

WHIRLPOOL CANADA INC.– CONSUMER & APPLIANCE CARE
Technical Training Department



**ELECTRONIC
GAS & ELECTRIC
DRYERS**



MODELS: WED83003W, WED85003R
WGD83003W, WGD85003R

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FORWARD

This Whirlpool Job Aid, “Duet Sport™ Electronic Gas & Electric Dryers” (Part Lit. **8177377**), provides the technician with information on the installation, operation, and service of the Duet Sport™ Electronic Gas & Electric Dryers. For specific information on the model being serviced, refer to the “Use and Care Guide,” or “Tech Sheet” provided with the dryer.

The Wiring Diagrams used in this Job Aid are typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product when servicing the unit.

GOALS AND OBJECTIVES

The goal of this Job Aid is to provide information that will enable the service technician to properly diagnose malfunctions and repair the Duet Sport™ Electronic Gas & Electric Dryers.

The objectives of this Job Aid are to:

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

WHIRLPOOL CORPORATION assumes no responsibility for any repairs made on our products by anyone other than Authorized Service Technicians.

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GENERAL DRYER SAFETY

Your safety and the safety of others is very important.

We have provided many important safety messages in this Job Aid and on the 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:



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



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.

MODEL & SERIAL NUMBER DESIGNATIONS

MODEL NUMBER

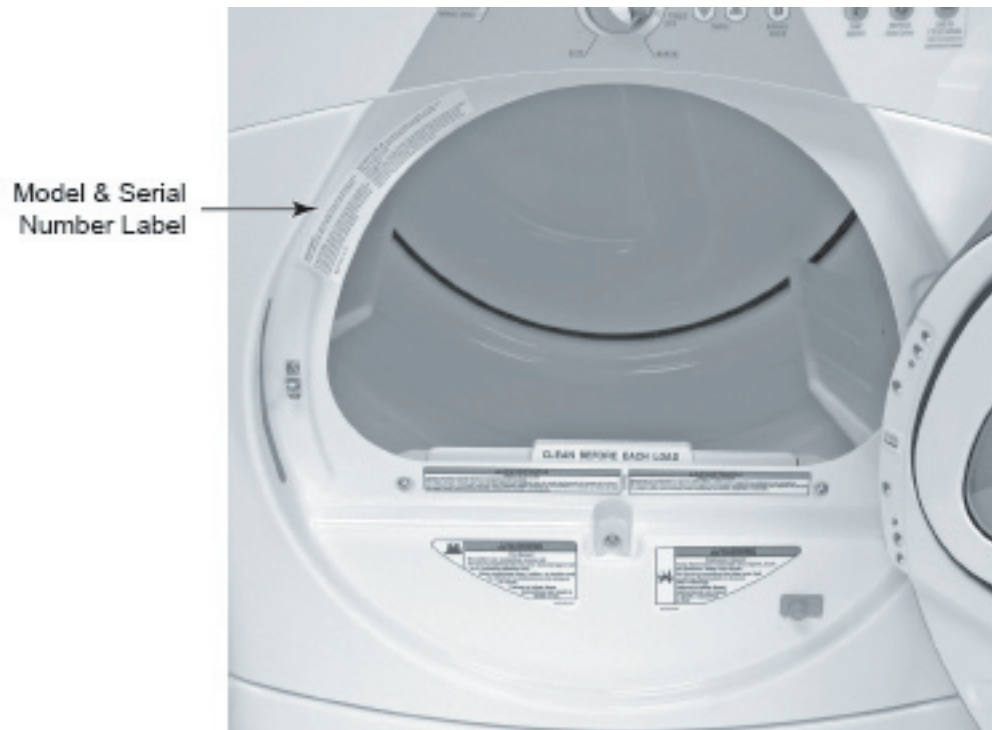
MODEL NUMBER	W	E	D	8	3	00	S	W	0
BRAND W = Whirlpool									
FUEL E = Electric G = Gas									
PRODUCT D = Dryer									
SERIES 5 = Whirlpool Leap 6 = Oasis 7 = 24" Front Load 8 = Mid Line Front Load 9 = Duet Front Load									
PRICE POINT LEVELS (1 - 9)									
TRADE PARTNER ID (00 = BRANDED)									
YEAR OF INTRODUCTION S = 2006, T = 2007									
COLOR CODE T = Biscuit Q = White W = White With Metallic Accent R = White With Metallic (Sport Only)									
ENGINEERING CHANGE (NUMERIC)									

SERIAL NUMBER

SERIAL NUMBER	M	T	09	62410
DIVISION RESPONSIBILITY M = Marion, OH				
YEAR OF PRODUCTION T = 2006				
WEEK OF PRODUCTION 09 = 9th Week				
PRODUCT SEQUENCE NUMBER				

MODEL & SERIAL NUMBER LABEL AND TECH SHEET LOCATIONS

The Model & Serial Number Label and Tech Sheet locations are shown below.



Tech Sheet
(Behind Lower Access Panel)

SPECIFICATIONS

Model Number	WED8300SW WGD8300SW	WED8500SR WGD8500SR
Model Description	Matching Dryer For Front Load Washer	Matching Dryer For Front Load Washer
Color	White with Gray Accents	White with Sterling Bright Accents
Capacity (Cu.Ft. IEC)	6.7	6.7
Venting	4 way	4 way
Reversible Door	Yes	Yes
Lint Screen Location	Front	Front
Height	36.0"	36.0"
Install Depth: Min - Max	28.90" - 32.90"	28.90" - 32.90"
Width	27"	27"
Product Weight (approx)	122 lbs.	122 lbs.

INSTALLATION INFORMATION

INSTALLATION INSTRUCTIONS

TOOLS AND PARTS

Gather the required tools and parts before starting installation. Read and follow the safety instructions provided with any tools listed here.

