This information is intended for Qualified Technicians Only.

Table Of Contents

Safety items throughout this manual are labeled with a **WARNING** or **CAUTION** based on the risk type as described below:

⚠ WARNING **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION **CAUTION** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ WARNING

The information within this manual is intended for Qualified Service Technicians Only.

- DO NOT reach into the appliance while the tub or drum is spinning.
- Disconnect power before servicing machine.
- Certain internal parts are intentionally not grounded and may present a risk of electric shock only during servicing.

⚠ WARNING

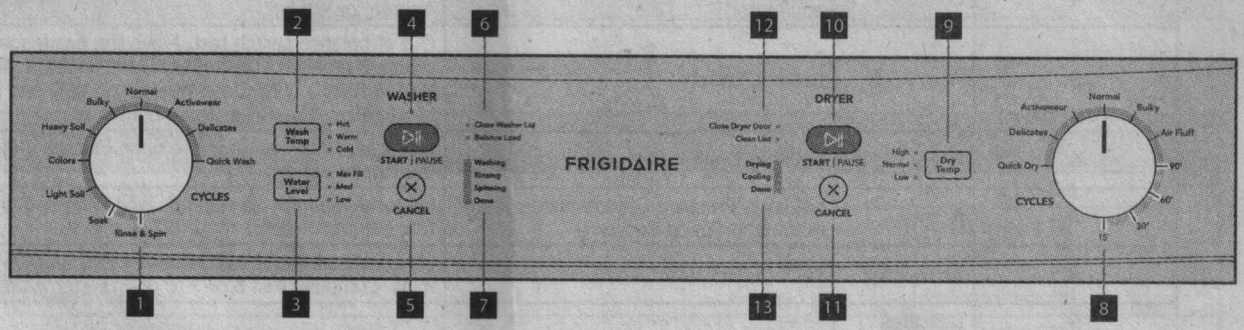
FIRE HAZARD

A clothes dryer produces combustible lint. The cabinet interior of the dryer, lint filter housing, and exhaust duct should be cleaned approximately every 18 months by a qualified servicer. An excessive amount of lint build-up in these areas could result in inefficient drying and possible FIRE. See the Care and Cleaning section of the Use & Care instructions.

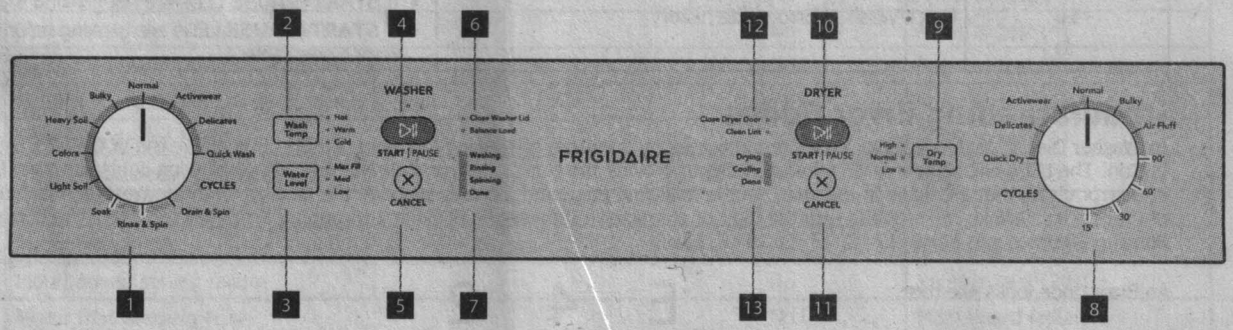
⚠ CAUTION

Unless otherwise directed, disconnect electrical current before servicing.

Laundry Center User Interface A



Laundry Center User Interface B



Washer

1. Wash Cycle Selector
2. Wash Cycle Temperature
3. Wash Cycle Water Level
4. Wash Cycle START|PAUSE
5. Wash Cycle Cancel
6. Wash Cycle Advisory Lights
7. Wash Cycle Status

Dryer

8. Dry Cycle Selector
9. Dry Cycle Temperature
10. Dry Cycle START|PAUSE
11. Dry Cycle Cancel
12. Dry Cycle Advisory Lights
13. Dry Cycle Status

2 WASHER DIAGNOSTIC MODE

Washer Diagnostic Mode

Entering Washer Diagnostic Mode:

1. Power OFF the unit by either turning the washer cycle selector knob to **CYCLES** position (4 o'clock position) or unplugging the unit.
2. Power back ON the unit by either rotating the washer cycle selector knob or plugging in the unit.
3. Within 10 seconds of powering up, rotate the knob to the **Rinse & Spin** cycle position.
4. Press and hold **Wash Temp** and **CANCEL** buttons simultaneously until a beep is heard and LED lights start to blink one by one.

