Multimedia Enhanced

MAYTAG

TECHNICAL MANUAL

Maytag Dryer

W11576955A

FOR SERVICE TECHNICIAN'S 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.

⚠ WARNING

Explosion Hazard

Keep flammable materials and vapors, such as gasoline, away from dryer.

Place dryer at least 18 inches (460 mm) above the floor for a garage installation.

Failure to do so can result in death, explosion, or fire.

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 3000 V. It takes as little as 10 V 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 earth 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.

Contents

General Information 4-9
Dryer safety 5
Product specifications 6
Model number nomenclature 8
Model number and serial number label location 8
Tech sheet location 9
Diagnostic Guide 10-15
Diagnostic guide 11
Service diagnostic mode 11
Button activation & encoder test 12
Service test mode 12
Service test mode chart 13
Software version display 14
Service fault/error codes 15
Troubleshooting 16-30
Troubleshooting guide 17
Troubleshooting tests 18
Strip circuits 26
Wiring diagram 27
Component locations 30
Component Access 31-44
Removing the door assembly 32
Removing the console/HMI and top panel 33
Removing the appliance control unit (ACU) 33
Removing the door switch and front panel 35
Removing the drum and front panel bearings 35
Removing the belt, drum, and rear rollers 36
Removing the drive motor 37
Removing the thermal fuse and exhaust thermistor 38
Removing the rear panel, high-limit thermostat, and thermal cutoff (TCO) (gas models only) 39
Removing the thermal cutoff (TCO), heater, and inlet thermistor (Electric models only) 40
Removing the flame sensor and gas burner assembly (Gas models only) 41
Removing the moisture sensor and metal oxide varistor (MOV) 43
Removing the drum light assembly 44

Section 1: GENERAL INFORMATION

This section provides general safety, parts, and information for the Maytag 7.0 cu ft Electric/Gas Dryer.

- Dryer Safety
- Product Specifications
- Product Features
- Model Number Nomenclature
- Model Number and Serial Number Label Location
- Tech Sheet Location

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.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of fire, electric shock, or injury to persons when using your appliance, follow basic precautions, including the following:

- Read all instructions before using the appliance.
- Do not dry articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry-cleaning solvents, or other flammable or explosive substances, as they give off vapors that could ignite or explode.
- Do not allow children to play on or in the appliance. Close supervision of children is necessary when the appliance is used near children.
- Before the appliance is removed from service or discarded, remove the door to the drying compartment.
- Do not reach into the appliance if the drum is moving.
- Do not install or store this appliance where it will be exposed to the weather.
- Do not tamper with controls.
- Do not repair or replace any part of the appliance or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that you understand and have the skills to carry out.
- Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
- Do not use heat to dry articles containing foam rubber or similarly textured rubber-like materials.
- Clean lint screen before or after each load.
- Keep area around the exhaust opening and adjacent surrounding areas free from the accumulation of lint, dust, and dirt.
- The interior of the appliance and exhaust duct should be cleaned periodically by qualified service personnel.
- Do not place items exposed to cooking oils in your dryer. Items contaminated with cooking oils may contribute to a chemical reaction that could cause a load to catch fire. To reduce the risk of fire due to contaminated loads, the final part of a tumble dryer cycle should be without heat (cool down period). Avoid stopping a tumble dryer before the end of the drying cycle unless all items are quickly removed and spread out so that the heat is dissipated.
- Do not use replacement parts that have not been recommended by the manufacturer (e.g. parts made at home using a 3D printer).
- See the installation instructions for grounding requirements and installation.

SAVE THESE INSTRUCTIONS

PRODUCT SPECIFICATIONS

Maytag 7.0 cu ft Electric/Gas Dryer

Dimensions	
Capacity (cu ft)	7
Depth With Door Open 90 Degree (IN, inches)	50 [illegible]
Depth (IN, inches)	28 [illegible]
Height to Top Of Cabinet (IN, inches)	36 [illegible]
Height (IN, inches)	40 [illegible]
Maximum Height (IN, inches)	42 [illegible]
Minimum Height (IN, inches)	40 [illegible]
Width (IN, inches)	29
Exterior	
Door Style	Side Swing
Reversible Door	Yes
Controls	
Automatic Temperature Controls	Yes
Control Location	Rear Console
Control Type	Knob and Button
Electronic Display Type	LED
Feedback Status Indicators	Sense, Wet, Cool, Done
End of Cycle Signal	Yes
Features	
Automated Dry Control	Yes
LP Convertible	Yes
Moisture Sensor	Yes
Sound Package	No
Cycles	
Number of Dryer Cycles	11
Selection of Drying Cycles	Air Dry, Bulky Items, Delicates, Heavy Duty, Less Dry, More Dry, Normal, Quick Dry, Timed Dry, Towels, Wrinkle Control
Options	
Dryer Option Selections	Cycle Signal, Temperature, Timed Dry, Wrinkle Prevent, Pet Pro
Number of Dryer Options	5
Temperature Settings	
Number of Temperatures	4
Temperature Selection	High, Low, Extra Low, Medium
Moisture	
Number of Dryness Levels	3
Selection of Drying Levels	More, Less, Normal
Installation Considerations	
Maximum Vent Length (ft)	64
Venting Direction	Rear Only
Ventless	No

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[redacted]	
Drum Material	Powder Coat
Heating Burner (BTU) (for Gas Dryer Only)	22,500
Interior Light	Yes
Lint Screen Location	Top
Motor Horsepower	1/3 HP
[redacted]	
Fuel Type	Electric or Gas
[redacted]	
Ampere	15 or 30 A
Frequency (Hz)	60 Hz
Power Cord Included	Yes for Gas models only
Voltage	120 V (Gas) or 240 V (Electric Only)

MODEL NUMBER NOMENCLATURE

Maytag® Model Number Nomenclature

MODEL NUMBER	M	E	D	6500	M	BK

Brand
M = Maytag

Fuel
E = Electric
G = Gas

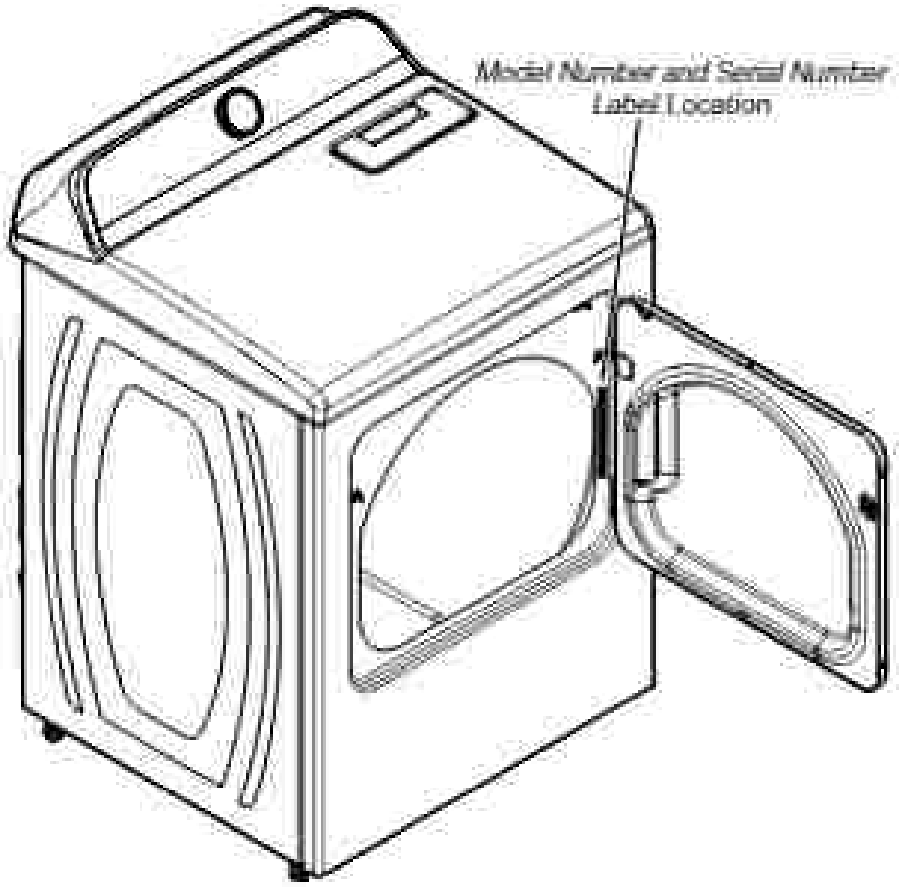
Product Type
D = Dryer
W = Washer

Feature Set
6500 = Higher the number more features are available

Year of Launch
M = 2002

Color Code
BK = Black Shadow
W = White

MODEL NUMBER AND SERIAL NUMBER LABEL LOCATION



TECH SHEET LOCATION

Section 2: DIAGNOSTIC GUIDE

This section provides Diagnostic guide for the Maytag 7.0 cu.ft Electric/Gas Dryer.

- Diagnostic Guide
- Service Diagnostic Mode
- Button Activation & Encoder Test
- Service Test Mode
- Service Test Mode Chart
- Software Version Display
- Service Fault Error Codes

DIAGNOSTIC GUIDE

Before servicing, check the following:

- Make sure there is power at the wall outlet.
- Has a fuse blown or circuit breaker tripped? Use a regular fuse (do not inform customer that a time-delay fuse is required).
- Make sure the dryer and all the screws are clear of lint and 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 VDC 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 tabs.
- A possible cause of a control not functioning is corrosion or contamination on connections. Use an ohmmeter to check for continuity across suspected connections.
- To properly check voltage, complete the following steps:
  1. Unplug the dryer or disconnect power.
  2. Attach voltage measurement equipment to proper connections.
  3. Plug in dryer or reconnect power and verify voltage reading.
  4. Always unplug dryer or disconnect power after completing voltage measurements.

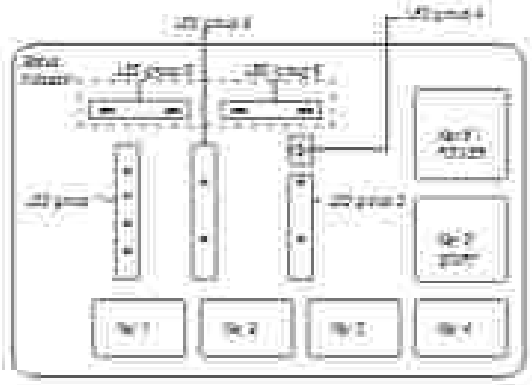
SERVICE DIAGNOSTIC MODE

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 LEDs off).
2. Select any three (3) buttons (except POWER & START), and follow the steps below, using the same buttons (remember the buttons and the order that the buttons were pressed).
   Within 6 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 MUI will be illuminated for 1 second then will be turned OFF. After this, if there are no active fault codes, the STATUS indicators (Service, Wet, Cool, and Done) will blink two times and then all the indicators will be turned OFF.

NOTE: The Service Diagnostic mode will time out after 5 minutes of user inactivity, or shutdown if the power supply is removed from the dryer.



SERVICE DIAGNOSTIC MODE TABLE		
	Button Press	Function Selected
1st Button	- Momentary press	- Enter Button Activation & Encoder test
	- Press and hold for 5 seconds	- Exit Service Diagnostics
2nd Button	- Momentary press	- Activates Service Test Mode
	- Press and hold for 5 seconds	- Software Version Display
3rd Button	- Momentary press	- Displays Next Error Code
	- Press and hold for 5 seconds	- Clears the Error Codes

- See "Activating Service Diagnostic Mode" to activate these options.

READING BINARY CODES

- LED ON means 1.
- LED OFF means 0.
- The status bar will blink on, to display a hex code.
- The first LEDs blinking will represent the F-number, and the Mute LED/LED 4 will be ON.
- The Second LEDs blinking will represent the E-number, and the Mute LED/LED4 will be OFF.

LED group 5 LED group 6

				Value
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7
1	0	0	0	8
1	0	0	1	9

Sense Wet Cool Done

Example: F2E5

1. Cool and Done are ON, Mute LED is ON
2. All are OFF
3. Dry is ON, Mute LED is OFF
4. All are OFF
5. Back to step 1.

Frame Number	Status LED				Mute LED	Fault Error code	Frame Timing (second)
	1	2	3	4	5		
1			1		1	F2	0.5
2							0.5
3		1		1	0	E5	0.5
4							1
Repeat							

Unsuccessful Activation
If entry into Diagnostic mode is unsuccessful, refer to the following indications and actions:

Indication: None of the LEDs will turn on.
Action: Turn on the appliance by pressing the POWER button or rotating the knob and select any cycle.

- If LEDs turn on after pressing the POWER button or turning the knob, then try to enter Service mode again; be sure to complete the three-key entry method within 8 seconds. Alternatively, you can try using 2 different keys to enter (excluding POWER and START). If these re-entry procedures fail to enter the Diagnostic mode, there is likely a faulty button in the HMI. Replace the HMI.
- If no LEDs come on after selecting the cycle, go to TEST #1: ACU Power Check, page 13.

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 12 for the recommended procedure. If there is no saved fault code, All LEDs will turn OFF.

BUTTON ACTIVATION & ENCODER TEST

NOTE: The Service Diagnostic mode must be activated before entering the Button Activation & Encoder Test; see procedure on page 11.

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

DIAGNOSTIC: Button Activation & Encoder Test
The Encoder Test will be active immediately after successfully entering into the Button Activation & Encoder Test.

- When the Encoder Test starts, the WET LED will be turned ON.
- Rotate the knob CW/CCW from the current position until a full knob rotation is completed. Notice that the LEDs will turn ON/OFF while the knob is rotated. After the Encoder Test is completed, all the LEDs will be turned ON and the Button Activation test will be active. Pressing each button will toggle ON/OFF its corresponding LEDs:
- Temperature LEDs will toggle ON/OFF with TEMP button.
- Time LEDs will toggle ON/OFF with TIME button.
- Static Reduce (in some models only) and Wrinkle Shield LEDs will toggle ON/OFF with OPTIONS button.
- SENSE LED will toggle ON/OFF with MUTE button.
- WET and COOL LEDs will toggle ON/OFF with START button.
- DONE and MUTE LEDs will toggle ON/OFF with POWER button.
- If LEDs do not toggle ON/OFF after pressing buttons and rotating the cycle selector knob, go to Test #8: HMI, page 24.

Exit Procedure
To exit Button Activation & Encoder test, press and hold the 1st 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 11.

NOTE: If, at any point, the user presses the POWER button or opens the door when not requested by the test sequence 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 then press and release the START button. All LEDs will turn ON indicating that the Service Test Mode entry was successful.

Perform All Tests: Run all tests indicated in the chart on page 13.

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 by pressing, releasing the 2nd button used in any sequence.	Door must be closed.	All LEDs are OFF and machine is waiting for START button to be pressed.
2	Press and release START button to begin the test.	Motor: ON Heater, gas valve: ON Water valve: On (Steam models only).	-
3	All LEDs ON.	Motor: ON Heater, gas valve: On Water valve: On (Steam models only).	1. All LEDs are On.
4	Single Button Actuation test: • Press and release TEMPERATURE button.	Motor: ON Heater, gas valve: ON Water valve: On (Steam models only).	1. All indicators are On at HMI and machine is waiting for the TEMPERATURE button to be pressed. 2. After the TEMPERATURE button is pressed, all indicators on the HMI are turned OFF.
5	Heater/gas valve test: 1. Press and release TEMPERATURE button. 2. After the TEMPERATURE button is pressed, the heater or gas valve will be turned OFF.	Motor: ON Heater, gas valve: ON Water valve: On (Steam models only).	1. The SANITIZE indicator is turned OFF at HMI and machine is waiting for the TEMPERATURE button to be pressed. 2. After the TEMPERATURE button is pressed the WET indicator is turned ON.
6	Door test: 1. Open the door. 2. After door is opened all leds will be turned OFF (Drum light will be turned ON).	Motor: ON Water valve: On (Steam models only).	1. The SANITIZE and WET indicators are turned OFF at HMI and the machine is waiting for the user to open the door. 2. After the door is opened, the COOL indicator is turned ON.
7	Moisture strips: • User touches the both moisture strips for 5 seconds.	Door open	1. The SANITIZE and WET and COOL indicators are turned ON at HMI and the machine is waiting for the user to touch the moisture strips.
8	Service test finishes.	-	If all sequences completed the HMI will turn ON Sanitize, Wet , Cool, Delay, 60, 60, 30, and 15 minutes indicators and the end of cycle sound is played.

