Multimedia Enhanced

Whirlpool CORPORATION

SERVICE MANUAL

WHIRLPOOL & MAYTAG
9.2 CU. FT. STEAM DRYER

WED9500E*, WGD9500E*

MEDB955F*, MGDB955F*

*All Colors & Versions

FORWARD

This Whirlpool Service Manual, (Part No. W10881701), provides the In-Home Service Professional with service information for the “WHIRLPOOL & MAYTAG 9.2 CU. FT. STEAM DRYER.”

The Wiring Diagram used in this Service Manual is typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product tech sheet when servicing the dryer.

For specific operating and installation information on the model being serviced, refer to the “Use and Care Guide” or “Installation Instructions” provided with the dryer.

GOALS AND OBJECTIVES

The goal of this Service Manual is to provide information that will enable the In-Home Service Professional to properly diagnose malfunctions and repair the “WHIRLPOOL & MAYTAG 9.2 CU. FT. STEAM DRYER.”

The objectives of this Service Manual are to:

- Understand and follow proper safety precautions.
- Successfully troubleshoot and diagnose malfunctions.
- Successfully perform necessary repairs.
- Successfully return the washer to its proper operational status.

WHIRLPOOL CORPORATION assumes no responsibility for any repairs made on our products by anyone other than authorized In-Home Service Professionals.

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*** Video Available** **Look for this ICON throughout Section 4**

PRODUCT SPECIFICATIONS & WARRANTY INFORMATION SOURCES (inside back cover)

Section 1: General Information

This section provides general safety, parts, and information for the “Whirlpool & Maytag 9.2 Cu. Ft. Steam Dryer.”

- Dryer Safety
- General Info
- Model/Serial Number Location
- Tech Sheet Location
- Model & Serial Number Nomenclature
- Product Specifications

Dryer Safety

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word “DANGER” or “WARNING.” These words mean:

⚠DANGER — **You can be killed or seriously injured if you don't immediately follow instructions.**

⚠WARNING — **You can be killed or seriously injured if you don't follow instructions.**

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

General Info

INTRODUCTION

The new Whirlpool and Maytag Steam Dryers represents industry-leading innovation with Advanced Moisture Sensing using three sensors to track moisture and temperature, adapting drying times to end the cycle at just the right time.

Additional features include 9.2 cu. ft. capacity, Stainless Steel Drum, Intuitive Touch Controls with Memory, Customized Fabric Care, and a Steam Refresh Cycle that releases wrinkles and reduces odors without rewashing.

NEW COMPONENTS

Sleek Under Glass User Interface — the Whirlpool dryer features a new sleek under glass capacitive touch user interface that asks "what's being dried" followed by "how you want to dry." First select a cycle from the "What to Dry" (Casuals, Jeans, Towels, Delicates, ActiveWear, and Bulky Sheets) and then select the "How to Dry" (Normal, Gentle, Sanitize, Quick, Timed Dry, Steam Refresh). This new and improved input will help the customer achieve the best combination cycle available for the type of items being dried.

Figure 1 - User Interface with Intuitive Touch Controls

Extra Large 9.2 cu. ft. Capacity Drum — Our largest dryer opening available, the Whirlpool and Maytag dryers have an extra large drum capacity of 9.2 cu.ft. The drum's stainless steel construction presents a smooth surface that helps deliver ultimate gentleness, cradling clothes as they tumble.

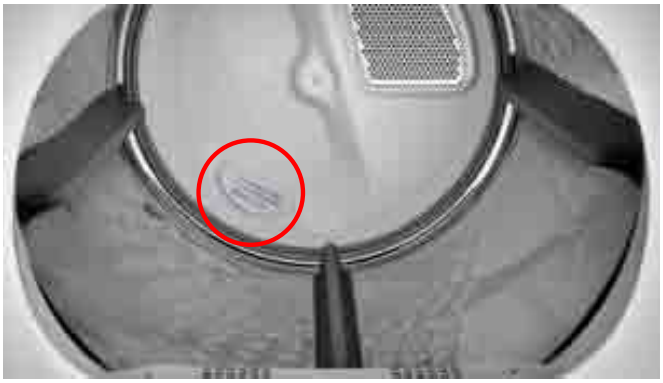

Figure 2 - Extra Large Capacity Basket

Advanced Moisture Sensing — now using up to four (4) moisture sensors to track moisture more accurately. Two moisture sensors in the front of the dryer, located on the lint screen outlet grill, (see Figure 3 below) and on Maytag models, two moisture sensors in the back of the dryer, located on the rear bulkhead, (circled in Figure 2).

Figure 3 - Moisture Sensors

Model & Serial Number Location

Figure 3 - Model / Serial Number

Tech Sheet Location

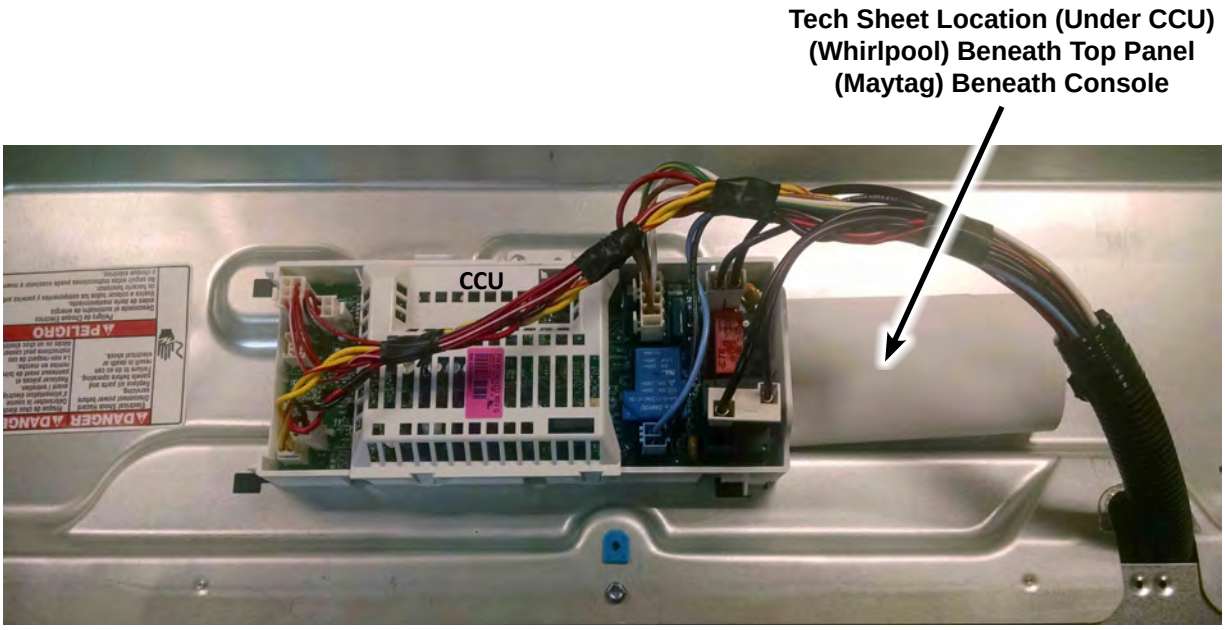

Figure 4 - Tech Sheet Location

Model & Serial Number Nomenclature

MODEL NUMBER W E D 9500 E W 0

INTERNATIONAL SALES OR MARKETING CHANNEL

BRAND
W = Whirlpool; M = Maytag

ACCESS
E = Electric Dryer; G = Gas Dryer

PRODUCT
W = Washer; D = Dryer

FEATURE SET
9500 = Whirlpool 9.2 Cu. Ft.
B955 = Maytag 9.2 Cu. Ft.

YEAR OF INTRODUCTION
E = 2015; F = 2016

COLOR CODE
W = White; C = Chrome Shadow

ENGINEERING CHANGE
0 = Basic Release; 1 = First Revision

SERIAL NUMBER M 4 25 10000

PRODUCTION SITE
M = MARION, OH

YEAR OF PRODUCTION
4 = 2014; 5 = 2015

WEEK OF PRODUCTION

PRODUCT SEQUENCE NUMBER

Product Specifications

ELECTRICAL	
Fuel Type (Electric) :	240 VAC, 60 Hz, 30 Amp Service
Fuel Type (Gas) :	120 VAC, 60 Hz, 15-20 Amp Service
PRIMARY FEATURES	
Capacity :	9.2 cu. ft.
Control Panel :	(Whirlpool) Front / Capacitive Touch / Electronic (Maytag) Rear Panel / Capacitive Touch / Cycle Select Knob
Drum Material :	Stainless Steel
Drum Design :	Quad Baffles
Door Style :	Side Swing, Reversible, Window
Interior Light :	Yes
Energy Star® Qualified :	Yes
Steam :	Yes
Cycles (Whirlpool) :	(What to Dry) Mixed, Casuals, Jeans, Towels, Delicates, ActiveWear, Bulky/Sheets (How to Dry) Normal, Gentle, Sanitize, Quick, Timed Dry, Steam Refresh
Temperatures :	(5) Air Only, Extra Low, Low, Medium, High
Dryness Levels :	(4) Less, Low, Medium, More
Lint Filter Indicator :	Yes
Automatic Dry Control :	Yes
EcoBoost™ Energy Saver	Yes
Cycle Time Remaining :	Yes
Advanced Moisture Sensor :	Yes
Sound Package :	Yes
INSTALLATION CONSIDERATIONS	
Venting Direction :	4-Way (Left, Right, Bottom, Rear)
Maximum Vent Length :	64 ft.
OPTIONS	
Audio Level :	Change the sounds from low, medium, high, or off
End of Cycle Signal :	Sound when cycle is complete
Damp Dry Signal :	Sound when load is damp, but not completely dry
Eco Boost™ :	Use a slightly lower heat level to increase energy savings
Static Reduce :	Introduces a small amount of moisture to reduce static
Wrinkle Shield™ with Steam :	Adds up to 150 minutes of periodic tumbling to reduce wrinkling
DIMENSIONS	
Height :	41 3/8” (105.1 cm)
Width :	29” (73.66 cm)
Depth :	33 1/2” (85.1 cm)
Depth with door open :	57 5/8” (146.4 cm)
Gross Weight :	191 lbs. (86.64 kg)

Section 2: Diagnostics & Troubleshooting

This section provides diagnostic, fault codes, and troubleshooting information for the “Whirlpool & Maytag 9.2 Cu. Ft. Steam Dryer.”

- Whirlpool Control Panel
- Maytag Control Panel
- Diagnostic Guide
- Service Diagnostic Mode
- Activating Service Diagnostic Mode
- Key Activation & Encoder Test
- Service Test Mode
- Software Version Display
- Exiting Service Diagnostic Mode
- Fault/Error Codes
- Customer Fault/Error Codes
- Service Fault/Error Codes
- Troubleshooting Guide
- Notes

Whirlpool Control Panel (features and appearances may vary between models)

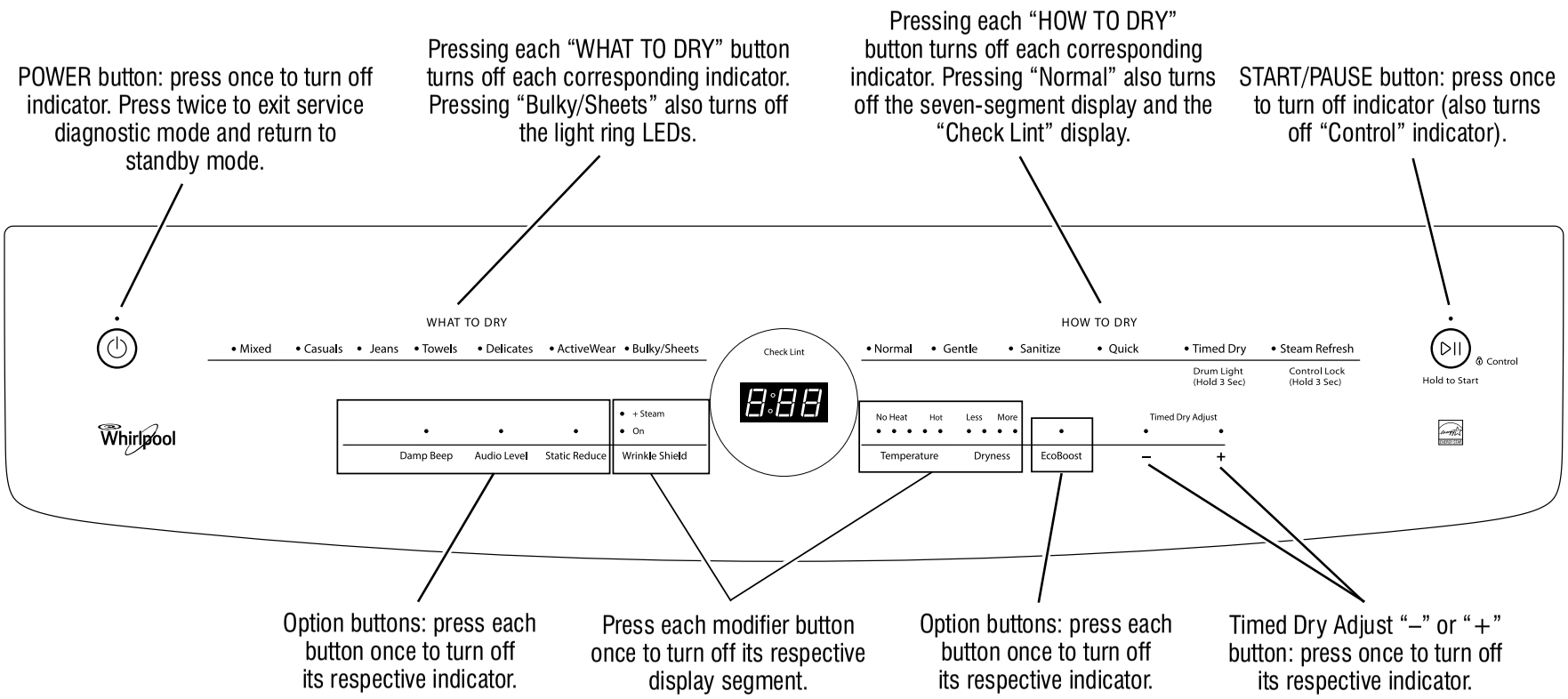

Figure 1 - Key Activation & Encoder Test for Service Diagnostic Mode

Maytag Control Panel (features and appearances may vary between models)

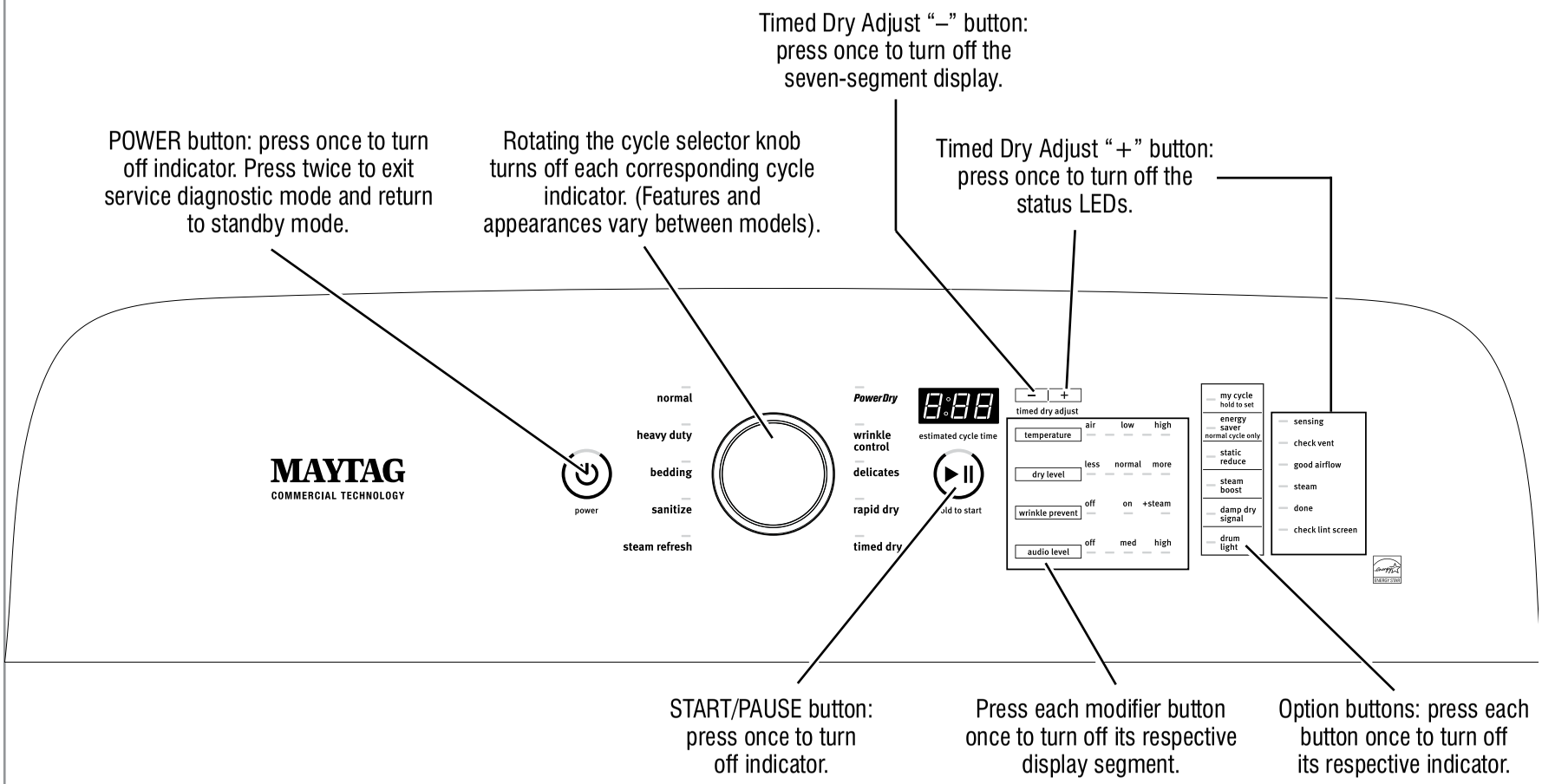

Figure 2 - Key Activation & Encoder Test for Service Diagnostic Mode

For Service Technician Use Only

Diagnostic Guide

Before servicing, check the following:

- Make sure there is power at the wall outlet.
- Make sure control lock is not enabled.
- Has a household fuse blown or circuit breaker tripped? Was a regular fuse used? Inform customer that a time-delay fuse is required.
- Is dryer vent properly installed and clear of lint or obstructions?
- All tests/checks should be made with a VOM (volt-ohm-milliammeter) or DVM (digital-voltmeter) having a sensitivity of 20,000 Ω per volt DC or greater.
- Resistance checks must be made with dryer unplugged or power disconnected.
- IMPORTANT: Avoid using large diameter probes when checking harness connectors as the probes may damage the connectors upon insertion.
- Check all harnesses and connections before replacing components. Look for connectors not fully seated, broken or loose wires and terminals, pin insertion, or wires not pressed into connectors far enough to engage metal barbs.
- A potential cause of a control not functioning is corrosion or contamination on connections. Use an ohmmeter to check for continuity across suspected connections.

Service Diagnostic Mode

These tests allow service personnel to test and verify all inputs to the machine control electronics. You may want to do a quick and overall checkup of the dryer with these tests before going to specific troubleshooting tests.

Activating Service Diagnostic Mode

1. Be sure the dryer is in standby mode (plugged in with all indicators off).
2. Select any three (3) buttons (except POWER) and follow the steps below, using the same buttons (remember the buttons and the order that the buttons were pressed):

   Within 8 seconds,

   - Press and Release the **1st** selected button,
   - Press and Release the **2nd** selected button,
   - Press and Release the **3rd** selected button;
   - Repeat this 3 button sequence 2 more times.
3. If this test mode has been entered successfully, all indicators on the console will be illuminated for 5 seconds with "*888*" showing in the three-digit display and a tone will sound. If there are no saved fault codes, all indicators on the console will turn off, and only the seven segment display will remain on.

   NOTE: The Service Diagnostic mode will time out after 10 minutes of user inactivity, or shut down if AC power is removed from the dryer.

Unsuccessful Activation

If entry into diagnostic mode is unsuccessful, refer to the following indications and actions:

Indication 1: None of the indicators or display turn on.

Action: Select any cycle.

- ➢ If indicators come on, try to change the function for the three buttons used to activate the diagnostic test mode. If any button is unable to change the function, something is faulty with the button, and it will not be possible to enter the diagnostic mode using that button. Replace the user interface and housing assembly.
- ➢ If no indicators come on after selecting the cycle, go to TEST #1, ACU Power Check, page 3-6.

Indication 2: Console indicators begin flashing immediately.

Action: If console indicators begin flashing on and off immediately, replace the user interface.

Activation with Saved Fault Codes

If there is a saved fault code, it will be flashing in the display. Review the Fault/Error Codes table on page 2-8 for the recommended procedure. If there is no saved fault code, "*888*" will be displayed.

SERVICE DIAGNOSTIC MENU TABLE

	Button Press	Function Behavior
1st Button	- Momentary press	- Activates Key Activation & Encoder Test
	- Press and hold for 5 secs.	- Exits Service Diagnostics
2nd Button	- Momentary press	- Activates Service Test Mode
	- Press and hold for 5 secs.	- Software Version Display
3rd Button	- Momentary press	- Displays Next Error Code
	- Press and hold for 5 secs.	- Clears the Error Codes

- See "Activating Service Diagnostic Mode" to activate these buttons. Make sure all of step 3 is complete before activation.

For Service Technician Use Only

KEY ACTIVATION & ENCODER TEST

NOTE: The Service Diagnostic mode must be activated before entering the Key Activation & Encoder Test; see procedure on page 2-4.

Active Fault Code Display In Key Activation & Encoder Test

If the display begins flashing while in the Key Activation & Encoder Test, it is displaying an active fault code. Active fault codes are codes that are currently detected. Only one active fault code can be displayed at a time.

Entry Procedure

Press and release the 1st button used to activate Service Diagnostic mode. The following test will be available:

DIAGNOSTIC: Key Activation & Encoder Test

Pressing each button will turn off its corresponding indicator(s) or display segment and sound a beep (see figure 1 & 2, pages 2-2 and 2-3.)

Rotating the cycle selector knob (on some models) turns off each corresponding cycle indicator.

NOTE: A second press of the **POWER** button while in Key Activation & Encoder Test mode exits the Service Diagnostic mode and returns the dryer to standby mode.

- If indicators do not turn off and beep after pressing buttons and rotating the cycle selector knob (on some models), go to TEST #6: Buttons and Indicators, page 3-19.

Exit Procedure

To exit Key Activation & Encoder Test, press the **POWER** button once or twice (depending on diagnostic procedure) or press and hold the first button used to activate Service Diagnostic mode.