Exiting Diagnostic Mode:

To exit Diagnostic Mode and return to normal function, either press and hold the **Wash Temp** and **CANCEL** buttons simultaneously until the LED lights stop blinking or unplug the unit for a 10 full seconds before plugging the unit back in.

NOTE

The unit will automatically exit Diagnostic Mode and return to normal functionality if left unattended in diagnostic Mode for more than 15 minutes.

Washer Diagnostic Mode Tests

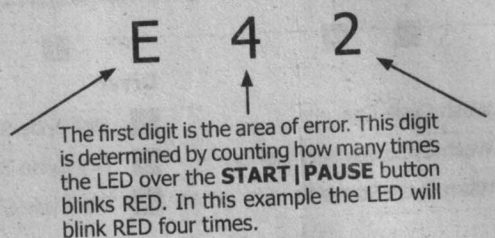
All tests should be performed with an empty tub. Any items left in the tub will cause a serious out-of-balance situation and potential damage to the washer as it reaches higher spin speeds.

DIAGNOSTIC ID	PROGRAM	TEST/ACTIVATED COMPONENT	TEST DESCRIPTION
1	Rinse & Spin	LED Test, Button Test	LEDs illuminate in sequence. Manually test buttons for tone.
2	Soak	Lid Lock, Hot Valve and Clutch	Lid Locks. Fill water via HOT valve to 140mm. Disengage the clutch.
3	Light Soil	Lid Lock, Cold Valve, and Clutch	Lid Locks. Fill water via COLD valve to 140mm. Disengage the clutch.
4	Colors	Lid Lock, Hot valve, Cold Valve, Clutch, and Motor	Lid locks. Fill water via HOT and COLD valves to 20mm. Agitate for 4 mins.
5	Heavy Soil	Balance Switch	Out of balance switch test. Move the drum against the tilt switch 2 times in 10 seconds. If tilt switch is working, the WASHER RED LED, Close Washer Lid LED and Balance Load LED will be ON simultaneously.
6	Bulky	Lid lock, Drain Pump, and Clutch	Lid locks. Drain water until empty. Engage and disengage the clutch 1 time.
7	Normal	Lid Lock, Pressure Sensor, Motor, Drain Pump and Speed Sensor	Lid locks. Spin for 25 seconds while draining water from tub.
8	Activewear	Lid lock, Hot Valve, and Cold Valve	Lid Locks. Fill water using both HOT and COLD valve for 5 mins. Complete test 6 or 7 to drain water from the tub.
9	Delicates	— —	— —
10	Quick Wash	Error code history	Check last 3 error codes • If **START|PAUSE** LEDs are not blinking there is no error. • If **START|PAUSE** LEDs are blinking refer to Washer Error Code Table.

Understanding Error Codes

In Washer Diagnostic Mode, error codes are indicated by a pattern of blinking RED and GREEN LEDs above the WASHER START|PAUSE button. The LEDs will blink first RED then GREEN, to provide the two digit error code number. These blinking lights can then be translated into error codes that are listed in the chart on the following page and can help pinpoint the problem with the washing machine. The number of times a light blinks corresponds with the digit or character it represents. Blinking 1 through 9 times will represent the corresponding digit. Blinking 10 times =A, 11=B, 12=C, 13=D, 14=E, 15=F.

An Error Code looks like this:



This letter "E" designates that this is an Error Code.

The first digit is the area of error. This digit is determined by counting how many times the LED over the **START|PAUSE** button blinks RED. In this example the LED will blink RED four times.

The second digit is the type of error. This digit is determined by counting how many times the LED over the **START|PAUSE** button blinks GREEN.

Looking at the Washer Error Code Table on the following page, E42 refers to a Door Lock Error.

Error Code	Error Description	Display Notification	Next Step
E42	Door lock device failure	No	Refer to test (6)

If your washing machine has multiple errors, the display will communicate up to three error codes.

- The GREEN LED light for **Done** will be illuminated while the first error code is being communicated.
- The GREEN LED light for **Spinning** will be illuminated while the second error code is being communicated.
- The GREEN LED light for **Rinsing** will be illuminated while the third error code is being communicated.