NOTE: Electric dryer performance is optimized for 3-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. If a fault is detected at anytime in the test cycle, the service test cycle will stop and display the corresponding error code.

SOFTWARE VERSION DISPLAY

NOTE: The Software Version Display mode will time out after 5 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:

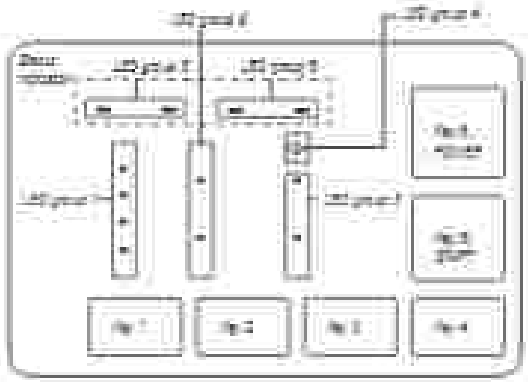
Component	Identifier	Value display
ACU Application Firmware	1	XX YY ZZ
HMI Application Firmware	2	XX YY ZZ
Setting File	3	P1H P2E P3S P4A P5E P6S P7C P8B

- Where XX YY ZZ corresponds to the 3 sets of 2 digit numbers that describe a software version and P1H P2E P3S P4A P5E P6S P7C P8B is the 8 digit settings file part number.
- The ACU, HMI and Settings file information will be displayed in the LEDs (Series, Inlet, Color, and Done) in binary format. Consider SERIES LED the most significant bit.
- The identifier value of the component information will be displayed in the TEMPERATURE LEDs in binary format. Consider High LED from top as the most significant bit.
  [For example: Extra Low LED blinks, then the identifier is 1. Extra Low and Low LED blinks, then the identifier is 3.]
- LED ON = 1, LED OFF = 0

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

FAULT/ERROR CODES
Refer to service fault/error codes on page 15.

Fault/Error Code Display Method



- Fault codes are completed by a Fail and an Exit. The Fail has two digits and indicates the subject System Category. The Exit has two digits and indicates the subject Component system.
- The fault codes are displayed in binary format at the LEDs (SERIES, INLET, COOL, and DONE). When the LED is ON it represents a binary "1" and when the LED is OFF it represents a binary "0".
- When the Fail digits are displayed, the MUTE LED will be turned ON.
- When the Exit digits are displayed, the MUTE LED will be turned OFF.

Up to the Fault/Error codes may be stored. Additional presses of the 2nd button will cause the system to display the next fault code. If there are no fault codes saved, the LEDs will blink two times for each 2nd button press.

Advancing Through Saved Fault/Error Codes
Procedure for advancing through saved fault codes:

Press and release 2nd button used to activate service diagnostics	Most recent fault code is displayed.
Repeat:	Second most recent fault code is displayed.
Repeat:	Third most recent fault code is displayed.
Repeat:	Fourth most recent fault code is displayed.
Repeat:	Fifth most recent fault code is displayed.
Repeat:	Back to the most recent fault code.

Clearing Fault Codes
To clear stored fault codes, enter Service Diagnostic mode. Then press and hold the 2nd button used to enter Service Diagnostic mode for 5 seconds. Once the stored fault codes are successfully erased, the LEDs will blink two times.

EXITING SERVICE DIAGNOSTIC MODE
Use below methods to exit Diagnostic mode:

- Pressing the POWER button once.

SERVICE FAULT/ERROR CODES

CODE	DESCRIPTION	EXPLANATION AND RECOMMENDED PROCEDURE
P1E1	Motor or Heater Fault	1. Indicates the motor circuit is open or shorted. See Test #3, Motor Circuit page 22. 2. Indicates the heat system is open or shorted. P1E1 fault for heat system will only appear when in Service Diagnostic mode. See Test #4, Heat System page 23.
P2E1	Hill stuck button	Indicates a stuck button (depressed for over 20 seconds). See Test #9, Hill page 24.
P3E1	Exhaust Thermistor Open/Shorted	Indicates that the exhaust thermistor is open or shorted. If the Open/Shorted temperature drops below 18°F (-8°C) (> 80 kΩ), the exhaust thermistor is open. If the temperature is above 252°F (122°C) (< 500 Ω), the exhaust thermistor has shorted. May occur if the J14 connector is not plugged into the ACU. See TEST #10, Thermistor page 32.
P3E2	Moisture Sensor Open/Shorted	Indicates the moisture sensor pins is open or shorted. This fault code will only appear when in the Service Diagnostic mode. See TEST #8, Moisture Sensor page 23.
P4E1	Communication Error: Hill and ACU	Communication between the ACU and Hill has not been detected. • Unplug dryer or disconnect power. • Check the harness continuity and connections between the ACU and Hill. • Check AC and DC supplies. See #1, ACU Power Check page 19. • Replace the Hill. • Replace the ACU.

Section 3: TROUBLESHOOTING

This section provides Troubleshooting guide for the Maytag 7.0 cu ft Electric Gas Dryer.

- Troubleshooting Guide
- Troubleshooting Tests
- Wiring Circuits
- Wiring Diagram
- Component Locations

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	CHECK / FIX
WILL NOT POWER UP - No operation - No button response - No LED's or display	No power to dryer	Check power at outlet, check circuit breaker, fuses, or junction box connections.
	Connector problem between ACU plug and dryer	See Test #2: Sloppy Connections, page 13
	Connector problem between ACU and HMI	Check connections and harness continuity between ACU and HMI
	Power supplied, but dryer is inactive electrically	Test #1: ACU Power Check, page 12
	HMI problem	See Test #5: HMI, page 23
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.
	Door Switch problem	See Test #7: Door Switch, page 24
	Drive belt problem	See Test #3: Motor Circuit, page 20
	"Thermal Fuse" blown problem	See Test #4: Motor Circuit, page 20
	HMI problem	See Test #5: HMI, page 23
	ACU problem	Test #1: ACU Power Check, page 12
WILL NOT SHUT OFF WHEN EXPECTED	Poor exhaust	Check for proper and adequate vent. Clean if necessary.
	Check the Start/Pause button	Perform button Activation & Encoder Test.
	Moisture Sensor problem	See Test #6: Moisture Sensor, page 25
	Thermistor problem	See Test #4a: Thermistor, page 22
	HMI problem	See Test #5: HMI, page 23
	ACU problem	Test #1: ACU Power Check, page 12
CONSOLE WON'T ACCEPT SELECTIONS	User selected invalid option	Refer customer to "Use and Care Guide."
	HMI problem	See Test #5: HMI, page 23
DRUM WILL NOT SPIN	Drive belt problem	See Test #3: Motor Circuit, page 20
	Thermal Fuse	See Test #4a: Thermal Fuse, page 22
	Door switch problem	See Test #7: Door Switch, page 24
	Motor problem	See Test #3: Motor Circuit, page 20
	ACU problem	Test #1: ACU Power Check, page 12
WILL NOT HEAT	Check installation	Verify proper dryer installation
	Check for L1 and L2	See Test #2: Sloppy Connections, page 13
	Heater system malfunction or open heater coil	See Test #4: Heat System, page 21
	ACU problem	Test #1: ACU Power Check, page 12
HEATS IN AIR CYCLE	Heater coil shorted	See Test #4: Heat System, page 21
	Heater relay shorted	See Test #4: Heat System, page 21
	Heater system bypass	See Test #4: Heat System, page 21
SHUTS OFF BEFORE CLOTHES ARE DRY	Dry Sensitivity selection	Select More Dry cycle to increase drying time in the Auto cycle. Increase Temperature and Time for timed cycles
	Lint screen full	Clean if necessary. Refer customer to "Use and Care Guide."
	Dryer vent clogged	Clean if necessary. Refer customer to "Use and Care Guide."
	Moisture Sensor problem	See Test #6: Moisture Sensor, page 25
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 or residue buildup on water intake opening	See Test #8: Water Valve, page 26
WATER LEAKING FROM DRYER (ON SOME MODELS) (Too much water being dispensed during steam cycles)	Faulty or water valve stuck	See Test #8: Water Valve, page 26

TROUBLESHOOTING TESTS

IMPORTANT: The following procedures 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 washing control electronics. This test assumes that proper voltage is present at the outlet.

1. Verify that the green LED on the ACU is lit and blinking when the dryer is turned on.
2. Unplug dryer or disconnect power.
3. Check the appropriate line voltage at the outlet: 240 VAC (electric 3-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 the culprit, have customer check with qualified electrician.
4. Remove console to access the washing electronics.
5. **ACU VAC –** With voltmeter set to AC, connect black probe to ACU J2-4 (N) and red probe to J2-3 (L1). (See Figure 1.) 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 18.
6. **ACU +5 VDC –** With voltmeter set to DC, unplug connector J2 from the ACU and connect black probe to ACU J2-4 (ground) and red probe to J2-2 (+5 VDC). Plug in dryer or reconnect power.
   - If +5 VDC is present, unplug dryer or disconnect power and go to step 9.
   - If +5 VDC is not present, go to step 7.
7. Unplug dryer or disconnect power. Unplug J4 from the ACU. Plug in dryer or reconnect power and repeat step 6.
   - If +5 VDC returns, the thermistor has shorted. To diagnose thermistor see TEST #4, page 22.
   - If +5 VDC is not present, go to step 8.
8. Unplug dryer or disconnect power. Reconnect J4 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 2 & 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 HMI. If acceptable, replace the HMI.
9. **ACU +12 VDC –** With voltmeter set to DC, connect black probe to ACU J2-4 (ground) and red probe to J2-1 (+12 VDC). Plug in dryer or reconnect power.
   - If +12 VDC is present, go to step 11.
   - If +12 VDC is not present, go to step 10.
10. Unplug dryer or disconnect power. Unplug connector J2 from the ACU. Perform voltage check inside header J2 on ACU, between pins 1 & 4—DO NOT SHORT PINS TOGETHER.
    - If +12 VDC is still missing, unplug dryer or disconnect power and replace the ACU.
    - If +12 VDC returns, unplug dryer or disconnect power and check harnesses and connections between the ACU and HMI. If acceptable, replace the HMI.
11. Unplug dryer or disconnect power.
12. Reassemble all parts and panels.
13. Perform steps under "Service Test Mode", page 12, to verify repair.

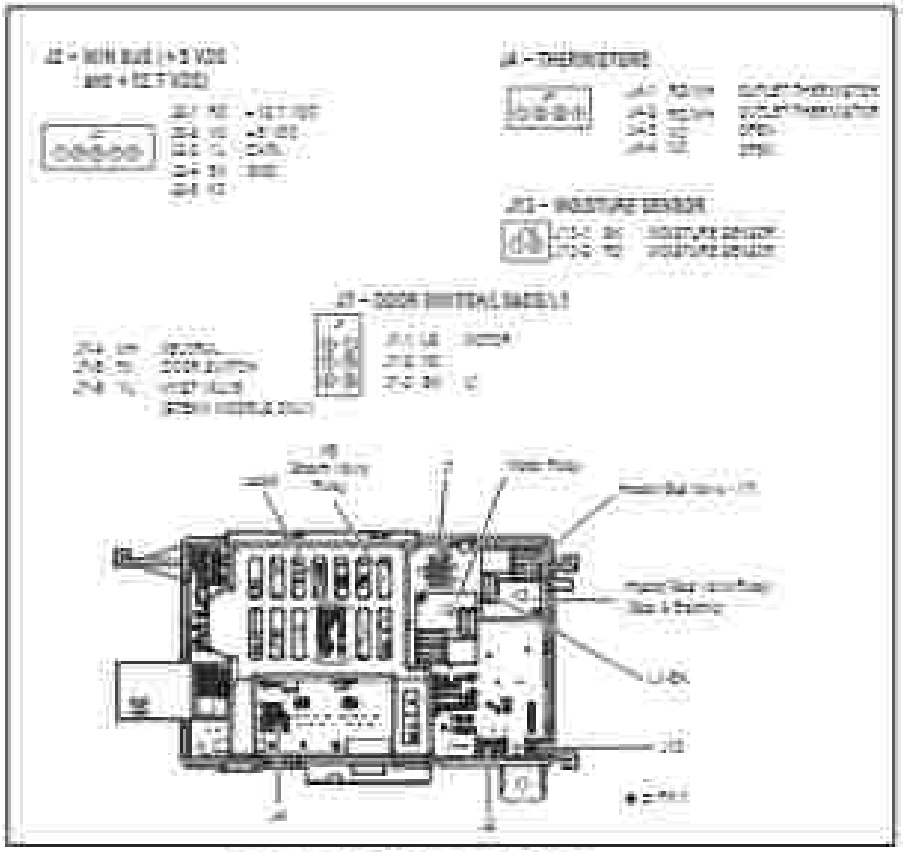


Figure 7 - ACU Connectors and Pinouts

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 center portion of the back of the dryer. See figure 2.

Figure 2 - Remove the cover plate.

3. With an ommeter, check for continuity between the neutral (N) terminal of the plug and the center contact on the terminal block. See figure 3a.
   - 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 3a.
   - 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.

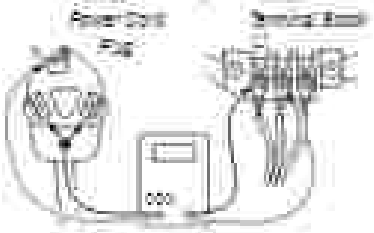


Figure 3a - Plug-to-terminal connections for electric dryer.

5. Access the machine electronics without disconnecting any wiring to the ACU.
6. With an ommeter, check for continuity between the L1 terminal of the plug (found in step 4) and J1-1 (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 J1-4 (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. With an Ohmmeter, check which terminal of the plug is connected to the right-most contact on the terminal block and make a note of it. This will be L2 (Red wire) in the wiring diagram. See figure 3b.
   - When this is found, go to step 9.
   - If neither of the plug terminals have continuity with the right-most contact of the terminal block, replace the power cord and retest dryer.

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

9. Check the wiring and continuity from the L2 terminal of the terminal block and the J2-6 terminal in the white connector from the Hall. See figure 7 on page 22. Also, locate these measurement points by referring to the appropriate wiring diagram (Electric on page 23).
   - If there is continuity, go to step 10.
   - 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.
10. Visually check that ALL connectors are fully inserted into the ACU.
11. Visually check that ALL connectors are fully inserted into the Hall.
12. Reassemble all parts and panels.
13. Plug in dryer or reconnect power.
14. Perform steps under "Service Test Mode", page 12, to verify repair.

ELECTRIC DRYER (Canadian Installations)

1. Unplug dryer or disconnect power.
2. Remove the cover plate from the top center portion of the back of the dryer. See figure 2.
3. Access the machine electronics without disconnecting any wiring to the ACU.
4. With an ommeter, 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 3c.

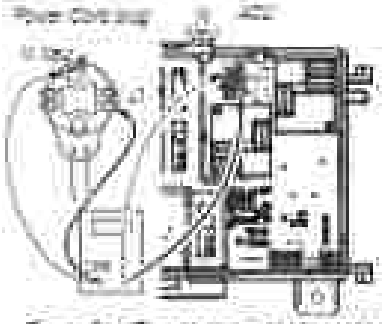


Figure 3c - Plug-to-terminal connections for electric dryer.