SERVICE TEST MODE

NOTE: The Service Diagnostic mode must be activated before entering Service Test Mode; see procedure on page 2-4.

NOTE: If, at any point, the user presses the **POWER** button or opens the door during Service Test Mode, the dryer exits to standby mode.

NOTE: Door must be closed to perform test. Dryer must be cool before test to run correctly.

Active Fault Code Display in Service Test Mode

If the display begins flashing while in Service Test Mode, it is displaying an active fault code. Active fault codes are codes that are currently detected. Only one active fault code can be displayed at a time.

Entry Procedure

To enter Service Test Mode, press and **release** the **2nd** button used to activate the Service Diagnostic mode. All LEDs (except for POWER) turn off, "*888*" is displayed for 2 seconds, and the START button begins to flash.

PERFORM ALL TESTS: Press and **release** the **START** button to run ALL tests indicated in the chart below and on page 2-6.

VOLTAGE AND WATER SYSTEM-ONLY TESTS: Press and **hold** the **START** button for 5 seconds after step 3 to run only the voltage and water system tests.

Exit Procedure

When the test is complete, press the **POWER** button to exit Service Test Mode and return to standby mode.

SERVICE TEST MODE CHART

Step #	Action	Component	User Interface Response
1	User enters Service Test Mode through Service Diagnostics.		Display shows "*888*" for 2 seconds. All LEDs (except for POWER) are off, and the START button is flashing.
2	Press and release START to begin the L2 Voltage Check.	Motor On	The display will show "----" until the voltage is available at the UI. If the START is pressed again or pressed and held before L2 voltage is available, a tone will sound 3 times.
3	L2 Voltage Check completes. Vrms_L2 and Fuel are published to the UI. L1 Voltage Check starts automatically.	Motor On Heater(s) On	**If electric (Fuel = Electric):** The UI will report findings per the "Electric Dryer Results Display" section where L2 Voltage is available, L1 Voltage is not available, Heater Voltage is not available, and Airflow is not available. **If gas (Fuel = Gas):** The display will continue to show "----".
			If START is pressed again or pressed and held before L1 voltage is available, a tone will sound 3 times.
4	L1 Voltage Check completes. Vrms_L1 and Heater_Voltage are published to the UI. Check for Warm Machine begins automatically. Airflow begins detection algorithm: Status_ Airflow = 3 (Detecting). Press and hold START to jump to Step 8 and start the Steam Test.	Motor On Heater(s) On/Off	**If electric (Fuel = Electric):** The UI will report findings per the "Electric Dryer Results Display" section where L2 Voltage is available, L1 Voltage is available, Heater Voltage is available, and Airflow is not available. **If gas (Fuel = Gas):** The UI will report findings per the "Gas Dryer Results Display" section where Heater Voltage is available and Airflow is not available.
			If a "Detecting Airflow" indicator is present, it is displayed on the UI.

Continued on next page...

For Service Technician Use Only

Step #	Action	Component	User Interface Response
5	Check for Warm Machine completes. Load Mass for Airflow begins automatically. Press and hold START to jump to Step 8 and start the Steam Test.	Motor On Heater(s) On	UI continues to display as in Step 4.
6	Load Mass for Airflow completes. The update for Status_Airflow is published to the UI.	Motor On/Off Heater(s) On/Off	**If electric (Fuel = Electric):** The UI will report findings per the "Electric Dryer Results Display" section where L2 Voltage is available, L1 Voltage is available, Heater Voltage is available, and Airflow is available. **If gas (Fuel = Gas):** The UI will report findings per the "Gas Dryer Results Display" section where Heater Voltage is available and Airflow is available.
			If a "Detecting Airflow" LED is present, it is turned off. If a "Good Airflow" LED is present, it also displays when the Status_Airflow = 0. If a "Check Vent" LED is present, it also displays when the Status_Airflow = 2.
7	Service Loads Test Complete.	Motor Off Heater(s) Off	UI & Status LEDs continue to display as in step 6. "START" is flashing to start the Steam Test.
8	Pressing START begins *STEAM_TEST.*		Display show "H2o" when test is running.
9	Steam Test begins.	Water Valve On Drum Light On	If applicable, UI turns on Drum Light LED. Drum light is turned on for a maximum of 30 seconds.
10	*STEAM_TEST* complete.	Water Valve Off Drum Light Off	Display goes blank and waits for "ServiceTimeout" or pressing of POWER to go to Standby mode.

NOTE: After step 3, press and hold the START button for 5 seconds to jump to the water system test.

Electric dryer performance is optimized for 2-phase, 240 VAC service. If complaint is made regarding electric dryer performance and the L1 to L2 voltage is ~208 VAC, dryer may be connected to a 3-phase service with reduced wattage that will decrease dryer performance.

Electric Dryer Results Display

The frame rate will be 0.5 seconds per frame. This sequence will repeat. The text will be right aligned.

Frame 1: L2

Frame 2: When the voltage is available to the UI, it will display it without illuminating the colon (range 0 to 200).

Frame 3: L1

Frame 4: When the voltage is available to the UI, it will display it without illuminating the colon (range 0 to 200).

Frame 5: Htr

Frame 6: When the voltage is available to the UI, it will display it without illuminating the colon (range 0 to 200).

Frame 7: Air

Frame 8: See "Airflow Display Section".

When the voltage or airflow is not yet available to the UI, the display will show "---".

Gas Dryer Results Display

The frame rate will be 0.5 seconds per frame. This sequence will repeat. The text will be right aligned.

Frame 1: Htr

Frame 2: When the voltage is available to the UI, it will display it without illuminating the colon (range 0 to 200).

Frame 3: Air

Frame 4: See "Airflow Display Section".

When the voltage or airflow is not yet available to the UI, the display will show "---".

Airflow Display:

Value	Setting
0	Airflow not bad
1	Cannot detect
2	Airflow bad; check vent
3	(Default) Detecting

If the result is not yet available, it will be displayed as "---".

Status_Airflow = 0 will be displayed as: "000".

Status_Airflow = 1 will be displayed as: "001".

Status_Airflow = 2 will be displayed as: "002".

Status_Airflow = 3 will be displayed as: "003".

For Service Technician Use Only

SOFTWARE VERSION DISPLAY

NOTE: The Software Version Display mode will time out after 10 minutes of user inactivity and return to standby mode.

Entry Procedure

To enter Software Version Display, press and **hold** the **2nd** button used to activate the Service Diagnostic mode for 5 seconds. Upon entry, the display will automatically cycle through the following information:

- UI software revision code (U: major revision number, U: minor revision number, U: test revision number)
- UI GEE revision code (b: major revision number, b: minor revision number, b: test revision number)
- UI touch parameters revision code (o: major revision number, o: minor revision number, o: test revision number)
- UI audio software revision code (A: major revision number, A: minor revision number, A: test revision number)
- ACU software revision code (C: major revision number, C: minor revision number, C: test revision number)
- ACU GEE revision code (h: major revision number, h: minor revision number, h: test revision number)
- ACU cycle designer revision code (d: major revision number, d: minor revision number, d: test revision number)

Exit Procedure

Pressing the **POWER** button will exit Software Version Display and return dryer to standby mode.

FAULT/ERROR CODES

Refer to customer fault/error codes below and service fault/error codes on page 2-8.

Fault/Error Code Display Method

Fault codes are displayed by alternately showing F# and E#. All fault codes have an F# and an E#. The F# indicates the suspect System/Category. The E# indicates the suspect Component system.

Up to eight Fault/Error codes may be stored. When the oldest fault code is displayed, additional presses of the **3rd** button will result in a triple beep, then display of the most recent fault code. If each press of the **3rd** button results in a triple beep and the display shows "*888*", no saved fault codes are present.

Advancing Through Saved Fault/Error Codes

Procedure for advancing through saved fault codes:

Press and release the 3rd button used to activate Service Diagnostics	⇨ beep tone ⇨	second most recent fault code is displayed
Repeat	⇨ beep tone ⇨	third most recent fault code is displayed
Repeat	⇨ beep tone ⇨	fourth most recent fault code is displayed
Repeat	⇨ beep tone ⇨	fifth most recent fault code is displayed
.	. . .	.
.	. . .	.
.	. . .	.
Repeat	⇨ triple beep ⇨	no additional fault codes are stored--back to the most recent fault code

Clearing Fault Codes

To clear stored fault codes, enter Service Diagnostic mode. Then press and hold the **3rd** button used to enter Service Diagnostic mode for 5 seconds. Once the stored fault codes are successfully erased, the seven segment display will show "*888*" and a beep will sound.

EXITING SERVICE DIAGNOSTIC MODE

Use either of the two methods below to exit diagnostic mode.

- Pressing and holding the **1st** button used to activate the Service Diagnostic mode for 5 seconds.
- Pressing the **POWER** button once or twice, depending on diagnostic procedure.

Customer Fault/Error Codes

Code	Description	Explanation and Recommended Procedure
PF	Power Failure	PF indicates that a power failure occurred while the dryer was running. Press START to continue the cycle, or press POWER to clear the display.
AF	Restricted Airflow	AF indicates low airflow that may affect dryer performance. Confirm that airflow system is not blocked. Check lint screen, exhaust duct, exhaust fan.
L2	Low Line Voltage	L2 indicates low L2 voltage (less than 30 V) is detected at the ACU. • Refer to Fault/Error Code "F4E4", page 2-9, for recommended procedure.

Service Fault/Error Codes on next page...

For Service Technician Use Only

Service Fault/Error Codes

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Code	Description	Explanation and Recommended Procedure
F1E1	Motor Relay Stuck On	Indicates an ACU problem. • Replace the ACU.
F1E3	Incorrect Controller Installed (on electric models only)	Verify that the part numbers of the ACU and the User Interface are correct for the dryer model displaying the fault/error code. Replace the ACU and/or UI that does not match.
F1E5	Parameter Memory Invalid	ACU parameter file missing: replace the ACU.
F2E1	User Interface (UI) Stuck Button	Indicates a stuck button (depressed for over 20 seconds). This fault code will ONLY appear when in the service diagnostic mode. See TEST #6: Buttons and Indicators, page 3-19.
F2E3	User Interface (UI) Mismatch	Indicates a UI and ACU model ID parameter mismatch caused by replacement of either the UI or ACU with an incorrect part number.
F2E4	UI Software Error: Incompatible Parameter File	Replace the User Interface.
F2E5	UI Software Error: Parameter Memory Invalid	Replace the User Interface.
F3E1	Exhaust Thermistor Open/Shorted	Indicates that the exhaust thermistor is open or shorted. If the temperature drops below 18° F (> 50k ohms), the exhaust thermistor is open. If the temperature is above 250° F (< 500 ohms), the exhaust thermistor has shorted. May occur if the J14 connector is not plugged into the ACU. See TEST #4a: Thermistors, page 3-14.
F3E2	Moisture Sensor Open/ Shorted	Indicates the moisture sensor strip is open or shorted. This fault code will only appear when in the service diagnostic mode. See TEST #5: Moisture Sensor, page 3-17.
F3E3	Inlet Thermistor Open/ Shorted	Indicates that the inlet thermistor is open or shorted. If the temperature drops below 18° F (> 245k ohms), the inlet thermistor is open. If the temperature is above 391° F (< 328 ohms), the inlet thermistor has shorted. See TEST #4a: Thermistors, page 3-14.
F3E7	Rear Moisture Sensor Open/Shorted (Maytag Models Only)	Indicates the rear moisture sensor strip is open or shorted. This fault code will only appear when in the service diagnostic mode. See TEST #5: Moisture Sensor, page 3-17.
F4E1	Heater 1 Failure or Connector Problem	Indicates no voltage detected at the heater relay. • Unplug dryer or disconnect power and check that the wires are plugged into the heater element(s) and the relay(s) on the ACU.

Continued on next page...

For Service Technician Use Only

Service Fault/Error Codes

Continued from page 2-8

Code	Description	Explanation and Recommended Procedure
F4E2	Heater 2 Failure or Connector Problem (on electric models only)	Indicates no voltage detected at the heater relay. • Unplug dryer or disconnect power and check that the wires are plugged into the heater element(s) and the relay(s) on the ACU.
F4E3	Restricted Airflow	Indicates low airflow that may affect dryer performance. • Confirm that airflow system is not blocked; check lint screen, exhaust duct, and exhaust fan.
F4E4	L2 Line Voltage Error (on electric models only)	Indicates low L2 voltage (less than 50 V) is detected at the CCU. • Check to see if a household fuse has blown or a circuit breaker has tripped. • Confirm the power cord is properly installed and plugged into the power outlet. • Unplug dryer or disconnect power and check the relay connections on the ACU. • Gas Models Only: Unplug dryer or disconnect power and check the J14 connection on the ACU (harness loopback on pins 4 & 5).
F4E5	High Limit	Indicates that the temperature threshold of the dryer has been exceeded. This excessive temperature is usually an indicator of poor airflow and is most likely caused by an exhaust restriction or failure of a component that drives airflow such as the blower wheel.
F6E2 F6E3	Communications Error UI Cannot Hear ACU Communication Error ACU Cannot Hear UI	Communication between the ACU and UI has not been detected. • Unplug dryer or disconnect power. • Check the harness continuity and connections between the ACU and UI. • Check AC and DC supplies. See TEST #1: ACU Power Check, page 3-6. • Replace the User Interface. • Replace the ACU.

For Service Technician Use Only

Troubleshooting Guide

NOTE: Always check for error codes first (page 2-8 and 2-9)

Problem	Possible Cause	Checks & Tests
Won't Power Up • No operation • No keypad response • No LEDs or display	No power to dryer.	Check power at outlet, check circuit breaker, fuses, or junction box connections.
	Control Lock feature is enabled.	Press and hold STEAM REFRESH for 3 seconds.
	Connection problem between AC plug and dryer.	See Test #2: Supply Connections, page 3-8.
	Connection problem between ACU and UI.	Check connections and harness continuity between ACU and UI.
	Power supplies not present at machine electronics.	See Test #1: ACU Power Check, page 3-6.
	User Interface problem.	See Test #6: Buttons & Indicators, page 3-19.
Will Not Start Cycle (No response when START button is pressed.)	Door not fully closed or striking the door latch.	Be sure the door is completely closed, then press and hold the START button.
	Control Lock feature is enabled.	Press and hold STEAM REFRESH for 3 seconds.
	Door Switch problem.	See Test #7: Door Switch, page 3-20.
	Drive Belt problem.	See Test #3: Motor Circuit, page 3-10.
	Thermal Fuse / Motor Problem	See Test #3: Motor Circuit, page 3-10.
	User Interface problem.	See Test #6: Buttons & Indicators, page 3-19.
	ACU problem.	See Test #1: ACU Power Check, page 3-6.
Will Not Shut Off When Expected	Poor airflow.	Check lint screen and exhaust vent. Clean if necessary.
	Check the Power/Cancel or Start/ Pause button.	Perform Key Activation & Encoder Test.
	Moisture Sensor problem.	See Test #5: Moisture Sensor, page 3-17.
	Thermistor problem.	See Test #4a: Thermistors, page 3-14.
	User Interface problem.	See Test #6: Buttons & Indicators, page 3-19.
	ACU problem.	See Test #1: ACU Power Check, page 3-6.
Console Won't Accept Selections	User selected invalid option.	Refer customer to "Use and Care Guide".
	Control Lock feature is enabled.	Press and hold STEAM REFRESH for 3 seconds.
	User Interface problem.	See Test #6: Buttons & Indicators, page 3-19.
Drum Will Not Spin	Drive Belt problem.	See Test #3: Motor Circuit, page 3-10.
	Thermal Fuse.	See Test #4b: Thermal Fuse, page 3-15.
	Door switch problem.	See Test #7: Door Switch, page 3-20.
	Motor problem.	See Test #3: Motor Circuit, page 3-10.
	ACU problem.	See Test #1: ACU Power Check, page 3-6.
Will Not Heat	Check Installation.	Verify proper dryer installation.
	Check for L1 and L2.	Perform ACU L1 and L2 tests under Service Test Mode.
	Heater system malfunction or open heater coil.	See Test #4: Heat System, page 3-12
	ACU problem.	See Test #1: ACU Power Check, page 3-6.

Continued on next page...

For Service Technician Use Only

Troubleshooting Guide

Continued from page 2-10

Problem	Possible Cause	Checks & Tests
Heats in Air Cycle	Heater coil shorted.	See Test #4: Heat System, page 3-12.
	Heater relay shorted.	See Test #4: Heat System, page 3-12.
	Heater system problem.	See Test #4: Heat System, page 3-12.
Shuts Off Before Clothes Are Dry	Dryness or Dry Level setting for auto cycles.	Increase Dryness or Dry Level setting for one or more auto cycles.
	Lint screens full.	Clean if necessary. Refer customer to “Use and Care Guide”.
	Heater vent clogged.	Clean if necessary. Refer customer to “Use and Care Guide”.
	Moisture Sensor problem.	See Test #5: Moisture Sensor, page 3-17.
	Adjust Customer Focused Dryness Level.	See Test #5a: Adjusting Customer-Focused Dryness Level, page 3-18.
Water Valve Not Dispensing (on some models) (Water valve is activated intermittently during the steam cycle.)	Steam cycle not selected.	Refer customer to “Use and Care Guide”.
	No water to valve.	Verify water supply is turned on.
	No water from valve.	See Test #9: Water Valve, page 3-22.
Water Leaking From Dryer (on some models) (Too much water being dispensed during steam cycles.)	Residue buildup on water nozzle opening.	Unscrew nozzle and clean if necessary.

Notes

Section 3: Component Testing

This section provides a wiring diagram, control board specifications, testing procedures and strip circuits for the "Whirlpool & Maytag 9.2 Cu. Ft. Steam Dryer."

- Testing: Safety Information
- Component Locations
- Wiring Diagram - Electrical
- Wiring Diagram - Gas
- Component Testing
- TEST #1: ACU Power Check
- TEST #2: Supply Connections
- TEST #3: Motor Circuit
- TEST #4: Heating System
- TEST #4a: Thermistors
- TEST #4b: Thermal Fuse
- TEST #4c: Thermal Cut-Off
- TEST #4d: Gas Valve (Gas Dryer)
- TEST #5: Moisture Sensor
- TEST #5a: Adjusting Customer-Focused Dryness Level
- TEST #6: Buttons and Indicators
- TEST #7: Door Switch
- TEST #8: Drum LED
- TEST #9: Water Valve
- TEST #10: Service LEDs
- Notes

For Service Technician Use Only

⚠ DANGER

Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- Verify the controls are in the off position so that the appliance does not start when energized.
- Allow enough space to perform the voltage measurements without obstructions.
- Keep other people a safe distance away from the appliance to prevent potential injury.
- Always use the proper testing equipment.
- After voltage measurements, always disconnect power before servicing.

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Electronics
ESD problems are present everywhere. Most people begin to feel an ESD discharge at approximately 3000V. It takes as little as 10V to destroy, damage, or weaken the main control assembly. The new main control assembly may appear to work well after repair is finished, but a malfunction may occur at a later date due to ESD stress.

- **Use an anti-static wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance**

-OR-

- **Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.**
- **Before removing the part from its package, touch the anti-static bag to a green ground connection point or unpainted metal in the appliance.**
- **Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.**
- **When repackaging main control assembly in anti-static bag, observe above instructions.**

IMPORTANT SAFETY NOTICE — "For Technicians only"

This service data sheet is intended for use by persons having electrical, electronic, and mechanical experience and knowledge at a level generally considered acceptable in the appliance repair trade. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible, nor assume any liability for injury or damage of any kind arising from the use of this data sheet.

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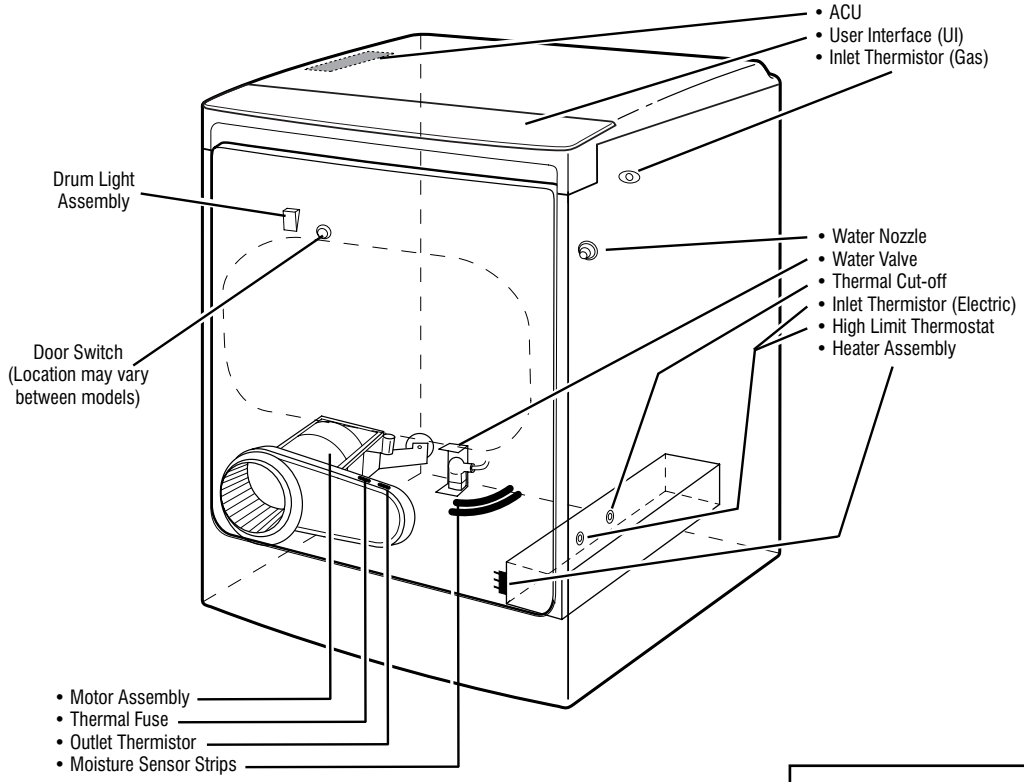
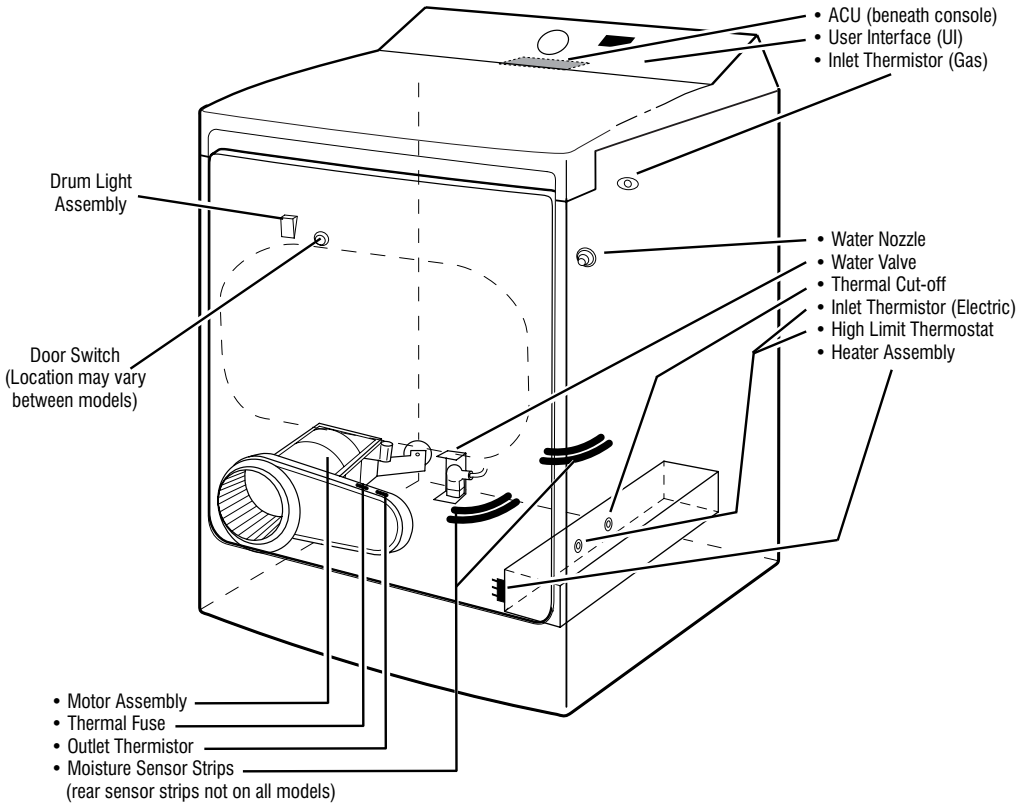
COMPONENT LOCATIONS - WHIRLPOOL (FIGURE 1)



NOTE: Refer to Figure 2, page 3-13, for gas dryer component locations.

