil duct, replace it with a rigid or semi-rigid metal duct. Also, ensure the duct is free of any lint, prior to installing the dryer duct.

⚠ WARNING

FIRE HAZARD

A clothes dryer must be exhausted outdoors. Do not exhaust dryer into a chimney, a wall, a ceiling, an attic, a crawl space or any concealed space of a building. A clothes dryer produces combustible lint. If the dryer is not exhausted outdoors, some fine lint will be expelled into the laundry area. An accumulation of lint in any area of the home can create a health and fire hazard.

The dryer must be connected to an exhaust outdoors. Regularly inspect the outdoor exhaust opening and remove any accumulation of lint around the outdoor exhaust opening and in the surrounding area.

⚠ WARNING

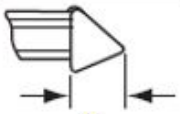
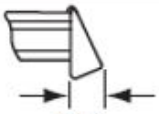
FIRE HAZARD

- **Do not allow combustible materials (for example: clothing, draperies / curtains, paper) to come in contact with the exhaust system. The dryer MUST NOT be exhausted into a chimney, a wall, a ceiling, or any concealed space of a building which can accumulate lint, resulting in a fire hazard.**
- **Do not screen the exhaust ends of the vent system, or use any screws, rivets or other fasteners that extend into the duct to assemble the exhaust system. Lint can get caught in the screen, on the screws or rivets, clogging the duct work and creating a fire hazard as well as increase the time of drying. Use an approved vent hood to terminate the duct outdoors and seal all joints with a metal foil tape. Install all male duct pipe fittings downstream with the flow of the air.**

⚠ WARNING

FIRE HAZARD

Exceeding the length of duct pipe or number of elbows as seen in "MAXIMUM LENGTH" charts can cause an accumulation of lint in the exhaust system. Plugging the system could create a fire hazard, and increase the time of drying.

Number of 90° turns	MAXIMUM LENGTH of 4" (102 mm) Rigid Metal Duct	
	VENT HOOD TYPE	
	(Preferred)	
	 4" (10.2 cm)	 louvered
	 2.5" (6.35 cm)	
0	56 ft. (17 m)	42 ft. (13 m)
1	48 ft. (14.5 m)	34 ft. (10.5 m)
2	40 ft. (12 m)	26 ft. (8 m)
3	32 ft. (9.5 m)	18 ft. (5.5 m)

⚠ WARNING

FIRE HAZARD

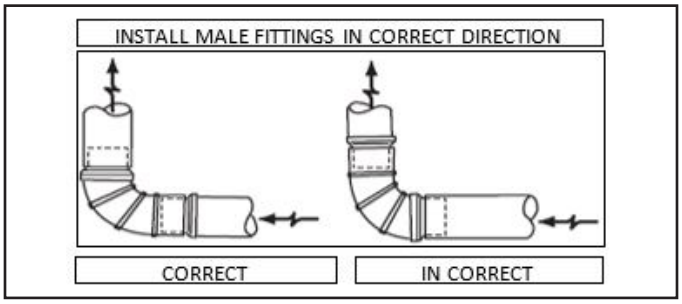
Do not install flexible plastic or flexible foil venting material.

If installing semi-rigid venting, do not exceed 8 ft. (2.4 m) duct length.

⚠ WARNING

FIRE HAZARD

Do not install the Laundry Center where gasoline or other flammables are kept or stored. If the dryer is installed in a garage, it must be a minimum of 18 inches (45.7 cm) above the floor. Failure to do so can result in death, explosion, fire or burns.



In installations where the exhaust system is not described in the charts, use the following methods to determine if the exhaust system is acceptable:

1. Connect an inclined or digital manometer between the dryer and the point the exhaust connects to the dryer.

2. Set the dryer timer and temperature to air fluff (cool down) and start the dryer.

3. Read the measurement on the manometer.

4. The system back pressure MUST NOT be higher than 0.6 inch of water column. If the system back pressure is less than 0.6 inch of water column, the system is acceptable. If the manometer reading is higher than 0.6 inch of water column, the system is too restrictive and the installation is unacceptable

Although vertical orientation of the exhaust system is acceptable, certain extenuating circumstances could affect the performance of the dryer:

1. Use the rigid metal duct work only.

2. Venting vertically through a roof may expose the exhaust system to down drafts causing an increase in vent restriction.

3. Running the exhaust system through an uninsulated area may cause condensation and faster accumulation of lint.

4. Compression or crimping of the exhaust system will cause an increase in vent restriction.

5. Inspect and clean the exhaust system at a minimum period of every 18 months with normal usage. The more the dryer is used, the more often you should check the exhaust system and vent hood for proper operation.

Exhaust Direction

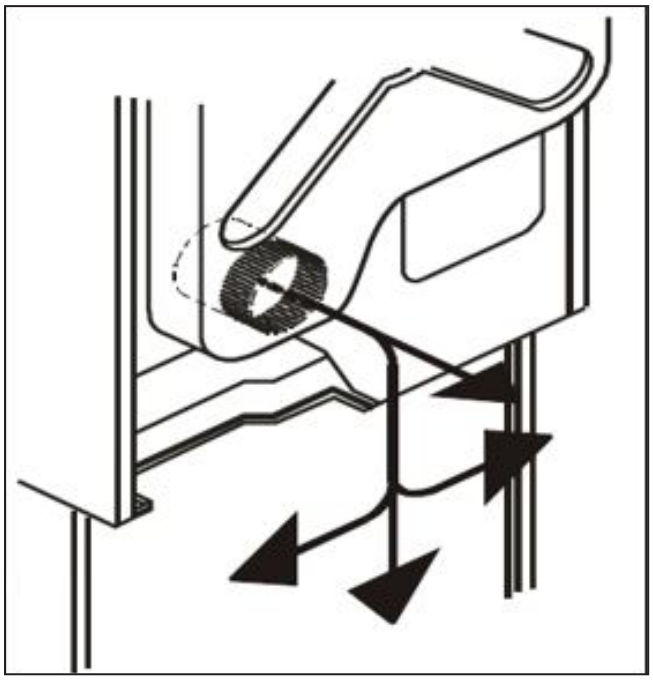
The Laundry Center may be exhausted in four ways with rear flush installation.

1. Straight back.

2. Down (8 inches [20.3 cm] length of 4 inches diameter [102 mm] rigid duct and 1 elbow down).

3. Left (8 inches [20.3 cm] length of 4 inches diameter [102 mm] rigid duct, 1 elbow down and 1 elbow left).

4. Right (8 inches [20.3 cm] length of 4 inches diameter [102 mm] rigid duct, 1 elbow down and 1 elbow right).



To exhaust upwards, add an 11 inches (28 cm) length of standard 4 inches (102 mm) diameter duct and a 90° elbow. The unit will be positioned about 4.5 inches (11.5 cm) away from the wall (flush to wall exhausting may be done by going below the dryer rather than sideways).

An exhaust hood positioned to line up with the dryer exhaust can be installed directly through the outside wall. To exhaust to the side or down, add an 8 inches (20.3 cm) length of standard 4 inches (102 mm) diameter duct and a 90° elbow.

Refer to Clearance Requirements for more information.

6.3 Manufactured or Mobile Home Installation

1. Installation MUST conform to current Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 32-80 (formerly the Federal Standard for Mobile Home Construction and Safety, Title 24, HUD Part 280) or Standard CAN/CSAZ240 MH.

2. Exhaust the dryer outside (outdoors, not beneath the mobile home) using metal ducting that will not support combustion. Metal ducting must be 4 inches (10.16 cm) in diameter with no obstructions. Rigid metal duct is preferred.

3. If the dryer is exhausted through the floor and area beneath the mobile home is enclosed, the exhaust system MUST terminate outside the enclosure with the termination securely fastened to the mobile home structure.

4. Refer to the previous sections in this guide for other important exhaust venting system requirements.

5. Make provision for outside make up air while installing a gas dryer into a mobile home, This provision should not be less than twice the area of the dryer exhaust outlet.

6. Installer MUST anchor this (1) dryer or (2) dryer mounted on the pedestal to the floor with approved Mobile Home Installation Kit.

⚠ WARNING

DO NOT INSTALL YOUR LAUNDRY CENTER

Do not set your Laundry Center under the following circumstances:

In an area exposed to dripping water or outside weather conditions.

In an area where it will come in contact with curtains, drapes, or anything that will obstruct the flow of combustion and ventilation of air.

On carpet. The floor MUST be solid with a maximum slope of 1 inch (2.5 cm).

6.3.1 Installation in a Recess or Closet

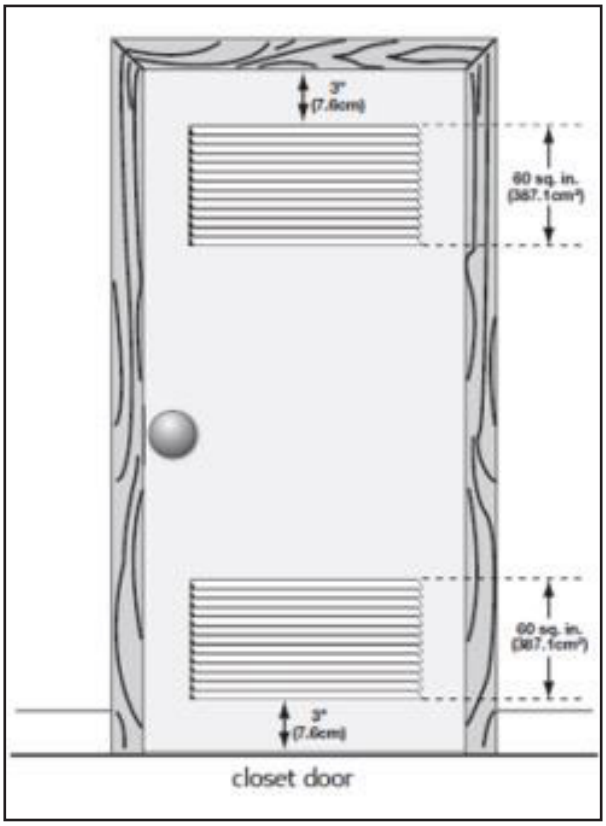
1. Install a dryer in the bedroom, bathroom, recess or closet, with the exhaust outdoors.

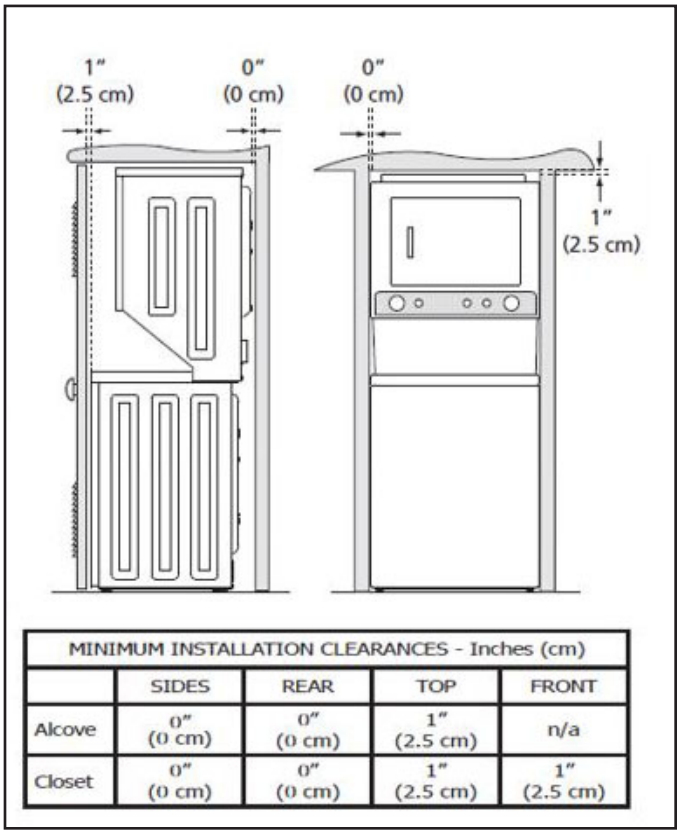
2. Do not install other fuel or burning appliance in the same closet as the gas dryer.

3. Provide proper ventilation for the dryer around it.

DO NOT install your dryer in a closet with a solid door.

4. Closet door ventilation required: A minimum of 120 square inches (774.2 cm^2) of opening, equally divided at the top and bottom of the door, is required. Openings should be located 3 inches (7.6 cm) from the bottom and top of door. Openings are required to be unobstructed when a door is installed. A louvered door with equivalent air openings throughout is acceptable.





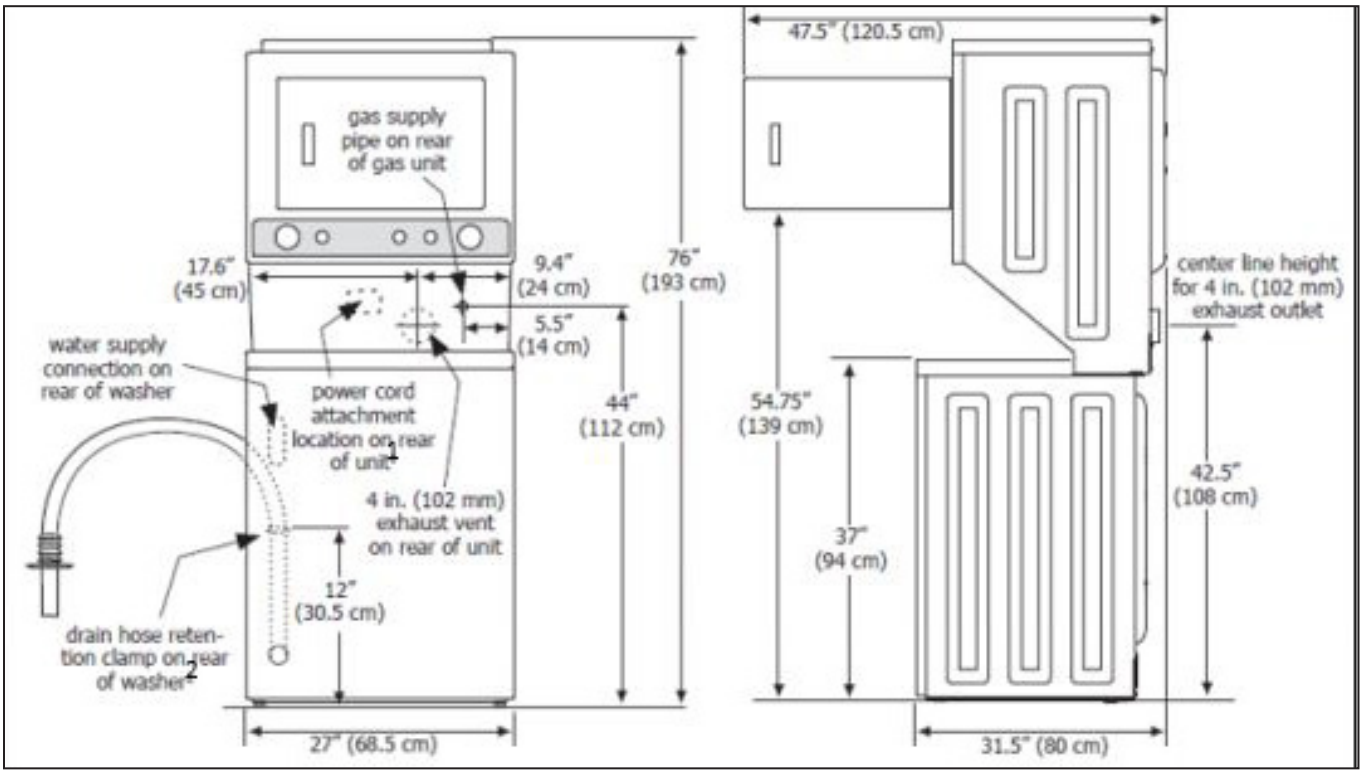
MINIMUM INSTALLATION CLEARANCES - Inches (cm)				
	SIDES	REAR	TOP	FRONT
Alcove	0" (0 cm)	0" (0 cm)	1" (2.5 cm)	n/a
Closet	0" (0 cm)	0" (0 cm)	1" (2.5 cm)	1" (2.5 cm)

⚠ WARNING

EXPLOSION HAZARD

Do not install the dryer where gasoline or other flammables are kept or stored. If the dryer is installed in a garage, it must be a minimum of 18 inches (45.7 cm) above the floor. Failure to do so can result in death, explosion, fire or burns.

6.4 Laundry Center Dimensions



1- Power supply cord length on gas unit approximately 60 inches (152.5 cm).

2- Loose drain hose length beyond clamp approximately 52 inches (132 cm).

6.5 Electrical Installation

The following are specific requirements for proper and safe electrical installation of your dryer. Failure to follow these instructions can create electrical shock and /or a fire hazard.

WARNING

ELECTRICAL SHOCK HAZARD

- **This appliance MUST be properly grounded**

  Electrical shock can occur if the dryer is not

  properly grounded. Follow the instructions in this manual for proper grounding.

- **Do not use an extension cord with this dryer. Some extension cords are not designed to withstand the amount of electrical current this dryer utilizes and can melt, creating electrical shock and / or fire hazard. Locate the dryer within reach of the receptacle for the length of power cord to be purchased, allowing some slack in the cord. Refer to the pre-installation requirements in this manual for the right length of power cord to be purchased.**

WARNING

ELECTRICAL SHOCK HAZARD

- **Install a UL-approved strain relief on the power cord. If the strain relief is not attached, the cord can be pulled out of the dryer and can be disconnected by any movement of the cord, resulting in electrical shock.**
- **Do not use an aluminum wired receptacle with a copper wired power cord and plug (or vice versa). A chemical reaction occurs between copper and aluminum and can cause electrical shorts. The proper wiring and receptacle is a copper wired power cord with a copper wired receptacle.**

NOTE

Dryers operating on 208 volts power supply will take longer time for drying than the dryers operating on 240 volts power supply.

Grounding Requirements - Electric Dryer (USA)

WARNING

ELECTRICAL SHOCK HAZARD

Improper connection of the equipment grounding conductor can result in a risk of electrical shock. Check with a licensed electrician and ensure that the appliance is properly grounded.

For a grounded, cord-connected dryer:

- The dryer MUST be grounded. In the event of a malfunction or breakdown, the grounding will reduce the risk of electrical shock by a path of least resistance for electrical current.
- After you purchase and install a 3 wire or 4 wire power supply cord having an equipment grounding conductor and a grounding plug that matches your wiring system, insert the plug into an appropriate copper wired receptacle that is properly installed and grounded in accordance with all local codes and ordinances. If in doubt, call a licensed electrician.
- DO NOT modify the plug you have installed on this appliance. If it does not fit the outlet, have a proper outlet installed by a qualified electrician.

For a permanently connected dryer:

Connect the dryer to a grounded metal, permanent wiring system; or an equipment grounding conductor that must sync with the circuit conductors and remain connected to the equipment-grounding terminal or lead on the appliance.

6.5.1 Grounding Requirements - Electric Dryer (Canada)

For a grounded, cord-connected dryer:

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Improper connection of the equipment grounding conductor can result in a risk of electrical shock. Check with a licensed electrician and ensure that the appliance is properly grounded.

1. The Laundry Center MUST be grounded. In the event of a malfunction or breakdown, the grounding will reduce the risk of electrical shock by a path of least resistance for electrical current.

2. Since your Laundry Center is equipped with a power supply cord having an equipment-grounding conductor and a grounding plug, insert the plug into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. If in doubt, call a licensed electrician.

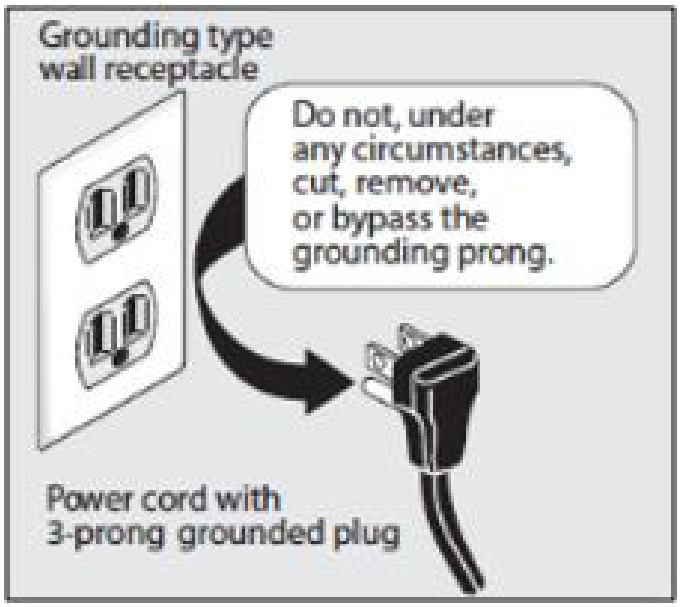
3. DO NOT modify the plug provided with this appliance. If it does not fit the outlet, a qualified electrician must install the proper outlet.

6.5.2 Grounding Requirements - Gas Dryer (USA and Canada)

1. The Laundry Center is equipped with a 3-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded 3-prong receptacle.

2. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. If in doubt, call a licensed electrician.

3. DO NOT modify the plug provided with this appliance. If it does not fit the outlet, a qualified electrician must install the proper outlet.



6.5.3 Electrical Connection (non-Canada) - 3 wire cord

3-wire receptacle (NEMA type 10-30R)

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to disconnect the power source before servicing could result in personal injury or even death.

1. Turn OFF the power supply to the outlet.

2. Remove the screw securing the terminal block access cover in the lower corner on the back of the dryer.

3. Install a UL-approved strain relief according to the power cord / strain relief manufacturer's instructions in the power cord entry hole below the access panel. Simultaneously, the strain relief should be loosely in place.

4. Thread an UNPLUGGED, UL-approved, 30 amp. power cord, NEMA 10-30 type SRDT, through the strain relief.

5. Attach the power cord neutral (center wire) conductor to the SILVER colored center terminal on the terminal block. Tighten the screw securely.

6. Attach the outer conductors of the two remaining power cords to the outer BRASS colored terminals on the terminal block. Tighten both screws securely.

WARNING

ELECTRICAL SHOCK HAZARD

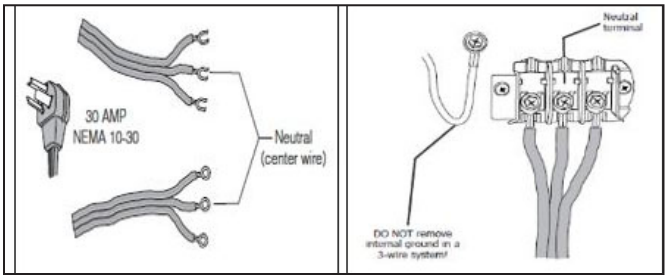
Do not make a sharp bend or crimp wiring / conductor at connections.

7. Follow the manufacturer's guidelines for firmly securing the strain relief and power cord.

8. Reinstall the terminal block cover.

IMPORTANT

To move a dryer from a 4-wire system and to install it in a 3-wire system, move the internal ground from the center terminal back to the GREEN screw next to the terminal block.



NOTE

If a terminal screw falls during cord installation, it can be retrieved in the terminal screw recovery slot below the access panel.

6.5.4 Electrical Connection (non-Canada) - 4 wire cord

4-wire receptacle (NEMA type 14-30R)

WARNING

ELECTRICAL SHOCK HAZARD

Failure to disconnect power source before servicing could result in personal injury or even death.

1. Turn OFF the power supply to outlet.

2. Remove the screw securing the terminal block access cover in the lower corner on the back of the dryer.

3. Install a UL-approved strain relief according to the power cord / strain relief manufacturer's instructions in the power cord entry hole below the access panel. At this time, the strain relief should be loosely in place.

4. Thread an UNPLUGGED, UL-approved strain relief, 30 amp. power cord, NEMA 14-30 type ST or SRDT, through the strain relief.

5. Disconnect the internal (WHITE) dryer harness ground wire from the (GREEN) ground screw next to the terminal block.

6. Attach the ground (GREEN) power cord wire to the cabinet with the ground (GREEN) screw. Tighten the screw securely.

7. Move the internal dryer harness ground (WHITE) wire to the terminal block and attach it with the neutral (WHITE) power cord wire conductor to the center SILVER colored terminal on the terminal block. Tighten the screw securely.

8. Attach the RED and BLACK power cord conductors to the outer BRASS colored terminals on the terminal block. Tighten both the screws securely.

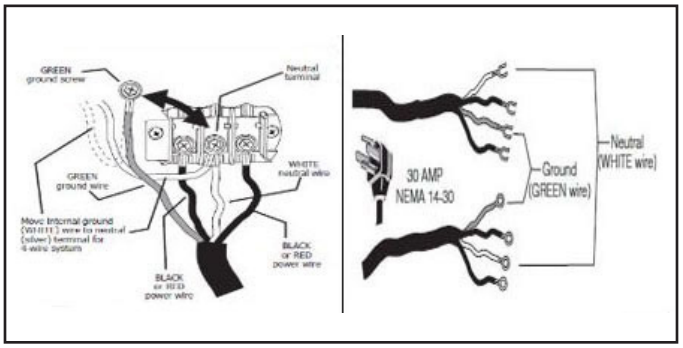
WARNING

ELECTRICAL SHOCK HAZARD

Do not make a sharp bend or crimp wiring / conductor at connections.

9. Follow the manufacturer's guidelines for firmly securing the strain relief and power cord.

10. Reinstall the terminal block cover.



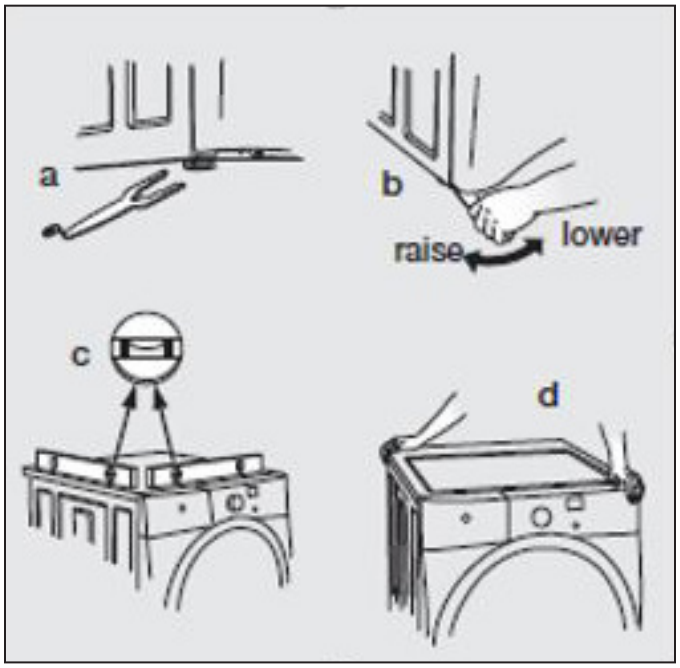
Leveling your Laundry Center

Excessive noise and vibration can be prevented by leveling the Laundry Center on the ground.

1. With the Laundry Center within 4 feet (1 m) of its final location, place a level on top of the washer lid.

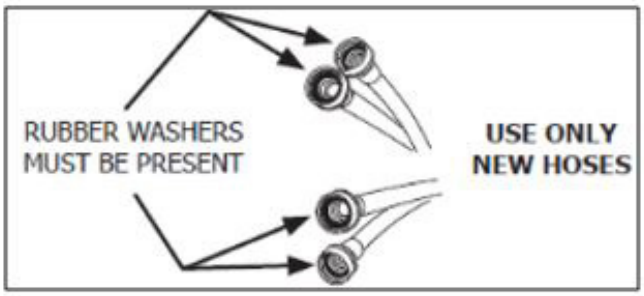
2. Use adjustable pliers to adjust the leveling of legs so that the Laundry Center is levelled front-to-rear and side-to-side, and stable corner-to-corner.

3. Press down on alternate corners and sides and feel for the slightest movement. Adjust the appropriate leg(s) so the Laundry Center rests solidly on the floor on all four legs. Keep the leveling leg extension at a minimum height for the best performance of the washer.



Connecting Inlet Water

1. Run water from the hot and cold faucets to flush the water lines and remove particles thatmight clog the water valve screens to determine the faucets supplying hot and cold water.



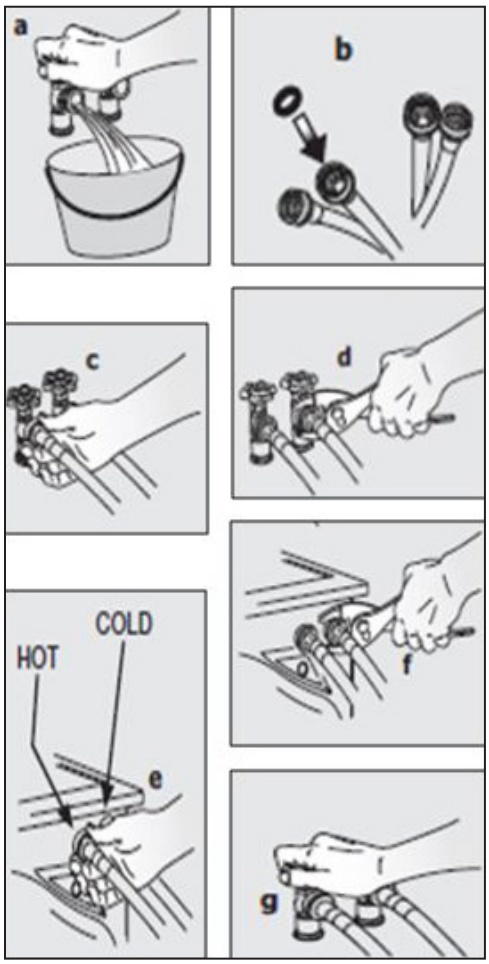
NOTE

Hoses are not included with Laundry Center purchase. Refer to "Accessories" section for various inlet hose kits to fit your specific installation.

2. Connect the HOT inlet hose to the HOT inlet connection on the washer and the COLD inlet hose to the COLD inlet connection on the washer. Tighten by hand until it fits properly. Then tighten each supply connection another 2/3 turns with pliers. Do not cross thread or over-tighten these connections.

3. Connect the HOT inlet hose to the HOT water supply and the COLD inlet hose to the COLD water supply. Tighten by hand until it fits properly. Then tighten each supply connection another 2/3 turns with pliers. Do not bend, kink or pinch water inlet hoses.

4. Turn ON the water and check for leakages.



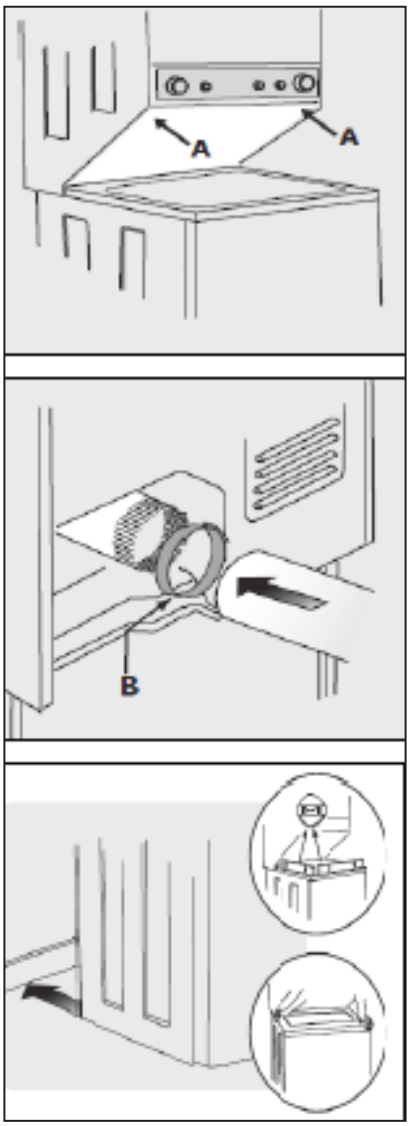
Connecting Vents

1. Remove the two screws (items A, to the right) securing the front access panel of the dryer to the dryer cabinet. Lift the panel until the tabs can be disengaged from the cabinet, remove the panel and set aside.

2. Connect the exhaust duct to the outside exhaust system. Use a 4"inches (10.2 cm) clamp (item B, to the right) to connect the dryer to the exhaust vent system. Use metal foil tape to seal all other joints.

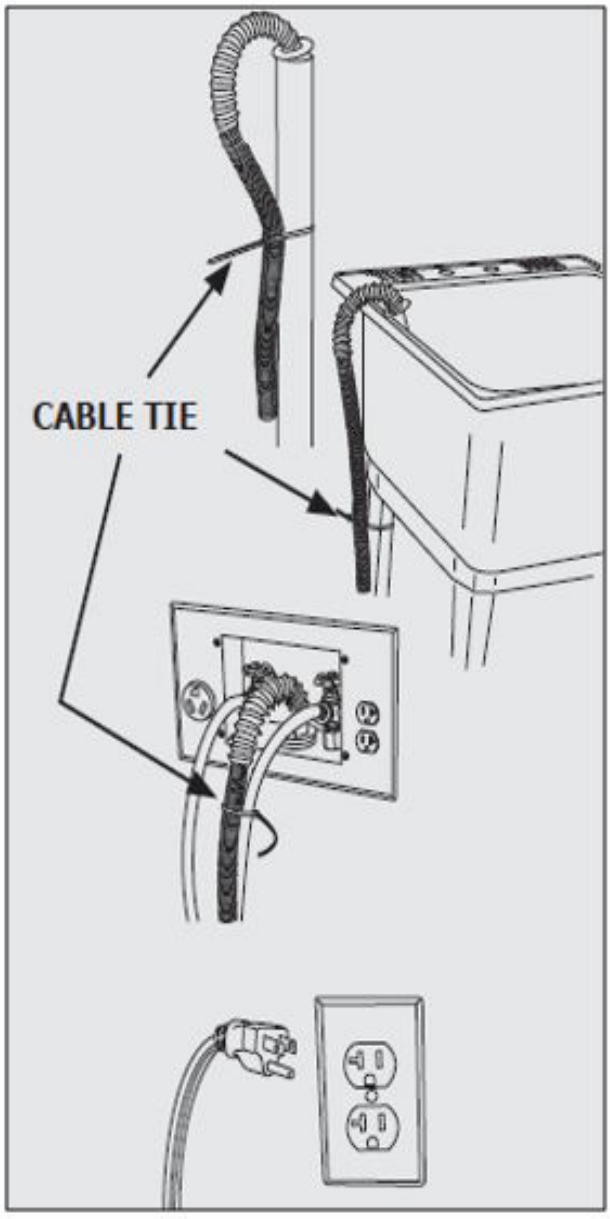
3. Reinstall the front access panel of the dryer.

4. Carefully slide the Laundry Center to its final position. Recheck for level and rock corners for stability.



Connecting Drain and Electrical

1. Form a "U" shape at the end of the drain hose with the hose pointed towards the drain. Place the "U" shape end in a laundry tub or a standpipe and secure the drain hose with the cable tied (provided in the enclosure package) to the standpipe, inlet hose, laundry tub, and so on, so that the hose does not come out due to the force of the water.



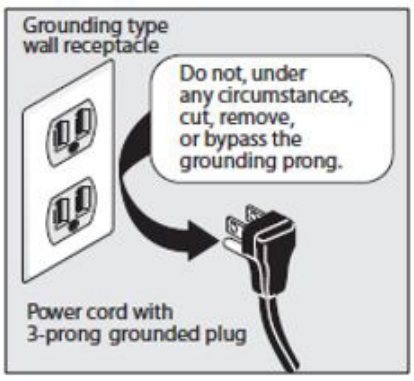
NOTE

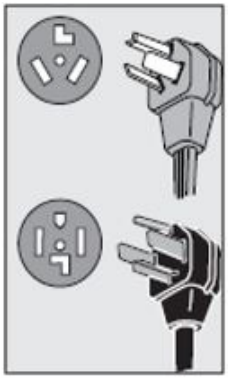
The standpipe inside the diameter must have a minimum circumference of 1-1/4" inches (3.2 cm). There must be an air gap around the drain hose in the standpipe. A snug hose fitting can cause a siphoning action.

IMPORTANT

Ensure that the power is switched OFF at a circuit breaker / fuse box before plugging the power cord into an outlet.

2. Plug the power cord into a grounded outlet.





3. Turn ON the power at the circuit breaker / fuse box.

4. Read the Use and Care Guide provided with the Laundry Center. It contains valuable and helpful information that will save you time and money.

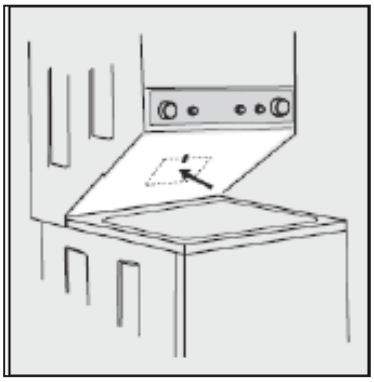
5. Run the washer through a complete cycle, checking for water leakages and proper operation.

6. If you have any questions during initial operation, review the "Avoid Service Checklist" in your Use and Care Guide before calling for service.

7. Place these instructions in a location near the appliance for future reference.

NOTE

A wiring diagram and technical data sheet are located behind the dryer access panel.



Accessories

LP Conversion Kit

P/N PCK3100

Gas dryers intended for use in a location supplied with LP must use a conversion kit prior to installation.

Mobile Home Installation Kit

Installation in a mobile home requires the use of a MOBILE HOME INSTALLATION KIT.

Inlet Hose Kits

Please call 866-233-8353 (in Canada, 800-265-8352) to explore hose kit options that will meet your specific installation needs.

Drying Rack

Depending on the model you purchased, a drying rack may have been included in the initial purchase of your Laundry Center. If your model did not include a drying rack or you desire another drying rack, you may order one.

Universal Appliance Wrench

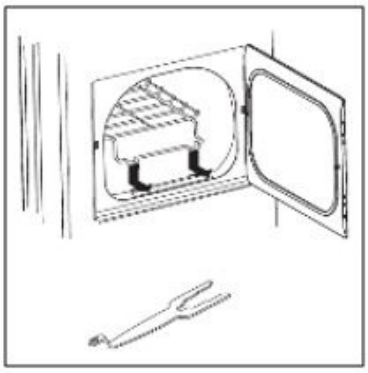
P/N 137019200

A Universal Appliance Wrench is available to aid in dryer / washer feet adjustment.

Touch Up Paint Pens*

White Touch Up Pen - P/N 5304468812

*Other colors may be available. Contact the source from where you purchased your Laundry Center.



Replacement Parts

If replacements parts are needed for your Laundry Center, contact the source where you purchased your laundry center or refer to your Use and Care Guide for more information.

Failure to use accessories manufactured by (or approved by) the manufacturer could result in personal injury, property damage or damage to the washer.

WARNING

ELECTRICAL SHOCK HAZARD

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

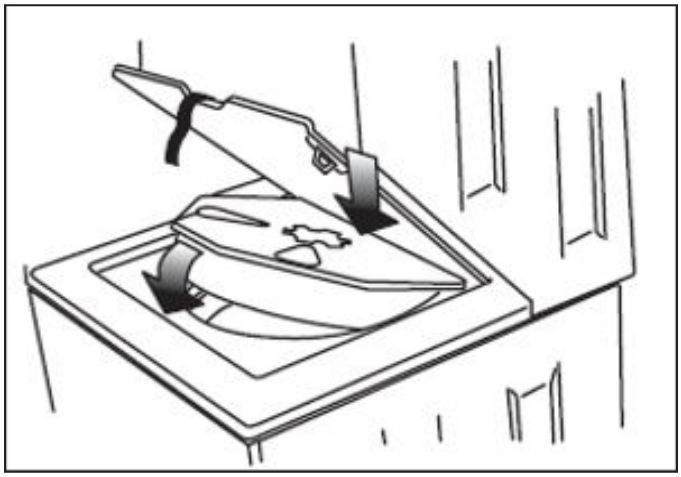
Unpacking Instructions

IMPORTANT

To prevent vibration, possible machine damage and maximize performance, complete the following steps:

1. If foam tub block has been removed, reinsert it now and retape the lid securely.

2. Use a rug, blanket or piece of cardboard to protect the floor, and carefully lay the Laundry Center on its left side.



CAUTION

EXECESSIVE WEIGHT HAZARD

To avoid a back or any other injury, have more than one person move or lift the appliance.

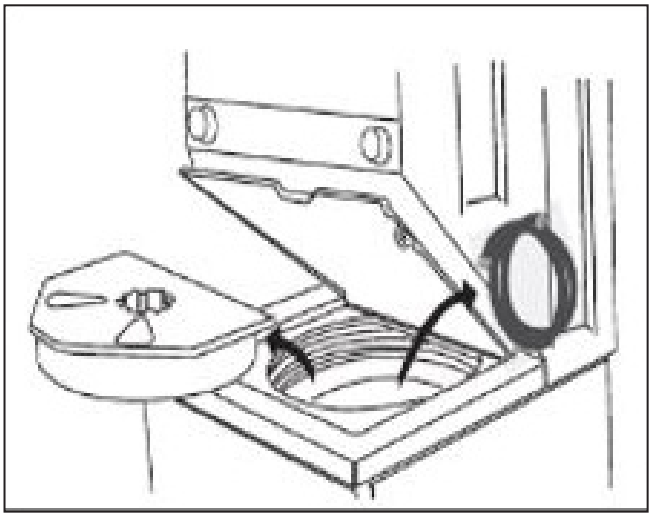
NOTE

If the Laundry Center is to be transported at a later date, retain the tub blocking pad, shipping bolt, and plastic spacer block.

3. Carefully set the laundry center to an upright position.

4. Remove the tape holding the lid shut and open the lid.

5. Remove the foam tub block.



6. Remove the inlet hoses and other tub contents.

7. From the back of the washer, remove the wire shipping clip securing the drain hose.

8. DO NOT remove the plastic clamp that secures the drain hose to the right side of the washer backsheet. It helps to form a standpipe to prevent water siphoning.

9. Carefully move the Laundry Center within 4 feet of the final location for the start of the installation.

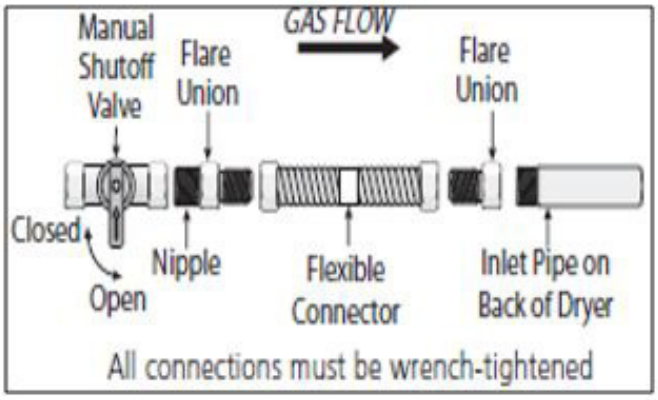
6.6 Gas Connection

1. Remove the shipping cap from the gas pipe at the rear of the dryer.

IMPORTANT

DO NOT connect the dryer to the LP gas service without converting the gas valve. A qualified gas technician must install an LP conversion kit.

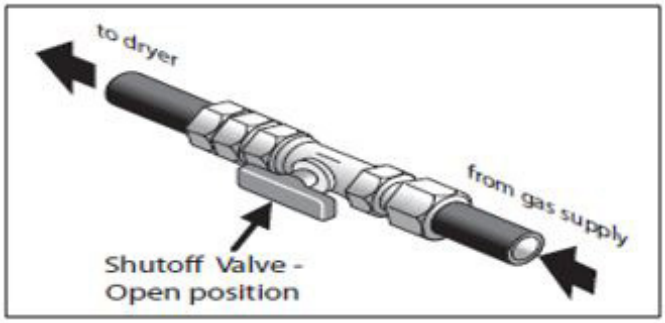
2. Connect a 1/2 inch (1.27 cm) I.D. semi-rigid or approved pipe from the gas supply line to the 3/8 inch (0.96 cm) pipe located on the back of the dryer. Use a 1/2 inch to 3/8 inch (1.27 cm to 0.96 cm) reducer for the connection. Apply an approved thread sealer that is resistant to the corrosive action of liquefied gases on all pipe connections.



IMPORTANT

The supply line must be equipped with an approved manual shutoff valve. This valve should be located in the same room as the dryer and should be in a location that allows ease of opening and closing the valve. Do not block access to the gas shutoff valve.

3. Open the shutoff valve in the gas supply line to allow gas to flow through the pipe. Wait for a few minutes for the gas to move through the gas line.



4. Check for gas system leakages with a manometer. If a manometer is not available, test all the connections by applying a soapy water solution.

WARNING

EXPLOSION HAZARD

NEVER test for gas leakages with an open flame.

Water Connection (Steam Model only)

6.7 Water Supply Requirements

Install hot and cold water faucets within 42 inches (107 cm) of your washer's water inlet. The faucets MUST be 3/4 inch (1.9 cm) with a threading for laundry hose connection. Water pressure MUST be between 10 psi (0.69 bars) and 120 psi (8.27 bars). The pressure difference between hot and cold water cannot be more than 10 psi. The water department can advise you of the water pressure.

6.8 Drain System Requirements

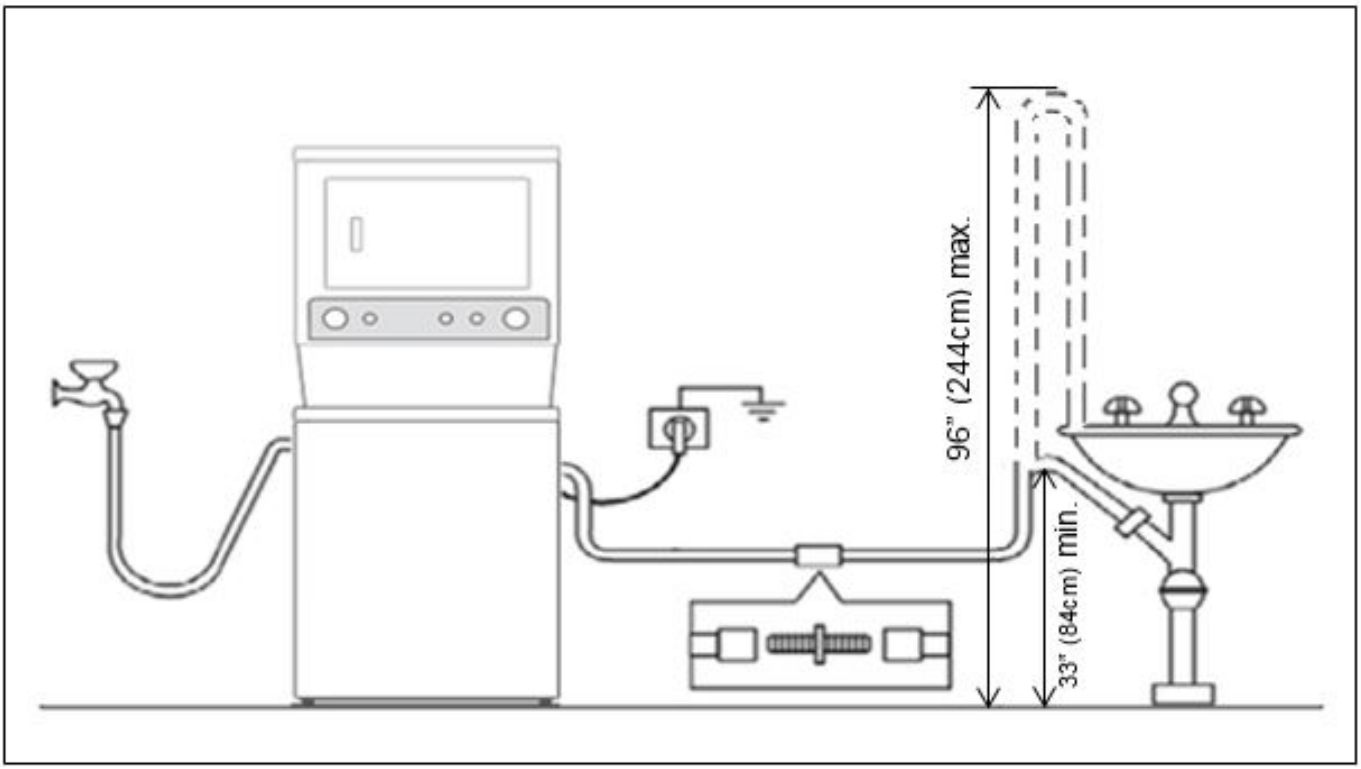
1. Drain capable of eliminating 17 gals (64.3 L) per minute.

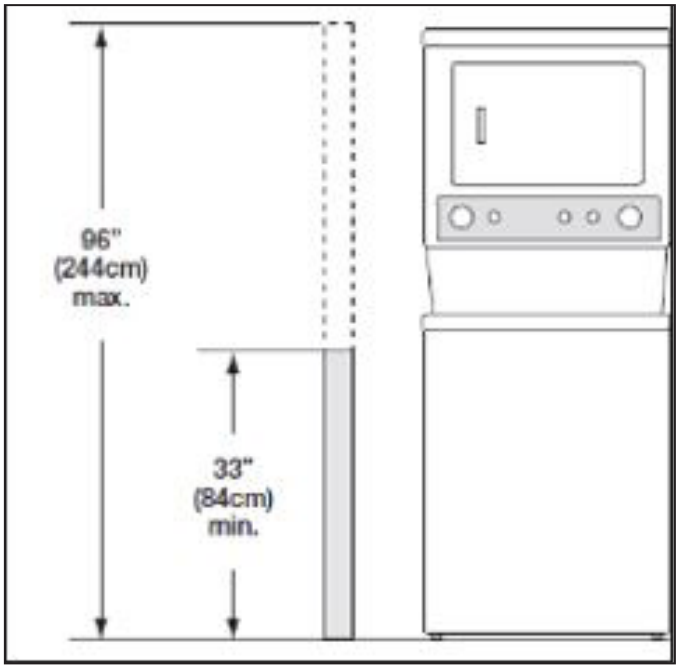
2. A standpipe diameter of 1-1/4 inches (3.18 cm) minimum.

3. The height of the standpipe above the floor should

NOTE

For installations requiring a longer drain hose, get a qualified technician to install a longer drain hose(according to your model number) available from an authorized parts distributor. For drain systems in the floor, install a syphon break kit, available from your local hardware store.





⚠ WARNING

To reduce the risk of fire, electrical shock or injury to persons, refer to IMPORTANT SAFETY INSTRUCTIONS in this Use and Care Guide before operating your washer.

7.1 Washing Procedures

1. Sort laundry into loads that can be washed together:

a. Sort items by recommended cycle and water temperature.

b. Separate white, light and colorfast items from dark and non-colorfast items.

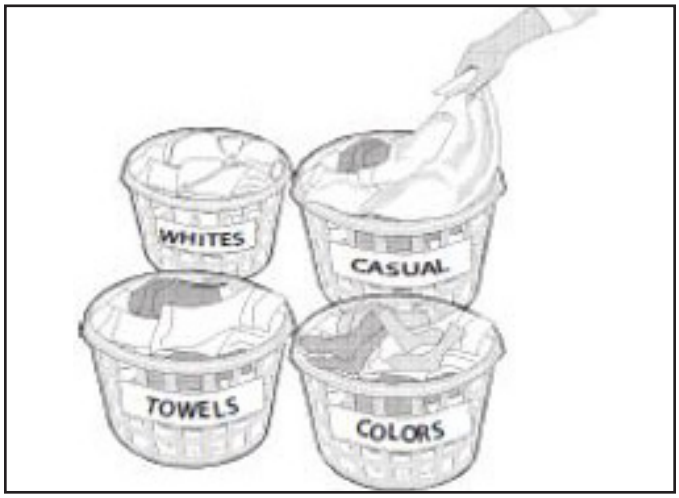
c. Separate items that shed lint from items that attract lint.

d. Casual, synthetic, knit and corduroy items will pick up lint from towels, rugs and bedspreads.

e. Separate heavily soiled items from lightly soiled items.

f. Separate lacy, sheer, loosely knit or delicate items from durable items.

g. Do not machine wash items containing fiberglass. Small particles of fiberglass left in the drum may transfer to fabrics in other loads and cause skin irritation and /or damage to fabrics.



2. Prepare Items for Washing

a. Empty pockets.

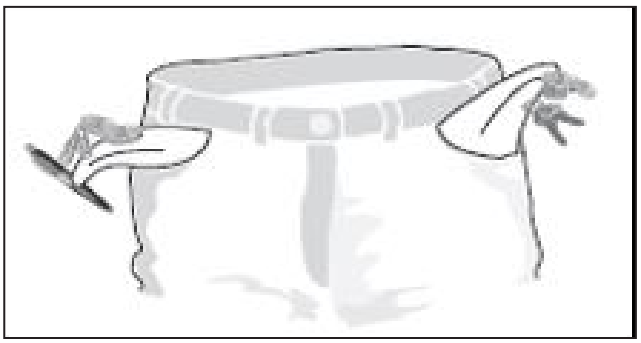
b. Brush off lint and dirt. Shake out rugs and beach towels.

c. Close zippers, fasten hooks, button up buttons, and tie strings, sashes. Remove non-washable trims and ornaments.

d. Mend rips and tears to prevent further damage during washing.

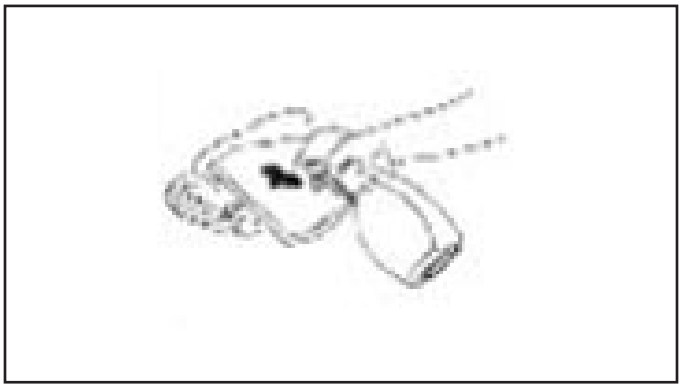
e. Turn knit items inside out to prevent pilling.