Electric Models

- Flat-blade screwdriver
- #2 Phillips screwdriver
- Adjustable wrench that opens to 1" (2.5 cm) or hex-head socket wrench (for adjusting dryer feet)
- Wire stripper (direct wire installations)
- Level
- Vent clamps
- Caulking gun and compound (for installing new exhaust vent)
- Tin snips (new vent installations)
- 1/4" nut driver or socket wrench (recommended)
- Tape measure

Gas Models

- 8" or 10" pipe wrench
- 8" or 10" adjustable wrench (for gas connections)
- Flat-blade screwdriver
- Adjustable wrench that opens to 1" (2.5 cm) or hex-head socket wrench (for adjusting dryer feet)
- 1/4" nut driver or socket wrench (recommended)
- Level
- Vent clamps
- Knife
- Pipe-joint compound resistant to LP gas
- Caulking gun and compound (for installing new exhaust vent)
- Pliers
- Tape measure

Parts Supplied

Remove parts packages from dryer drum. Check that all parts are included.

- Parts package



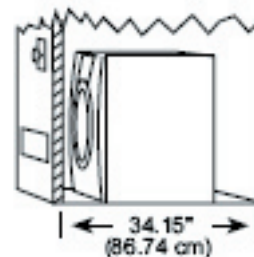
4 Leveling legs

NOTE: Do not use leveling legs if installing the dryer on a pedestal.

Parts needed

Check local codes and with gas supplier. Check existing gas supply, electrical supply and venting. Read "Electrical Requirements," "Gas Supply Requirements" and "Venting Requirements" before purchasing parts.

- For close-clearance installations between 28.65" (72.77 cm) and 34.15" (86.74 cm), see "Plan Vent System" section for venting requirements.



Mobile home installations require special parts (listed following) that may be ordered by calling the dealer from whom you purchased your dryer. For further information, please refer to the "Assistance or Service" section of the "Use & Care Guide."

- Mobile Home Installation Kit. Ask for Part Number 346764.
- Metal exhaust system hardware.

OPTIONS

Pedestal

Are you placing the dryer on a pedestal? You have the option of purchasing pedestals of different heights separately for this dryer. You may select a 10" (25.4 cm) pedestal or a 15.5" (39.4 cm) pedestal with a shelf and bin dividers. These pedestals will add to the total height of the unit for a total height of approximately 46" (116.8 cm) or 51.5" (130.8 cm).

For a garage installation, you will need to place the dryer at least 18" (46 cm) above the floor.



Optional pedestal (15.5" [39.4 cm] model shown)

To order, call the dealer from whom you purchased your dryer or refer to the "Assistance or Service" section of the "Use & Care Guide."

Pedestal Height	Color	Part Number
10" (25.4 cm)	White	WHP1000SQ
15.5" (39.4 cm) with shelf and bin dividers	White	WHP1500SQ

Drying Rack

To order a drying rack, call the dealer from whom you purchased the dryer or refer to the "Assistance or Service" section of the "Use & Care Guide." Ask for Part Number 8563738.

Stack Kit

Are you planning to stack your DUET SPORT™ washer and dryer? To do so, you will need to purchase a Stack Kit.

To order, call the dealer from whom you purchased your dryer or refer to the "Assistance or Service" section of the "Use & Care Guide." Ask for Part Number 8572546.

LOCATION REQUIREMENTS

⚠ WARNING



Explosion Hazard

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

Place dryer at least 18 inches (46 cm) above the floor for a garage installation.

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

You will need

- A location that allows for proper exhaust installation. See "Venting Requirements."
- Electric Models Only: A separate 30-amp circuit.
- If you are using a power cord, a grounded electrical outlet located within 2 ft (61 cm) of either side of the dryer. See "Electrical Requirements."
- A sturdy floor to support the total dryer weight of 127 lbs (57.6 kg). The combined weight of a companion appliance should also be considered.
- A level floor with a maximum slope of 1" (2.5 cm) under entire dryer. (If slope is greater than 1" [2.5 cm], install Extended Dryer Feet Kit, Part No. 279810.) Clothes may not tumble properly and automatic sensor cycles may not operate correctly if dryer is not level.
- For a garage installation, you will need to place the dryer at least 18" (46 cm) above the floor. If using a pedestal, you will need 18" (46 cm) to the bottom of the dryer.

Do not operate your dryer at temperatures below 45°F (7°C). At lower temperatures, the dryer might not shut off at the end of an automatic cycle. Drying times can be extended.

The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.

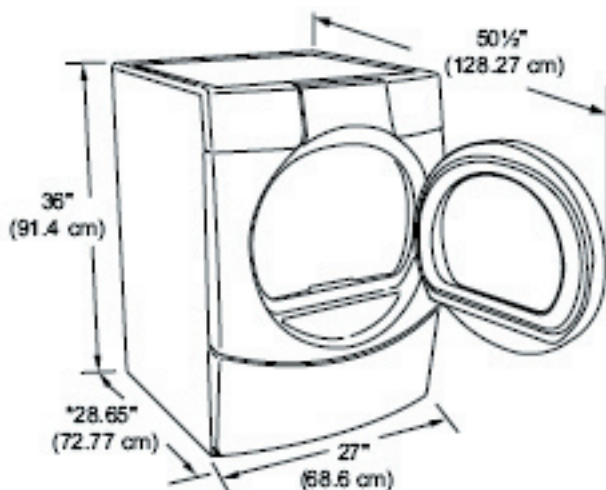
Check code requirements. Some codes limit, or do not permit, installation of the dryer in garages, closets, mobile homes, or sleeping quarters. Contact your local building inspector.