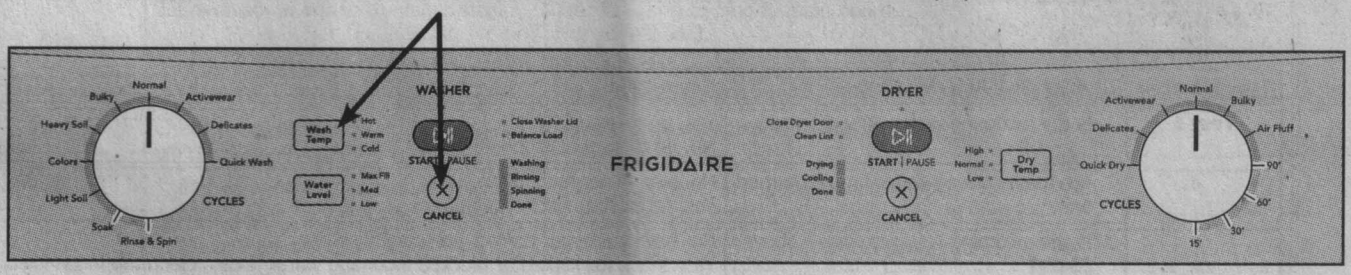
3 Rinsing
2 Spinning
1 Done

Reset Washer Error Code History in Diagnostic Mode:

Rotate the washer cycle selector knob to the Quick Wash position (position 10) and press and hold **Wash Temp** and **CANCEL** buttons simultaneously until UI stops displaying error code.

Recalling Last Error Code:

From any cycle position, press and hold **Wash Temp** and **CANCEL** buttons for 15 seconds to display the last error code.



Washer Error Code Table

Error Code	Error Description	Display Notification	Next Step
E11	Fill time too long	Yes	Refer to test (1)
E13	Water leak in tub or in pressure sensor	No	Refer to test (2)
E21	Water not pumping out fast enough	Yes	Refer to test (3)
E23	Drain triac error	No	Refer to test (3)
E24	Drain triac error sensing	No	Refer to test (3)
E31	Electronic pressure switch error	No	Refer to test (4)
E32	Pressure sensor calibration problem	No	Refer to test (4)
E35	Pressure sensor indicates water overfill	No	Refer to test (5)
E41	Control board thinks the door switch is open	Yes	Refer to test (6)
E42	Door lock device failure	No	Refer to test (6)
E44	Door closed sensing failure	No	Refer to test (6)
E45	Line door sensing failure	No	Refer to test (6)
E51	Motor triac error	No	Main board failure
E52	Motor speed sensor failure	No	Refer to test (20)
E53	Motor triac sensing error	No	Main board failure
E54	Motor relay error	No	Main board failure
E91	User interface protocol incongruence error	Yes	Refer to test (11)
E92	User interface mother board protocol incongruence	No	Refer to test (11)
E93	Console or main board control problem (incompatible machine configuration)	Yes	Refer to test (11)
E94	Main board control problem (incompatible cycle configuration)	Yes	Refer to test (10)
E97	Console or main board control problem (incompatible cycle configuration)	Yes	Refer to test (11)

4 WASHER TROUBLESHOOTING TESTS

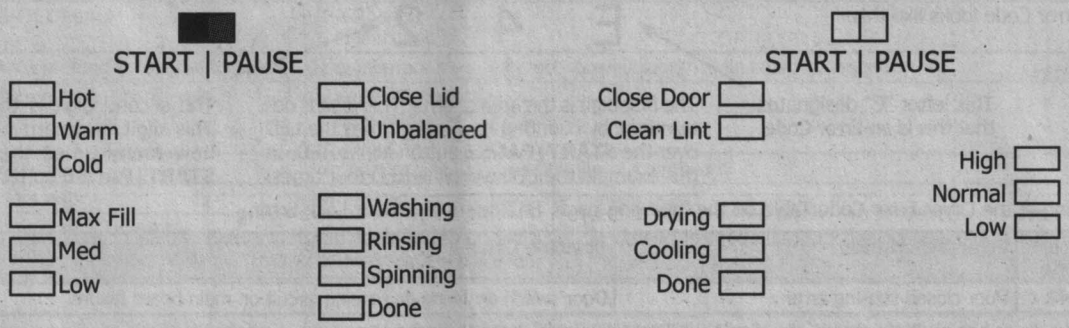
Error Code	Error Description	Display Notification	Next Step
E9C	User interface configuration problem	Yes	Refer to test (11)
EB1	Frequency of power out of limits	Yes	Refer to test (18)
EB2	Supply voltage too high (incoming voltage)	Yes	Refer to test (18)
EB3	Supply voltage too high (incoming voltage)	Yes	Refer to test (18)
EF5	Load unbalanced	No	Redistribute load and restart
EF6	Control reset	No	Refer to test (19)
EC6	Clutch error. Clutch positioning timeout reach or failure to stay in desired position	No	Clutch mechanism failure Main board failure Wire/connection problem
EC7	Sensing that the clutch triac is out of limits	No	Clutch mechanism failure Main board failure Wire/connection problem