   - If continuity exists for both connections, go to step 5.
   - 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.
5. If it is necessary to replace the power cord, remove the retaining clip that secures the cord to the rear 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 Hall.
8. Reassemble all parts and panels.
9. Plug in dryer or reconnect power.
10. Perform steps under "Service Test Mode", page 12, to verify repair.

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

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

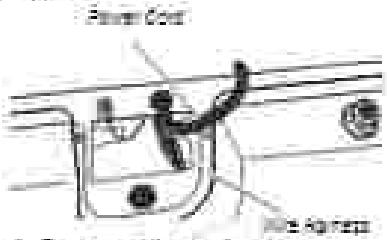


Figure 4 - Power cord-to-wire harness connection for gas dryer

4. Access the machine electronics without disconnecting any wiring to the ADU.
5. With an ohmmeter, check for continuity between the neutral (N) terminal of the plug and J7-3 (white wire) on the ADU. 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 14.
   - 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.

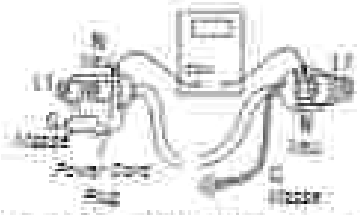


Figure 5 - Power cord terminals, gas dryer

6. In a similar way, check for continuity between the L1 terminal of the plug and J7-2 (black wire) on the ADU.
   - 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 ADU.
8. Visually check that ALL connectors are fully inserted into the HMI.
9. Reassemble all parts and panels.
10. Plug in dryer or reconnect power.
11. Perform steps under "Service Test Mode", page 12, to verify repair.

TEST #3: Motor Circuit

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

Part of Motor System	Electric Dryer	Gas Dryer
Drum belt	✓	✓
Door switch	✓	✓
Harness connection	✓	✓
Thermal fuse	✓	✓
Drive motor	✓	✓
Centrifugal switch	✓	✓
Motor start capacitor		✓
Motor run capacitor	✓	✓
Motor start switch		✓
Motor thermal protector	✓	✓

NOTE: Refer to strip circuit on page 28 to diagnose 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 #1: Door Switch, page 24; however, if this was not done, the following can be performed without applying power to the dryer. Connect an ohmmeter across ADU J7-3 (LT. blue) and J7-5 (door sw wire).
   - With the door properly closed, the ohmmeter should indicate a closed circuit (0 Ω).
   - If not, check harnesses and connections between ADU and door switch. If good, replace the door switch assembly.
5. Motor Circuit Check - Access the ADU and measure the resistance across J7-1 and J7-3.
   - If resistance across J7-1 and J7-3 is in the range of 1 to 6 Ω, the motor circuit is acceptable. Replace the ADU.
   - 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 27 or 28 of 28.

   NOTE: To access motor system components, remove the front panel. Check the thermal fuse. See TEST #4b: Thermal Fuse, page 33.

   ALL DRYERS: 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 6.

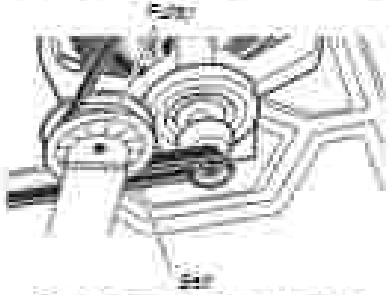


Figure 6 - Slowly remove drum belt.

8. Remove the white connector from the drive motor stator. See figure 7.

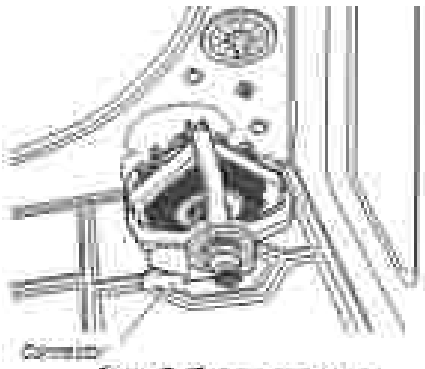


Figure 7 - Remove connector.

9. Remove the blue jumper wire terminal from pin 5 of black drive motor switch.
10. Using the ohm circuit on page 25, 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 Measurement
MAIN	2.5–2.8	Lt. 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	Lt. 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 as needed.
- If the Main or Start winding resistance is much greater or less than the values listed in the table above, replace the motor.

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

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 Circuit	Electric Dryer	Gas Dryer
Harness connector	✓	✓
Heater relay	✓	✓
Thermal cut-off	✓	✓
Thermal fuse	✓	✓
High limit thermostat	✓	✓
Heat element assembly	✓	n/a
Gas valve assembly	n/a	✓
Centrifugal switch	✓	✓
Quiet Series motor	✓	✓
Thermal fuse or element	✓	✓
Console electronics and housing assembly	✓	✓
Flame sensor	n/a	✓

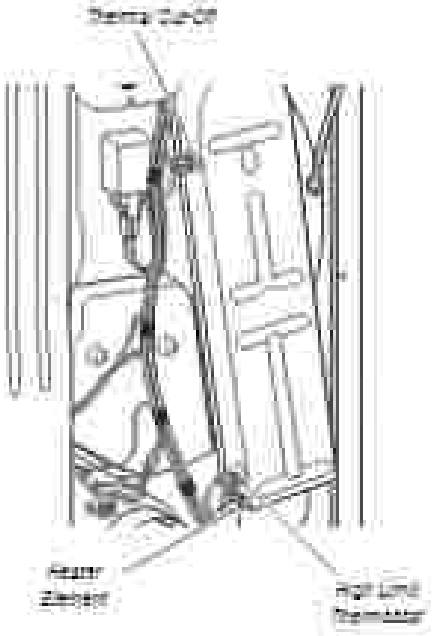
Dryer does not heat:
Locate the components using figures 8 and 9, page 21 and 22. To access heater system components, remove the back panel.

ELECTRIC DRYER ONLY:

- Quick Check: Perform steps under "Service Test Mode", page 12, to test the machine capability to turn On and OFF the heater in the Load test.
- If heater relay can be turned On and OFF by the ACU during the Service Test, then verify that L1 and L2 are present by executing Test #2, Supply Connections. Also check for appropriate line voltages at the outlet: 240 VAC (electric 2-phase) and 208 VAC (electric 3-phase).

1. Unplug dryer or disconnect power.
2. Remove the back panel to access thermal components.
3. Check resistance of the ACU side connector to measure the resistance from the violet wire terminal at the thermal cut-off to the red-white wire terminal at the High Limit.

- If the resistance is about 10 Ω, go to step 5.
- If an open circuit is detected, go to step 4.



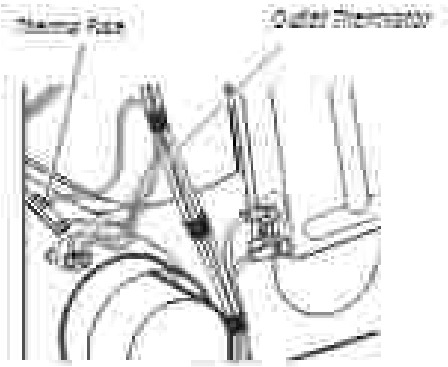


Figure 8 – Thermal components, electric dryer

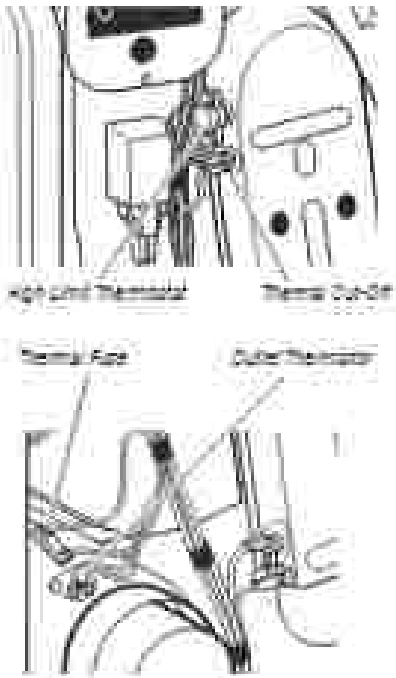


Figure 8 – Thermal cutout/outlet, gas dryer

4. Visually check the wire connections to the thermal cut-off, high limit thermostat, and heater. If the connections look good, check for continuity across each of these components. Refer to strip circuit on page 28.
   - Replace the heater if it is electrically open.
   - Replace both the thermal cut-off and high limit thermostat if either the thermal cut-off or the high limit thermostat is electrically open.
5. If no open circuit is detected, remove the J4 connector from the ACU and measure the outlet thermistor resistance between J4-1 and J4-2 at the connector. Refer to "Outlet Thermistor Resistance" table for temperatures and their associated values.
   - If the resistance corresponds to the temperature, the outlet thermistor is good. Go to step 6.
   - If the thermistor resistance does not agree with the table, replace the outlet thermistor.
6. If the preceding steps did not correct the problem and L1 and L2 were both detected, replace the ACU. If L2 was not detected, replace the centrifugal switch before replacing the ACU. If the centrifugal switch is damaged, then change the motor.
7. Reassemble all parts and panels.
8. Plug in dryer or reconnect power.
9. Perform steps under "Service Test Mode", page 12, to verify repair.

GAS DRYER ONLY:

1. Verify the gas supply to the dryer is turned on.
2. Unplug dryer or disconnect power.
3. Perform TEST #4a: Thermal Cut-Off on page 23. If the thermal cut-off is OK, go to step 4.
4. Locate the high limit thermostat (see figure 8). Measure the continuity through it by disconnecting the heater probes to the black and light blue 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 #4b: Gas Valve on page 23. 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 12, 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 J4 from the ACU and measure the resistance between J4-1 and J4-2 at the connector. Refer to "Outlet Thermistor Resistance" table 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 for a short to ground (usually inside the heater box). Repair or replace if necessary.
5. Check heater relay output on the ACU with a voltmeter set to AC, connect voltmeter to terminals 1 & 2 of heater relay. Plug in dryer or reconnect power.
6. Perform steps under "Service Test Mode". When reaching Service Test step 5, measure the voltage across terminals 1 & 2.
   - If little or no voltage is present, the relay is closed and heater is activated, go to step 7.
   - If voltage is present (~240 VAC for electric, ~120 VAC for gas), the relay (if open) is not working when commanded by the ACU. Replace ACU.
7. Under "Service Test Mode" go to Service test step 6. measure the voltage across terminals 1 & 2.
   - If voltage is present (~240 VAC for electric, ~120 VAC for gas), the relay is open and working when commanded by the ACU. Go to step 8.
   - If little or no voltage is present, the relay is closed and heater is activated without being commanded by the ACU. Replace ACU.
8. Unplug dryer or disconnect power.
9. Reassemble all parts and panels.
10. Plug in dryer or reconnect power.
11. Perform steps under "Service Test Mode", page 12, to verify repair.

TEST #4a: Thermistor

NOTE: Refer to strip circuit on page 28 to diagnose outlet temperature thermistor.

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 J4 from the ACU and measure the resistance between J4-1 and J4-2 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 (EXHAUST) THERMISTOR			
TEMPERATURE °F (°C)	RESISTANCE RANGE kΩ	TEMPERATURE °F (°C)	RESISTANCE RANGE kΩ
50° (10°)	19.6–22.0	80° (27°)	9.6–10.8
60° (16°)	14.8–16.8	90° (32°)	8.0–8.8
70° (21°)	11.5–13.0	100° (38°)	6.2–7.0

   - If the resistance is OK, the outlet thermistor is good. Proceed to step 4.

- If the ohmmeter resistance does not agree with the table, replace the outlet thermistor.

4. Check J4-1 and J4-2 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.

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.

1. Remove load from dryer and disconnect external vent.
2. Plug in dryer or reconnect power.
3. Run a TIMED DRY cycle with 15 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 Temperature Table		
TEMPERATURE SETTING	HEAT TURNS OFF °F (°C)	HEAT TURNS ON °F (°C)
High	160° ± 3° (68° ± 3°)	10°–15° (5°–8°) below the heat turn off temperature
Medium	145° ± 3° (63° ± 3°)	
Low	137° ± 3° (58° ± 3°)	
Extra Low	129° ± 3° (62° ± 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, recall at a different temperature setting.

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

TEST #4b: Thermal Fuse

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

ALL DRYERS:

1. Unplug dryer or disconnect power.
2. Remove the back panel 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. See Figures 8 and 9, pages 21 and 22 for location.

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 the back panel.
3. Using an ohmmeter, check the continuity across the thermal cut-off. See Figures 8 and 9, pages 21 and 22 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 blockage or improper exhaust system, and, on electric dryers, for heat element malfunction.

TEST #4d: a Valve (Gas Dryer)

1. Unplug dryer or disconnect power.
2. Access the gas valve, by removing the front panel.
3. Use an ohmmeter to determine if a gas valve coil has malfunctioned. Remove harness plugs. Measure resistance across the terminals (see figure 10). Readings should match those shown in the following chart. If not, replace valve.

GAS VALVE RESISTANCE	
Terminals	Resistance in Ω
1 to 2	1400 ± 70
1 to 3	575 ± 28.8
4 to 5	1300 ± 65

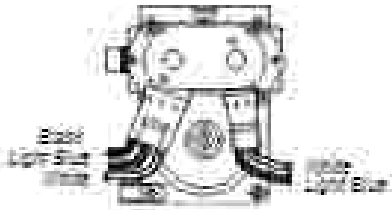


Figure 10 - Measuring gas valve resistance

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 TIMED DRY cycle 15 minutes in duration.
9. Watch the ignitor for a couple of minutes through the "peek window" in the front. If the ignitor stays red but and the gas does not come out and ignite, the flame sensor needs replacing.

   NOTE: If ignitor does not come on, the 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 13, to verify repair.

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:

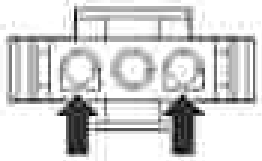
Part of Moisture System	Control Board	Dial Board
Harness connection	✓	✓
Metal sensor strips	✓	✓
Machine control electronics	✓	✓

NOTE: Refer to strip circuit on page 37 to diagnose moisture sensor.

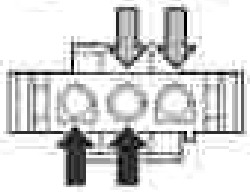
NOTE: Over-drying may be caused by a short circuit in the sensor system.

1. Perform steps under "Service Test Mode" up to the Service Test step 3. See page 13.
2. Open the door. Using a wet cloth or one finger, jointly touch both sensor strips.
- If the test is completed successfully the End of Cycle signal will play. This means that the moisture sensor has passed the test. Go to step 3.

- If the test doesn't complete by touching the moisture sensor, continue with step 3.
3. Unplug dryer or disconnect power.
4. Remove console to access the machine electronics.
5. Access the moisture sensor wires and disconnect the 5-wire moisture sensor connector. See pages 48 and 49 for moisture sensor access.
6. 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 7.
- If there is no continuity, replace the main harness.
7. Measure the resistance across the outermost contacts of the connector that includes the two metal strips.



- If a similar resistance is measured, clean the two metal moisture strips inside the drum.
- If a similar resistance is measured after cleaning, replace the sensor harness.
- If a similar resistance is not measured, go to step 8.
8. 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.
9. If the moisture sensor diagnostic test passes, check the outlet thermistor "Test" #4, page 32.
10. If the preceding steps do not correct the problem, replace the ACU.

TEST #6: HMI

This test is performed when any of the following situations occure during the "Button Activation & Encoder Test" or no sound is heard after the End of the Cycle and MUTE option is Off.

- ✓ None of the LEDs turn on.
- ✓ Some buttons do not respond.
- ✓ No beep sound is heard.