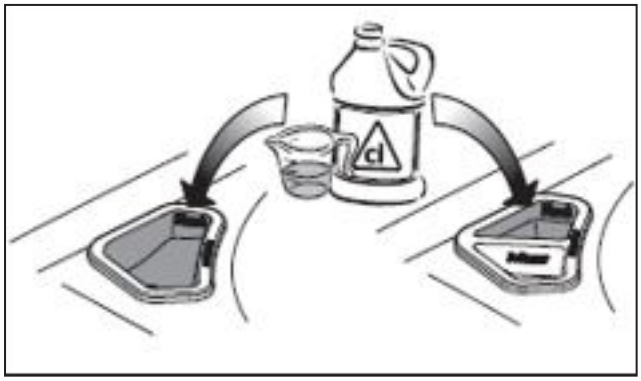
f. Place delicate and small items such as bras, hosiery and baby socks in a mesh bag.



3. Pretreat stains and heavy soil

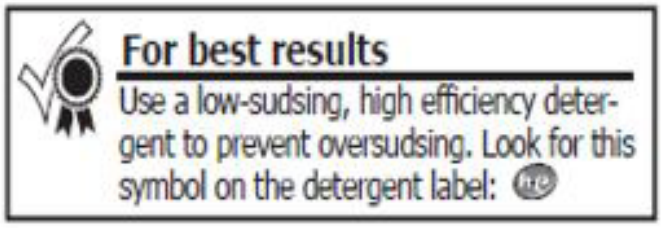
- Refer to Stain Removal Guide section for safe, and successful stain removal instructions.





4. Add a measured amount of detergent to the wash tub before adding the laundry load

- Follow detergent manufacturer's directions. The amount required depends on the type of detergent, load size, soil level, and water hardness.



5. If recommended, add liquid bleach to bleach dispenser

a. Before adding the wash load, add liquid bleach to bleach dispenser located in the left front corner under the lid.

b. Refer to the bleach manufacturer's directions for quantity to add.

c. Then add 1 cup (240 ml) of water to flush the dispenser.

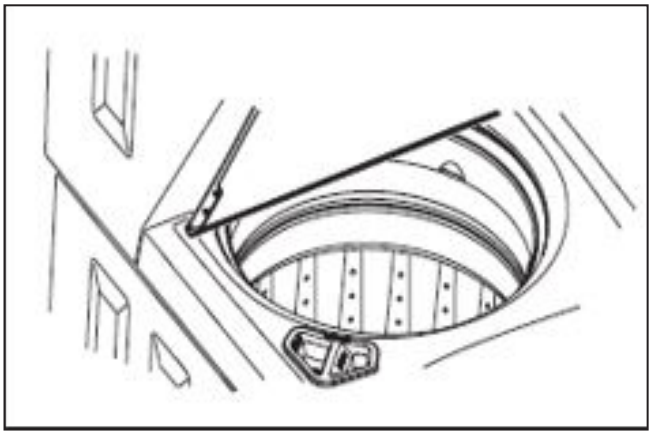
d. Do not use powdered bleach in the bleach dispenser. Add powdered bleach to the empty tub.

6. Add laundry load to washer

a. For best washing performance, dry load level should not be higher than the upper row of holes in the wash tub. Do not overload the washer.

b. Combine large and small items in a load. First, load the large items. Large items should not be more than half the total wash load.

c. When washing a single heavy item, add 1 or 2 towels to balance the load.



7. If recommended, add liquid fabric softener to fabric softener dispenser (available on some models). For models with built-in dispenser:

a. Add liquid softener to the dispenser, according to the fabric softener label directions. DO NOT use granular detergent in this dispenser.

b. DO NOT fill above the maximum fill line.

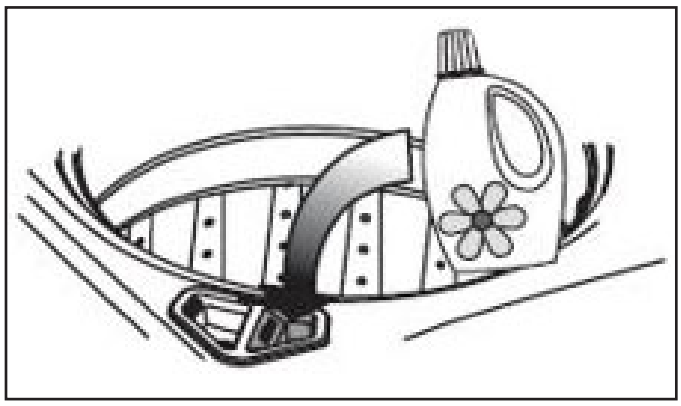
c. Turn ON the FABRIC SOFTENER option.

d. Do not use bleach in this dispenser.

For models without a built-in FABRIC SOFTENER dispenser

e. Follow the fabric softener label directions.

f. Add diluted fabric softener to the final rinse. You may use a fabric softener dispensing ball.



NOTE

To prevent stains, do not over fill the "FABRIC SOFTENER" chamber or pour liquid fabric softenerdirectly on the wash load.

Other Wash Products

- You may add water conditioner, detergent booster and enzyme products with the detergent.

8. Select the appropriate cycle and settings for the load

- See Washer Operating Instructions on following pages:

9. Start the Washer

a. Close the washer lid. The washer will not operate with the lid open.

b. Push in or turn the cycle selector knob or turn any option knob to "wake" the washer. You will hear three beeps to indicate that the washer is ready to operate.

c. After making your selections, push in the selector knob to start the cycle. You will hear one beep and the washer lid will lock.

d. Unless the water level is selected manually (if available), the washer will perform a dry load sensing

e. procedure before adding water to the tub.

f. To add a forgotten item in the wash tub, push in the cycle selector knob to pause the cycle. You will hear two beeps. After the lock releases, lift the lid and add the item. Close the lid and push it in the selector knob again, to continue with the current cycle.

g. To stop a running cycle, push in the cycle selector knob.

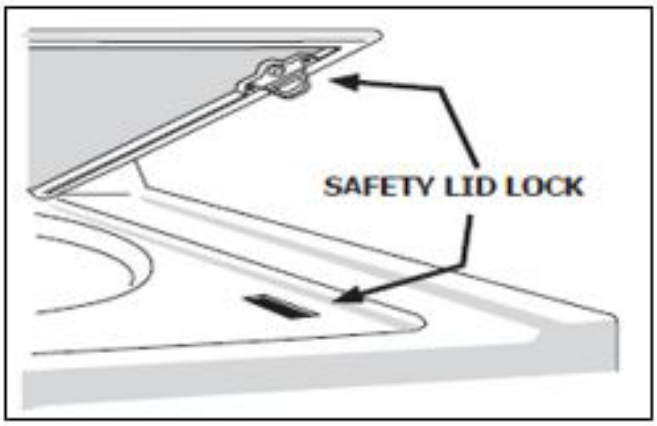
10. Remove items when the cycle is completed

a. For your safety, the lid is locked during the operation of the washer. It will unlock at the end of the cycle, after the tub has come to a complete stop.

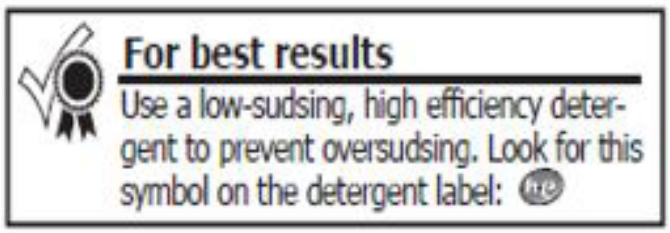
b. To open the lid during the operational cycle, push in the cycle selector knob to pause the cycle. You will hear two beeps. Wait for the lid lock to release. Do not force open the locked lid.

⚠ CAUTION

To avoid serious injury, do not operate washer if the safety lid lock is missing, damaged or operating improperly.



c. Place washed items in the automatic dryer, line dry, or dry flat sections as directed in the fabric care label. Excess wrinkling, color transfer or odors may develop in items left in the washer after the cycle has ended.



7.2 Washing Cycle Selection

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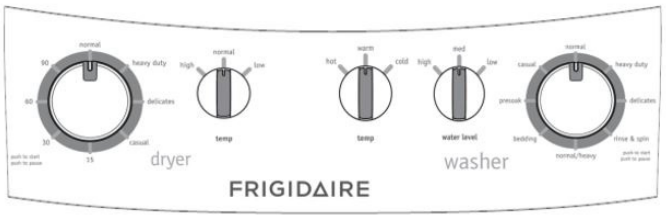

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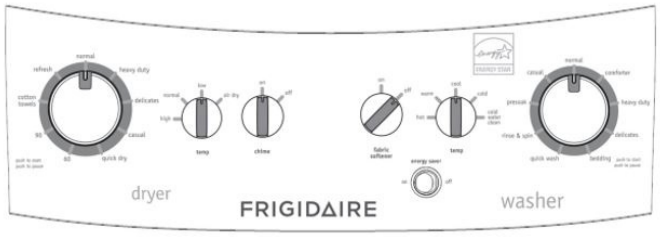
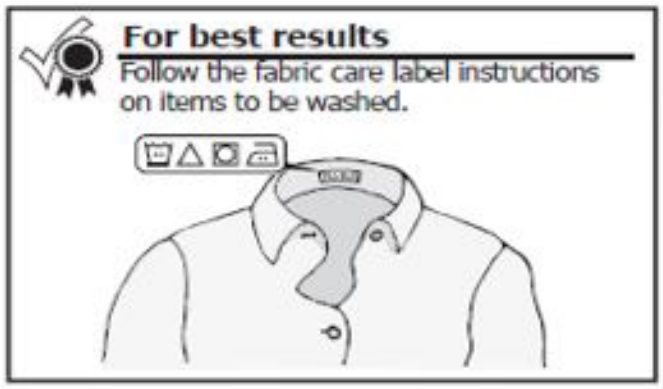


This manual covers many models and not all cycles, options, or features listed are available on every model. Consoles shown are for reference only. Your model may differ.



Turn the cycle selector in either direction to the cycle required.

To change the cycle after it has begun, push in or turn the cycle selector knob to pause the current running cycle. Make the new selection and push in the cycle selector knob again to start the new cycle.

Normal

Use this load for light to normally soiled cottons, towels, shirts, denims, and mixed loads. For the best combination of energy and water saving and washing performance, perform this cycle with the energy saver option (if available) selected.

Comforter (on select models only)

Add one large comforter or two light-duty sleeping bags to the comforter cycle. Press the item(s) to the bottom of the tub as much as possible to prevent them from floating as the tub fills with water.

Heavy Duty

Use this cycle for heavily soiled, durable garments.For example, towels, sports gear, or fabric tote bags. For best results in soil and stain removal, use the warm water if safe for the fabrics being washed.

Delicates

Use this cycle for lightly soiled knits and delicate clothes which require gentle washing.

Normal/Heavy (on select models only)

Use this cycle for heavily soiled cottons, towels, shirts, denims, and mixed loads.

Bedding

This cycle is designed for large items such as blankets, sheets, mattress pads, duvet covers and similar items. Quick wash (on select models only). For example, quickly wash a small, lightly soiled load in 25 minutes.

Quick Wash (on select models only)

Quickly wash a small, lightly soiled load in 25 minutes.

Rinse and Spin

Select rinse & spin for loads that need a cold water rinse or to add fabric softener that may have been omitted in a regular cycle.

Presoak

Use this cycle to soak heavily soiled and stained items before washing. Any temperature may be selected, but use cold water with this cycle, as warm water may set some stains. Use the recommended amount of detergent for a normal wash cycle. If recommended, use a bleach or a soaking agent that is safe for the fabric. The washer will drain at the end of the cycle.

NOTE

Follow the Presoak option with a complete wash cycle suitable for the load using a half dose of detergent.

Casual

Use this cycle for poly blends with a permanent press option or no - iron finish option.

7.3 Washing Cycle Settings

Wash Water Temperature

Turn the temperature knob until the desired water temperature to wash is selected. Select water temperature according to the fiber content, colorfastness, and soil level. To protect your fabrics, the temperature range of cold water to hot water settings may be different, depending on the cycle selected.

The water heater setting and its distance from the washer, water usage at home, and seasonally low ground water temperature in some geographic areas can affect water temperature.

Hot

Use this setting for heavily soiled white or colorfast cottons and blends.

Warm

Use this setting for normally soiled white or colorfast cottons and blends.

Cool (on select models only)

Use this setting for normally soiled sheets, casual items, and washable woolens.

Cold

Some warm water will automatically blend with cold tap water to achieve cold. Use this setting for lightly soiled non-colorfast items, knits, delicates, and hand washables.

Cold Water Clean (on select models only)

Wash and rinse temperatures are equivalent to the temperature of cold tap water supply. Use this selection for fabrics and colors that are prone to dye transfer. Use cold water detergents for washing.

Water Level (On Select Models, Automatic on Others)

Turn the water level knob (on select models) to choose a water level according to the load. For best results, DO NOT overload. Add items loosely to the tub. The dry load should not be higher than the top row of holes in the wash tub. There should be enough water in the tub for items to move freely.

NOTE

If you select the auto water level, the washer will perform a dry load sensing the procedure, before adding water to the tub. The water level is automatically calculated by the washer on models without a water level knob.

Fabric Softener (on select models only)

If your model is equipped with an automatic fabric softener dispenser, turn ON the fabric softener switch for correct operation. See Care and Cleaning section for dispenser cleaning procedures.

Energy Saver (on select models only)

The **energy saver** option reduces water temperature to save energy, lowers water usage slightly, and also extracts more water to reduce drying time.

Safe Stain Removal Procedures

To reduce the risk of fire or serious injury to persons or property, comply with the basic warnings listed below:

- Read and comply with all instructions on stain removal products.
- Keep stain removal products in their original labeled containers and out of the reach of children
- Thoroughly wash any utensils used.
- Do not combine stain removal products, especially ammonia and chlorine bleach. It can result to dangerous fumes.
- Never wash items which have been previously cleaned in, washed in, soaked in or spotted with gasoline, dry cleaning solvents or other flammable or explosive substances because they could produce vapors that could ignite or explode.
- Never use highly flammable solvents, such as gasoline, inside the home. Vapors can explode on contact with flames or sparks.

For Successful Stain Removal

- Remove stains promptly.
- Determine the kind of stain, and follow the recommended treatment in the stain removal chart on the next page.
- To pretreat stains, use a prewash product, liquid detergent, or a paste made from powder detergent and water.
- Use cold water on unknown stains as hot water can set fresh stains.
- Follow instructions on the care label for treatments to be avoided on specific fabrics.
- Check for colorfastness by testing stain removal products on an inside seam.
- Rinse and wash items after stain removal.

WARNING

HARMFUL VAPOUR HAZARD

Do not use or mix liquid chlorine bleach with other household chemicals such as toilet cleaners, rust removers, and acid or products containing ammonia. These mixtures can produce dangerous fumes that can cause serious injury or death.

WARNING

Read the IMPORTANT SAFETY INSTRUCTIONS in this Use and Care Guide before operating your dryer to reduce the risk of fire, electrical shock or injury to individuals.

7.4 Drying Procedures

1. Prepare load for drying

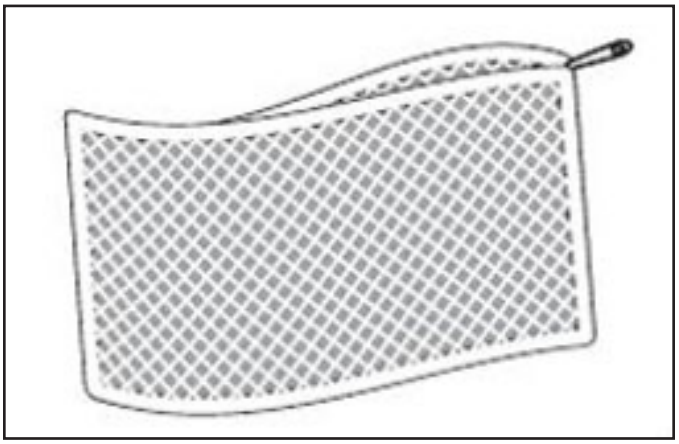
a. Place dry items of similar fabric, weight and construction in the same load.

b. Separate dark items from light-colored items. Separate items that shed lint from those that attract lint.

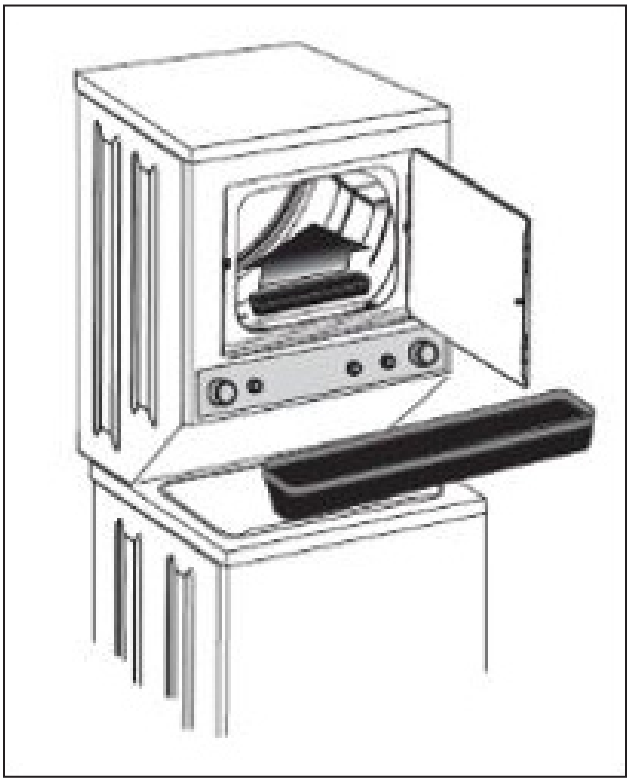
c. Check for stains that may not have been removed in washing. Repeat stain removal process and wash again before drying. The heat from the dryer may set some stains permanently.

d. Place delicate or small items in a mesh bag.

e. Be sure buckles, buttons, and trim are heatproof and would not damage the drum finish. Close zippers, button up buttons, and fasten hooks and Velcro®-like fasteners. Tie strings and sashes to prevent snagging and tangling.



2. Check that the lint filter is clean and in place



CAUTION

Do not operate dryer without the lint filter in place.

3. Load the dryer and close the door

a. Load items loosely. The average wet load will fill the drum with 1/3 to 1/2 full. The items need room to tumble freely for drying and to cause less wrinkling.

b. If required, place a dryer fabric softener sheet on top of the load at the beginning of the cycle.

c. Do not overload the dryer to save energy and time and avoid uneven drying and wrinkling.

d. Dry only two or three items at a time when drying large items. Fill up the load with small and medium sized items.

e. Add two or three similar items to improve the tumbling action for delicate or very small loads.

NOTE

Over-drying can cause wrinkles, shrinkage, lint, harshness and build up a static electricity.

4. Select the appropriate cycle and settings for each load

- See the section Dryer Operating Instructions, for more information.

5. Start the Dryer

a. Close the dryer door. The dryer will not operate with the door open.

b. Push in or turn the cycle selector knob or turn any option knob to "wake" the dryer. You will hear three beeps to indicate that the dryer is ready to operate.

c. After making your selections, push in the selector knob to start the cycle. You will hear one beep before the drum begins to rotate.

d. To add or remove items when the dryer is running, push in the cycle selector knob to pause the cycle and open the door. Opening the dryer door during a running cycle will also pause the cycle. You will hear two beeps. Allow the drum to stop completely before reaching inside. Add or remove the

items, close the door and push in the selector knob again to continue with the current cycle.

e. To stop a running cycle, push in the cycle selector knob.

6. When the cycle ends, remove items immediately and hang or fold

NOTE

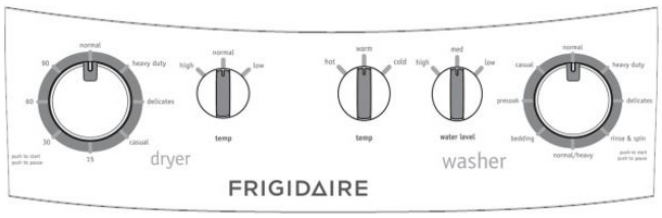
While drying a single, large or bulky item, such as a comforter, remove the item part way through the cycle and turn it "inside out" to maximize drying effectiveness. Place the item back in the dryer and re-start the cycle.

IMPORTANT

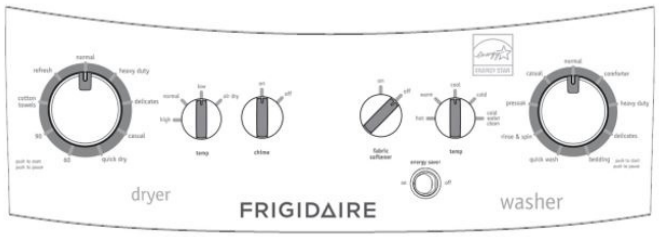
Clean the lint filter after every load.

7.5 Drying Cycle Selection

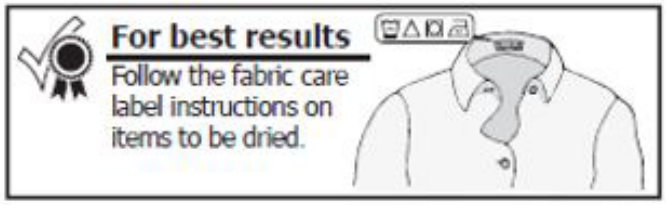
FFLE3911QW



FFLG4033QW



This manual covers many models and not all cycles, options, or features listed are available on every model. Consoles shown above are for reference only. Your model may differ.



Turn the cycle selector in either direction as required.

To change the cycle after it has begun, push in or turn the cycle selector knob to pause the current running cycle. Make the new selection and push in the cycle selector knob again to start the new cycle.

Auto Dry Cycles

Auto Dry cycles auto senses and selects the correct drying time for each load. Moisture sensing bars in front of the dryer drum (on certain models) sense the moisture level of the load as it tumbles through the heated air. With Auto Dry cycles, the load will automatically be dried at the selected temperature to a specific dryness level. Auto Dry cycles save time and energy and protect fabrics.

When the load has reached the dryness level, it will continue to tumble during a cool down period. This helps to reduce wrinkling and makes items easier to handle during unloading.

The drying time varies depending on the size and dampness of load and the types of fabric. If the load is too small or almost dry, the moisture sensing bars may not detect enough moisture to continue the cycle and the cycle may end after a few minutes. Select a Timed Dry cycle in such cases.

The room temperature and humidity, type of installation and electrical voltage or gas pressure can also affect the drying time.

Normal

Select this cycle to dry everyday fabrics including cottons, linens and sheets.

Heavy Duty

Select this Auto Dry cycle to dry durable fabrics such as work wear and overalls.

Delicates

Select this cycle to dry knits and delicate clothing.

Casual

Select this cycle to dry cottons, blends, and permanent press items with a no-iron finish.

Cotton Towels (on select models only)

Select this cycle to dry heavy loads such as towels and non-rubber-backed bath mats. Follow the fabric care label instructions on items to be dried.

Timed Dry Cycles

Quick Dry (on select models only)

WARNING

FIRE HAZARD

To avoid fire hazard, do not use heat to dry items containing feathers or down, foam rubber, plastics similarly textured, and rubber-like materials. Use a Timed Dry cycle and the air dry setting.

Select this Timed Dry cycle to quickly dry a small load made up of just a few items. It provides approximately 20 minutes of tumbling followed by a cool down period.

Refresh (on select models only)

Select Refresh to remove the wrinkles from clean and dry items that were not taken from the dryer at the end of the cycle, have been stored in crowded closets or drawers, or unpacked from luggage following a trip. It provides approximately 10 minutes of tumbling followed by a 5-minute cool down period.

Timed Dry

To manually select the drying time for any load, turn the knob to a numbered setting: 15 (on select models), 30, 60, or 90 minutes. Moisture sensing bars (if equipped) are not active and the dryer will continue to heat throughout the cycle until the final cool down period.

Drying Cycle Settings

Drying Temperature

Select the temperature setting most suitable for each load. To protect your fabrics, not all temperatures are available with every cycle. If an unavailable temperature setting is selected by the user, the nearest available temperature will be substituted.

The **air dry** (on select models) setting can be used only in a timed cycle. **Air dry** setting tumbles the load without heat. Use **air dry** to freshen up clothing, pillows or blankets, or to dust draperies.

Chime (On Select Models)

A signal will sound at the end of the cycle if selected.

Other Features

Drying Rack (Some Models)

Use the drying rack to dry items which should not be tumble dried. If your model does not have a drying rack, you may order one.

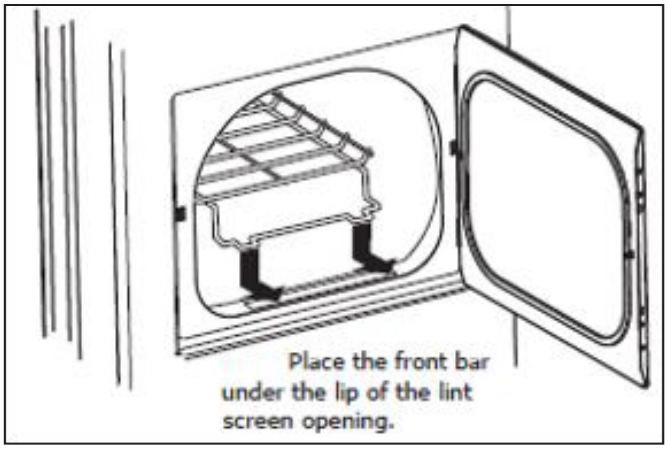
1. Open the dryer door and remove the lint screen.

2. Insert the drying rack into the dryer drum. Place the front bar under the lip of the lint screen opening.

3. Place items to be dried on top of the rack. Weight should not exceed 10 lbs. Leave space between items, but do not let items hang over the sides or through the grids. Do not tumble other items when using the drying rack.

4. Select a timed cycle. If items to be dried contain plastic, foam rubber, rubber-like materials, feathers or down, then only use the air dry temperature setting.

5. When items are dry, remove the rack and replace the lint screen. If the lint screen is not in place, tumbling items could enter the exhaust system and cause damage to the dryer.



IMPORTANT

Do not store or place laundry products on top of the Laundry Center at any time. They can damage the finish or controls.

8. Electrical Characteristics - FFLE3911QW and FFLG4033QW

8.1 Electronic Control

The Electronic control includes the following:

1. Electronic Control Board (applicable for dryer).
2. Main Control Board (applicable for washer).
3. User Interface (UI) Board.(applicable for washer).
4. Motor Control Board (applicable for washer).

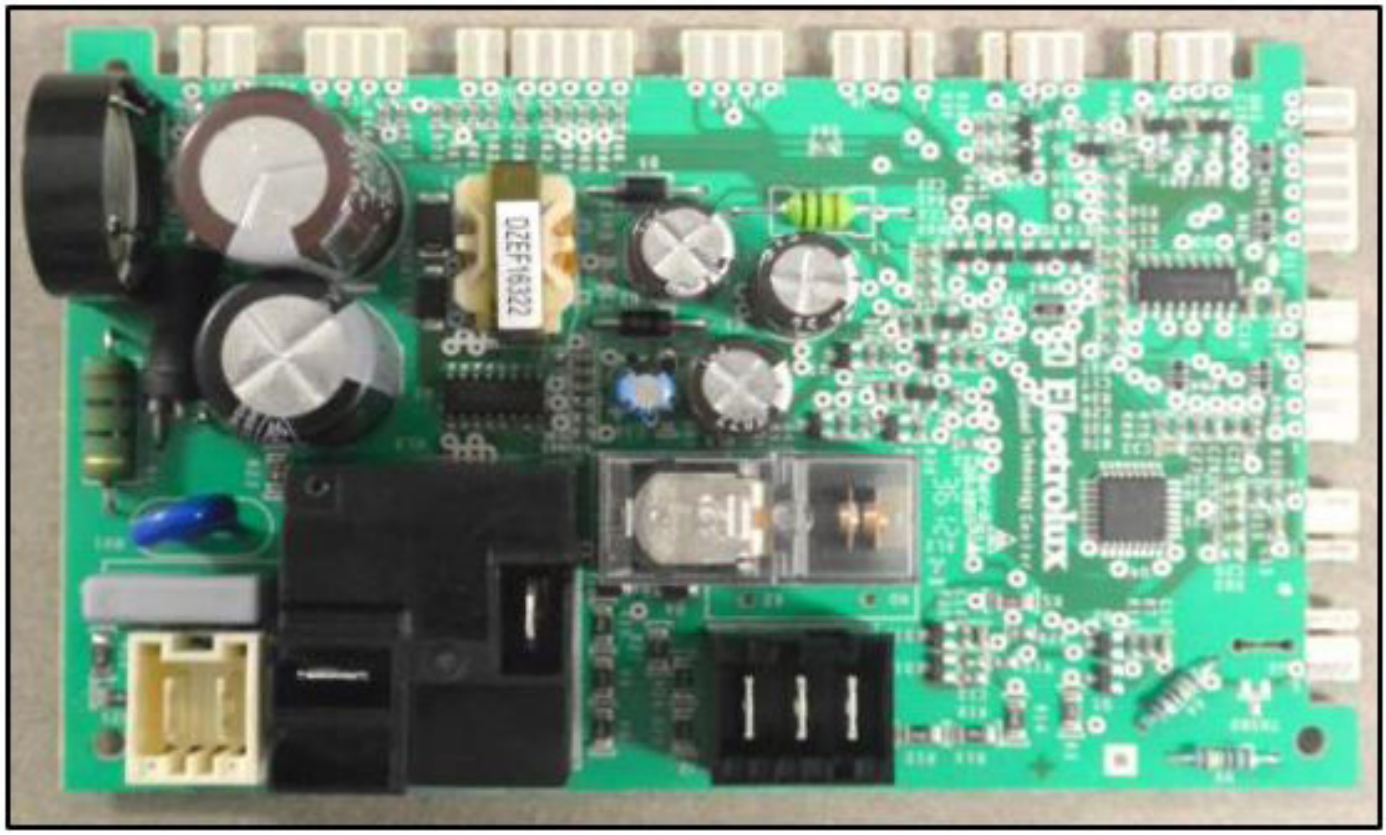
8.1.1 Electronic Control Board (Dryer)

The Electronic Control Board supplies the power supply voltage to theUser Interface (UI) Board.

The commands acquired by the User Interface (UI) Board (by turning the Program and Dryness Level selector) are sent to the Electronic Control Board, which powers all the electrical components. (Thermistors, Thermal limiters, High limit thermostat, Heater Assembly, Door switch and so on):

- It controls the temperature of inlet and exhaust air through the Thermistor sensor.
- It senses and controls the opening, closing and locking conditions of the door.
- It controls the motor operations (Speed of rotation, direction and so on) and safeguards against overload with the help of Thermal Overload Protector (If equipped)
- It controls the functions of Thermal Limiter Switches, Thermistors and High limit Thermostat.

Electronic Control Board – FFLE3911QW and FFLG4033QW (Dryer)



NOTE

The Dryer Electronic Control Board controls all the functions of dryer, whereas the Washer User Interface and the Motor Control Board is accommodated separately for specific functions.

8.1.2 Main Control Board (Washer)

The Main Control Board supplies the power to the User Interface (UI) Board, Motor Control Board (Washer) and all other electrical components.

The commands acquired by the User Interface (UI) Board (by turning the selector and so on) are sent to the Main Control Board, which powers all the electrical components (Lid Lock, Solenoid Valve, Pressure sensor, Drain Pump, Negative Thermal Co efficient (NTC), Motor Brake Clutch and so on).

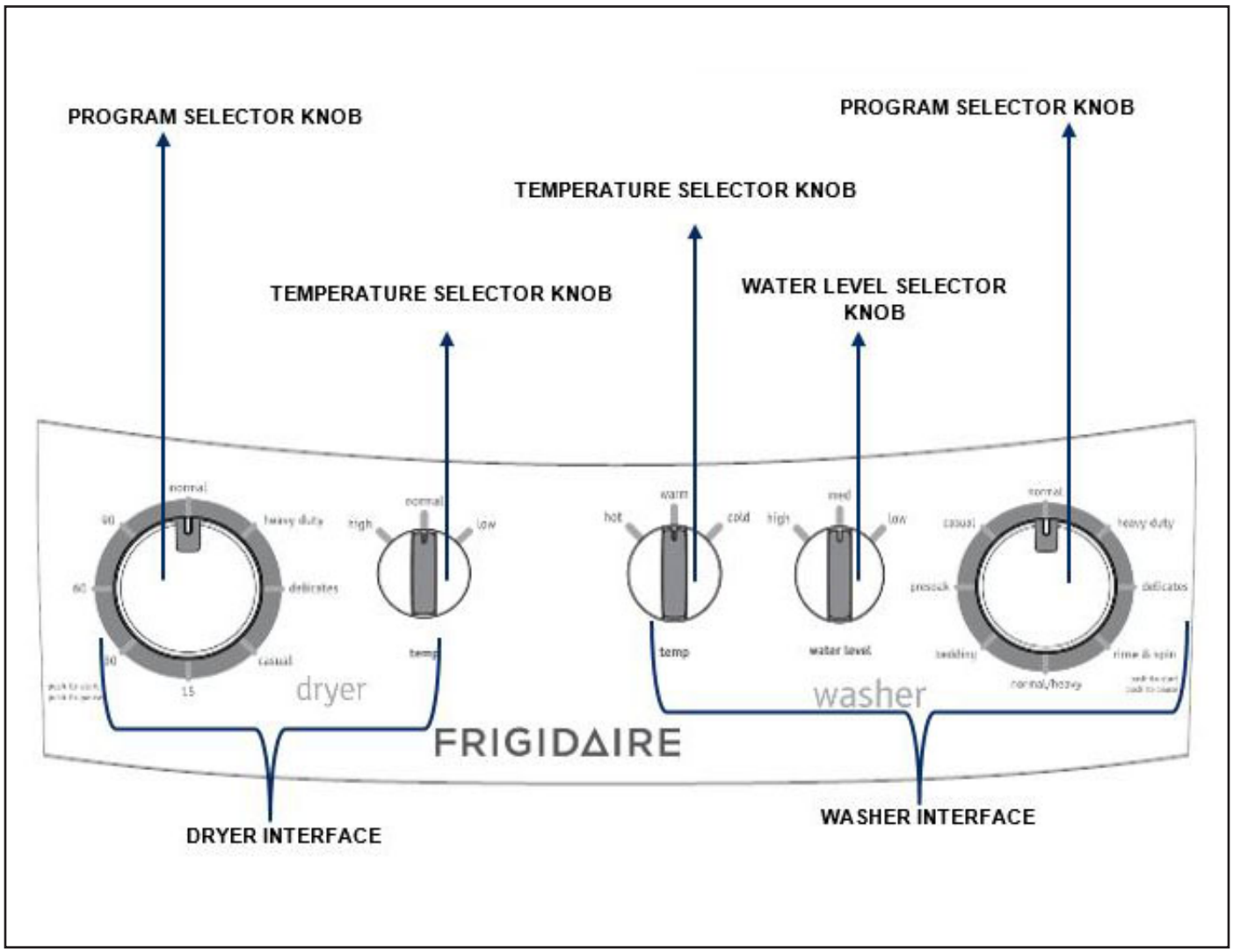
8.1.3 User Interface (UI) Board (Washer)

The User Interface Board contains the Selector Knobs which are available to adjust the washing temperature, to select the required program, and to activate (ON / OFF) Fabric softener if required.

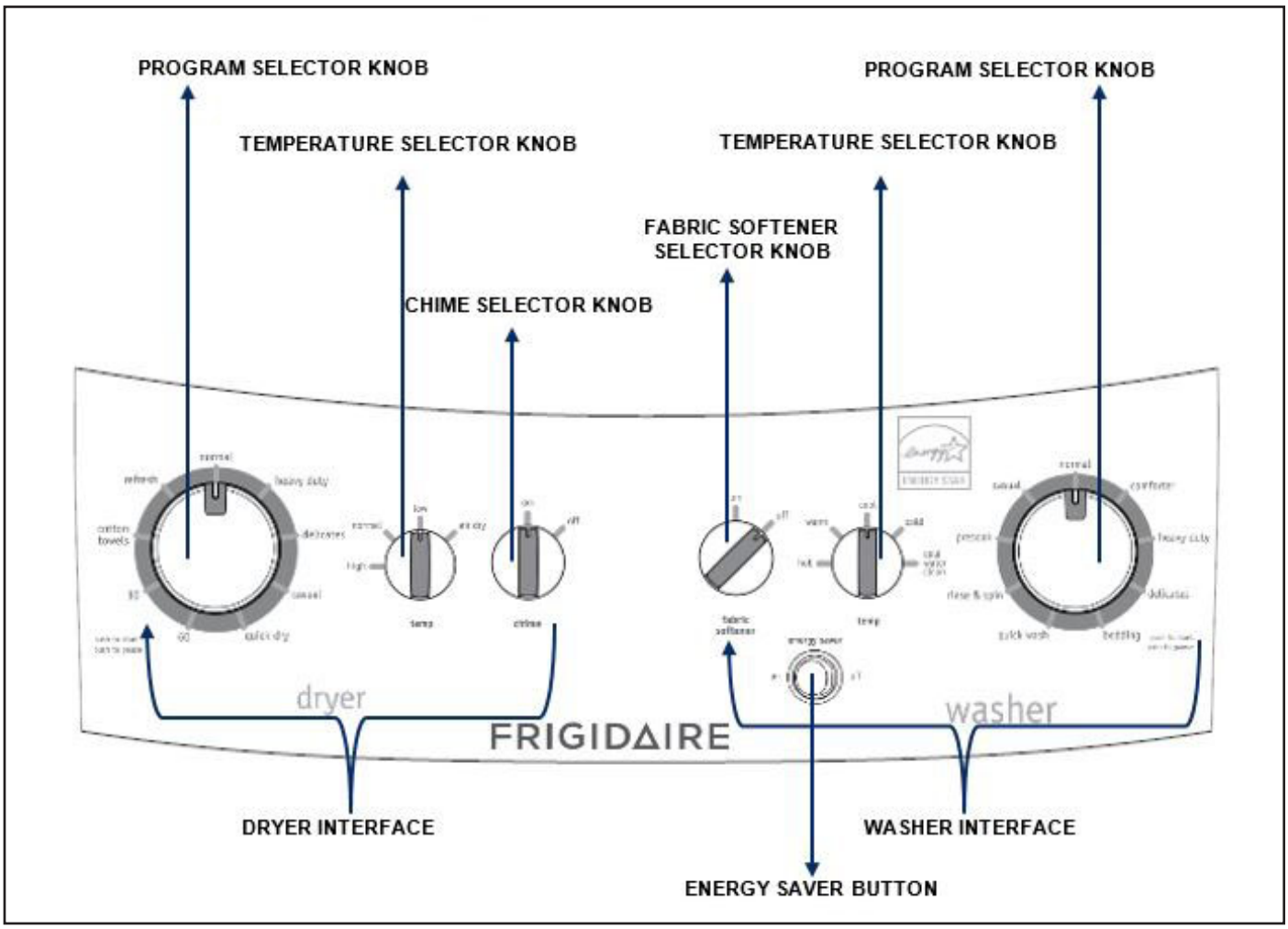
It also accommodates Energy Saver option (for model FFLG4033QW).

It is possible to select the programmes by turning the Selector Knob. The buzzer where featured is powered by the User Interface Board.

User Interface of Laundry Center – FFLE3911QW

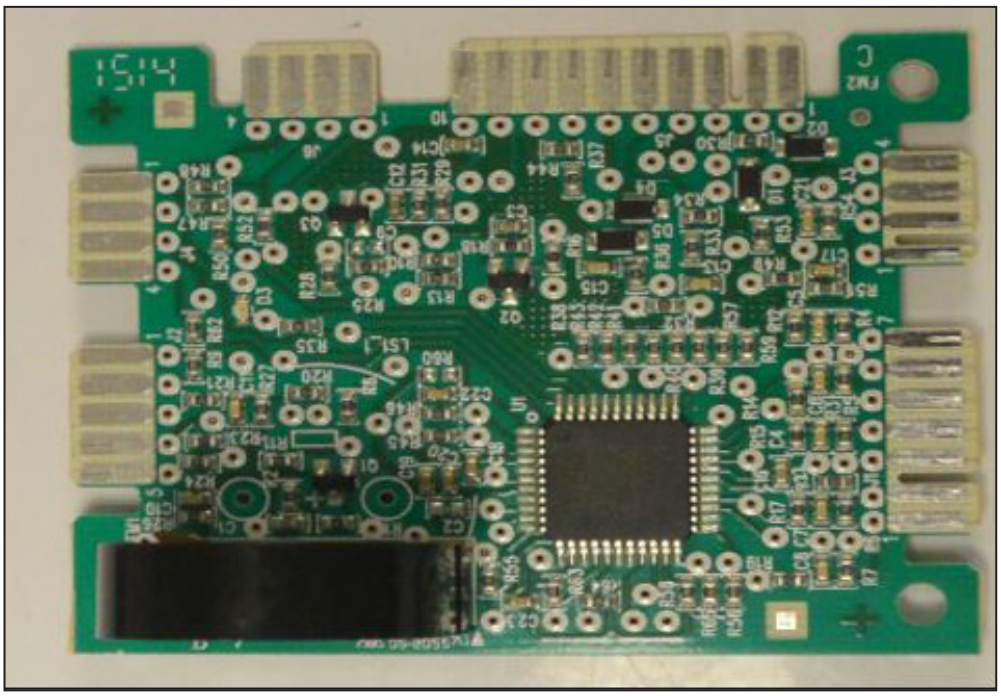


User Interface of Laundry Center – FFLG4033QW

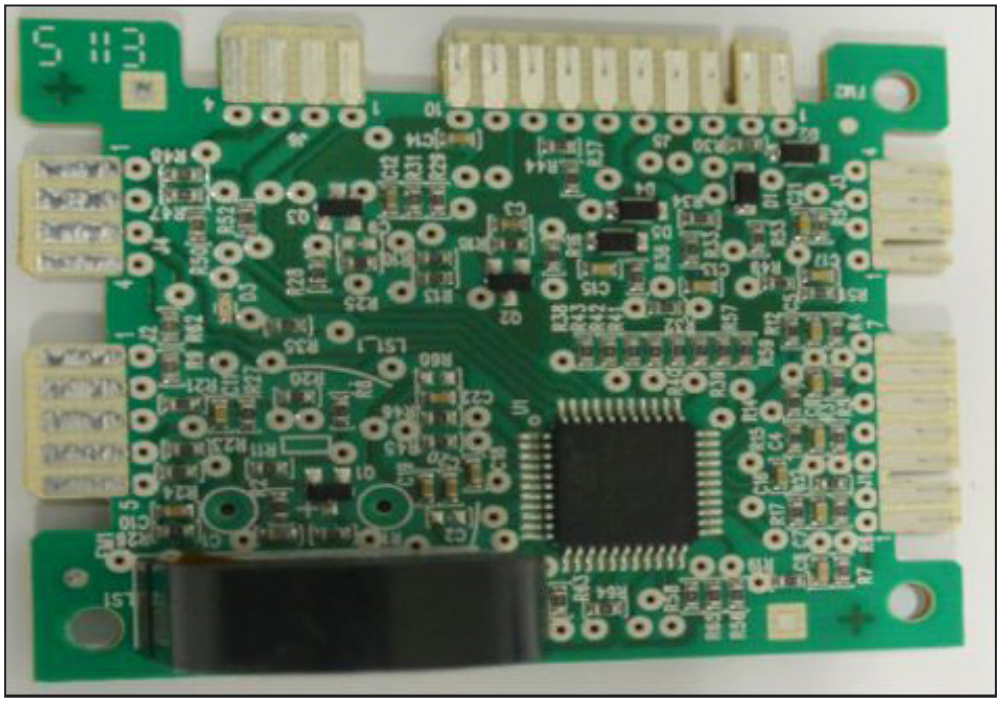


User Interface

User Interface (UI) Board FFLE3911QW (Washer)



User Interface (UI) Board FFLG4033QW (Washer)



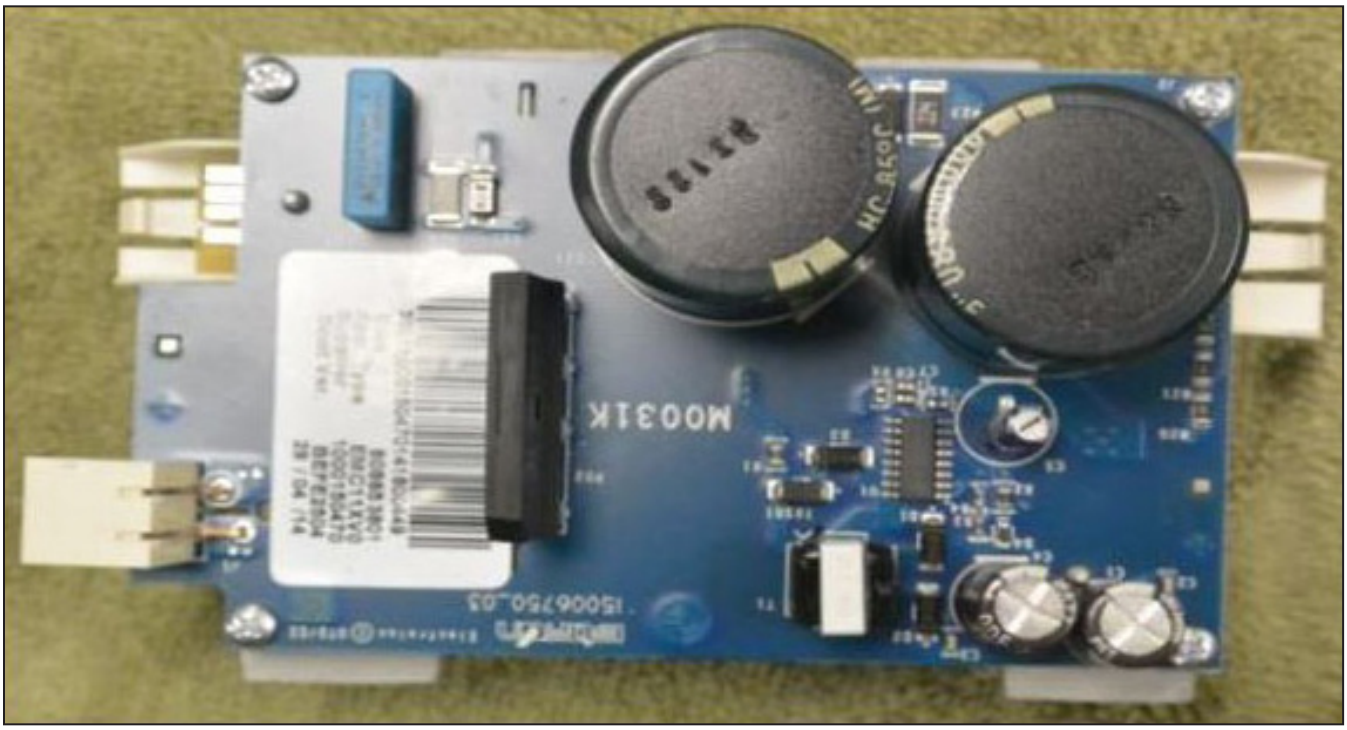
8.1.4 Motor Control Board (Washer)

Motor Control Board controls the Motor Gear Box Assembly functions, such as controlling the speed and rotation directions, and overload protection functions (If equipped).

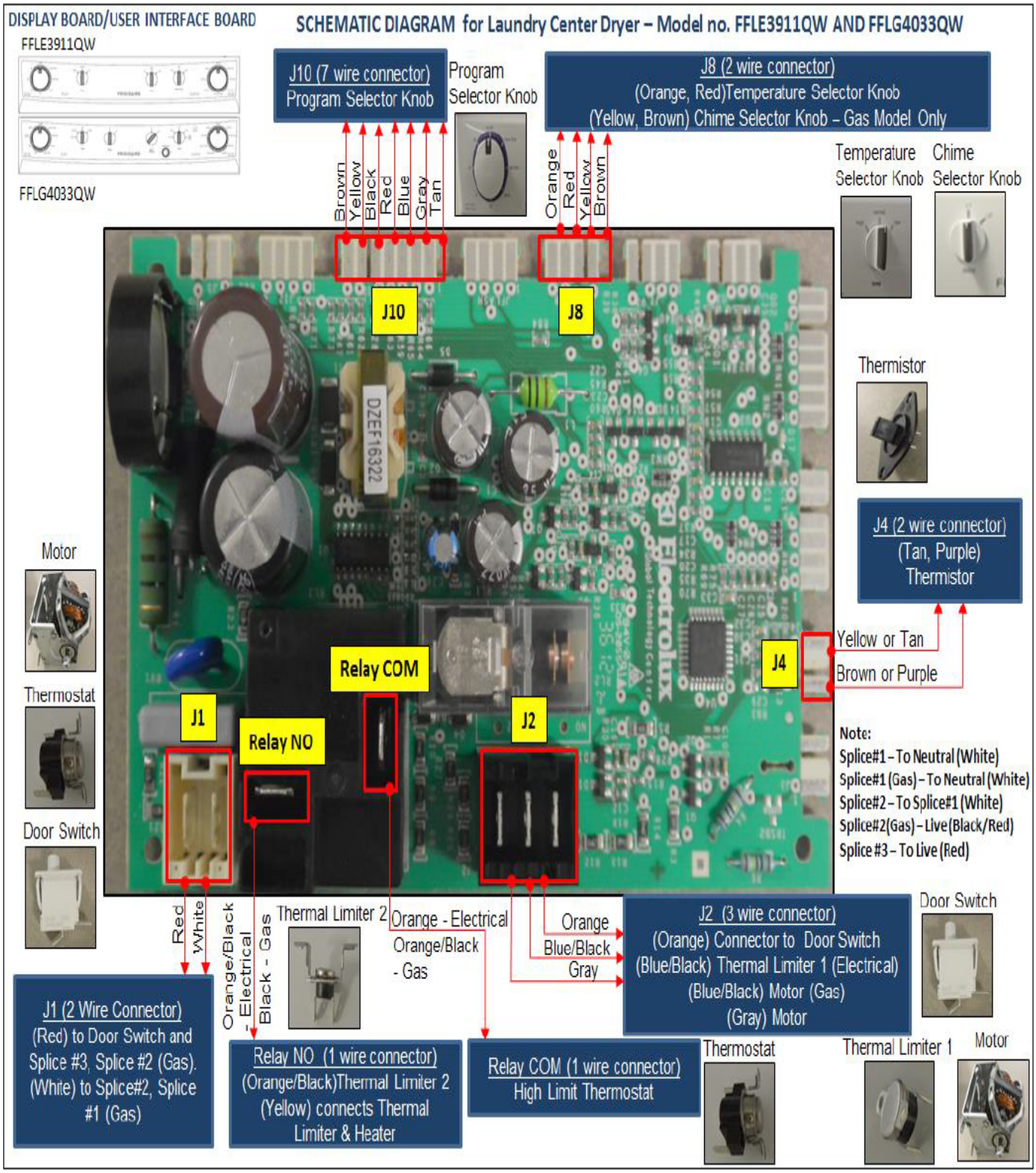
It receives signals from the Main Control Board and sends voltage to the drive motor to spin the drive motor in the proper direction and speed. If the motor control is not working properly, the drive motor might not spin at all or might spin at the wrong speed.

Motor Brake Clutch functions is controlled by the Main control Board and the Motor Control Board is powered by the Main Control Board.