NOTE: No other fuel-burning appliance can be installed in the same closet as a dryer.

Installation Clearances

The location must be large enough to allow the dryer door to open fully.

Dryer Dimensions



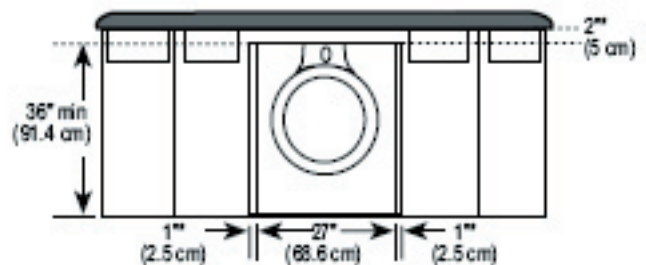
* Most installations require a minimum 5" (12.7 cm) clearance behind the dryer for the exhaust vent with elbow. See "Venting Requirements."

Installation spacing for recessed area or closet installation

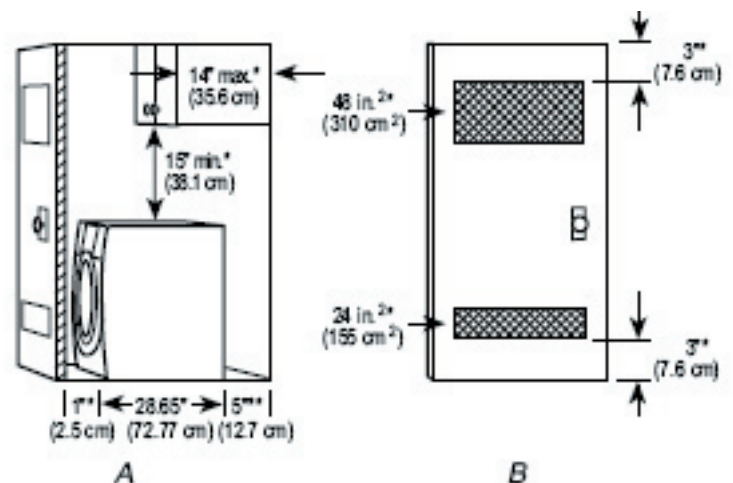
The following spacing dimensions are recommended for this dryer. This dryer has been tested for spacing of 0" (0 cm) clearance on the sides and rear. Recommended spacing should be considered for the following reasons:

- Additional spacing should be considered for ease of installation and servicing.
- Additional clearances might be required for wall, door and floor moldings.
- Additional spacing should be considered on all sides of the dryer to reduce noise transfer.
- For closet installation, with a door, minimum ventilation openings in the top and bottom of the door are required. Louvered doors with equivalent ventilation openings are acceptable.
- Companion appliance spacing should also be considered.

Custom undercounter installation - Dryer only



Closet installation - Dryer only

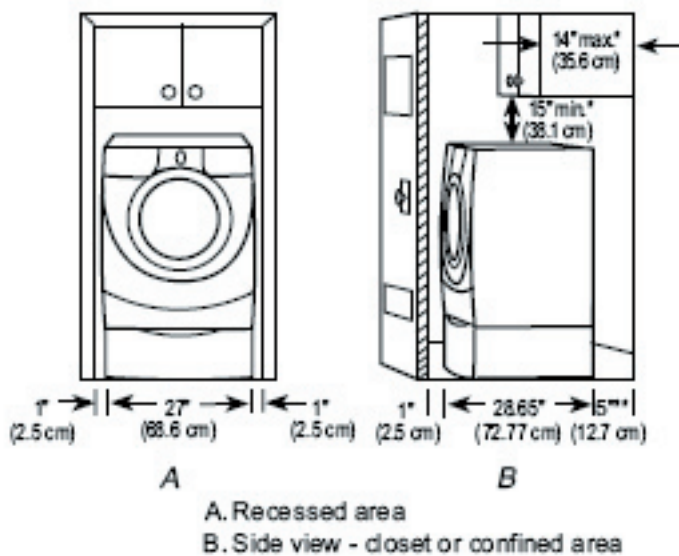


A. Side view - closet or confined area
B. Closet door with vents

* Required spacing

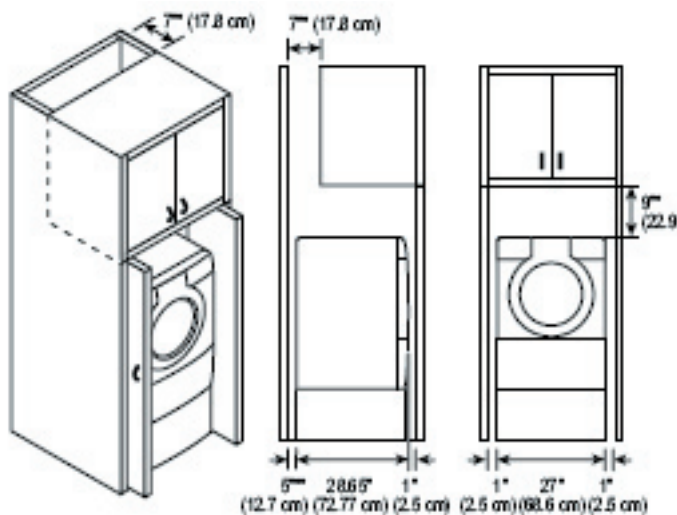
** For side or bottom venting, 0" (0 cm) spacing is allowed.

Recessed or closet installation - Dryer on pedestal



Installation spacing for cabinet installation

- The dimensions shown are for the recommended spacing.
- For cabinet installation, with a door, minimum ventilation openings in the top of the cabinet are required.