None of the LEDs turn on:

1. Unplug dryer or disconnect power.
2. Remove console to access the ACU and HMI.
3. Visually check that ALL ACU connectors are inserted all the way into the ACU.
4. Visually check that ALL HMI connectors are inserted all the way into the HMI.
5. If all visual checks pass, perform Test #1: ACU Power Check, page 16, to verify supply voltages.
- If supply voltages are present, replace the HMI.
- 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 "Button Activation & Encoder Test" (see page 12) to verify repair.

Some buttons do not respond:

1. Unplug dryer or disconnect power.
2. Remove console to access the ACU and HMI.
3. Replace the HMI.
4. Reassemble all parts and panels.
5. Plug in dryer or reconnect power.
6. Perform the "Button Activation & Encoder Test" (see page 12) to verify repair.

No beep sound is heard:

1. Verify that the MUTE option is OFF.
2. Unplug dryer or disconnect power.
3. Remove console to access the ACU and HMI.
4. Visually check that ALL ACU connectors are inserted all the way into the ACU.
5. Visually check that ALL HMI connectors are inserted all the way into the HMI.
6. If all visual checks pass, perform Test #1: ACU Power Check, page 17, to verify supply voltages.
- If supply voltages are present, replace the HMI.
- If supply voltages are not present, replace the ACU.
7. Reassemble all parts and panels.
8. Plug in dryer or reconnect power.
9. Perform the "Button Activation & Encoder Test, page 12 to verify repair.

TEST #7: Door Switch

Functionality is verified when starting the cool tumble 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 complete. (Refer to wiring diagrams on pages 56, 57 and 58)
- 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.

TEST #8: Water Valve (on some models)

Activate Service Test Mode (see page 12). Advance to Step 3 in Service Test Mode Chart (see page 12). Verify that water is being sprayed into the drum. See figure 11.

NOTE: Refer to amp circuit on page 19 to diagnose water valve.

If no water is sprayed into the drum during steam cycles:

1. Unlock 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 Yellow wire coming from the water valve is connected to the ACU J7-6. Refer to wiring diagrams on pages 22, 23 and 24.

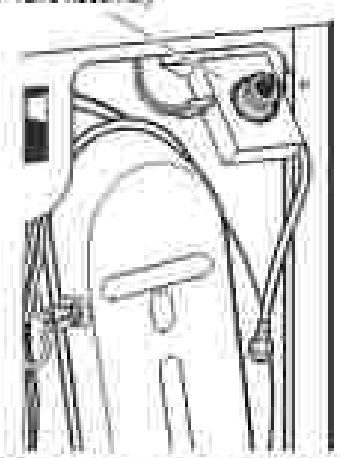


Figure 11 - Water System Components

5. Check Water Valve 5 Harness—using an ohmmeter, measure the resistance between the ACU J8-1 (black wire) and J8-2 (black wire).
   - If the resistance is 1,200 Ω (±5%), go to step 9.
   - 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. Reset water valve.
   - If water does not dispense, go to step 7.
7. Access the water valve by removing the back panel.
   - Check that the Violet and White are connected to the water valve assembly (see figure 11).
   - 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 leaking from dryer

If water leaks from the dryer or too much water being sprayed in the drum:

1. Plug in the machine and press Power.
   - If the machine doesn't start spraying water into the drum, go to step 2.
   - If the machine starts spraying water into the drum, replace the water valve by removing the back panel. Once the valve is replaced re-test again.
   - If replacing the valve didn't stop the machine spraying water into the drum then replace the ACU.
2. Access the water valve by removing the back panel.
   - Check that Violet and White are connected to the water valve assembly (see figure 11).
   - Check that water valve assembly hose is connected to the nozzle.
3. Activate Service Test Mode (see page 17). Advance to Step 3 in Service Test Mode Chart (see page 17). Verify that water is being sprayed into the drum.
   - Verify that there are no water leaks in the connection between the water valve assembly and the hose.
   - If too much water is being sprayed in the drum, replace the water valve by removing the back panel. Once the valve is replaced re-test again.
   - If replacing the valve didn't stop the machine spraying too much water into the drum then replace the ACU.

STRIP CIRCUITS

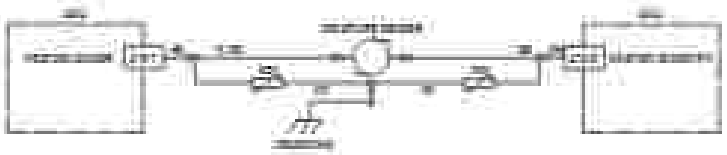
MOTOR CIRCUIT

HEATER (ELECTRIC)

HEATER (GAS)

OUTLET (EXHAUST) THERMISTOR

MOISTURE SENSOR



WATER VALVE CIRCUIT (Only Steam models)

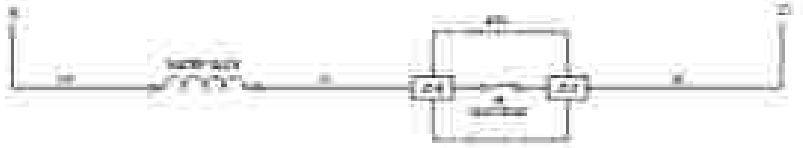


Figure 32 - Strip circuits

WIRING DIAGRAM

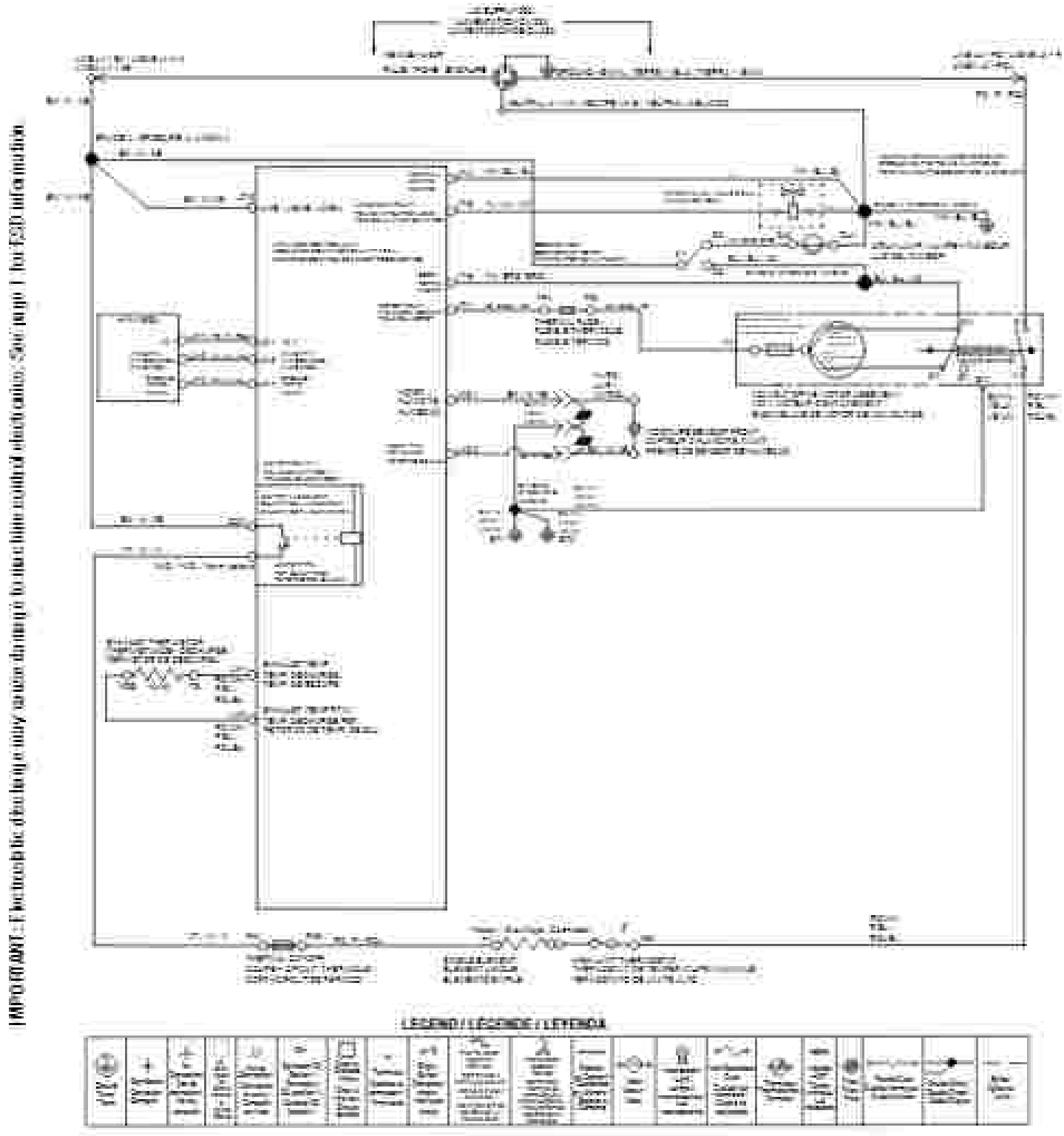


Figure 14- Wiring Diagram, Electric (CAN)

IMPORTANT: Electrostatic discharge may cause damage to machine control electronics. See page 1 for ESD information

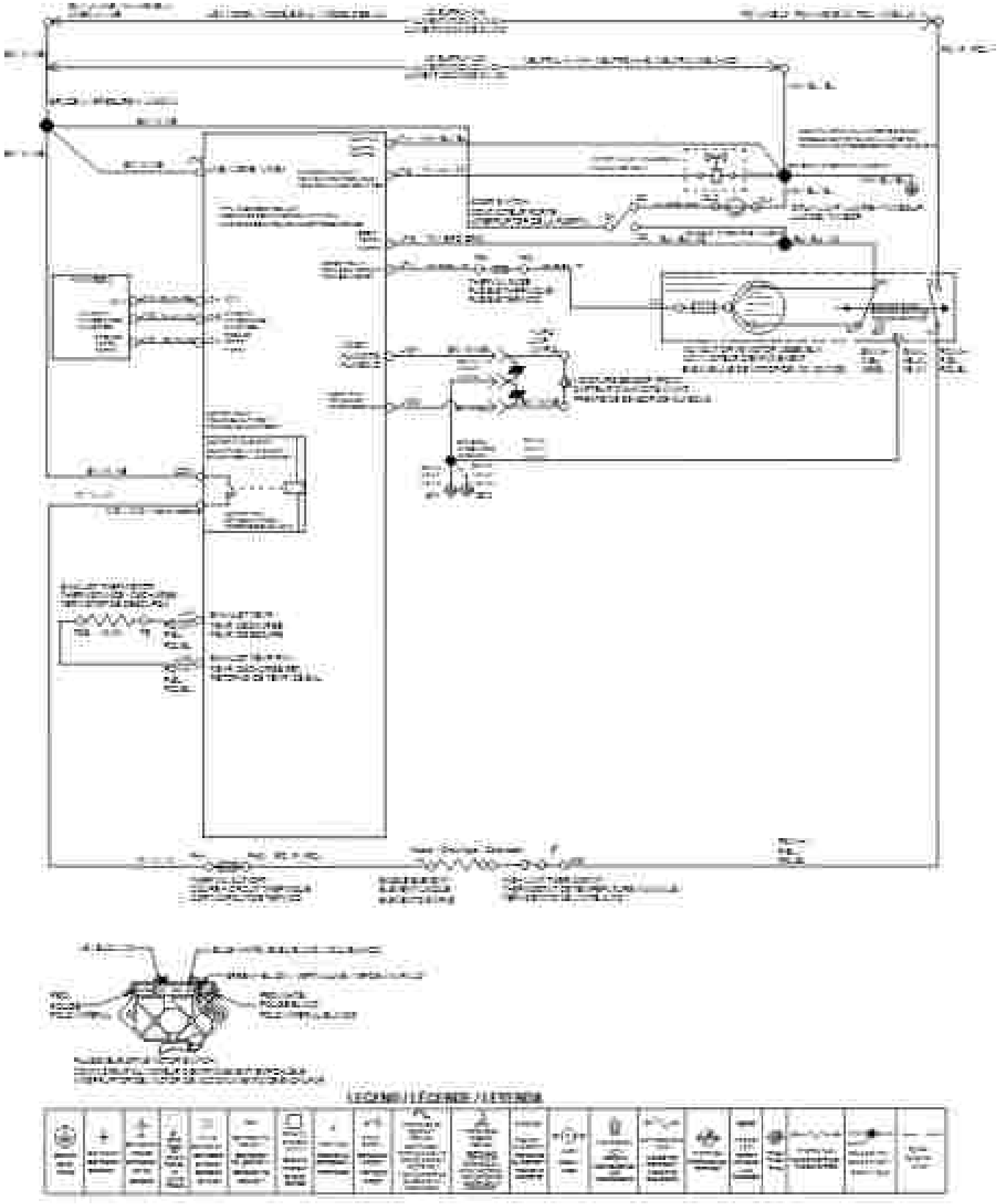
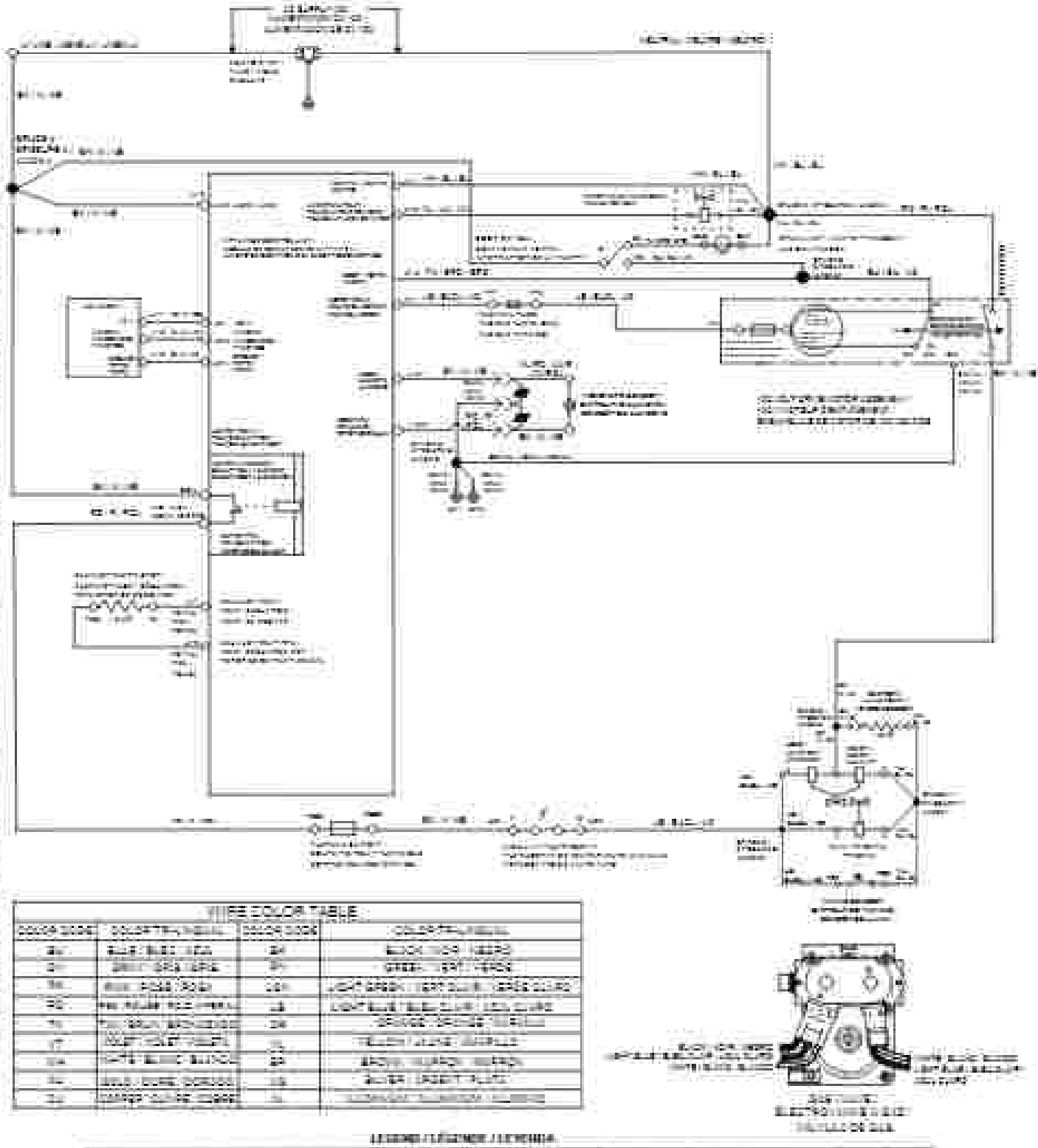


Figure 14 - Wiring Diagram, Electric (USA)



IMPORTANT: Electrostatic discharge may cause damage to machine control electronics. See page 11 for ESD information.