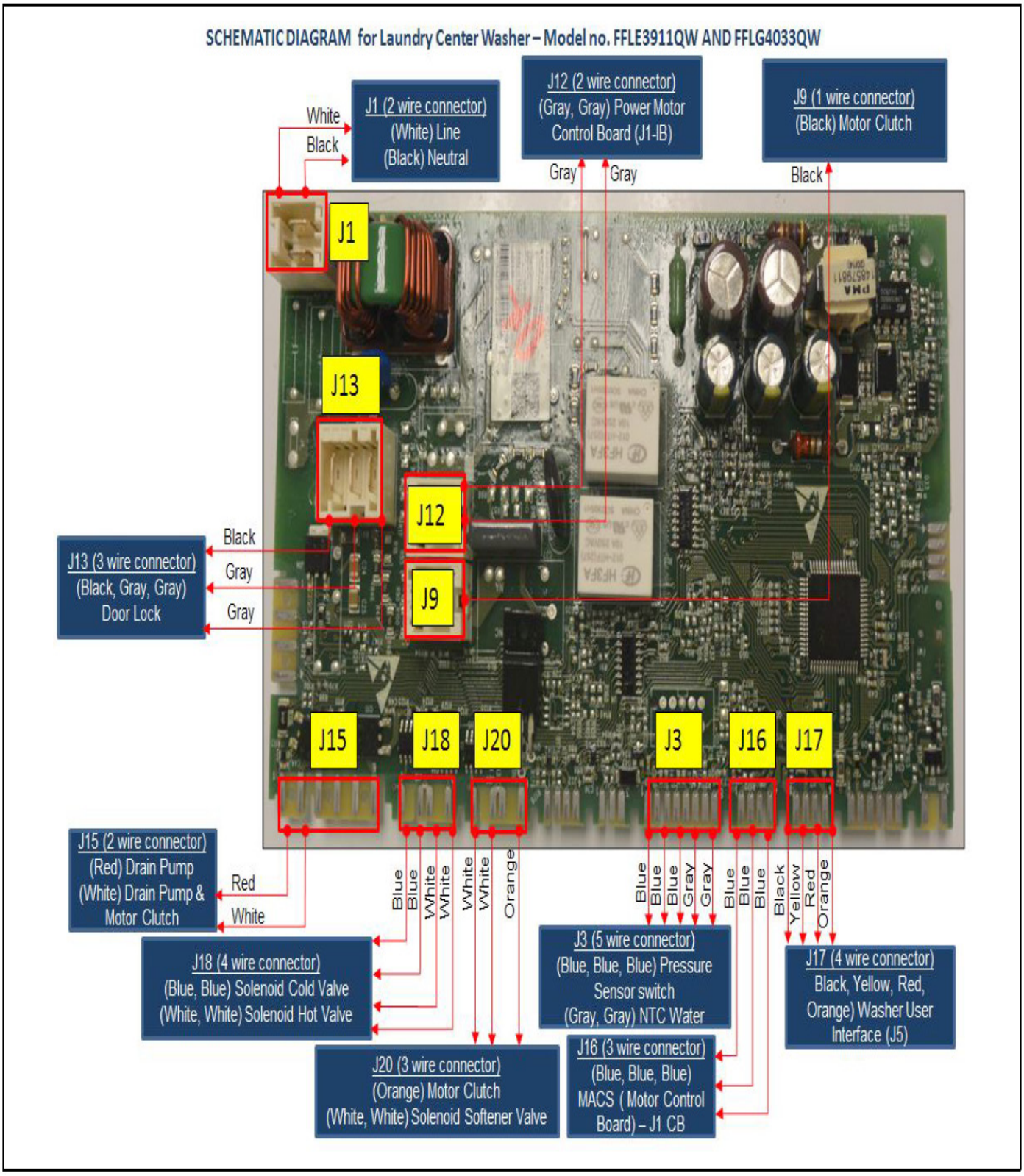
Motor Control Board - FFLE3911QW and FFLG4033QW (Washer)



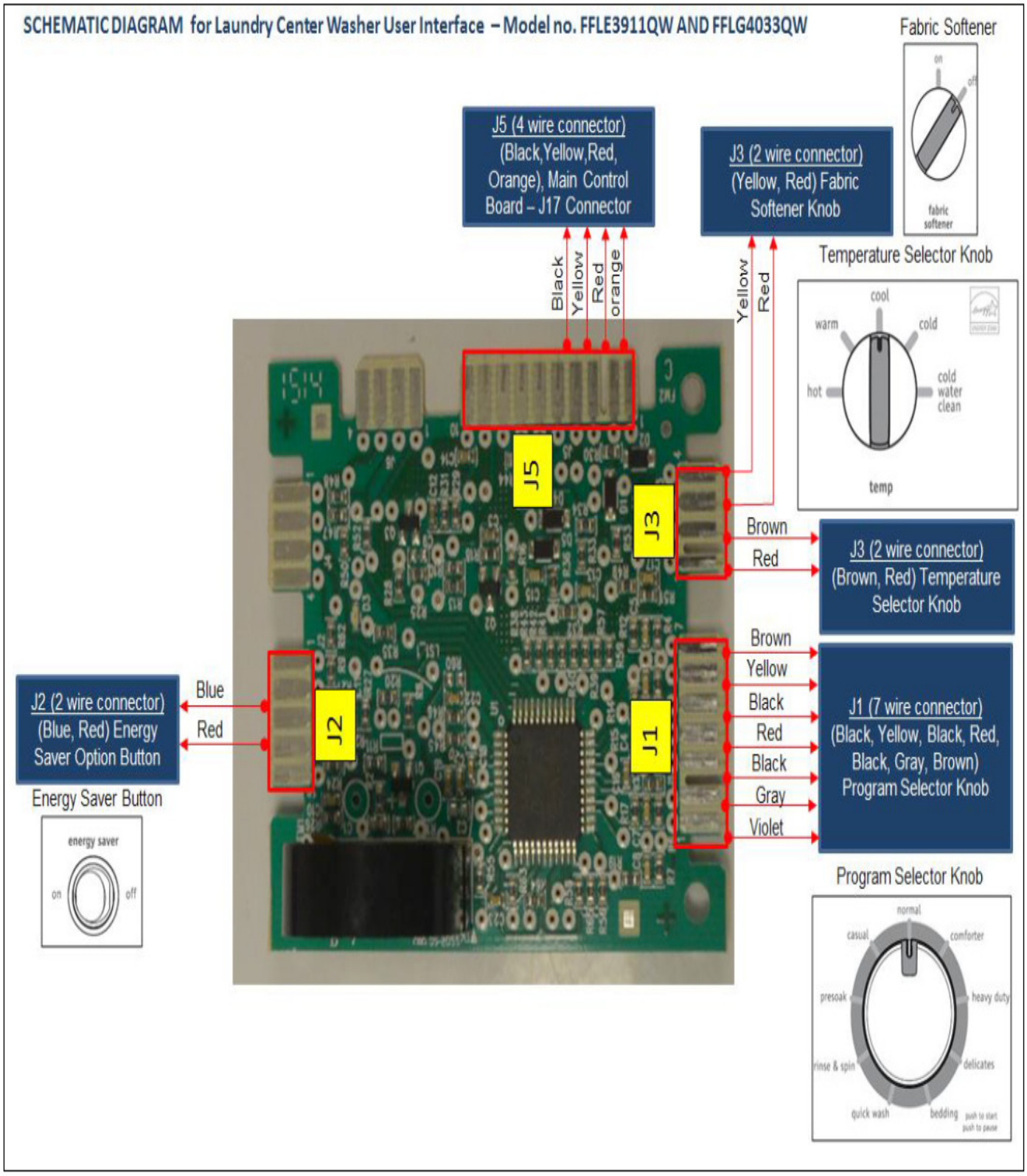
8.2 Schematic Diagram for Laundry Center Dryer Electronic Control Board – FFLE3911QW and FFLG4033QW



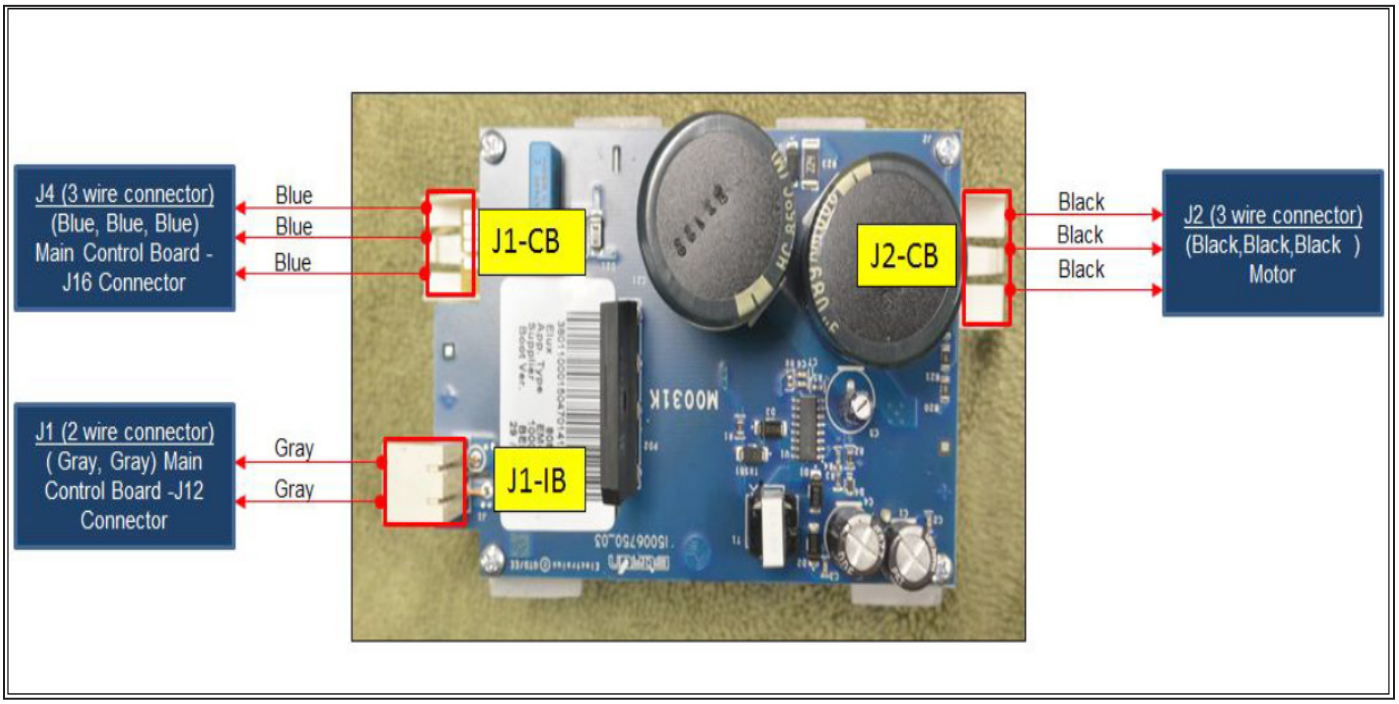
8.3 Schematic Diagram for Laundry Center Washer Main Control Board – FFLE3911QW and FFLG4033QW



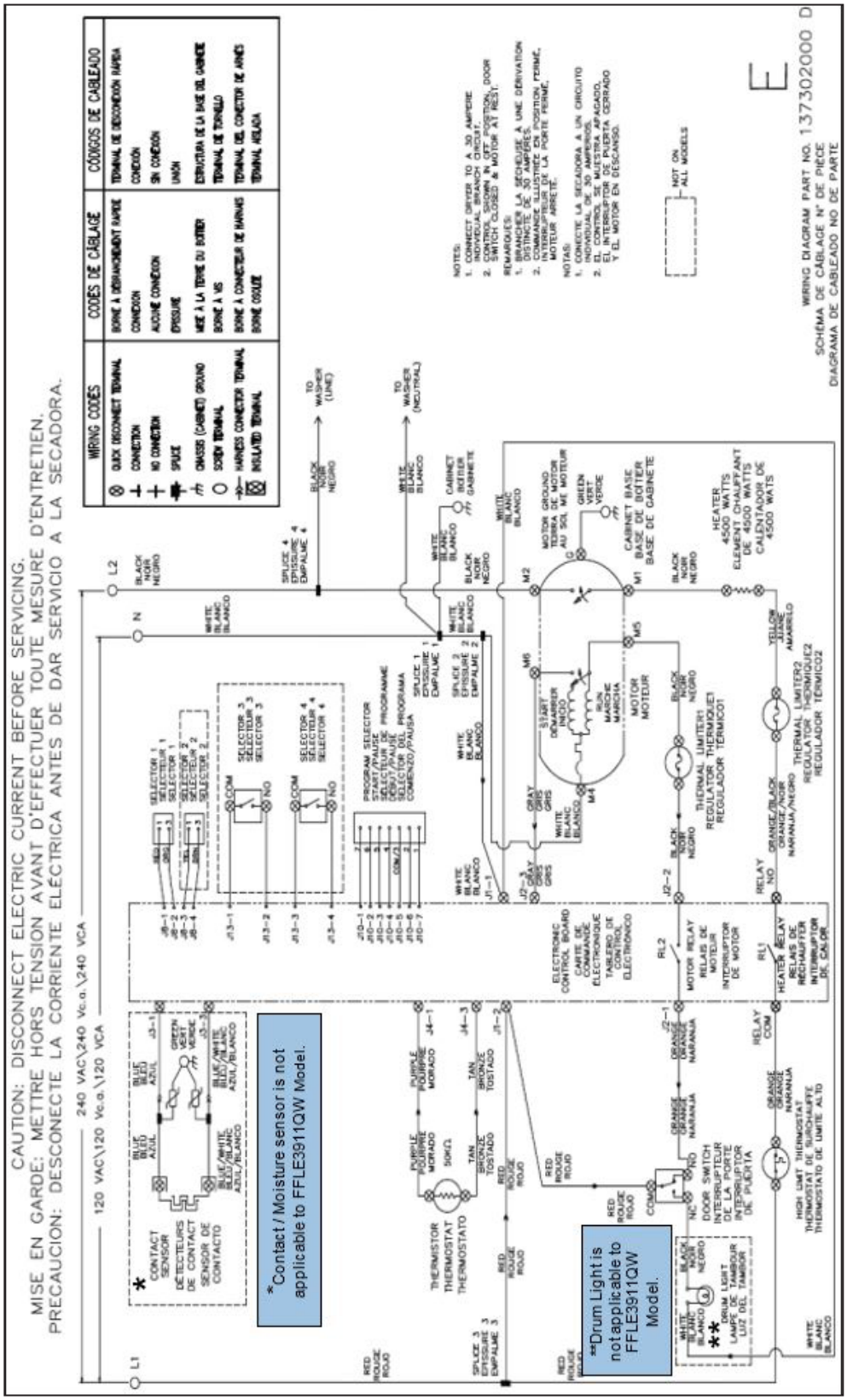
8.4 Schematic Diagram for Laundry Center Washer User Interface (UI) – FFLE3911QW and FFLG4033QW



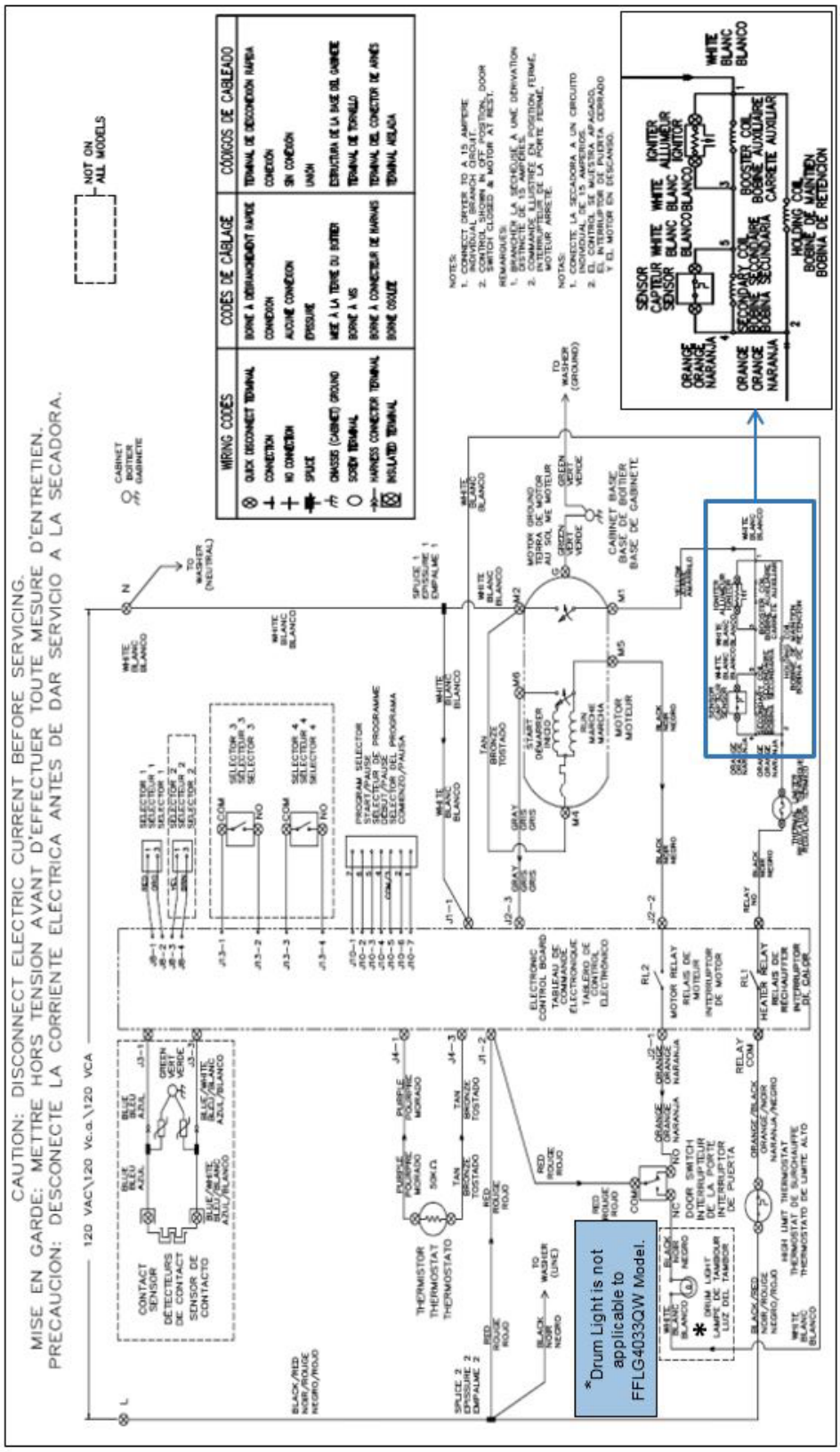
8.5 Schematic Diagram for Laundry Center Washer Motor Control Board – FFLE3911QW and FFLG4033QW



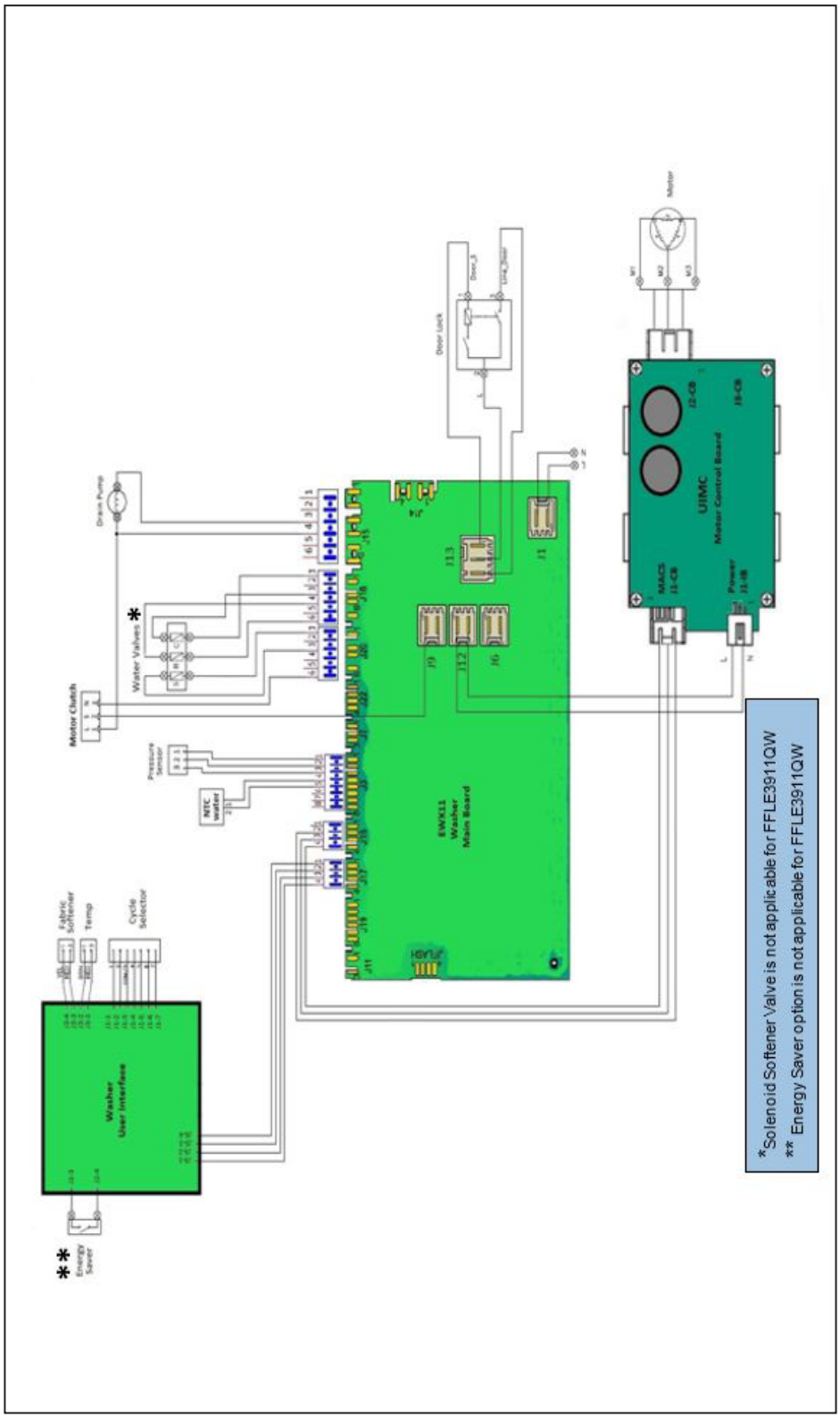
8.6 Wiring Diagram – FFLE3911QW (Electric Dryer Model)



8.7 Wiring Diagram – FFLG4033QW (Gas Dryer Model)



8.8 Wiring Diagram – FFLE3911QW and FFLG4033QW (Washer Model)



9. ELECTRICAL COMPONENTS - FFLE3911QW and FFLG4033QW

9.1 Electrical Component Resistance and Specification Table

FFLE3911QW and FFLG4033QW - DRYER

<table>
<tr><th>S.No</th><th>Component</th><th>Specification</th></tr>
<tr><td>1</td><td>Inlet / Outlet Control Thermistor</td><td>Resistance = 50KΩ ± 5% at (25°C)
Resistance = 12.4KΩ ± 2% at (60°C)
Operating Temp.= - 40˚C to +105˚C</td></tr>
<tr><td>2</td><td>Door Switch</td><td>Contact Rating to Meet = 10A,1/3HP,125/250 VAC,
Operating force = 500gf.</td></tr>
<tr><td>3</td><td>Heating Element (For Electrical Dryer Model only)</td><td>
<table>
<tr><td colspan="2">PERFORMANCE SPECIFICATIONS</td></tr>
<tr><td>Voltage - cycles</td><td>115V- 60Hz ,4.8 AMPS</td></tr>
<tr><td>Breakdown torque, ft - oz</td><td>24.4 nom</td></tr>
<tr><td>Locked rotor current, amps</td><td>47 max</td></tr>
<tr><td>Full load torque, ft - oz</td><td>12.2 nom</td></tr>
<tr><td>Full load current, amps</td><td>4.6 nom</td></tr>
<tr><td>Full load, watts</td><td>340 nom</td></tr>
<tr><td>Full load, rpm</td><td>1685 nom</td></tr>
<tr><td>Horse power</td><td>1/4 hp output</td></tr>
<tr><td>Locked rotor trip time</td><td>3-6 sec</td></tr>
<tr><td colspan="2">INSULATION – CLASS F</td></tr>
</table>
</td></tr>
<tr><td>4</td><td>Heating Element (For Electrical Dryer Model only)</td><td>Wattage: 4500W ± 3%, Voltage 240V.
Resistance across the Terminals: 11Ω ± 10%.</td></tr>
<tr><td>5</td><td>Inlet Thermal Limiter</td><td>U.L. and C.S.A . Rated:
125/250 VAC 25 A Resistive,
125 VAC, 20 F.L.A.,60 L.R.A.Inductive,
240 VAC, 10 F.L.A., 60 L.R.A. Inductive.
Opening Temp: 275º ±10.8ºF,Closing Temp: -31ºF.</td></tr>
</table>

9.1 Electrical Component Resistance and Specification Table

FFLE3911QW and FFLG4033QW - DRYER		
S.No	**Component**	**Specification**
6	Outlet Thermal Limiter	U.L. Rated : 240V, 10A F.L.A and 60A L.R.A at 350°F, C.S.A . Rated: 120V 15A Resistive. Opening Temp: 222°F ± 8°F, Closing Temp: -31°F.
7	Igniter (For Gas Dryer Model only)	Steady State Current to be 2.1 to 3.4 AMPS AT 80 ± 1 VAC and 75° ± 10°F, Igniter must not exceed 2800 °F in 10 seconds at 132 ±1 VAC & 75°F ± 10°F Ambient.

FFLE3911QW and FFLG4033QW – WASHER		
S.No	**Component**	**Specification**
1	Lid Lock	Internal contacts : 120 / 240 VAC, 50 / 60 Hz; Electrical Life: 15000 cycles @ 3A; External Micro switch: 16A , 250V, Power : 1 HP @ 125 VAC, 2 HP @ 250 VAC,105 Ω ± 10% (Resistance @ 25 °C).
2	Drain Pump	12 to 17 Ω (Resistance at 25 ºC) 120 V AC, 60 Hz, 1.4 A, 80W Discharge Rate (Under Variable Head): At 3 FT height from floor: 12 GPM MIN. At 8 FT height from floor: 7 GPM MIN.
3	Dispenser Solenoid valve (3 coil – For Model FFLG4033QW)	1375 Ω ± 10% (Resistance at 25 ºC); 120 V, 60 Hz, 6 / 5 Watts.
4	Dispenser Solenoid valve (2 coil – For Model FFLE3911QW)	1375 Ω ± 10% (Resistance at 25 ºC); 120 V, 60 Hz, 6 / 5 Watts.
5	3 Phase Synchronous Motor	M1---M2 - 6 to 8 Ω M2---M3 - 6 to 8 Ω M1---M3 - 6 to 8 Ω 150 V / 180 V, 54.2 / 83.3 Hz 2.76 / 1.96 A, 385 / 420 W 650 / 1000 RPM
6	Motor Brake Clutch	2900 to 3100 Ω (Resistance at 25 °C); AC 120 V, 60 HZ, 2mA
7	Pressure Sensor	Nominal Voltage : 5 ± 0.25 VDC; maximum current: <5 mA; Maximum Operating Temperature: 85 ºC (65 ºC for UL application); pressure working range 0 - 600 mm of H2O

9.2 Heating Element - FFLE3911QW and FFLG4033QW

WARNING

- When replacing the heating element, refer to the code shown in the list of spare parts related to the appliance.
- It is strictly forbidden to tamper the heating element in any way.

In electrical dryers, heat is generated by the heating element. The element is a coil of heating wire enclosed in a metal chamber. Electrical current flowing through the coil creates heat and the air being pulled through the chamber absorbs this heat and becomes hot.

For Gas Models

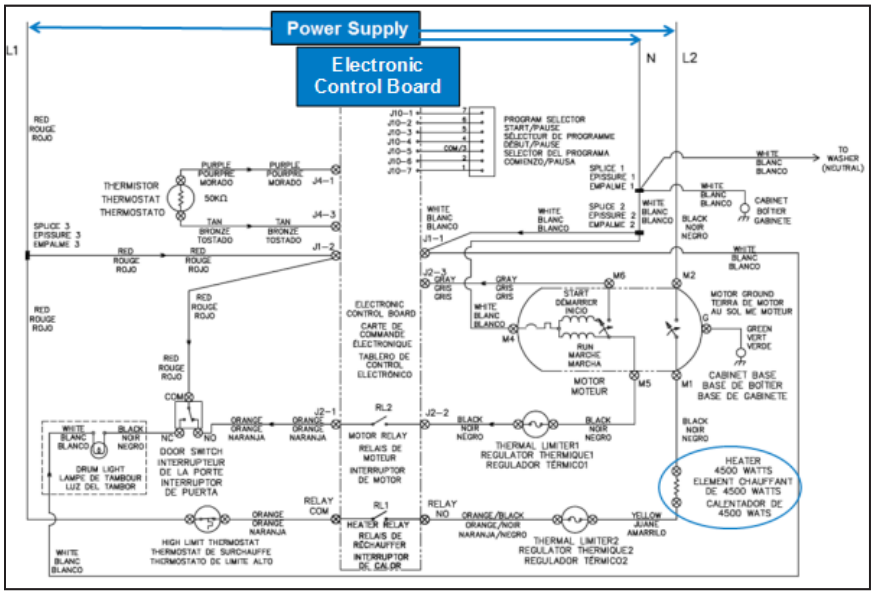
Gas models are equipped with gas valve and burner assemblies. Gas flowing through the valves are burned with the help of an igniter that creates heatand the air being pulled through the chamber absorbs this heat and becomes hot.

9.2.1 General Characteristics

For Electrical Models

The heating element converts electrical power into heat through the process resistive heating. Electrical current passing through the element encounters resistance, resulting in the heating of the element.

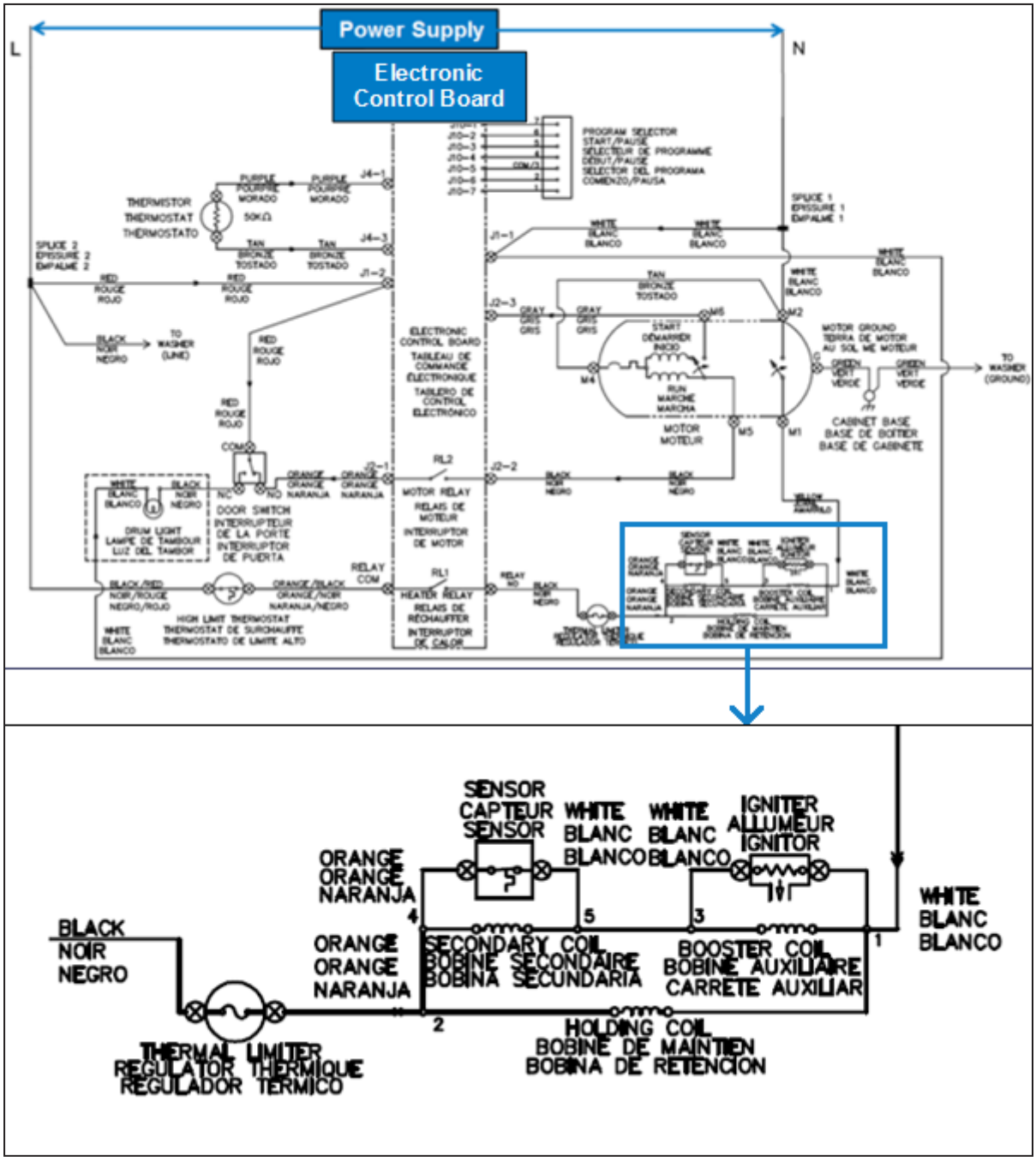
Wiring Diagram - Electrical Dryer (FFLE3911QW)



Specifications

S.NO	Component	Specifications
1	Heater (Electrical Model)	Wattage: 4500W ± 3%, Resistance Across The Terminals:11Ω ± 10%.

Wiring Diagram - Gas Dryer (FFLG4033QW)



9.3 Outlet Control Thermistor - FFLE3911QW and FFLG4033QW

WARNING

When replacing the Outlet Control Thermistor, refer to the code shown in the list of spare parts relating to the appliance.

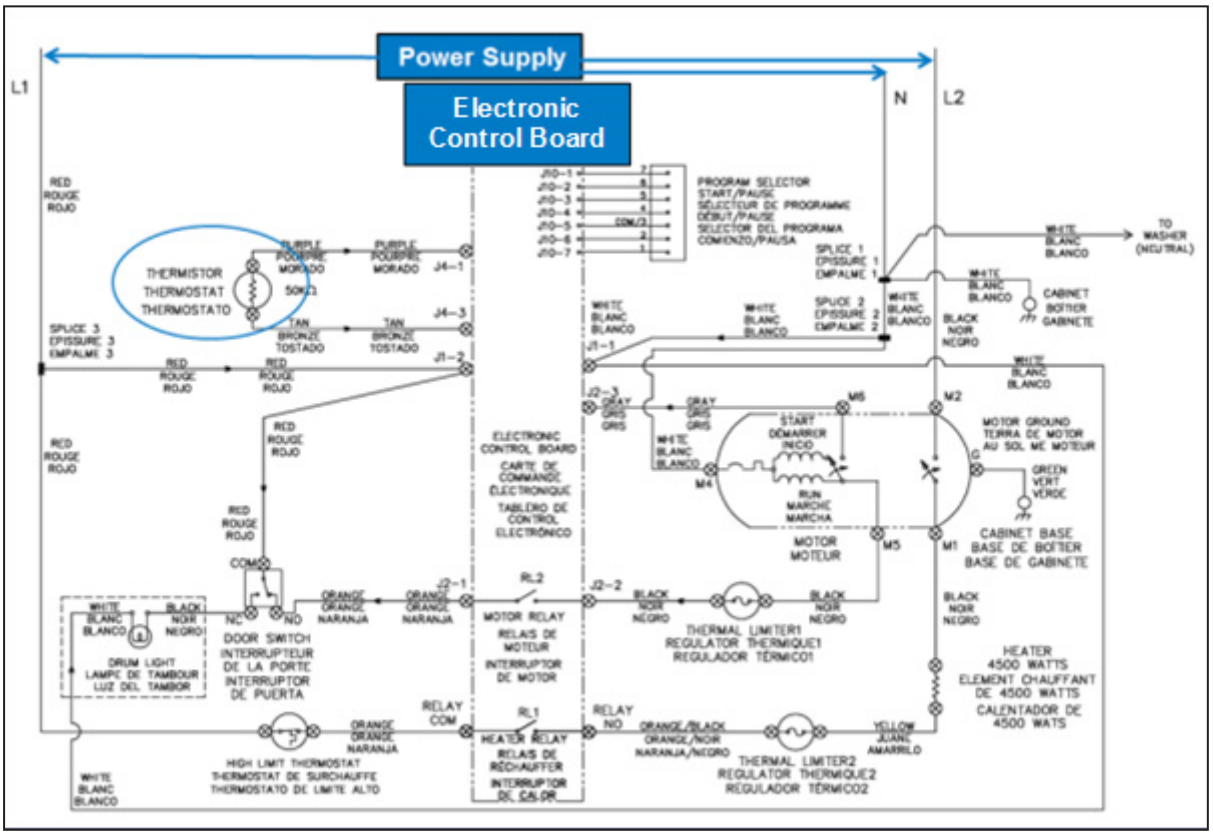
9.3.1 General Characteristics

The thermistor is a type of resistor whose resistancevaries significantly with the temperature.

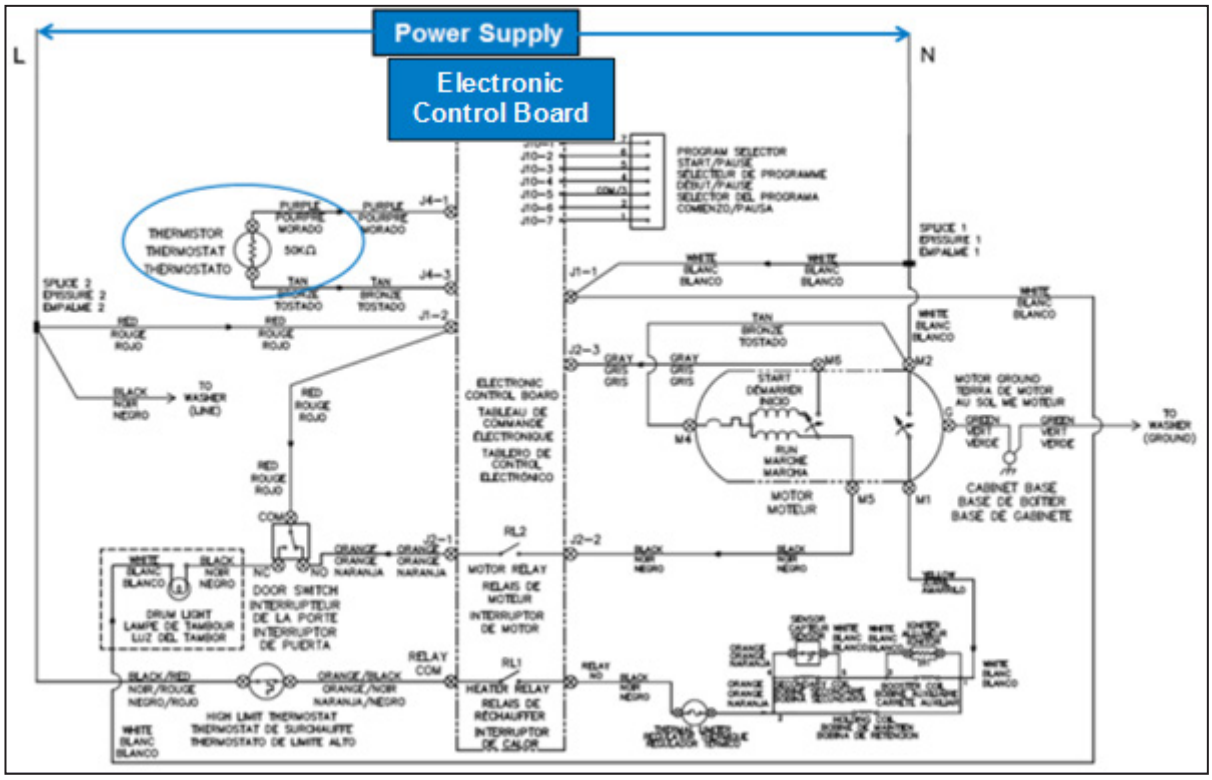
The thermistor measures the temperature of the air in the dryer and adjusts the heat accordingly. When a thermistor fails, it can cause the dryer not to heat at all or heat up to the wrong temperature.

Outlet Thermistor is used to check the temperature of air at exhaust.

Wiring Diagram - FFLE3911QW



Wiring Diagram - FFLG4033QW



Specifications

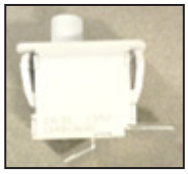
S.NO	Component	Specifications
1	Outlet Control Thermistor	Resistance = 50KΩ ± 5% at (25°C) Resistance = 12.4KΩ ± 2% at (60°C) Operating Temp.= - 40˚C to +105˚C

9.4 Door Switch and Drum Light - FFLE3911QW and FFLG4033QW

NOTE

The Drum Light is not applicable for Electrical and Gas Dryer Models FFLE3911QW and FFLG4033QW.

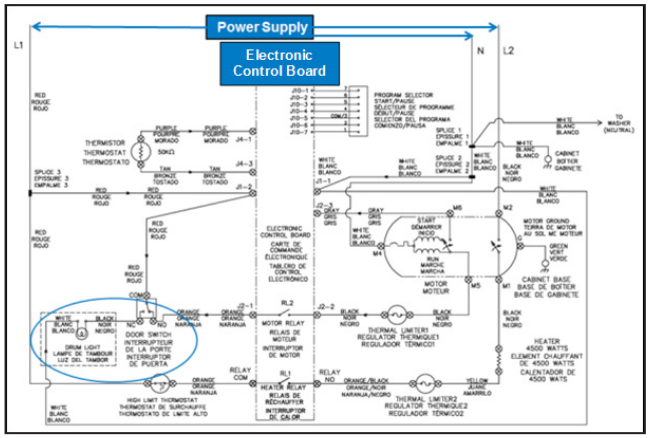
9.4.1 General Characteristics



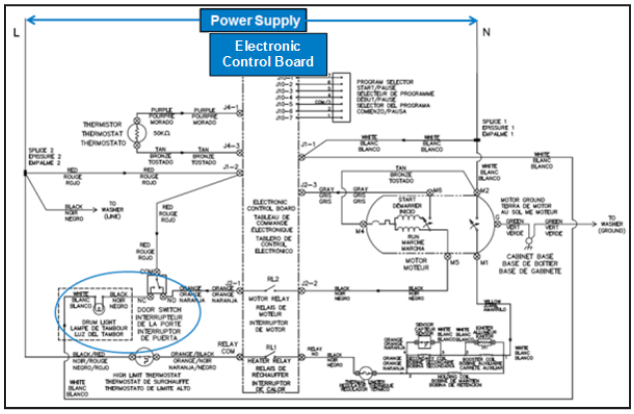
The **Dryer Door Switch** is a push-button that controls the operation of the dryer light inside the drum. When the door is closed the Drum Light will be **OFF** and the Drum Light will be **ON** when the door is opened.

The Dryer Door Switch also senses the position of the door (open or closed), thus allowing the dryer to start its function only when the door is closed.

Wiring Diagram - FFLE9311QW (Door Switch and Drum Light)



Wiring Diagram – FFLG4033QW (Door Switch and Drum Light)



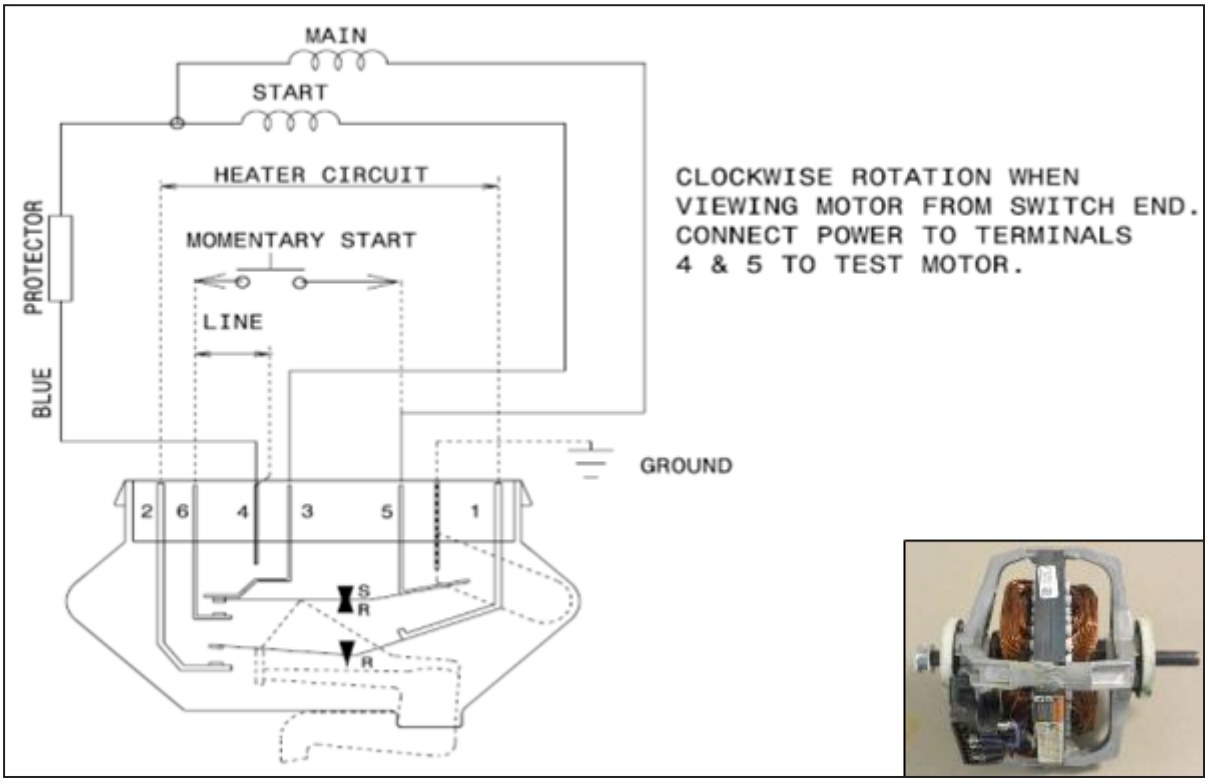
Specifications

S.NO	Component	Specifications
1	Door Switch	Contact Rating to Meet -10A,1/3HP,125/250 VAC.
2	Drum Light	Voltage- 3.5VDC , Current - 350Ma

9.5 Single -Phase Induction Motor - FFLE3911QW and FFLG4033QW (Dryer)

9.5.1 General Characteristics

Connection Diagram - FFLE3911QW and FFLG4033QW

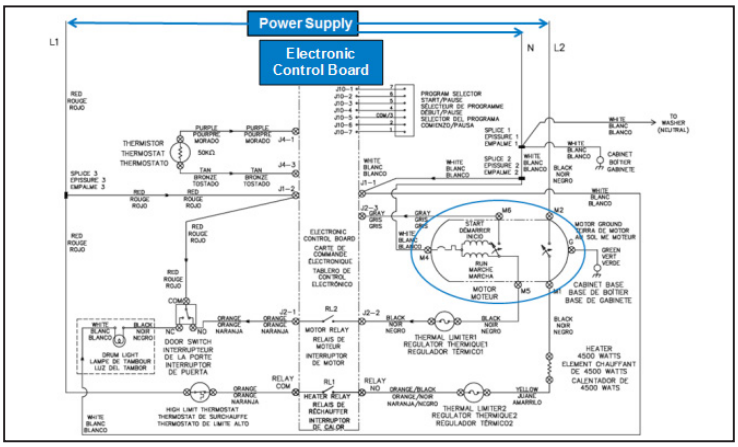


A single-phase AC current supplies the main winding that produces a pulsating magnetic field.The pulsating field could be divided into two fields, which are rotating in opposite directions.The interaction between the fields and the current induced in the rotor bars generates opposing torque.

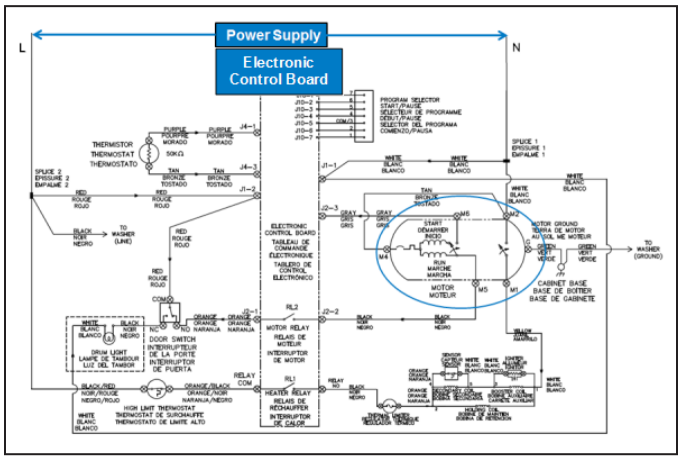
The Motor Assembly is used to drive the Dryer Drum and the Blower. The motor is activated from the Electronic Control Board through the Door Switch.

The motor is equipped with Overload Thermal Protection Tripper. This ensures that the motor is switched OFF, if any thermal overload occurs.

Wiring Diagram - FFLE3911QW



Wiring Diagram - FFLG4033QW



Specifications - FFLE3911QW and FFLG4033QW (Dryer)

Performance Specifications	
Voltage - cycles	115V-60Hz ,4.8 AMPS
Breakdown torque, ft - oz	24.4 nom
Locked rotor current, amps	47 max
Full load torque, ft - oz	12.2 nom
Full load current, amps	4.6 nom
Full load, watts	340 nom
Full load, rpm	1685 nom
Horse power	1/4 hp output
Locked rotor trip time	3-6 sec
INSULATION - CLASS F	

9.6 Contact / Moisture Sensor - FFLE3911QW and FFLG4033QW

WARNING

When replacing the Contact / Moisture sensor, refer to the code shown on the list of spare parts, related to the appliance.

9.6.1 General Characteristics

"Moisture Sensor" or "Dryness Control" retards advancing of the timer. The device uses an Electronic Control Board in conjunction with the sensor strips inside the drum, which comes into actual contact with the clothing as it tumbles.

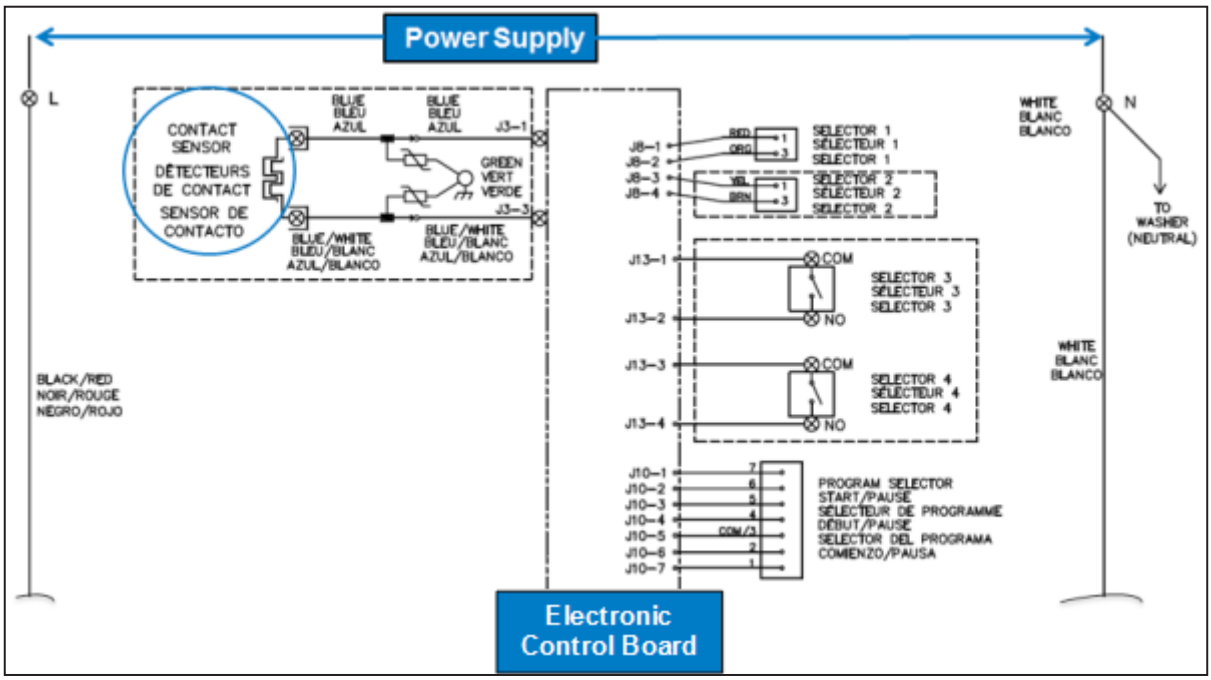
When the contact is made with wet clothing, a short circuit is created between the two strips allowing the power to flow to the Electronic Control Board, which then acts upon that information either by allowing the timer to advance or by stopping it.

Moisture Sensor Control counts the number of times this short circuit occurs over a given period and act upon that information appropriately. More 'hits' would mean more wet clothing in the dryer. In such cases, the control may delay in advancing the timer for a longer period, to allow more time for them to dry. Less 'hits' would mean fewer or less damp clothing in the dryer, in which case advancing of the timer may not be delayed that long.

NOTE

Contact / Moisture Sensor are not applicable for Electrical Dryer Model FFLE3911QW.

Wiring Diagram - FFLG4033QW



9.7 Inlet Thermal Limiter - FFLE3911QW and FFLG4033QW

WARNING

When replacing the Inlet / Outlet Thermal Limiter, refer to the code shown on the list of spare parts related to the appliance.

9.7.1 General Characteristics

Limiter is a heat-sensitive fuse attached to the heating element, and it disconnects electrical power to the heater when the dryer gets overheated.

The specific purpose of the Thermal Limiter is to prevent overheating and fire. It is made of a heat-sensitive material that melts or otherwise becomes electrically open when the temperature rises beyond its limit.

Specifications

S.NO	Component	Specifications
1	Inlet Thermal Limiter	U.L. and C.S.A . Rated:125/250 VAC 25 A Resistive, 125 VAC, 20 F.L.A.,60 L.R.A. Inductive, 240 VAC, 10 F.L.A., 60 L.R.A. Inductive, Opening Temp: 275° ± 10.8°F, Closing Temp: -31°F.

9.8 Outlet Thermal Limiter - FFLE3911QW

9.8.1 General Characteristics

It is a heat-sensitive fuse attached to the rear panel, and it disconnects electrical power to the heater when the dryer gets overheated.

The specific purpose of the Thermal Limiter is to prevent overheating and fire. It is made of a heat-sensitive material that melts or otherwise becomes electrically open when the temperature rises beyond its limit.