* Required spacing

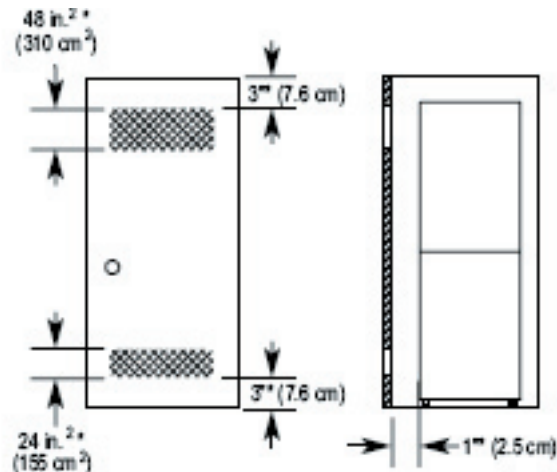
** For side or bottom venting, 0" (0 cm) spacing is allowed.

* Required spacing

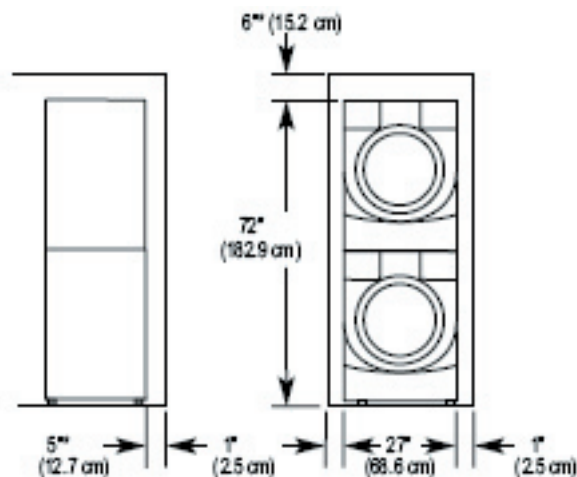
** For side or bottom venting, 0" (0 cm) spacing is allowed.

Recommended installation spacing for recessed or closet installation with stacked washer and dryer

The dimensions shown are for the recommended spacing



* Required spacing



* Required spacing

Mobile home - additional installation requirements

This dryer is suitable for mobile home installations. The installation must conform to the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 (formerly the Federal Standard for Mobile Home Construction and Safety, Title 24, HUD Part 280).

Mobile home installations require:

- Metal exhaust system hardware, which is available for purchase from your dealer.
- Special provisions must be made in mobile homes to introduce outside air into the dryer. The opening (such as a nearby window) should be at least twice as large as the dryer exhaust opening.

ELECTRICAL REQUIREMENTS

Electric Models Only

It is your responsibility

- To contact a qualified electrical installer.
- To be sure that the electrical connection is adequate and in conformance with the National Electrical Code, ANSI/NFPA 70-latest edition and all local codes and ordinances.

The National Electric Code requires a 4-wire supply connection for homes built after 1996, dryer circuits involved in remodeling after 1996, and all mobile home installations.

A copy of the above code standards can be obtained from: National Fire Protection Association, One Batterymarch Park, Quincy, MA 02269.

- To supply the required 3 or 4 wire, single phase, 120/240 volt, 60-Hz., AC-only electrical supply (or 3 or 4 wire, 120/208 volt electrical supply, if specified on the serial/rating plate) on a separate 30-amp circuit, fused on both sides of the line. A time-delay fuse or circuit breaker is recommended. Connect to an individual branch circuit. Do not have a fuse in the neutral or grounding circuit.
- Do not use an extension cord.
- If codes permit and a separate ground wire is used, it is recommended that a qualified electrician determine that the ground path is adequate.

Electrical Connection

To properly install your dryer, you must determine the type of electrical connection you will be using and follow the instructions provided for it here.

- If local codes do not permit the connection of a neutral ground wire to the neutral wire, see “Optional 3-wire connection” section.
- This dryer is manufactured ready to install with a 3-wire electrical supply connection. The neutral ground wire is permanently connected to the neutral conductor (white wire) within the dryer. If the dryer is installed with a 4-wire electrical supply connection, the neutral ground wire must be removed from the external ground conductor screw (green screw), and secured under the neutral terminal (center or white wire) of the terminal block. When the neutral ground wire is secured under the neutral terminal (center or white wire) of the terminal block, the dryer cabinet is isolated from the neutral conductor.
- A 4-wire power supply connection must be used when the appliance is installed in a location where grounding through the neutral conductor is prohibited. Grounding through the neutral is prohibited for (1) new branch-circuit installations, (2) mobile homes, (3) recreational vehicles, and (4) areas where local codes prohibit grounding through the neutral conductors.

If using a power supply cord:

Use a UL listed power supply cord kit marked for use with clothes dryers. The kit should contain:

- A UL listed 30-amp power supply cord, rated 120/240-volt minimum. The cord should be type SRD or SRDT and be at least 4 ft (1.22 m) long. The wires that connect to the dryer must end in ring terminals or spade terminals with upturned ends.
- A UL listed strain relief.

If your outlet looks like this:



4-wire receptacle (14-30R)

Then choose a 4-wire power supply cord with ring or spade terminals and UL listed strain relief. The 4-wire power supply cord, at least 4 ft (1.22 m) long, must have 4, 10-gauge copper wires and match a 4-wire receptacle of NEMA Type 14-30R. The ground wire (ground conductor) may be either green or bare. The neutral conductor must be identified by a white cover.

If your outlet looks like this:



3-wire receptacle (10-30R)

Then choose a 3-wire power supply cord with ring or spade terminals and UL listed strain relief. The 3-wire power supply cord, at least 4 ft (1.22 m) long, must have 3, 10-gauge copper wires and match a 3-wire receptacle of NEMA Type 10-30R.