Test Number	Check/Test Activity Steps	Correction
Test 1	1. Is the incoming water flow normal?	Yes, go to step (4). No, go to step (2).
	2. Are the incoming water faucets turned on?	No, turn water faucets on. Yes, go to step (3).
	3. Is the incoming water pressure above 20 psi?	No, have customer correct pressure problem. Yes, check for kinked or blocked incoming water hoses, clean the incoming water screens. If problem still remains, replace water inlet valve assembly.
	4. Does the fill water continue to enter the washer?	Yes - Go to step (5) No - Go to step (6)
	5. Remove power from the washer. Did the water fill stop?	Yes - Go to step (6) No - Replace the inlet valve assembly. If pressure switch checks good, go to step (7). If pressure switch checks bad, replace pressure switch.
	6. Replace the pressure sensor.	If this did not correct the problem, go to step 7.
	7. Replace the main control board.	
Test 2	1. Is the washer leaking water?	Yes, correct water leak. No, go to step (2).
	2. Is there an air leak in the pressure sensor system?	Yes, correct the air leak problem. No, go to step (3).
	3. Replace the pressure sensor.	If this did not correct the problem, go to step (4).
	4. Replace the main control board.	
Test 3	1. Check the drain hose for restrictions.	If there is a restriction, correct the problem. No restriction, go to step (2).
	2. Start the washer and check for 120 VAC at the drain pump.	If reading zero, check wiring. If wiring good, replace main control board. If reading 120 VAC, remove the pump and check for blockage. If blocked, remove the restriction, if not, replace the pump.
Test 4	Inspect the wiring between the pressure sensor and the main control board.	If wiring defective, correct wiring. If wiring OK, replace pressure sensor. If this does not correct the problem, replace the main control board.
Test 5	1. Is the water level above 4.5 inches?	Yes, go to step (2). No, go to step (4).
	2. Does water enter the washer continuously?	Yes, go to step (3). No, check air trap for clog, if not replace the main control board.
	3. Remove power from washer. Does the water stop coming in?	No, replace water valve assembly. Yes, check wiring to valve assembly for shorts. If wiring is good, replace the main control board.
	4. Replace the pressure sensor switch.	

Test Number	Check/Test Activity Steps	Correction
Test 6	1. Is the loading door closed?	No, close the door. Yes, go the step (2).
	2. Can you hear the lock attempt to close?	Yes, check the door strike. If good, replace the door No, go the step (3)
	3. Check wire connection between door lock and main control board.	If good, replace door lock. Then if problem is not fixed, replace main control board.
Test 10	Communication problem. Check the wiring between the main control board and the motor control board.	If wiring is bad, correct wiring problem. If wiring is good, replace the main control board. If the problem is not corrected, replace the user interface board
Test 11	Communication problem. Check the wiring between the main control board and the user interface board.	If wiring is bad, correct wiring problem. If wiring is good, replace the user interface board. If the problem is not corrected, replace the main control board.
Test 18	1. Check power in for voltage under load.	Correct supply or branch circuit issues. No problem go to step 2
	2. Check power wiring to main board.	Yes, fix wiring or plug to main board. No, go to step 3.
	3. Check wiring to motor board for short to power or ground.	Yes, fix problem. No, replace the main board.
Test 19	Check wiring to main board. Unplug the unit for 1 minute and retry.	If problem is not corrected replace main control.
Test 20	1. Enter diagnostic mode. Run "Normal Cycle". Check Drum's Spin direction.	If CCW direction, wrong main board. Replace main board. If CW direction, Speed Sensor Failure. Go to step 2.
	2. Check Speed Sensor wiring Connection.	Is connection loose? Correct wiring connection. If not, go to step (3).
	3. Replace main board.	If new main board solves issue? Done. If not, replace motor.