WIRE COLOR TABLE			
COLOR CODE	COLOR DESCRIPTION	COLOR CODE	COLOR DESCRIPTION
BK	BLACK	BK	BLACK
BL	BLUE	BL	BLUE
BR	BROWN	BR	BROWN
GN	GREEN	GN	GREEN
GY	GRAY	GY	GRAY
OR	ORANGE	OR	ORANGE
PK	PINK	PK	PINK
PU	PURPLE	PU	PURPLE
RD	RED	RD	RED
TN	TAN	TN	TAN
WH	WHITE	WH	WHITE
YL	YELLOW	YL	YELLOW

Figure 15 - Wiring Diagram, Std

COMPONENT LOCATIONS

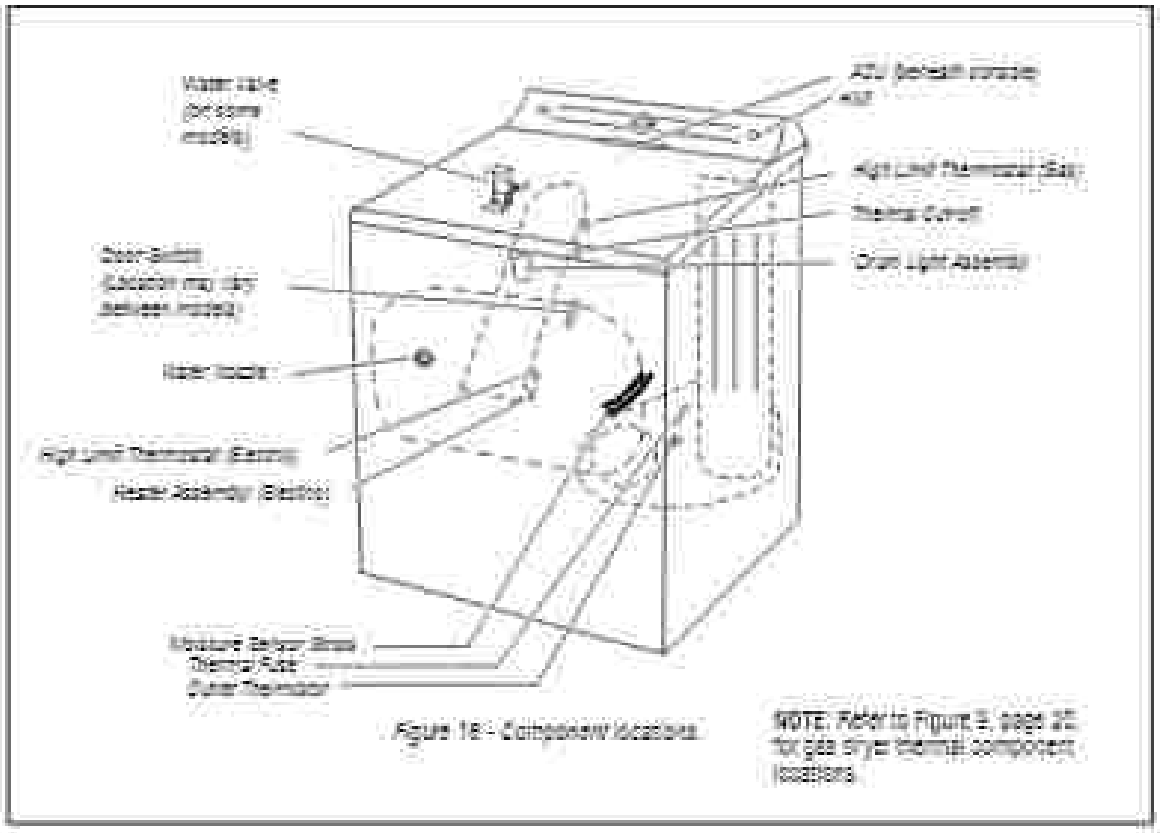
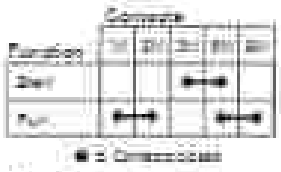
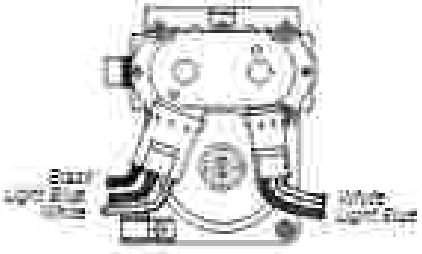


Figure 18 - Component locations

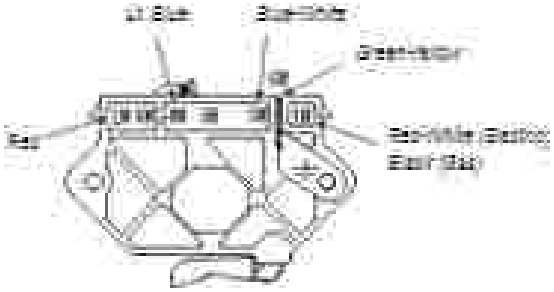
NOTE: Refer to Figure 8, page 20, for gas dryer thermal component locations.



Centrifugal Switch (Motor)



Gas Valve, Gas Dryer



Pluggable Drive Motor Switch

Section 4: COMPONENT ACCESS

This section provides service parts access, removal, and replacement instructions for the Maytag 7.0 cu ft Electric/Gas Dryer.

- Removing The Door Assembly
- Removing The Console (MB) And Top Panel
- Removing The Appliance Control Unit (ACU)
- Removing The Door Switch And Front Panel
- Removing The Drum And Front Panel Bearings
- Removing The Belt, Drum, And Rear Rollers
- Removing The Drive Motor
- Removing The Thermal Fuse And Exhaust Thermistor
- Removing The Rear Panel, High-Limit Thermostat, And Thermal Cutoff (TCO) (Gas Models Only)
- Removing The Thermal Cutoff (TCO), Heater, And High-Limit Thermostat (Electric Models Only)
- Removing The Flame Sensor And Gas Burner Assembly (Gas Models Only)
- Removing The Moisture Sensor And Moisture Sensor Harness (MCH)
- Removing The Drum Light Assembly

REMOVING THE DOOR ASSEMBLY

⚠WARNING

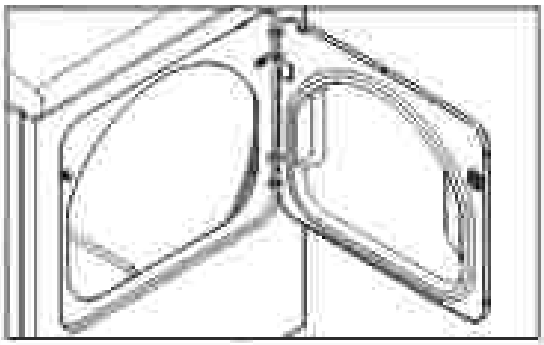
Electrical Shock Hazard

Disconnect power before servicing.

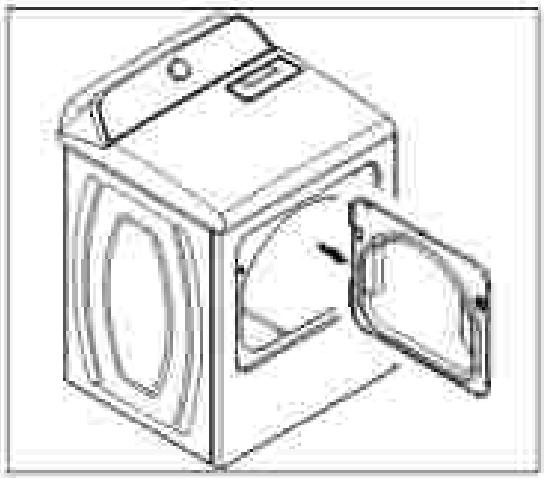
Replace all parts and panels before operating.

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

1. Use a Philips driver to remove the two upper and lower hinge screws



2. Remove dryer door



REMOVING THE CONSOLE/HMI AND TOP PANEL

⚠WARNING

Electrical Shock Hazard

Disconnect power before servicing.

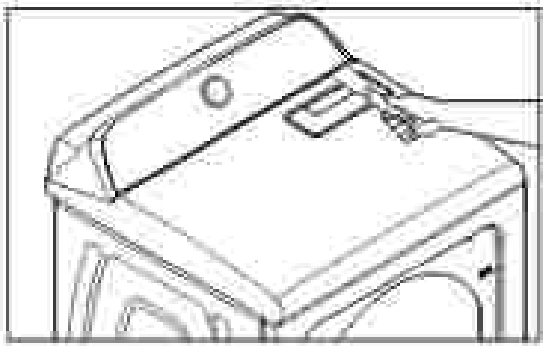
Replace all parts and panels before operating.

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

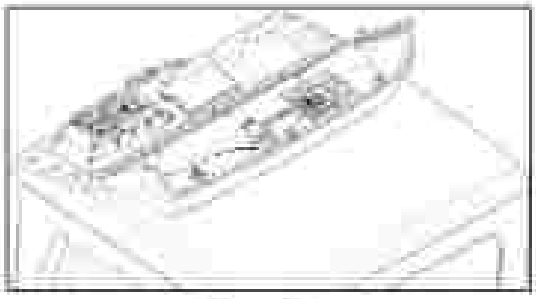
To Remove the Console

1. Unplug dryer or disconnect power.
2. Remove the six 1/4" (6 mm) hex-head screws from top rear panel as shown below and set parts aside.

3. Slide thin plastic putty knife between the backsplash assembly and top panel. Use your free hand to push back on the top of the console.



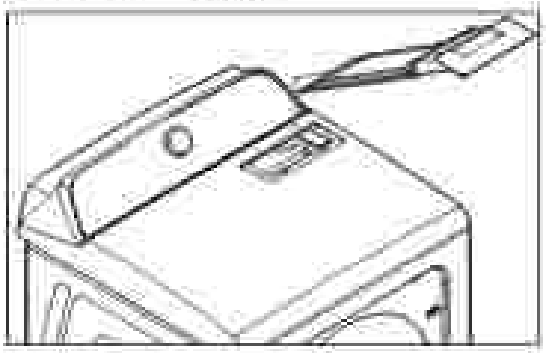
4. Depress the console clip with the putty knife and lift up on the console to separate from top panel. Tilt console forward for service.



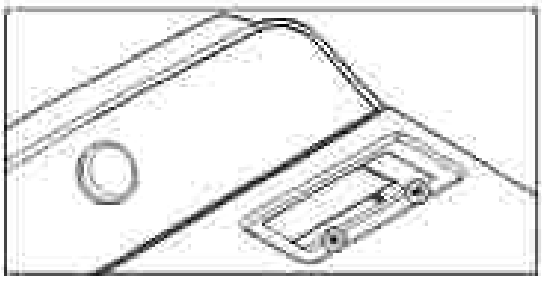
A. Console Clips

To Remove the Top Panel

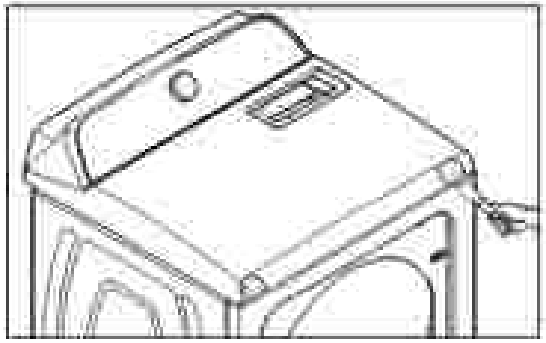
1. Unplug dryer or disconnect power.
2. Pull out and remove the lint screen.



3. Remove the two top panel screws.



4. While lifting the front corners of the cabinet top, press a plastic putty knife against the left and right top clips, and release them from the top. Rotate the top panel up and rest it against a wall.



REMOVING THE APPLIANCE CONTROL UNIT (ACU)

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

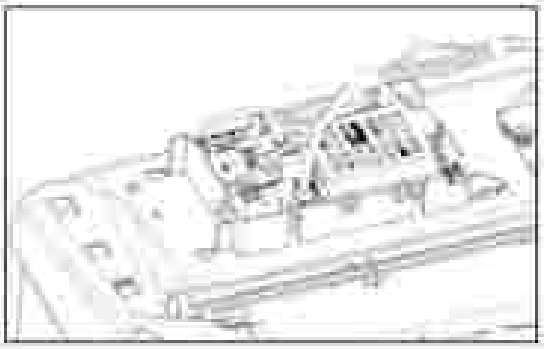
Replace all parts and panels before operating.

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

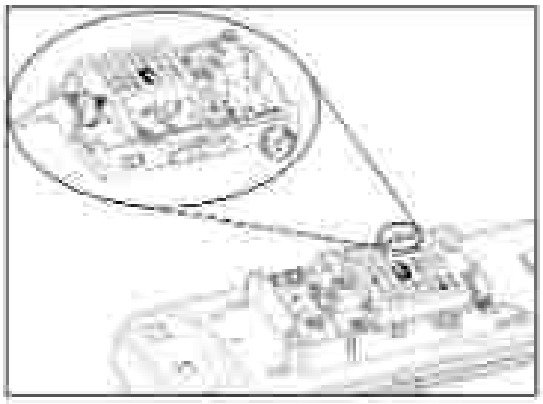
To Remove the Appliance Control Unit (ACU)

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

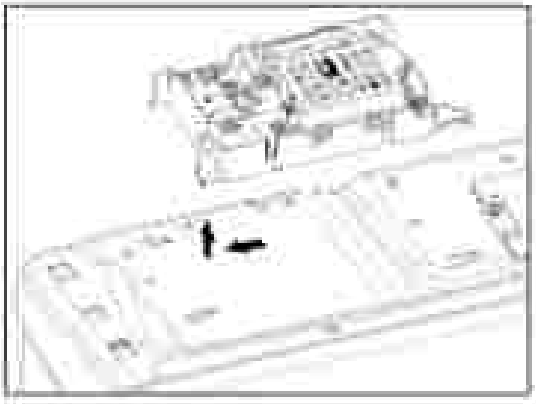
1. Unplug dryer or disconnect power.
2. Perform the procedures on page 32 "Removing the Console Rub and top panel" before performing the following steps.
3. Disconnect all connectors from the ACU.