If connecting by direct wire:

Power supply cable must match power supply (4-wire or 3-wire) and be:

- Flexible armored cable or nonmetallic sheathed copper cable (with ground wire), protected with flexible metallic conduit. All current-carrying wires must be insulated.
- 10-gauge solid copper wire (do not use aluminum).
- At least 5 ft (1.52 m) long.

GROUNDING INSTRUCTIONS

- For a grounded, cord-connected dryer:
This dryer must be grounded. In the event of malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This dryer uses a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- For a permanently connected dryer:
This dryer must be connected to a grounded metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the dryer.

WARNING: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative or personnel if you are in doubt as to whether the dryer is properly grounded. Do not modify the plug on the power supply cord: if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

ELECTRICAL CONNECTION

Electric Models Only

POWER SUPPLY CORD

⚠ WARNING



Fire Hazard

Use a new UL listed 30 amp power supply cord.

Use a UL listed strain relief.

Disconnect power before making electrical connections.

Connect neutral wire (white or center wire) to center terminal (silver).

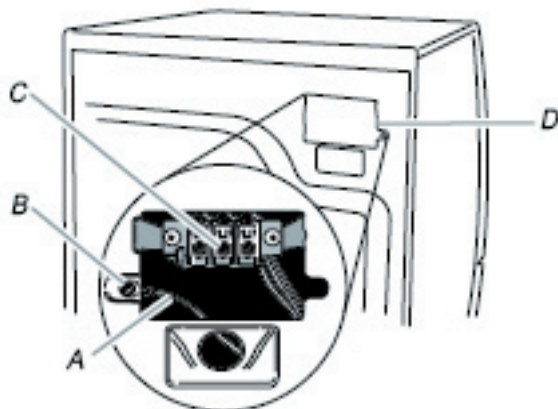
Ground wire (green or bare wire) must be connected to green ground connector.

Connect remaining 2 supply wires to remaining 2 terminals (gold).

Securely tighten all electrical connections.

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

1. Disconnect power.
2. Remove the hold-down screw and termi-



- A. Neutral ground wire
B. External ground conductor screw
C. Center, silver-colored terminal block screw
D. Terminal block cover and hold-down screw

3. Install strain relief.

DIRECT WIRE

⚠ WARNING



Fire Hazard

Use 10 gauge solid copper wire.

Use a UL listed strain relief.

Disconnect power before making electrical connections.

Connect neutral wire (white or center wire) to center terminal (silver).

Ground wire (green or bare wire) must be connected to green ground connector.

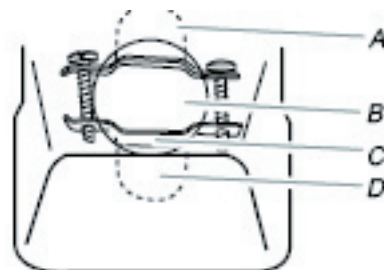
Connect remaining 2 supply wires to remaining 2 terminals (gold).

Securely tighten all electrical connections.

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

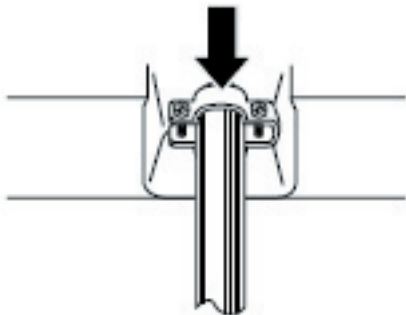
Style 1: Power supply cord strain relief

- Remove the screws from a 3/4" (1.9 cm) UL listed strain relief (UL marking on strain relief). Put the tabs of the two clamp sections into the hole below the terminal block opening so that one tab is pointing up and the other is pointing down, and hold in place. Tighten strain relief screws just enough to hold the two clamp sections together.



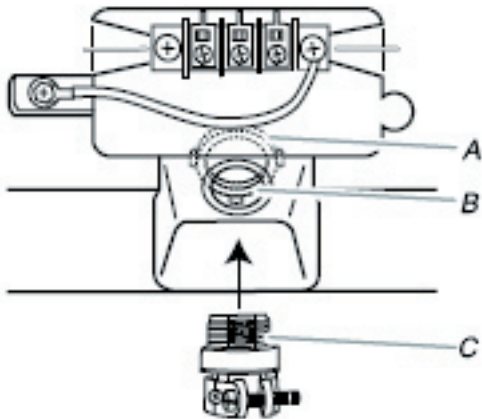
- A. Strain relief tab pointing up
B. Hole below terminal block opening
C. Clamp section
D. Strain relief tab pointing down

- Put power supply cord through the strain relief. Be sure that the wire insulation on the power supply cord is inside the strain relief. The strain relief should have a tight fit with the dryer cabinet and be in a horizontal position. Do not further tighten strain relief screws at this point.



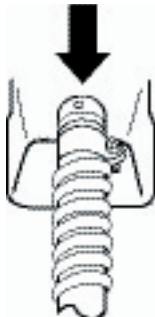
Style 2: Direct wire strain relief

- Unscrew the removable conduit connector and any screws from a 3/4" (1.9 cm) UL listed strain relief (UL marking on strain relief). Put the threaded section of the strain relief through the hole below the terminal block opening. Reaching inside the terminal block opening, screw the removable conduit connector onto the strain relief threads.







A. Removable conduit connector
 B. Hole below terminal block opening
 C. Strain relief threads

- Put direct wire cable through the strain relief. The strain relief should have a tight fit with the dryer cabinet and be in a horizontal position. Tighten strain relief screw against the direct wire cable.