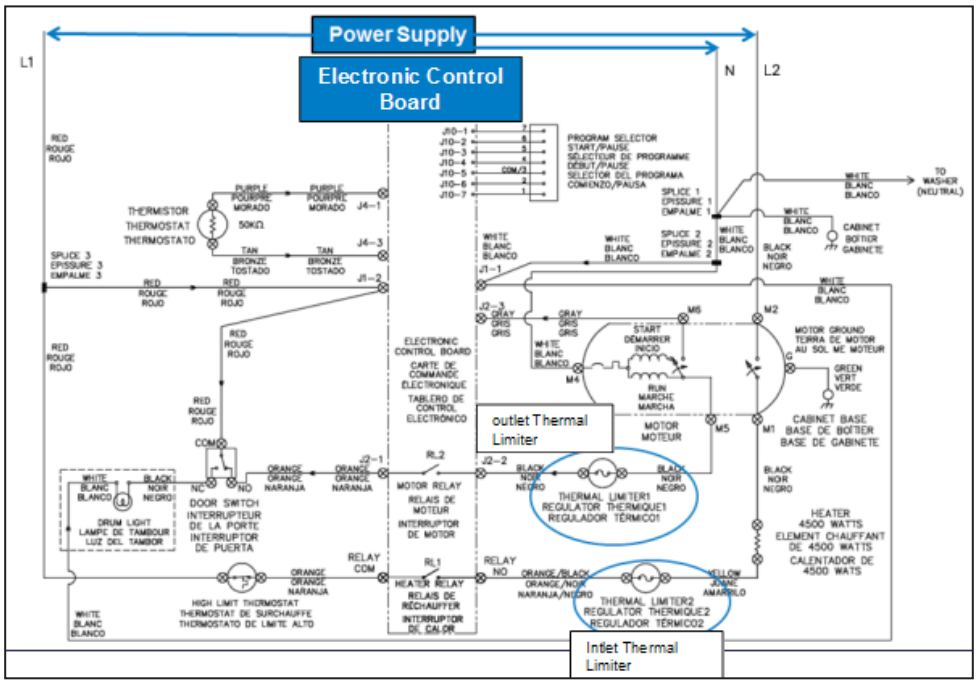
Specifications

S.NO	Component	Specifications
1	Outlet Thermal Limiter	U.L. Rated : 240V, 10A F.L.A and 60A L.R.A at 350°F,C.S.A . Rated: 120V 15A Resistive, Opening Temp: 222° ± 8°F, Closing Temp: -31°F.

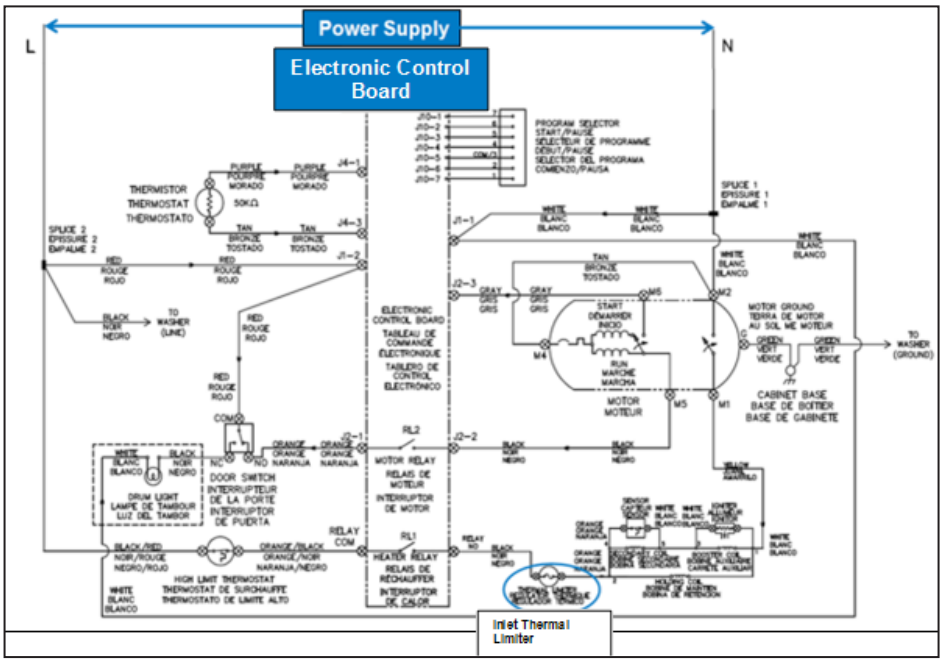
NOTE

Outlet Thermal Limiter is not applicable for FFLG4033QW Gas model.

Wiring Diagram - FFLE3911QW



Wiring Diagram - FFLG4033QW



9.9 High Limit Thermostat - FFLE3911QW and FFLG4033QW

9.9.1 General Characteristics

Thermostat is a device that is used to control a heating or cooling system so that it maintains a certain temperature or maintains the temperature within a certain range. It acts as a switch that opens or closes the circuit. If the temperature rises beyond the specified range, it opens the circuit, else the circuit remains closed.

Function of Hi-Limit Thermostats:

- Based on the vast amount of heat produced by clothes dryers during the course of normal operation, it is important that a secondary safety option is available in case problems arise. A Hi-Limit Thermostat serves as a safety feature that keeps the dryer from getting very hot. This will force open the circuit providing power to the heater once the temperature reaches at a certain point within the dryer. This allows the Hi-Limit Thermostat to act as a secondary safety option for the rimary thermostat, and also for other components such as the Thermistor and Blower.

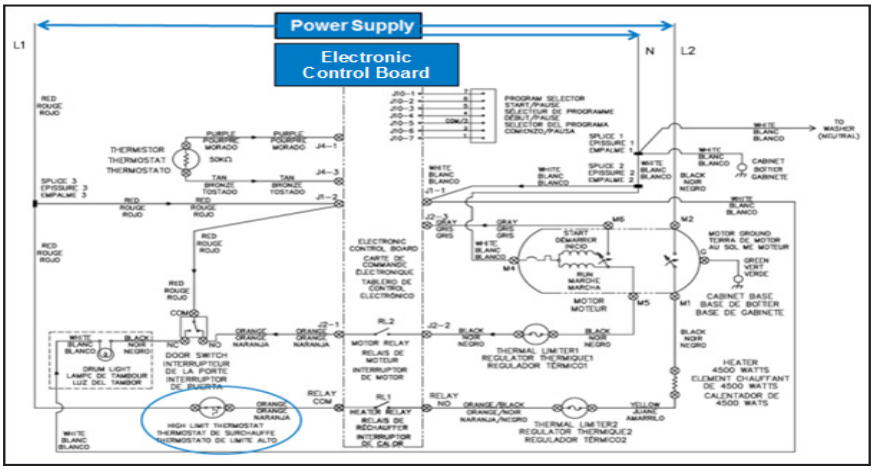
Hi-Limit Thermostats during Normal Operation:

- The standard position of the Hi-Limit Thermostat is closed, allowing current to flow to the heater without interruption. Under normal conditions, the dryer's primary operating thermostat will cycle the heater to switch ON and OFF to prevent the temperature from rising too high within the dryer. The Hi-Limit thermostat will remain unaffected through all these cycles, because the temperature inside the dryer will remain lower than what is required to activate the Hi-Limit sensors (generally 250-°Fahrenheit, though the exact temperature may vary).

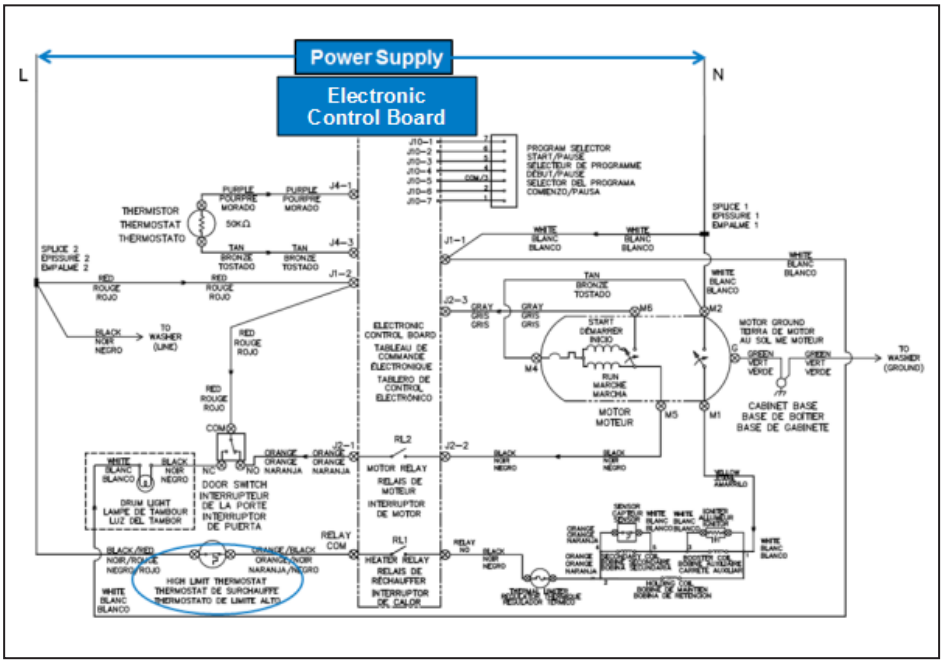
Conditions that activate Hi-Limit Thermostats:

- If the temperature within the dryer exceeds the temperature allowed by the Hi-Limit Thermostat, the unit will activate and turn off the power to the dryer's heater. There are several conditions that could lead to this increased temperature, including faulty parts such as the Primary Operating Thermostat, Thermistor, and Blower. Other conditions that can lead to an increase in temperature significant enough to trip the Hi-Limit Thermostat, includes the improper configuration of components, such as the Primary Thermostat or heater. Blocked or clogged vents can also cause a significant increase in the temperature within the dryer and are one of the most common causes for the activation of a Hi-Limit Thermostat.

Wiring Diagram - FFLE3911QW



Wiring Diagram - FFLG4033QW



9.10 Drain Pump - FFLE3911QW and FFLG4033QW

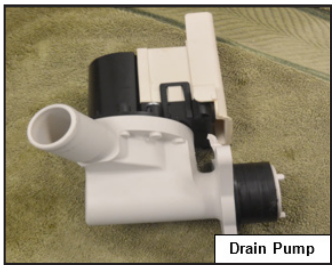
9.10.1 General Characteristics

WARNING

When replacing the Pump, refer to the code shown on the list of spare parts related to the appliance.

The Drain Pump, which drains the water at the end of the various washing cycle phases, is centrifugal and activated by a synchronous motor. The rotor consists of a permanent magnet and the direction of rotation can be either clockwise or anticlockwise.

It can turn by a quarter of a revolution approximately, without turning the wheel. Consequently, if a foreign body is stuck in the wheel, the rotor can perform small movements clockwise and anticlockwise until the foreign body is released.

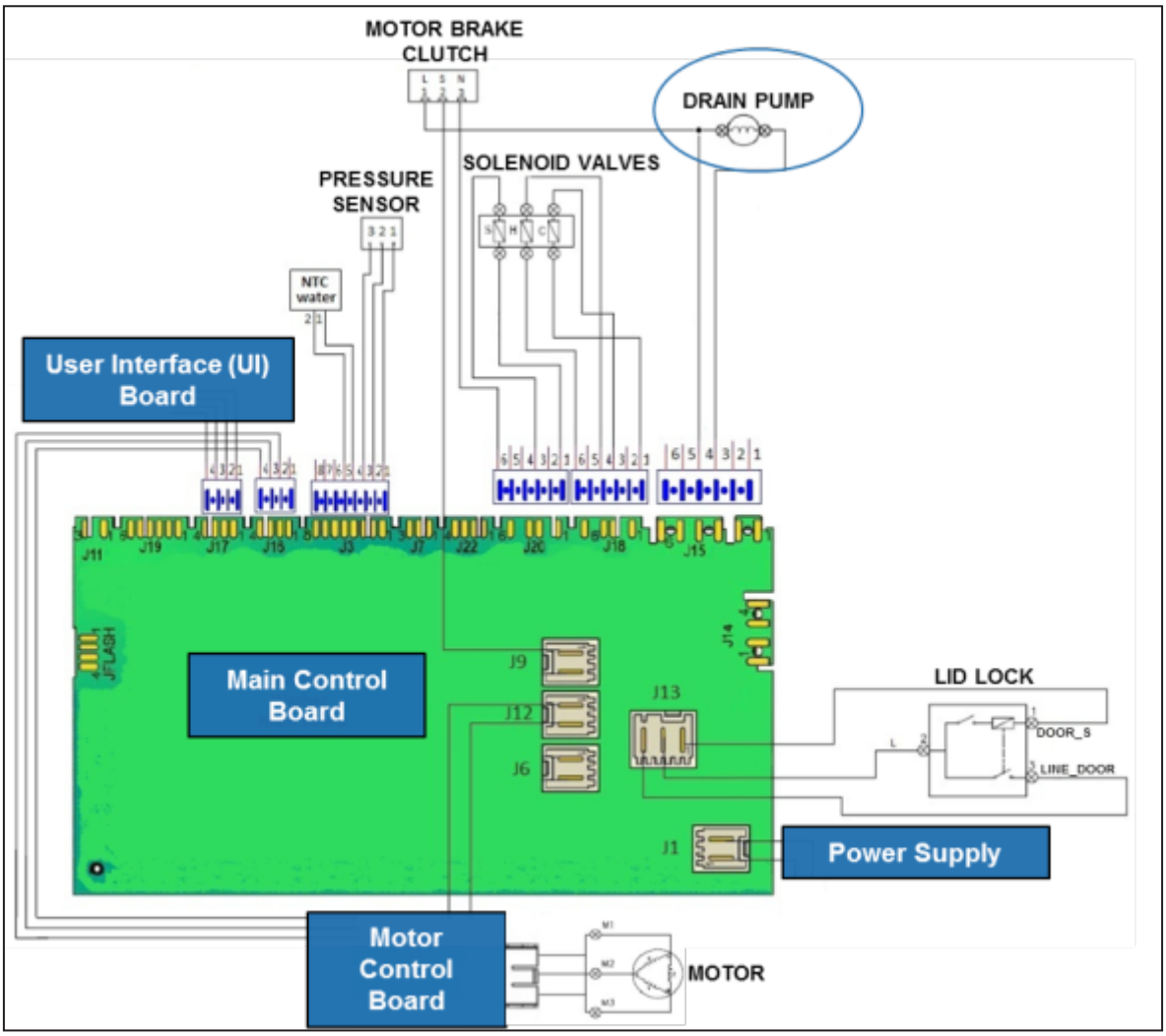

Drain Pump

IMPORTANT

Synchronous pumps, when powered on empty (disconnected from the water circuit), may not start in some cases because their very construction makes them need an antagonist torque on the wheel to allow the rotor to move in one of the two directions.

The pumps should therefore be tested, once they are fitted to the appliance, after some water has been filled. The pumps are powered by the Main Control Board through a Triac.

Wiring Diagram - FFLE3911QW and FFLG4033QW



Specifications

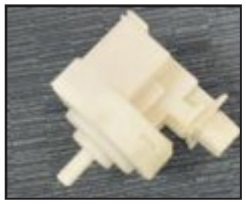
S.NO	Component	Specifications
1	Drain Pump	12 to 17 Ω (Resistance at 25 °C) 120 V AC, 60 Hz, 1.4 A, 80W, Discharge Rate (Under Variable Head): At 3 FT height from floor: 12 GPM MIN. At 8 FT height from floor: 7 GPM MIN..

9.11 Pressure Sensor - FFLE3911QW and FFLG4033QW

9.11.1 General Characteristics

The Pressure Sensor is an analogue device that controls the water level in the tub, used in models with electronic control system, and it is directly connected to the Main Control Board.

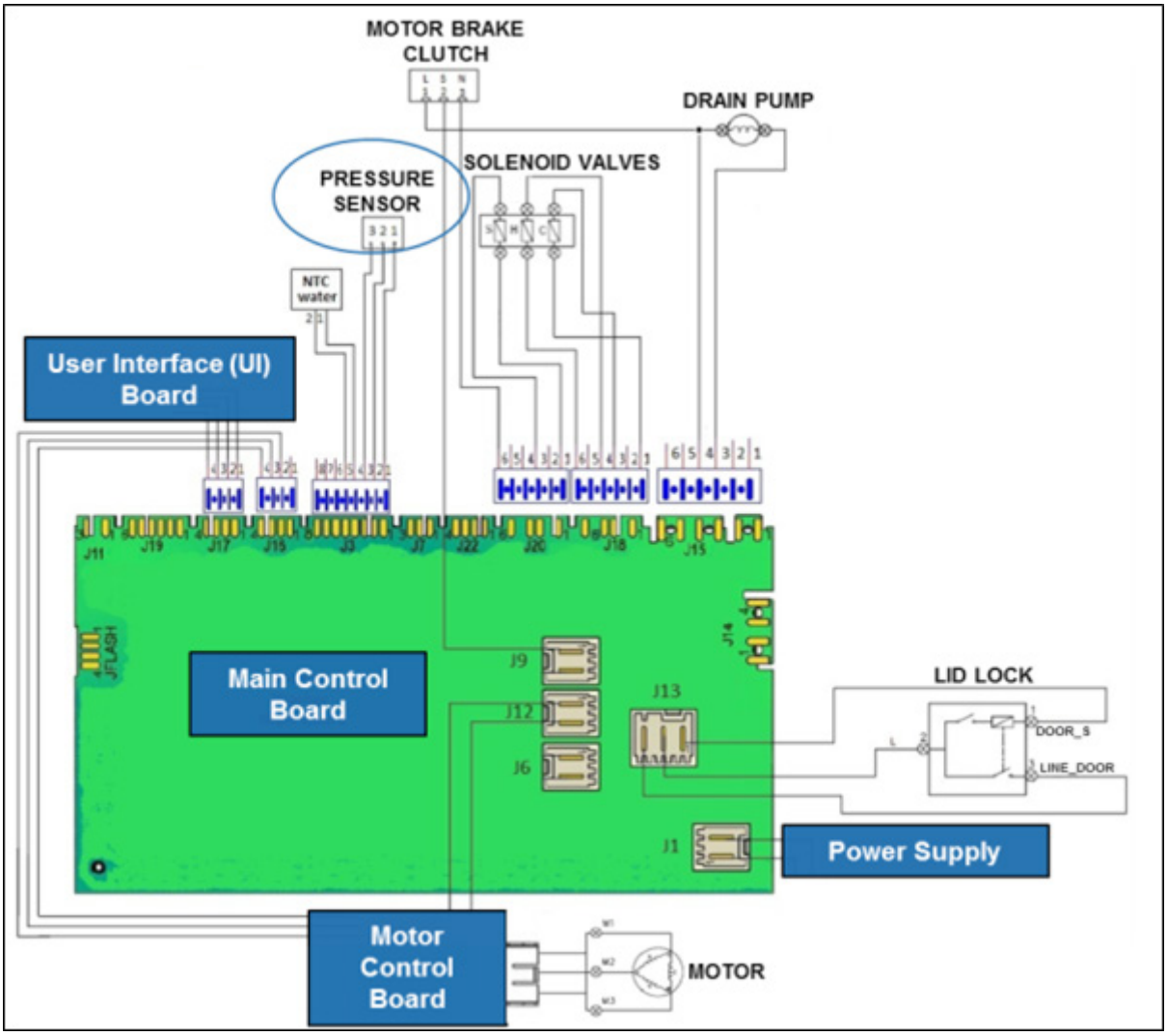
A tube is connected between the bottom of the Tub and the Pressure sensor.



When the tub is filled with water, it creates a pressure inside the hydraulic circuit that causes the membrane to change position. This in turn modifies the position of the core inside the coil, thus changing the inductance and the frequency of the oscillating circuit.

The Main Control Board recognizes how much water has been filled into the tub according to the frequency. Operating frequency varies according to the quantity of water in the tub.

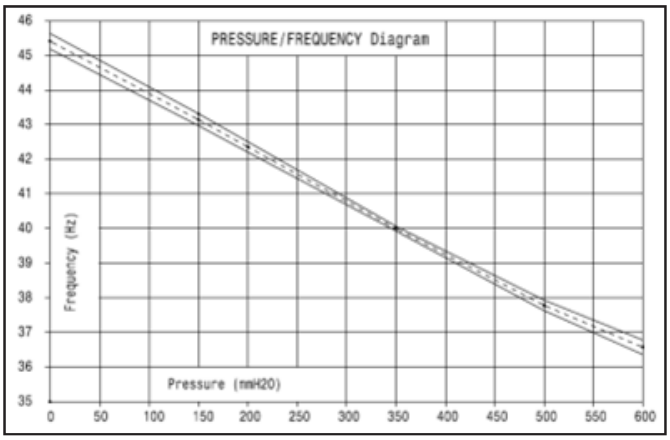
Wiring Diagram - FFLE3911QW and FFLG4033QW



Specifications

S.NO	Component	Specifications
1	Pressure Sensor	Nominal Voltage : 5 ± 0.25 VdC; maximum current: <5 mA; Maximum Operating Temperature: 85 °C (65 °C for UL application); Pressure working range 0 - 600 mm of H2O.

Presssure Frequency Diagram

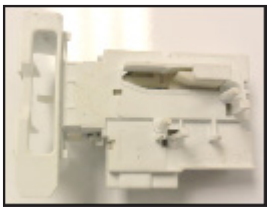


(At Water Level "0" mm (empty tub) Frequency will be 45.4 Hz)

Pressure (mm H2O)	Nominal frequency (Hz)
Water Level at 0*	45.400*
150*	43.140*
200*	42.350*
350*	39.990*
500*	37.772*
600	36.560

Mm H20* - Hz* : Points with 100% control of frequency output on assembly line

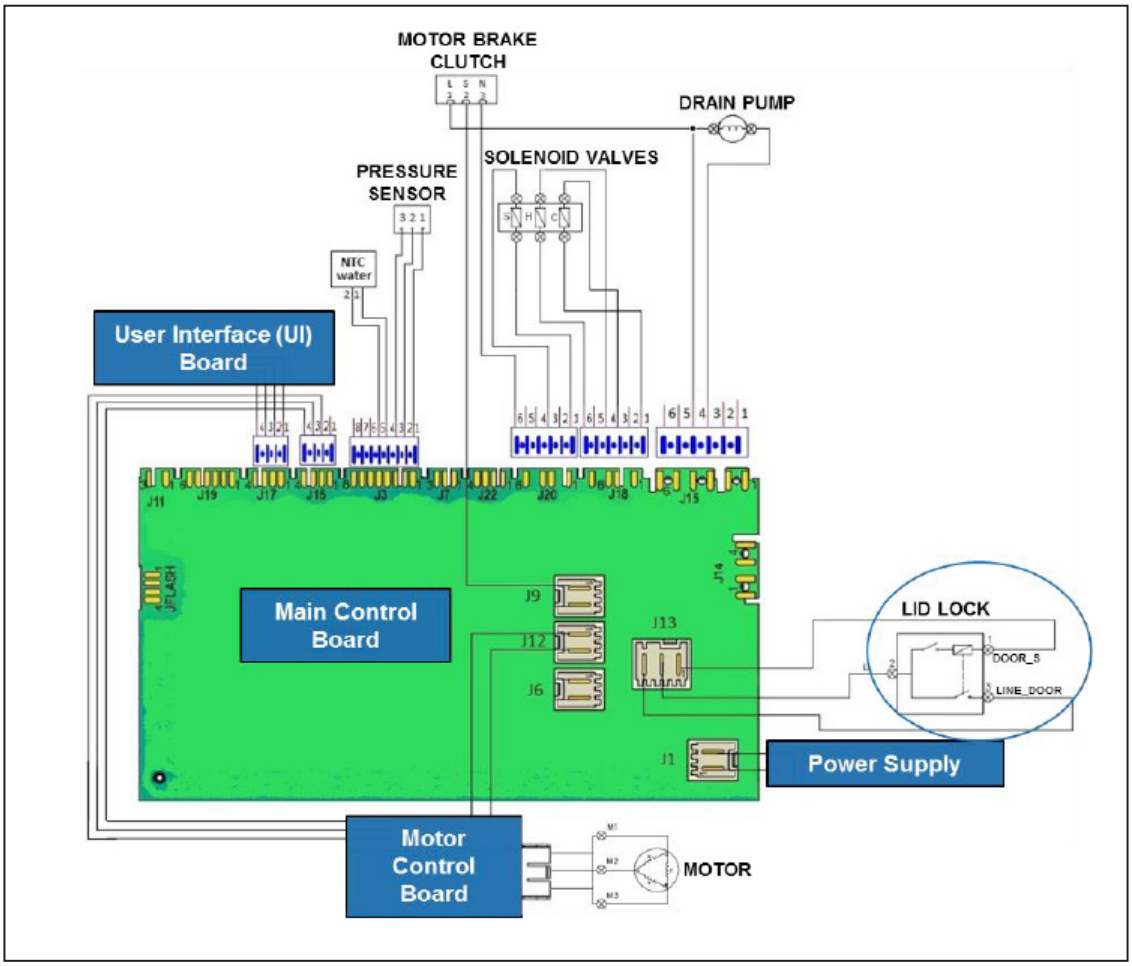
9.12 Lid / Door Lock - FFLE3911QW and FFLG4033QW



9.12.1 General Characteristics

The Lid Lock is the electrical device which locks the door when the user selects the program. When the user after placing the clothes inside the drum, closes the door and selects the program, the Lid Switch sends the signal to the Lid Lock to lock the Door. Thereby, the user cannot open the Door while the program is running.

Wiring Diagram - FFLE3911QW and FFLG4033QW



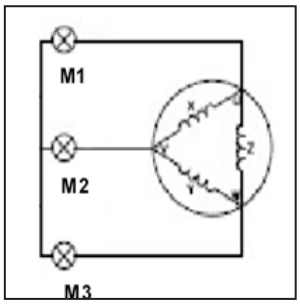
Specifications

S.NO	Component	Specifications
1	Lid Lock	**Internal contacts:** 120 / 240 VAC, 50 / 60 Hz; Electrical Life: 15000 cycles @ 3A; **External Micro switch:** 16A, 250V, Power: 1 HP @ 125 VAC, 2 HP @ 250 VAC, and Resiatance @ 25 °C - 105 Ω ± 10%.

9.13 Three - Phase Synchronous Motor - FFLE3911QW and FFLG4033QW

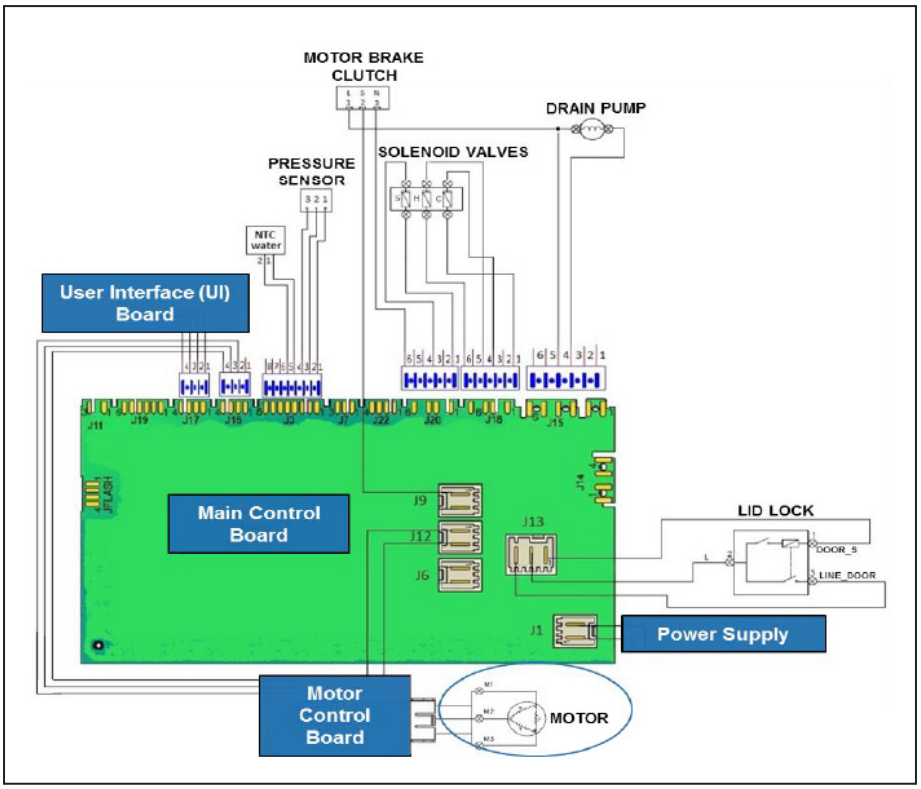
9.13.1 General Characteristics

A synchronous electrical motor is an AC motor in which, the rotation of the shaft is synchronized with the frequency of the supply current when at a steady state. The rotation period is exactly equal to an integral number of AC cycles. Synchronous motors contain electromagnets on the stator of the motor that create a magnetic field, which rotates in time with the oscillations of the line current. The rotor with permanent magnets or electromagnets turns in step with the stator field at the same rate and as a result, the rotor provides the second synchronized rotating magnet field of any AC motor.



It is possible to get an idea of the efficiency of the motor by measuring the resistance of the coils: 6 to 8 ohm (contacts Z-Y), 6 ohm to 8 ohm (contacts X-Y), 6 to 8 ohm (contacts X-Z).

Wiring Diagram - FFLE3911QW and FFLG4033QW



Specifications

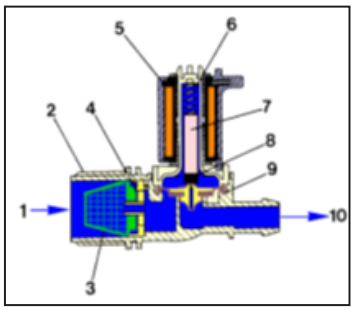
S.NO	Component	Specifications
1	Motor	150 V/180 V, 54.2/83.3 Hz 2.76/1.96 A, 385/420 W 650/1000 RPM

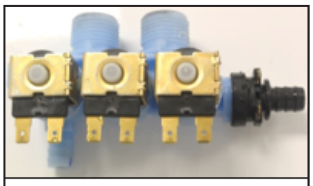
9.14 Solenoid / Water Valves (Inlet Valve) - FFLE3911QW and FFLG4033QW

9.14.1 General Characteristics

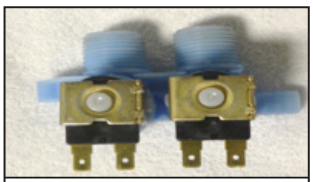
This component fills water into the detergent dispenser and is controlled electrically by the Main Control Board via Triac. The level of water in the tub is controlled by the Pressure Sensor.

1. Water inlet
2. Solenoid valve body
3. Filter or needle trap
4. Flow reducer
5. Coil
6. Spring
7. Moving core
8. Rubber
9. Membrane
10. Water outlet





Model FFLG4033QW



Model FFLE3911QW

9.14.2 Operating Principle

When idle, the core pushed by a spring, keeps the central hole of the membrane closed and so the latter hermetically seals access to the water inlet duct. When the coil is powered, the core is attracted, releasing the central hole of the membrane. Consequently the valve opens.

9.14.3 Mechanical jamming of the Solenoid Valve

The Solenoid Valve may jam or open without being actuated (which will cause flooding if the Pressure Sensor controlling the water level does not trip). If this occurs, the electronic control system (which continuously monitors the flow sensor) will lock the door, start the Drain Pump and display an ALARM, simultaneously.

9.14.4 Low Water Pressure

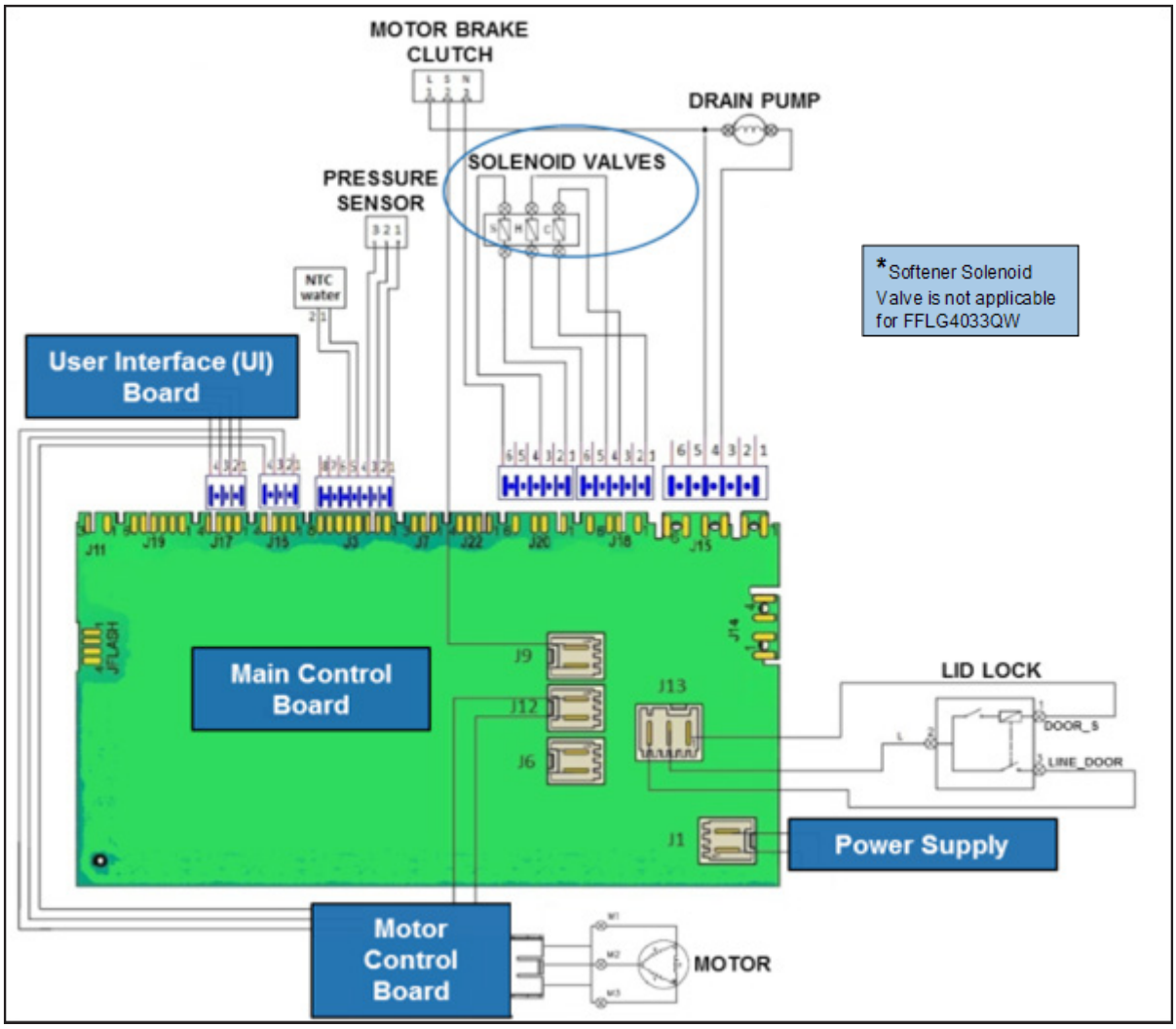
The Flow Sensor may not generate a signal during the water fill phases, even though power is being supplied to the Solenoid Valve. This condition may result due to a closed water tap or clogged filter on the Solenoid Valve (with ensuing low water pressure). If this occurs, only a WARNING will be displayed and the cycle will continue for 5 minutes, after which an ALARM will be signalled.

NOTE

Model FFLG4033QW Washer unit has 3 coil (hot water, cold water, and softener) Solenoid Valve.

Model FFLE3911QW Washer unit has 2 coil (hot water and cold water) Solenoid Valve.

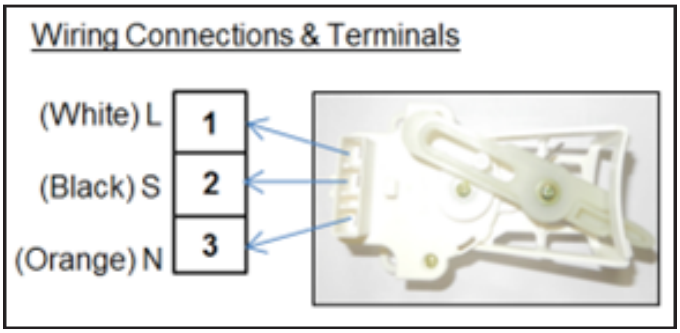
Wiring Diagram - FFLE3911QW and FFLG4033QW



Specifications

S.NO	Component	Specifications
1	Dispenser Solenoid Valve	1375 Ω ± 10% (Resistance at 25 °C); 120 V, 60 Hz, 6 / 5 Watts.

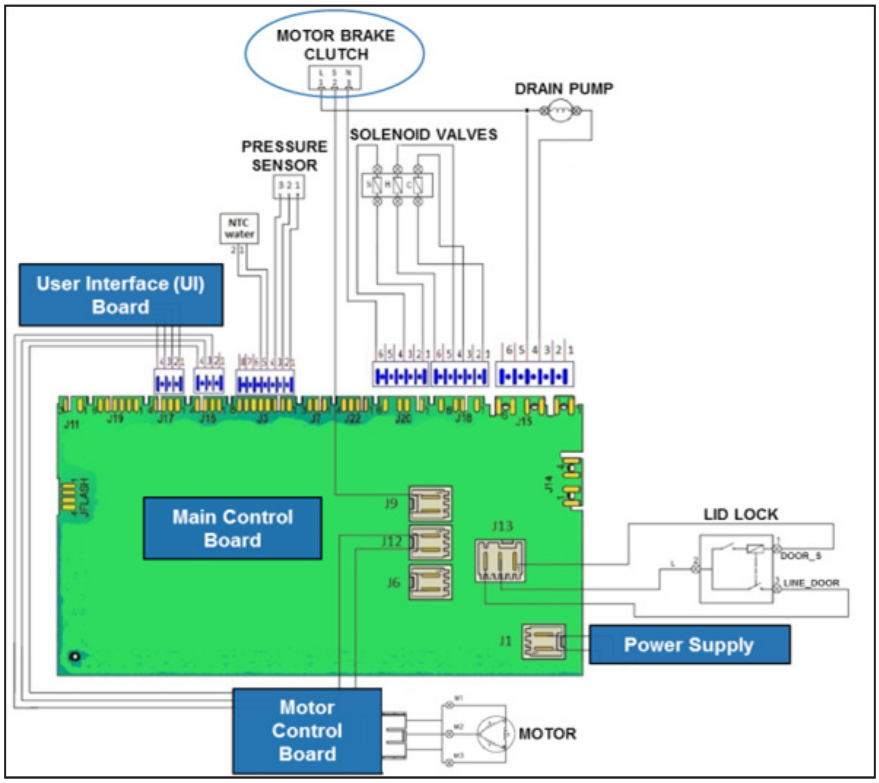
9.15 Motor Brake Clutch (MBC) - FFLE3911QW and FFLG4033QW



9.15.1 General Characteristics

Motor Brake Clutch is the device that engages and disengages the drum during rinse and spin operations. During rinse, it engages the motor with the agitator and during the spin it disengages the motor with the agitator and engages it with the drum. Incase of a door lock failure, and when the user opens the door while the program is running, the MBC applies the brake to stop the rotation of motor.

Wiring Diagram - FFLE3911QW and FFLG4033QW



Specifications

S.NO	Component	Specifications
1	Motor Brake Clutch (MBC)	2900 Ω to 3100 Ω (Resistance at 25 °C); AC 120 V, 60 HZ, 2 mA

10. Heater (Gas) Assembly Characteristics - FFLG4033QW

10.1 Burner

10.1.1 General Characteristics

A gas burner is used to generate a flame to heat up products using a gaseous fuel. The heat is generated by burning the gas with the help of an igniter, and the air is pulled through the chamber that absorbs the heat and is used to dry the wet clothes.

10.2 Gas Valve

10.2.1 General Characteristics

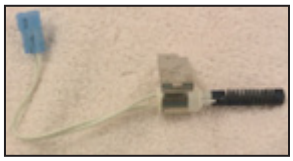
Gas valve is the device that controls and restricts the flow of gas into the burner. This is controlled by energizing the plunger inside the coils (Secondary and Booster). When the electrical current is passed into the coil, the magnetic field is created. This field controls the opened or closed positions of the valve.

10.3 Igniter

⚠ WARNING

When replacing the igniter, refer to the code shown on the list of spare parts related to the appliance.

10.3.1 General Characteristics



Igniter is used to ignite or burn the gas. An igniter is placed in the path of the flow of gas, and when the gas valve is open, the gas passes through the igniter. The igniter is lighted by using a battery powered spark generator that burns the gas and produces heat. This heat is used to dry the clothes inside the dryer.

10.4 Radiant / Flame Sensor

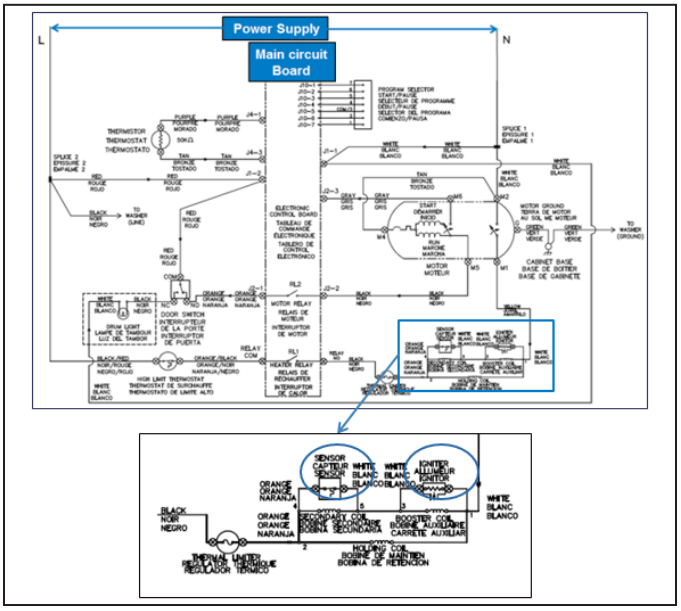
⚠ WARNING

When replacing the Radiant/Flame sensor, refer to the code shown on the list of spare parts related to the appliance.

10.4.1 General Characteristics

Flame sensor is a device that detects the presence of a flame due to combustion. It detects the flame by detecting electromagnetic radiation, ionization, or heat. When the dryer operates on gas, it requires an igniter to light the gas and create a flame to heat the air that is used to dry the clothes. It also requires a flame sensor to ensure that the flame continues to burn inside the flame chamber. When the dryer does not creates enough heat to dry your clothes, or if it does not ignite a flame, you should test the flame sensor. A faulty flame sensor will not allow the dryer to ignite and must be replaced.

Wiring Diagram - FFLG4033QW

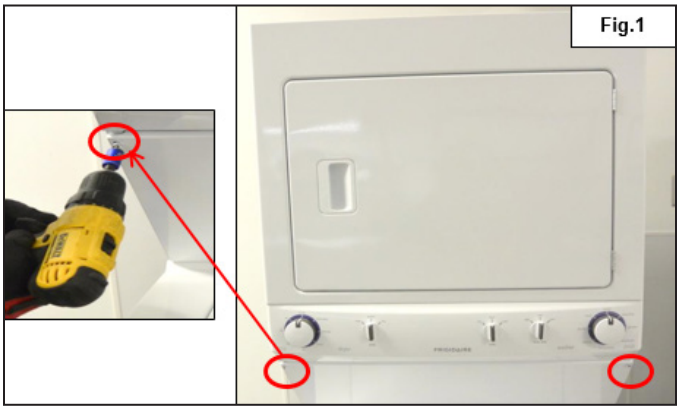


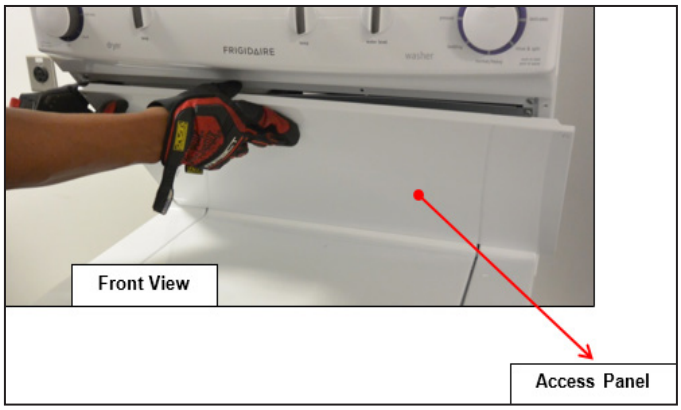
11. Electrical Component Accessibility - FFLE3911QW and FFLG4033QW (Dryer)

11.1 Control Panel Accessibility – FFLE3911QW (Electric Dryer)

Step: 1

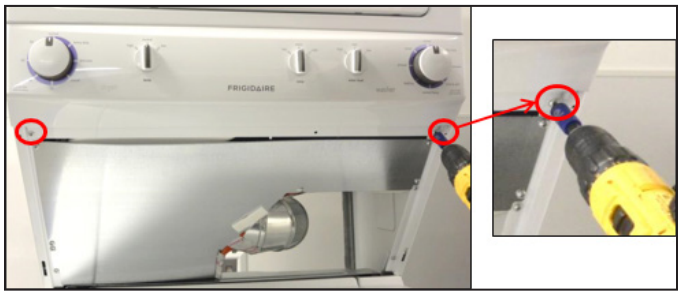
Loosen the screws (2) (See Fig.1) that fixes with left and right panel of the dryer to remove the access panel.





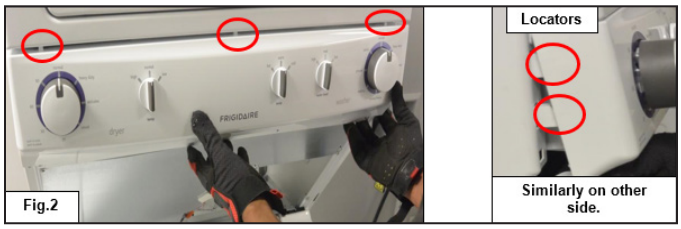
Step: 2

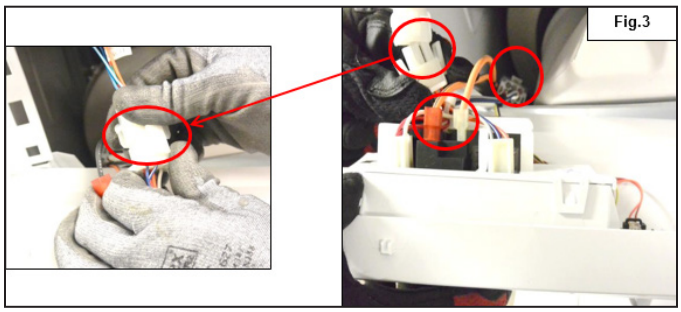
Loosen the Control Panel screws (2) that fixes with the left and right panel of the dryer.

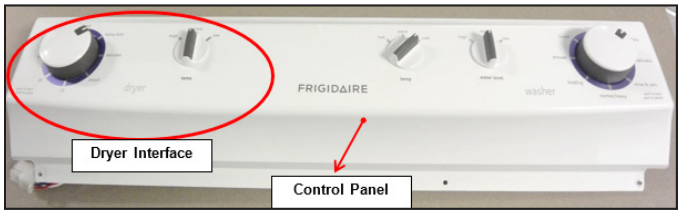


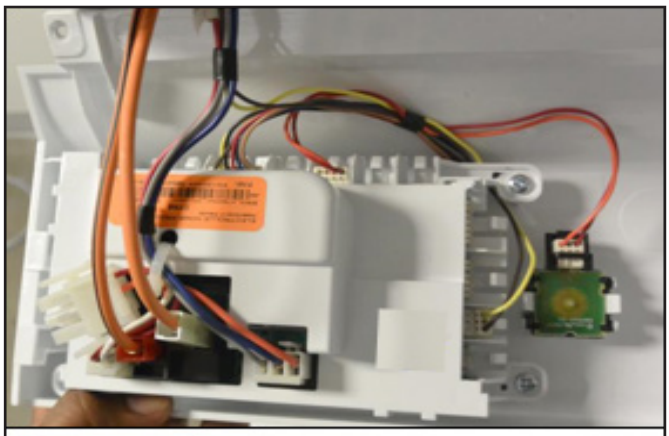
Step: 3

Hold the Control Panel at the bottom and pull (See Fig. 2) it out. Then detach the connectors (See Fig. 3) to removethe control panel.









Back Side of Control Panel - Dryer Interface

11.1.1 Electronic Control Board Accessibility

Step: 1

Detach the connectors from the Electronic Control Board (See Fig.1), Cycle Selector (Switch, 8 positions) and Temperature Selector (Switch, Option 3 pos.) (See Fig. 2).

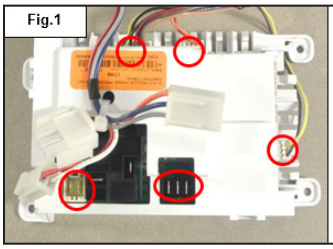


Fig.1

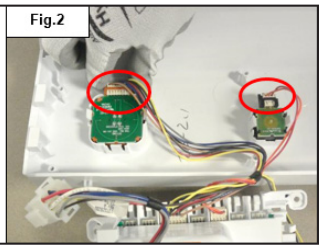


Fig.2

Step: 2

Loosen the screws (4) (See Fig. 3), which is fitted with the Control Panel console to separate the Electronic Control Board Assembly from the console.

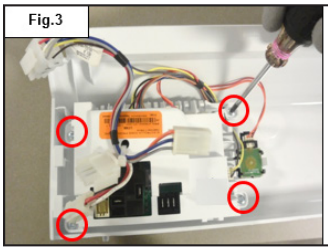
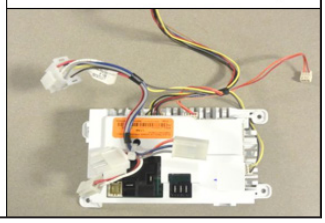


Fig.3


Electronic Control Board Assembly

11.1.2 Program Selector Accessibility

Step: 1

Remove the Program Selector knob from the console as shown in Figs. (1a and 1b).

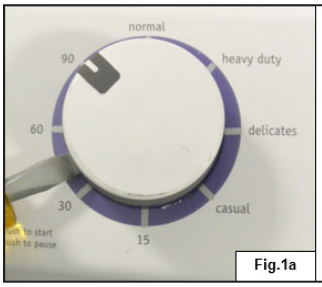


Fig.1a

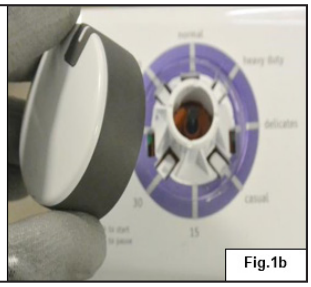


Fig.1b

Step: 2

Detach the connector from Cycle Selector Switch (See Fig. 2) and unfasten the (2) snaps to remove the switch from the console (See Fig. 3).

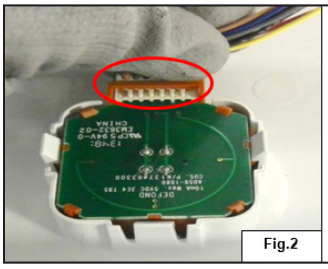


Fig.2

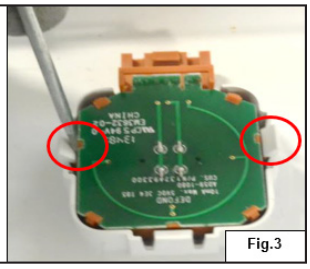
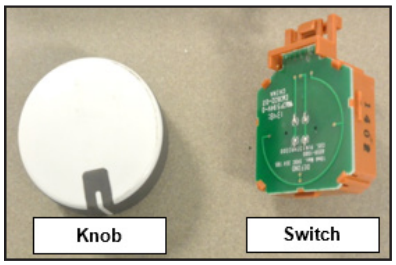


Fig.3



11.1.3 Temperature Selector Accessibility

Step: 1

Remove the Temperature Selector knob from the console as shown in Figs. (1a and 1b).

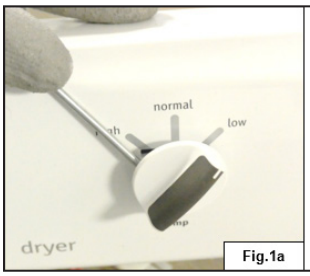


Fig.1a

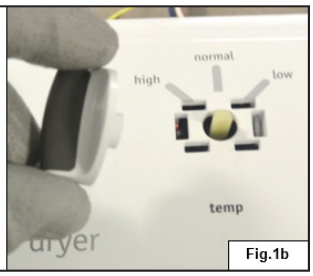


Fig.1b

Step: 2

Detach the connector from the Temperature Selector Switch (See Fig. 2) and unfasten the (2) snaps to remove the switch from the console (See Fig. 3).