COMPONENT LOCATIONS - MAYTAG (FIGURE 2)



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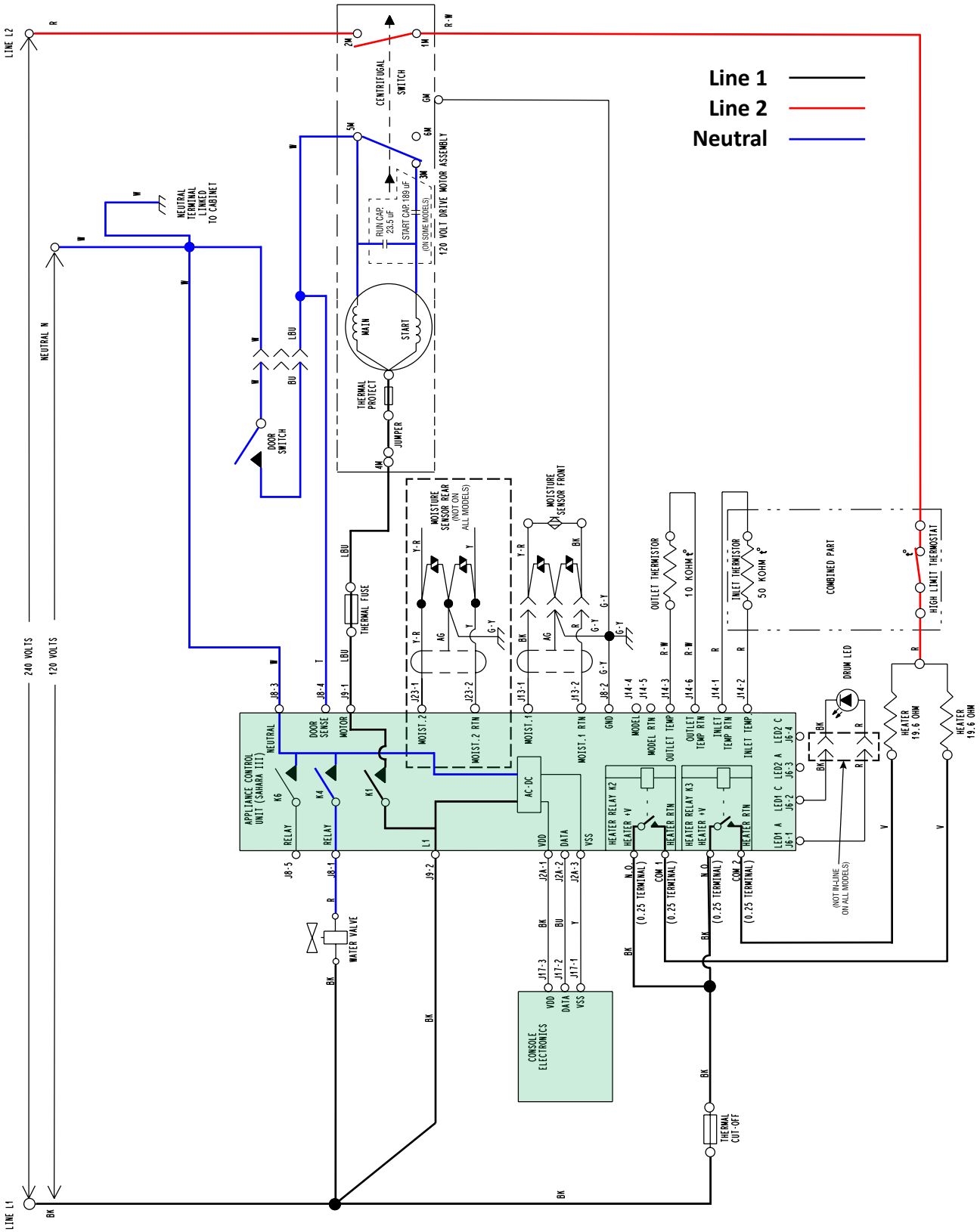
WIRING DIAGRAM - ELECTRIC



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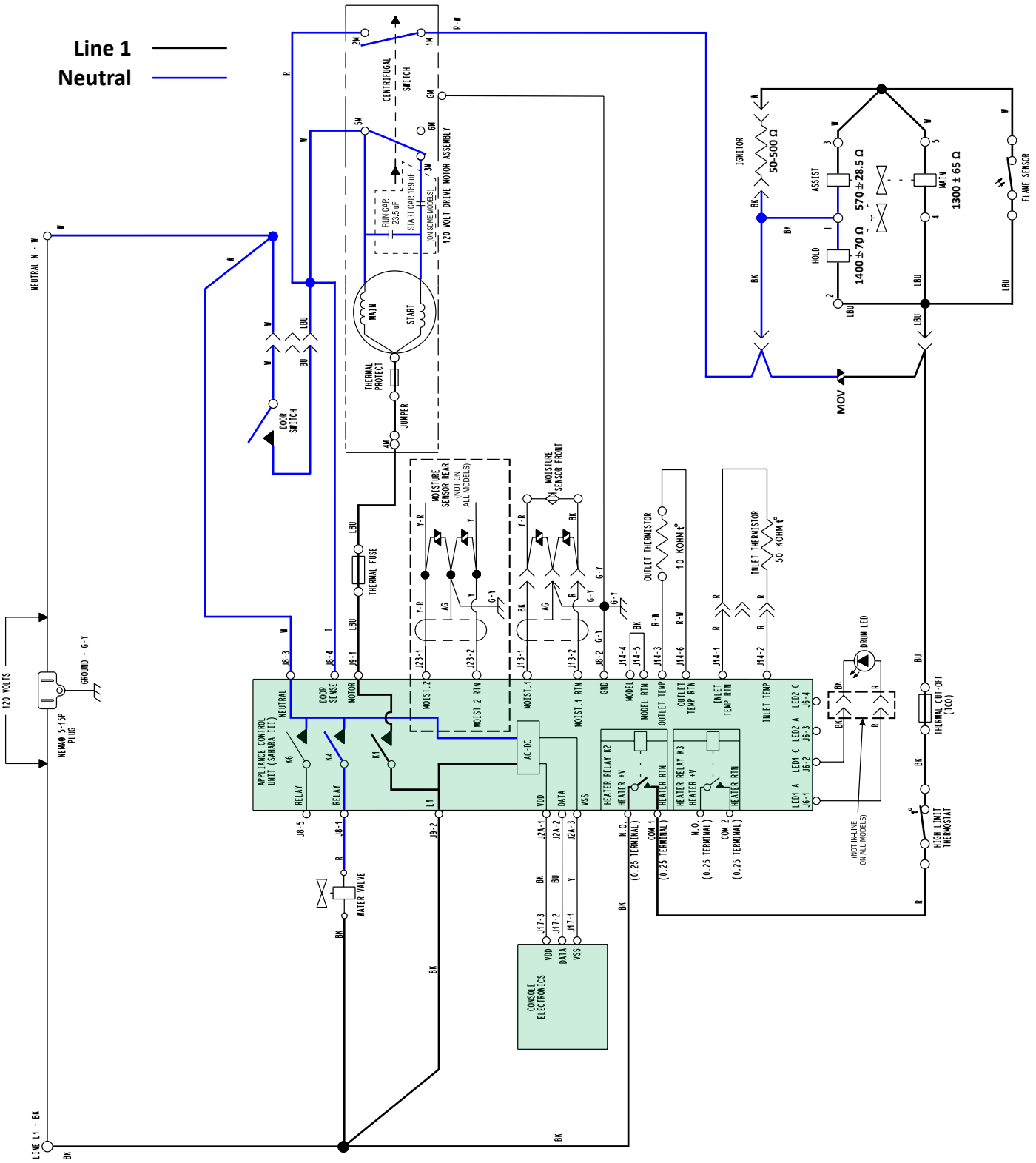
WIRING DIAGRAM - GAS



For Service Technician Use Only

⚠ DANGER

Electrical Shock Hazard

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Failure to follow these instructions can result in death or electrical shock.

Component Testing

TESTING DRYER COMPONENTS FROM THE CONTROL

Before testing any of the components, perform the following checks:

- The most common cause for mis-diagnosed control failure is poor connections. Therefore, disconnecting, inspecting and reconnecting wires will be necessary throughout test procedures.
- All tests/checks should be made with a VOM or DVM having a sensitivity of 20,000 ohms-per-volt DC, or greater.
- Check all connections before replacing components, looking for broken or loose wires, failed terminals, or wires not pressed into connectors far enough.
- Voltage checks must be made with all connectors attached to the boards.
- **IMPORTANT:** Resistance checks must be made with power cord unplugged or power disconnected, and with wiring harness or connectors disconnected from the control.

The testing procedures in this section may require the use of needle probes to measure voltage. Failure to use needle probes will damage the connectors.

TEST #1: ACU Power Check

This test is used to determine if power is present at the machine control electronics. This test assumes that proper voltage is present at the outlet.

1. Verify that the green LED on the ACU is lit when the dryer is turned on.

   NOTE: It is important to verify that the ACU is not in "Hibernate" mode. If the user interface is working correctly, it will "wake up" the ACU after powering up. To verify, unplug dryer or disconnect power for 60 seconds. Plug in dryer or reconnect power. Press POWER. If the ACU comes up (i.e., the green LED in the center of the ACU flashes and then stays lit after boot-up is complete), there may be a problem with the user interface.
2. Unplug dryer or disconnect power.
3. Check for appropriate line voltages at the outlet: 240 VAC (electric 2-phase), 208 VAC (electric 3-phase), or 120 VAC (gas).
   - ➢ If line voltage is present, go to step 4.
   - ➢ If line voltage is not present, check for tripped circuit breaker or blown household fuse. If CB (circuit breaker) is not tripped, have customer check with qualified electrician.
4. Remove console to access the machine electronics.
5. ACU VAC – With voltmeter set to AC, connect black probe to ACU J8-3 (N) and red probe to J9-2 (L1). (See Figure 1, page 3-7.) Plug in dryer or reconnect power.
   - ➢ If 120 VAC is present, unplug dryer or disconnect power and go to step 6.
   - ➢ If 120 VAC is not present, unplug dryer or disconnect power and perform TEST #2: Supply Connections, page 3-8.
6. ACU +5 VDC – With voltmeter set to DC, unplug connector J2 from the ACU and connect black probe to ACU J2-3 (ground) and red probe to J2-1 (+5 VDC). Plug in dryer or reconnect power.
   - ➢ If +5 VDC is present, go to step 9.
   - ➢ If +5 VDC is not present, go to step 7.
7. Unplug dryer or disconnect power. Unplug J14 from the ACU. Plug in dryer or reconnect power and repeat step 6.
   - ➢ If +5 VDC returns, one of the thermistors has shorted. To diagnose thermistors, see TEST #4a, page 3-14.
   - ➢ If +5 VDC is not present, go to step 8.
8. Unplug dryer or disconnect power. Reconnect J14 to the ACU and unplug J2 from the ACU. Plug in dryer or reconnect power and repeat step 6. Perform voltage check inside header J2 on ACU, between pins 1 & 3—DO NOT SHORT PINS TOGETHER.
   - ➢ If +5 VDC is still missing, unplug dryer or disconnect power and replace the ACU.
   - ➢ If +5 VDC returns, unplug dryer or disconnect power and check harnesses and connections between the ACU and user interface (UI). If acceptable, replace the UI.
9. Unplug dryer or disconnect power.
10. Reassemble all parts and panels.
11. Perform steps under "Service Test Mode", page 2-5, to verify repair.

Continue to next page for ACU board diagram and ACU connectors & pinouts

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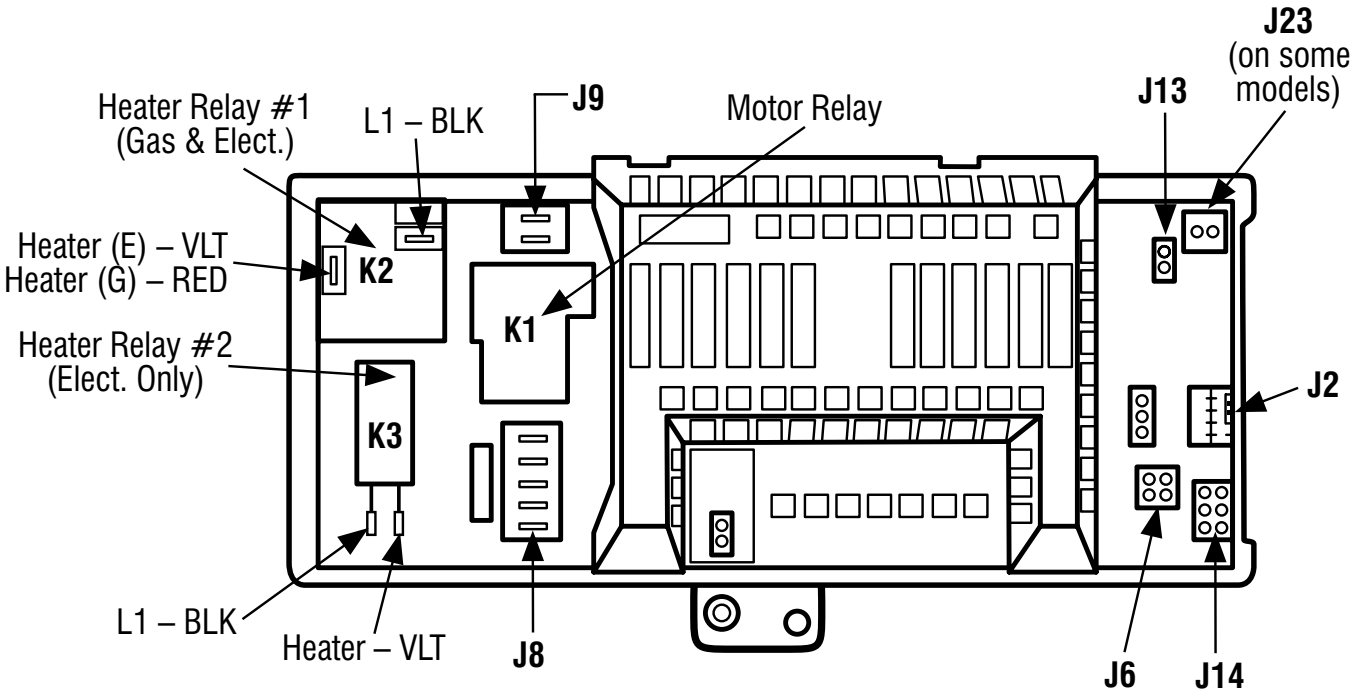
ACU BOARD (FIGURE 1)



ACU CONNECTOR PIN-OUTS

CONNECTOR J2
(User Interface)

J2-1	(BLK)	+5 VDC, (UI)
J2-2	(BLU)	DATA, (UI)
J2-3	(YEL)	5V GND, (UI)

CONNECTOR J6
(Drum LED)

J5-1	(RED)	Drum LED
J5-2	(BLK)	Drum LED
J5-3		
J5-4		

CONNECTOR J8
(Water Valve, Door Switch, Neutral)

J8-1	(RED)	Water Valve (on some models)
J8-2	(G/Y)	Chassis GND
J8-3	(WHT)	Neutral
J8-4	(TAN)	Door Switch
J8-5		Open

CONNECTOR J9
(Motor, L1)

J9-1	(LT BLU)	Motor
J9-2	(BLK)	L1

CONNECTOR J13
(Moisture Sensor)

J13-1	(BLK)	Front Moisture Sensor
J13-2	(RED)	Front Moisture Sensor Return

CONNECTOR J14
(Thermistors)

J14-1	(RED)	Inlet Thermistor Return
J14-2	(RED)	Inlet Thermistor
J14-3	(R/W)	Outlet Thermistor
J14-4	(BLK)	Model (Gas)
J14-5	(BLK)	Model Return (Gas)
J14-6	(R/W)	Outlet Thermistor Return

CONNECTOR J23
(Rear Moisture Sensor-on some models)

J23-1	(Y/R)	Rear Moisture Sensor
J23-2	(YEL)	Rear Moisture Sensor Return

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⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #2: Supply Connections

This test assumes that proper voltage is present at the outlet, and for U.S. installations, a visual inspection indicates that the power cord is securely fastened to the terminal block (electric dryer) or wire harness connection (gas dryer).

ELECTRIC DRYER (U.S. Installations):

1. Unplug dryer or disconnect power.
2. Remove the cover plate from the top right corner of the back of the dryer. See figure 1.

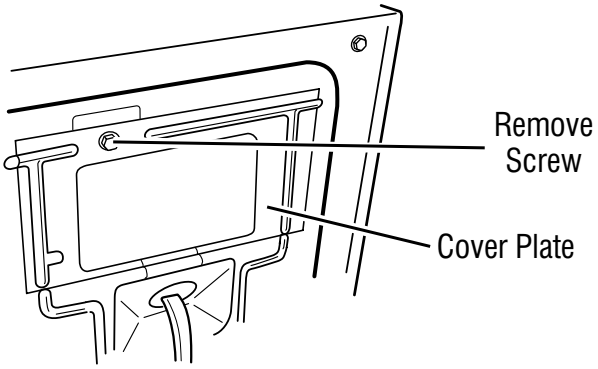

Figure 1 - Remove the cover plate.

3. With an ohmmeter, check for continuity between the neutral (N) terminal of the plug and the center contact on the terminal block. See figure 2.
   - ➢ If there is no continuity, replace the power cord and test the dryer.
   - ➢ If there is continuity, go to step 4.
4. In a similar way, check which terminal of the plug is connected to the left-most contact on the terminal block and make a note of it. This will be L1 (black wire) in the wiring diagram. See figure 2.
   - ➢ When this is found, go to step 5.
   - ➢ If neither of the plug terminals have continuity with the left-most contact of the terminal block, replace the power cord and retest dryer.

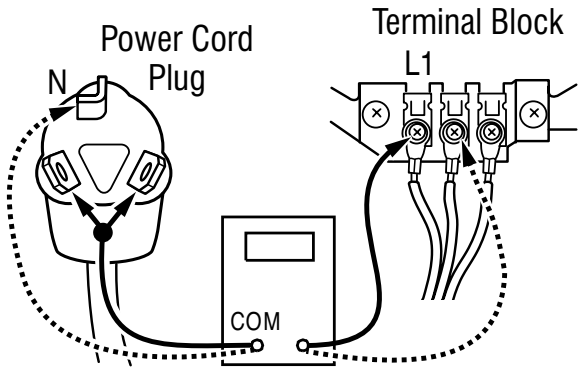

Figure 2 - Plug-to-terminal connections for electric dryer.

5. Access the machine electronics without disconnecting any wiring to the ACU.
6. With an ohmmeter, check for continuity between the L1 terminal of the plug (found in step 4) and J9-2 (black wire) on the ACU.
   - ➢ If there is continuity, go to step 7.
   - ➢ If there is no continuity, check that wires to the terminal block are mechanically secure. If so, replace the main wire harness and test the dryer.
7. Check for continuity between the neutral (N) terminal of the plug and J8-3 (white wire) on the ACU.
   - ➢ If there is continuity, go to step 8.
   - ➢ If there is no continuity, and the mechanical connections of the wire are secure, replace the main wire harness.
8. Visually check that ALL connectors are fully inserted into the ACU.
9. Visually check that ALL connectors are fully inserted into the UI.
10. Reassemble all parts and panels.
11. Plug in dryer or reconnect power.
12. Perform steps under “Service Test Mode”, page 2-5, to verify repair.

ELECTRIC DRYER (Canadian Installations):

1. Unplug dryer or disconnect power.
2. Remove the cover plate from the top right corner of the back of the dryer. See figure 1.
3. Access the machine electronics without disconnecting any wiring to the ACU.
4. With an ohmmeter, check the continuity from L1 and N plug terminals of the power cord to the terminals for L1 and N on the ACU. See figure 3.
   - ➢ If continuity exists for both connections, go to step 6.
   - ➢ If an open circuit is found, check the integrity of the connections of the power cord to the harness in the dryer; harness to the ACU; and the integrity of the power cord itself.

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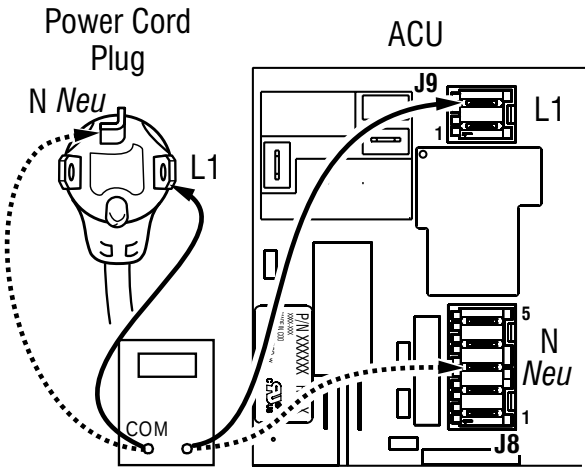


Figure 3 - Plug-to-terminal connections for electric dryer

5. If it is necessary to replace the power cord, remove the retaining clip that secures the cord to the back panel. Disconnect the cord from the main harness and the ground wire from the rear panel, then pull out the power cord.
6. Visually check that ALL connectors are fully inserted into the ACU.
7. Visually check that ALL connectors are fully inserted into the UI.
8. Reassemble all parts and panels.
9. Plug in dryer or reconnect power.
10. Perform steps under “Service Test Mode”, page 2-5, to verify repair.