- Now complete installation following instructions for your type of electrical connection:

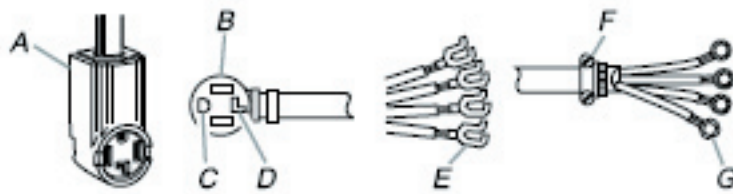
4-wire (recommended)
3-wire (if 4-wire is not available)

If your home has:	And you will be connecting to:	Go to Section
4-wire receptacle (NEMA Type 14-30R) 	A UL listed, 120/240-volt minimum, 30-amp, dryer power supply cord*	4-wire connection: Power supply cord
4-wire direct 	A fused disconnect or circuit breaker box*	4-wire connection: Direct Wire
3-wire receptacle (NEMA type 10-30R) 	A UL listed, 120/240-volt minimum, 30-amp, dryer power supply cord*	3-wire connection: Power supply cord
3-wire direct 	A fused disconnect or circuit breaker box*	3-wire connection: Direct Wire

* If local codes do not permit the connection of a cabinet-ground conductor to the neutral wire, go to "Optional 3-wire connection" section.

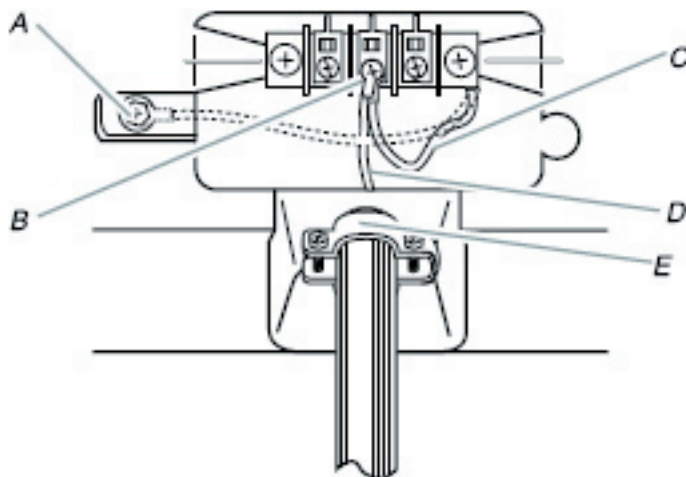
4-wire connection: Power supply cord

IMPORTANT: A 4-wire connection is required for mobile homes and where local codes do not permit the use of 3-wire connections.



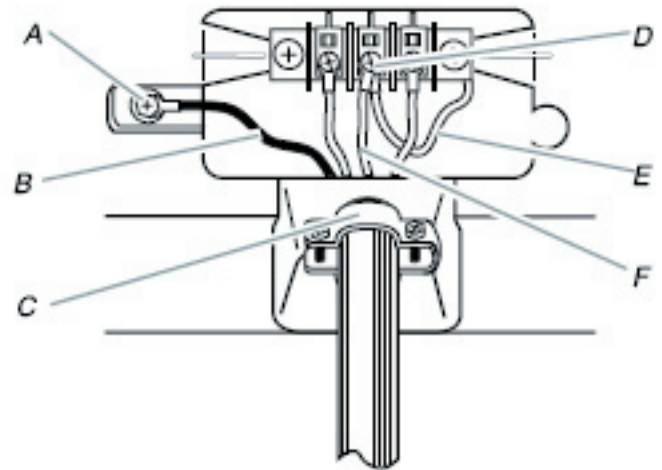
A. 4-wire receptacle (NEMA type 14-30R)
 B. 4-prong plug
 C. Ground prong
 D. Neutral prong
 E. Spade terminals with upturned ends
 F. $\frac{3}{4}$ " (1.9 cm) UL listed strain relief
 G. Ring terminals

1. Remove center silver-colored terminal block screw.
2. Remove neutral ground wire from external ground conductor screw. Connect neutral ground wire and the neutral wire (white or center wire) of power supply cord under center, silver-colored terminal block screw. Tighten screw.



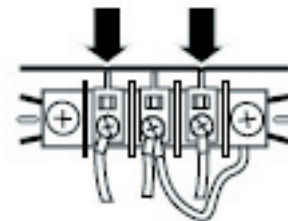
A. External ground conductor screw - Dotted line shows position of NEUTRAL ground wire before being moved to center silver-colored terminal block screw
 B. Center silver-colored terminal block screw
 C. Neutral ground wire
 D. Neutral wire (white or center wire)
 E. $\frac{3}{4}$ " (1.9 cm) UL listed strain relief

3. Connect ground wire (green or bare) of power supply cord to external ground conductor screw. Tighten screw.



A. External ground conductor screw
 B. Ground wire (green or bare) of power supply cord
 C. $\frac{3}{4}$ " (1.9 cm) UL listed strain relief
 D. Center silver-colored terminal block screw
 E. Neutral ground wire
 F. Neutral wire (white or center wire)

4. Connect the other wires to outer terminal block screws. Tighten screws.



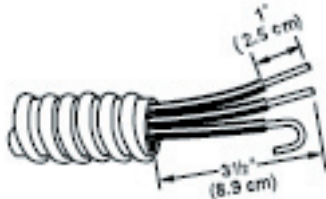
5. Tighten strain relief screws.
6. Insert tab of terminal block cover into slot of dryer rear panel. Secure cover with hold-down screw.
7. You have completed your electrical connection. Now go to "Venting Requirements."

3-wire connection: Direct wire

Use where local codes permit connecting cabinet-ground conductor to neutral wire.

Direct wire cable must have 5 ft (1.52 m) of extra length so dryer can be moved if needed.