Washer Error Display Pattern

The error is displayed with the WASHER **START | PAUSE** LED lights blinking RED and GREEN for 0.5 secs ON and 0.5 secs OFF with a 4.5 secs. pause between the sequences. The RED blinking LED light indicates the error family and the GREEN blinking LED light indicates the error code. The LED lights will continue to blink until the user interacts with the unit (the UI should not go to sleep in error condition). The RED blinking LED lights are shown in BLACK. The GREEN blinking LED lights are shown in GRAY.

Description	LED Error Pattern
WASHER ERROR	

To determine an error code, look at the blinking **START | PAUSE** LED lights only. Additional blinking lights are not needed for determining an error.

6 DRYER DIAGNOSTIC MODE

Dryer Diagnostic Mode

Entering Diagnostic Mode:

1. Power OFF the unit by either turning the **DRYER** cycle selector knob to the **CYCLES** position (8 o'clock position) or unplugging the unit.
2. Turn ON the unit.
3. Within 10 seconds of powering up, rotate the knob to the **Quick Dry** position.
4. Press and hold **DRY Temp** and **CANCEL** buttons simultaneously until a beep is heard and LED lights start to blink one by one.
5. Press the **START | PAUSE** button.

Exiting Diagnostic Mode:

To exit Diagnostic Mode and return to normal function, either press and hold the **Dry Temp** and **CANCEL** buttons simultaneously until the LED lights stop blinking or unplug the unit for a 10 full seconds before plugging the unit back in.

NOTE

The unit will automatically exit Diagnostic Mode and return to normal functionality if left unattended in diagnostic Mode for more than 15 minutes.

NOTE

If the dryer door has been opened and closed, the **START | PAUSE** button must be pressed to activate the motor and heater.

Diagnostic Mode Tests

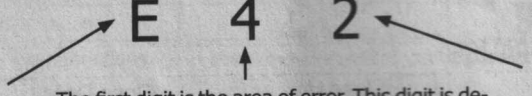
All tests should be performed with an empty tub. Programs not shown do not have associated tests.

DIAGNOSTIC ID	PROGRAM	TEST/ACTIVATED COMPONENT	TEST DESCRIPTION
1	Quick dry	Lights/ Buttons test	LEDs illuminate in sequence. Manually test buttons for tone.
2	Delicates	Motor	Motor is driven for 10 mins
3	Activewear	Motor, Heater and Thermistor	Motor and Heater is driven for 10 mins.
4 (Gas Only)	Normal	Motor, Heater and Thermistor	Motor and Heater is driven for 10 mins.
5	Bulky	— —	— —
6	Air Fluff	— —	— —
7	90′	— —	— —
8	60′	— —	— —
9	30′	— —	— —
10	15′	Error code history	Check last 3 error codes • If **START	PAUSE** LEDs are not blinking there is no error. • If **START	PAUSE** LEDs are blinking refer to Dryer Error Codes Table.

Understanding Error Codes

In Dryer Diagnostic Mode, error codes are indicated by a pattern of blinking RED and GREEN LEDs above the DRYER **START | PAUSE** button. The LEDs will blink first RED then GREEN, to provide the two digit error code number. These blinking lights can then be translated into error codes that are listed in the chart on the following page and can help pinpoint the problem with the dryer. The number of times a light blinks corresponds with the digit or character it represents. Blinking 1 through 9 times will represent the corresponding digit. Blinking 10 times =A, 11=B, 12=C, 13=D, 14=E, 15=F.

An Error Code looks like this:



This letter "E" designates that this is an Error Code.

The first digit is the area of error. This digit is determined by counting how many times the LED over the **START | PAUSE** button blinks RED. In this example the LED will blink RED four times.

The second digit is the type of error. This digit is determined by counting how many times the LED over the **START | PAUSE** button blinks GREEN.

Looking at the Dryer Error Code Table on the following page, E42 refers to a Door Lock Error.

Error Code	Error Description	Possible Causes
E42	Door closed sensing error	Door switch or wiring or sensing circuit on main board failure

If your dryer has multiple errors, the display will communicate up to three error codes.

- The GREEN LED light for **Done** will be illuminated while the first error code is being communicated.
- The GREEN LED light for **Cooling** will be illuminated while the second error code is being communicated.
- The GREEN LED light for **Drying** will be illuminated while the third error code is being communicated.