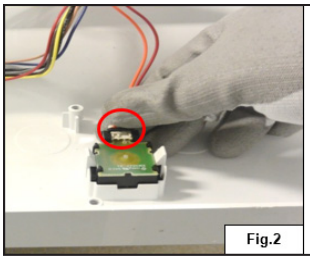


Fig.2

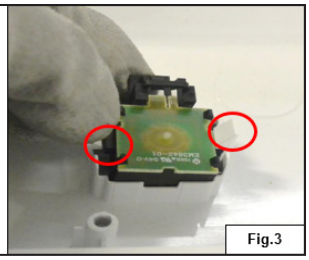
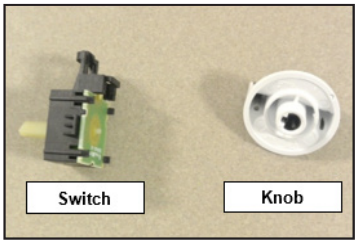


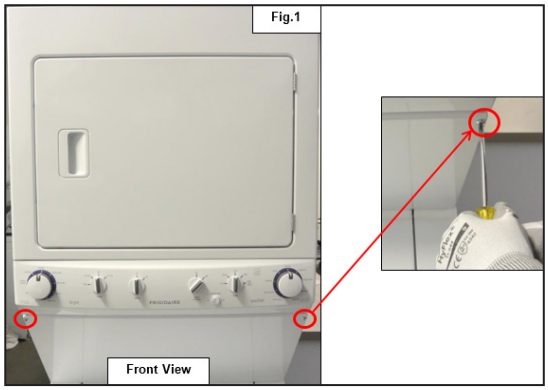
Fig.3

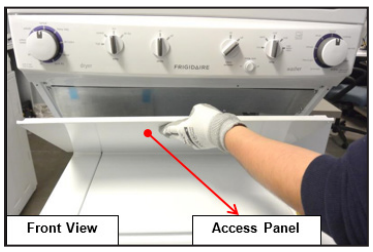


11.2 Control Panel Accessibility – FFLG4033QW (Gas Dryer)

Step: 1

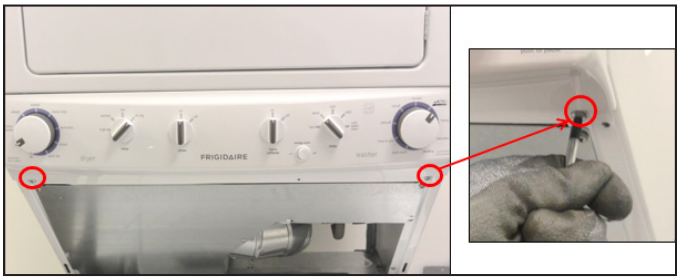
Loosen the screws (2) (See Fig.1) that fixes with the left and right panel of the dryer to remove the access panel.





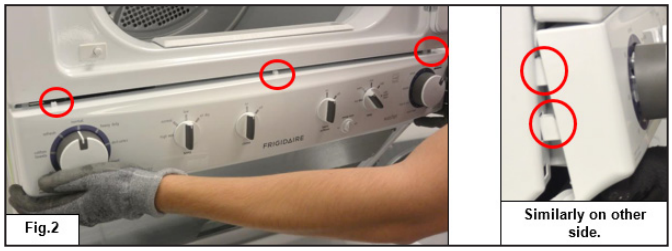
Step: 2

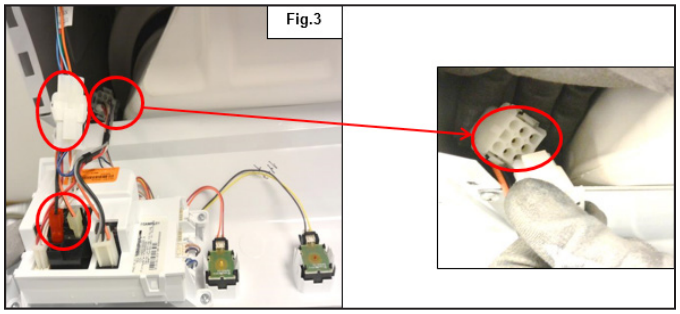
Loosen the Control Panel screws (2) that fixes with the left and right panel of the dryer.

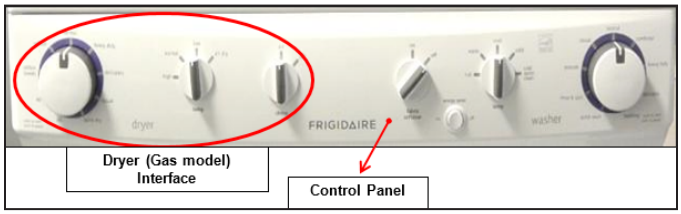


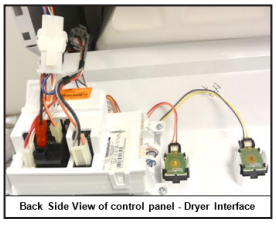
Step: 3

Hold the Control Panel at the bottom and pull (See Fig. 2) it out. Then detach the connectors (See Fig. 3) to separate the Control Panel.








Back Side View of control panel - Dryer Interface

11.2.1 Electronic Control Board Accessibility

Step: 1

Detach the connectors from the Electronic Control Board (See Fig.1), Cycle Selector (Switch, 9 positions) Temperature Selector (Switch, Option 4 positions) and Chime Selector (Switch, Option 2 positions) (See Fig. 2).

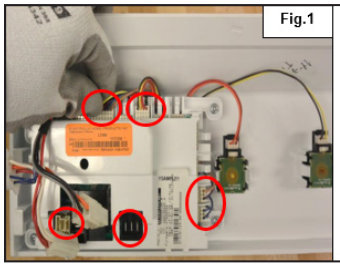


Fig.1

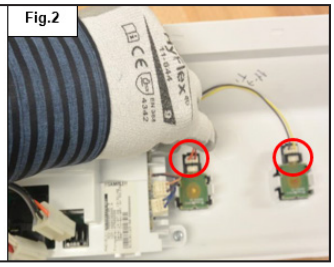


Fig.2

Step: 2

Loosen the screws (4) (See Fig. 3), which is fitted with the Control Panel console to separate the Electronic Control Board Assembly from the console.

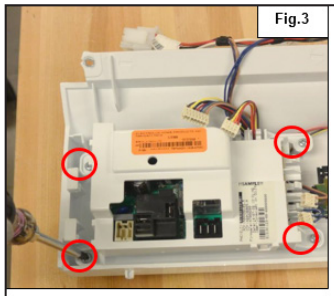


Fig.3


Electronic Control Board Assembly

11.2.2 Program Selector Accessibility

Step: 1

Remove the Program Selector knob from the console as shown in Figs. 1a and 1b.

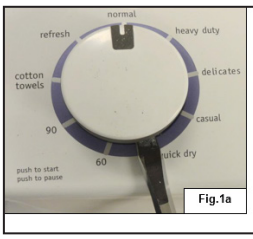


Fig.1a

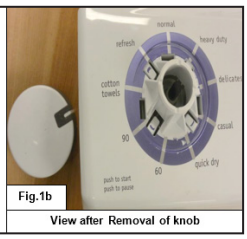


Fig.1b

View after Removal of knob

Step: 2

Detach the connector from the Cycle Selector Switch (See Fig. 2) and unfasten the (2) snaps to remove the switch from the console (See Fig. 3).

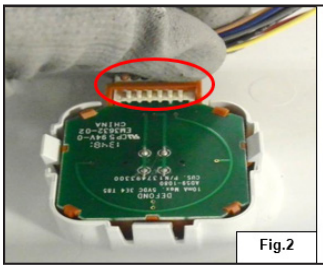


Fig.2

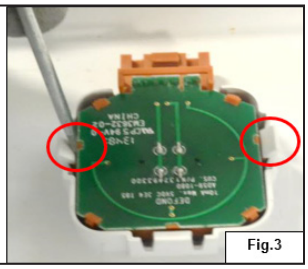
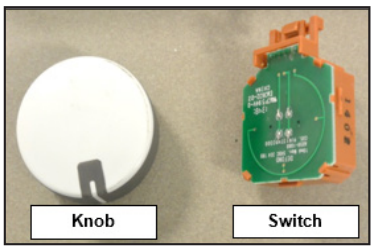


Fig.3



11.2.3 Temperature Selector Accessibility

Step: 1

Remove the Temperature Selector knob from console as shown in Figs. 1a and 1b.

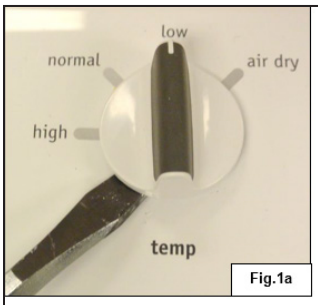


Fig.1a

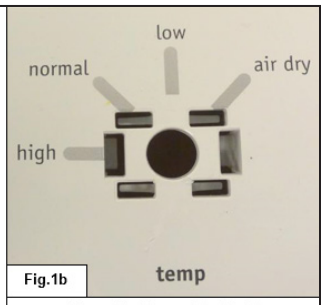
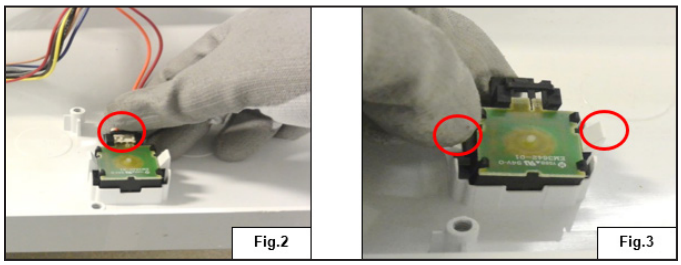


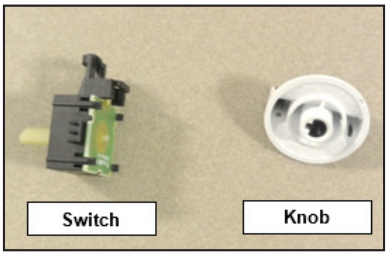
Fig.1b

View after Removal of knob

Step: 2

Detach the connector from the Temperature Selector Switch (See Fig. 2) and unfasten the (2) snaps to remove the switch from the console (See Fig. 3).

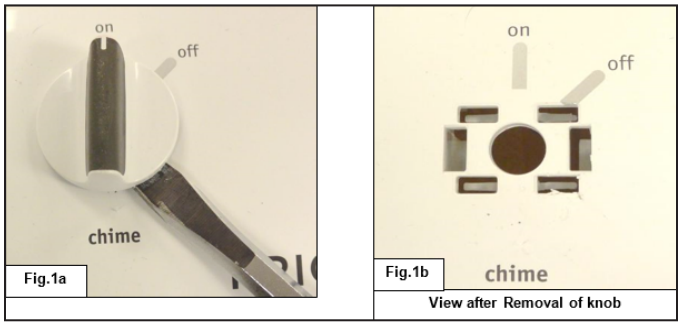




11.2.4 Chime Selector Accessibility

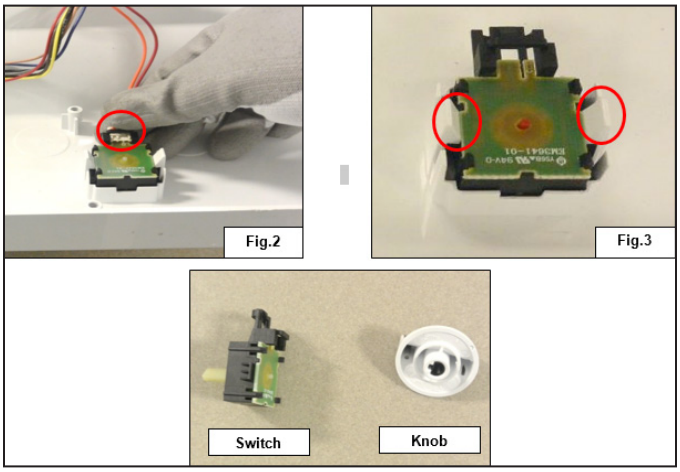
Step: 1

Remove the Chime knob from the console as shown in Figs. 1a and 1b.



Step: 2

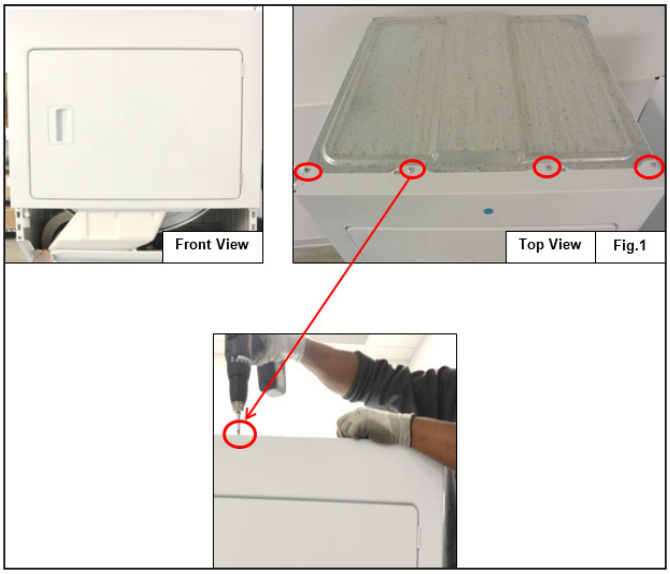
Detach the connector from the Chime Switch (See Fig. 2) and unfasten the (2) snaps to remove the switch from the console (See Fig. 3).



11.3 Front Panel Assembly Accessibility

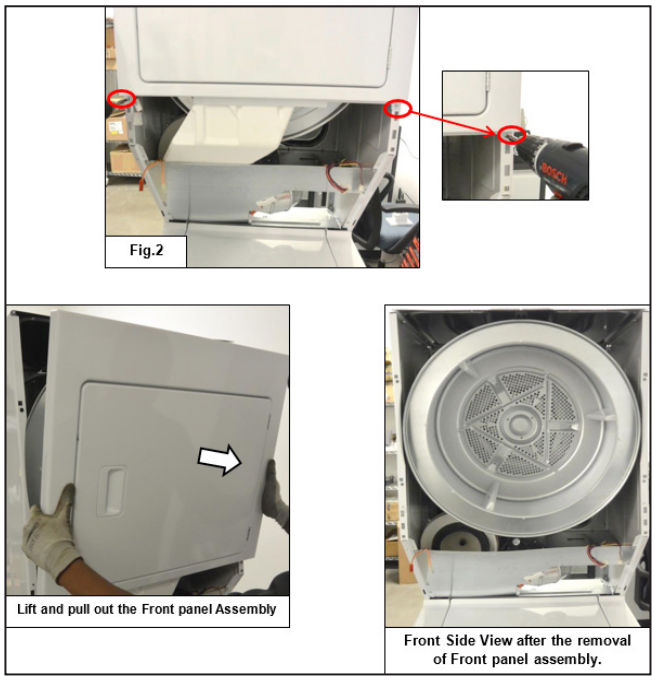
Step: 1

Loosen the screws (4) of the Front panel Door Assembly as shown in Fig.1.



Step: 2

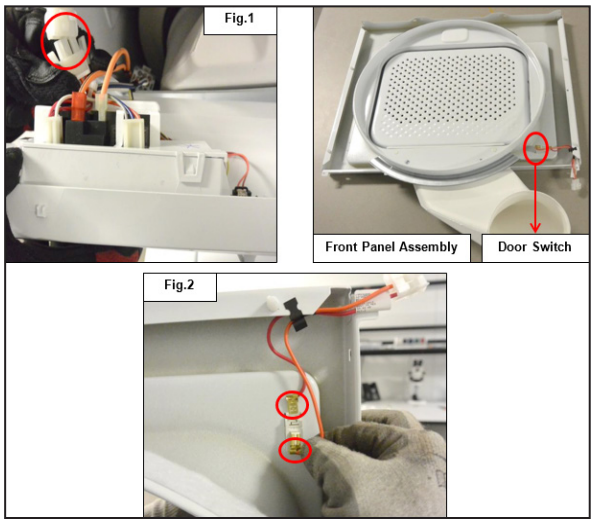
Loosen the 2 screws (See Fig. 2) that are fixed with the left and right panel of the dryer to remove the entire Front Panel Assembly.



11.4 Door Switch Accessibility

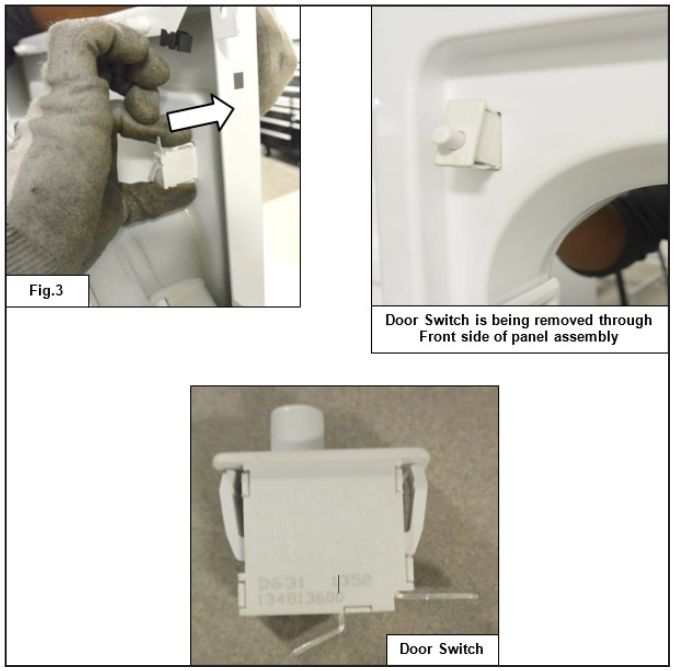
Step: 1

Detach the connector (See Fig.1) from the Electronic Control Board to remove the Front Panel Assembly and then detach the terminals (See Fig. 2) of the Door switch.



Step: 2

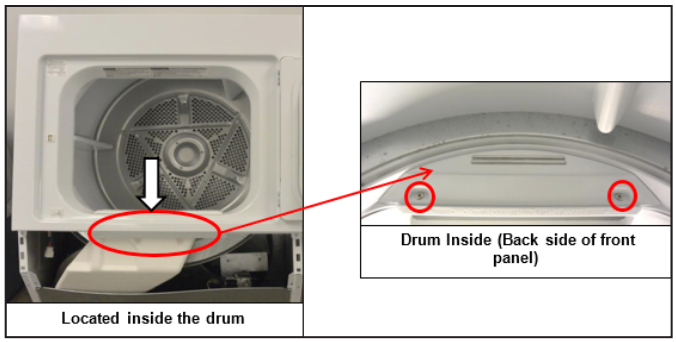
Press the snaps (See Fig. 3) and pull it out from the front side of the panel assembly to remove the Door Switch.



11.5 Moisture Sensor Accessibility

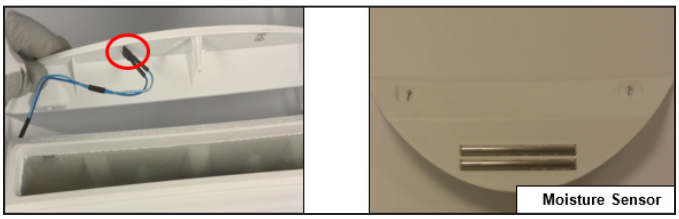
Step: 1

Loosen the Moisture sensor screws (2) that fits with the Back side of the Front Panel Assembly (Drum inside).



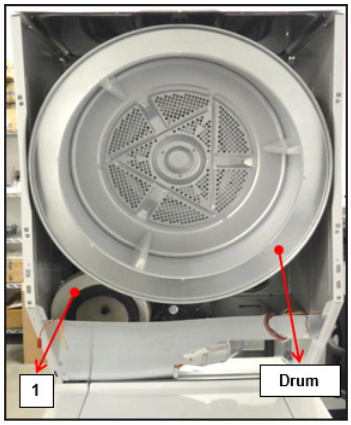
Step: 2

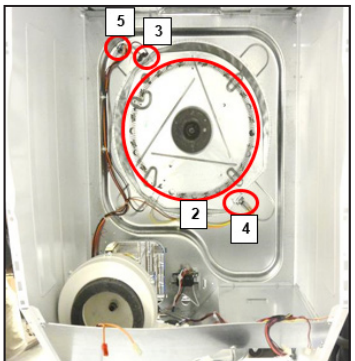
Detach the Moisture Sensor Terminal and take it out.



11.6 Components Accessibility from the Front Panel

1. Motor / Blower Assembly
2. Heater Assembly
3. Thermostat (Safety)
4. Inlet Thermal Limiter
5. Outlet Thermal Limiter



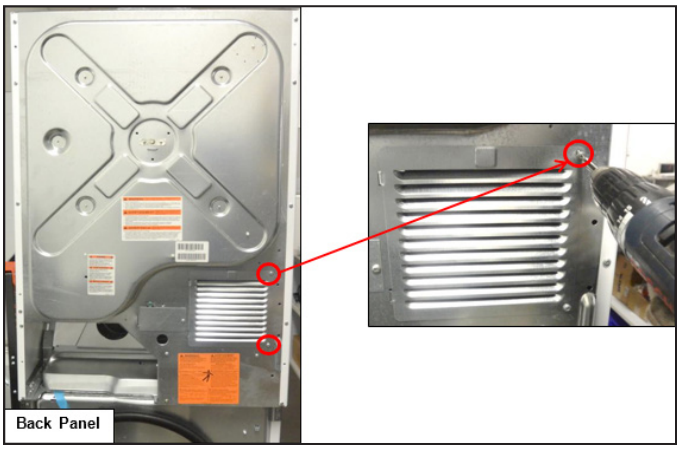


Front View After the removal of Front Panel Assembly and Drum

11.6.1 Motor / Blower Accessibility

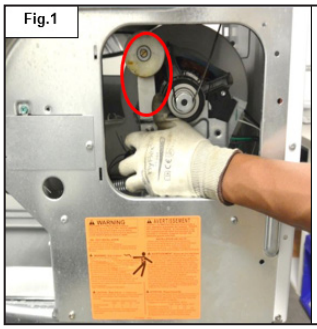
Step: 1

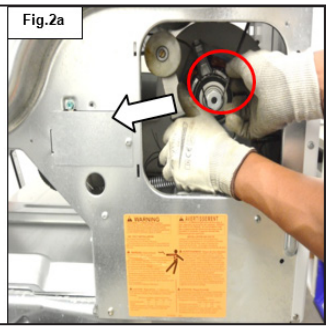
Loosen the screws (2) which are fixed to the Dryer Back Panel (Motor Access Panel) and take out the Motor Access Panel.

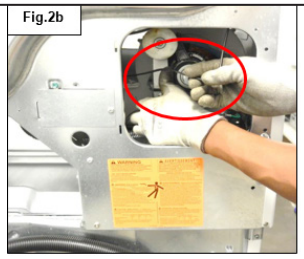


Step: 2

Push the Idler Arm Assembly (See Fig.1) against the spring force and loosen the belt from the motor pulley Figs. 2a and 2b. Then remove the belt from the front side of the machine as shown in Fig.3.





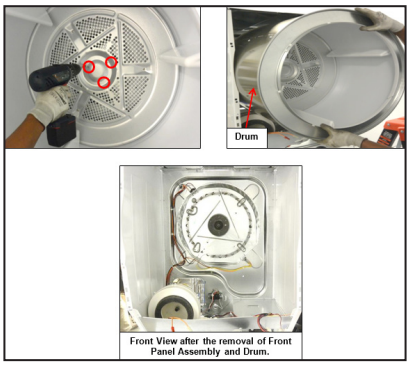


Front View after the removal of Front panel Assembly.

11.6.2 Drum Accessibility

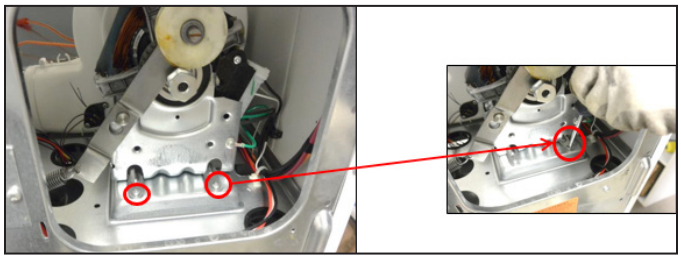
Step: 3

Loosen the screws (3) that fixes with the Drum Support Shaft (Ball Hitch) and carefully pull out the drum from the dryer cabinet.



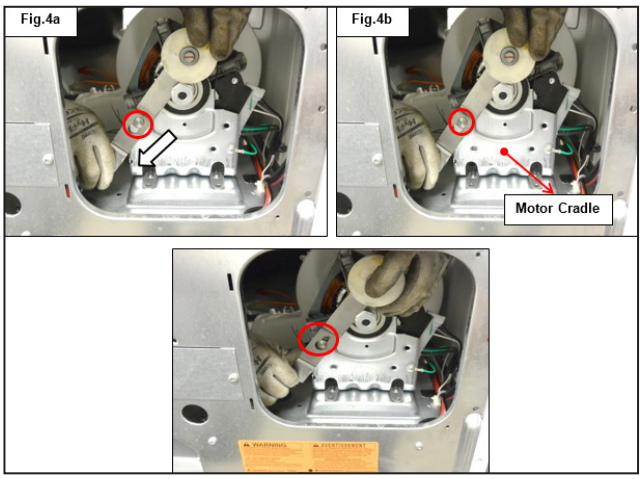
Step: 4

Loosen the Motor Cradle screws (2) fitted to the base panel of the dryer.



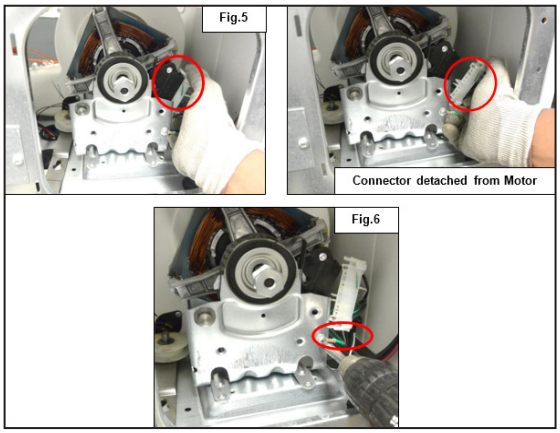
Step: 5

Remove the Idler Arm Assembly from the Motor Cradle (Motor support) Figs. 4a and 4b by unlocking from the pivot hinge.



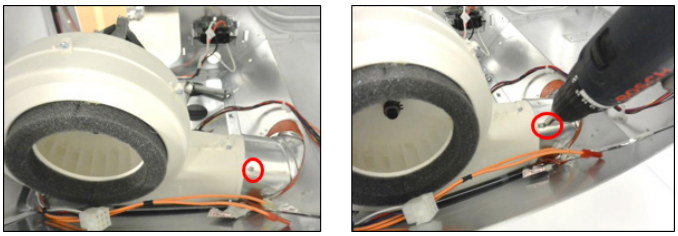
Step: 6

Detach the connector of the motor (See Fig. 5) and the earth terminal from the Motor Cradle (See Fig. 6).



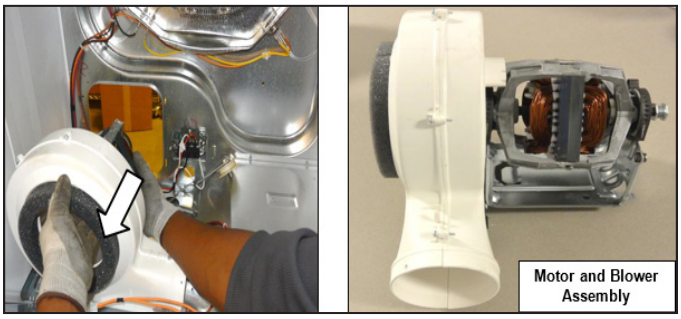
Step: 7

Loosen the screw that connects the Blower with the exhaust duct.



Step: 8

Pull out the Blower and the Motor Assembly from the Front Side of the machine.

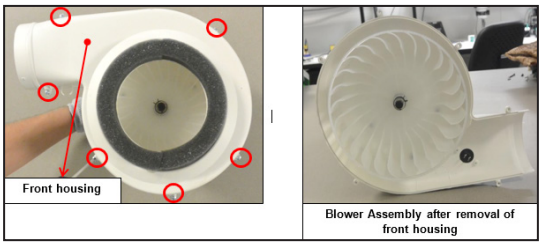


NOTE

To separate the motor from the Blower Assembly, follow these steps:

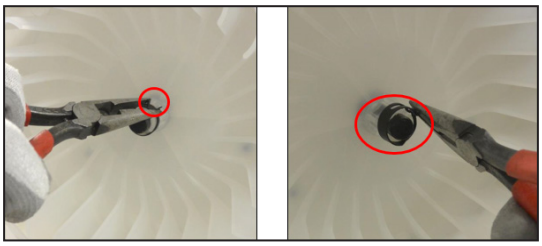
Step: 9

Loosen the screws (6) to remove the Front housing of the Blower.



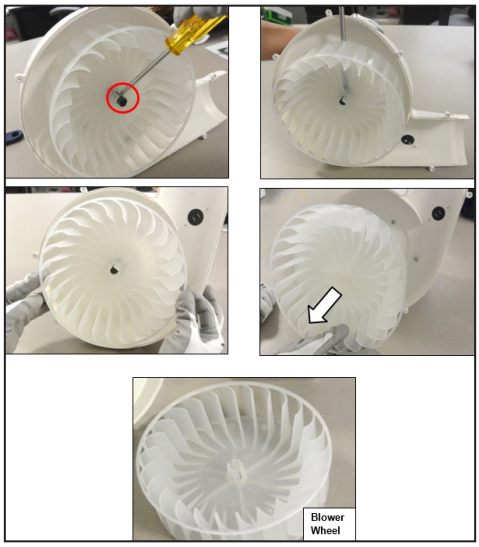
Step: 10

Remove the clamp that tightly holds the snaps of the Blower wheel with the Motor shaft.



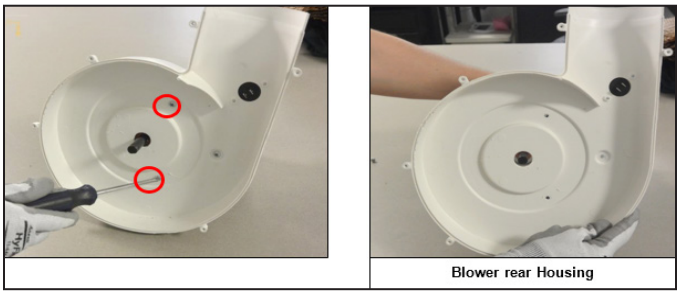
Step: 11

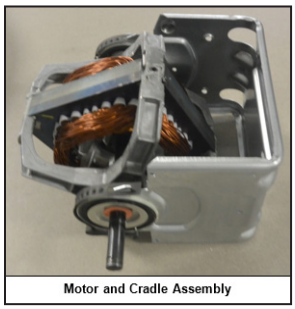
Detach the Blower wheel snaps to separate the Blower wheel from the Motor shaft.



Step: 12

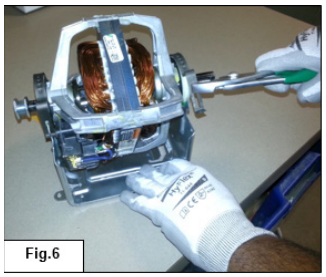
Loosen the screws (2) to remove the Motor and Cradle Assembly from the Blower rear housing.

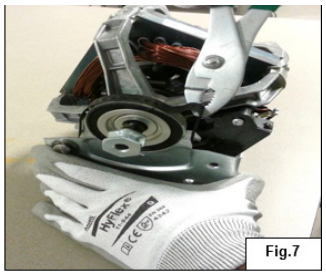


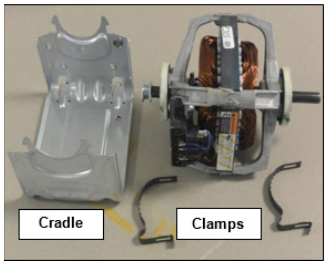


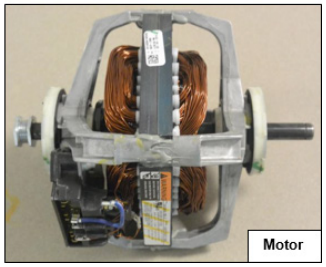
Step: 13

Remove the Motor clamps (2) with the help of the Plier, from the Cradle projection as shown in Figures (6 and 7).





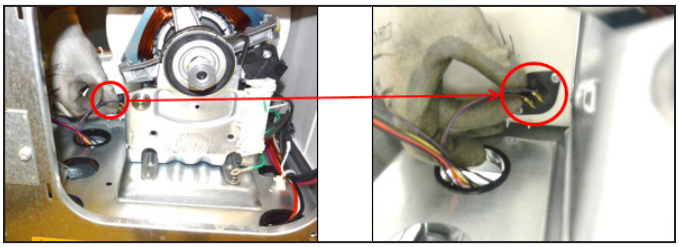




11.6.3 Exhaust Thermistor Accessibility

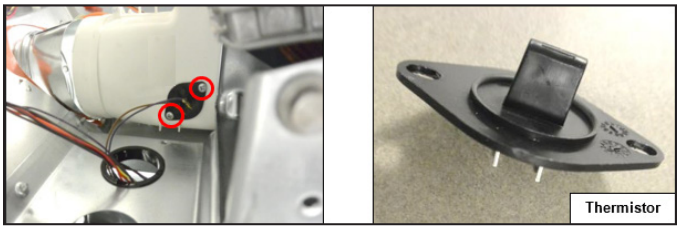
Step: 1

Detach the terminals of the Blower Exhaust Thermistor.



Step: 2

Loosen the screws (2) to remove the Blower Exhaust Thermistor.

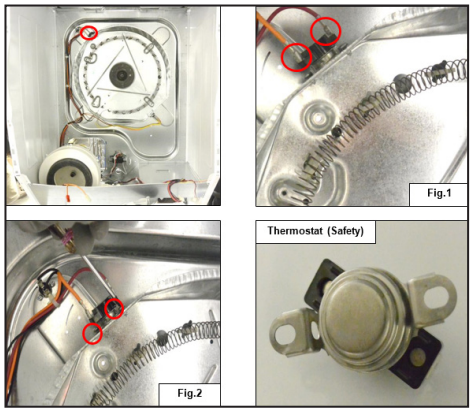


NOTE

1. To access the Exhaust Thermistor, access the Front Panel Assembly and the Drum.
2. Refer to the Front Panel Accessibility and Drum Accessibility sections for accessing the Drum and Front Panel Assembly.

11.6.4 Thermostat (Safety) Accessibility

Detach the Thermostat terminals (See Fig.1) and loosen the screws (2) (See Fig. 2) which is fixed with the Heating Element Assembly.

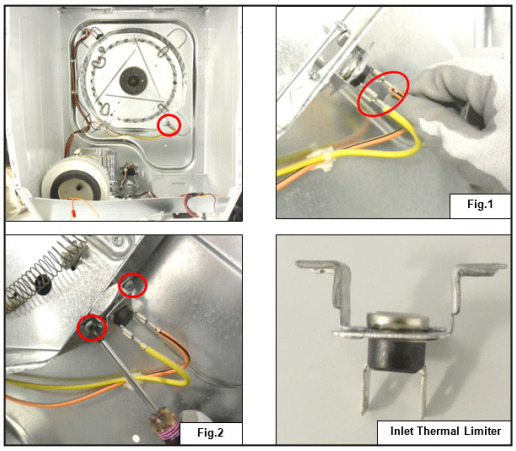


NOTE

1. To access the Thermostat Safety, access the Front Panel Assembly and the Drum.
2. Refer to the Front Panel Accessibility and Drum Accessibility sections for accessing the Drum and Front Panel Assembly.

11.6.5 Inlet Thermal Limiter Accessibility

Detach the Inlet Thermal Limiter terminals (See Fig.1) and loosen the screws (2) (See Fig. 2) that is fixed with the Heating Element Assembly.

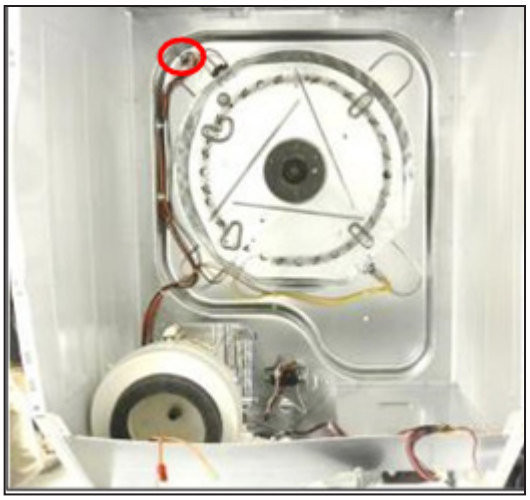


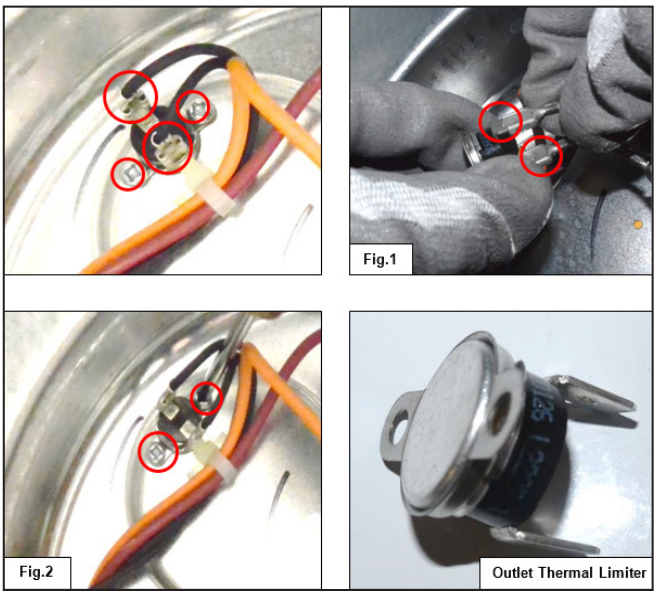
NOTE

1. To access the Inlet Thermal Limiter, access the Front Panel Assembly and the Drum has to be accessed.
2. Refer to the Front Panel Accessibility and Drum Accessibility sections for accessing the Drum and Front Panel Assembly.

11.6.6 Outlet Thermal Limiter Accessibility

Detach the Outlet Thermal Limiter terminals (See Fig.1) and loosen the screws (2) (See Fig. 2) that is fixed with the dryer Rear Panel.





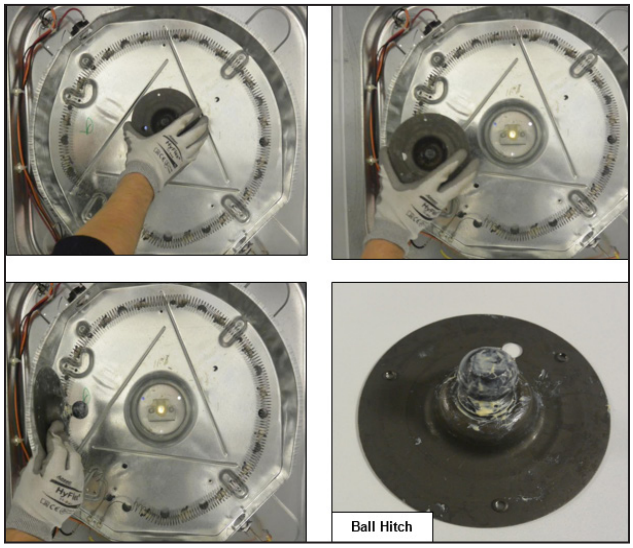
NOTE

1. To access the Outlet Thermal Limiter, access the Front Panel Assembly and the Drum.
2. Refer to the Front Panel Accessibility and Drum Accessibility sections for accessing the Drum and Front Panel Assembly.

11.7 Heater (Electric) Assembly Accessibility

Step: 1

Hold and lift the Ball Hitch (drum support) carefully to separate from the Heater Assembly.



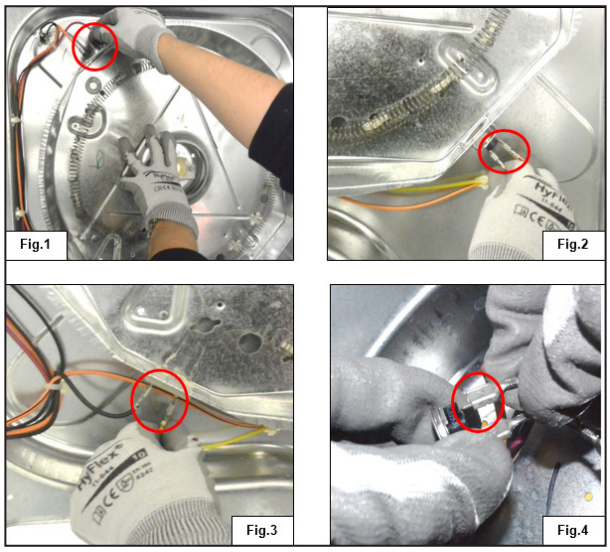
NOTE

Ball Hitch and Dryer Drum support are fixed with the same set of screws. Therefore, the Ball Hitch will be in a free state position when the dryer drum screws are loosened.

The Ball Hitch is a heavy component.Therefore, handle it with care while accessing.

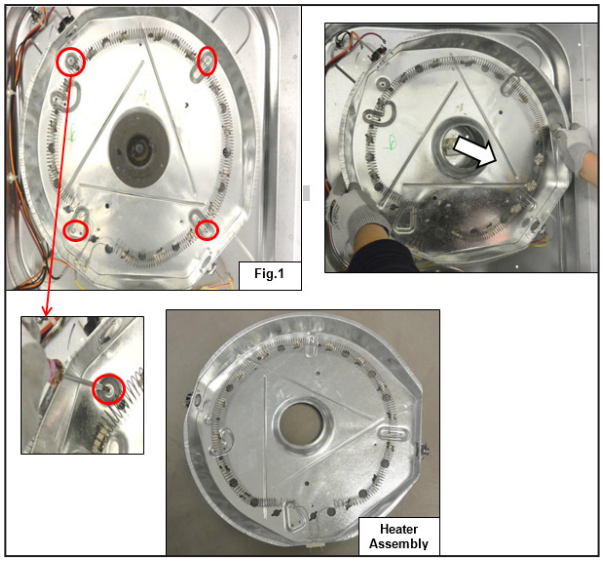
Step: 2

Detach the Thermostat (Safety) (See Fig.1), Inlet Thermal limiter (See Fig. 2), Heater Assembly Terminal block (See Fig. 3) and Outlet Thermal Limiter (See Fig. 4) terminals.



Step: 3

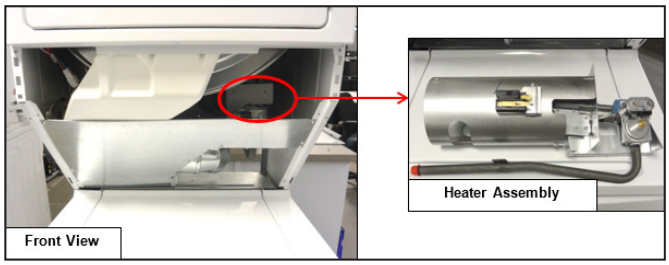
Loosen the screws (4) (See Fig.1) of Heater Assembly that is fixed with the Dryer Rear Panel and carefully take out the Heater Assembly.



NOTE

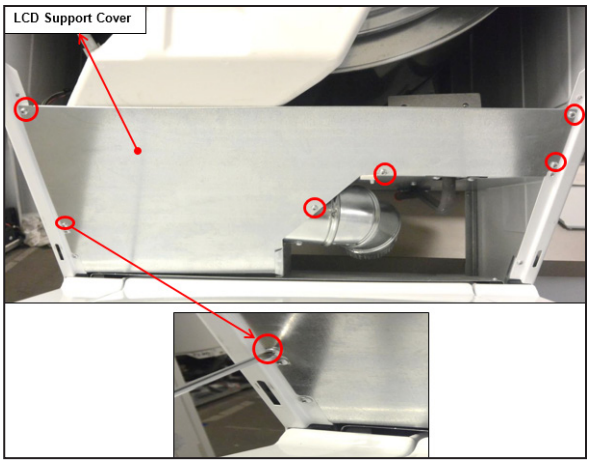
1. **To access the Heater Assembly, access the Front Panel Assembly and the Drum.**
2. **Refer to the Front Panel Accessibility and the Drum Accessibility sections for accessing the Drum and Front Panel Assembly.**

11.8 Heater (Gas) Assembly Accessibility



Step: 1

Loosen the LCD Support Cover screws (6) which is fixed to the left Panel (2 screws), right Panel (2 screws) and Access area shield cover (2 screws).

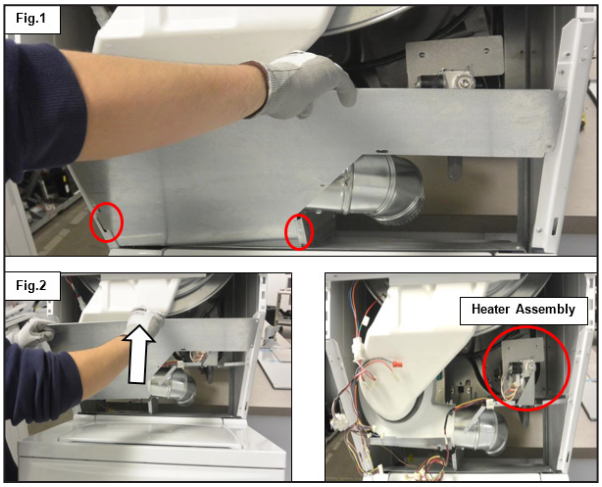


NOTE

Before the removal of the LCD Support Cover, remove the Access Panel. Refer to the Control Panel Accessibility section.

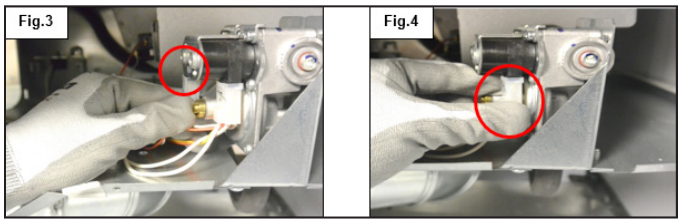
Step: 2

Slide and pull out the LCD Support Cover as shown in Figs. 1 and 2.



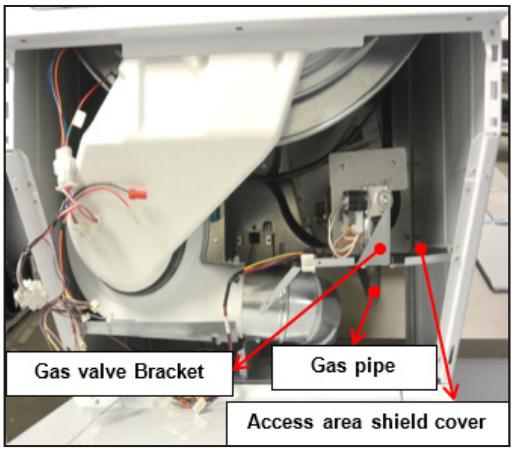
Step: 3

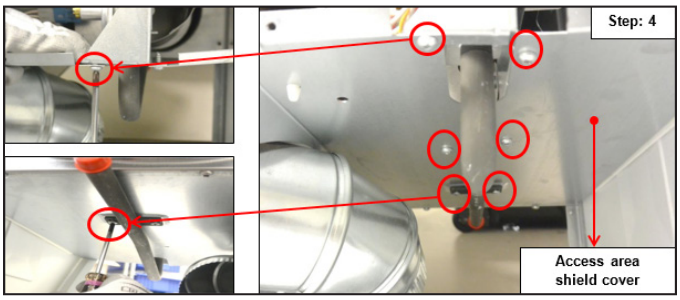
Detach the connectors from the Solenoid Gas valve, that is Secondary coil, Booster coil, Figs. 3 and 4.



Step: 4

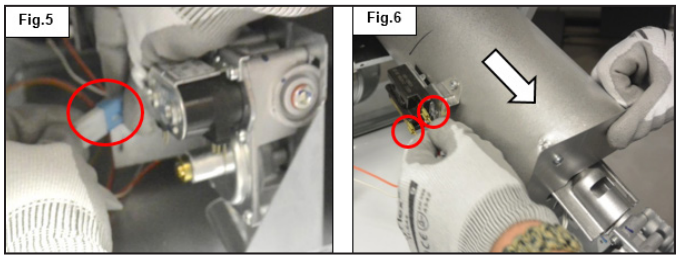
Loosen the Gas valve Bracket screws (4) and Gas pipe screws (2) which are fixed with the Access area shield cover.

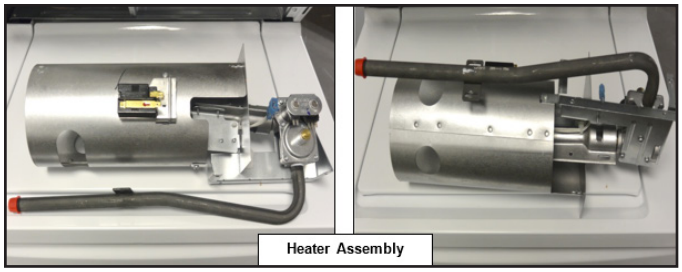




Step: 5

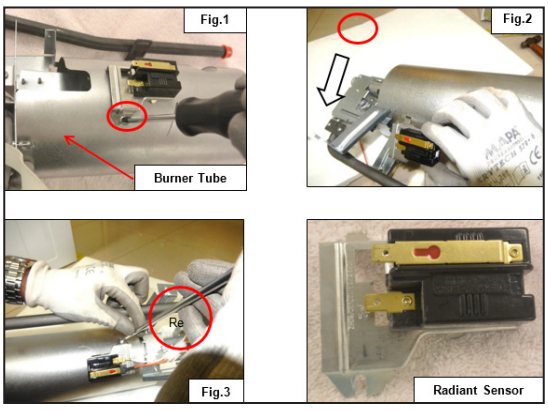
Detach the connector (See Fig. 5) and pull out the Heater Assembly. Then detach the Radiant Sensor terminals (2) (See Fig. 6) while taking the Gas Assembly outside.





11.8.1 Radiant / Flame Sensor Accessibility

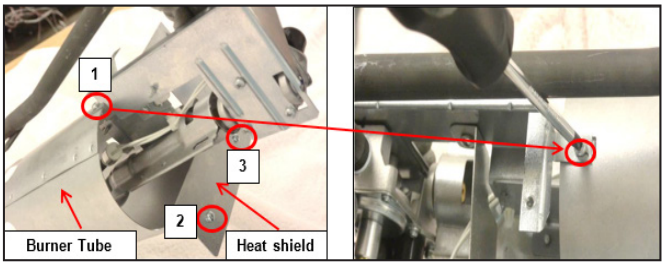
Remove the screw (See Fig.1) of the Radiant Sensor that fits with the Burner Tube. Also remove the clamp (See Fig. 2) and then detach the terminals (See Fig. 3) to separate the Radiant Sensor.



11.8.2 Igniter Accessibility

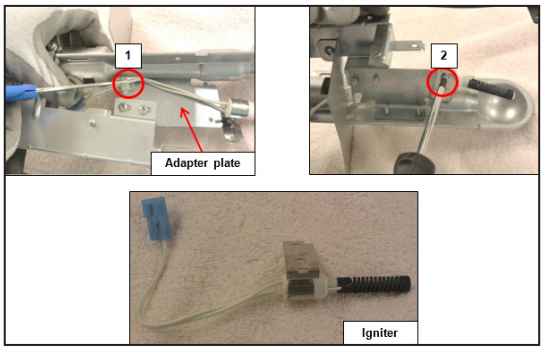
Step: 1

Loosen the screws of the Heat shield (1, 2 and 3) which is fitted with the Burner Tube.



Step: 2

Remove the wire clip (1) and loosen the screw (2) from the Adapter plate to separate the igniter.

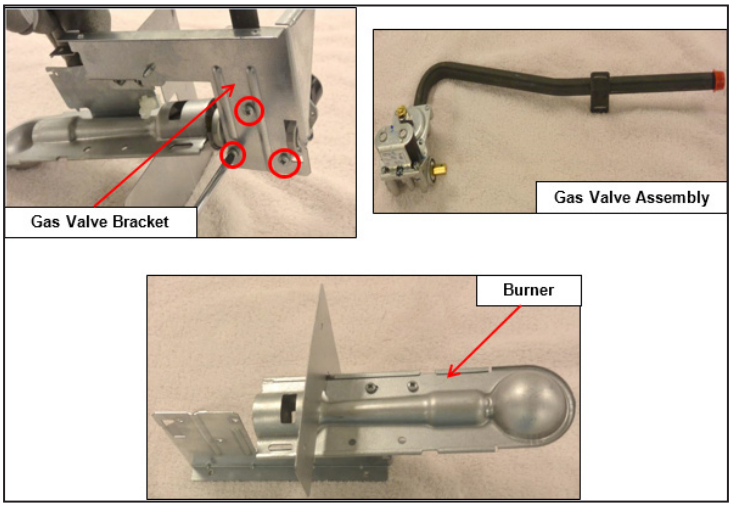


NOTE

The Igniter material is soft and brittle. Handle it with care.

11.8.3 Gas Valve Assembly Accessibility

Loosen the Gas Valve Bracket screws (3) to separate the Gas Valve Assembly.



12. Diagnostic System – FFLE3911QW and FFLG4033QW (DRYER)

This information is intended for qualified technicians only.

> **⚠ CAUTION**
>
> DISCONNECT ELECTRICAL CURRENT BEFORE SERVICING.

Acronym Table

CW - Clockwise

CCW - Counter Clockwise

COLD POWER ON - When the unit is powered for the first time

UI - User Interface / Central LED board

FSD - Free Stand Dryer

LC - Laundry Center

NO - Normally Open

NTC - NTC Thermistor

MCF - Machine Configuration File

DIAGNOSTIC MODE

The diagnostic test is used to check the individual component function only.

TO START THE TEST

To start the test, follow the procedures mentioned below:

1. Place the Cycle Selector knob in position 0 (12 o'clock).

2. Place the Temperature Selector in the High position.

3. Place the Dryness Level Selector (for select models only) in High / Extra-Dry position.

4. Perform a Full Control Reset by pressing and holding the Cycle Selector knob for 6 seconds OR unplug the power cord. Wait for 5-8 seconds, and then reconnect the power cord OR switch ON the Cold-Power.

5. Within 15 seconds of the power reset (or power Up), with the Dryness Level Selector (if mounted) at the High position, turn the Cycle Selector to the Casual cycle, and the Temperature Selector to the left-most (highest temperature available) position, and press and release the Cycle Selector knob. There will be a short beep, and then turn the Temperature knob to the right-most position (lowest temperature available) and press and release the Cycle Selector knob. There will be another short beep, and then turn the Temperature Selector to the left-most (highest temperature available) position, and then press and release the Cycle Selector knob. This will give a two second beep to signal the unit is now in the Line Test Mode.