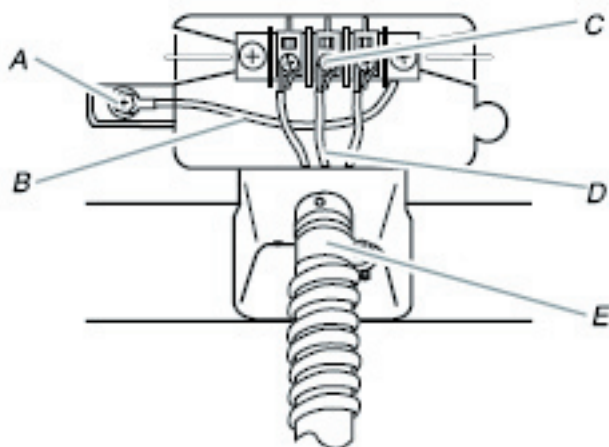
Strip 3-1/2" (8.9 cm) of outer covering from end of cable. Strip insulation back 1" (2.5 cm). If using 3-wire cable with ground wire, cut bare wire even with outer covering. Shape ends of wires into a hook shape.



When connecting to the terminal block, place the hooked end of the wire under the screw of the terminal block (hook facing right), squeeze hooked end together and tighten screw, as shown.

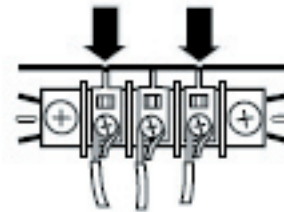


1. Loosen or remove center silver-colored terminal block screw.
2. Place the hooked end of the neutral wire (white or center wire) of direct wire cable under the center screw of terminal block (hook facing right). Squeeze hooked end together. Tighten screw.



- A. External ground conductor screw
B. Neutral ground wire
C. Center silver-colored terminal block screw
D. Neutral wire (white or center wire)
E. 3/4" (1.9 cm) UL listed strain relief

3. Place the hooked ends of the other direct wire cable wires under the outer terminal block screws (hooks facing right). Squeeze hooked ends together. Tighten

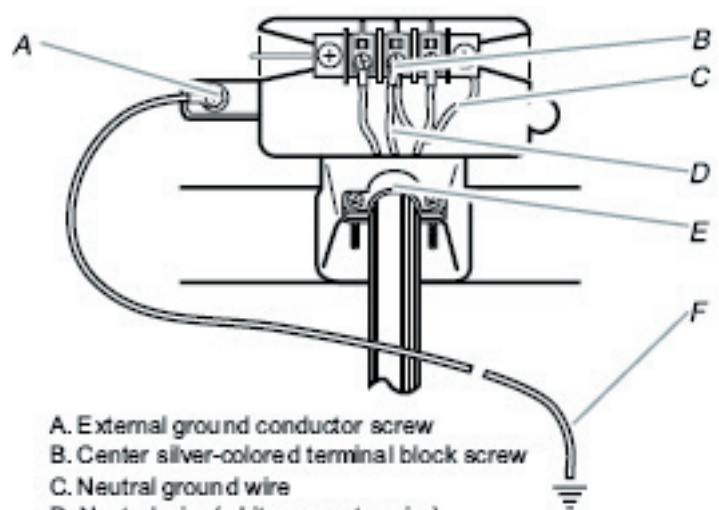


4. Tighten strain relief screw.
5. Insert tab of terminal block cover into slot of dryer rear panel. Secure cover with hold-down screw.
6. You have completed your electrical connection. Now go to "Venting Require-

Optional 3-wire connection

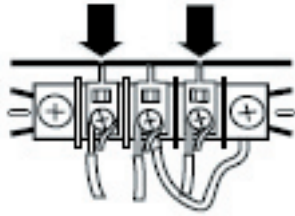
Use for direct wire or power supply cord where local codes do not permit connecting cabinet-ground conductor to neutral wire.

1. Remove center silver-colored terminal block screw.
2. Remove neutral ground wire from external ground conductor screw. Connect neutral ground wire and the neutral wire (white or center wire) of power supply cord/cable under center, silver-colored terminal block screw. Tighten screw.



- A. External ground conductor screw
B. Center silver-colored terminal block screw
C. Neutral ground wire
D. Neutral wire (white or center wire)
E. 3/4" (1.9 cm) UL listed strain relief
F. Grounding path determined by a qualified electrician

3. Connect the other wires to outer terminal block screws. Tighten screws.




4. Tighten strain relief screws.
5. Insert tab of terminal block cover into slot of dryer rear panel. Secure cover with hold-down screw.
6. Connect a separate copper ground wire from the external ground conductor screw to an adequate ground.
7. You have completed your electrical connection. Now go to "Venting Requirements."

ELECTRICAL REQUIREMENTS

Gas Models Only

⚠ WARNING



Electrical Shock Hazard

Plug into a grounded 3 prong outlet.
Do not remove ground prong.
Do not use an adapter.
Do not use an extension cord.
Failure to follow these instructions can result in death, fire, or electrical shock.

- 120 Volt, 60 Hz., AC only, 15- or 20-amp fused electrical supply is required. A time-delay fuse or circuit breaker is recommended. It is also recommended that a separate circuit serving only this dryer be provided.

GROUNDING INSTRUCTIONS


- For a grounded, cord-connected dryer:

This dryer must be grounded. In the event of malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This dryer is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative or personnel if you are in doubt as to whether the dryer is properly grounded. Do not modify the plug provided with the dryer: if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

GAS SUPPLY REQUIREMENTS

⚠ WARNING



Explosion Hazard

Use a new CSA International approved gas supply line.
Install a shut-off valve.
Securely tighten all gas connections.
If connected to LP, have a qualified person make sure gas pressure does not exceed 13" (33 cm) water column.
Examples of a qualified person include: licensed heating personnel, authorized gas company personnel, and authorized service personnel.
Failure to do so can result in death, explosion, or fire.