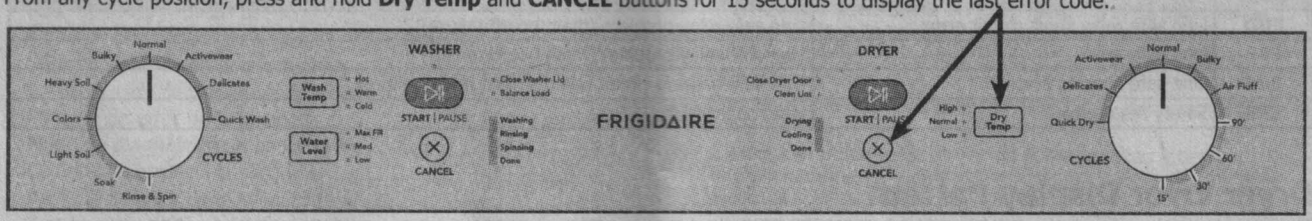
Drying 3
Cooling 2
Done 1

Reset Dryer Error Code History in Diagnostic Mode:

Rotate the dryer cycle selector knob to the **15′** position (position 10) and press and hold **Dry Temp** and **CANCEL** buttons simultaneously until UI stops displaying error code.

Recalling Last Error Code:

From any cycle position, press and hold **Dry Temp** and **CANCEL** buttons for 15 seconds to display the last error code.



Dryer Error Code Table

Error Code	Error Description	Possible Causes
E41	Door opened at cycle start	Door open
E42	Door closed sensing error	Door switch or wiring or sensing circuit on main board failure
E51	Drum motor relay error	With line safe relay closed, motor sensing detects voltage on motor 1. Motor short circuit to ground (motor or wiring) 2. Electrical noise 3. Line safe relay problem (main board failure) 4. Motor relay open or short
E52	Drum motor start sensing error	Motor relay driven but start sensing not congruent 1. Motor fault 2. Main board fault
E53	Drum motor centrifugal switch error	Motor driven but sensing not congruent 1. Motor fault 2. Main board fault
E54	Drum motor sensing error	Drum motor relay sensing circuit failure (main board failure)
E61	Heater relay error	1. Heater disconnected (wiring or connector failure) 2. Heater failure 3. Heater relay failure (open circuit)
E63	Heater short error	1. Heater sensing circuit failure (main board failure) 2. Heater failure
E64	Heater open error	1. Heater sensing circuit failure (main board failure) 2. Heater failure
E65	Thermostat open	Heater thermostat trip
E67	Heater sensing error	Heater sensing circuit failure (main board failure)
E71	NTC1 (OPEN) error	1. NTC open/disconnected 2. Main board fault
E72	NTC1 (SHORTED) error	1. NTC short 2. Main board fault
E73	NTC2 (OPEN) error	1. NTC open/disconnected 2. Main board fault
E74	NTC2 (SHORTED) error	1. NTC short 2. Main board fault
E91	User Interface protocol incongruence error	User Interface mounted is not compatible with main board connected
E92	User Interface mother board protocol incongruence	1. Wiring failure 2. User Interface board failure 3. Main board failure
E93	MCF checksum error	Wrong machine configuration file in main board
E94	CCF checksum error	Wrong cycle configuration file in main board
E97	Missing program on CTF error	Software problem in main board
EB1	Power supply frequency out of range	1. Power supply problems 2. Wrong MCF 3. Main board failure
EB2	Power supply amplitude out of range (too HIGH)	1. Power supply problems - too HIGH VOLTAGE 2. Main board failure
EB3	Power supply amplitude out of range (too LOW)	1. Power supply problems - too LOW VOLTAGE 2. Main board failure
EB4	Line wiring error	Wrong line wiring/connection
EF1	Ventilation blocked error	Air flow duct clogged or blocked. Remove debris, clean and check one way vent operation
E9C	User Interface configuration checksum error	Software problem between main board and User Interface board

8 DRYER ERROR DISPLAY

Error Code	Error Description	Possible Causes
EBD	Line safe relay short circuit error	Line safe relay problem (main board failure)
EBE	Line safe error	Line safe relay problem (main board failure)
EBF	Line safe sensing error	Line safe sensing circuit failure (main board failure)
EF6	Safety reset error	Main board fault