4. Using a 7/16" (11 mm) nut driver, remove the two head screws securing the ACU to the control bracket.



5. Slide the ACU to the left and lift up to remove.



Appliance Control Unit

J2 – WIN BUS (+5 VDC and +12.7 VDC)

J2-1	RD	+12.7 VDC
J2-2	BR	+5 VDC
J2-3	YL	DATA
J2-4	BK	GND
J2-5	NC	

J4 – THERMISTORS

J4-1	RD/WH	OUTLET THERMISTOR
J4-2	RD/BK	OUTLET THERMISTOR
J4-3	NC	OPEN
J4-4	NC	OPEN

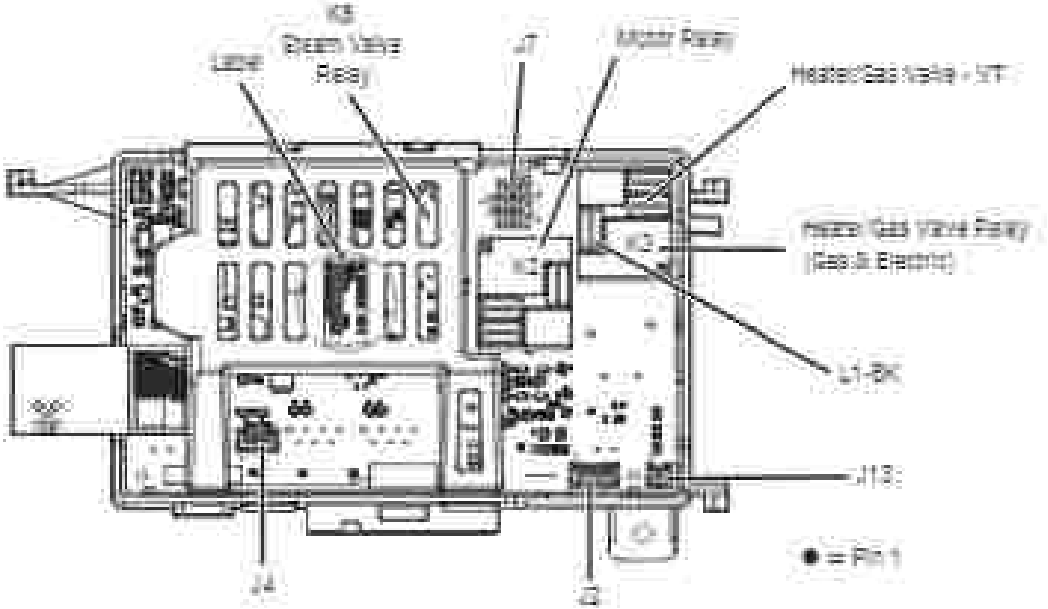
J13 – MOISTURE SENSOR

J13-1	BK	MOISTURE SENSOR
J13-2	RD	MOISTURE SENSOR

J7 – DOOR SWITCH/LOADS/L1

J7-1	LB	MOTOR
J7-2	NC	
J7-3	BK	L1

J7-4	WH	NEUTRAL
J7-5	TN	DOOR SWITCH
J7-6	YL	INLET VALVE (STEAM MODELS ONLY)



REMOVING THE DOOR SWITCH AND FRONT PANEL

⚠ WARNING

Electrical Shock Hazard

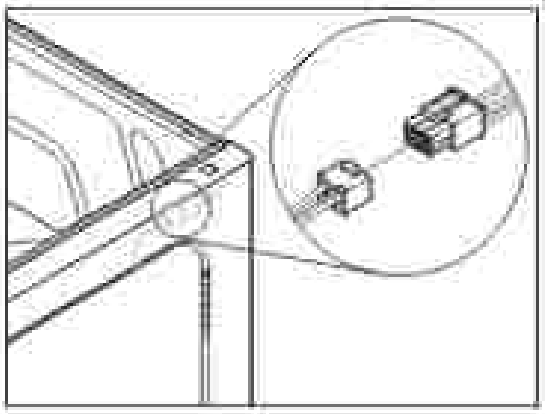
Disconnect power before servicing.

Replace all parts and panels before operating.

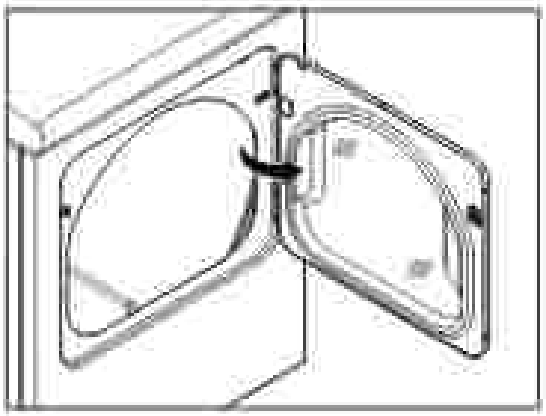
Failure to do so can result in death or electrical shock.

To Remove the Door Switch

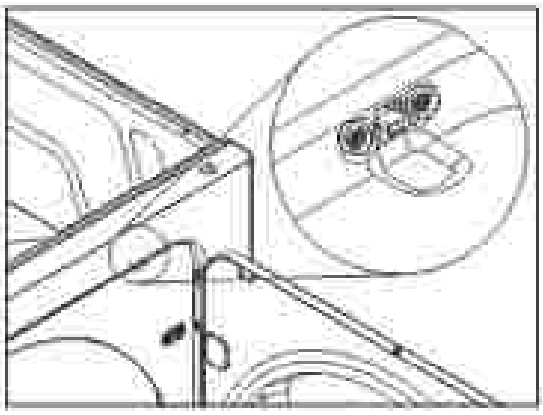
1. Unplug dryer or disconnect power.
2. Disconnect the door switch connector from the harness connector.



3. Open the dryer door.

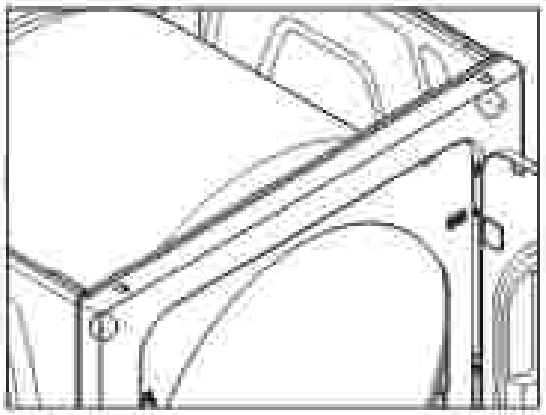


4. Remove the two screws from the door switch and remove the switch.



To Remove the Front Panel

1. Disconnect the door switch connector from the harness connector.
2. Remove the left and right screws from the inside of the washer front.



3. Pull the front panel forward slightly, lift and unhook it from the two bottom hangers, and remove the front. See Figure A and B.

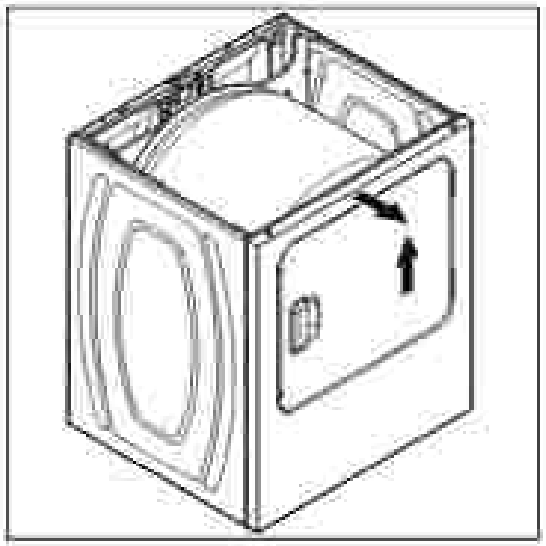


Figure A

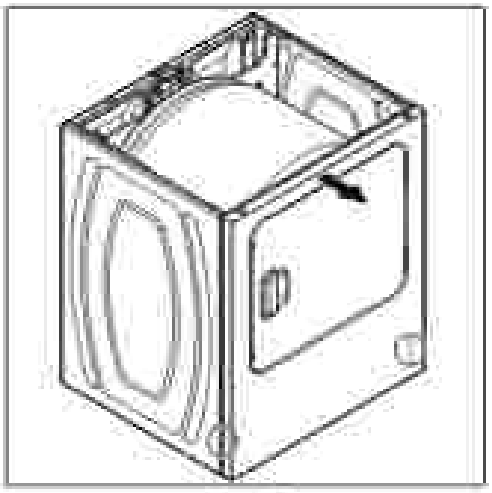


Figure 6

REMOVING THE DRUM AND FRONT PANEL BEARINGS

⚠WARNING

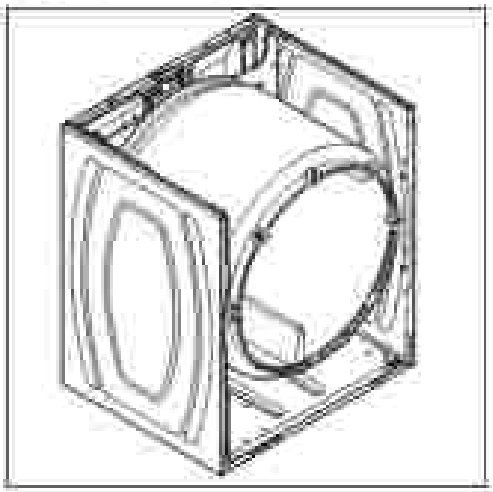
Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

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

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the front panel from the dryer (see page 28 for the procedure).
4. To remove the two drum bearings squeeze the locking tabs together with a pair of long-nose pliers, and push the tabs out of the drum holes.



REMOVING THE BELT, DRUM, AND REAR ROLLERS

⚠WARNING

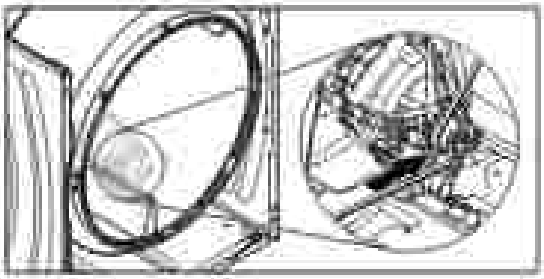
Electrical Shock Hazard

Disconnect power before servicing.

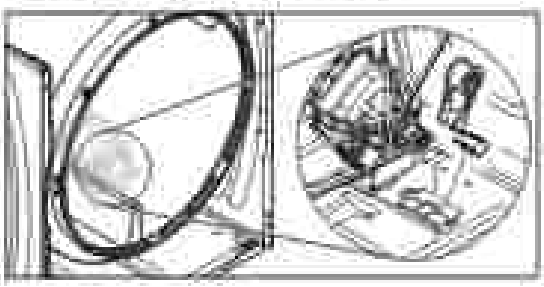
Replace all parts and panels before operating.

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

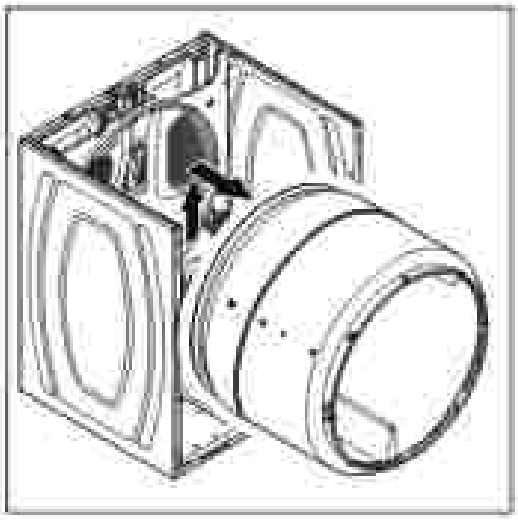
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the front panel from the dryer (see page 28 for the procedure).
4. To remove the Belt and Drum:
   a. Reach under the drum to the drive motor and push the idler wheel arm to relieve the spring tension on the belt, then slide the belt off the motor pulley.



   b. Remove the idler pulley assembly from the dryer.



c. Lift the drum and remove it with the belt from the dryer.



5. To remove the Rear Rollers:
   a. Left Roller Only: Remove the support bracket screw (see Figure A), and pull the support bracket and the round press-on nut off the end of the roller shaft (see Figure B).

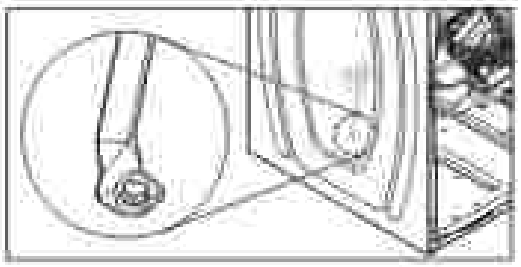


Figure A

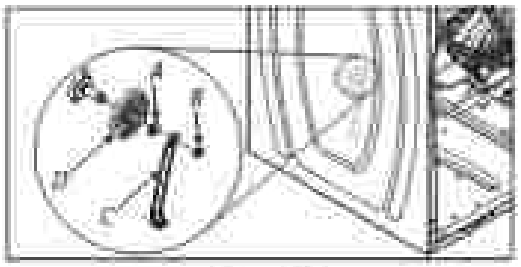
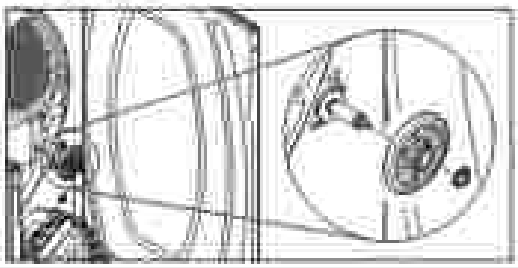


Figure B

A. Triangular Clip
B. Press-On Nut
C. Support Bracket
D. Roller

   b. Push the triangular clip off the pressed slot in the roller shaft, and pull the roller off the shaft.



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.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the front panel from the dryer (see page 33 for the procedure).
4. Remove the belt and drum from the dryer (see page 33 for the procedure).
5. Lift the top tab (see Figure A), and disconnect the wire harness connector from the drive motor (see Figure B).

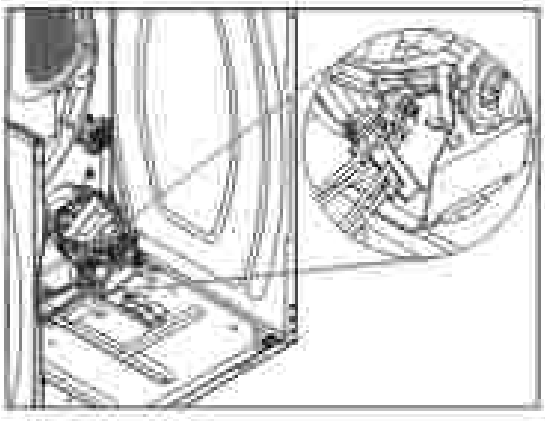


Figure A

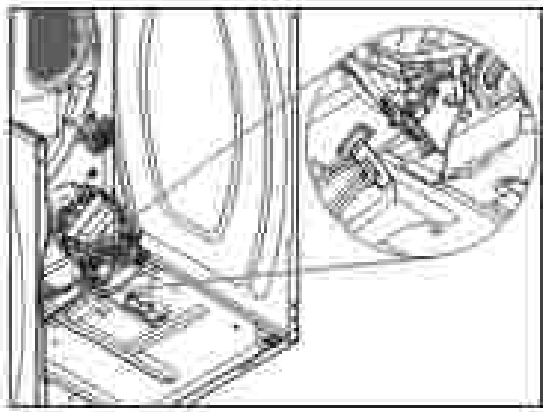
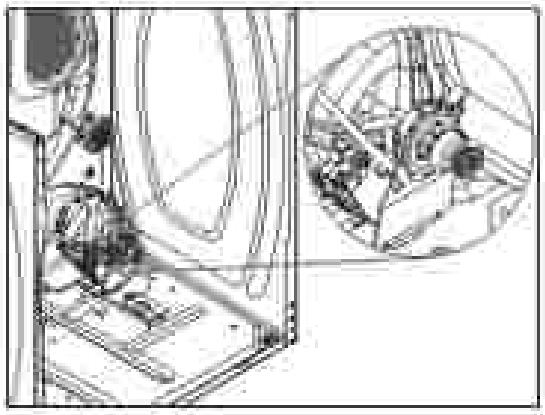
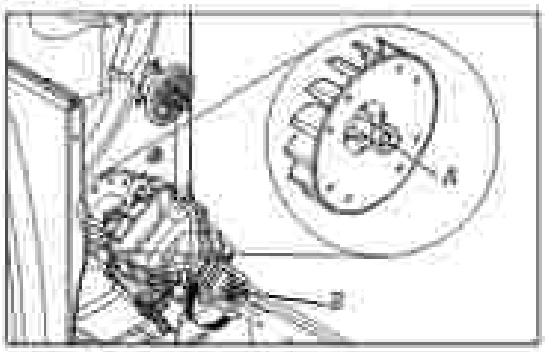


Figure B

6. Remove the front and rear clamps from the drive motor and its mounting bracket. To remove a clamp, press down on one end, and unhook it from the motor tab.