GAS DRYER (U.S. and Canadian Installations):

1. Unplug dryer or disconnect power.
2. Remove the cover plate from the top right corner of the back of the dryer. See figure 1.
3. Check that the power cord is firmly connected to the dryer’s wire harness. See figure 4.

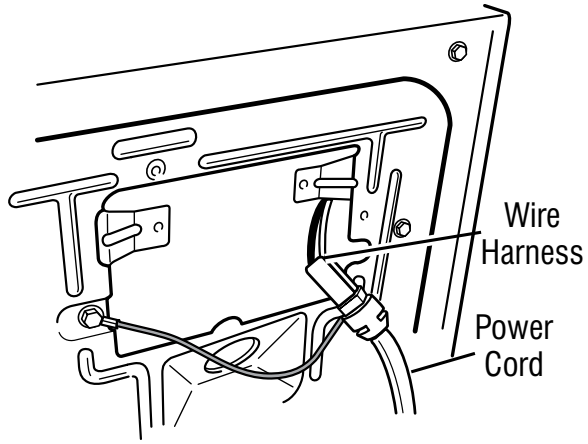


Figure 4 - Power cord-to-wire harness connection for gas dryer.

4. Access the machine electronics without disconnecting any wiring to the ACU.
5. With an ohmmeter, check for continuity between the neutral (N) terminal of the plug and J8-3 (white wire) on the ACU. The left-hand side of figure 5 shows the position of the neutral terminal (N) on the power cord plug. Also see figure 1, page 3-7.
   - If there is continuity, go to step 6.
   - If there is no continuity, disconnect the white wire of the main harness from the power cord at the location illustrated in figure 4. Test the continuity of the power cord neutral wire as illustrated in figure 5. If an open circuit is found, replace the power cord. Otherwise, go to step 6.

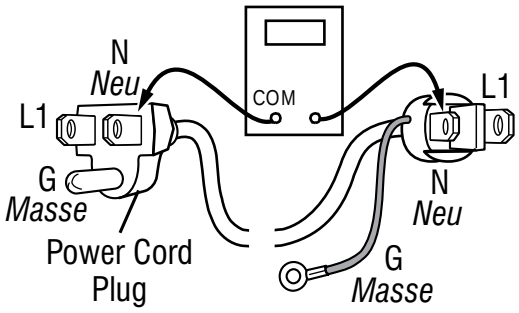


Figure 5 - Power cord terminals, gas dryer.

6. In a similar way, check for continuity between the L1 terminal of the plug and J9-2 (black wire) on the ACU.
   - If there is continuity, go to step 7.
   - If there is no continuity, check the continuity of the power cord in a similar way to that illustrated in figure 5, but for power cord’s L1 wire.
   - If an open circuit is found, replace the power cord. Otherwise, replace the main harness.
7. Visually check that ALL connectors are fully inserted into the ACU.
8. Visually check that ALL connectors are fully inserted into the UI.
9. Reassemble all parts and panels.
10. Plug in dryer or reconnect power.
11. Perform steps under “Service Test Mode”, page 2-5, to verify repair.

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #3: Motor Circuit

This test will check the wiring to the motor and the motor itself. The following items are part of this motor system:

Part of Motor System	Electric Dryer	Gas Dryer
Drum belt	✓	✓
Door switch	✓	✓
Harness/connection	✓	✓
Thermal fuse	✓	✓
Drive motor	✓	✓
Motor capacitors (Maytag)	✓	✓
Centrifugal switch	✓	✓
Machine control electronics	✓	✓

NOTE: Refer to strip circuit on page 3-11 to diagnose the drive motor.

1. Unplug dryer or disconnect power.
2. Remove console to access the machine electronics.
3. Check for loose, worn, or damaged drum belt—repair as necessary.
4. Door Switch problems can be uncovered by following procedure under TEST #7: Door Switch, page 3-20; however, if this was not done, the following can be performed without applying power to the dryer. Connect an ohmmeter across ACU J8-3 (neutral, white wire) and J8-4 (door, tan wire).
   - ➢ With the door properly closed, the ohmmeter should indicate a closed circuit (0–2 Ω).
   - ➢ If not, check harnesses and connections between ACU and door switch. If good, replace the door switch assembly.
5. Motor Circuit Check - Access the ACU and measure the resistance across J8-4 and J9-1.
   - ➢ If resistance across J8-4 and J9-1 is in the range of 1 to 6 Ω, the motor circuit is acceptable. Replace the ACU.
   - ➢ Otherwise, continue to step 6.
6. Check the wiring and components in the path between these measurement points by referring to the appropriate wiring diagram (gas or electric) on pages 3-4 or 3-5. **NOTE:** To access motor system components, slide the top back and remove the front panel.

ALL DRYERS: Check the thermal fuse. See TEST #4b: Thermal Fuse, page 3-15.

Continue with step 7 below to test the remaining components in the motor circuit.

7. Check the drive motor. Slowly remove the drum belt from the spring-loaded pulley, gently letting the pulley down. See figure 1.

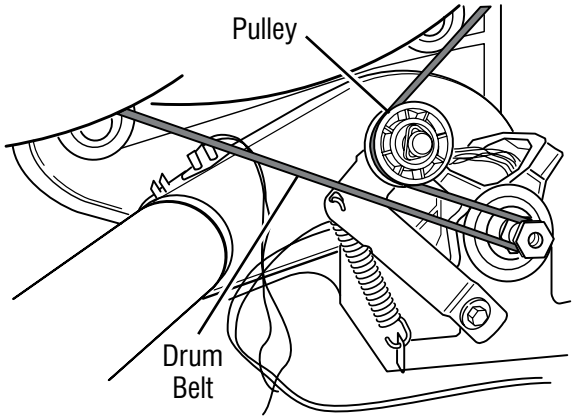


Figure 1 - Slowly remove drum belt.

8. Remove the white connector from the drive motor switch. See figure 2.

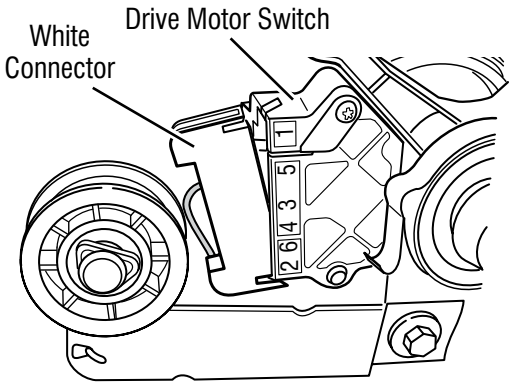


Figure 2 - Remove white connector

For Service Technician Use Only

9. Remove the bare copper wire terminal from pin 5 of black drive motor switch. See figure 3.

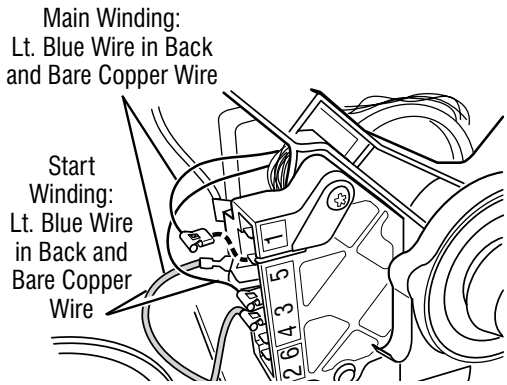


Figure 3 - Main and start winding measure points

10. Using figure 3 and the strip circuit below, check for the resistance values of the motor's Main and Start winding coils as shown in the following table.

    NOTE: Main and Start winding coils must be checked at the motor.

Winding	Resistance in ohms	Contact Points of Measurements
MAIN	3.3–3.6	Blue wire in back at pin 4 and bare copper wire terminal removed from pin 5 of black drive motor switch
START	2.7–3.0	Blue wire in back at pin 4 and bare copper wire terminal on pin 3 of black drive motor switch

- If the resistance at the motor is correct, there is an open circuit between the motor and ACU. Check and repair the main wiring harness.
- If the Main or Start winding resistance is much greater or less than the values listed in the table above, replace the motor.

11. If the motor has two capacitors attached as shown in figure 4 (Maytag only), perform the following. Otherwise, skip to step 12. Remove and check motor capacitors: each capacitor can be removed by disconnecting the capacitor connector and removing the nut on the capacitor end (see figure 4). The capacitor connectors are keyed to facilitate correct connection, and are black on black for the run capacitor and light green and gray for the start capacitor. Contact both leads to check inductance of capacitors. Start capacitor inductance should be 189–227 µF; run capacitor inductance should be 22.3–24.7 µF. Proper torque is 9–12 Nm for each.

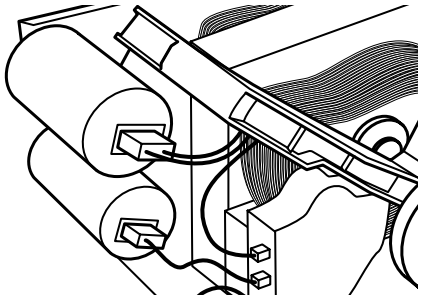


Figure 4 - Motor Capacitors (some models)

12. Reassemble all parts and panels.
13. Plug in dryer or reconnect power.
14. Perform steps under "Service Test Mode", page 2-5, to verify repair.

Pluggable Drive Motor Switch

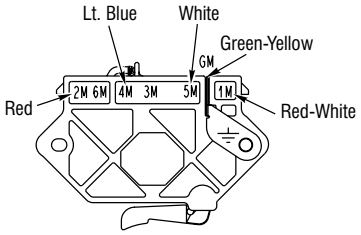


Figure 5 - Pluggable Drive Motor Switch

Centrifugal Switch (Motor)

Function	Contacts 1M	2M	3M	5M	6M
Start			●		
Run	●			●	

● = *Contacts closed*

Figure 6 - Centrifugal Switch Contacts

MOTOR STRIP CIRCUIT

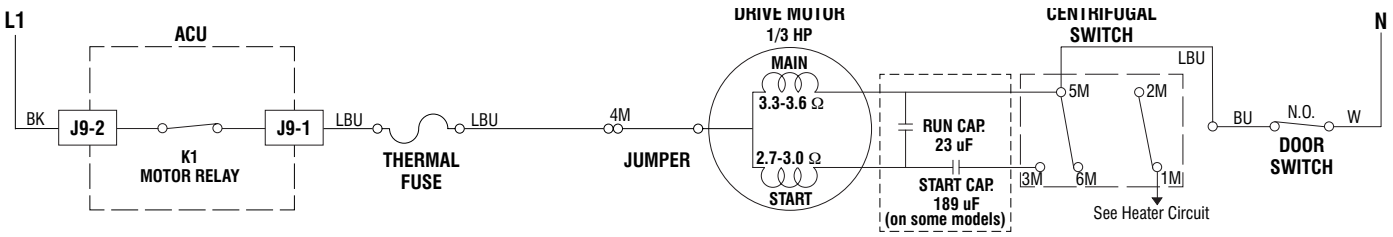


Figure 7 - Motor Strip Circuit

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #4: Heat System

This test is performed when either of the following situations occurs:

- ✓ **Dryer does not heat**
- ✓ **Heat will not shut off**

This test checks the components making up the heating circuit. The following items are part of this system:

Part of Heating System	Electric Dryer	Gas Dryer
Harness/connection	✓	✓
Heater relay	✓	✓
Thermal cut-off	✓	✓
High limit thermostat	✓	✓
Heat element assembly	✓	no
Gas valve assembly	no	✓
Centrifugal switch	✓	✓
Outlet thermistor	✓	✓
Inlet thermistor	✓	✓
Machine control electronics	✓	✓
Console electronics	✓	✓
Gas supply	no	✓

NOTE: On the gas dryer, the inlet thermistor is located at the drum inlet vent. Refer to strip circuits on page 3-13 to diagnose heater system.

Dryer does not heat:

Locate the components using figures 1 and 2 (page 3-3). To access heater system components, remove the console, top panel, and front panel.

ELECTRIC DRYER ONLY:

✓ Quick Check: Perform steps under “Service Test Mode”, page 2-5, to test for L1 and L2 line voltage.

- ➢ If **L1** is present, the thermal cutoff is functional.
- ➢ If **L2** is present, the centrifugal switch, high limit thermostat, and the side of the heater connected to heater relay 1 are functional.

1. Unplug dryer or disconnect power.
2. Slide the top back, remove the front panel, front bulkhead, and drum to access thermal components.
3. Check Heaters—on the ACU, use an ohmmeter to measure the resistance between the violet wire terminal on heater relay #1 and the violet wire terminal on heater relay #2.
   - ➢ If the resistance is ≤ 50 Ω, go to step 5.
   - ➢ If an open circuit is detected, go to step 4.
4. Visually check the wire connections between each relay and their respective heaters. If the connections look good, check for continuity across each heater (violet wire to center red wire). Refer to strip circuits on page 3-13.
   - ➢ Replace the heater if it is electrically open.
5. Check Thermal Cut-off—on the ACU, use an ohmmeter to measure continuity between J9-2 (L1) and the black wire terminal on heater relay #1. Then, measure continuity between J9-2 (L1) and the black terminal on heater relay #2.
   - ➢ If there is continuity, go to step 7.
   - ➢ If an open circuit is detected, go to step 6.
6. Visually check the wire connections between each relay (black wire) and the thermal cut-off. If the connections look good, check for continuity across the thermal cut-off.
   - ➢ Replace the thermal cut-off if it is electrically open.
7. Check High Limit Thermostat—visually check the wire connections from the heaters and centrifugal switch to the high limit thermostat. If the connections look good, check for continuity across the high limit thermostat.
   - ➢ Replace the high limit thermostat if it is electrically open.
8. If no open circuit is detected, remove the J14 connector from the ACU and measure the outlet thermistor resistance between J14-3 and J14-6 at the connector. Refer to “Outlet Thermistor Resistance” table on page 3-14, for temperatures and their associated values.
   - ➢ If the resistance corresponds to the temperature, the outlet thermistor is good. Go to step 9.
   - ➢ If the thermistor resistance does not agree with the table, replace the outlet thermistor.
9. If the preceding steps did not correct the problem and L1 and L2 were both detected, replace the ACU. If L2 was not detected, suspect the centrifugal switch before replacing the ACU.
10. Reassemble all parts and panels.
11. Plug in dryer or reconnect power.
12. Perform steps under “Service Test Mode”, page 2-5, to verify repair.

For Service Technician Use Only

GAS DRYER ONLY:

1. Verify the gas supply to the dryer is turned on.
2. Unplug dryer or disconnect power.
3. Perform TEST #4c: Thermal Cut-Off on page 3-15. If the thermal cut-off is OK, go to step 4.
4. Locate the high limit thermostat (see figure 2, page 3-13). Measure the continuity through it by connecting the meter probes to the red and black wire terminals.
   - ➢ If there is an open circuit, replace both the high limit thermostat and the thermal cut-off.
   - ➢ Otherwise, go to step 5.
5. Perform TEST #4d: Gas Valve on page 3-16. If the gas valve is OK, go to step 6.
6. If the preceding steps did not correct the problem, suspect the centrifugal switch before replacing the ACU.
7. Reassemble all parts and panels.
8. Plug in dryer or reconnect power.
9. Perform steps under “Service Test Mode”, page 2-5, to verify repair.

Heat will not shut off:

ALL DRYERS:

1. Unplug dryer or disconnect power.
2. Remove console to access the machine electronics.
3. Remove connector J14 from the ACU and measure the resistance between J14-3 and J14-6 at the connector. Refer to “Outlet Thermistor Resistance” table on page 3-14, for temperatures and their associated values.
   - ➢ If the resistance corresponds to the temperature, the outlet thermistor is good.
   - ➢ If the thermistor resistance does not agree with the table, replace the outlet thermistor.
4. Check heater coil(s) for a short to ground (usually inside the heater box). Repair or replace if necessary.
5. Plug in dryer or reconnect power.
6. Run an “AIR” only timed dry cycle (no heat). Check heater relay output(s) on ACU. Unplug dryer or disconnect power. With a voltmeter set to AC, connect voltmeter to terminals 1 & 2 for heater relay #1. Plug in dryer or reconnect power. Measure the voltage across terminals 1 & 2 for heater relay #1. If equipped, repeat procedure with heater relay #2.
   - ➢ If voltage is present (~240 VAC for electric, ~120 VAC for gas), the relay is open and working normally.
   - ➢ If little or no voltage is present, the relay is closed and heater is activated. Unplug dryer or disconnect power and replace the ACU.
7. Unplug dryer or disconnect power.
8. Reassemble all parts and panels.
9. Plug in dryer or reconnect power.
10. Perform steps under “Service Test Mode”, page 2-5, to verify repair.

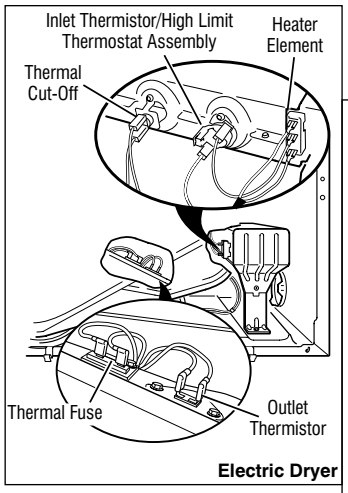


Figure 1 - Thermal components, electric dryer, viewed from front.

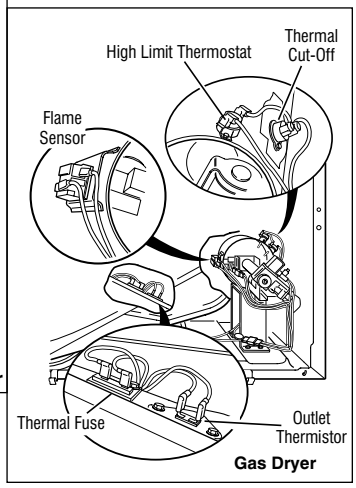
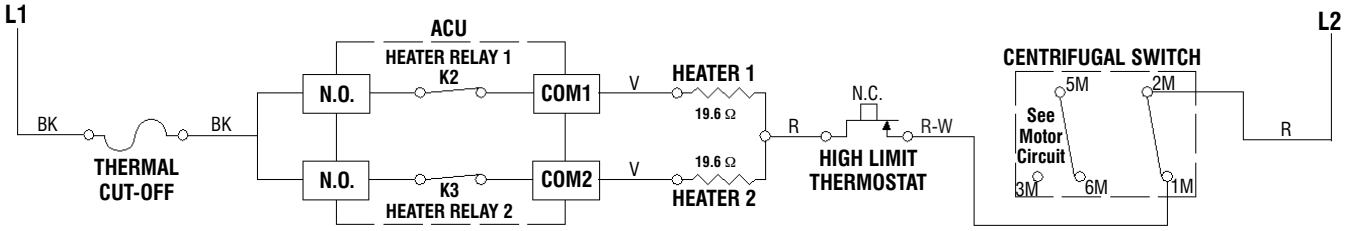
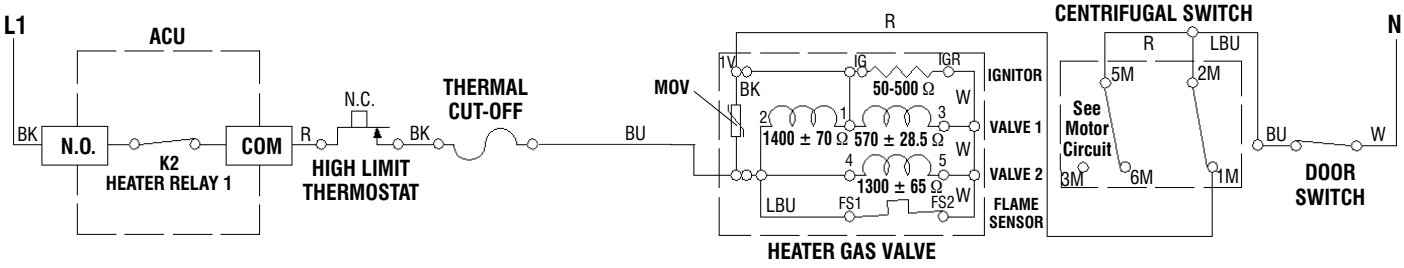


Figure 2 - Thermal components, gas dryer, viewed from front.

HEATER (ELECTRIC) STRIP CIRCUIT (FIGURE 3)



HEATER (GAS) STRIP CIRCUIT (FIGURE 4)



For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #4a: Thermistors

NOTE: Refer to strip circuit below to diagnose outlet and inlet temperature thermistors.

Outlet (Exhaust) Thermistor

The ACU monitors the exhaust temperature using the outlet thermistor, and cycles the heater relay on and off to maintain the desired temperature. **NOTE:** Begin with an empty dryer and a clean lint screen.

1. Unplug dryer or disconnect power.
2. Remove console to access the machine electronics.
3. Remove connector J14 from the ACU and measure the resistance between J14-3 and J14-6 at the connector. The following table gives temperatures and their associated resistance values.

NOTE: All thermistor resistance measurements must be made while dryer is unplugged and connector removed from ACU.

OUTLET THERMISTOR RESISTANCE			
TEMP °F (°C)	RES. RANGE k ohms	TEMP °F (°C)	RES. RANGE k ohms
50° (10°)	19.0-22.0	80° (27°)	8.5-10.5
60° (16°)	14.8-16.8	90° (32°)	6.8-8.8
70° (21°)	11.5-13.5	100° (38°)	5.0-7.0

- If the resistance is OK, the outlet thermistor is good. Proceed to step 4.
- If the thermistor resistance does not agree with the table, replace the outlet thermistor.

4. Check J14-3 and J14-6 to dryer cabinet ground. If either pin indicates continuity to ground (short), replace wiring harness; otherwise, proceed to step 5.
5. If the preceding steps did not correct the problem, replace the ACU.

Temperature Levels Incorrect – If no error code is displayed and the connections to the thermistor are good, check the exhaust temperature value at any or all of the temperature levels in question, using the **Timed Dry** cycle.

IMPORTANT: Be sure **EcoBoost** (if available) is turned OFF before testing.