Dryer Error Display Pattern

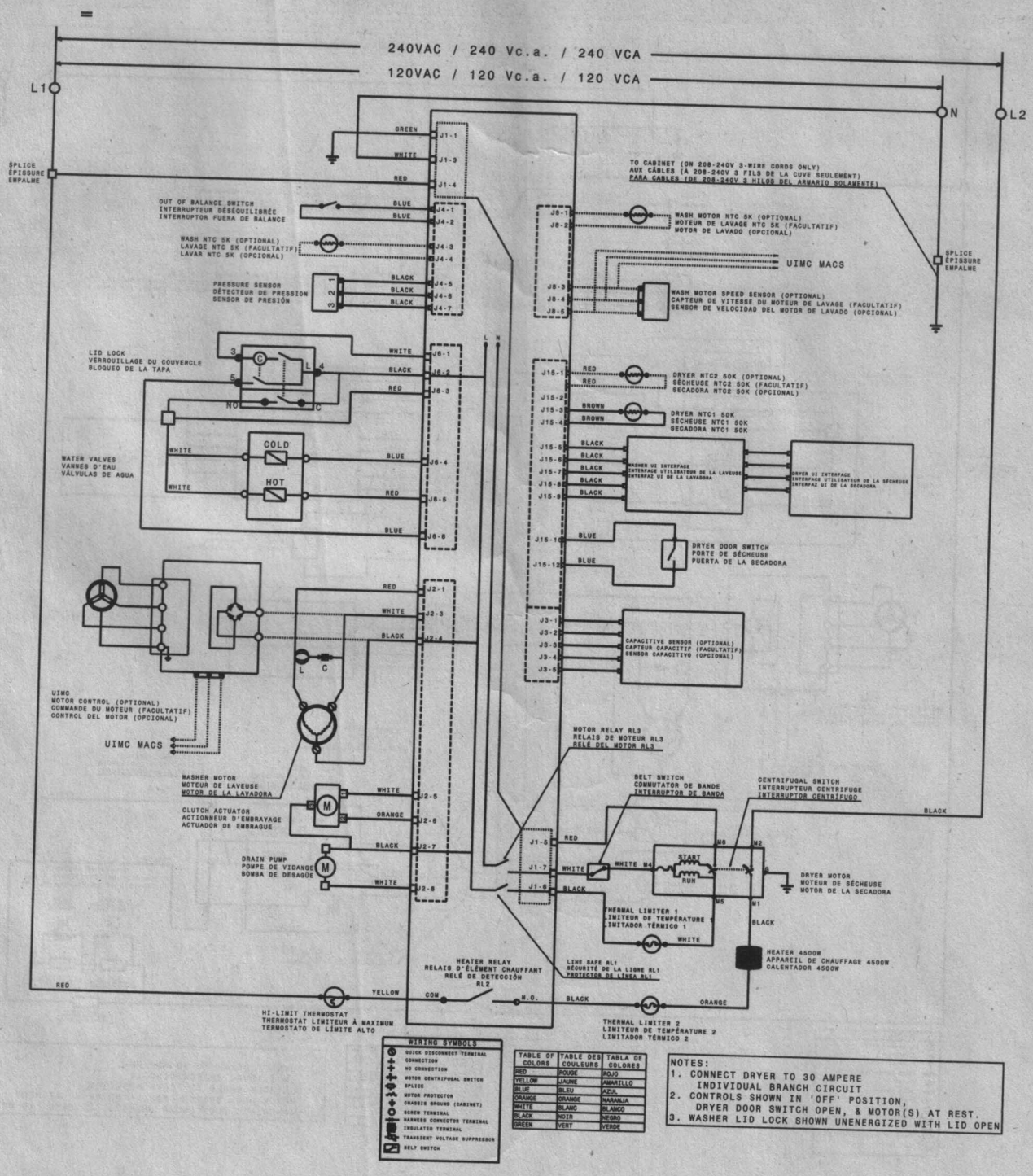
The error is displayed with the DRYER **START | PAUSE** LED lights blinking RED and GREEN for 0.5 secs ON and 0.5 secs OFF with a 2.5 secs pause between the sequences. The RED blinking LED light indicates the error family and the GREEN blinking LED light indicates the error code. The LED lights will continue to blink until the user interacts with the unit (the UI should not go to sleep in error condition). The RED blinking LED lights are shown in BLACK. The GREEN blinking LED lights are shown in GRAY.

Description	LED Error Pattern
DRYER ERROR	START | PAUSE Hot Warm Cold Max Fill Med Low Close Lid Unbalanced Washing Rinsing Spinning Done START | PAUSE Close Door Clean Lint Drying Cooling Done High Normal Low

To determine an error code, look at the blinking **START | PAUSE** LED lights only. Additional blinking lights are not needed for determining an error.

WIRING DIAGRAM - ELECTRIC 27

A11726205 - Wiring Diagram Electric / Esquema de cableado eléctrico / Schéma de câblage électrique



CAUTION

ELECTRICAL SHOCK HAZARD

To avoid electrical shock, disconnect electrical current before servicing.