6. The following steps can be cycled through by turning the Cycle Selector knob clockwise.

NOTE

If the Diagnostic Mode cannot be entered even after the correct execution of Steps 1— 4, check the wiring and the edge connectors, i.e.; J7 (LC-Main Board), J7A (FSD-UI Board), J8 (LC-Main Board), J8A (FSD-UI Board), J10 (LC & FSD-Main Board), J10A (FSD_UI Board) and J9 (FSD-UI Board) and the edge connectors / wiring for the Dryness encoder and Cycle Selector. If the Diagnostic Mode is still not entered, replace them and retry. If that does not solve the problem, replace the UI (FSD) and / or Main Board (UI & FSD) and retry.

Factory Line-Test Mode

Diagnostic Mode (All Cycle Selector positions in this table are going clockwise from Position-0)			
Selector Position	**Encoder Positions**	**Test/Activated Components**	**Operator Check**
0	N/A	Status-LEDs/ 7- Segment (select models)/ Beeper Test	Normal Operation: Beeper:1s on-1s off-Repeats—255 Times**. LEDs On: Same pattern as beeper.
1	N/A	NTC Test	Check for the following beeper/LED pattern: A) Normal operation: 3s On-1s Off-1s On-1s Off-Repeat— 255 Times**. B) NTC-open: 0.25s On-0.25s Off- Repeats—255 Times**. C) NTC-short: 0.25s On-0.25s Off-0.25s On-3s Off- Repeats—255 Times**.
2	Temp Selector: Medium/Normal Rocker Switches (select models): ON	Motor + Heater	Check the Motor and Heater function: LEDs On: Drying and Cool-Down On.

Diagnostic Mode (All Cycle Selector positions in this table are going clockwise from Position-0)			
Selector Position	**Encoder Positions**	**Test/Activated Components**	**Operator Check**
3	A) Temp Selector: Low B) Rocker Switches (select models): OFF C) Dryness Level Selector Positions (select models): 1 - Max/High /Extra Dry 2- High/Normal /More Dry 3- Normal/Low/ Normal Dry 4- Low/Damp Dry 5-Damp	Contact Sensor (Operator will only be able to verify "1- " for models that have contact sensors but no Dryness Level Selector)	Contact Sensor Shorted: Beeper/LED Active Contact Sensor Open: Beeper/LED Inactive Dryness Level Selector Position: 1- Continuous Beep—655s On-0.25s Off- Repeats—255 Times**; Same LED Pattern. 2- 1s On-3s Off- Repeats—255 Times**; Same LED Pattern. 3- 1s On-1s Off-1s On-3s Off- Repeats— 255 Times**; Same LED Pattern. 4- 1s On-1s Off-1s On-1s Off-1s On-3s Off—Repeats—255 Times**;Same LED Pattern. 5- 1s On-1s Off-1s On-1s Off-1s On-1s Off-1s On-3s Off—Repeats—255 Times**; Same LED Pattern.
4	N/A	Error code display	Check error codes

** The repeating sequence will time out automatically after 255 times. To refresh the counter, change the cycle selector to a different position, while still in Diagnostic Mode and come back to the initially selected position.

7. Follow the instructions below to exit the Diagnostic Mode:

a. Unplug the power cord, wait for 5-8 seconds, and then reconnect the power cord.

b. Perform a Full Control Reset, by Pressing and Holding the Cycle Selector knob for 6 seconds.

c. Automatically exit the Diagnostic Mode if there is no change in the User Interface for 30 minutes.

Reading Error Codes

1. Error Codes can be viewed only in the Diagnostic Mode and when the Cycle Selector is in Position – 4 (See Diagnostic Modetable).

2. The error code recorded last will be displayed first.

3. Press the Start/Pause button to cycle through/view the last 5 error codes recorded.

4. Press and Hold the Cycle Selector Knob for 3 seconds to clear the error code(s).

ERROR CODE TABLE - FFLE3911QW and FFLG4033QW - (ELECTRIC and GAS DRYER)			
S.No	**Error Code**	**Fault Condition**	**Page No**
1	E31	Moisture Sensors (for models with moisture bars only)	121
2	E41	Door Open	122

NOTE

1. **1E followed by the numbers mean that it is the first error code recorded. Similarly 2E followed by the numbers mean that it is the second error code recorded and so forth.**
2. **1E through 5E— followed by two zeroes (1E->00, 2E->00... and others.. for models with digital-display) and No Flashing LED, and No Beeper means, no failure detected/none recorded.**

ERROR CODE TABLE - FFLE3911QW and FFLG4033QW - (ELECTRIC and GAS DRYER)			
S.No	**Error Code**	**Fault Condition**	**Page No**
3	E51	Motor Relay/Thermal Limiter/Locked Rotor/Motor Centrifugal-Switch 1/ Harness/Low Power Supply	123
4	E52	Motor Relay	125
5	E53	Motor Fault-- Motor Stopped in the middle of a cycle	126
6	E54	Centrifugal Switch 2/ Heater/Thermal Limiter-2/Wiring	127
7	E55	Motor Sensing failure on Main Board/ Heater/Thermal Limiter-2/Wiring	128
8	E56	Belt	128
9	E61	Heater Relay Failure	129
10	E62	Heating Timeout	130
11	E65	High Limit Thermostat trip count too high	131

ERROR CODE TABLE - FFLE3911QW and FFLG4033QW - (ELECTRIC and GAS DRYER)			
S.No	**Error Code**	**Fault Condition**	**Page No**
12	E67	Heater Sensing failure on Main Board	131
13	E71	NTC Failure	132
14	E72	NTC Failure	133
15	E81	Program Selector/Encoder	134
16	E82	Key-Stuck	134
17	E93	Software Configuration	135
18	E94	Software Configuration	135
19	E97	Software Configuration	135
20	EA1	Line Frequency	136
21	EA2	High_Line	136
22	EA3	Low_Line	137
23	EA5	Line Amplitude Sensing failure on Main Board	137

13. Troubleshooting Based on Alarm Codes – FFLE3911QW and FFLG4033QW (Dryer Model)

E31	**E31: Contact Sensor (Moisture Sensor) frequency is too high/low**	**E31**
	Main Board defective, short across sensor bars, wiring open, bars contacting bulk head, and foreign object interfering with contact sensors.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Check for any foreign object interfering with Contact Sensor?

YES → Remove the foreign object and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Check all the Contact Sensor wiring terminals are connected properly? (Connector J3)

NO → Connect it properly and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

Moisture sensor - Model FFLG4033QW

NOTE

Moisture Sensor is not applicable for Model FFLE3911QW

E41	E41: Door Open Door is open when cycle starts, Wiring, and Door Switch defective.	E41

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Check for any foreign object blockage on Door Switch?
- YES → Clean and repeat the Diagnostic Cycle to check for any further alarms.
- NO ↓

Check any obstacle in the door opening and closing?
- YES → Remove the obstacle and repeat the Diagnostic Cycle to check for any further alarms.
- NO ↓

Check the Door Switch wiring terminals are connected properly?
- NO → Make the connections proper and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Check the continuity between terminals of Door Switch (in closed condition). Continuity is there?
- NO → Change the Door Switch and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

Door Switch – Model FFLG4033QW

Door Switch – Model FFLE3911QW

E51	**E51: Motor Relay failure**	E51
	Motor Relay stuck open, locked rotor, harness, low power supply, Thermal Limiter – open, and Motor Centrifugal Switch -1 stuck open or closes.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Turn ON the dryer and measure the continuity between J2-1 and J2-2 Connectors of Electronic Control Board. Is continuity there?

NO → Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Measure resistance between the connectors J2 terminals of the Electronic Control Board and the appliance body. **(See Fig. 1)** Is Resistance value not "0"?

NO → Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Detach the connectors and measure between the terminals (5, 4 & 3) of motor and the earth contact. **See Figures (2 and 3)** Is Resistance value not "0"?

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Detach the connectorfrom the Motor and measure the resistance between terminals (5 4 & 3).Check Resistance value are in between "2.6 Ω to 3.2 Ω"? **See Figures. (4 and 5)**

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check Inlet Thermal Limiter for the continuity?

NO → Replace Inlet Thermal Limiter repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check the Centripetal Switch of Motor is working mechanically (stuck in open or closed position)?

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms..

YES ↓

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

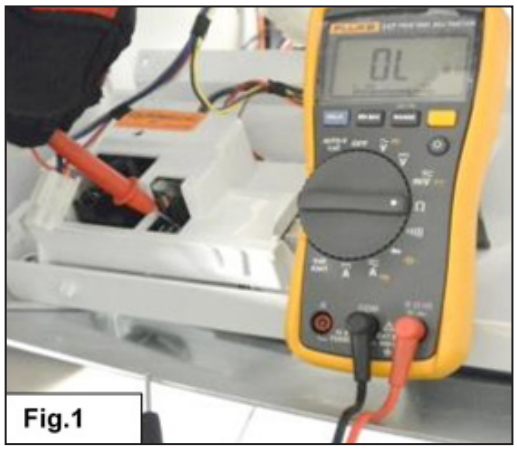


Fig.1

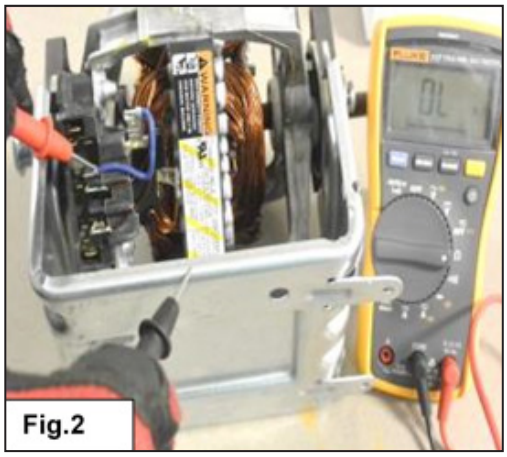


Fig.2

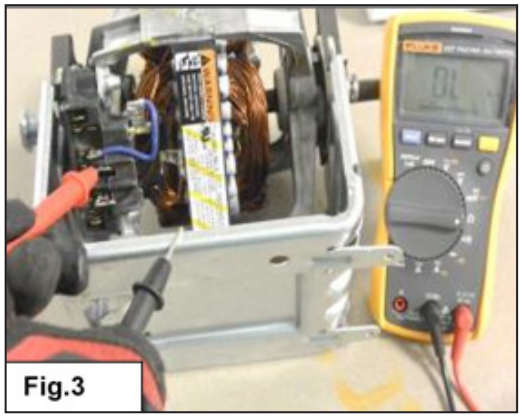


Fig.3

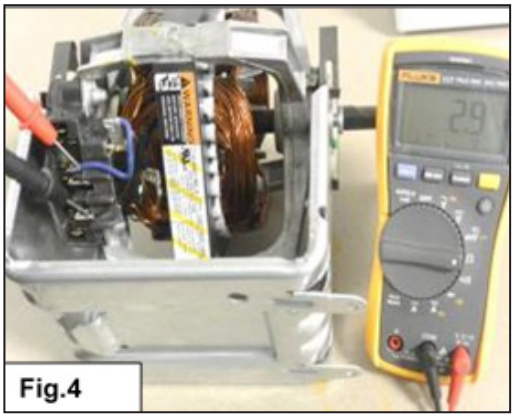


Fig.4

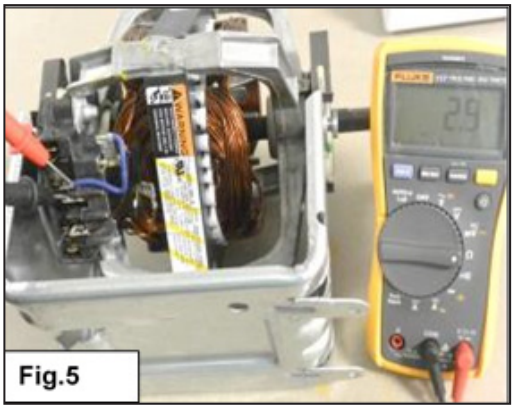
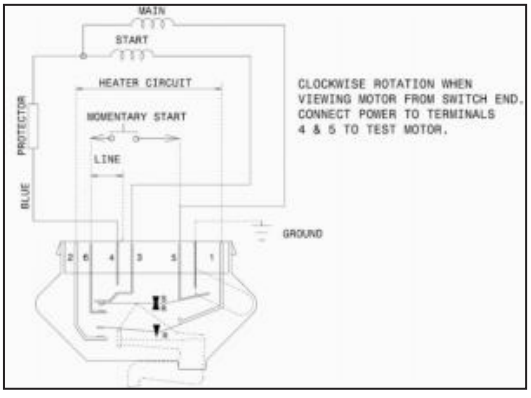


Fig.5


MAIN
START
HEATER CIRCUIT
MOMENTARY START
LINE
PROTECTOR
BLUE
GROUND
CLOCKWISE ROTATION WHEN VIEWING MOTOR FROM SWITCH END. CONNECT POWER TO TERMINALS 4 & 5 TO TEST MOTOR.

E52	**E52: Motor Relay Stuck Close**	E52
	Motor relay stuck close and main board defective.	

Checks to perform:

> **WARNING**
> Check that all the connectors are correctly inserted

Turn ON the dryer and measure the continuity Between J2-1 and J2-2 Connectors of Electronic Control Board. Is continuity there?

NO → Replace the Electronic control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Measure resistance between the connectors J2 terminals of the main circuit board and the appliance body. **(See Fig. 1)** Is Resistance value not "0"?

NO → Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Detach the connectors and measure between the terminals (5, 4, and 3) of motor and the earth contact. **See Figures (2 and 3)** Is Resistance value not "0"?

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check if wiring between Electronic Control Board and Motor is properly connected?

NO → Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

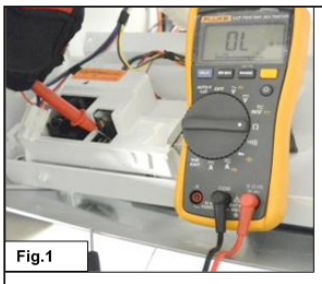


Fig.1

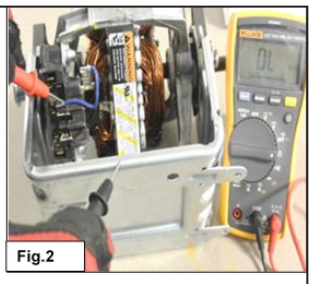


Fig.2

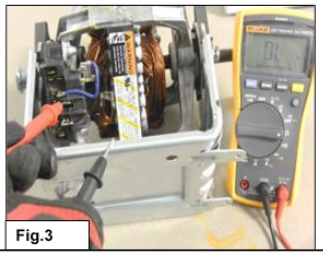


Fig.3

E53	**E53: Motor Fault- Motor Stopped in the middle of a cycle**	E53
	Motor Protector Open, Laundry Load too heavy and wiring problem.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Check the power supply is as per product specifications.

NO → Provide required power supply and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check there is overload of laundry in dryer?

YES → Make the laundry as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Remove the laundry and check whether the drum turns freely without posing any resistance. Is the drum having any difficulty in rotating? **(See Fig .1)**

YES → Check if the friction is caused by the motor or by the tub bearings **(See Fig. 2).** Replace the defective component. After clearing any obstacles wait till the motor is cool because thermal protector may take 30 minutes to reset (thermal protector may be tripped because of motor overheating). Repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Detach the connector from the motor and measure the resistance between terminals (5 & 4) Check Resistance value are in between "2.6 Ω to 3.2 Ω" ? **(See Fig. 3)**

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check / Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

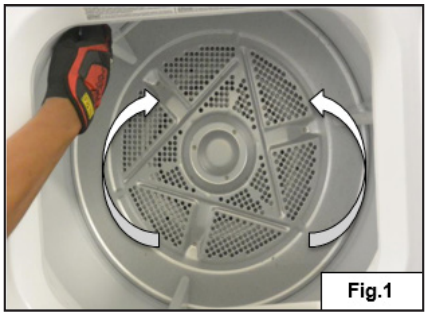


Fig.1

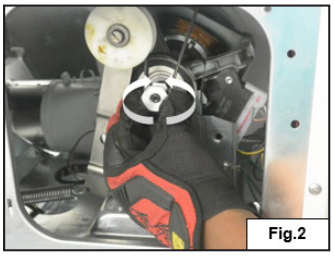


Fig.2

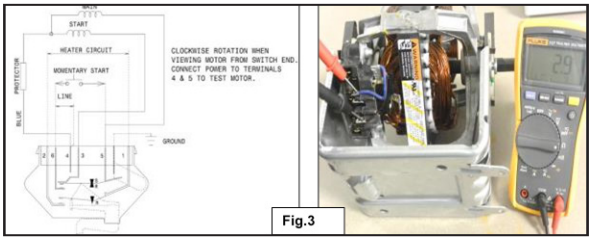


Fig.3

E54	**E54: Motor Centrifugal Switch 2, Heater, Thermal Limiter-2, Wiring failure**	**E54**
	Centrifugal Switch 2 stuck open (domestic electric only), Heater open or horted to ground, Thermal Limiter 2 open (domestic electric only), Centrifugal Switch 2 stuck closed (domestic electric only) and wiring.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Check for the continuity between Motor Terminals (1 & 2). Is continuity there?

YES → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Detach the connector from the Motor and measure the resistance between terminal 5 & 4 Check Resistance value are in between "2.6 Ω to 3.2 Ω" ? **(See Fig.1)**

NO → Replace the motor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Measure between all the terminals of Heating Element and the appliance body: Is Resistance value not "0"? **(See Fig.2)**

NO → Replace the Heater and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Measure the resistance between the terminals of Heating Element and check whether it is between 11 Ω ± 10% at room temperature (20-25°C) **(See Fig.3)**

NO → Replace the Heater and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check Inlet Thermal Limiter for continuity.Is continuity there?

NO → Replace the Inlet Thermal Limiter and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

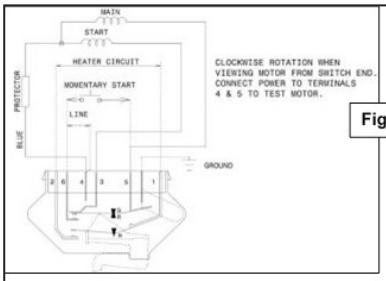


Fig.1

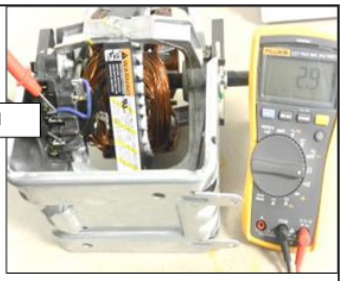


Fig.2

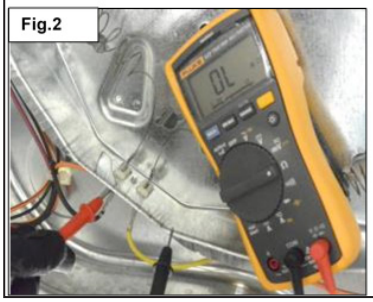
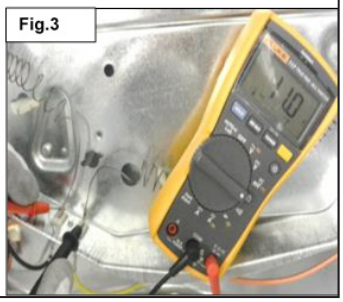


Fig.3



E55	**E55: Motor Sensing Failure on Main Board**	**E55**
	Electronic Control Board defective	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E56	**E56: Belt Fault**	**E56**
	Belt Broke and Loose Belt	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Check the belt. Replace the belt if found broken or loose and repeat the Diagnostic Cycle to check for any further alarms.

E61	**E61: Heater Relay Failure**	E61
	Heater relay stuck open or closed and defective wiring	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Measure resistance between the connectors RELAY COM and RELAY NO terminals of the Electronic control board . **(See Fig. 1)** Is Resistance value not "0"?

NO → Replace the Control board and repeat the Diagnostic Cycle to check for any further alarms.

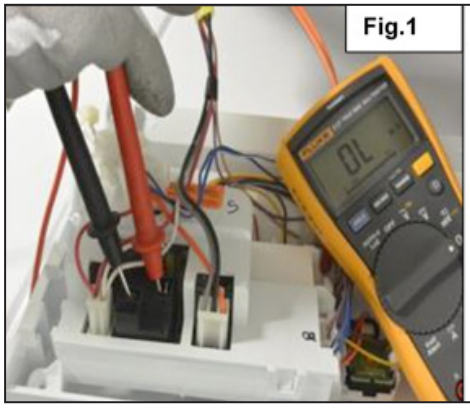
YES ↓

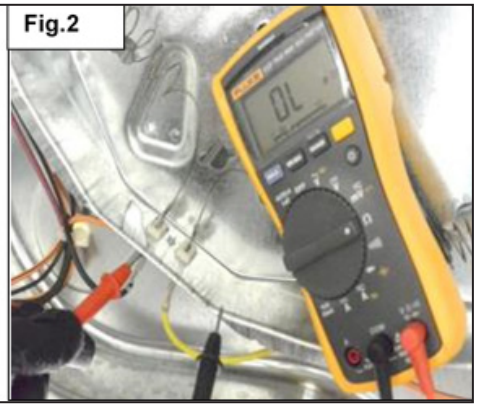
Detach the connectors and measure between the heating element and the earth contact. **(See Fig.2)** Is Resistance value not "0"?

NO → Replace the heating element and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check / Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.





E62	E62: Heating timeout	E62
	Thermal Limiter 2 open (Domestic GAS only and international electrical only)	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Check if any foreign material restricting the passage of air in Vent. **(See Fig. 1)**

NO → Clean the ventilation and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check if Resistance between the terminals of heating coil is 11 Ω ± 10%. **(See Fig. 2)**

NO → Replace the Heater and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check Thermal limiter 2 (Inlet Thermal Limiter) for continuity. Continuity is there?

NO → Replace the Thermal Limiter 2 and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Electronic Control board and check for any further alarms.

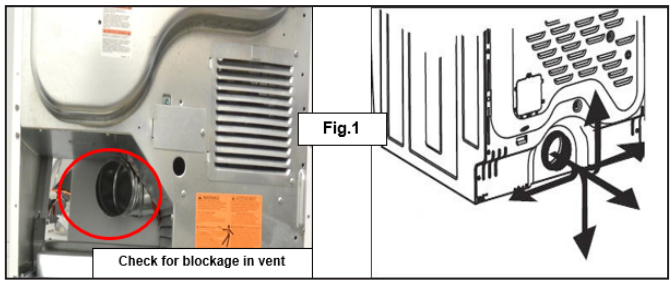


Fig.1

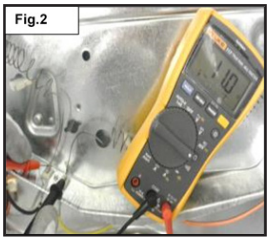


Fig.2

E65	**E65: High Limit Thermostat trip count is too high**	E65
	Excessive exhaust blockage, high limit thermostat defective and wiring failure.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Check whether the ventilation of the dryer is proper? **(See Fig.1)**

NO → Clean the ventilation and repeat the Diagnostic Cycle to check for any further alarms

YES ↓

Check the Inlet Thermal Limiter for the continuity?

NO → Replace the Inlet Thermal Limiter. Repeat the Diagnostic Cycle to check for any further alarms.

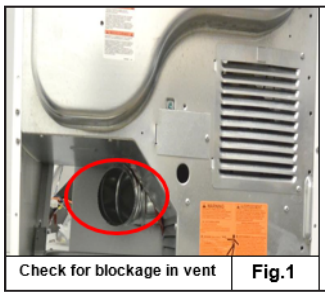
YES ↓

Check whether the Exhaust vent system is proper (there should not be any air blockage)?**(See Fig.2)**

NO → Remove the air blockage and make the exhaust vent system proper and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace/Repair the High Limit Thermostat and repeat the Diagnostic Cycle to check for any further alarms.



Check for blockage in vent **Fig.1**

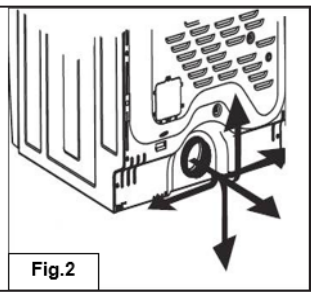


Fig.2

E67	**E67: Heater Sensing failure**	E67
	Electronic Control Board defective	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E71	E71: NTC Open Circuit	E71
	NTC open circuit, wiring and main board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Measure the value of the Exhaust Thermistor between terminals of J4 wiring connector. Is the value correct? (Between 47 KΩ –66 KΩ at 20° to 25°C) **(See Fig.1)**

NO

Detach the connector and measure directly on the Exhaust Thermistor. Is the value correct? (Between 47 KΩ – 66 KΩ at 20° to 25°C) **(See Fig.2)**

NO

Replace the Thermistor and repeat the Diagnostic Cycle to check for any further alarms.

YES

Check/Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES

Check if wiring between the Electronic Control Board and the Outlet Control Thermistor is properly connected?

NO

Check/Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

Fig.1

Fig.2

E72	**E72: NTC Closed Circuit**	E72
	NTC Closed Circuit, and Wiring or Main Board Defective	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Measure the value of the Thermistor between terminals of J4 wiring connector. Is the value correct? (Between 47 KΩ – 66 KΩ at 20° to 25°C) **(See Fig.1)**

NO → Detach the connector and measure directly on the Thermistor. Is the value correct? (Between 47 KΩ – 66 KΩ at 20° to 25°C) **(See Fig. 2)**

NO → Replace the Thermistor and repeat the Diagnostic Cycle to check for any further alarms.

YES → Check/Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES → Check Wiring for short circuit across the Thermistor connections and whether it is proper?

NO → Check/Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES → Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

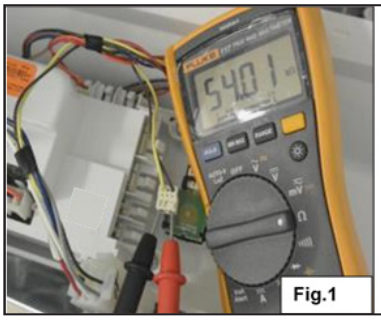


Fig.1

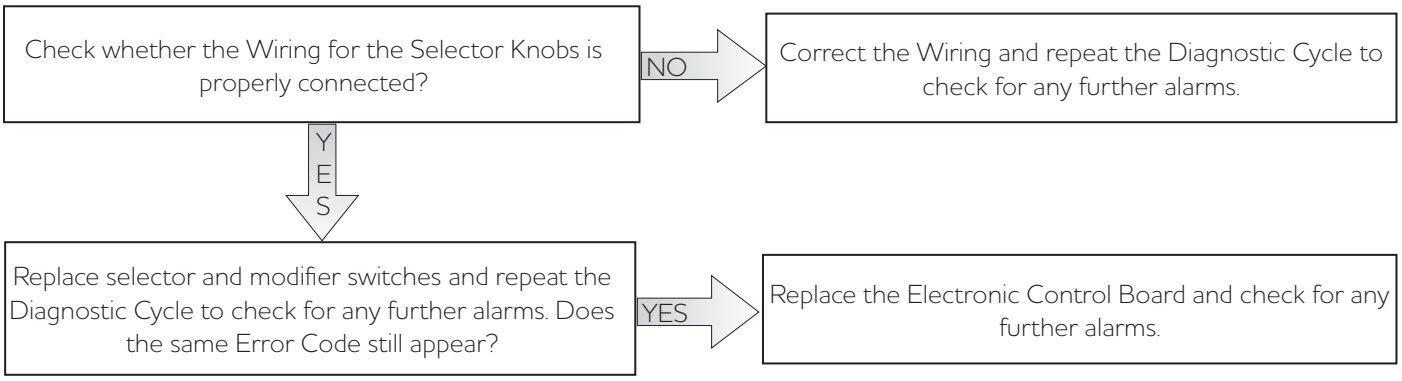
Fig.2

E81	**E81: Program selector / Encoder fault**	E81
	Main Board, wiring, Encoder and cycle selector/software faulty.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

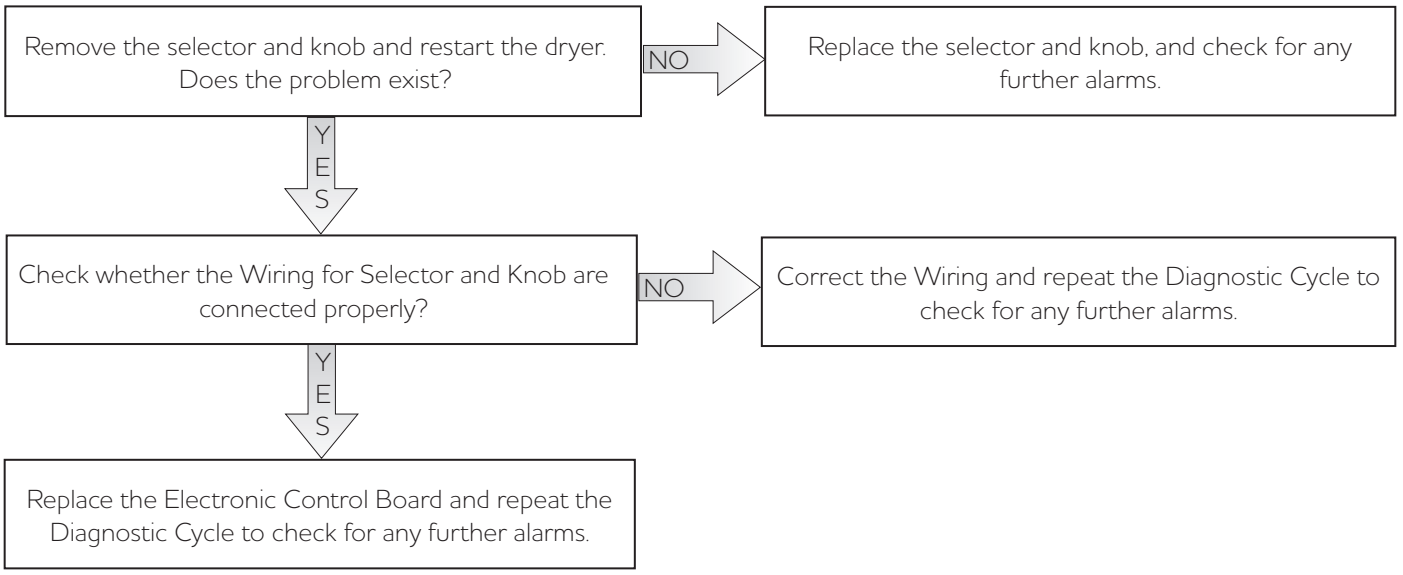


E82	**E82: Key stuck**	E82
	Key Stuck error, wiring, cycle selector switch, main board and software defect.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted



E93	**E93: Software Configuration error** Wrong MCF data loaded	E93

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E94	**E94: Software Configuration error** Microprocessor corrupted	E94

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E97	**E97: Software Configuration** Wrong MCF data loaded cycle selector switch failure.	E97

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

Replace Cycle Selector Switch and retry if the problem still exists, replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

EA1	EA1: Main supply Frequency out of Range	EA1
	Power supply frequency out of configured range. (46 – 54Hz for 50Hz system and 56-64Hz for 60Hz system)	

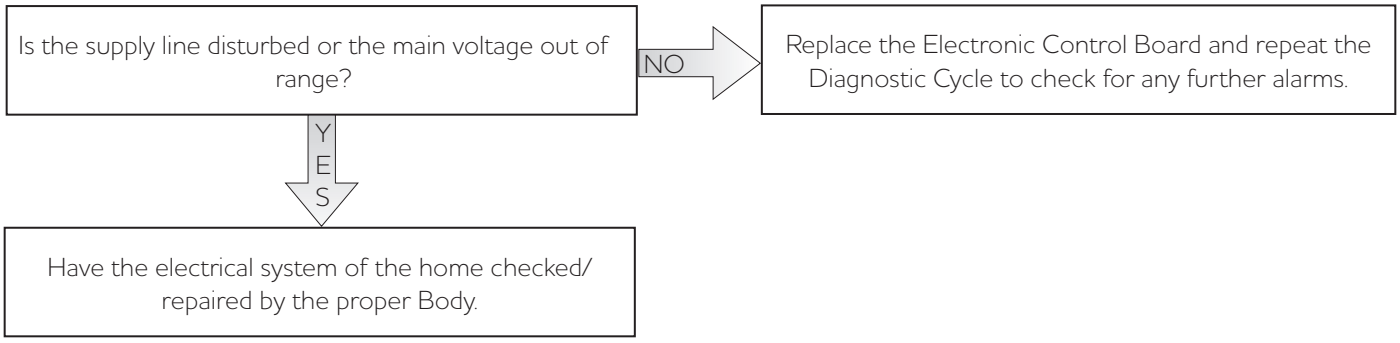
Checks to perform:

WARNING

Check that all the connectors are correctly inserted

IMPORTANT

The appliance remains in alarm status until the mains frequency returns to the correct values or the appliance is switched Off. Only the family of the alarm is displayed and the Diagnostics Mode cannot be accessed. The complete alarm can only be read when the situation has normalized.



EA2	EA2: Voltage too high	EA2
	Line voltage too high or Electronic Control Board fault.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted

IMPORTANT

The appliance remains in alarm status until the mains frequency returns to the correct values or the appliance is switched Off. Only the family of the alarm is displayed and the Diagnostics Mode cannot be accessed. The complete alarm can only be read when the situation has normalized.

Is the supply line disturbed or the main voltage out of range? **(V>264V**rms **for 240V system, (V>138V**rms **for 120V system**

NO → Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Have the electrical system of the home checked/ repaired by the proper Body.

EA3	**EA3: Voltage too Low**	**EA3**
	Line voltage too Low or Electronic Control Board fault.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

IMPORTANT

The appliance remains in alarm status until the mains frequency returns to the correct values or the appliance is switched Off. Only the family of the alarm is displayed and the Diagnostics Mode cannot be accessed. The complete alarm can only be read when the situation has normalized.

Is the supply line disturbed or the main voltage out of range? **(V<180V**rms **for 240V system, (V<90V**rms **for 120V system**

NO → Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Have the electrical system of the home checked / repaired by the proper Body.

EA5	**EA5: Line amplitude sensing failure on main board**	**EA5**
	Main board, microprocessor and software corrupted.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

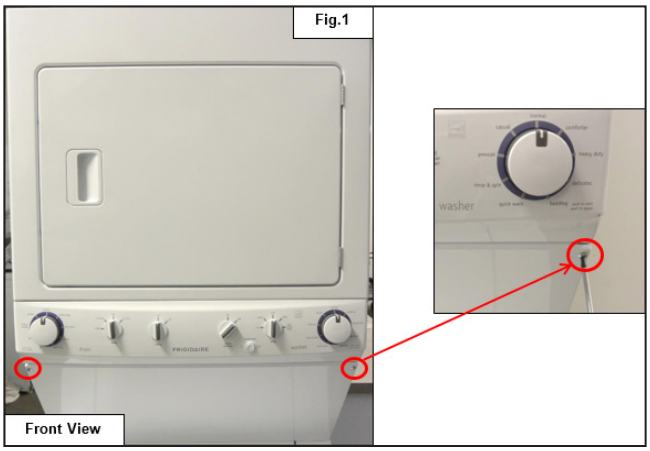
Replace the Electronic Control Board and repeat the Diagnostic Cycle to check for any further alarms.

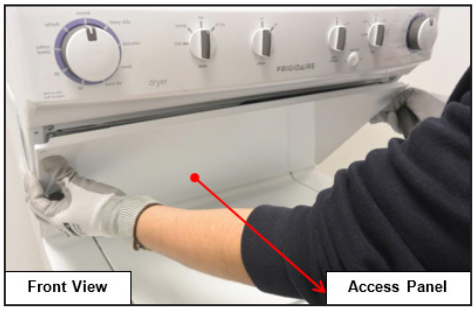
14. Electrical Component Accessibility - FFLE3911QW and FFLG4033QW (Washer)

14.1 Control Panel Accessibility

Step: 1

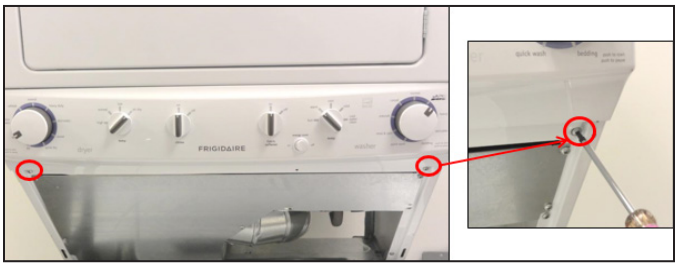
Loosen the screws (2) (Fig.1) that fixes with left and right Panel of the Laundry Center Dryer to remove access panel.





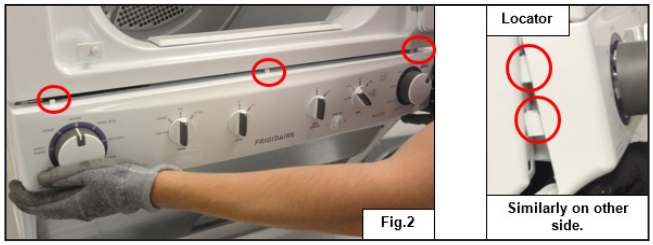
Step: 2

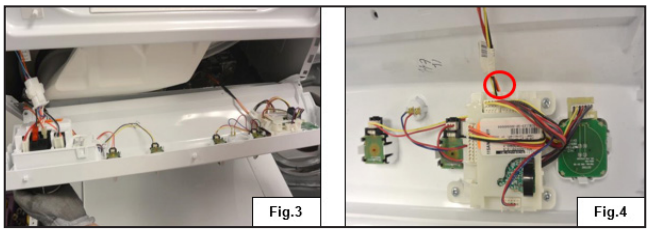
Loosen the Control Panel screws (2) that fixes with the left and right panel of the Laundry Center Dryer.

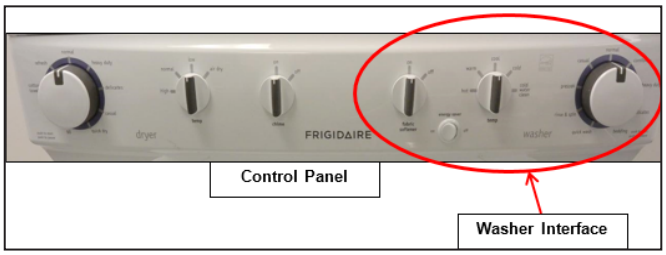


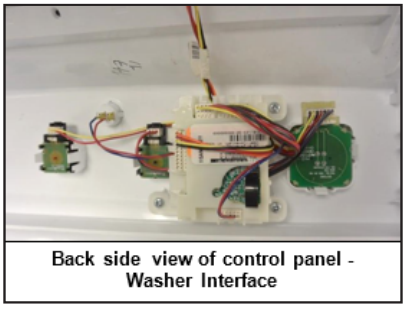
Step: 3

Hold the Control Panel at the bottom and pull it out Figs. 2 and 3, then detach the connector (See Fig. 4) to remove the Control Panel.





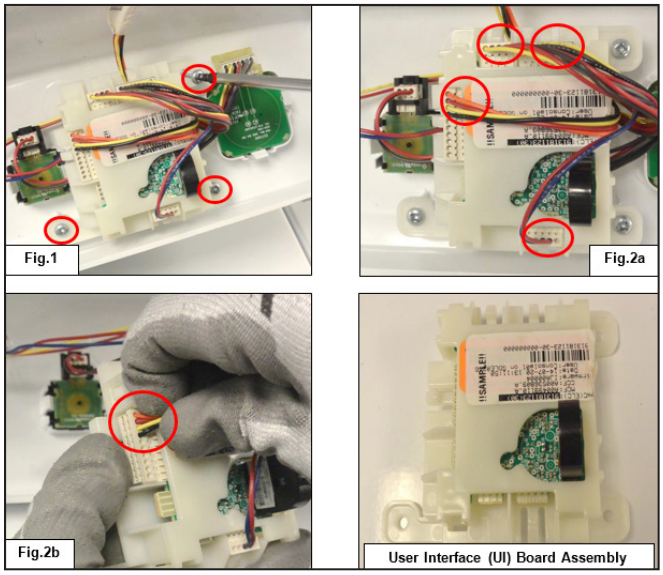


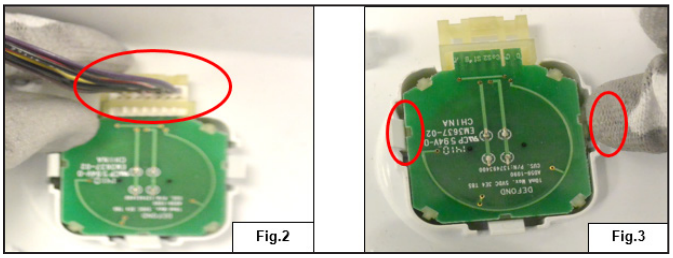


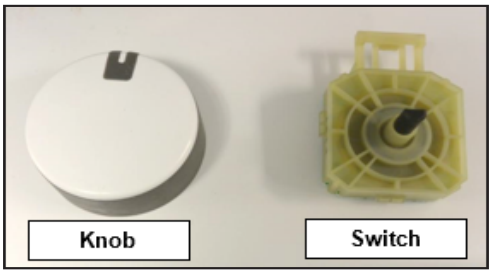
14.1.1 User Interface (UI) Board Accessibility

Step: 1

Loosen the Screws (3) from the Control Panel console (See Fig.1) and then detach the connectors Figs. 2a and 2b to separate the Washer User Interface (UI) Board Assembly from the Control Panel console.



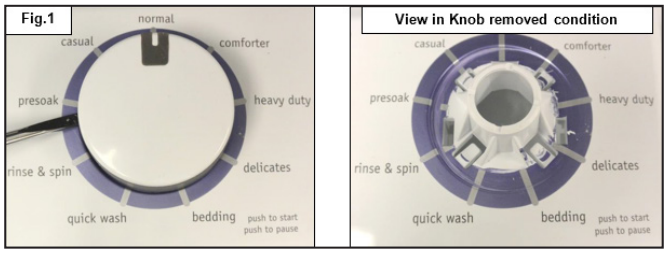




14.1.2 Program Selector Accessibility

Step: 1

Remove the Program Selector knob from the console as shown in Fig.1.



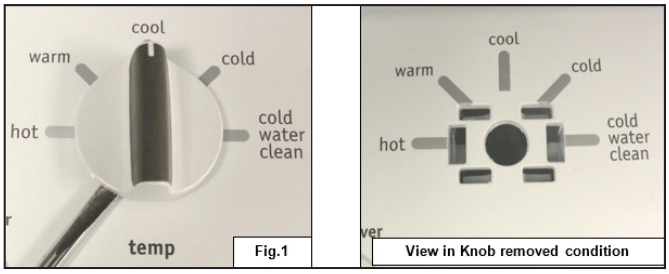
Step: 2

Detach the connector from the Cycle Selector Switch (See Fig. 2), and then unfasten the snaps (2) to remove the switch from the console (See Fig. 3).

14.1.3 Temperature Selector Accessibility

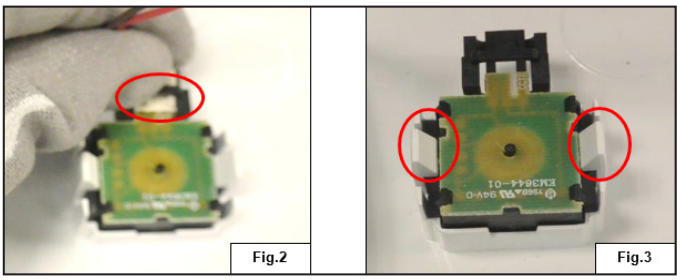
Step: 1

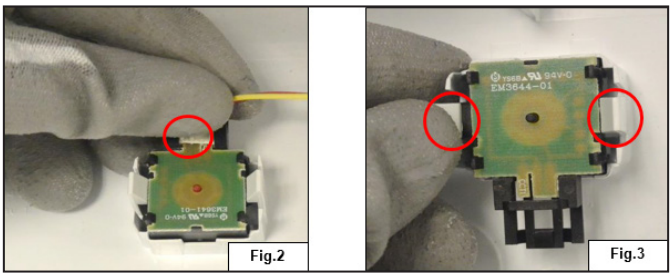
Remove the Temperature Selector knob from the console as shown in Fig.1.

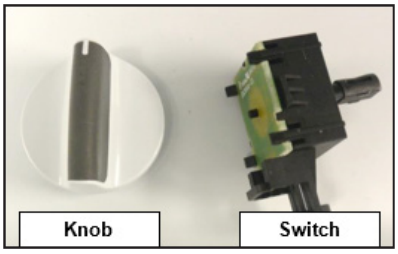


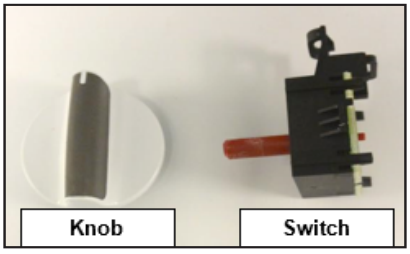
Step: 2

Detach the connector from the Temperature Selector Switch (See Fig. 2) and unfasten the snaps (2) to remove the switch from the console (See Fig. 3).





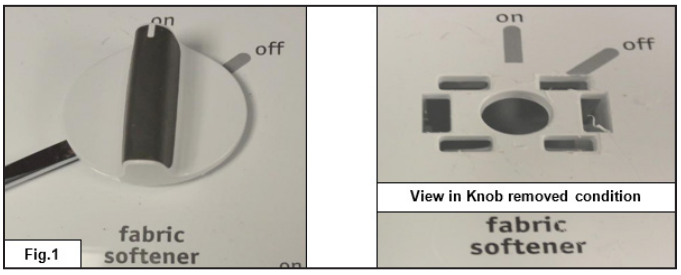




14.1.4 Fabric Softener Accessibility

Step: 1

Remove the Fabric Softener knob from the console as shown in Fig.1.



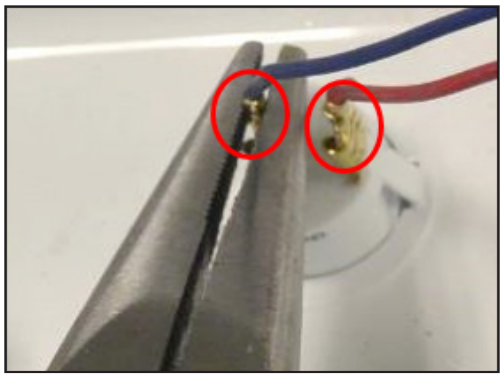
Step: 2

Detach the connector from the Softener switch (See Fig. 2), and then unfasten the snaps (2) to remove the switch from the console (See Fig. 3).

14.1.5 Energy Saver Switch Accessibility

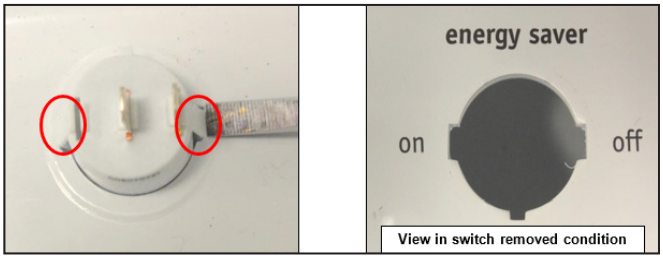
Step: 1

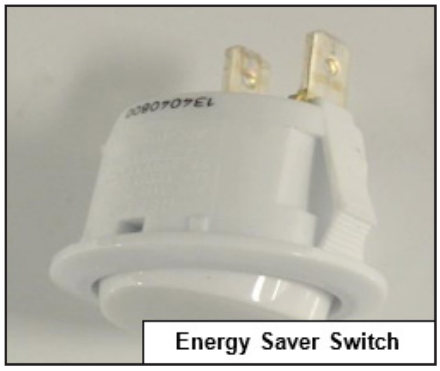
Detach the Energy Saver Switch terminals.



Step: 2

Press the snaps and pull out the switch from the Control Panel console.

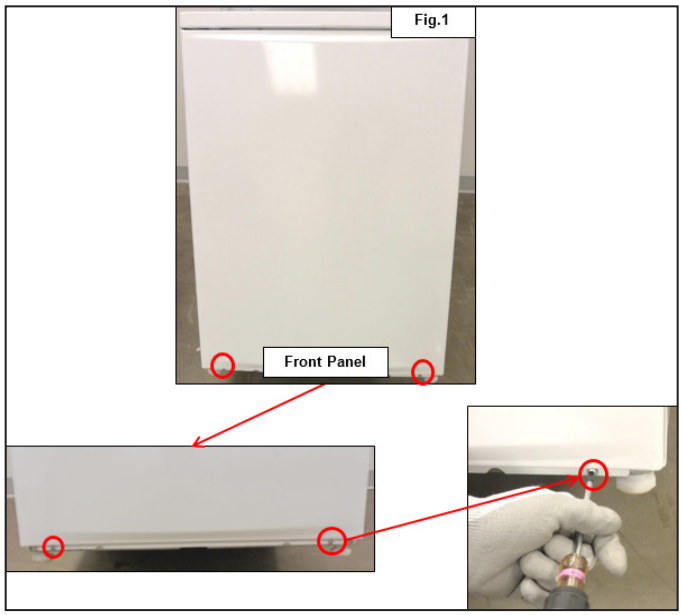




14.2 Front Panel Accessibility

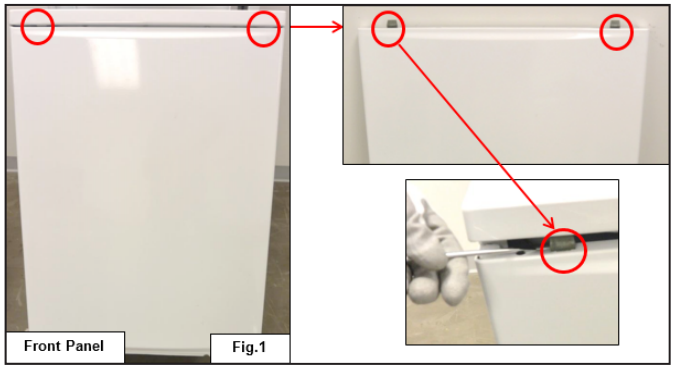
Step: 1

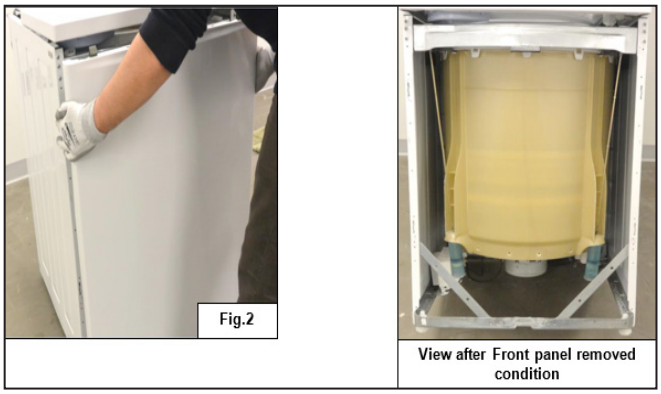
Loosen the screws (2) which are fitted to the Base Assembly Bracket (See Fig.1).



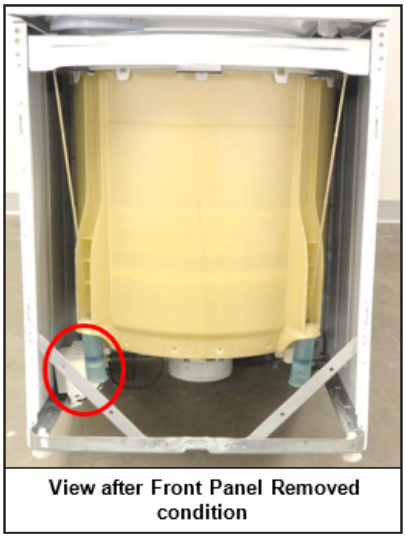
Step: 2

Release the clip that fits in the pocket of the Top Panel (See Fig.1), and then lift the Front Panel to remove the panel from the machine (See Fig. 2).



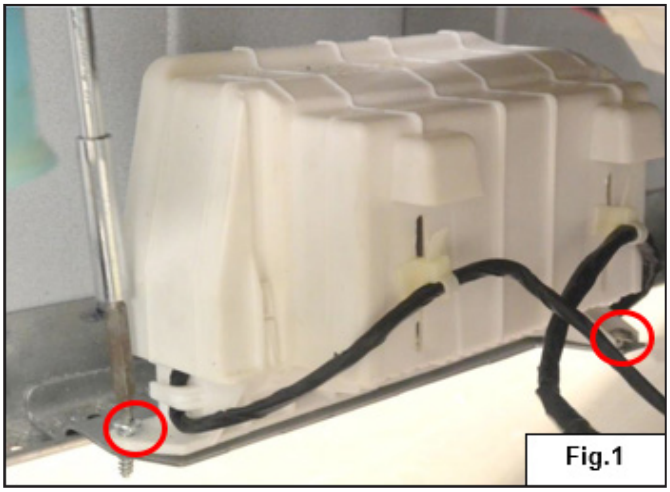


14.3 Motor Control Board Accessibility



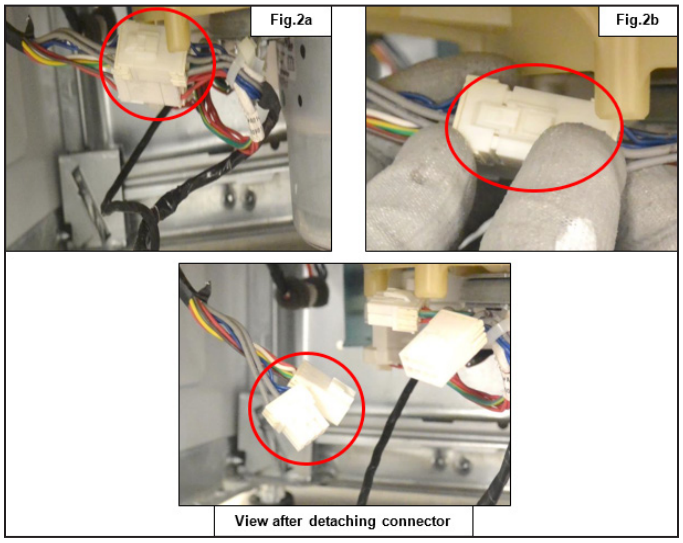
Step: 1

Loosen the screws (2) that fits with the Bracket of the Left Panel as shown in Fig.1.