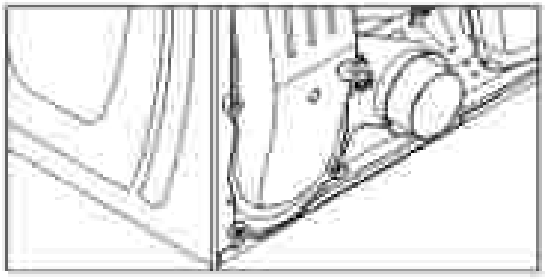


7. Place a 1/2" (12 mm) wrench on the back of the blower wheel, and a 7/16" (11 mm) wrench on the front of the drive motor shaft (flatted). Turn the drive motor shaft to the right (clockwise), and loosen the blower wheel (left-hand thread).

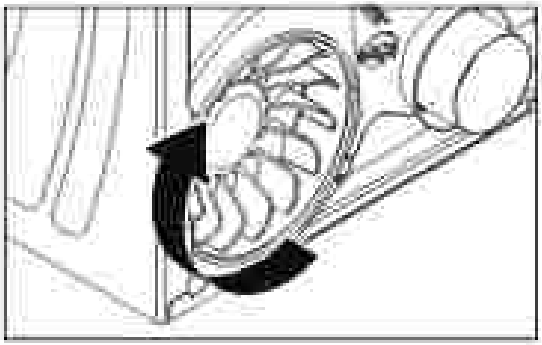


A. Back of the blower wheel
B. Drive motor shaft

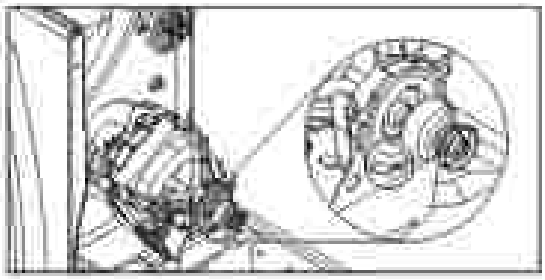
8. Remove the four screws from the air duct at the rear of the unit and pull the duct forward so that you can access the blower wheel.



9. Spin the blower wheel clockwise and remove it from the drive motor shaft.



Reassembly Note: When you reinstall the drive motor, make sure that the rounded locator tab is in the bracket slot, as shown below.



REMOVING THE THERMAL FUSE AND EXHAUST THERMISTOR

⚠ WARNING

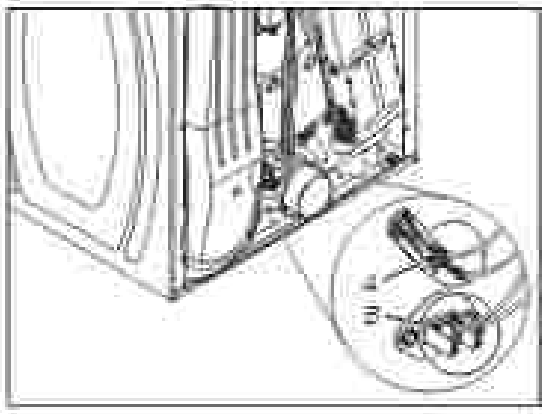
Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

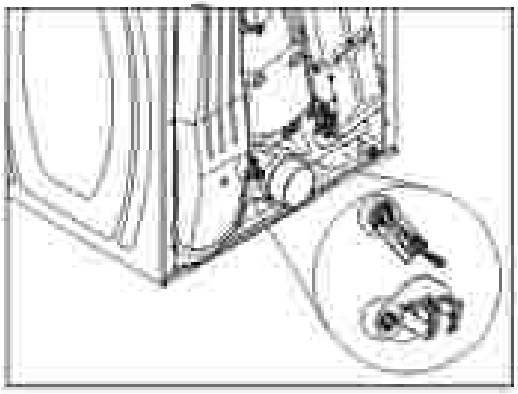
Failure to do so can result in death or electrical shock.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the rear panel (see page 23 for the procedure).
4. Remove the two wires from the thermal fuse and exhaust thermistor terminals.



A. Thermal Fuse *B. Exhaust Thermistor*

5. Remove the two heat screws, unhook the other end of the thermal fuse and exhaust thermistor then remove the components. See below figure.



REMOVING THE REAR PANEL, HIGH-LIMIT THERMOSTAT, AND THERMAL CUTOFF (TCO) (GAS MODELS ONLY)

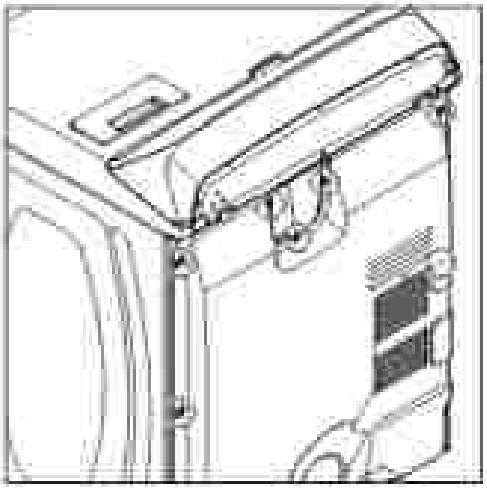
⚠WARNING

Electrical Shock Hazard

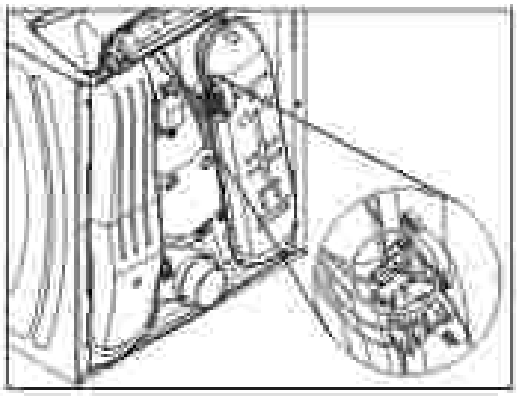
- Disconnect power before servicing.
- Replace all parts and panels before operating.

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

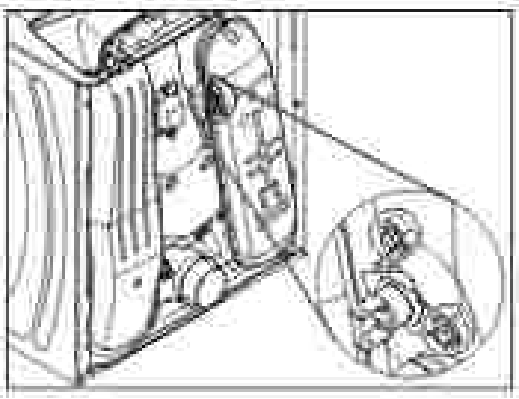
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Pull the dryer out from the wall so that you can access the rear panel.
4. To Remove the Rear Panel:
   - Remove the seven 1/4" hex-head screws from the rear panel and remove the panel.



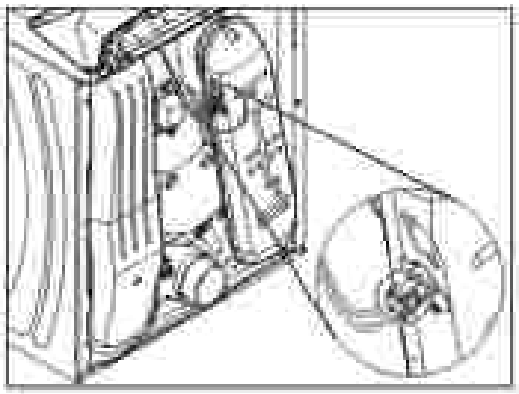
5. To remove the High-Limit Thermostat:
   a. Remove the two wires from the thermostat terminals.



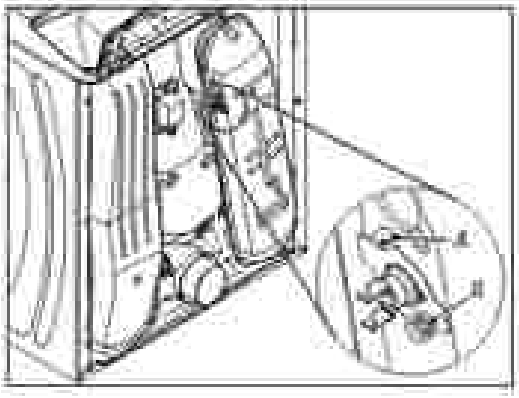
   b. Remove the two hex-head screws and remove the high-limit thermostat.



6. To remove the Thermal Cutoff (TCO):
   a. Remove the two wires from the TCO terminals.



b. Remove the top-most screw, unhook the end of the bracket, and remove the TCO.



A. Clip B. Heat-Relief Screw

REMOVING THE THERMAL CUTOFF (TCO), HEATER, AND HIGH-LIMIT THERMOSTAT (ELECTRIC MODELS ONLY)

⚠WARNING

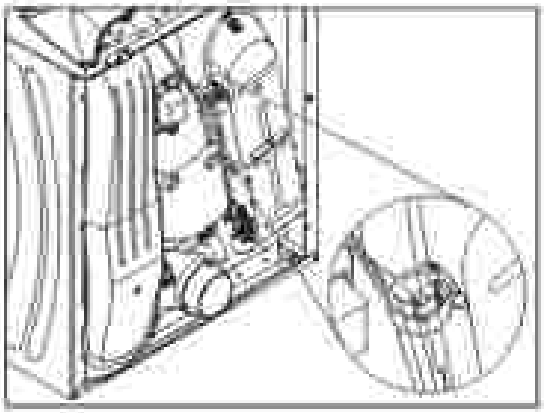
Electrical Shock Hazard

Disconnect power before servicing.

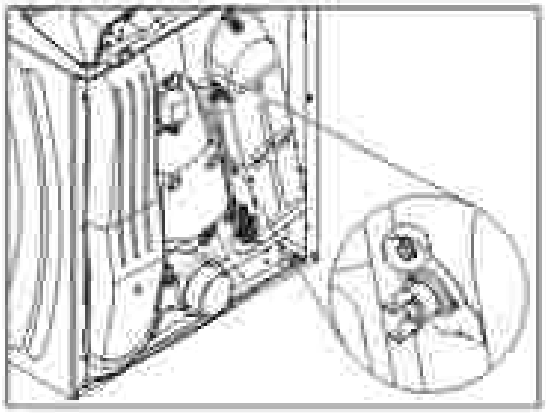
Replace all parts and panels before operating.

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

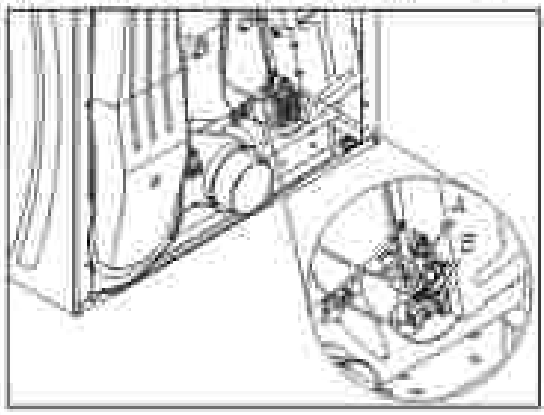
1. Unplug unit or disconnect power.
2. Remove the Backguard (see page 28 for the procedure).
3. To remove the Thermal Cutoff (TCO):
   a. Remove the two wires from the TCO terminals.



b. Remove the top-most screw, unhook the end of the bracket, and remove the TCO.



4. To remove the Heater and High-Limit thermostat:
   a. Lift the locking tab and remove the wire connector from the High-Limit Thermostat.
   b. Remove the wire connector from the heater terminal block.



A. High-Limit Thermostat B. Heater Block

c. Remove the two bell-head screws from the heater assembly (see Figure A) and remove the assembly (see Figure B).

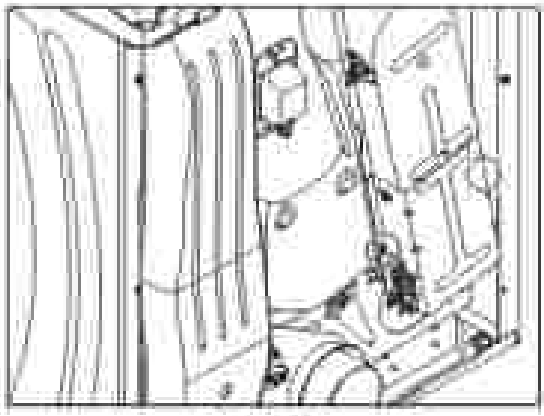


Figure A

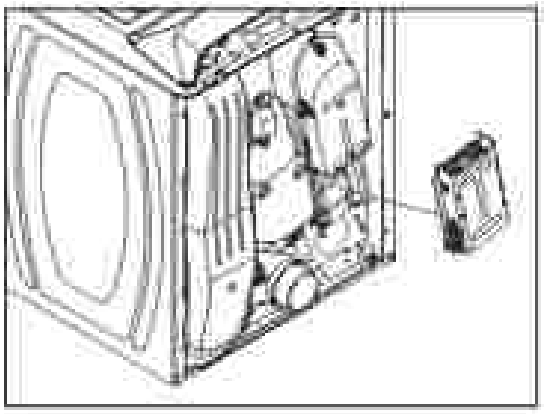
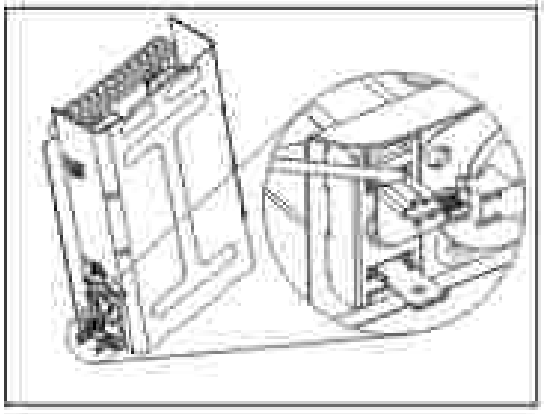


Figure 8

a. Using a flat-blade screwdriver, pry the High-Limit Thermistor terminal off the heater terminal, and remove the High-Limit from the assembly.



REMOVING THE FLAME SENSOR AND GAS BURNER ASSEMBLY (GAS MODELS ONLY)

⚠ WARNING

Electrical Shock Hazard

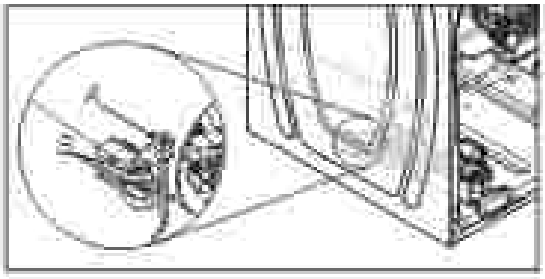
Disconnect power before servicing.

Replace all parts and panels before operating.