1. Remove load from dryer and disconnect external vent.
2. Plug in dryer or reconnect power.
3. Run a **MIXED + TIMED DRY** cycle of at least 2 minutes in duration and select a temperature setting using heat.
4. Using a calibrated temperature probe, take a temperature measurement in the center of the exhaust outlet. The correct exhaust temperatures are as follows:

EXHAUST TEMPERATURES		
TEMPERATURE SETTING (appearance may vary)	HEAT TURNS OFF* °F (°C)	HEAT TURNS ON °F (°C)
○ ○ ○ ○ ✺	155° ± 5° (68° ± 3°)	10–15° (6–8°) below the heat turn off temperature
○ ○ ○ ✺ ○	140° ± 5° (60° ± 3°)	
○ ○ ✺ ○ ○	125° ± 5° (52° ± 3°)	
○ ✺ ○ ○ ○	105° ± 5° (41° ± 3°)	

- If the temperature is not reached within ~7 minutes, check voltage level and vent blockage, and then retest.
- If the temperature probe does not agree with temperature setting, replace the outlet thermistor.
- If the temperature probe confirms the temperature setting, retest at a different temperature setting.

5. If the preceding steps did not correct the problem, replace the ACU.

Inlet Thermistor

NOTE: On the electric dryer, the inlet thermistor is part of the high thermostat assembly (see figure 1, page 3-13). On the gas dryer, the inlet thermistor is located at the drum inlet duct (see figures 1 & 2, page 3-3).

THERMISTORS STRIP CIRCUIT

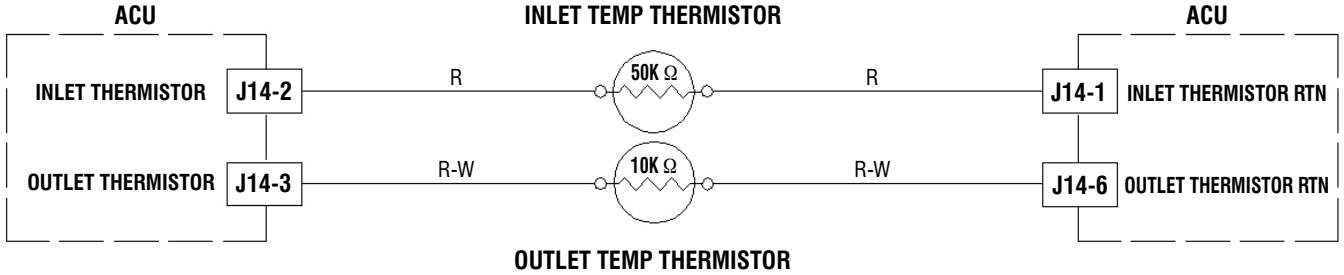


Figure 1 - Thermistors Strip Circuit

For Service Technician Use Only

The ACU monitors the inlet temperature using the inlet thermistor. The inlet thermistor (along with the outlet thermistor) is used to detect air flow, and assists in calculating load size.

1. Unplug dryer or disconnect power.
2. Remove console to access the machine electronics.
3. Remove connector J14 from the ACU and measure the resistance between J14-1 and J14-2 at the connector. The following tables (electric & gas) give temperatures and their associated resistance values.

NOTE: All thermistor resistance measurements must be made while dryer is unplugged and connector removed from ACU.

- ➢ If the resistance is OK, the inlet thermistor is good. Proceed to step 4.
- ➢ If the thermistor resistance does not agree with the table, replace the inlet thermistor.

ELECT - INLET THERMISTOR RESISTANCE

TEMP °F (°C)	RES. RANGE k ohms	TEMP °F (°C)	RES. RANGE k ohms
68° (20°)	61.2–63.7	131° (55°)	14.5–15.3
77° (25°)	49.0–51.0	140° (60°)	12.1–12.8
86° (30°)	39.5–41.1	149° (65°)	10.2–10.7
95° (35°)	32.0–33.3	158° (70°)	8.5–9.0
104° (40°)	26.1–27.2	167° (75°)	7.2–7.6
113° (45°)	21.4–22.3	176° (80°)	6.1–6.5
122° (50°)	17.6–18.5		

GAS - INLET THERMISTOR RESISTANCE

TEMP °F (°C)	RES. RANGE k ohms	TEMP °F (°C)	RES. RANGE k ohms
68° (20°)	57.5–67.6	131° (55°)	14.1–15.6
77° (25°)	46.1–53.8	140° (60°)	11.8–12.9
86° (30°)	37.4–43.1	149° (65°)	9.9–10.8
95° (35°)	30.4–34.7	158° (70°)	8.4–9.0
104° (40°)	24.9–28.2	167° (75°)	7.1–7.6
113° (45°)	20.5–23.0	176° (80°)	6.0–6.4
122° (50°)	16.9–18.9		

4. Check J14-1 and J14-2 to dryer cabinet ground. If either pin indicates continuity to ground (short), replace wiring harness; otherwise, proceed to step 5.
5. If the preceding steps did not correct the problem, replace the ACU.

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #4b: Thermal Fuse

ALL DRYERS: The thermal fuse is wired in series with the dryer drive motor.

1. Unplug dryer or disconnect power.
2. Slide the top back, remove the front panel, front bulkhead, and drum to access the thermal fuse.
3. Using an ohmmeter, check the continuity across the thermal fuse.
   - ➢ If the ohmmeter indicates an open circuit, replace the thermal fuse.

TEST #4c: Thermal Cut-Off

If the dryer does not produce heat, check the status of the thermal cut-off.

1. Unplug dryer or disconnect power.
2. Access the thermal cut-off by removing console, top panel, front panel, front bulkhead, and drum.
3. Using an ohmmeter, check the continuity across the thermal cut-off. See figures 1 and 2, page 3-13, for location.
4. If the ohmmeter indicates an open circuit, perform the following:

ALL DRYERS: Replace both the thermal cut-off and high limit thermostat. In addition, check for blocked or improper exhaust system, and, on electric dryers, for heat element malfunction.

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #4d: Gas Valve (Gas Dryer)

1. Unplug dryer or disconnect power.
2. Access the gas valve by sliding the top back and removing the front panel, front bulkhead, and drum.
3. Use an ohmmeter to determine if a gas valve coil has malfunctioned. Remove harness plugs. Measure resistance across the terminals (see figure 1). Readings should match those shown in the following chart; if not, replace coils.

GAS VALVE RESISTANCE	
Terminals	**Resistance in ohms**
1 to 2	1400 ± 70
1 to 3	570 ± 28.5
4 to 5	1300 ± 65

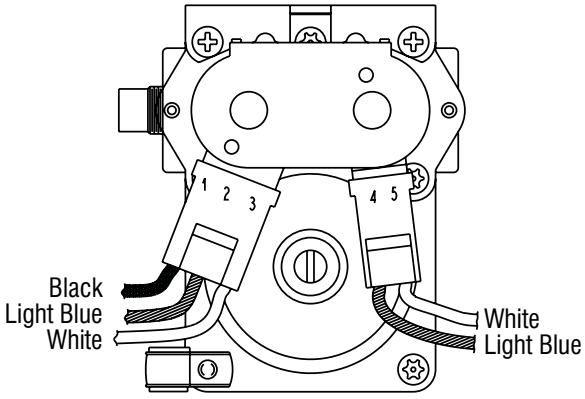


Figure 1 - Measuring gas valve resistance.

4. Disconnect the ignitor plug from the burner. Using an ohmmeter, measure the resistance across the ignitor's 2-pin connector. Resistance should be 50-500 Ω.
   - ➢ If resistance readings are outside the range or open, replace the ignitor.
   - ➢ If resistance readings are within range, reconnect the ignitor plug and continue to step 5.
5. Disconnect the wires going to the flame sensor terminals. Using an ohmmeter, measure across the two sensor terminals for continuity.
   - ➢ If there is continuity, reconnect the sensor wires and continue to step 6.
   - ➢ If the reading is open, the flame sensor needs replacing.
6. Reassemble all parts and panels before reconnecting power.
7. Plug in dryer or reconnect power.
8. Run a high-temp **MIXED + TIMED DRY** cycle of at least 2 minutes in duration.
9. Watch the ignitor for a couple of minutes through the "peek window" in the side. If the ignitor stays red hot and the gas does not come out and ignite, the flame sensor needs replacing.

   NOTE: If ignitor does not come on, line voltage may not be present at the gas burner. The motor centrifugal switch may be suspect.

   IMPORTANT: To avoid damage to the gas burner wire harness, ensure the harness is routed exactly as it was prior to service.
10. Unplug dryer or disconnect power.
11. Reassemble all parts and panels.
12. Plug in dryer or reconnect power.
13. Perform steps under "Service Test Mode", page 2-5, to verify repair.

Gas Valve Schematic

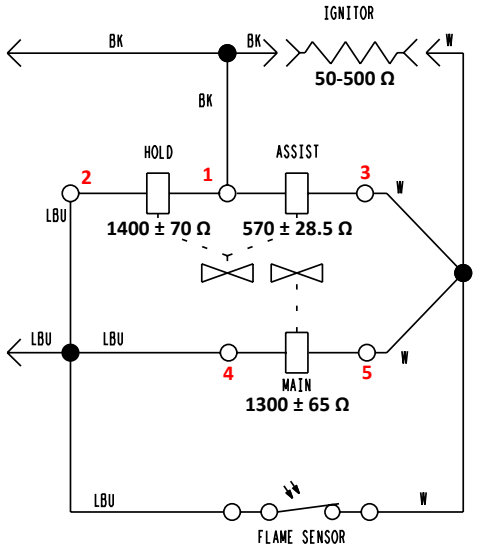


Figure 2 - Gas Valve Schematic

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #5: Moisture Sensor

This test is performed when an automatic cycle stops too soon, or runs much longer than expected.

NOTE: Dryer will shut down automatically after 2½ hours.

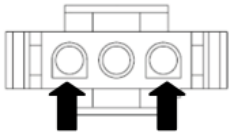
The following items are part of this system:

Part of Moisture System	Electric Dryer	Gas
Harness/connection	✓	✓
Metal sensor strips	✓	✓
Machine control electronics	✓	✓

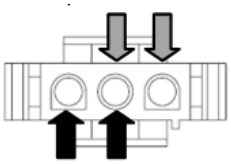
NOTE: Refer to strip circuit below to diagnose moisture sensor.

NOTE: Over-drying may be caused by a short circuit in the sensor system.

1. Unplug dryer or disconnect power.
2. Remove console to access the machine electronics.
3. Access the moisture sensor wires by sliding the top panel back and removing the front panel. Disconnect the 3-wire moisture sensor connector located below the door opening between the front panel and bulkhead.
4. Access the ACU and remove connector J13 from the circuit board. Check the wire harness for continuity between J13 and the moisture sensor connector.
   - ➢ If there is continuity, go to step 5.
   - ➢ If there is no continuity, replace the main harness.with step 3.
5. Measure the resistance across the outermost contacts of the connector that includes the two MOVs.



   - ➢ If a small resistance is measured, clean the two metal moisture strips inside the drum. If a small resistance is measured after cleaning, replace sensor harness.
   - ➢ If a small resistance is not measured, go to step 6.
6. Measure the resistance across each of the outermost contacts and the center terminal (ground connection).



   - ➢ If a resistance less than infinity is measured, replace the sensor harness.
7. If the moisture sensor diagnostic test passes, check the outlet thermistor: TEST #4a, page 3-14.
   - ➢ If the problem persists after replacing the moisture sensor and thermistor, consider adjusting the dryness level (see TEST #5a: Adjusting Customer-Focused Dryness Level).
8. If the preceding steps did not correct the problem, replace the ACU.

MOISTURE SENSOR STRIP CIRCUIT

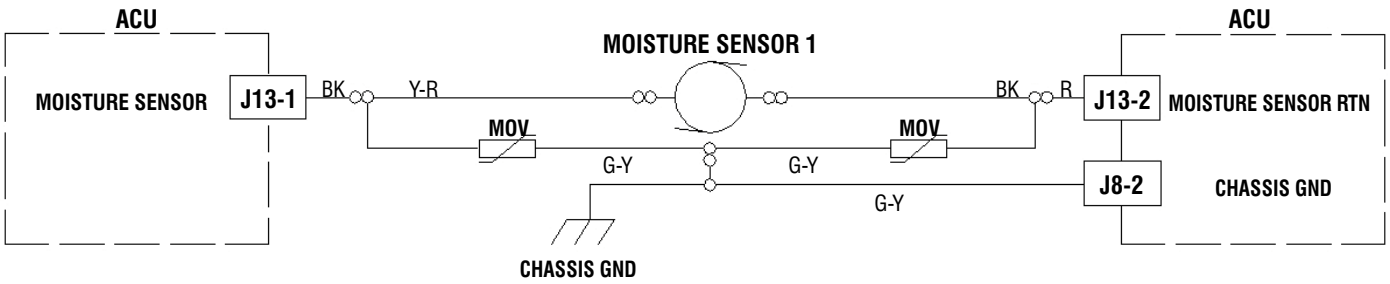


Figure 1 - Moisture Sensor Strip Circuit

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #5a: Adjusting Customer-Focused Dryness Level

NOTE: If the customer complains about the clothes being less dry or more dry than desired and the moisture sensor passes TEST #5: Moisture Sensor, the total dry time can be lengthened or shortened by changing the Customer-Focused Dryness Level from "**2**" (standard auto cycle) to a "**3**" (15% more drying time), "**4**" (30% more drying time), "1" (15% less drying time), or "**0**" (30% less drying time) auto cycle.

1. In standby mode (dryer plugged in but not powered up), press and hold the **DRYNESS** button for approximately 3 seconds. The dryer will beep and the current dryness setting will be displayed on the 7-segment display. The factory default value is "**2**".
2. Pressing the dryness button cycles the dryness setting between 0, 1, 2, 3, and 4, starting at the current setting. The new setting is displayed in the 7-segment display.
3. With the display showing the desired dryness setting, press the **START** button to save the drying mode and exit to standby mode (the START button in this mode does not start a drying cycle). The result will be stored in EEPROM of the ACU and will be retained after a power loss.

   NOTE: If there is no user activity for 20 seconds, or a button other than START or DRYNESS is pressed, the dryness setting is reverted back to its previous setting.
4. Press the **POWER** button at any time to cancel changes and exit from this mode.

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #6: Buttons and Indicators

This test is performed when any of the following situations occurs during the "Key Activation & Encoder Test" (see page 2-5).

- ✓ **None of the indicators or display turn on**
- ✓ **Some buttons do not light**
- ✓ **No beep sound is heard**

None of the indicators or display turn on:

1. Unplug dryer or disconnect power.
2. Remove console to access the ACU and user interface (UI).
3. Visually check that ALL ACU connectors are inserted all the way into the ACU.
4. Visually check that ALL UI connectors are inserted all the way into the UI.
5. If all visual checks pass, perform TEST #1: ACU Power Check, page 3-6, to verify supply voltages.
   - ➢ If supply voltages are present, replace the user interface and housing assembly.
   - ➢ If supply voltages are not present, replace the ACU.
6. Reassemble all parts and panels.
7. Plug in dryer or reconnect power.
8. Perform the "Key Activation & Encoder Test" (see page 2-5) to verify repair.

Some buttons do not light:

1. Unplug dryer or disconnect power.
2. Remove console to access the ACU and user interface (UI).
3. Replace the UI and housing assembly.
4. Reassemble all parts and panels.
5. Plug in dryer or reconnect power.
6. Perform the "Key Activation & Encoder Test" (see page 2-5) to verify repair.

No beep sound is heard:

1. Verify that the "Audio Level" or "Cycle Signal" volume is turned on. Press **AUDIO LEVEL** or press and hold **CYCLE SIGNAL** for 3 seconds to adjust the volume level.
2. Unplug dryer or disconnect power.
3. Remove console to access the ACU and user interface (UI).
4. Visually check that ALL ACU connectors are inserted all the way into the ACU.
5. Visually check that ALL UI connectors are inserted all the way into the UI.
6. If all visual checks pass, replace the UI and housing assembly.
7. Reassemble all parts and panels.
8. Plug in dryer or reconnect power.
9. Perform the "Key Activation & Encoder Test" (see page 2-5) to verify repair.

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #7: Door Switch

NOTE: Refer to strip circuit below to diagnose the door switch.

Functionality is verified when opening the door turns on the drum light. Closing the door should turn off the drum light.

If the preceding conditions are not met:

1. Unplug dryer or disconnect power.
2. Remove console to access the machine electronics.
3. Check that the wires between the door switch and ACU are connected. (Refer to wiring diagrams on pages 3-4 and 3-5.)
   - ➢ If the connections are good, replace the wire and door switch assembly and retest.
   - ➢ If wire and door switch assembly have been replaced and dryer still does not start, replace the ACU.
4. Reassemble all parts and panels.
5. Plug in dryer or reconnect power.
6. Verify that the dryer will start with the door closed, and that it stops when the door opens.

DOOR SWITCH STRIP CIRCUIT

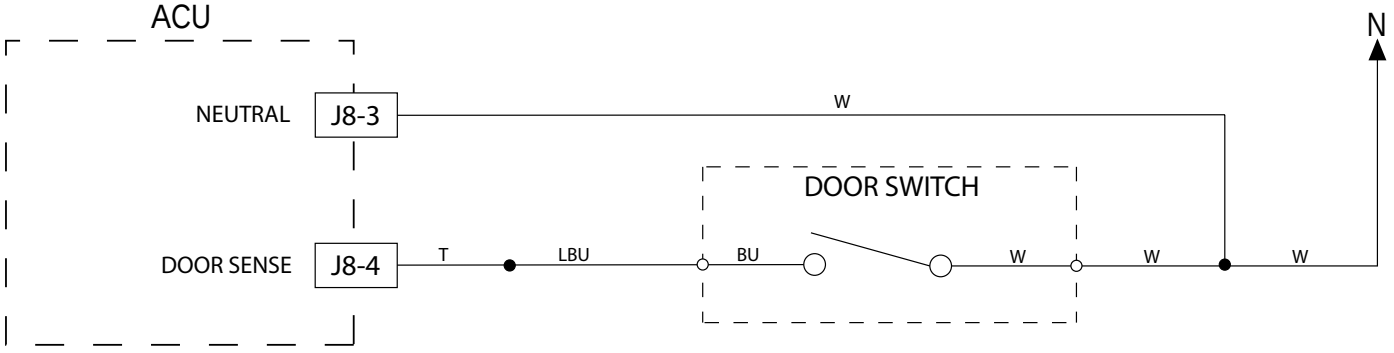


Figure 1 - Door Switch Strip Circuit

For Service Technician Use Only

⚠ DANGER

Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

TEST #8: Drum LED

NOTE: Refer to the strip circuit at right (Figure 2) to diagnose the drum LED.

This test is performed if the drum LED does not light.

1. Unplug dryer or disconnect power.
2. Remove the console to access ACU and user interface (UI).
3. Verify that the drum LED connector **J6** is securely connected to the ACU (see Figure 1).
4. Check harness and inline connections between the drum LED and ACU.
   - ➢ If the harness and connections are good, go to step 5.
   - ➢ If not, repair or replace as needed.
5. Unplug the drum LED connector **J6** from the ACU.
6. With a multimeter set to milliamps, connect multimeter to ACU connector **J6**, pins 1 and 3. Plug in dryer or reconnect power. Open the door. Measure the current across ACU connector **J6**, pins 1 and 3. If the drum LED driver is working properly, there should be a measurement of 150 mA.
   - ➢ If the current is present, unplug dryer or disconnect power and replace the drum LED.
   - ➢ If the current is not present, unplug dryer or disconnect power and replace the ACU.
7. Reassemble all parts and panels.

DRUM LED STRIP CIRCUIT

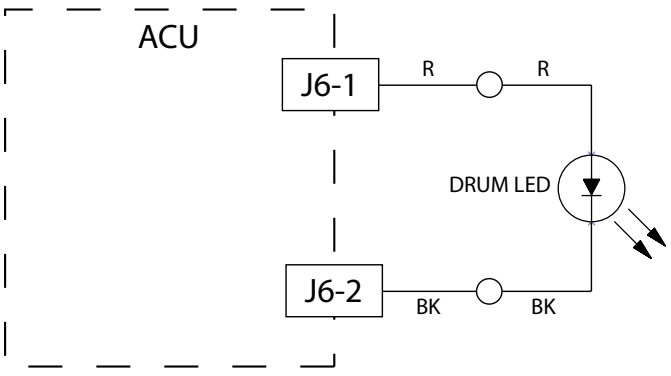


Figure 2 - Drum LED Strip Circuit

CONTROL BOARD

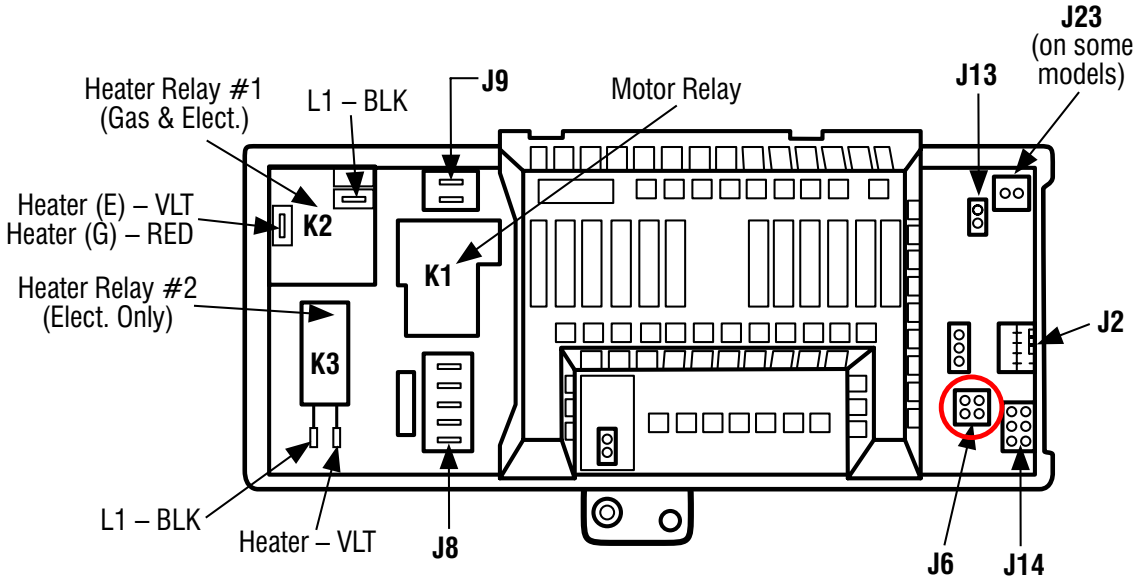


Figure 1 - Drum LED Connector

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #9: Water Valve

Activate Service Test Mode (see page 2-5). Skip to Step 8 in Service Test Mode Chart (see page 2-5). Verify that water is being sprayed into the drum. See figure 1.

NOTE: Refer to the strip circuit below (Figure 2) to diagnose water valve.

If water leaks from the dryer/too much water being sprayed into the drum:

1. Inside the drum, unscrew the water nozzle.
2. Inspect nozzle opening for residue buildup; clean and replace it.

If no water is sprayed in the drum:

1. Verify that water is connected and turned on.
2. Unplug dryer or disconnect power.
3. Remove console to access the machine electronics.
4. Verify that the red wire coming from the water valve is connected to the ACU, J8-1. Refer to wiring diagrams on pages 3-4 and 3-5.