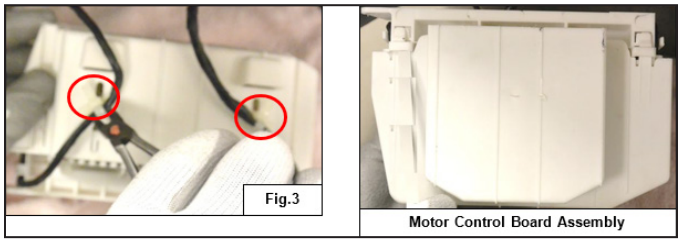
Step: 2

Detach the connectors (2) of the Motor Control Board from the Motor Assembly as shown in Figs. 2a and 2b.



Step: 3

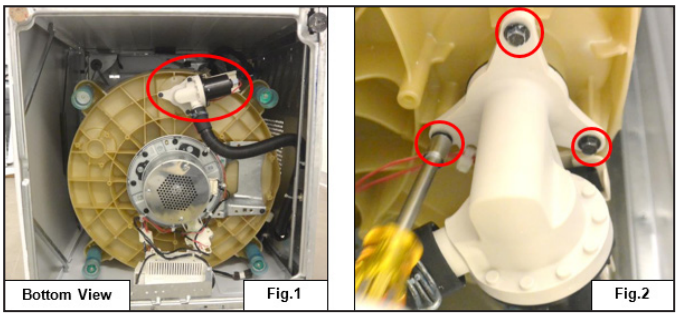
Remove the wire clips to separate the Motor Control Board Assembly as shown in Fig.3.



14.4 Drain Pump Accessibility

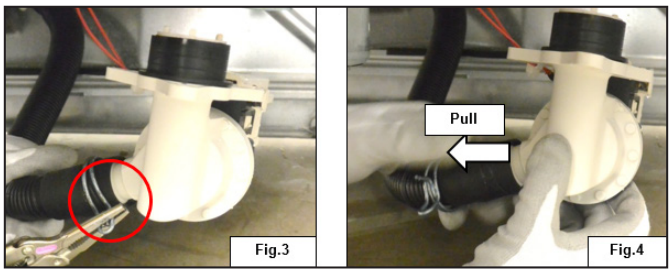
Step: 1

Lean down the machine safely on the floor as shown in Fig.1, so that the bottom of the machine is completely visible. Then loosen the Screws (3) that are fitted with the Washer Tub (See Fig. 2).



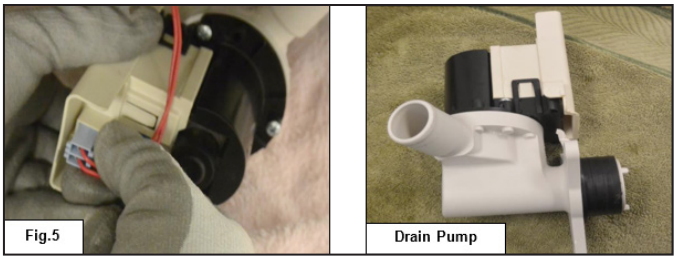
Step: 2

Remove the Drain Hose Clamp (See Fig. 3) and pull out the drain hose (See Fig. 4), then detach the connector (See Fig. 5) and take it out.



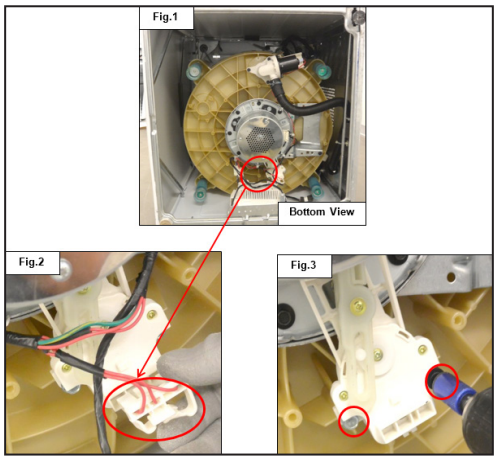
NOTE

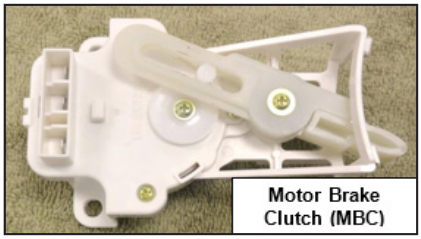
There is a possibility of water leakage while servicing the drain pump, and drain hose. Therefore, always place the cotton cloth below the machine to absorb the water.



14.5 Motor Brake Clutch (MBC) Accessibility

Lean down the machine safely on the floor as shown in Fig.1 so that the bottom of the machine is completely visible. Then detach the connector (See Fig. 2) and loosen the Screws (2) that are fitted to the Washer Tub (See Fig. 3) to remove the Motor Brake Clutch.

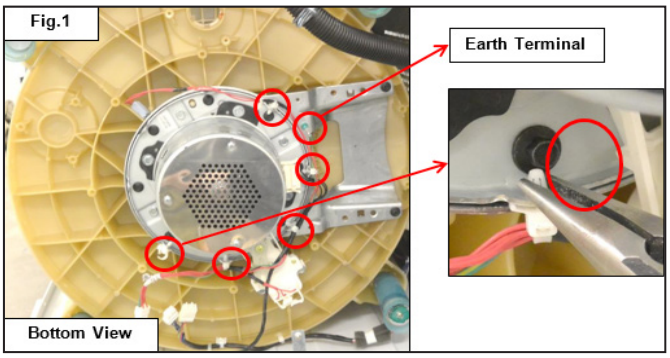




14.6 Motor Gear Box Assembly Accessibility

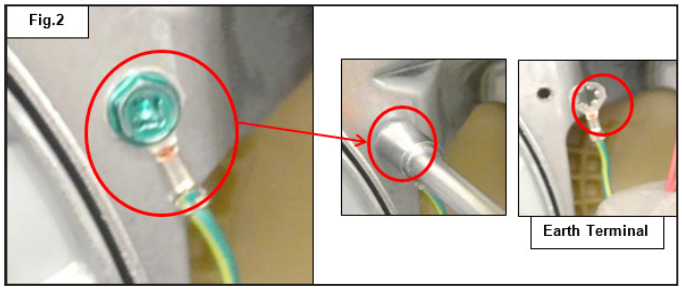
Step: 1

Lean down the machine safely on the floor as shown in Fig.1 so that the bottom of the machine is completely visible. Then remove all the wire clips which are fixed to the Motor Gear Box Assembly (See Fig.1).



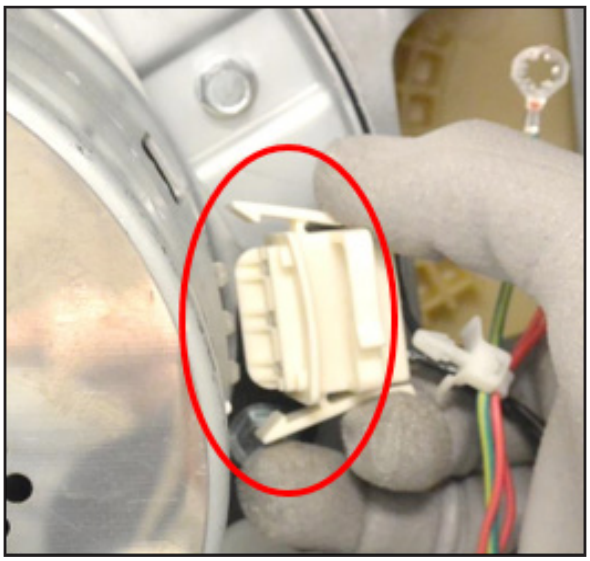
Step: 2

Detach the Earth Terminal by loosening the screw which is fitted to the leg (Dome and Bracket Assembly) (See Fig. 2).



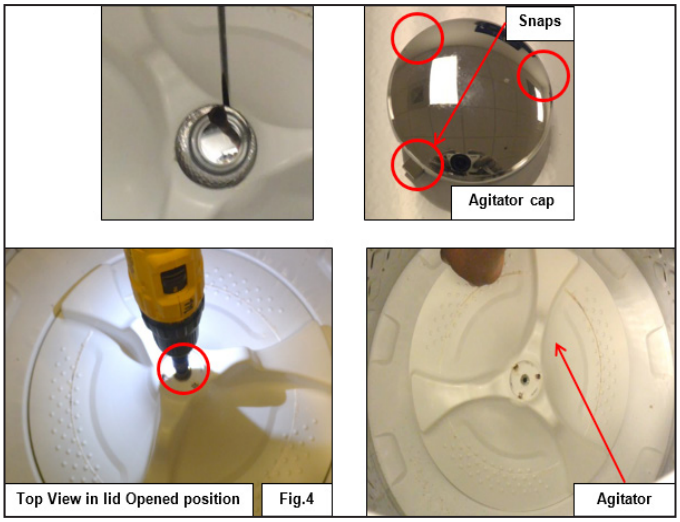
Step: 3

Press and pull out the snap to detach the connector from the Motor Gear Box Assembly.



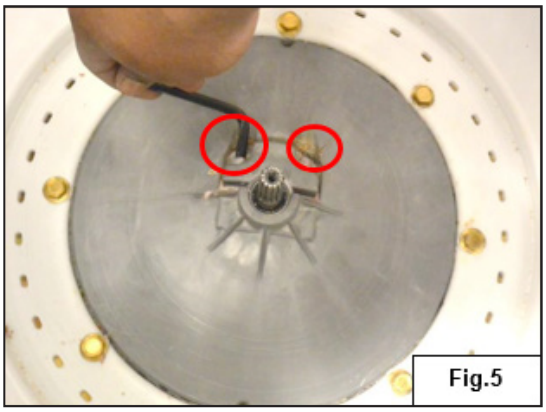
Step: 4

Remove the Agitator cap by detaching the snaps (See Fig. 3), loosen the Agitator Screw as shown in Fig. 4, and then take it out.



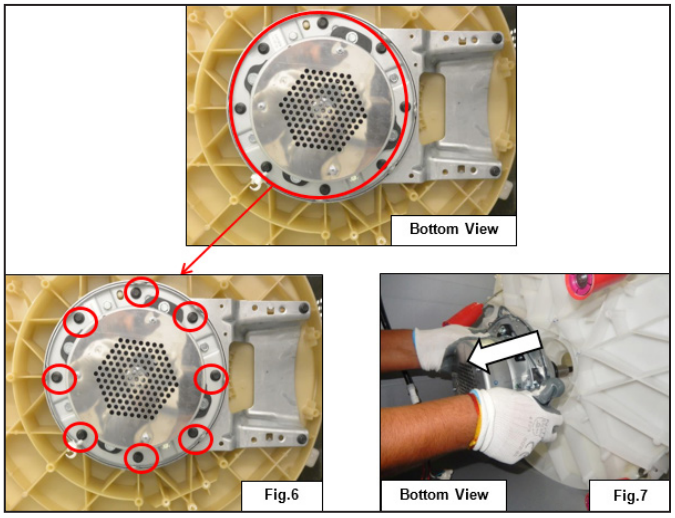
Step: 5

Loosen the Allen Screws (2) by using the Allen key as shown in Fig. 5 to disengage the Motor Gear Box Shaft from the Drum Hub Assembly.



Step: 6

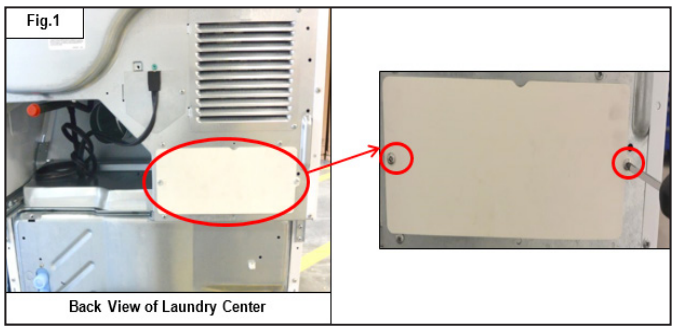
Loosen the Motor Gear Box Assembly screws (See Fig. 6) from the Drum and pull it out as shown in Fig.7.



14.7 Main Control Board Accessibility

Step: 1

Loosen the Main Control Board cover screws (2) which are fitted with the Laundry Center - Dryer Rear Panel (See Fig.1) and take it out as shown in Fig. 2.



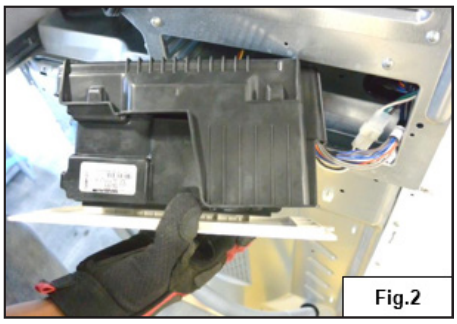


Fig.2

Step: 2

Detach the connector and loosen the screws (2) to separate the Main Board Assembly from the cover as shown in Figs. 3 and 4

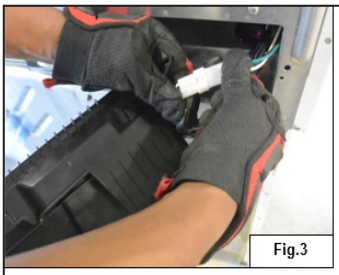


Fig.3

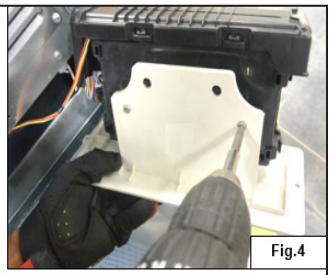


Fig.4


Main Control Board Assembly and Rear Panel Board Cover

Step: 3

Detach the cover from the Main Control Board Assembly as shown in Fig. 5b, and then detach the Connectors from the Main Control Board Assembly as shown in Figs. 6a and 6b to separate the Motor Control Board Assembly.


Fig.5a

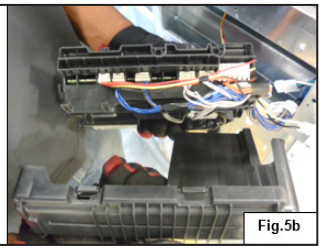


Fig.5b

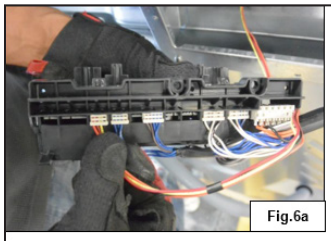


Fig.6a

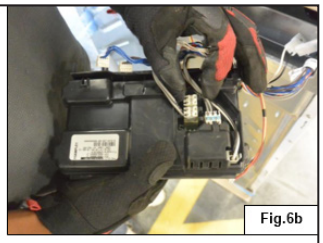
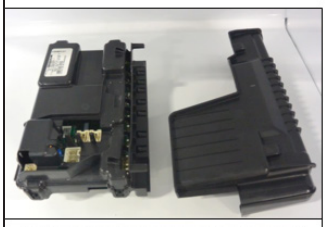


Fig.6b

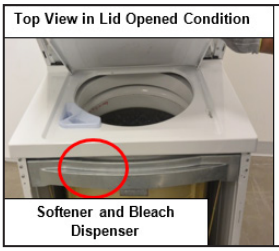

Main Control Board Assembly and Cover


Main Control Board Assembly

14.8 Lid / Top Panel Assembly Accessibility

Step: 1

Remove the Softener and the Bleach Dispenser Cover as shown in Fig.1.


Top View in Lid Opened Condition

Softener and Bleach Dispenser

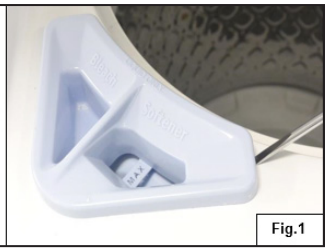


Fig.1

Step: 2

Loosen the Softener and the Bleach Dispenser Screw (See Fig. 2) which is fitted to the Top Panel, then push the dispenser (See Fig. 3) to take it out from the Top Panel.

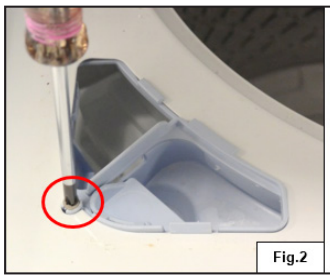


Fig.2

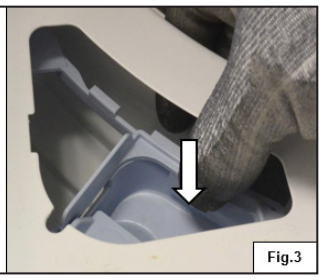


Fig.3

Step: 3

Slide and lift the Lid and the Top Panel Assembly as shown in Figs. 4 and 5.

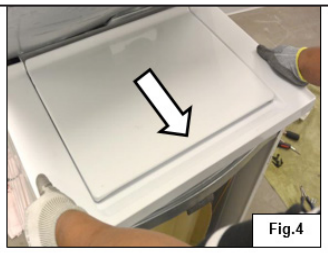


Fig.4

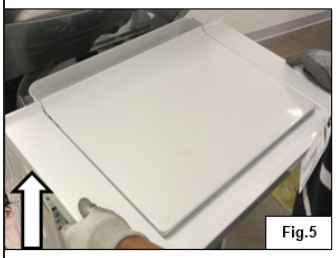


Fig.5

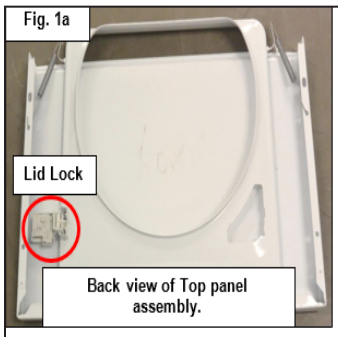

Lid and Top Panel Assembly

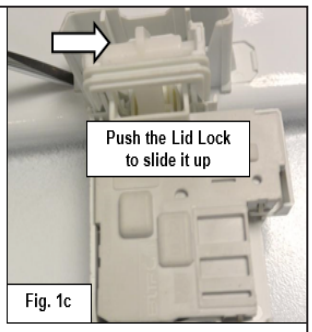
NOTE

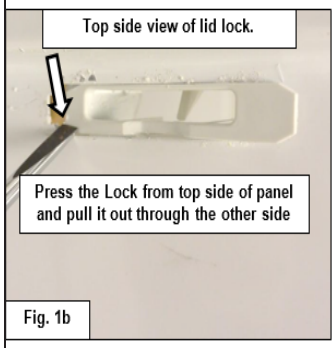
To remove the Lid and Top Panel Assembly, remove the Softener, and the Bleach Dispenser Assembly.

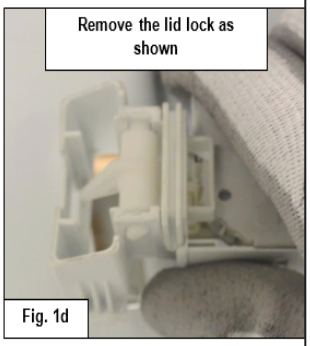
14.8.1 Lid Lock Accessibility

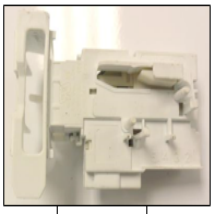
Press the snap of the lock and slide it up. Now press it from the Top Panel Assembly and pull it out through the other side as shown in Fig.1d.










Lid lock

NOTE

To access Lid lock and remove the Top Panel Assembly. Refer to the Top Panel Accessibility section.

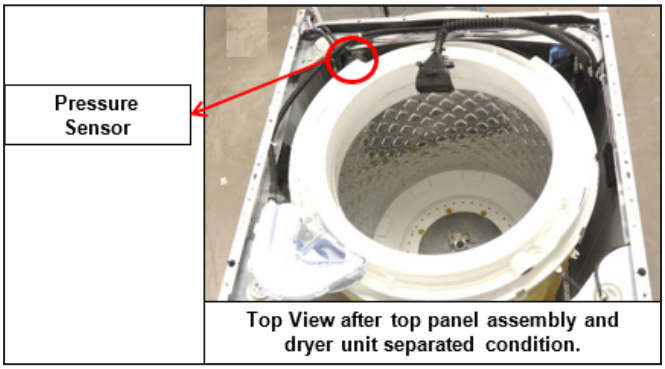
14.9 Pressure Sensor Accessibility

NOTE

1. Remove the dryer unit to access the Solenoid Valve and Pressure sensor.
2. Remove a total of 7 screws and two service professionals are required to remove in the dryer unit.

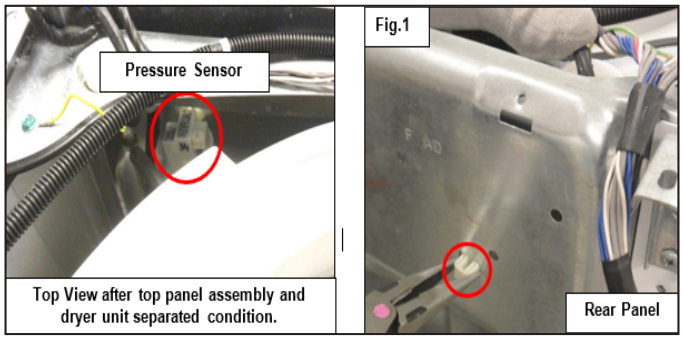
Step: 1

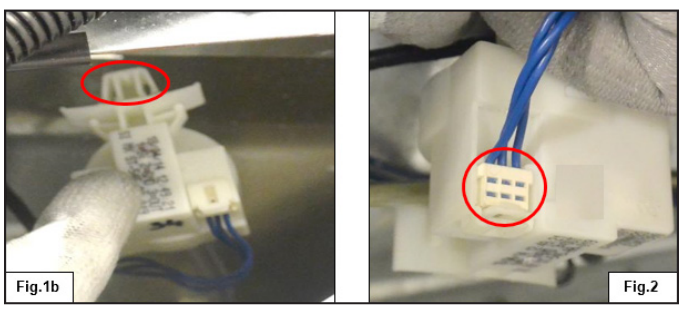
Below figure shows top view of washer unit after dryer unit is removed.

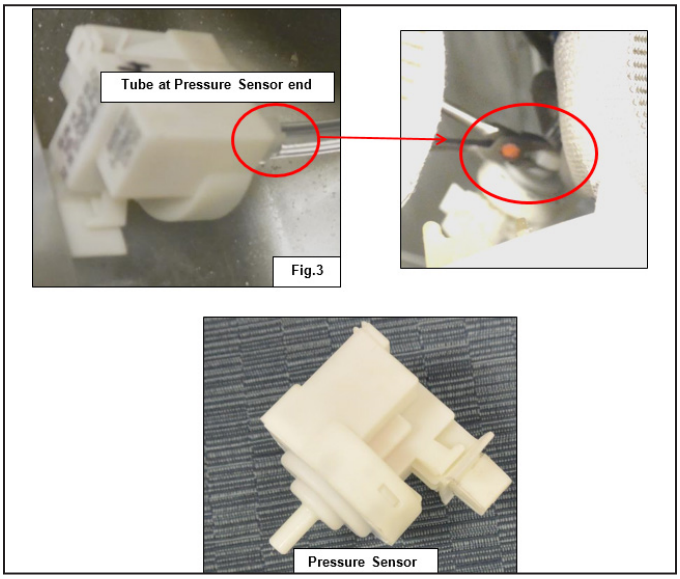


Step: 2

Detach the Pressure Sensor snap that fits with the Rear Panel of the washer unit (Figs. 1a and1b) and detach the connector (Fig.2), then remove the pressure tube at the switch end (See Fig. 3).





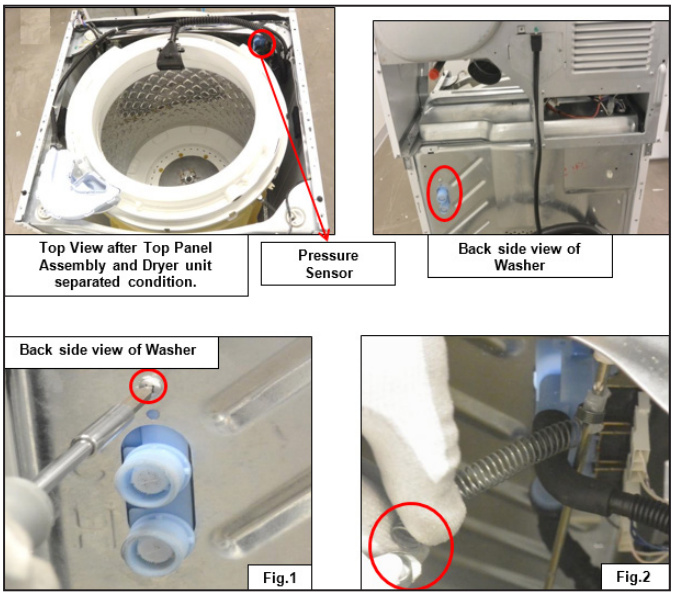


14.10 Solenoid / Water Valve Accessibility

Step: 1

Loosen the Solenoid Valve screw that fits with the Rear Panel of the washer (See Fig.1).

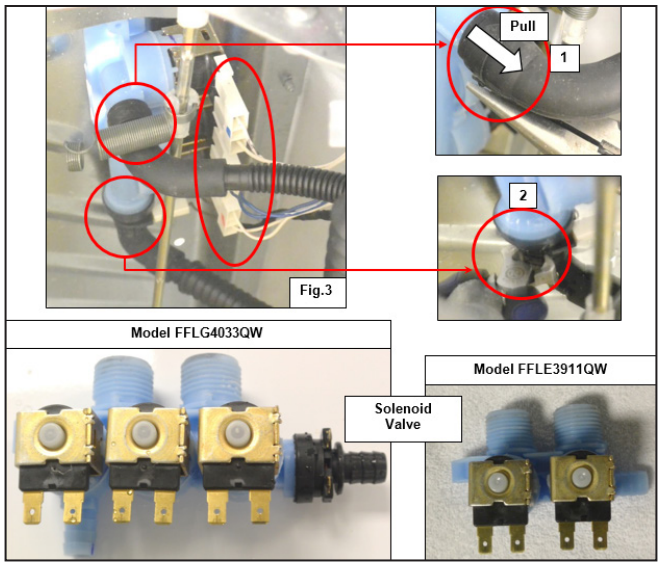
Then detach the Suspension Spring from the Tub hook (See Fig.2), which has been attached to the Motor Tub for easy accessibility of the Solenoid Valve.



Step: 2

Detach the hot, cold, and Secondary Coil connectors and valve outlet to the Tub Connector from the Solenoid Valve.

Remove the two Solenoid Valve outlet hose clips (1, 2) and pull out the hoses (Dispenser Hose and Tub Fill Hose) to separate the Solenoid Valve (See Fig.3).



15. Diagnostic System - FFLE3911QW and FFLG4033QW (Washer)

This information is intended for qualified technicians only.

⚠ CAUTION

DISCONNECT ELECTRICAL CURRENT BEFORE SERVICING

Acronyms:

CW - Clockwise

CCW - Counter Clockwise

Cold Power On - Unit plugged in for the first time

15.1 Reading Error Codes

Enter the Diagnostic Mode to read error codes (Refer to the instructions below on how to enter this mode):

- The last recorded error code will be displayed first.
- Start/Pause/Cancel buttons should be pressed momentarily (any time less than 1sec) to cycle through the last 5 error codes recorded.
- E00 signifies no error code and is accompanied by no buzzer beeps.
- Press and hold the Start/Pause/Cancel button for a duration >= 4 seconds to clear all error codes.

Error Code Display Method - Buzzer equipped

1. The buzzer beeps the same number of times as the first digit of the error code (0.5 sec ON/ 0.5 sec OFF).

For example:

If the first digit is 3, the buzzer sequence will be 0.5 seconds ON/0.5 seconds OFF/0.5 seconds ON/0.5 seconds OFF/0.5 seconds ON/0.5 seconds OFF. A, B, C, D, E, F corresponds to the buzzer digit readings of 10, 11, 12, 13, 14, and 15, respectively.

2. The buzzer stays silent for 2 seconds.

3. The buzzer beeps the same number of times as the second digit of the error code (0.5 seconds ON/0.5 seconds OFF).

4. The buzzer stays silent until the Start/Pause/Cancel buttons are pressed momentarily to read the next error code.

15.2 Diagnostic Mode

Use this mode under the following conditions:

- In a factory assembly line to perform a manual test of the machine functionality (final assembly test)
- By service personell to check for faults and repair the machine
- In the labs to check the machine functions

15.3 Entering the Diagnostic Mode

Follow the instructions given below to enter the Diagnostic Mode:

1. Plug the unit in or do a full control reset, which is described in other documents. Set the Cycle Selector knob at the 9 o'clock (presoak) position and the temperature knob at the far left CCW position hot for LC1 (Model – FFLE3911QW) & LC2 (Model – FFLG4033QW) and press the Selector knob momentarily (<1 second). The other knobs and switches do not matter.

2. Within 5 seconds, move the temperature knob to the far right position CW and push the Selector knob momentarily (<1 second). Move the temperature selector to the far left CCWand push the Selector knob momentarily (<1 second). There will be a long beep signalling the entry into the Diagnostic/Line Test Mode. If not, start over with an effort to perform the series of events faster or with more precision.

15.4 Diagnostic Tests

1. The Cycle Selector knob in the Normal 12 o' clock position is the zero position where the switches can be checked.

2. Turn the Cycle Selector knob, (1) click clockwise from the Normal position.

- The lid lock will activate and the hot water solenoid will activate and the tub will be filled with hot water.

NOTE

The Clutch Actuator starts rotating to find the "disengaged" position, and stops in this position.

3. Turn the Cycle Selector knob, (2) clicks clockwise from the Normal position.

- The cold water solenoid will activate and the tub will be filled with cold water.

NOTE

The Clutch Actuator rotates to find the "disengaged" position, and stops in this position.

4. Turn the Cycle Selector knob, (3) clicks clockwise from the Normal position.

- The lid lock will deactivate and the lid can be opened.

5. Turn the Cycle Selector knob, (4) clicks clockwise from the Normal position.

- The lid lock will activate and both the hot and cold water solenoids will turn ON and fill up to a certain level. After the Pressure Sensor has been identified, agitation will begin.
- If the softener option is available on the machine, then the softener solenoid will also activate and the softener compartment will be filling up and siphoning cold water, simultaneously.

6. Turn the Cycle Selector knob, (5) clicks clockwise from the Normal position.

- The drum will stop and the drain pump will activate, draining out any water in the tub.
- After draining the clutch actuator will start moving continuously, for about 1 minute

7. Turn the Cycle Selector knob (6) clicks clockwise from Normal position.

- The Drain Pump turns on until no water is detected on the sensor, the clutch actuator rotates to find the "engaged" position.
- The Drain Pump turns off just before the drum starts its rotation to a high speed spin.

8. Turn the Cycle Selector knob (7) clicks clockwise from Normal position.

- The control will signal the last 3 error codes. Press the Cycle Selector knob to scroll through them. (Refer to the section on Reading error codes).
- Press and hold the Selector knob for at least 5 seconds in this position to clear the alarm history.

15.5 Exiting Diagnostic Mode

To exit the Diagnostics Mode, follow the instructions given below:

1. Disconnect the power and wait for 5-8 seconds and then reconnect the power.

2. Press and hold the Selector knob for at least 5 seconds in the Selector Position Modes 1 to 6 CW.

3. The machine exits the Diagnostic Mode after 15 minutes of no UI activity.

NOTE

When the power is switched ON after the Diagnostic Mode for the first time, the machine automatically configures to the Electrical Test Mode. Therefore, it is not necessary to switch OFF the machine, as the Diagnostic Mode is not active.

15.6 User Interface Test

Selector position	Position 0, 12 o'clock, top center, the normal wash position
Purpose of the test	Function of switches and buzzer
Activated components	Buzzer with a switch change
UI behaviour	Change switch positions and the buzzer beeps
Working conditions	Drum stopped, Door unlocked

15.7 Hot Water Valve Test

Selector position	Turn 1 clicks clockwise from the top
Purpose of the test	Water loading from the hot water valve
Activated components	Door lock, hot water valve, and Clutch Motor
UI behaviour	None
Working conditions	Door locked, water level lower then 140mm, for a maximum period of 5 minutes. The clutch moves to the agitate position, if it is in spin..

15.8 Cold Water Valve Test

Selector position	Turn 2 clicks clockwise from the top
Purpose of the test	Water loading from the cold water valve
Activated components	Door lock and cold water valve, Clutch Actuator
UI behaviour	None
Working conditions	Door locked, water level lower then 140mm, for a maximum period of 5 minutes. The clutch moves to the agitate position, if it is in spin.

15.9 Door Lid Unlock Test

Selector position	Turn 3 clicks clockwise from the top
Purpose of the test	Deactivate the Door lock
Activated components	Door lock
UI behaviour	None
Working conditions	Drum stopped

15.10 Three Water Valves Test

Selector position	Turn 4 clicks clockwise from the top
Purpose of the test	To test both hot and cold and, if present, the softener water valves and the softener siphon drains fully, agitate function
Activated components	Door lock, three water valves, main motor
UI behaviour	None
Working conditions	Door locked, Add while water level lower than 55mm, for max. 5 minutes. The clutch moves to the agitate position, if it was in spin. Agitate begins when the water level is reached

15.11 Drain and Clutch Test

Selector position	Turn 5 clicks clockwise from the top
Purpose of the test	Drain system with the clutch mechanism
Activated components	Door lock, drain pump, clutch actuator
UI behaviour	None
Working conditions	Door locked, drum stop, run clutch to spin mode and drain until empty +10 seconds more. Run clutch actuator for about 100 seconds

15.12 Drain and Spin Test

Selector position	Turn 6 clicks clockwise from the top
Purpose of the test	Verify drain system, and Pressure Sensor calibration procedure
Activated components	Door lock, main motor, drain pump
UI behaviour	None
Working conditions	Door locked, empty tub water level <5mm, if not the drain will run, if not in spin mode the clutch actuator will run to spin position, spin up to maximum speed

15.13 Alarm History Test

Selector position	Turn 7 clicks clockwise from the top
Purpose of the test	Communicate alarm history
Activated components	Buzzer
UI behaviour	A series of beeps separated by a short pause for one character and a long pause to move to the second character. Press selector for next stored alarm. Example, count 12 beeps is a C
Working conditions	Drum stopped, Door unlocked

15.14 Alarms Summary Table

S. NO.	Alarm Code	Alarm Description	Fault Condition	Possible Fault	Machine Action/ Status	Action to Clear	Page No
1	E11	Difficulties in water fill for washing	Water fill takes too long (timeout occurs before reaching target water level)	Tap closed or water flow too low Wrong drain pipe position (siphon) Water leak Water inlet valve Pressure switch Wiring or main board	Cycle Paused	START RESET	158
2	E13	Water leakage	Water refills too many times during the cycle (maximum water quantity reached)	Wrong drain pipe position (siphon) Water leak Water flow too low Water inlet valve Pressure switch or hose	Cycle Paused	START RESET	161
3	E21	Draining problem	Water draining takes too long (timed during each drain)	Drain pipe blocked Drain pump defective or rotor locked Pressure switch defective or blocked Drain pump not energized (wiring or main board)	Cycle Paused (after 2 attempts)	START ON/OFF RESET	163
4	E31	Pressure sensor fault	Frequency of electronic pressure sensor out of limits	Pressure sensor Wiring or main board	Cycle abort	RESET	165
5	E32	Electronic pressure sensor calibration problems	Frequency of electronic pressure sensor not stable during draining phase	Water inlet valve Pressure sensor Drain pipe blocked Drain pump, wiring or main board	Cycle pause	START RESET	166
6	E35	Water overload	Pressure sensor over maximum water level	Pressure sensor hose blocked Water inlet valve	Cycle abort Safety drain	-	168
7	E41	Door / Lid opened	Door not locked after 3 attempts	Door lock Wiring or main board	Cycle Paused	START RESET	170

15.14 Alarms Summary Table

S. NO.	Alarm Code	Alarm Description	Fault Condition	Possible Fault	Machine Action/ Status	Action to Clear	Page No
8	E42	Door / Lid lock failure	Door will not unlock after 3 attempts	Door lock Low input AC voltage Wiring	Cycle Paused	START RESET	171
9	E43	Door / Lid lock triac failure	door lock triac sensing and triac control status difference	Door lock Wiring or Main Board	Cycle abort Safety drain	RESET	172
10	E44	Door / Lid closed sensing failure	Wrong input signal to microprocessor	Wiring or Main Board	Cycle abort Safety drain	RESET	173
11	E45	Door / Lid triac sensing failure	Incorrect triac sense signal	Wiring or Main Board	Cycle abort Safety drain	RESET	174
12	E55	Motor under-speed Failure	During spin, the motor speed is lower than the target for 2 minutes	Foam or drum weight overload Drum mechanical drag Motor Drain pump	Cycle abort	ON/OFF RESET	175
13	E58	Motor over current	High current on motor phase (>4.5A)	Foam or drum weight overload Motor Wiring or Motor Control Board	Cycle abort	ON/OFF RESET	177
14	E59	Motor not following	No rotation detected for 3 seconds	Drum mechanical locked Motor Wiring or Motor Control Board	Cycle abort	ON/OFF RESET	179
15	E5A	Motor control overheating	High temperature on heat sink (>88°C) or NTC of motor control board open	Drum weight overload Motor Control Board Motor	Cycle abort	ON/OFF RESET	181
16	E5H	Motor control under voltage	DC bus voltage below the minimum (175V)	Low input AC voltage Wiring or Motor Control Board Main board	Cycle abort	ON/OFF RESET	183

15.14 Alarms Summary Table

S. NO.	Alarm Code	Alarm Description	Fault Condition	Possible Fault	Machine Action/ Status	Action to Clear	Page No
17	E5C	Motor control over voltage	DC bus voltage above the maximum (430V)	High input AC voltage Motor control board	Cycle abort	ON/OFF RESET	183
18	E5D	Motor Control Board Unknown Message	Message received by Motor Control Board is not correct	Communication wiring Motor control board Main board Software not matching	None	-	184
19	E5E	Motor control to main board communication incorrect	Communication between Motor Control Board and main board incorrect	Wiring Motor control board Main board User interface board	Cycle ends	ON/OFF RESET	184
20	E5F	Motor Control Board Fault	Motor Control Board control board is continuously in reset	Wiring Motor control board Main board	Cycle ends	ON/OFF RESET	185
21	E71	Washing NTC failure	Wrong input signal to microprocessor (open circuit or short circuit)	Wiring open Washing NTC Wiring or main board	Water load not temperature controlled	START RESET	185
22	E87	User Interface microcontroller fault	User interface microcontroller damaged	User interface	No actions to be performed. If still present replace the User Interface Board	START ON/OFF RESET	186
23	E91	User interface and Main Board communication error	Communication problem between user interface and Main Board	Wiring User interface Main Board Motor control board	-	RESET	186
24	E92	User interface and Main Board protocol incongruence error	Protocol communication between user interface and Main Board not compatible	Main board User interface board	Cycle blocked	OFF/ON	187

15.14 Alarms Summary Table

S. NO.	Alarm Code	Alarm Description	Fault Condition	Possible Fault	Machine Action/ Status	Action to Clear	Page No
25	E93	Machine configuration error	Incorrect configuration of appliance	Main board	Cycle blocked	OFF/ON	187
26	E94	Cycle Configuration error	Incorrect configuration of washing cycles	Main Board	Cycle blocked	OFF/ON	188
27	E97	Software selector and cycles configuration error	Incongruence between program selector and cycle configuration	Main Board	Cycle blocked	RESET	188
28	E98	Motor control to main board software error	Protocol communication between Motor Control Board and MB not aligned	Main board Motor Control Board	Cycle blocked	OFF/ON	189
29	E9C	User interface configuration fault	Configuration wrongly or not received	User interface	No actions	ON/OFF START RESET	189
30	EB1 (EH1)	Power supply frequency out of limits	Power supply period lower/ higher than configured values	AC input Main Board	Wait for improved power supply conditions	OFF/ON	190
31	EB2 (EH2)	Power supply voltage too high	MAIN_V sensing input voltage value greater than configured value	High AC input voltage Main Board	Wait for improved power supply conditions	OFF/ON	190
32	EB3 (EH3)	Power supply voltage too low	MAIN_V sensing input voltage value lower than configured value	Low AC input voltage Main Board	Wait for improved power supply conditions	OFF/ON	191

15.14 Alarms Summary Table

S. NO.	Alarm Code	Alarm Description	Fault Condition	Possible Fault	Machine Action/ Status	Action to Clear	Page No
33	EBE (EHE)	Motor Control Board Relay error	Incongruence between safeties relay sensing and Motor Control Board relay status	Motor Control Board Relay defective Wiring or main board defective	Safety drain Cycle abort	RESET	191
34	EBF (EHF)	Motor Control Board relay sensing error	Input voltage value on microprocessor always to 0V or to 5V	Main board	Safety drain Cycle abort	RESET	191
35	EC6	Clutch Alarm	Clutch positioning timeout to reach or failure to stay in desired position.	Clutch mechanism failure Main board defective Wiring/connection problem	Cycle abort	-	192
36	EC7	Clutch triac sensing Failure	The sensing of the clutch triac is out of the limits.	Clutch mechanism failure Main board defective Wiring/connection problem	Cycle abort	-	193
37	EF2	Foam warning	Suds lock detected during spin phase at the end of the washing phase	Incorrect or excessive detergent Drain pipe blocked or clogged	Alarm is silent and the cycle is extended	-	194
38	EF6	Safety reset	Main Board microcontroller damaged	Main Board defective	None	-	194

16 Troubleshooting Based on Alarm Codes – FFLE3911QW and FFLG4033QW (Washer Model)

E11	**E11: Difficulties in water fill for washing** Water tap closed, water flow rate too low, pressure sensor defective, Water inlet valve defective, Wrong drain pipe position (siphon), Water leak, wiring or Main Board.	**E11**

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Run the Diagnostic Cycle test and check if hot and cold inlet valves are working?

YES

Is the drain pipe positioned correctly and not causing the siphon effect? **(See Fig.1)**

NO → Repair the drain circuit and repeat the Diagnostic Cycle to check for any further alarms.

YES

Are the washing machine's water lines efficient (leaking)?

NO → Repair the water circuit and repeat the Diagnostic Cycle to check for any further alarms.

YES

Is the pressure sensor air tube connected properly (check also for kinking and leaking)? (Disconnect the tube and blow to ensure no obstruction)

NO → Repair the air tube on the Pressure Sensor and repeat the Diagnostic Cycle to check for any further alarms.

YES

Is the wiring connection on the pressure sensor connected properly?

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES

Is the frequency of pressure sensor between 45 Hz to 45.5 Hz? (Measure it on the pressure sensor wiring connector at Main Control Board when machine is powered with empty tub (No water)) **(See Fig.2)**

NO → Replace the Pressure Sensor and repeat the Diagnostic Cycle to check for any further alarms.

YES

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms

NO → See Next Page

Is one or all the Solenoid Valves not working?

NO → Check whether the tap is open, if the water pressure is too low and make sure the tubes are connected and not kinked. **(See Fig. 3)**

YES ↓

Is the resistance measurement of the solenoid valve approximately 1375Ω ± 10%? (Measure it directly on the Solenoid Valve terminals without wiring). **(See Fig. 4)**

NO → Replace the Solenoid Valve and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Reconnect the connector and measure approximately 1375Ω ± 10% on the Solenoid Valve wiring connector on the circuit board side between terminals J20-1 & J20-3, J18-1& J18-3 and J18-4 & J18-6 **(See Fig. 5)**. Is the Solenoid Valve wiring ok?

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

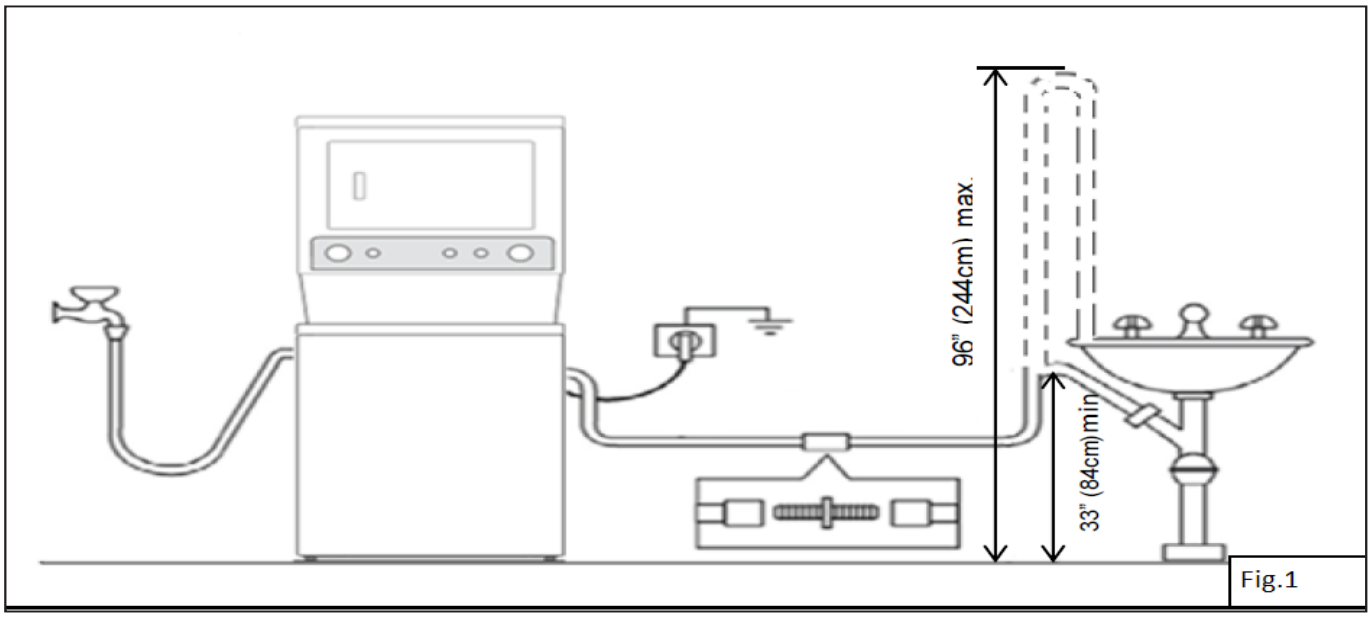
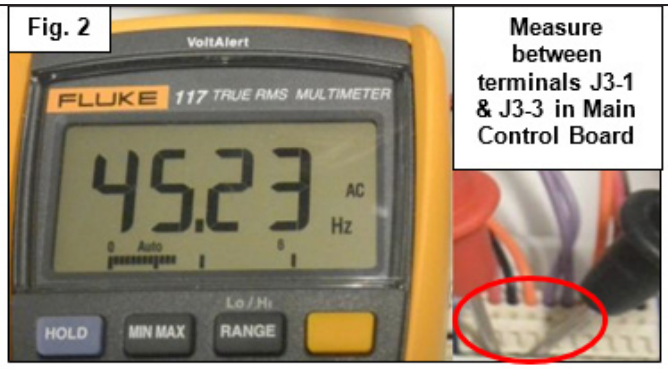


Fig.1

Fig. 2



Measure between terminals J3-1 & J3-3 in Main Control Board

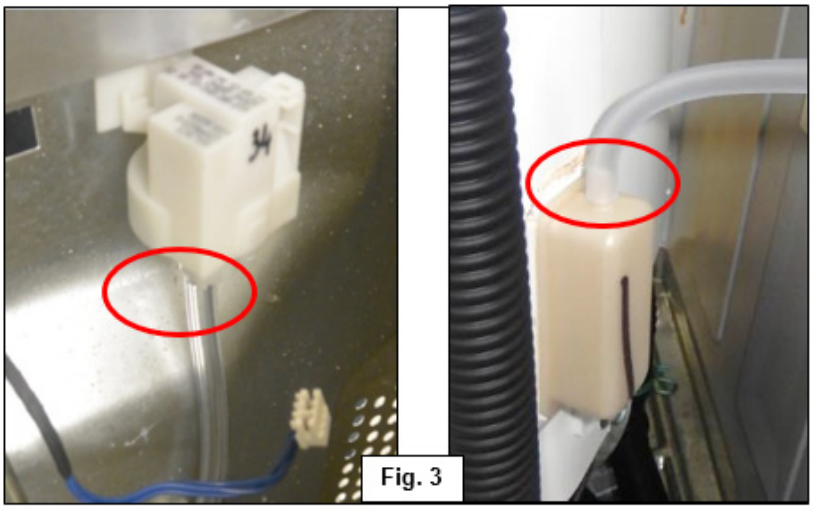


Fig. 3

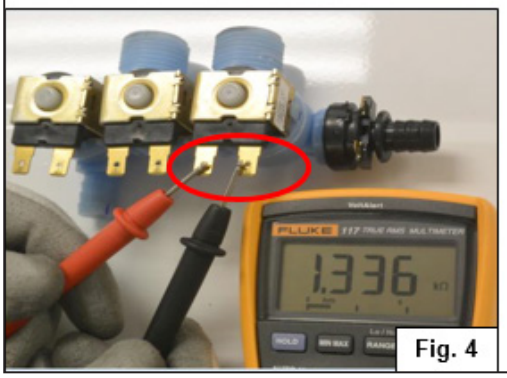


Fig. 4

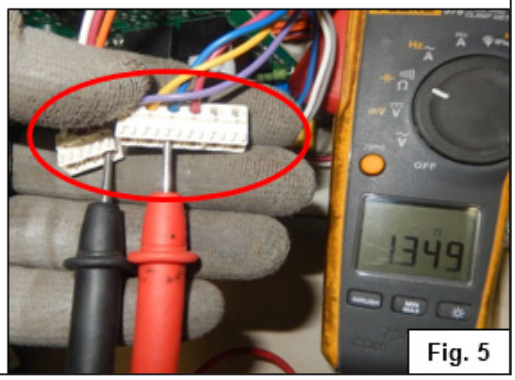


Fig. 5

E13	E13: Water leakage	E13
	Wrong drain pipe position (siphon), Water leak, Water flow too low, Water inlet valve, Pressure sensor or hose.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Are the washing machine's water lines efficient (leaking)?
- NO → Repair the water circuit and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Is the drain pipe positioned correctly and not causing the siphon effect? **(See Fig.1)**
- NO → Repair the drain circuit and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Is the water supply proper? [Water pressure must be between10 psi (0.69 bars) and 120 psi (8.27 bars), Pressure difference between hot and cold cannot be more than 10psi.]
- NO → Make water supply proper and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Is the air tube connected properly (check also for kinking and leaking)? (Disconnect the tubes and blow into them to make sure the system is unobstructed) **(See Fig. 2)**
- YES → Replace / Repair the air tube and repeat the Diagnostic Cycle to check for any further alarms.
- NO ↓

Is the frequency of Pressure Sensor between 45 Hz to 45.5 Hz? (Measure it on the pressure sensor wiring connector at Main Control Board when machine is powered with empty tub (No water)) **(See Fig.3)**
- NO → Replace Pressure sensor and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Is the resistance measurement of the Solenoid valve approximately 1375Ω ± 10%? (Measure it directly on the Solenoid Valve terminal without wiring **(See Fig. 4)**
- NO → Replace the Solenoid Valve and repeat the Dagnostic Cycle to check for any further alarms.
- YES ↓

See Next Page

Reconnect the connector and measure approximately 1375Ω ± 10% on the Solenoid Valve wiring connector on the circuit board side between terminals J20-1 & J20-3, J18-1& J18-3 and J18-4 & J18-6 **(See Fig. 5)**. Is the Solenoid Valve wiring ok?

