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Product Introduction

Laundry Products

Calypso-Match Dryer

KitchenAid®
HOME APPLIANCES

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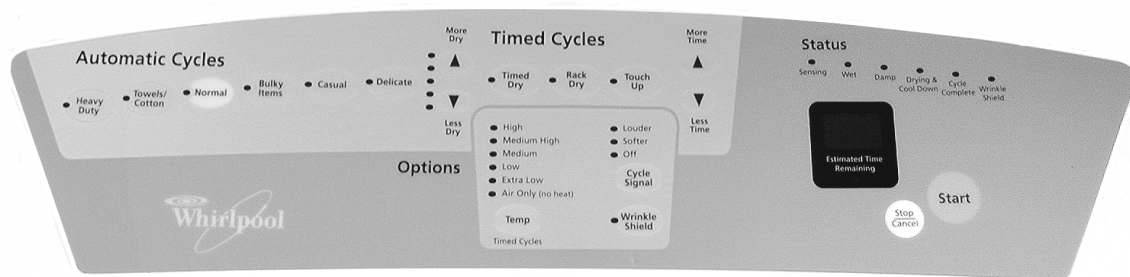
PRODUCT INTRODUCTIONS

LAUNDRY

Calypso-Match Dryer—Model GE/GW9200K

THEORY OF OPERATION

The Calypso-Match Dryer is based on the 27" platform. For additional information on the Whirlpool 27" design, refer to Job Aid #4322260.



Control Panel

CYCLE DESCRIPTIONS

Automatic Cycles

The automatic cycles use a moisture sensor to detect the surface conductivity of the clothes. There are five dryness levels that can be selected. Refer to the Default Settings table for the valid default settings for each. Drying temperatures are determined by the automatic cycle selected and cannot be changed.

For any of the automatic cycles, the total time of the cycle is dependent upon the load size and moisture content. The maximum allowable cycle time for any of the automatic cycles is 150 minutes. This time includes the add-on time and COOL DOWN, but does not include WRINKLE SHIELD, which is up to an additional 120 minutes.

A cycle must be selected before any automatic cycle can be modified. The automatic cycle keys are not valid once the cycle has been started. During an automatic cycle, the 7-segment display will show an estimated time until the add-on portion of the cycle. At that point, the Estimated Time LED will turn off, and the actual time will be displayed.

Add-On-Time

Add-On-Time is an additional timed portion added to the automatic cycle when the sensor can no longer detect the small levels of moisture remaining in the clothes load. The Add-On-Time is necessary to complete the drying cycle to the dryness level selected. The Add-On-Time is variable and is based on the overall drying time and moisture reduction performance during the cycle.

Soft Heat

Soft heat is the Extra Low temperature setting used in the last five minutes of a timed cycle. Soft heat is not used in the automatic cycles.

Cool Down

The time-based cool down time for automatic cycles varies from two to ten minutes, depending on the load size, moisture content, and dryness level selected. For timed cycles, the cool down time depends on the total drying time the user selects.

Wrinkle Shield

The WRINKLE SHIELD action tumbles the load without heat for 10 seconds of every 5 minutes after the drying cycle is complete. WRINKLE SHIELD will continue for a maximum of 120 minutes (2 hours). If the door is opened and the PAUSE/CANCEL key is pressed once, the control will enter the pause mode and pressing the START key with the door closed will restart the WRINKLE SHIELD operation. If the 120 minute time limit expires, the WRINKLE SHIELD action terminates, the CYCLE SIGNAL is then sounded, (if selected), and the control removes power from the motor and LEDs. Pressing the WRINKLE SHIELD key while in WRINKLE SHIELD mode also terminates WRINKLE SHIELD. In essence, deselecting WRINKLE SHIELD after the main cycle has completed simply turns the dryer off.

SALES DEMONSTRATION MODE

The “Sales Demonstration Mode” allows sales personnel to quickly demonstrate the cycles and options on the sales floor. The mode consists of an embedded software routine which resides in the main dryer program which is defined as follows:

1. Open the dryer door.
2. Press the Touch Up cycle.
3. Select Air Only temperature.
4. Press Wrinkle Shield.
5. Press Start.

The sequence of operation is as follows:

- The Sensing LED turns on for 5 seconds and then turns off.
- The Wet LED turns on for 5 seconds and then turns off.
- The Damp LED turns on for 5 seconds and then turns off.
- The Drying & Cool Down LED turns on for 5 seconds and then turns off.
- The Cycle Complete and Wrinkle Shield LEDs turn on, and the End-Of-Cycle signal sounds at the selected level.

Terminate the Sales Demonstration mode by pressing the Stop/Cancel keypad.