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

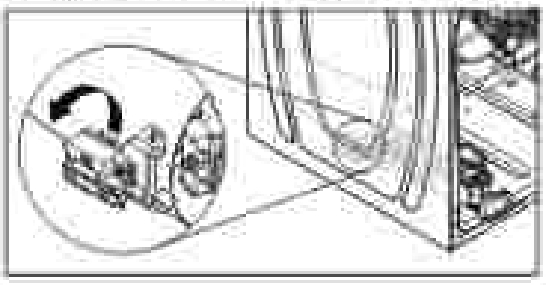
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the front panel from the dryer (see page 28 for the procedure).
4. Remove the belt and drum from the dryer (see page 28 for the procedure).

5. To remove the Flame Sensor:
   a. Remove the two wires from the sensor terminals then remove the harness clamp.

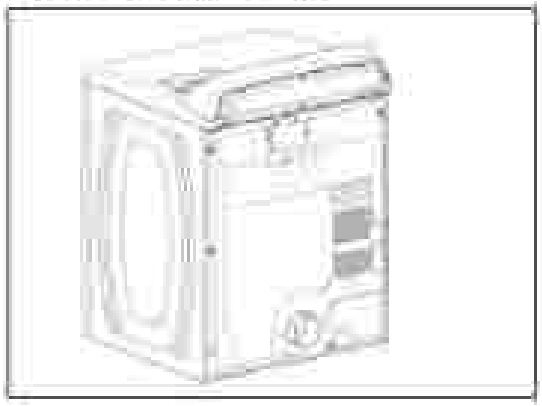


A. Harness Clamp B. Sensor Terminals

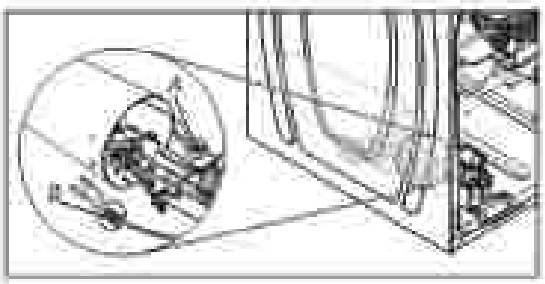
   b. Unhook the tab, and remove the flame sensor from the burner tube.



6. To remove the Burner Assembly:
   a. Disconnect the gas line from the dryer.

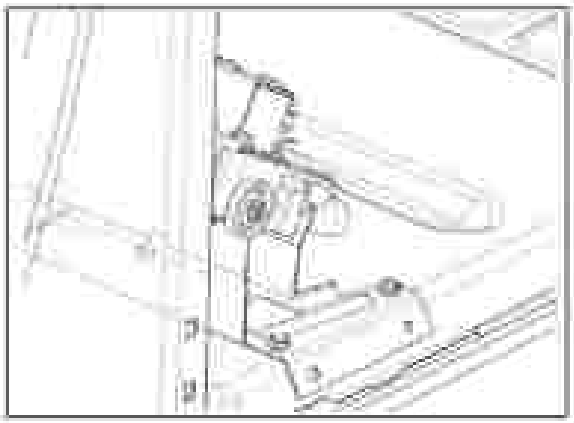


   b. Disconnect the following wire connectors from the burner assembly components:
   - Connector from the flame sensor
   - Burner harness connector from the main harness



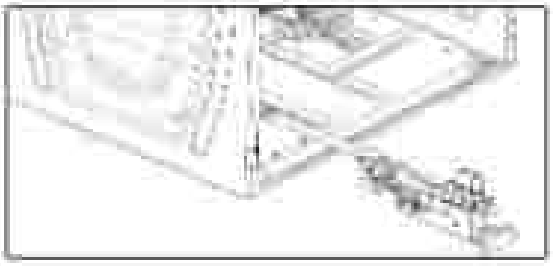
A. Burner Harness Connector
B. Flame Sensor Connector

c. Remove the three 5/16" (8mm) flat-head screws from the burner support bracket and remove the bracket from the bottom of the assembly.

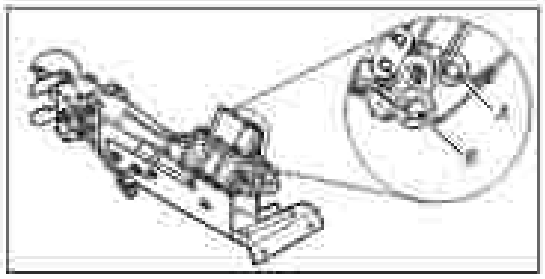


d. Remove the two 5/16" (8 mm) hex-head screws from the burner bracket.

e. Pull the burner assembly forward, unhook the bracket tabs from the chassis slots, and remove the assembly.

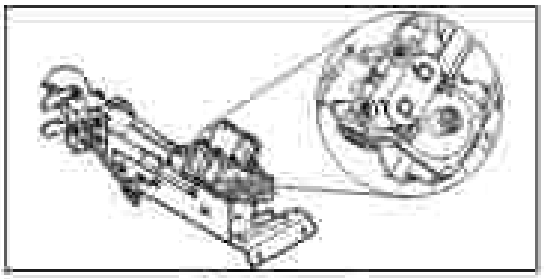


7. To remove the Coils from the burner assembly:
   a. Remove the burner assembly (see step 6).
   b. Disconnect the 2-pin and 3-pin connectors from the coil terminals.

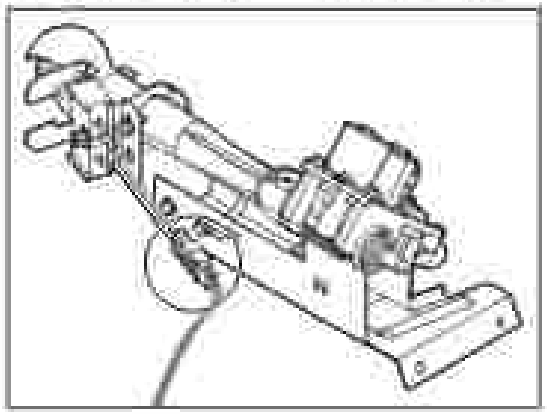


A. 2-Pin Connector B. 3-Pin Connector

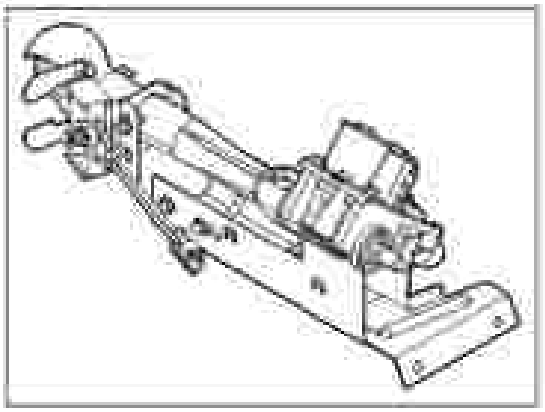
c. Remove the two screws from the bracket, and lift the two coils off their cores.



8. To remove the ignitor from the burner assembly:
   a. Remove the burner assembly (see step 6).
   b. Disconnect the 2-wire connector from the ignitor harness.



c. Loosen the 5/16" (8mm) hex-head ignitor screw, and remove the ignitor from the bracket.



REMOVING THE MOISTURE SENSOR AND METAL OXIDE VARISTORS (MOV)

⚠WARNING

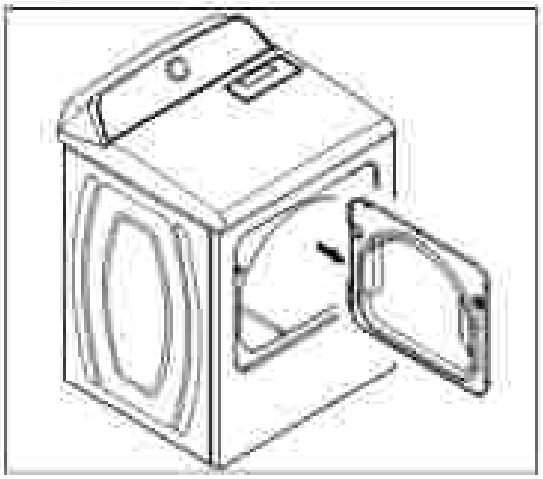
Electrical Shock Hazard

Disconnect power before servicing.

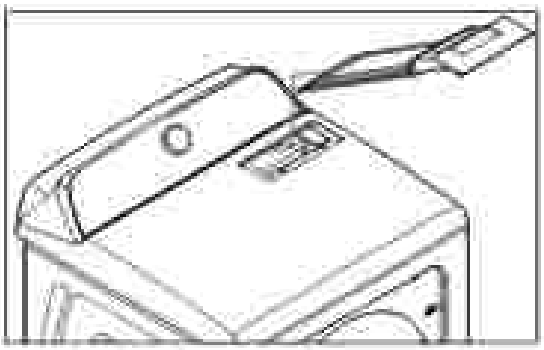
Replace all parts and panels before operating.

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

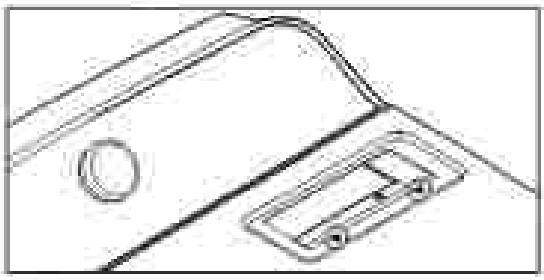
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Open the dryer door.



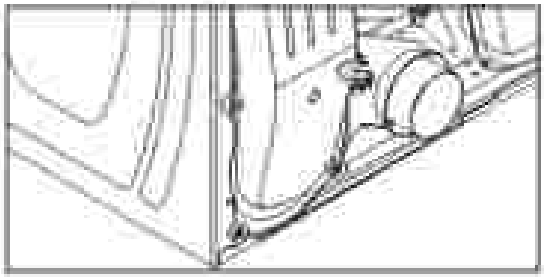
4. To remove the Moisture Sensor:
   a. Remove the rear panel (see page 28 for the procedure).
   b. Pull out the lint screen.



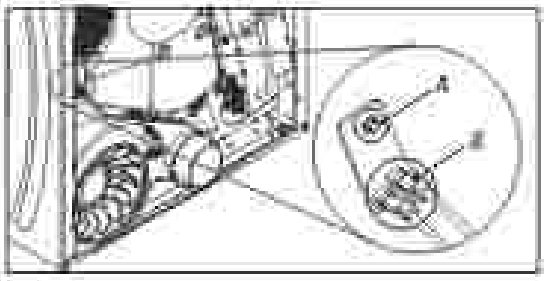
c. Remove the two top panel screws from the lint screen/air duct.



d. Remove the four 1/4" (6 mm) hex head screws from the air duct and pull air duct away from dryer.

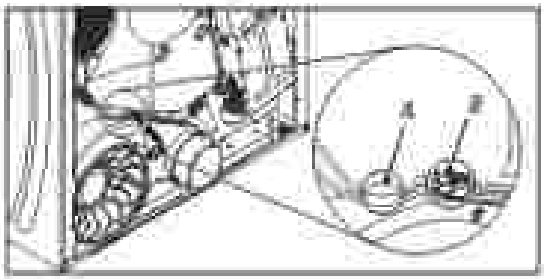


e. Disconnect the two wires from the terminals of the moisture sensor strips and remove screw attaching sensors to drum.



A. Screw B. Moisture Sensor Terminal Strips

5. To remove Metal Oxide Varistors (MOV):
   - Unfold and disconnect the moisture sensor harness connector with the Metal Oxide Varistors (MOV) from the main harness.



A. Sensor (MOV)
B. Moisture Sensor Harness Connector

REMOVING THE DRUM LIGHT ASSEMBLY

⚠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.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Open the dryer door.
4. Remove the screw from the drum light lens (see Figure A) and remove the lens (see Figure B).

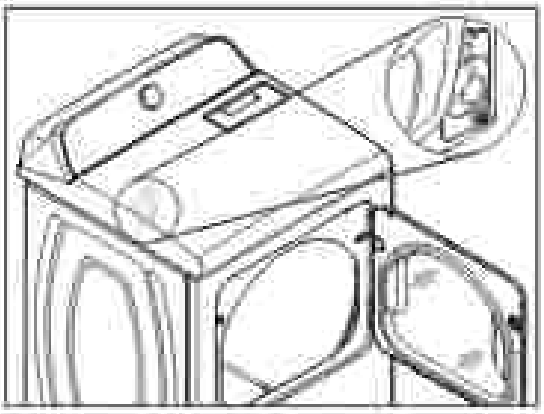


Figure A

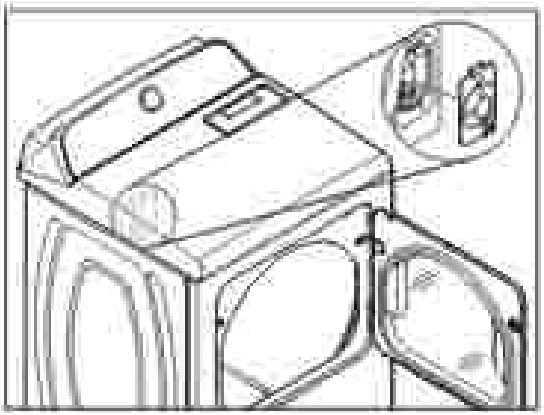
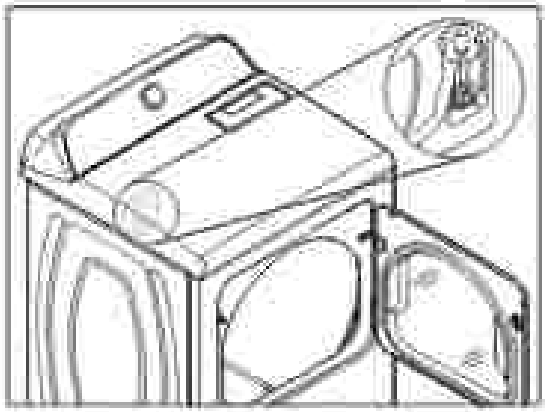
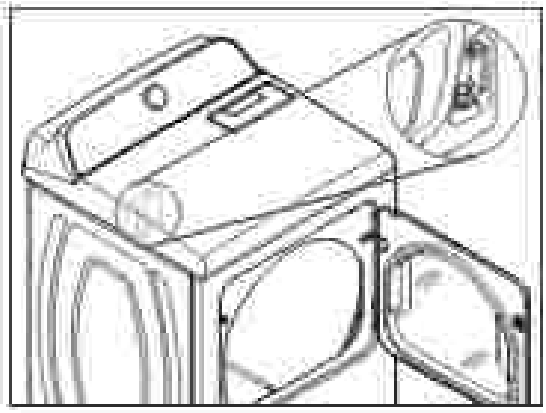


Figure B

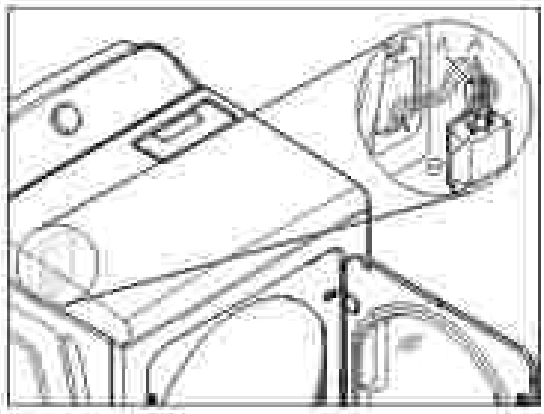
5. Remove the bulb from the drum light socket.



6. Remove the screw from the drum light holder and pull it forward so you can access the wires.



7. Disconnect the wire connectors from the light socket terminals.



A. Connectors B. Light Socket

8. Squeeze the locking arms and remove the socket from the drum light holder.