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

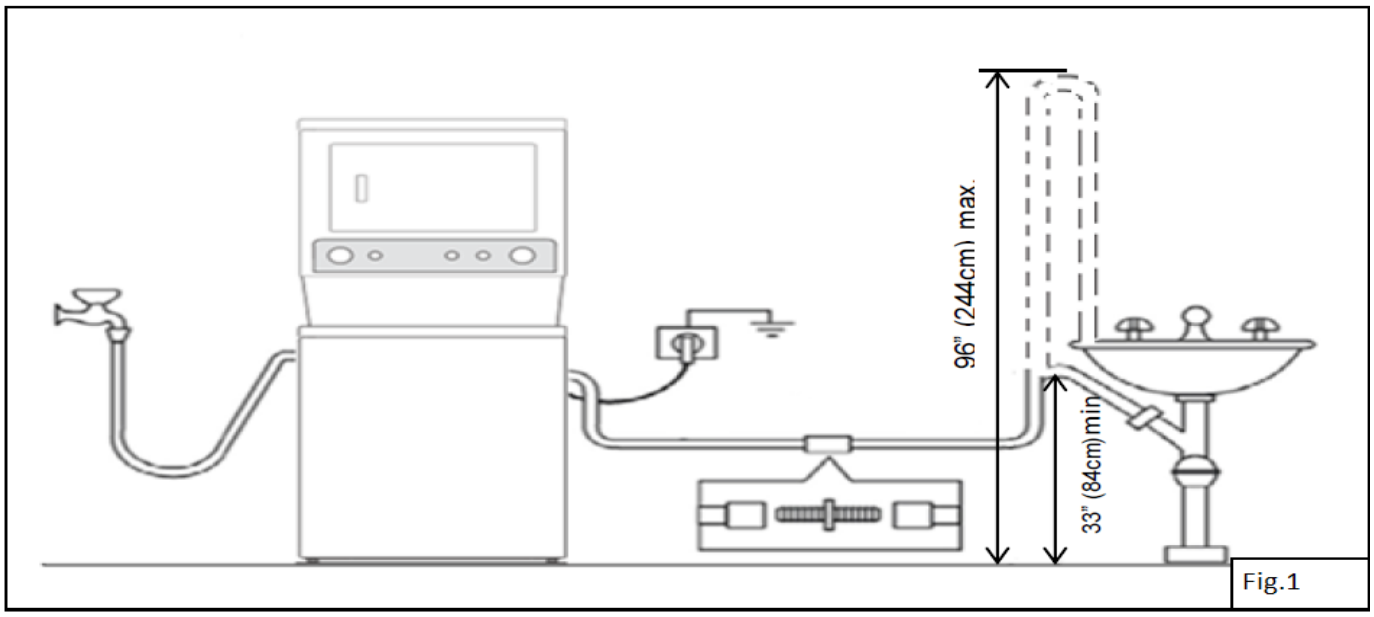


Fig.1

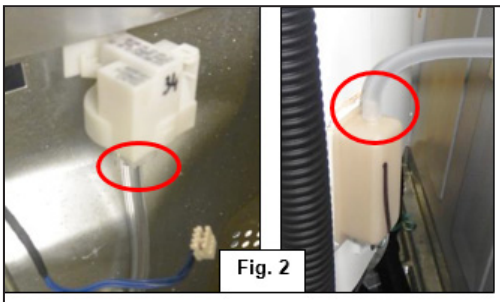


Fig. 2

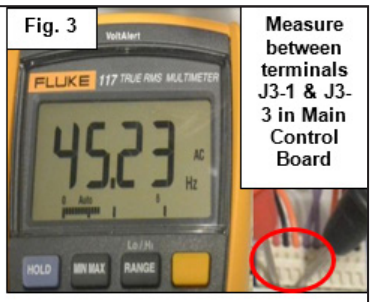


Fig. 3

Measure between terminals J3-1 & J3-3 in Main Control Board

Fig. 4

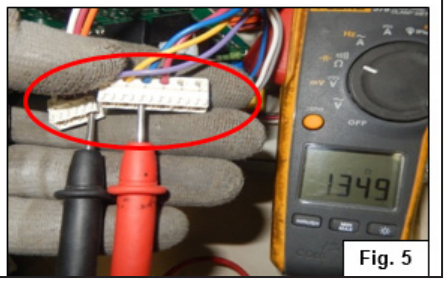


Fig. 5

E21	**E21: Draining problem**	E21
	Drain pipe blocked, Drain pump defective or rotor locked, Pressure Sensor defective or blocked, Drain pump is not energized (wiring or main board).	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Is the drain pipe clean? (Check for blockage)

NO → Clean Drain pipe and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the drain pipe positioned correctly and not causing the siphon effect? **(See Fig.1)**

NO → Repair the drain circuit and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of the pump approximately 12Ω to 17Ω ? (Measure it directly on the circuit board side between terminals J15-3 & J15-4) **(See Fig. 2)**

NO → Is the resistance measurement of the Drain pump approximately 12Ω to 17Ω? (Measure it directly on the pump) **(See Fig. 3)**

NO → Replace the Drain pump and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓ Check / Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the Drain pump rotor mechanically blocked or damaged?

YES → Clean / Replace the Drain Pump and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Is the frequency of Pressure Sensor between 45 Hz to 45.5 Hz? (Measure it on the Pressure Sensor wiring connector in Main Control Board when machine is powered with empty tub (No water)) **(See Fig.4)**

NO → Replace Pressure Sensor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

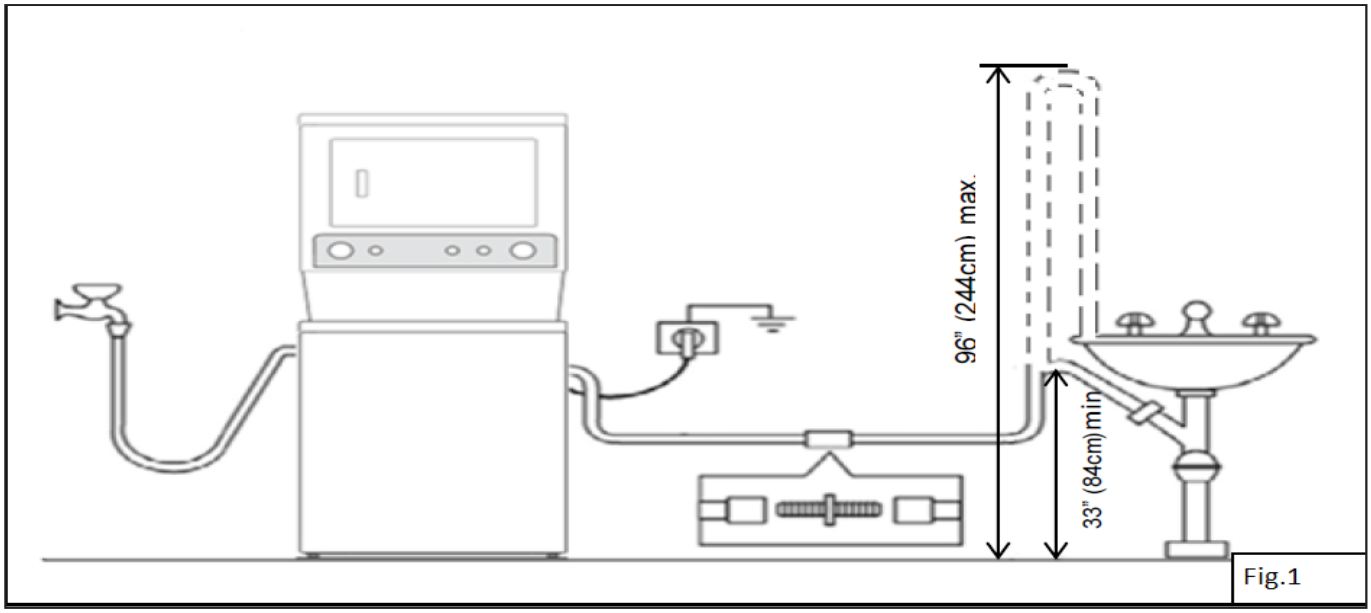


Fig.1


Fig. 2

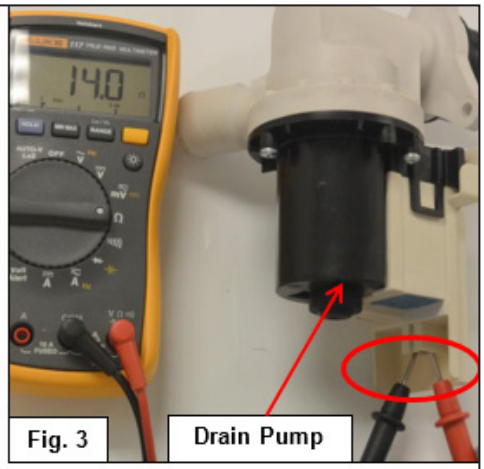


Fig. 3

Drain Pump

Fig. 4

Measure between terminals J3-1 & J3-3 in Main Control Board

E31	**E31: Pressure sensor fault**	E31
	Pressure sensor defective, wiring or Main Control Board defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Is the air tube connected properly (check also for kinking and leaking)? (Disconnect the tubes and blow into them to make sure the system is unobstructed) **(See Fig. 1)**

NO → Replace or Repair the air tube and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the frequency of Pressure Sensor between 45 Hz to 45.5 Hz? (Measure it on the pressure sensor wiring connector at Main Control Board when machine is powered with empty tub (No water)) **(See Fig.2)**

NO → Replace Pressure Sensor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

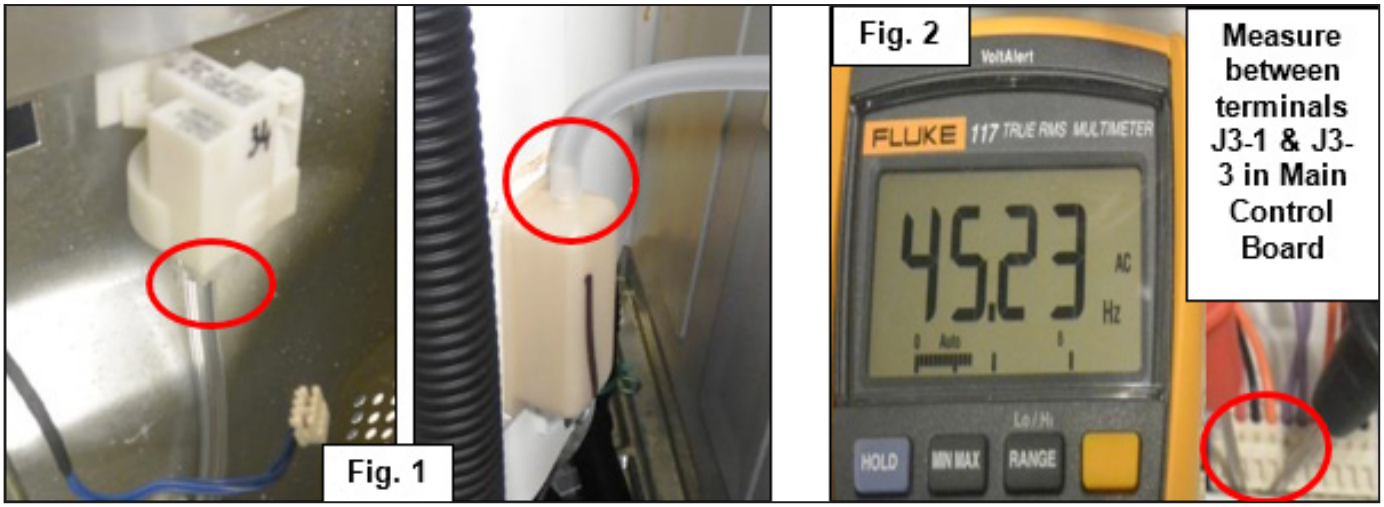


Fig. 1

Fig. 2

Measure between terminals J3-1 & J3-3 in Main Control Board

E32	E32: Electronic Pressure Sensor calibration problems	E32
	Water inlet valve defective, Pressure Sensor defective, Drain pump defective, Drain pipe blocked, wiring or Main Control Board defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the air tube connected properly (check also for kinking and leaking)? (Disconnect the tubes and blow into them to make sure the system is unobstructed) **(See Fig. 1)**

NO → Replace or Repair the air tube and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the frequency of Pressure Sensor between 45 Hz to 45.5 Hz? (Measure it on the pressure sensor wiring connector at Main Control Board when machine is owered with empty tub (No water)) (**See Fig. 2)**

NO → Replace Pressure Sensor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of the Solenoid Valve approximately 1375Ω ± 10% (Measure it directly on the connector on the Main Control Board side between terminals J20-1 & J20-3, J18-1& J18-3 and J18-4 & J18-6 **(See Fig. 3)**.

NO → Is the resistance measurement of the Solenoid Valve approximately 1375Ω ± 10%? (Measure it directly on the solenoid valve without wiring) (**See Fig. 4)**

NO → Replace the Solenoid Valve and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check / Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the drain pipe positioned correctly and not causing the siphon effect? **(See Fig. 5)**

NO → Repair the drain circuit and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of the Drain pump approximately 12Ω to 17Ω? (Measure it directly on the connector on the Main Control Board side between terminals J15-3 & J15-4). (**See Fig. 6)**

NO → Is the resistance measurement of the Drain pump approximately 12Ω to 17Ω? (Measure it directly on the Drain pump) **(See Fig. 7)**

NO → Replace the Drain pump and repeat the Diagnostic Cycle to check for any further alarms.

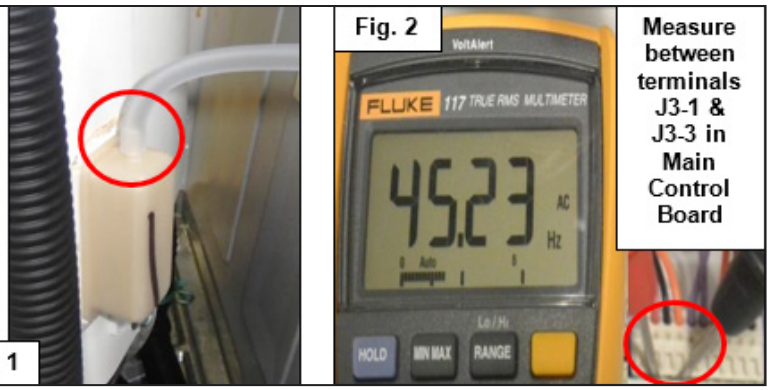
YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check / Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

Fig. 1



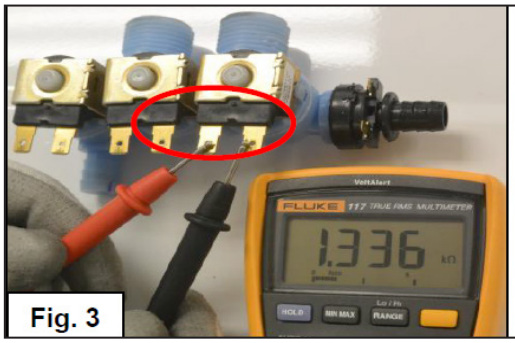


Fig. 3

Fig. 4

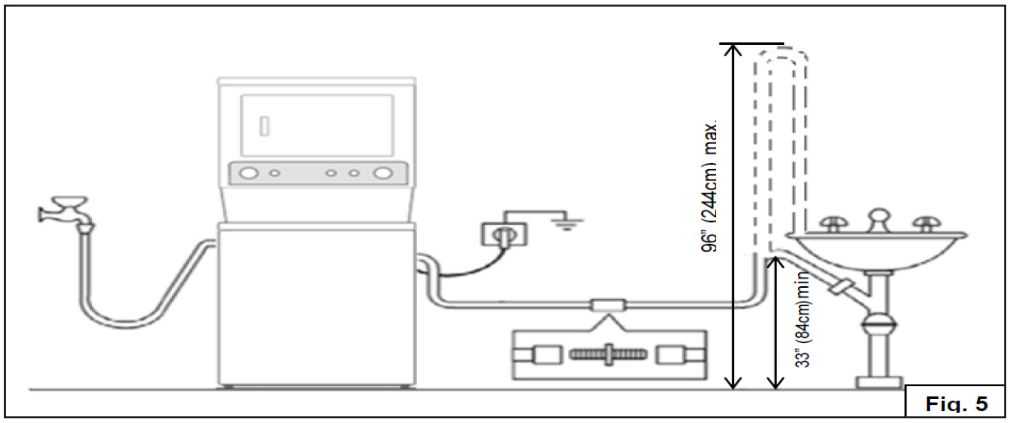


Fig. 5

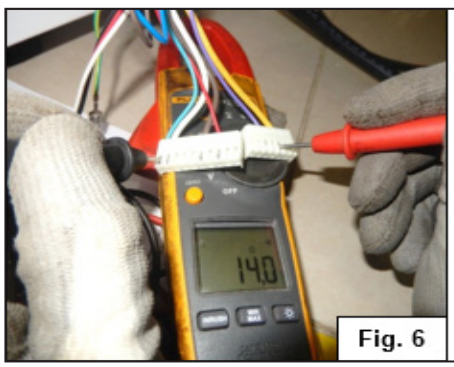


Fig. 6

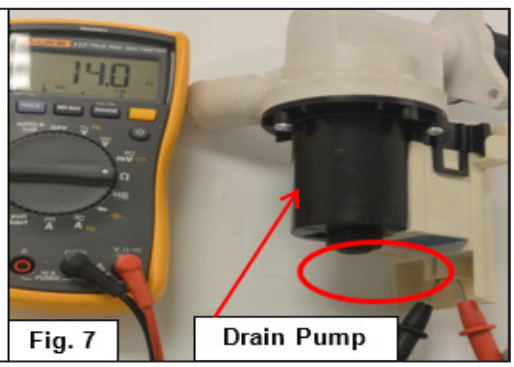


Fig. 7

E35	E35: Water Overload	E35
	Pressure sensor hose blocked, Water inlet valve.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the air tube connected properly (check also for kinking and leaking) ? (Disconnect the tubes and blow into them to make sure the system is unobstructed) **(See Fig. 1)**

NO → Replace or Repair the air tube and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the frequency of Pressure Sensor between 45 Hz to 45.5 Hz? (Measure it on the pressure sensor wiring connector at Main Control Board when machine is powered with empty tub (No water)) **(See Fig.2)**

NO → Replace Pressure Sensor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of the Solenoid Valve approximately 1375Ω ± 10%? (Measure it directly on the Solenoid Valve terminals without wiring) **(See Fig. 3)**

NO → Replace the Solenoid Valve and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Reconnect the connector and measure approximately 1375Ω ± 10% on the Solenoid Valve wiring connector on the circuit board side between terminals J20-1 & J20-3, J18-1& J18-3 and J18-4 & J18-6 **(See Fig. 4)**. Is the Solenoid Valve wiring ok?

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

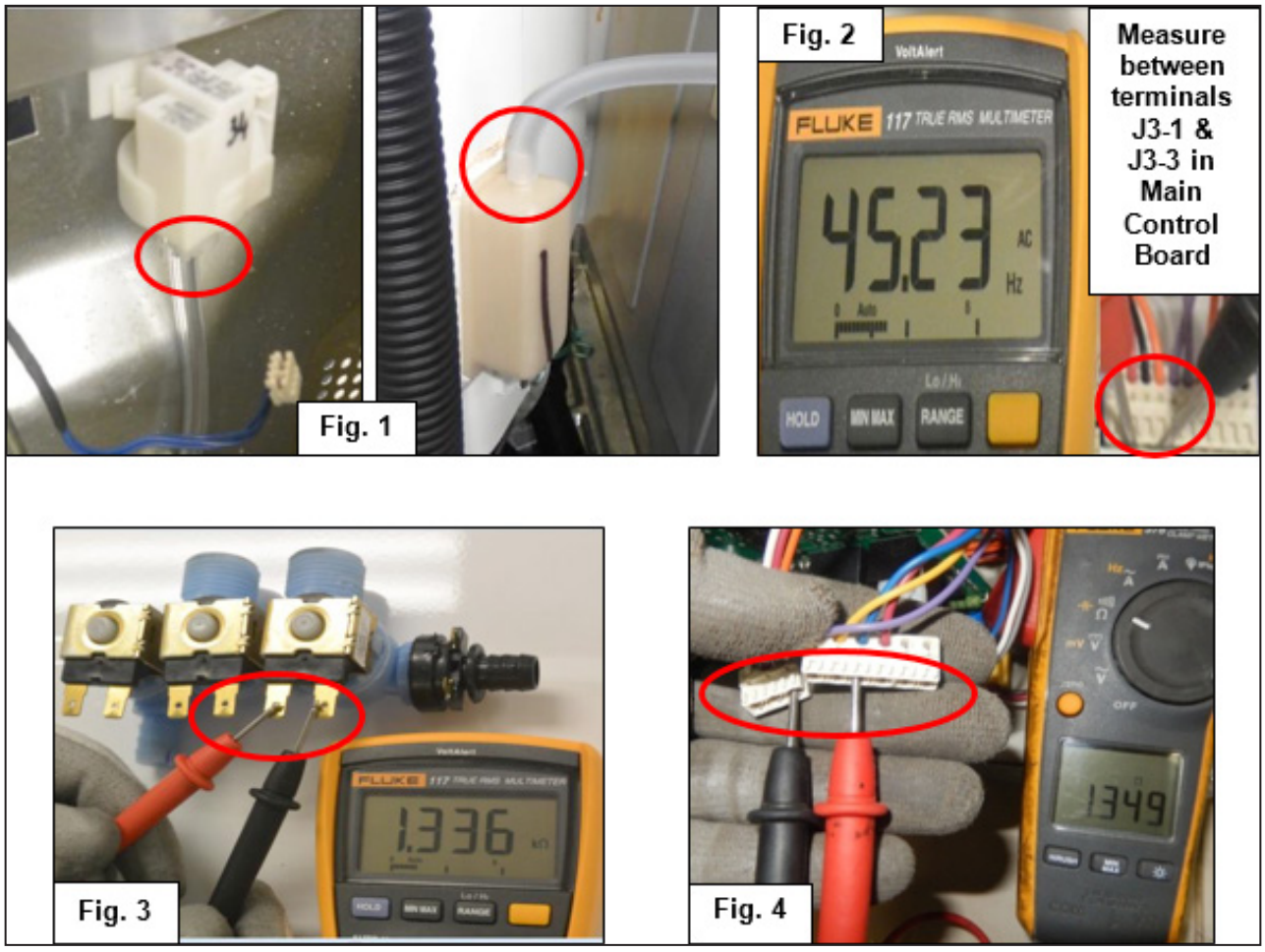


Fig. 1
Fig. 2
FLUKE 117 TRUE RMS MULTIMETER
45.23
AC
Hz
HOLD
MIN MAX
RANGE
Measure between terminals J3-1 & J3-3 in Main Control Board
Fig. 3
1.336
Fig. 4
1349

E41	E41: Door / Lid opened	E41
	Lid lock device defective, wiring defective, Main Control Board defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Are there any obstacles on the Lid lock which prevents locking the door?

YES → Clear the obstacles and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Detach the connector of Lid lock and measure the resistance between terminals 2 & 3. Is the resistance between 100Ω to110Ω? **(See Fig. 1)**

NO → Replace the Lid lock and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Attach the connector of Lid lock and measure the resistance between terminals J13-2 & J13-3 of connector on Main Control Board side. Is the resistance between 100Ω to110Ω?

NO → Replace the Lid lock wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

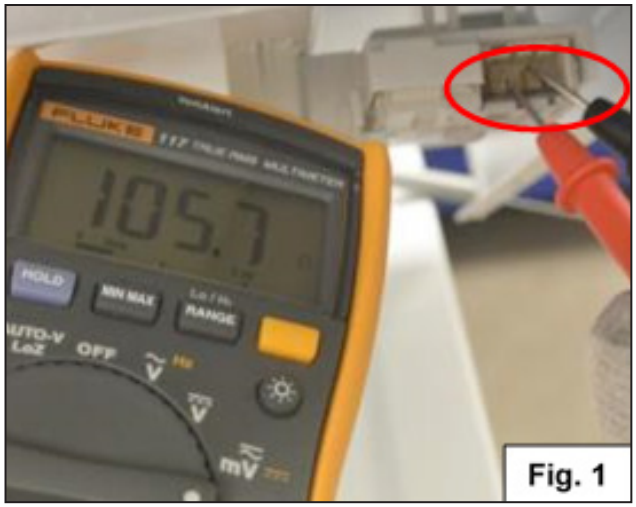


Fig. 1

E42	**E42: Door / Lid lock failure** Lid lock device defective, Low input AC voltage, wiring defective.	E42

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models andFrequency = 60HZ)

NO → Make the Power supply as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Are there any obstacles on the Lid lock which prevents locking the door?

YES → Clear the obstacles and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Detach the connector of Lid lock and measure the resistance between terminals 2 & 3. Is the resistance between 100Ω to110Ω? **(See Fig. 1)**

NO → Replace the Lid lock and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Attach the connector of Lid lock and measure the resistance between terminals J13-2 & J13-3 of connector on Main Control Board side. Is the resistance between 100Ω to110Ω?

NO → Replace the Lid lock and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

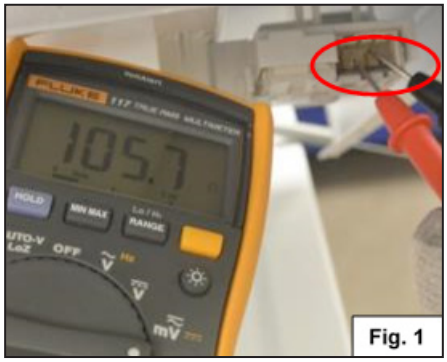


Fig. 1

E43	**E43: Door / Lid lock triac failure**	E43
	Lid lock device defective, wiring defective, Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctlyinserted.

Are there any obstacles on the Lid lock which prevents locking the door?

YES → Clear the obstacles and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Detach the connector of Lid lock and measure the resistance between terminals 2 & 3. Is the resistance between 100Ω to110Ω? **(See Fig. 1)**

NO → Replace the Lid lock and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Attach the connector of Lid lock and measure the resistance between terminals J13-2 & J13-3 of connector on Main Control Board side. Is the resistance between 100Ω to110Ω?

NO → Replace the Lid lock wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

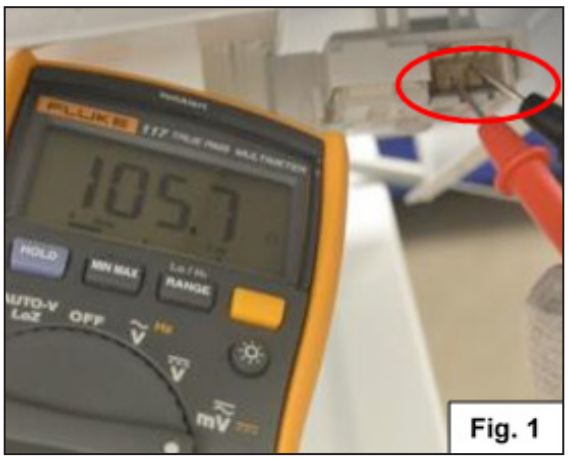


Fig. 1

NOTE

MACHINE ACTION / STATUS: Safety drain, **ACTION TO CLEAR:** RESET

E44	**E44: Door / Lid closed sensing failure**	E44
	Lid lock device defective, wiring defective, Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Are there any obstacles on the Lid lock which prevents locking the door?

YES → Clear the obstacles and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Detach the connector of Lid lock and measure the resistance between terminals 2 & 3. Is the resistance between 100Ω to110Ω? **(See Fig. 1)**

NO → Replace the Lid lock and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Attach the connector of Lid lock and measure the resistance between terminals J13-2 & J13-3 of connector on Main Control Board side. Is the resistance between 100Ω to110Ω?

NO → Replace the Lid lock wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

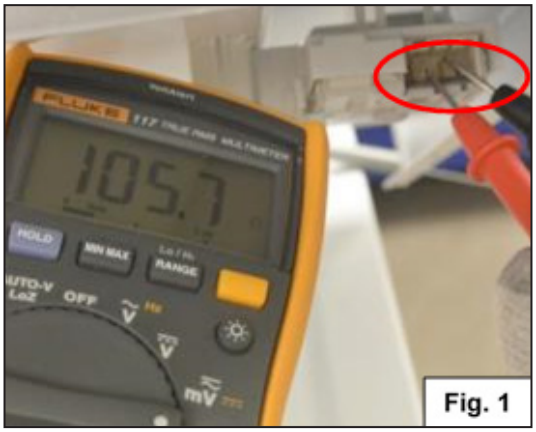


Fig. 1

NOTE

MACHINE ACTION / STATUS: Safety drain, **ACTION TO CLEAR:** RESET

E45	E45: Door / Lid triac sensing failure	E45
	Lid lock device defective, wiring defective, Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Are there any obstacles on the Lid lock which prevents locking the door?

YES → Clear the obstacles and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Detach the connector of Lid lock and measure the resistance between terminals 2 & 3. Is the resistance between 100Ω to110Ω? **(See Fig. 1)**

NO → Replace the Lid lock and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Attach the connector of Lid lock and measure the resistance between terminals J13-2 & J13-3 of connector on Main Control Board side. Is the resistance between 100Ω to110Ω?

NO → Replace the Lid lock wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

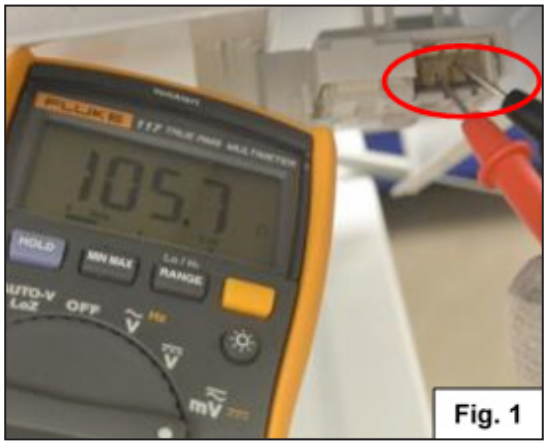


Fig. 1

NOTE

MACHINE ACTION / STATUS: Safety drain, **ACTION TO CLEAR:** RESET

E55	**E55: Motor Under-speed failure**	E55
	Foam or drum weight overload, Drum mechanical drag, Motor, Drain pump.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models and Frequency = 60HZ)

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES

Is the laundry load as per product specification? (Load Capacity = 10.1 Kg (Approx.))

NO → Make laundry load as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES

Remove the laundry and check whether the drum turns freely without posing any resistance. Is the drum having any difficulty in rotating? **(See Fig .1)**

YES → Replace / Repair the defective component and repeat the Diagnostic Cycle to check for any further alarms.

NO

Is the resistance measurement of the Motor approximately 6Ω to 8Ω ? (Measure it directly on the Motor terminals 1 & 2, 2 & 3, and 1 & 3 without wiring) **(See Fig. 2)**

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

YES

Is the resistance measurement of Motor approximately 6Ω to 8Ω? (Measure it directly on the Motor wiring connector on the Motor Control Board side between terminals J2-1 & J2-2, J2-2 & J2-3 and J2-3 & J2-1)**(See Fig. 3)**

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES

See Next Page

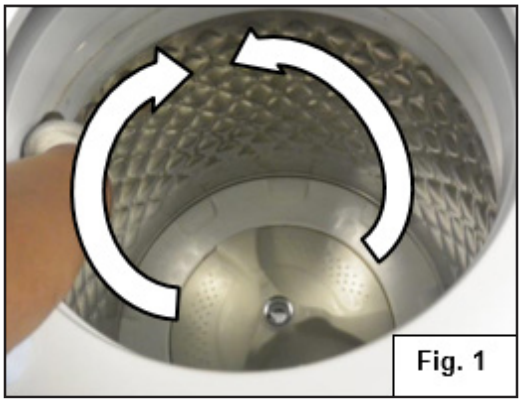


Fig. 1

Is the resistance measurement of the Drain pump approximately 12Ω to 17Ω? (Measure it directly on the connector on the Main Control Board side between terminals J15-3 & J15-4). **(See Fig. 4)**

NO

Is the resistance measurement of the Drain pump approximately 12Ω to 17Ω? (Measure it directly on the Drain pump). **(See Fig. 5)**

NO

Replace the Drain pump and repeat the Diagnostic Cycle to check for any further alarms.

YES

Check / Replace the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

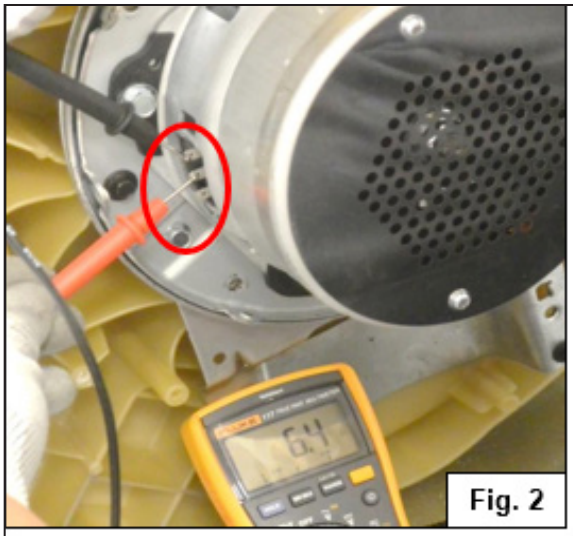


Fig. 2

Fig. 3

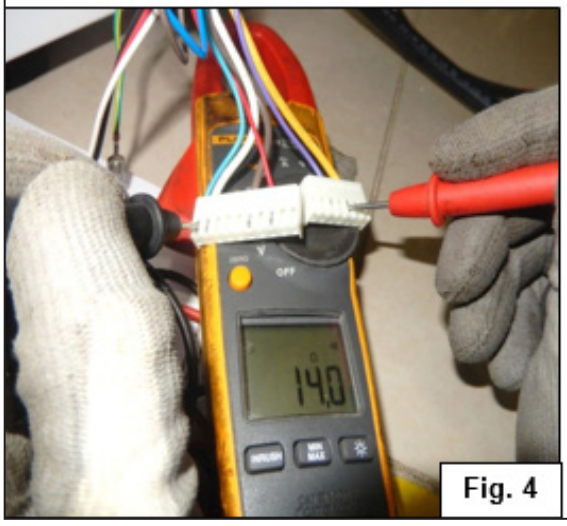


Fig. 4

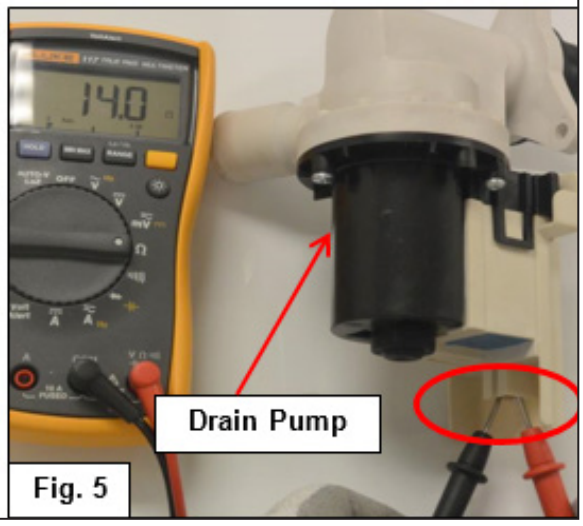


Fig. 5

E58	**E58: Motor over current**	E58
	Foam or drum weight overload, Motor, wiring, Motor Control Board defective	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models.

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the laundry load as per product specification? (Load Capacity = 10.1 Kg (Approx.))

NO → Make laundry load as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Remove the laundry and check whether the drum turns freely without posing any resistance. Is the drum having any difficulty in rotating? **(See Fig .1)**

YES → Replace / Repair the defective component and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Is the resistance measurement of the Motor approximately 6Ω to 8Ω ? (Measure it directly on the Motor terminals 1 & 2, 2 & 3, and 1 & 3 without wiring) **(See Fig. 2)**

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of Motor approximately 6Ω to 8Ω? (Measure it directly on the Motor wiring connector on the Motor Control Board side between terminals J2-1 & J2-2, J2-2 & J2-3 and J2-3 & J2-1) **(See Fig. 3)**

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

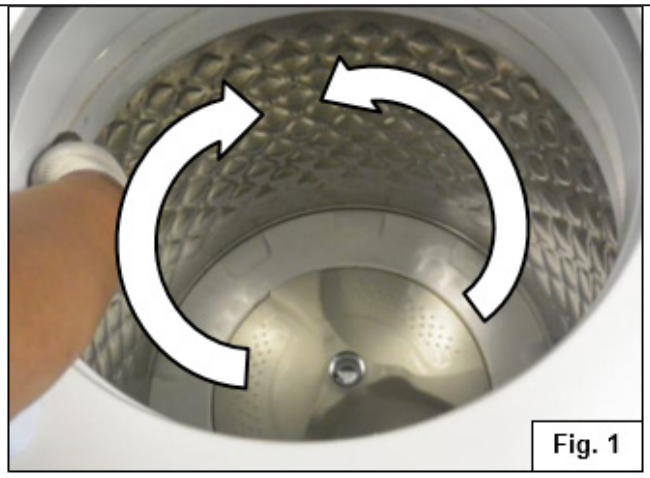


Fig. 1

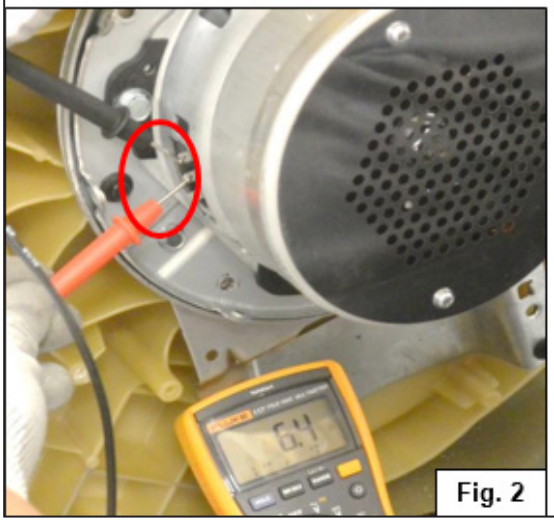


Fig. 2

Fig. 3

E59	E59: Motor not Following	E59
	Drum mechanical locked, Motor, Wiring or motor control board.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models and Frequency = 60HZ)

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Remove the laundry and check whether the drum turns freely without posing any resistance. Is the drum having any difficulty in rotating? **(See Fig .1)**

YES → Replace / Repair the defective component and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of the Motor approximately 6Ω to 8Ω ? (Measure it directly on the Motor terminals 1 & 2, 2 & 3, and 1 & 3 without wiring) **(See Fig. 2)**

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

NO ↓

Is the resistance measurement of Motor approximately 6Ω to 8Ω? (Measure it directly on the Motor wiring connector on the Motor Control Board side between terminals J2-1 & J2-2, J2-2 & J2-3 and J2-3 & J2-1) **(See Fig. 3)**

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

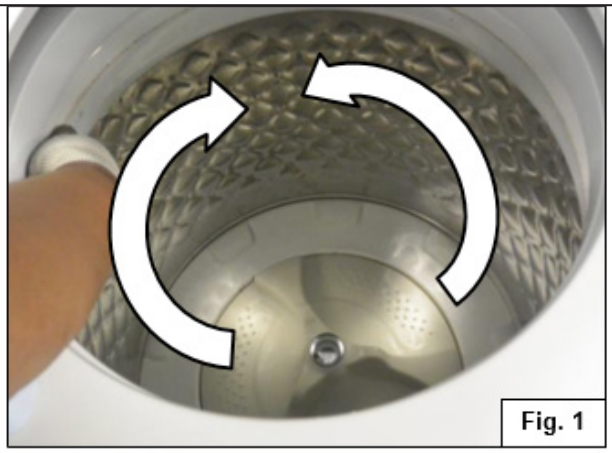


Fig. 1

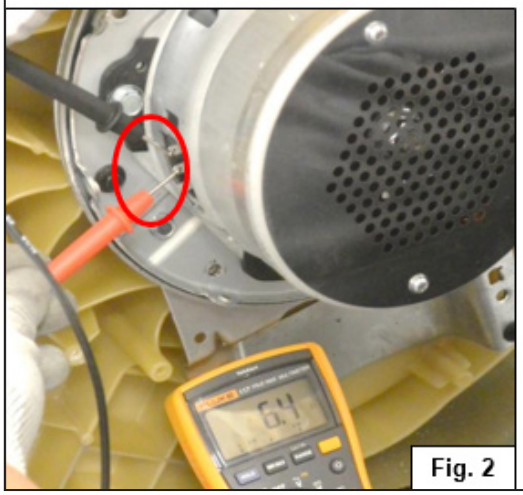


Fig. 2

Fig. 3

E5A	E5A: Motor Control over heating	E5A
	Drum weight overload, Motor control board, Motor.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models.

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the laundry load as per product specification? (Load Capacity = 10.1 Kg (Approx.))

NO → Make laundry load as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of the Motor approximately 6Ω to 8Ω ? (Measure it directly on the Motor terminals 1 & 2, 2 & 3, and 1 & 3 without wiring) **(See Fig. 1)**

NO → Replace the Motor and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the resistance measurement of Motor approximately 6Ω to 8Ω? (Measure it directly on the Motor wiring connector on the Motor Control Board side between terminals J2-1 & J2-2, J2-2 & J2-3 and J2-3 & J2-1) **(See Fig. 2)**

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

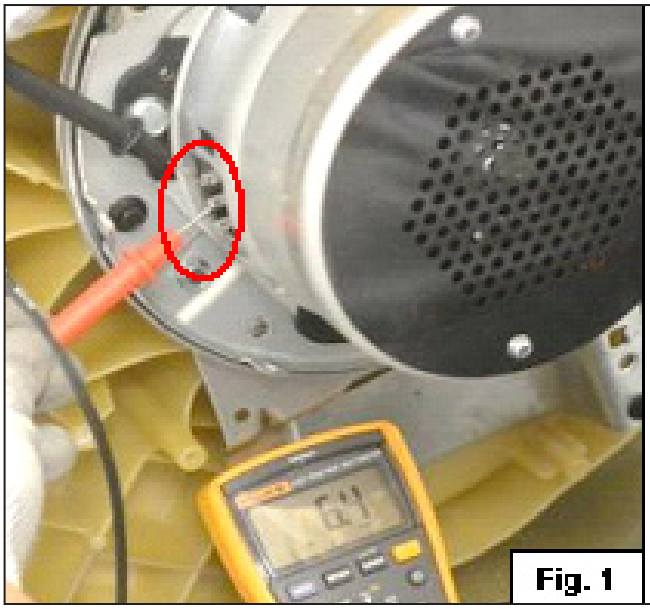


Fig. 1

Fig.2

E5H	**E5H: Motor control under voltage**	E5H
	Low input AC voltage, Wiring or motor control board, Main board.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models and Frequency = 60HZ)

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the wiring between Main Control Board and Motor Control Board proper? (Check for the continutity)

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E5C	**E5H: Motor control under voltage**	E5C
	Low input AC voltage, Wiring or motor control board, Main board.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Is the wiring between Main Control Board and Motor Control Board proper? (Check for the continutity)

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E5D	**E5D: Motor Control Board unknown message**	E5D
	Communication wiring , Motor control board, Main board, Software not matching.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the wiring between Main Control Board and Motor Control Board proper? (Check for the continutity)

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E5E	**E5E: Motor control to Main Board communication incorrect**	E5E
	Wiring problem , Motor Control Board defective, Main Control Board defective, User Interface Board defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the wiring between Main Control Board, Motor Control Board and User Interface Board proper? (Check for the continutity)

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the User Interface Board and check for further alarms. Is the appliance ok?

YES → Appliance is ok

NO ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E5F	E5F: Motor Control Board fault	E5F
	Wiring problem, Motor Control Board defective, Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Is the wiring between Main Control Board and Motor Control Board proper? (Check for the continutity)

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E71	E71: Washing NTC failure	E71
	Wiring open, Washing NTC defective, Wiring or Main Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Is the resistance measurement of the Washing NTC approximately 50kΩ to 67kΩ? (Measure it directly on the Washing NTC terminals without wiring) **(See Fig. 1)**

NO → Replace the Washing NTC and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Reconnect the connector and measure the resistance approximately 50kΩ to 67kΩ on the Washing NTC wiring connector on the Main Control Board between terminals J5-5 & J5-6. Is the Washing NTC wiring ok? **(See Fig. 2)**

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

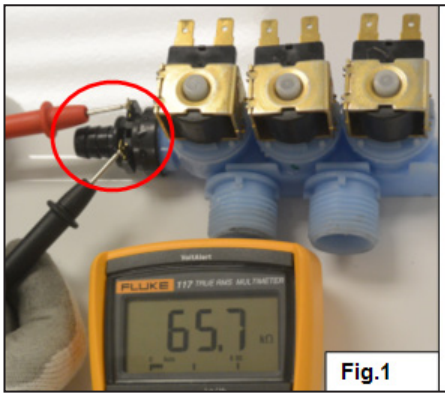


Fig.1

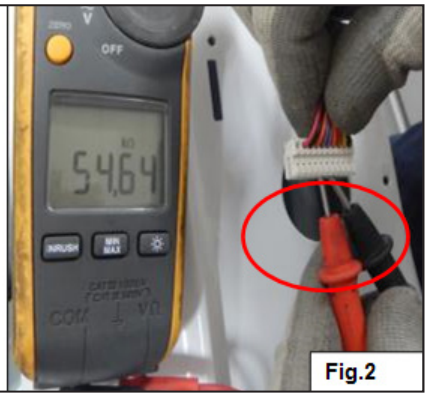


Fig.2

E87	**E87: User Interface microcontroller fault**	E87
	User Interface defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Replace the User Interface Board and repeat the Diagnostic Cycle to check for any further alarms.

E91	**E91: User interface and Main Board communication error**	E91
	Wiring problem, Motor Control Board defective, Main Control Board defective, User Interface Board defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Is the wiring between Main Control Board, Motor Control Board and User Interface Board proper? (Check for the continutity)

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the User Interface Board and check for further alarms. Is the appliance ok?

YES → Appliance is ok

NO ↓

Replace the Motor Control Board and check for further alarms. Is the appliance ok?

NO → Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E92	**E92: User interface and Main Board protocol incongruence error**	E92
	Main board, User interface board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Disconnect the connector J17(Main Control Board) which connects Main Control Board and User Interface Board. Does the E92 alarm appear again?

NO → Replace the User Interface Board and repeat the diagnostic cycle to check for any further alarms.

YES ↓

Check the wiring between the Main Control Board and the User Interface Board.

- Detach and reconnect the connectors on both boards several times.
- Check for the continuity of wiring between Main Control Board and User Interface Board. Is the wiring ok?

NO → Replace / Repair the wiring and repeat the diagnostic cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E93	**E93: Machine configuration error**	E93
	Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Replace the User Interface Board and repeat the Diagnostic Cycle to check for any further alarms.

E94	**E94: Cycle configuration error**	E94
	Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E97	**E97: Software selector and cycles configuration error**	E97
	Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E98	**E98: Motor Control to Main Board software error**	E98
	Main board, Motor control board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Disconnect the connector J12 (Main Control Board) which connects Main Control Board and Motor Control Board. Does the E98 alarm appear again?

NO → Replace the Motor Control Board and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Check the wiring between the Main Control Board and the Motor Control Board. Detach and reconnect the connectors on both boards several times. Check for the continuity of wiring between Main Control Board and Motor Control Board. Is the wiring ok?

NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

E9C	**E9C: User Interface configuration fault**	E9C
	User Interface Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

Replace the User Interface Board and repeat the Diagnostic Cycle to check for any further alarms.

EB1 (EH1)	EB1 (EH1): Power supply frequency out of limits	EB1 (EH1)
	AC input, Main board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

IMPORTANT

The appliance remains in alarm status until the mains frequency returns to the correct values or the appliance is switched OFF. Only the family of the alarm is displayed and the Diagnostics Mode cannot be accessed. The complete alarm can only be read when the situation has normalized.

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models and Frequency = 60HZ)

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

EB2 (EH2)	EB2 (EH2): Power supply voltage too high	EB2 (EH2)
	High AC voltage input, Main Control Board defective.	

Checks to perform:

WARNING

Check that all the connectors are correctly inserted.

IMPORTANT

The appliance remains in alarm status until the mains frequency returns to the correct values or the appliance is switched OFF. Only the family of the alarm is displayed and the Diagnostics Mode cannot be accessed. The complete alarm can only be read when the situation has normalized.

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models.

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

EB3 (EH3)	**EB3 (EH3): Power supply voltage too low**	EB3 (EH3)
	Low AC voltage input, Main Control Board defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

➔ IMPORTANT

⚠ **The appliance remains in alarm status until the mains frequency returns to the correct values or the appliance is switched OFF. Only the family of the alarm is displayed and the Diagnostics Mode cannot be accessed. The complete alarm can only be read when the situation has normalized.** ⚠

Is the power supply as per product specification? (Voltage = 240V (Electric), 120V (Gas) Models

NO → Make the power supply proper as per product specification and repeat the Diagnostic Cycle to check for any further alarms.

YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

EBE (EHE)	**EBE (EHE): Motor Control Board Relay error**	EBE (EHE)
	Motor Control Board relay defective, Main Control Board defective.	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Check the wiring of motor. If it is proper replace the Motor Control Board and check problem is solved? If not sloved, replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

EBF (EHF)	**EBF (EHF): Motor Control Board relay sensing error**	EBF (EHF)
	Main Control Board defective	

Checks to perform:

⚠ WARNING

Check that all the connectors are correctly inserted.

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.

EC6	EC6: Clutch alarm	EC6
	Clutch mechanism failure, Main board defective, Wiring/connection problem.	

Checks to perform :

⚠ WARNING

Check that all the connectors are correctly inserted.

Is Clutch assembled properly? (Check for any damage) Is Clutch in good condition?
NO → Replace / Repair the Clutch and repeat the Diagnostic Cycle to check for any further alarms.

YES

Is the resistance measurement of the clutch approximately 2800Ω to 3100Ω ? (Measure it directly on the clutch terminals without wiring). **(See Fig. 1)**
NO → Replace the Clutch and repeat the Diagnostic Cycle to check for any further alarms

YES

Is the resistance measurement of clutch approximately 2800Ω to 3100Ω ? (Measure it directly on Clutch wiring connector on the Main Control Board side between terminals J9-1 & J20-6) **(See Fig. 2)**
NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

YES

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.
NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.

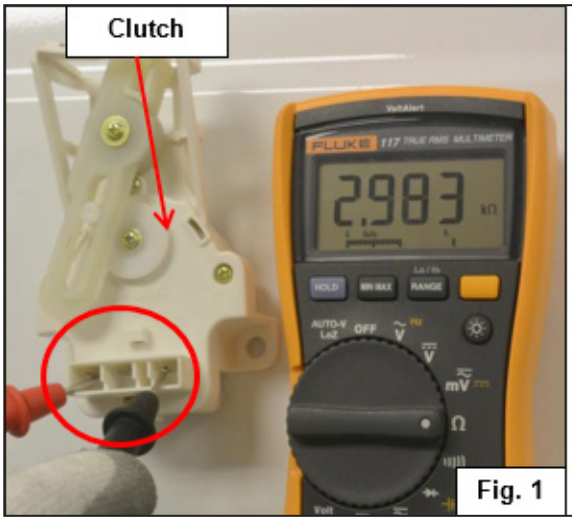


Fig. 1

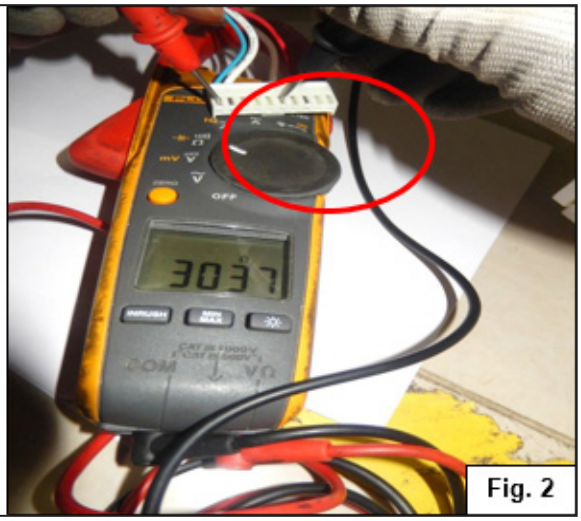


Fig. 2

EC7	EC7: Clutch TRIAC sensing failure	EC7
	Clutch mechanism failure, Main board defective, Wiring/connection problem.	

Checks to perform :

⚠ WARNING

Check that all the connectors are correctly inserted.

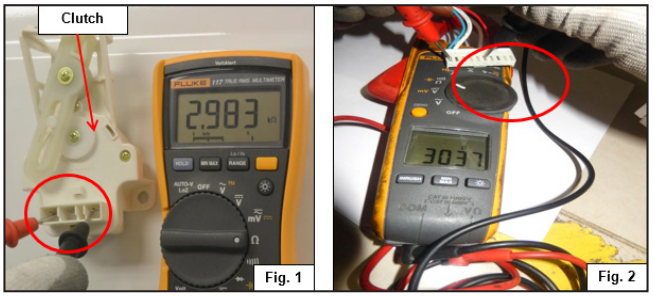
Is Clutch assembled properly? (Check for any damage) Is Clutch in good condition?
- NO → Replace / Repair the Clutch and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Is the resistance measurement of the clutch approximately 2800Ω to 3100Ω ? (Measure it directly on the clutch terminals without wiring).**(See Fig. 1)**
- NO → Replace the Clutch and repeat the Diagnostic Cycle to check for any further alarms
- YES ↓

Is the resistance measurement of clutch approximately 2800Ω to 3100Ω ? (Measure it directly on Clutch wiring connector on the Main Control Board side between terminals J9-1 & J20-6) **(See Fig. 2)**
- NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Is the resistance measurement of Motor approximately 6Ω to 8Ω? (Measure it directly on the Motor wiring connector on the Motor Control Board side between terminals J2-1 & J2-2, J2-2 & J2-3 and J2-3 & J2-1) **(See Fig. 2)**
- NO → Replace / Repair the wiring and repeat the Diagnostic Cycle to check for any further alarms.
- YES ↓

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.



EF2	EF2: Foam warning	EF2
	Incorrect or excessive detergent, Drain pipe blocked or clogged.	

Checks to perform :

⚠ WARNING

Check that all the connectors are correctly inserted.

1. This is an excessive detergent dosing warning. The system detected dense foam during the drain phases. Therefore, use the correct quantity of detergent and make sure the filter and drain circuit are clean.

2. Excess of suds is generated that causes the overheating of motor because of the improper quantity or quality of detergent. In the future, reduce detergent dose or use **high efficient (HE)** detergent.

3. Alarm is silent and the cycle is extended.

EF6	EF6: Safety reset	EF6
	Main Control Board defective.	

Checks to perform :

⚠ WARNING

Check that all the connectors are correctly inserted.

Replace the Main Control Board and repeat the Diagnostic Cycle to check for any further alarms.