DEFAULT CYCLE SETTINGS

Automatic Cycles

CYCLE ^{1,2} (LED TEMP)	EXHAUST TEMP ³ TRIP / RESET	AUTO DRY TIME/ DRYNESS DEFAULT	OPTIONS / MODIFIERS
Heavy Duty (High)	155°F / 145°F	39 minutes, Normal Dry	<i>Auto Dry Level</i> — factory default is Normal Dry, retain the last used setting on a per-cycle basis <i>Wrinkle Shield</i> — factory default is On for the Casual cycle, and Off for all other cycles, retain the last used setting on a per-cycle basis <i>Cycle Signal</i> — factory default is Softer, retain the last used setting per run.
Towels / Cotton (High)	155°F / 145°F	45 minutes, Normal Dry	
Normal (Medium Dry)	150°F / 138°F	34 minutes, Normal Dry	
Bulky Items (Medium)	140°F / 128°F	60 minutes, Normal Dry	
Casual (Low)	125°F / 115°F	36 minutes, Normal Dry	
Delicate (Extra Low)	115°F / 105°F	22 minutes, Normal Dry	
Notes:			
1) Temperature is not user-adjustable in automatic cycles.			
2) Some automatic cycles may start at a higher temperature and then adjust to the displayed temperature later in the cycle.			
3) The default temperatures are for reference only. The actual temperature is adaptive and variable and may not fall within the ranges listed.			

Timed Cycles

CYCLE	TIME	TEMPERATURE	OPTIONS / MODIFIERS
Timed Dry	45 minutes factory default	Medium factory default, user	<i>Auto Dryness Level</i> — only available
	user selectable, retain last	selectable, retain last setting	in automatic cycles
	setting per run	per run	<i>Wrinkle Shield</i> — factory default Off,
Rack Dry	60 minutes default, user	Air default, user selectable,	retain last used setting on a per-cycle
	selectable, not retained	not retained	basis, not available in Rack Dry cycle
Touch Up	20 minutes default, user	Medium High default, user	<i>Cycle Signal</i> — factory default is Softer,
	selectable, not retained	selectable, not retained	retain last used setting per run
Notes:			
TIMED CYCLES - Default times and temperatures are selectable.			
WRINKLE SHIELD - Selectable in all cycles except Rack Dry. A valid user input results in one (1) BEEP. An invalid			
user input results in three (3) beeps.			

COMPONENT ACCESS

CONSOLE COMPONENTS

1. Disconnect the power supply to the dryer.
2. Use a putty knife and push in on the spring clips at each corner of the console, as shown.
3. Lift the console front up and rotate it back.

All components in the console are now accessible for service.



IMPORTANT SERVICING POINTS

Electrostatic Discharge (ESD) Sensitive Electronics

Do not open the package containing the Electronic Printed Circuit Board until it is time to install it.

ESD may damage or weaken the electronic board.

- Use an antistatic wrist strap. Connect the wrist strap to a green ground connection point or unpainted metal on the appliance.

OR

- Touch your finger repeatedly to a green ground connection point or unpainted metal on the appliance.
- Avoid touching electronic parts or terminal contacts; **handle the electronic board by the edges only.**

Removing The Electronic Control Board

The Electronic Control Board is located in the center of the console area.

1. Disconnect the two (2) wiring harness plugs and two (2) ribbon connectors from the electronic control board.



COMPONENT TESTING & DIAGNOSIS

SERVICE DIAGNOSTIC TESTS

The control must be in the STANDBY state before pressing the keypads to initiate the diagnostic tests. To start the test routine, press the following keypads, in sequence, within 5 seconds:

1. More Time
2. Less Time
3. More Time
4. Less Time

Once in the diagnostics, the following events will occur:

- All the LEDs will turn on and “**88**” will appear on the display. If the model identifier diodes in the keyswitch do not match the configurations in the Model Identifiers Table, an E3 error message will appear on the display. Make sure the correct control board is installed before continuing.
- Pressing the corresponding keys will turn off each LED and sound a beep (volume is Loud).
- When opening the door, the dryer will beep and the display will show a number, followed by a capital “E” for electric or lower case “g” for gas. The first number will be 7 for Whirlpool models.
- Open the door. Each actuation of the door switch will sound a beep.
- Short the moisture strips. The dryer will beep and the display will show a 2-digit software revision code.
- Press the Start key. The heater and motor turn on, and the display reads a 2-digit project identification code. The code for this project is “00”.
- Press the Stop/Cancel key to exit the diagnostics.