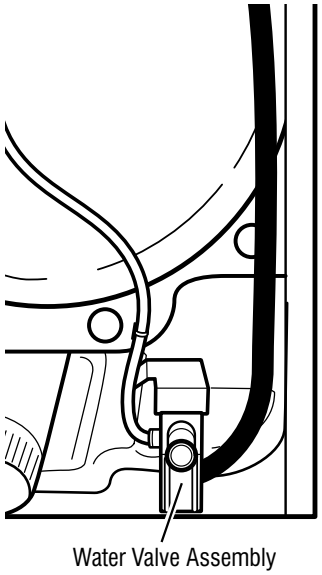


Figure 1 - Water System Components

5. Check Water Valve & Harness—using an ohmmeter, measure the resistance between the ACU J8-1 (red wire) and J9-2 (black wire).
   - ➢ If the resistance is 1300 Ω (±5%), go to step 6; if not, replace the water valve.
   - ➢ If an open circuit is detected, go to step 7.
6. Inside the drum, unscrew and replace the water nozzle using a 7/16” wrench or socket. Retest water valve.
   - ➢ If water does not dispense, go to step 7.
7. Access the water valve by removing the back panel.
   - ➢ Check that the hose and wires are connected to the water valve assembly (see Figure 1).
   - ➢ Check that the water valve assembly hose is connected to the nozzle.
8. If everything is connected and the water still does not dispense:
   - ➢ Unplug dryer or disconnect power.
   - ➢ Replace the valve assembly and retest.
9. If the preceding steps did not correct the problem, replace the ACU.

WATER VALVE STRIP CIRCUIT

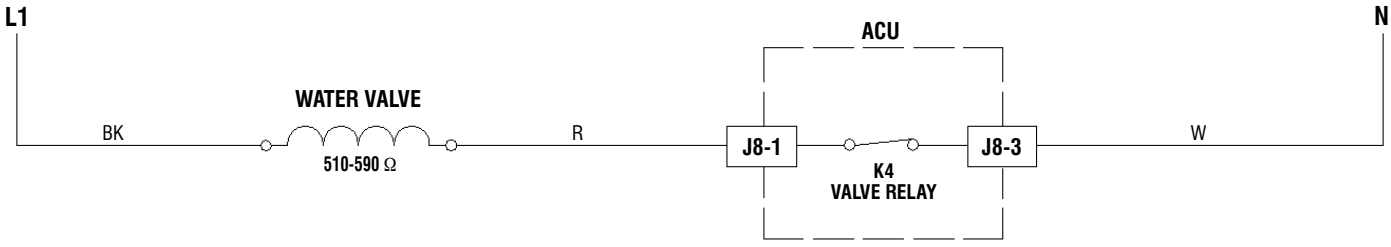


Figure 2 - Water Valve Strip Circuit

For Service Technician Use Only

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

TEST #10: Service LEDs (some models)

The underside of the user interface (see Figure 1) has 3 LEDs to help diagnose common problems with the UI, including unresponsive keys and a non-functioning speaker.

The LEDs are accessed by separating the glass top of the lid from the lid's white lower frame.

LED name/color/function is as follows:

- Service Power (Amber) will flash at 1 Hz when power is supplied to the UI.
- Service Data (Blue) will illuminate (or flash) to indicate a functioning communication channel between the UI and the ACU.
- Service Button Sounds/Control Lock (White) will illuminate when BOTH of the following are true:
  - The Control Lock feature is turned off.
  - The Audio Level is NOT turned off.

If **Service Power** LED does not flash, the UI is not powered properly. Check harness and harness connections.

If **Service Data** LED does not illuminate, either press POWER to turn on/off the dryer, or unplug the dryer and then plug it back in. If Service Data LED does not illuminate upon re-application of power, the UI is not powered properly. Check harness for continuity, harness connections, and ACU.

If **Service Button Sounds/Control Lock** LED does not illuminate, either press POWER to turn on/off the dryer, or unplug the dryer and then plug it back in. If Service Button Sounds/Control Lock LED still does not illuminate:

1. Verify that the Control Lock feature is turned off. Press & hold STEAM REFRESH for 3 seconds to toggle the feature.
2. Verify that the Audio Level setting is not muted. Press POWER to turn on the dryer, then press AUDIO LEVEL until the corresponding LED illuminates. If the Audio Level LED is on, but sounds are still not heard, verify that the speaker is connected to J6 on the UI.

If all three Service LEDs illuminate/flash as described above, the UI may need to be replaced.

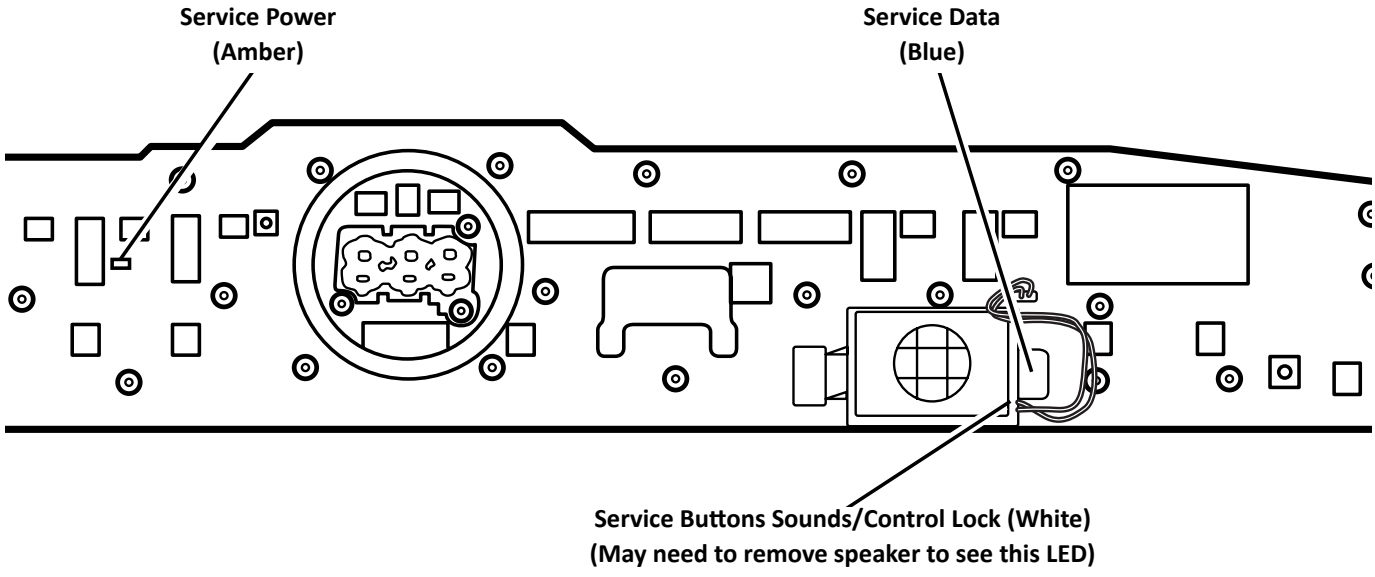


Figure 1 - Service LED's

Notes

Section 4: Component Access

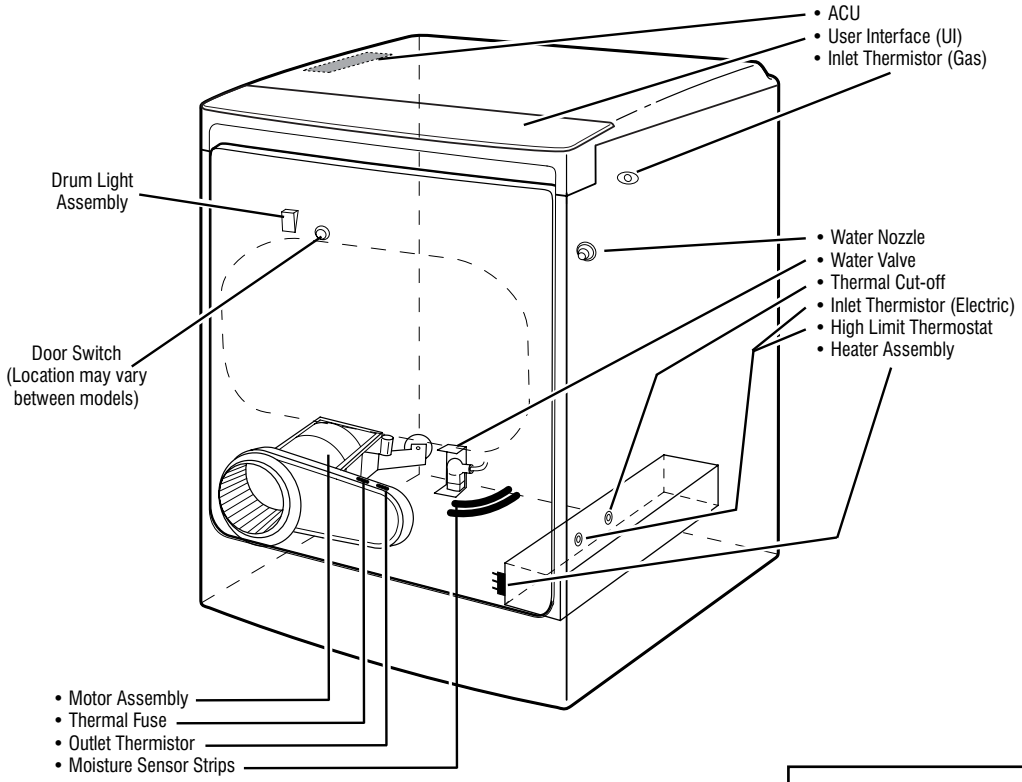
This section provides service parts access, removal, and installation instructions for the "Whirlpool & Maytag 9.2 Cu. Ft. Steam Dryer."

- Component Locations
- Removing the Door Assembly
- Removing the Top Panel & User Interface (UI)
- Removing the Appliance Control Unit (ACU)
- Removing the Front Panel
- Removing the Door Switch
- Removing the Drum Light
- Removing the Moisture Sensor
- Removing the Belt, Drum, and Rollers
- Removing the Drive Motor
- Removing the Thermal Fuse the Outlet Thermistor
- Removing the Heater Element
- Removing the H-L Thermostat (Electric Models)
- Removing the Thermal Cutoff (Electric Models)
- Removing the Ignitor & Flame Sensor (Gas Models)
- Removing the High-Limit Thermostat (Gas Models)
- Removing the Thermal Cutoff (Gas Models)
- Removing the Gas Burner Assembly Coils
- Removing the Water Valve

Video Available  Look for this ICON throughout Section 4

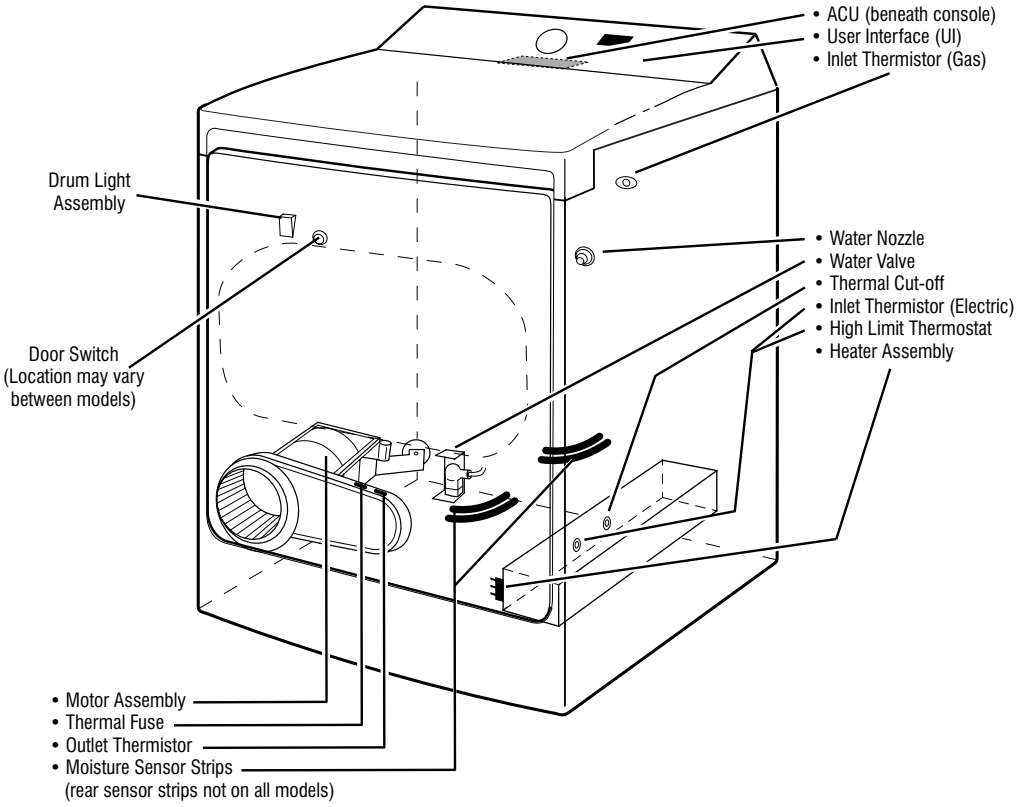
Component Locations

COMPONENT LOCATIONS - WHIRLPOOL (FIGURE 1)



NOTE: Refer to Figure 2, page 3-13, for gas dryer component locations.

COMPONENT LOCATIONS - MAYTAG (FIGURE 2)



Removing the Door Assembly

To Remove the Door Assembly

1. Use a plastic putty knife or small flat blade screwdriver to remove the top and bottom hinge covers.

Figure 1

2. Use a TORX T-20 screwdriver to remove the two (2) bottom hinge screws (see Figure 2).
3. Use a TORX T-20 screwdriver to remove the two (2) top hinge screws (see Figure 2).

Figure 2

4. Lift door slightly to remove locator-pin from keyhole slot in front panel. Remove door assembly from dryer.

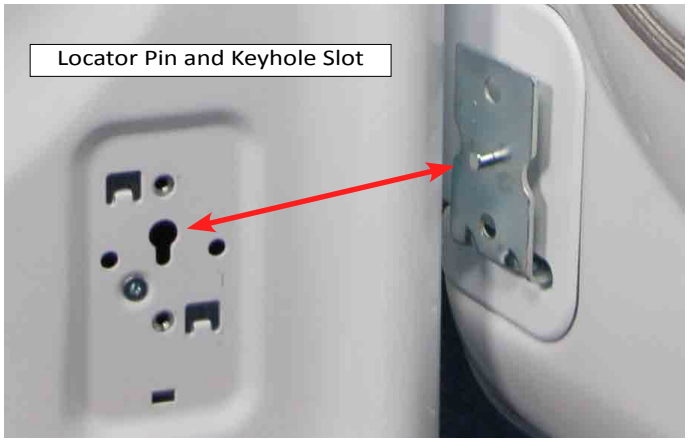


Figure 3

Removing the Top Panel & User Interface

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Top Panel

1. Unplug dryer or disconnect power.
2. Remove the three (3) 1/4” hex-head screws from the top panel as illustrated in Figure 1.

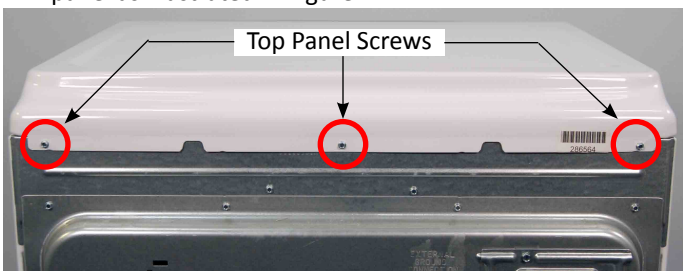


Figure 1

3. Lift the rear of the top panel, pull back, and remove top panel from the dryer.

To Remove the Console/User Interface

1. After removing the top panel, remove the User Interface connector J2 from the Appliance Control Unit (ACU). Unclip UI harness from bracket (see Figure 2).

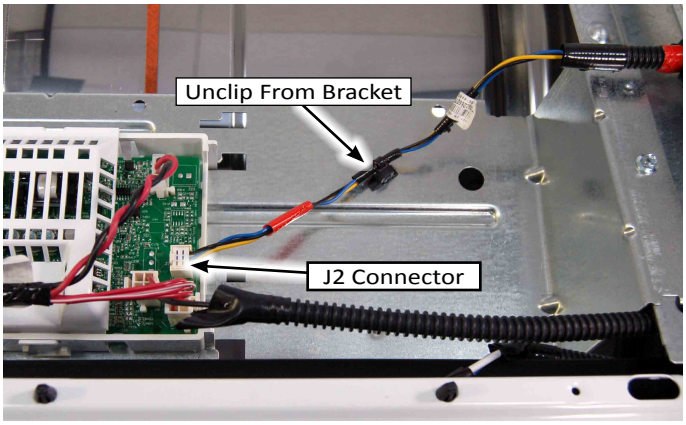


Figure 2

2. Remove the two (2) 1/4” hex head screws securing the console to the cabinet (locations circled in Figure 3).

Figure 3

3. Using a flat blade screwdriver, Insert tip of screwdriver between the clip and tab and gently pull down to separate. Perform the procedure with all four (4) clips. See Figures 4 and 5.

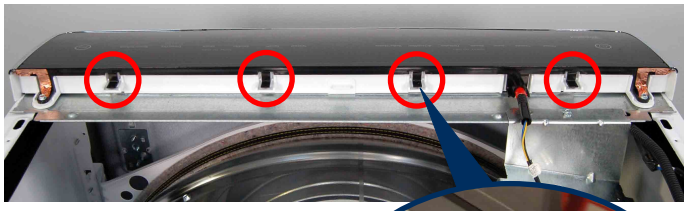


Figure 4

Figure 5

4. Lift up on back of UI and disengage assembly from dryer.
5. To reinstall the UI assembly insert the hooks on the front of the UI into the clip openings on the console frame (as shown in Figure 6). Insure the hooks are all fully inserted.

   Next, firmly push down on the clips until you hear them snap into place. Reinstall the two (2) 1/4” hex-head screws to secure the UI in place.

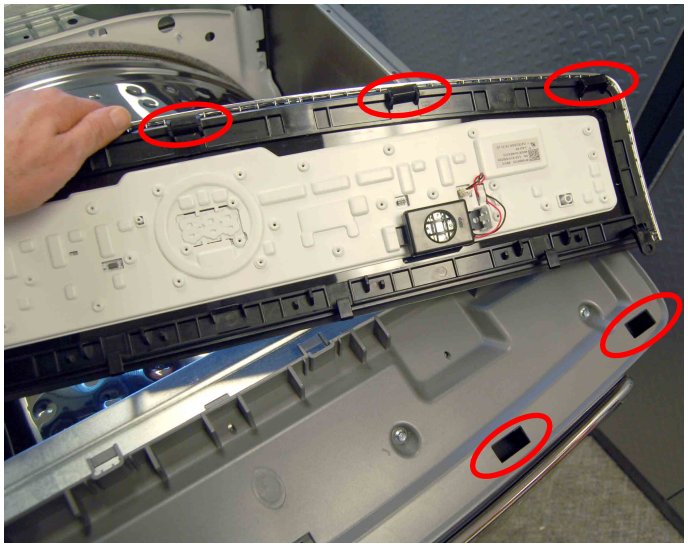


Figure 6

Removing the Appliance Control Unit (ACU)

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

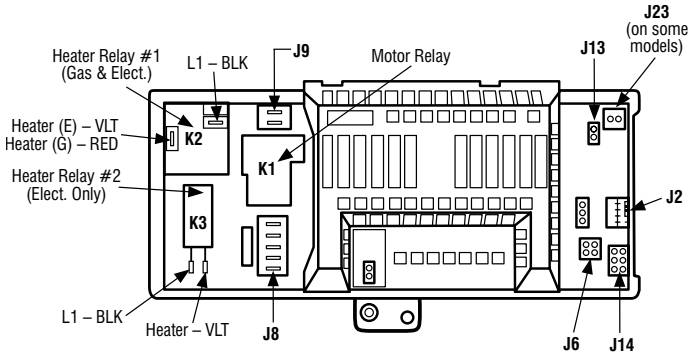
Failure to do so can result in death or electrical shock.

To Remove the Appliance Control Unit (ACU)

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Device. Failure to follow the ESD precautions outlined at the beginning of Section 3 "Testing" may destroy, damage, or weaken the main control assembly.

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-3, "Removing the Top Panel" prior to performing the following steps.
3. Disconnect all connectors from the ACU (see Figure 1).
4. Using a 1/4" nut driver, remove the one (1) hex-head screw securing the ACU to the control bracket (location circled in Figure 2).
5. Reach under control bracket and locate release tab. Depress tab and slide ACU towards front of dryer to disengage from bracket. Remove Appliance Control Unit.

Appliance Control Unit (Figure 1)



Connector	Component(s)
Heater Relay #1	Gas & Electric Heaters
Heater Relay #2	Electric Heater Only
J2	User Interface
J6	Drum LED
J8	Water Valve Door Switch Neutral & GND
J9	L1 Motor
J13	Moisture Sensor
J14	Inlet Thermistor Outlet Thermistor Model (Gas)
J23	Rear Moisture Sensor (some models)

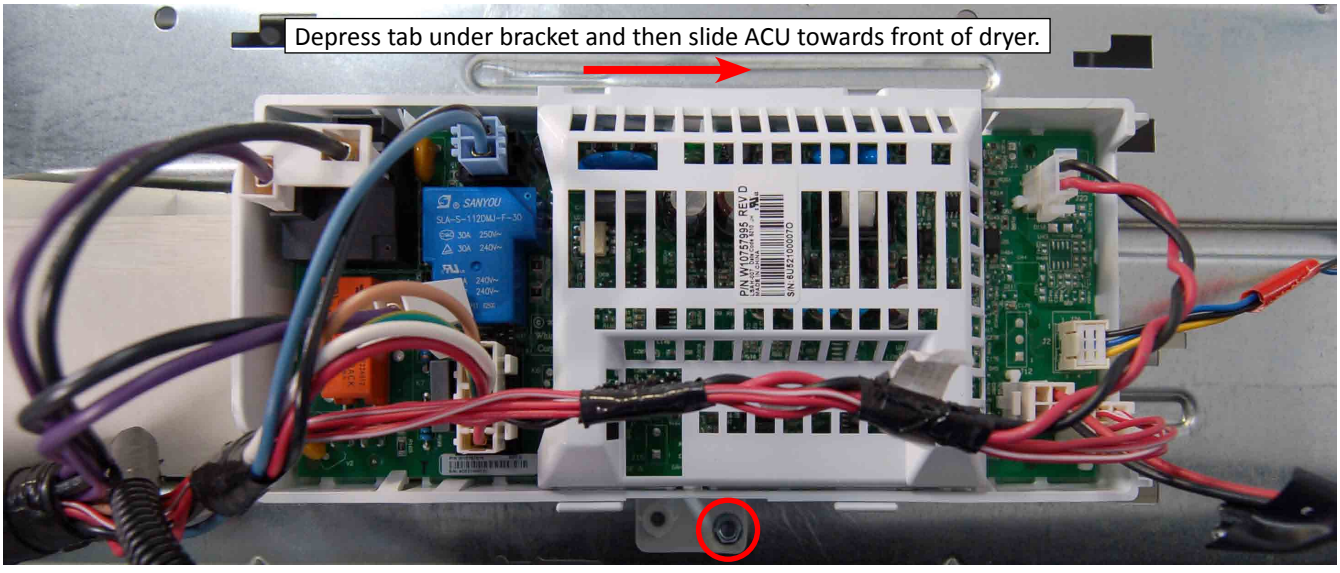


Figure 2 - Appliance Control Board

Removing the Front Panel & Door Switch

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Front Panel & Door Switch

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
3. Using a 1/4” nut driver, remove the four (4) hex-head screws securing the Console Shell Assembly to the front console bracket (locations circled in Figure 1). Remove console shell from dryer.