ATTENTION

RISQUE DE CHOC ÉLECTRIQUE

Pour éviter tout choc électrique, débranchez le courant électrique avant l'entretien.

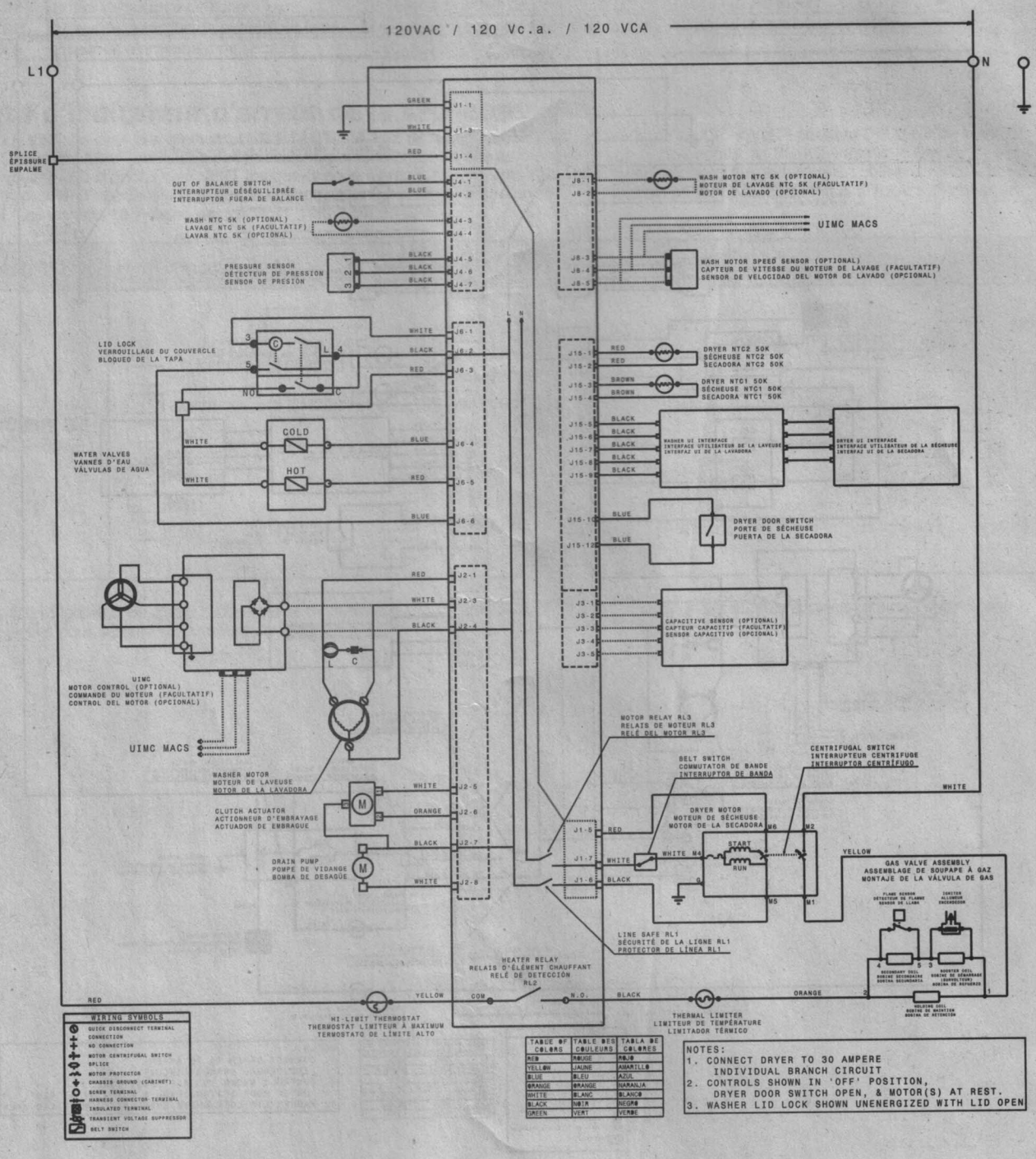
PRECAUCIÓN

PELIGRO DE DESCARGA ELÉCTRICA

Para evitar descargas eléctricas, desconecte la corriente eléctrica antes de dar servicio.

28 WIRING DIAGRAM - GAS

A11726206 - Wiring Diagram Gas / Esquema de cableado para gas / Schéma de câblage pour appareil à gaz



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