KEYPAD MATRIX

TOUCHPAD	+ LEAD	– LEAD
Heavy Duty	P3-14	P3-11
Towels / Cotton	P3-14	P3-9
Normal	P3-13	P3-11
Bulky Items	P3-13	P3-10
Casual	P3-12	P3-11
Delicate	P3-12	P3-10
More Dry	P3-14	P3-8
Less Dry	P3-14	P3-7
Timed Dry	P3-13	P3-9
Rack Dry	P3-14	P3-10
Touch Up	P3-12	P3-9
Temp	P3-12	P3-8
Cycle Signal	P3-12	P4-2
Wrinkle Shield	P3-13	P3-8
More Time	P3-13	P3-7
Less Time	P3-12	P3-7
Stop / Cancel	P3-13	P4-2
Start	P3-14	P4-2

ERROR CODES

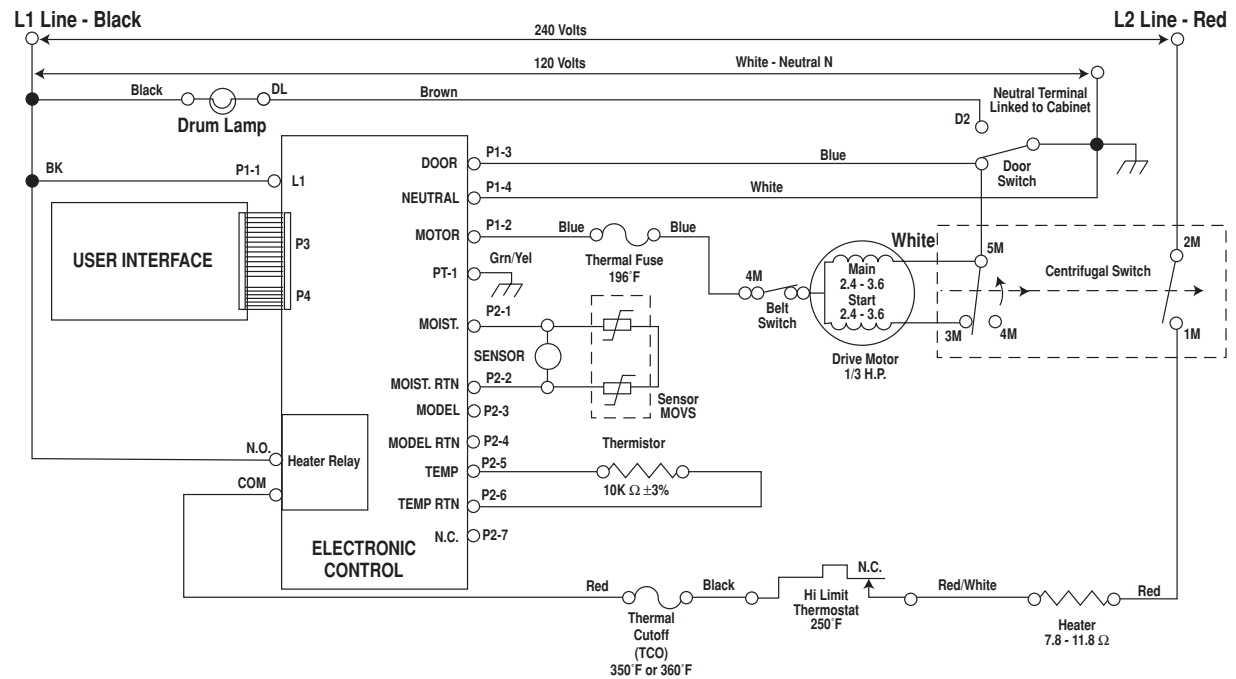
DISPLAY	EXPLANATION
PF (Power Failure)	If the household power goes off and the control was in RUN mode or PAUSE mode, the electronic control board will display a power failure error code.
	To resume operation from where the last cycle was interrupted, press the START keypad.
	To switch to STANDBY mode, press the STOP/CANCEL keypad.
(Thermistor Failure)	The dryer will not run if the exhaust temperature drops below 18°F or exceeds 250°F.
E1	When the thermistor circuit is open ($>50K \Omega$), the error code E1 flashes in the display.
E2	When the thermistor circuit is shorted ($<500 \Omega$), the error code E2 flashes in the display.
	NOTE: During a cycle, if the error condition is detected, the control delays action one (1) minute for the start of the cycle to allow temperatures to get into the allowable range. During diagnostics, the error is displayed immediately. If the START keypad is pressed, an invalid tone will sound, and the dryer will remain in PROGRAM mode. The dryer will not start until the failed thermistor is replaced.
E3 (Keyswitch or Software Mismatch)	Flashes when there is a keyswitch or software mismatch. NOTE: This error code is displayed only in the diagnostics mode.