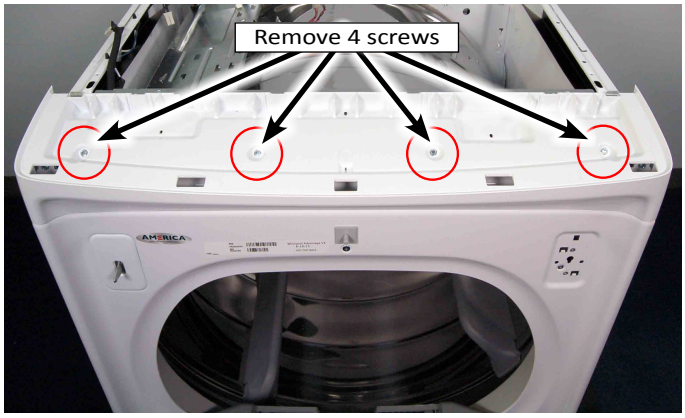


Figure 1

4. Disconnect the door switch connector and unclip door switch harness from the side panel as shown in Figure 2.

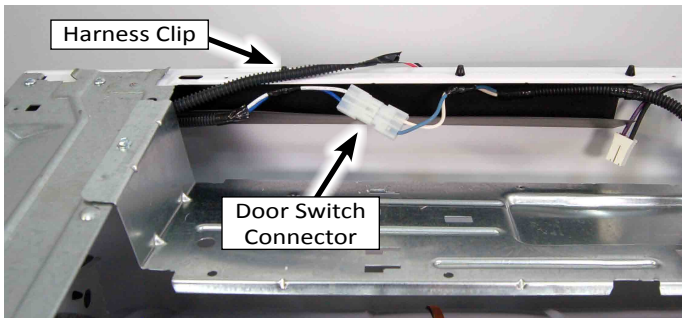


Figure 2

NOTE: Refer to **Figure 3** for the following 3 steps.

5. Open dryer door and remove the lint screen. Next, remove the three (3) Phillips screws (see Figure 3).
6. Remove four (4) 1/4” hex-head screws from the bottom of the front panel (see Figure 3).
7. Remove three (3) 1/4” hex-head screws from the top of the front panel (see Figure 3).

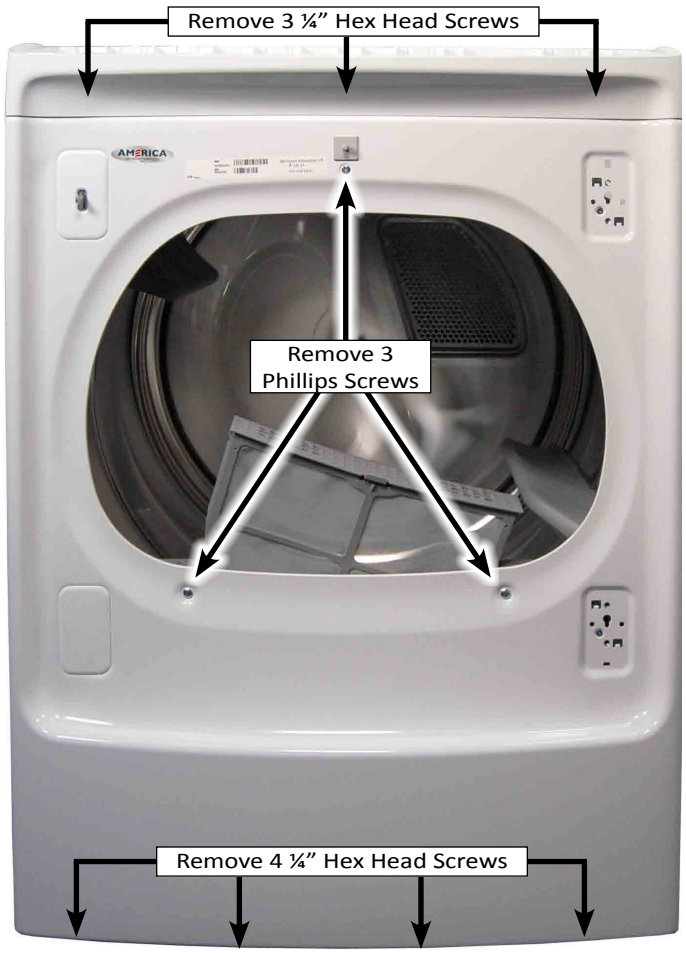


Figure 3

8. Lift the front panel assembly up off the tabs and away from the dryer. Route the door switch harness around the front console bracket.
9. Locate the door switch on the backside of the front panel, just above the door opening. Depress both tabs and push switch through the opening. (See Figure 4.)

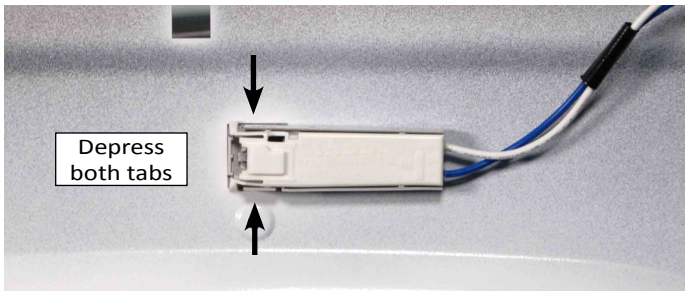


Figure 4

Removing the Drum Light & Moisture Sensor

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Drum Light

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
3. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.
4. If not done already, unplug connector J6 from the ACU.
5. Unclip the two harness clips shown in Figure 1.

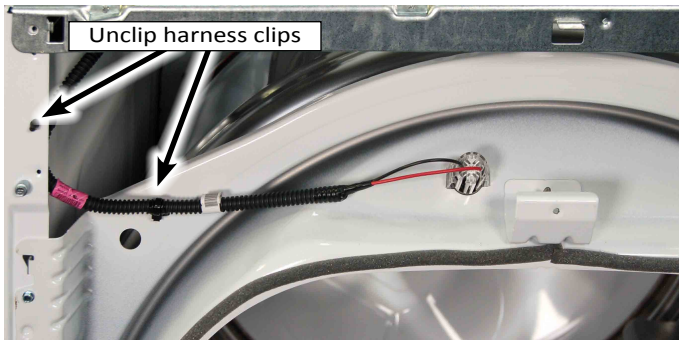


Figure 1

6. Depress the tabs on both sides of the drum light to release from bulkhead. Route the light and harness assembly through the hole (see Figure 2).

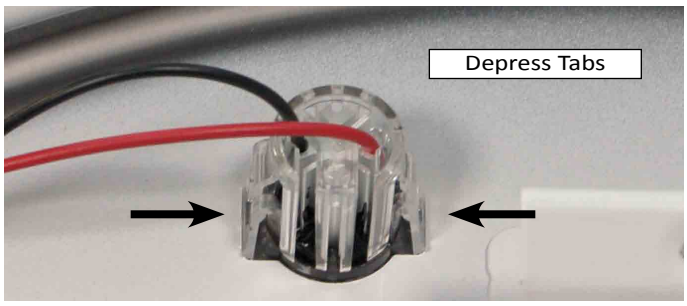


Figure 2

To Remove the Moisture Sensor

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
3. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.
4. Open dryer door and remove the lint screen.
5. Disconnect Moisture Sensor connector and unclip moisture sensor harness from bulkhead (see Figure 3).
6. From inside the drum, remove two (2) Phillip screws securing the Outlet Grill & Housing Assembly to the front bulkhead (see Figure 3).
7. Lift up and remove the Outlet Grill & Housing Assembly from the bulkhead (see Figure 3).

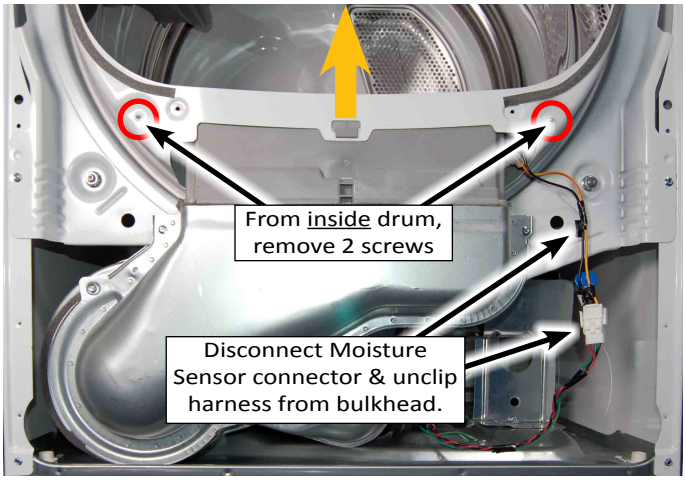


Figure 3

8. Remove the harness from the moisture sensor strips (see Figure 4).

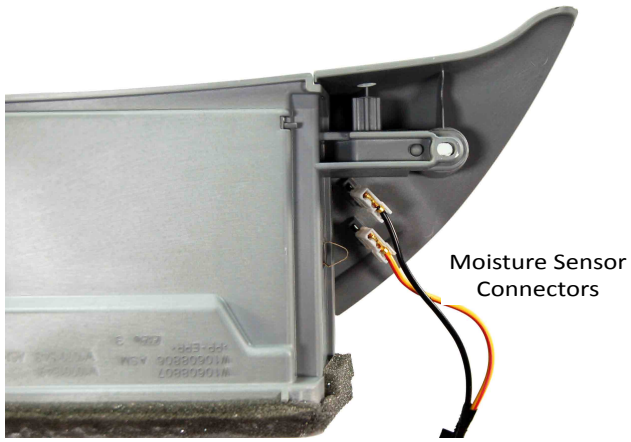


Figure 4

9. Separate the Outlet Grill & Housing Assembly to access and remove the moisture sensor strips

Removing the Belt, Drum, and Rollers

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Belt and Drum

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
3. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.
4. Remove front 1/4” hex-head screw securing the control bracket to the console bracket...or remove the entire control bracket (see Figure 1).

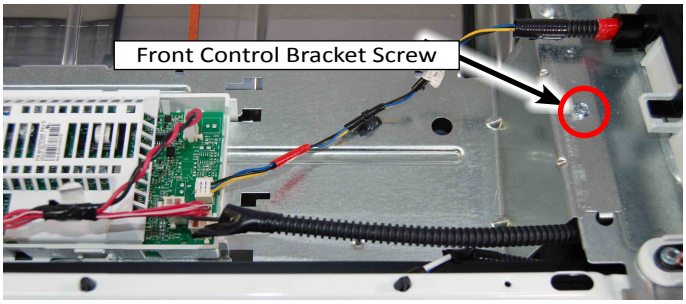


Figure 1

5. Remove the four (4) 1/4” hex-head screws from the front console bracket and remove bracket (see Figure 2).

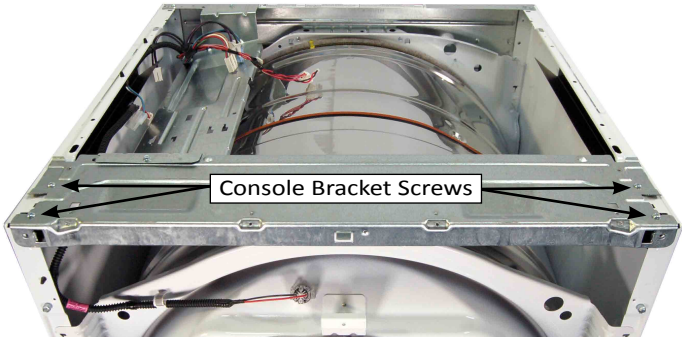


Figure 2

6. Disconnect Moisture Sensor connector (see Figure 3).

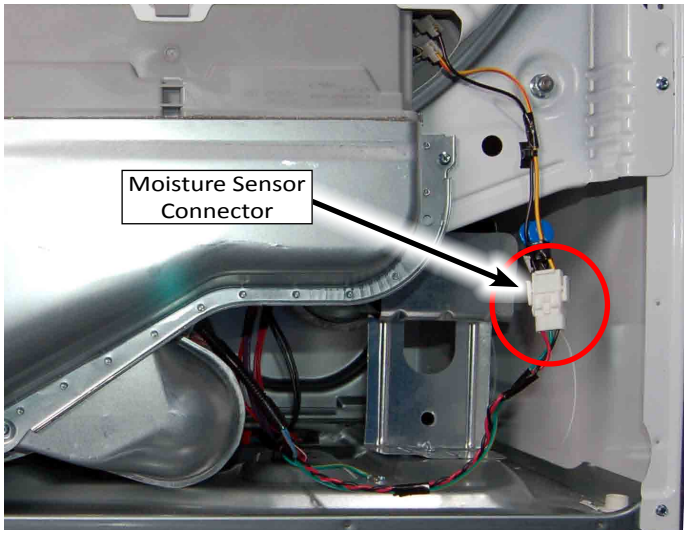


Figure 3

7. Remove the four (4) 1/4” hex-head screws from the lint duct as illustrated in Figure 4. Swivel the lint duct down from the bulkhead and remove.

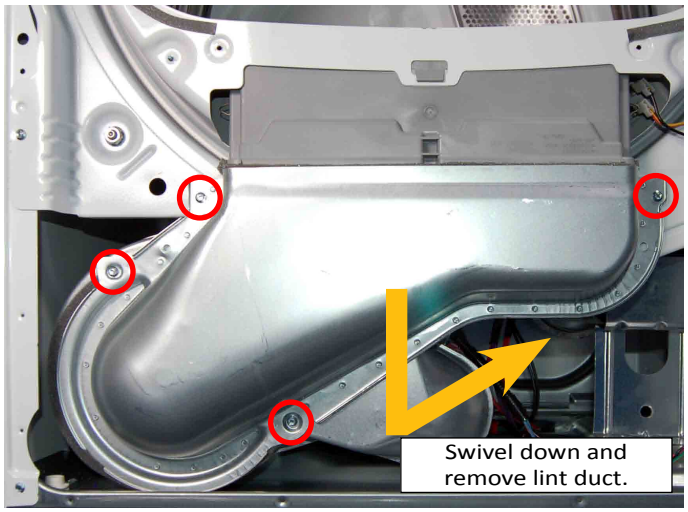


Figure 4

Removing the Belt, Drum, and Rollers (continued)

8. Remove the four (4) 1/4” hex-head screws securing the front bulkhead to the side panels as illustrated in Figure 5. Lift the bulkhead up off the side-panel tabs and remove.

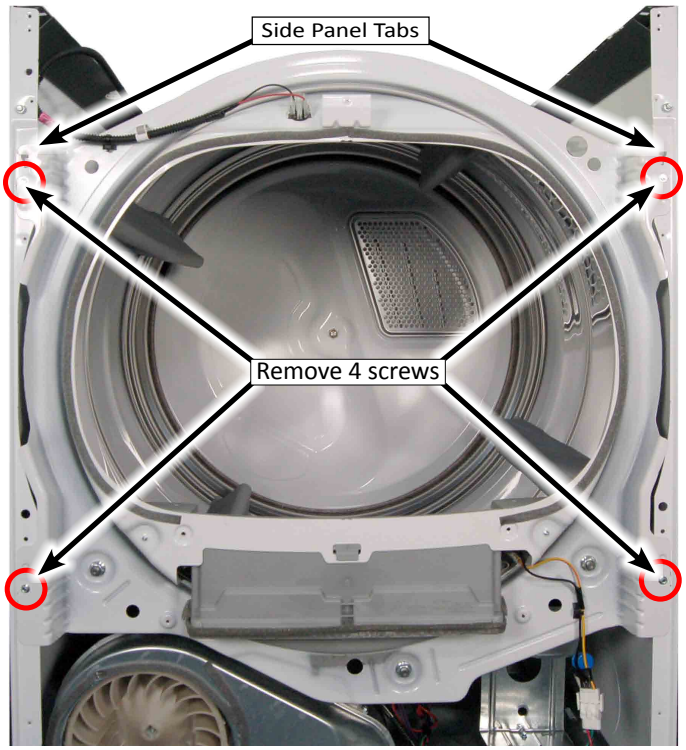


Figure 5

9. Reach under the drum, (raise it as far as it will go), and push the idler pulley arm, on the back of the drive motor, to the left to relieve the tension on the belt, then remove the belt from the pulley.
10. Slide the belt off the front of the drum and remove belt.

Figure 6

11. Lift the drum and remove it from the dryer cabinet.

Reassembly Note - Belt Orientation on Pulley

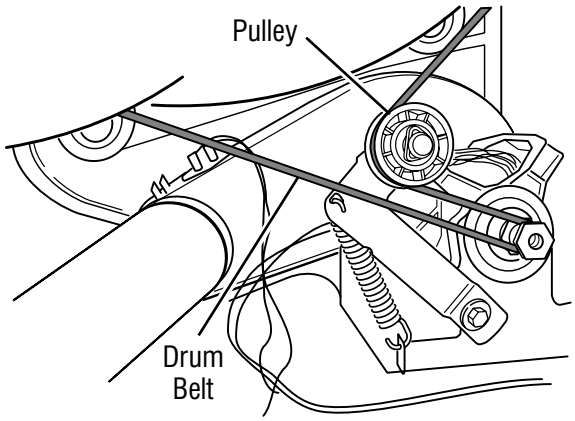


Figure 7 - Viewed from rear of dryer.

To Remove a Roller

1. Pry the sides of the triangular ring out of the groove in the roller shaft with a small screwdriver (see Figure 8).

Figure 8

2. Slide the roller off the roller shaft (see Figure 9).

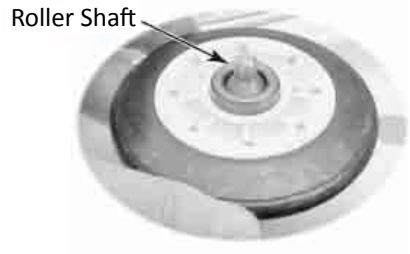


Figure 9

3. To remove the roller shaft, remove the 9/16” nut and washer from the roller support, and remove the support and remaining triangular ring. See Figure 10.

Figure 10

Removing the Drive Motor

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Drive Motor

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
3. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.
4. Perform the procedures on page 4-8, “Removing the Belt and Drum” prior to performing the following steps.
5. Reach around to the back of the blower housing and attached a 7/16” open-end wrench to the hex-end of the motor shaft. Insert a 1/2” ratchet drive into the blower wheel square hole (see Figure 1).
6. Turn the blower wheel clockwise (shown by the “REMOVE” arrow that is embossed on the front of the wheel) and remove the wheel from the motor shaft (see Figure 1).

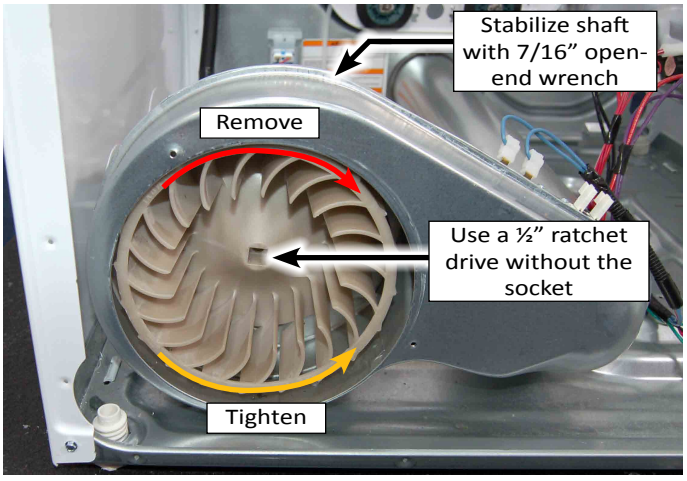


Figure 1

7. Lift the locking tabs on the top and bottom of the motor harness plug and disconnect the plug from the motor terminals. See Figure 2.

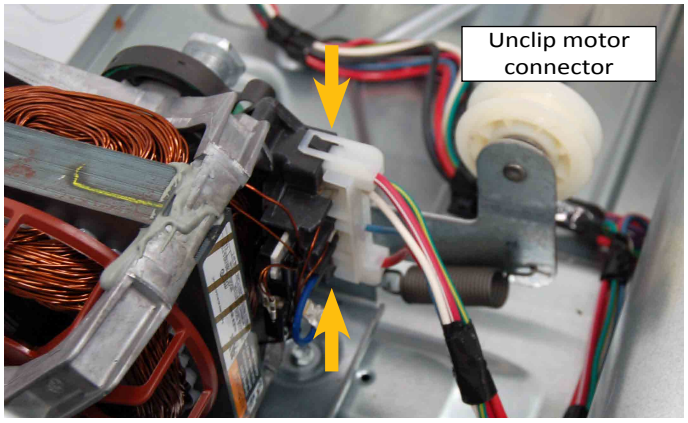


Figure 2

8. Locate the front and rear motor clips as illustrated in Figure 3 below. Using a small flat blade screwdriver, insert the blade of the screwdriver into the pocket at the tip of the clip. Pry the clips off the tab and remove.

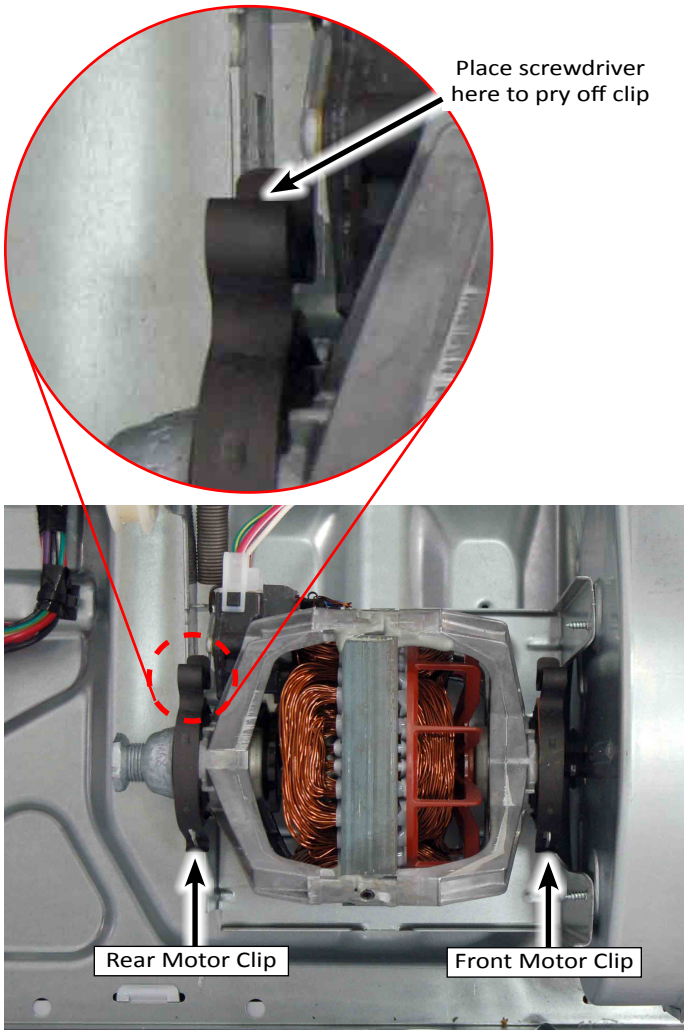


Figure 3

9. Lift motor from support brackets, slide shaft from blower wheel housing and remove motor from cabinet.

Removing the Thermal Fuse & Outlet Thermistor

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Thermal Fuse & Outlet Thermistor

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
3. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.
4. Remove the four (4) 1/4” hex-head screws from the lint duct as illustrated in Figure 1. Swivel the lint duct down and remove.

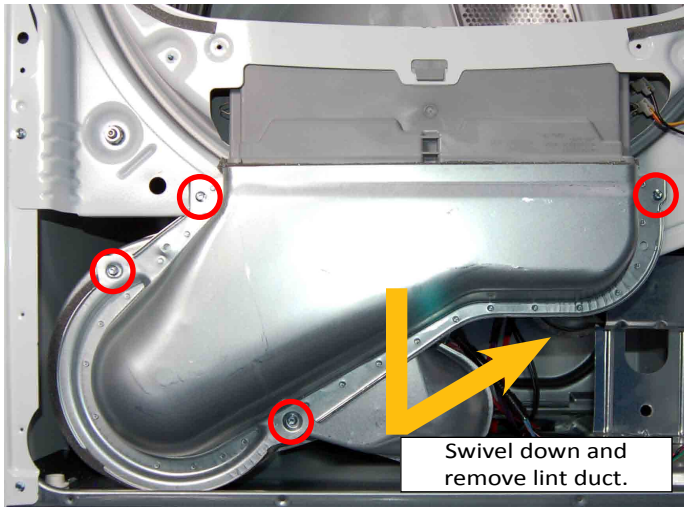


Figure 1

5. Disconnect the two wire connectors from the thermal fuse or outlet thermistor terminals (see Figure 2).
6. Remove the screw(s) from the thermal fuse or outlet thermistor and remove the component from the blower housing (see Figure 2).

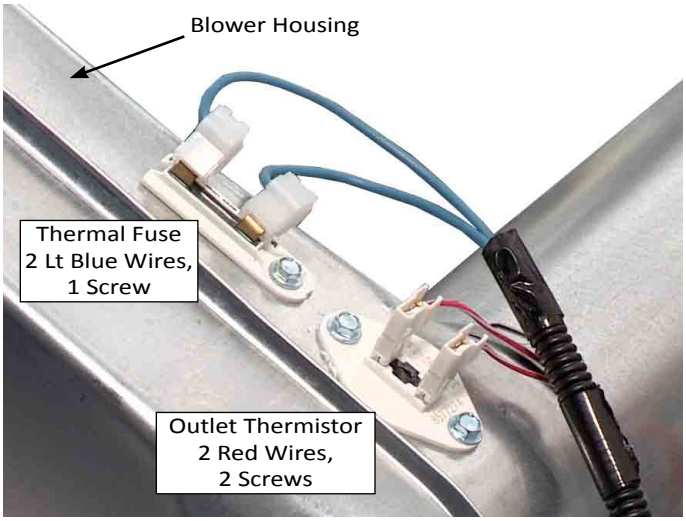


Figure 2

Removing the Heater, High Limit Thermostat & Thermal Cutoff

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Heater, High Limit Thermostat & Thermal Cutoff (Electric Models Only)

1. Unplug dryer or disconnect power.
2. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
3. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.

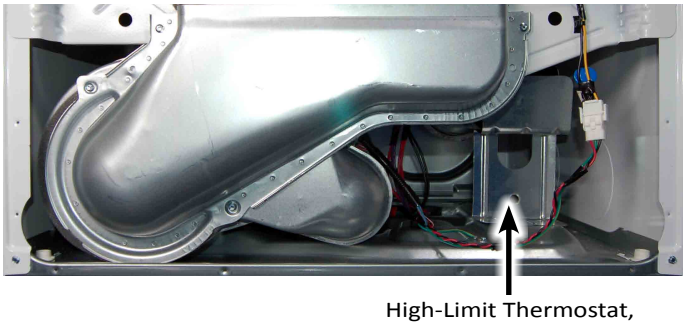


Figure 1

4. Remove the screws from the heater shield/support and remove heat shield/support (see Figure 2).

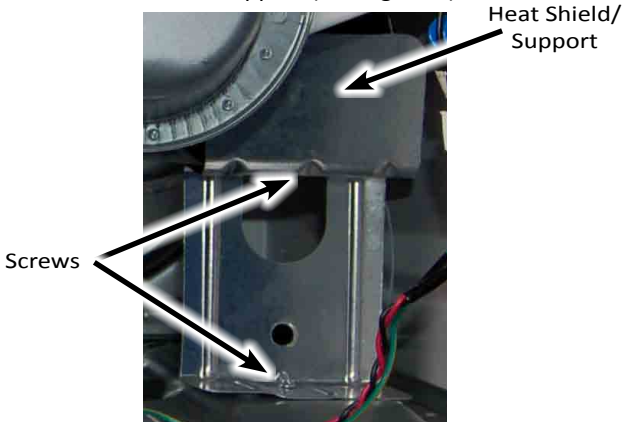


Figure 2

5. **To Remove the Heater (see Figure 3):**
   - **a)** Remove the two (2) wires from the heater terminal block.
   - **b)** Remove the 1/4” hex-head screw from the heater housing and slide the heater out of the heater duct.

6. **To remove the High Limit Thermostat or Thermal Cutoff (see Figure 3):**
   - **a)** Disconnect the wires from the High-Limit Thermostat or Thermal Cutoff.
   - **b)** Remove the screw(s) from the High-Limit Thermostat or Thermal Cutoff and remove the component from the heater duct.

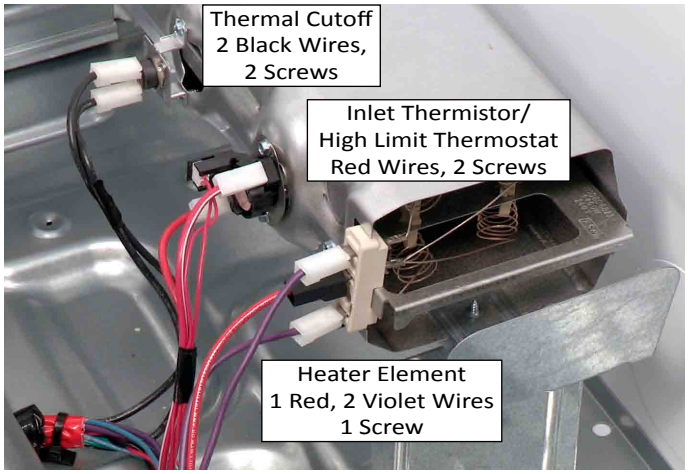


Figure 3

Removing the Ignitor, Flame Sensor, High-Limit Thermostat and Thermal Cutoff (Gas Models Only)

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Ignitor, Flame Sensor, High-Limit Thermostat and Thermal Cutoff (Gas Models Only)

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
4. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.

Figure 1 - Typical location of gas burner assembly.

5. **To remove the Ignitor (see Figures 2 & 3):**
   - **a)** Disconnect the ignitor wire connector from the main harness.
   - **b)** Remove the 5/16” hex-head ignitor bracket screw from the burner venturi and remove the ignitor and bracket.

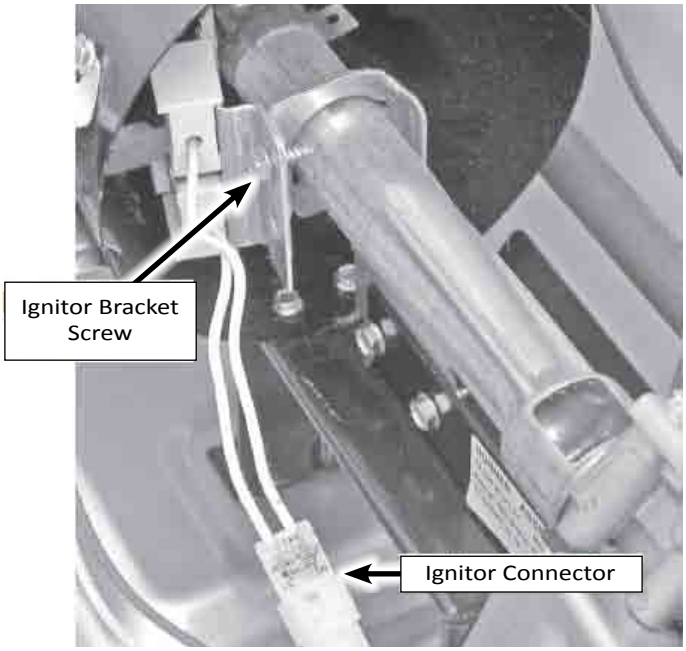


Figure 2

- **c)** Remove the 5/16” hex-head ignitor screw and remove the ignitor from the bracket.

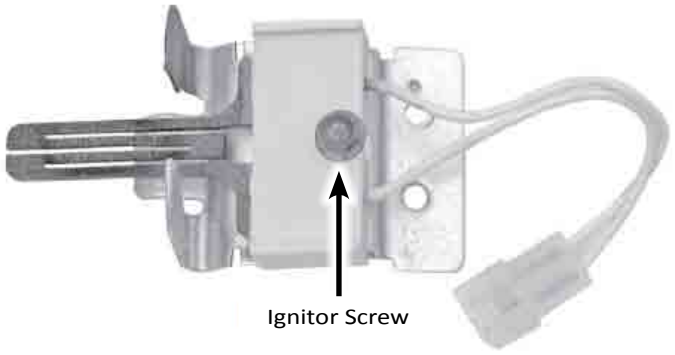


Figure 3

Removing the Ignitor, Flame Sensor, High-Limit Thermostat and Thermal Cutoff (continued)

6. **To remove the Flame Sensor (see Figure 4):**
   - **a)** Disconnect the two (2) wire connectors from the sensor terminals.
   - **b)** Remove the flame sensor screw from the burner venturi and remove the sensor.

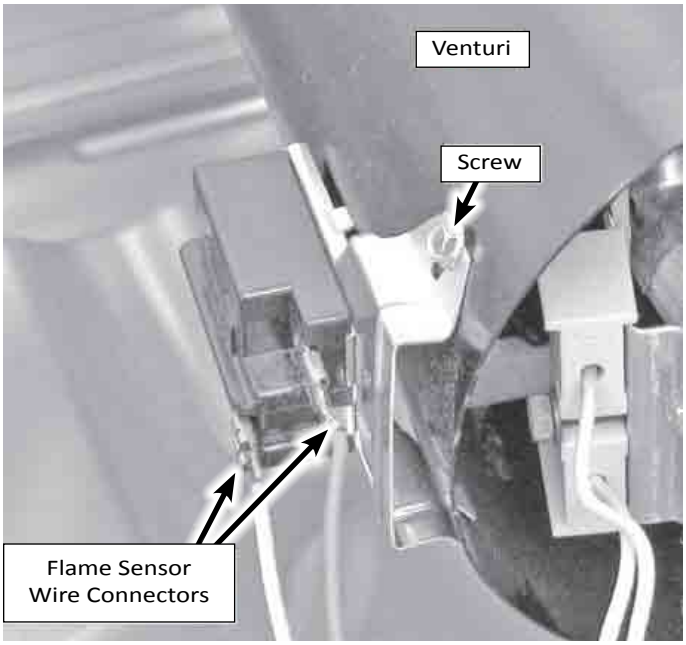


Figure 4

7. **To remove the High-Limit Thermostat or the Thermal Cutoff (see Figure 5):**
   - **a)** Disconnect the two (2) wire connectors from the component terminals.
   - **b)** Remove the two (2) screws from the High-Limit Thermostat, or single screw from the Thermal Cutoff, and remove the component from the venturi.

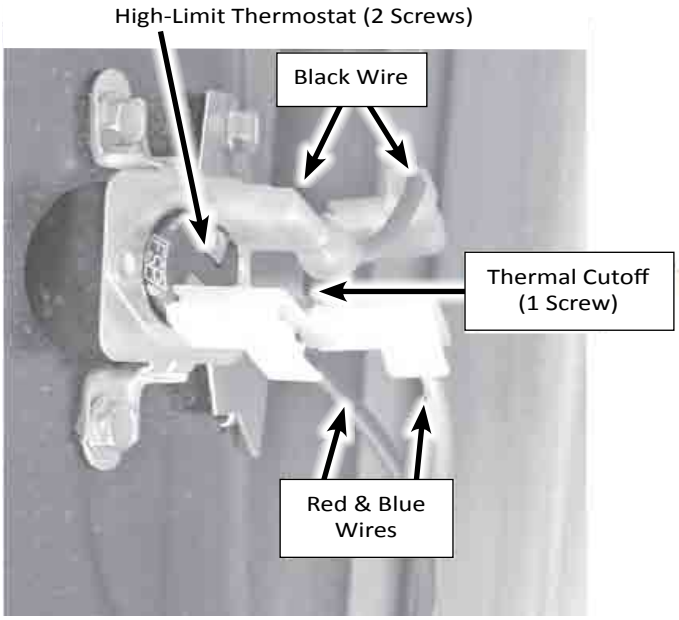


Figure 5

Removing the Gas Burner Assembly Coils (Gas Models Only)

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

To Remove the Ignitor, Flame Sensor, High-Limit Thermostat and Thermal Cutoff (Gas Models Only)

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Perform the procedures on page 4-4, “Removing the Top Panel” and “Removing the Console/UI” prior to performing the following steps.
4. Perform the procedures on page 4-6, “Removing the Front Panel” prior to performing the following steps.

Figure 1

5. Remove the ignitor from the burner (see page 4-13 for the procedure).
6. Disconnect the 2-wire and 3-wire connectors from the burner coil assembly terminals (see Figure 3).
7. Remove the two screws from the burner support bracket and remove the bracket from the burner (see Figure 3).
8. Remove the two screws from the front of the burner bracket and remove the burner assembly from the dryer.

Figure 2

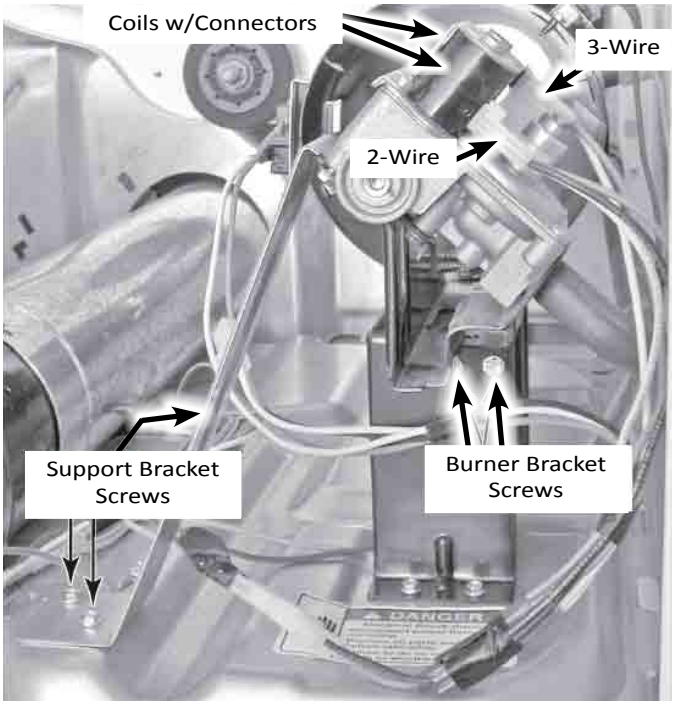


Figure 3

9. Remove the two screws from the coil retaining bracket.

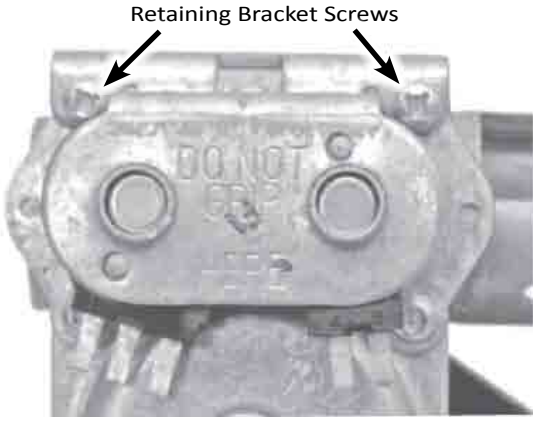


Figure 4

10. Lift the two coils off their cores and remove them.

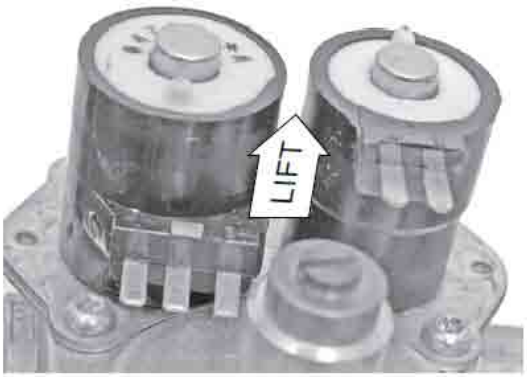


Figure 5

Removing the Water Valve

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Water Valve Components

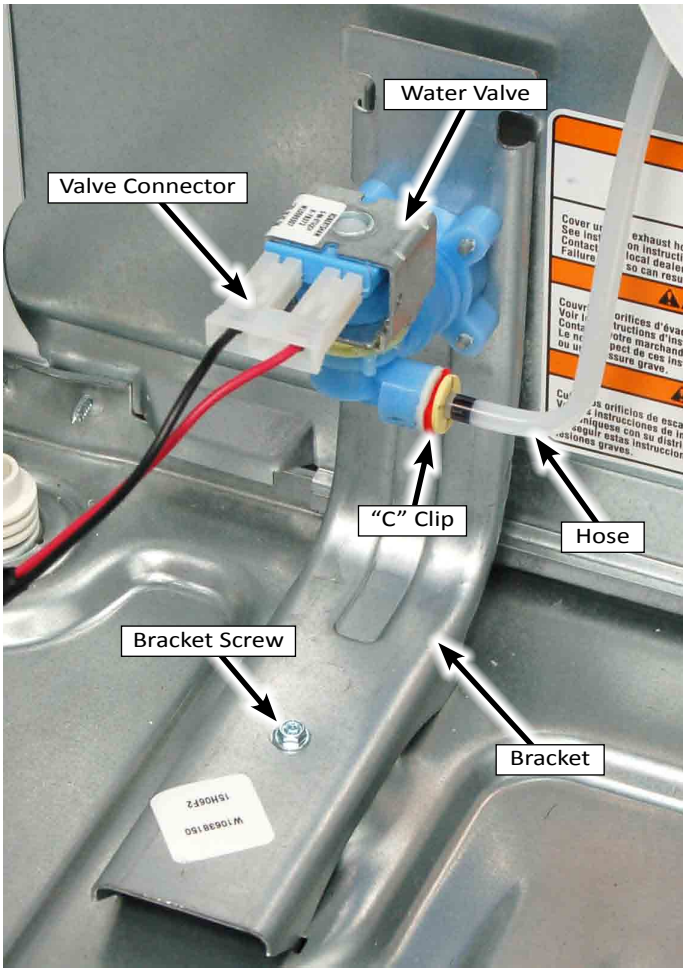


Figure 1 - Water valve view from inside dryer.

To Remove the Water Valve

1. Unplug dryer or disconnect power.
2. Remove the dryer rear panel to access the water valve assembly.
3. Disconnect the water valve harness connector (see Figures 1 & 2).
4. Remove the "Red C-Clip" from the water valve tube fitting and remove water tube from valve assembly (see Figures 1 & 2).
5. Remove the 1/4" hex-head screw securing the water valve bracket to the dryer base. Remove water valve and bracket assembly from dryer. See Figures 1 & 2.

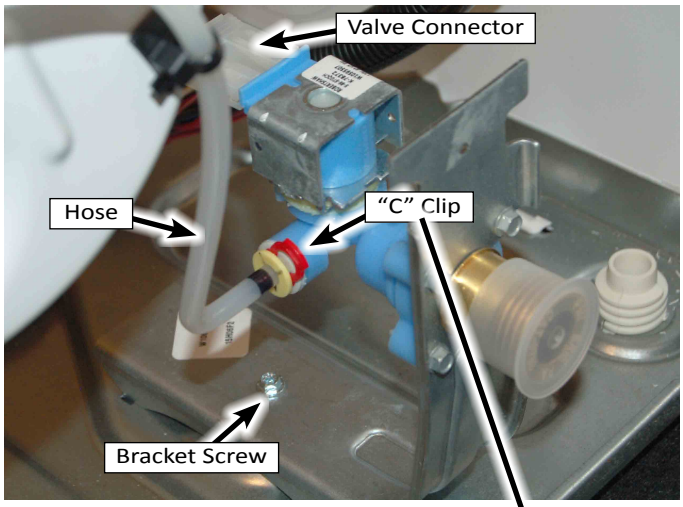


Figure 2 - Viewed from back.

"C" Clip

PRODUCT SPECIFICATIONS & WARRANTY INFORMATION SOURCES

IN THE UNITED STATES:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:

FOR WHIRLPOOL PRODUCTS: 1-800-253-1301

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-832-7174

HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN AUTHORIZED IN-HOME SERVICE PROFESSIONAL

FOR LITERATURE ORDERS (CUSTOMER EXPERIENCE CENTER):

PHONE: 1-800-851-4605

FOR TECHNICAL INFORMATION AND SERVICE POINTERS:

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