THERMISTOR RESISTANCE TEST	
TEMPERATURE °F	RESISTANCE K (1000) Ω
50	19.9
60	15.3
70	11.9
80	9.2
90	7.4
100	5.7
110	4.7
120	3.7
130	3.1
140	2.5

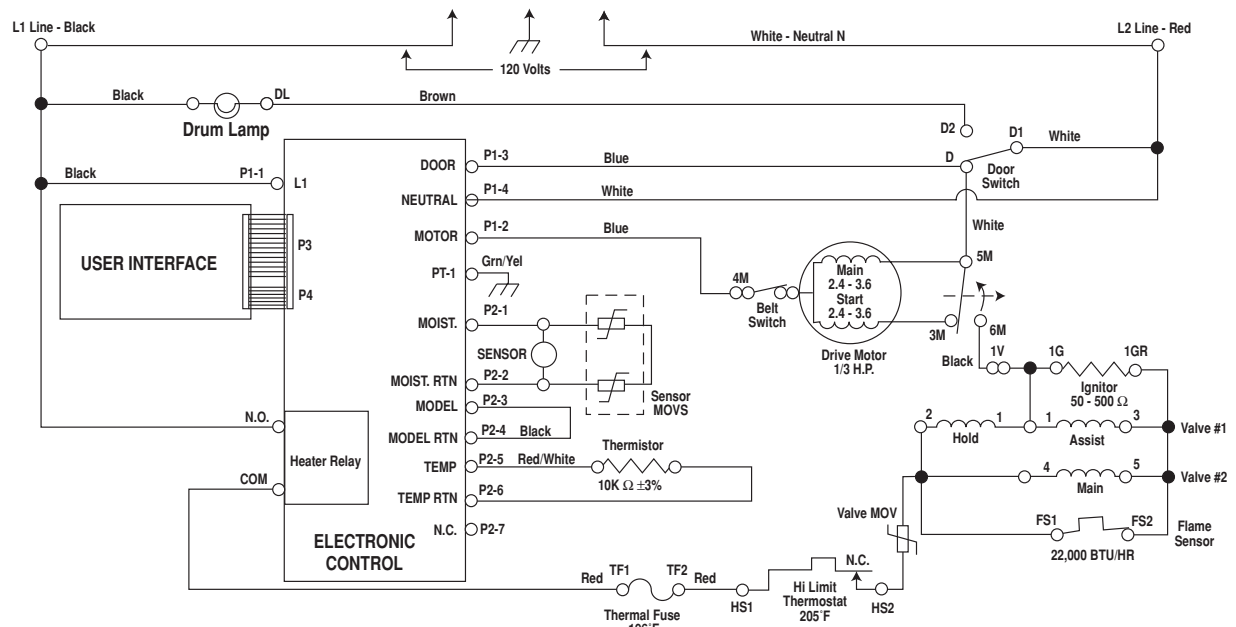
TECH TIPS

WIRING DIAGRAMS

Electric Dryer

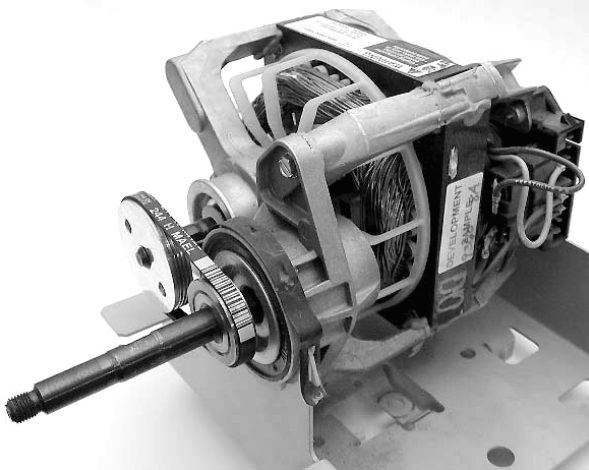


Gas Dryer



Long Vent Dryer Model LE/GV4634J

The Long Vent Dryer uses technology similar to the “Easy Clean 100 Lint Storage Dryer.” A pulley and belt attached to the end of the drive motor (see the photo below) steps up the speed of the blower to twice the standard speed. This increases the air pressure in the exhaust to allow for substantially longer exhaust vent lengths. The chart below shows the relation of the duct length to the number of bends.



NUMBER OF 90° BENDS	4" RIGID DUCT LENGTH (FT.)
0	120
1	105
2	95
3	85
4	75
5	65

To maintain the current volume of air, (150 CFM), an air flow controller has been added to the outlet of the lint chute (see the photo).