Gas Type

Natural gas:

This dryer is equipped for use with Natural gas. It is design-certified by CSA International for LP (propane or butane) gases with appropriate conversion.

This dryer must have the correct burner for the type of gas in your home. Burner information is located on the rating plate in the door well of your dryer. If this information does not agree with the type of gas available, contact your dealer or call the phone numbers referenced in the "Assistance or Service" section of the "Use & Care Guide."

LP gas conversion:

Conversion must be made by a qualified technician.

No attempt shall be made to convert the appliance from the gas specified on the model/serial rating plate for use with a different gas without consulting the gas company.

Gas supply line

- 1/2" IPS pipe is recommended.
- 3/8" approved tubing is acceptable for lengths under 20 ft (6.1 m) if local codes and gas supplier permit.
- Must include 1/8" NPT minimum plugged tapping accessible for test gauge connection, immediately upstream of the gas connection to the dryer (see illustration in the right column).
- Must include a shutoff valve:

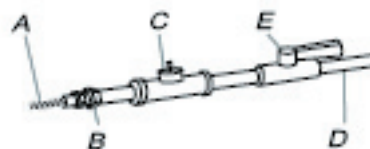
In the U.S.A.:

An individual manual shutoff valve must be installed within six (6) feet (1.8 m) of the dryer in accordance with the National Fuel Gas Code, ANSI Z223.1.

In Canada:

An individual manual shutoff valve must be installed in accordance with the B149.1, Natural Gas and Propane Installation Code. It is recommended that an individual manual shutoff valve be installed within six (6) feet (1.8 m) of the dryer.

The location should be easy to reach for opening and closing.



- A. 3/4" flexible gas connector
- B. 3/4" pipe to flare adapter fitting
- C. 1/4" NPT minimum plugged tapping
- D. 1/2" NPT gas supply line
- E. Gas shutoff valve

Gas supply connection requirements

- For close clearances, a 3/8" to 3/8" elbow is recommended to avoid kinking of the gas line.
- Use only pipe-joint compound. Do not use TEFLON[†] tape.

There are many methods by which your gas dryer can be connected to the gas supply. Listed here are some guidelines for two different methods of connection.

Option 1 (Recommended method)

Flexible stainless steel gas connector:

- If local codes permit, use a new flexible stainless steel gas connector (Design Certified by CSA International) to connect the dryer to the rigid gas supply line. Use an elbow and a 3/8" flare x 3/8" NPT adapter fitting between the stainless steel gas connector and the dryer gas pipe, as needed to avoid kinking.

[†] TEFLON is a registered trademark of E.I. Du Pont De Nemours and Company.

Option 2 (Alternate method)

Approved aluminum or copper tubing:

- Lengths under 20 ft (6.1 m) can use 3/8" approved tubing (if codes and gas supplier permit).
- If you are using Natural gas, do not use copper tubing.
- 3/8" flare x 3/8" NPT adapter fitting between dryer pipe and 3/8" approved tubing.
- Lengths over 20 ft (6.1 m) should use larger tubing and a different size adapter fitting.
- If the dryer has been converted to use LP gas, 3/8" LP compatible copper tubing can be used. If the total length of the supply line is more than 20 ft (6.1 m), use larger tubing.

NOTE: Pipe-joint compounds that resist the action of LP gas must be used. Do not use TEFLON^{®†} tape.

[†]® TEFLON is a registered trademark of E.I. Du Pont De Nemours and Company.

Burner input requirements

Elevations up to 10,000 ft (3,048 m):

- The design of this dryer is certified by CSA International for use at altitudes up to 10,000 ft (3,048 m) above sea level at the Btu rating indicated on the model/serial number plate. Burner input adjustments are not required when the dryer is operated up to this elevation.

Elevations above 10,000 ft (3,048 m):

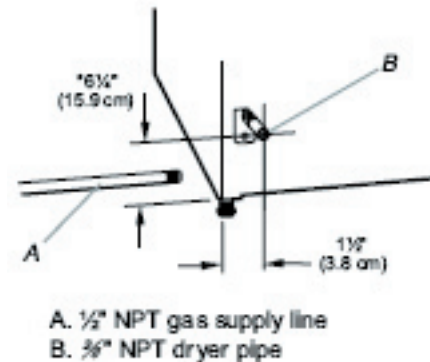
- When installed above 10,000 ft (3,048 m) a 4% reduction of the burner Btu rating shown on the model/serial number plate is required for each 1,000 ft (305 m) increase in elevation.

Gas supply pressure testing

- The dryer must be disconnected from the gas supply piping system during pressure testing at pressures greater than 1/2 psi.

Dryer gas pipe

- The gas pipe that comes out through the rear of your dryer has a 3/8" male pipe thread.



***NOTE:** If the dryer is mounted on a pedestal, the gas pipe height must be an additional 10" (25.4 cm) or 15.5" (39.4 cm) from the floor, depending on the pedestal model. For a garage installation, the gas pipe height must be an additional 18" (46 cm) from the floor.

VENTING REQUIREMENTS

⚠ WARNING



Fire Hazard

Use a heavy metal vent.

Do not use a plastic vent.

Do not use a metal foil vent.

Failure to follow these instructions can result in death or fire.

WARNING: To reduce the risk of fire, this dryer **MUST BE EXHAUSTED OUTDOORS.**

IMPORTANT: Observe all governing codes and ordinances.

The dryer exhaust must not be connected into any gas vent, chimney, wall, ceiling, or a concealed space of a building.

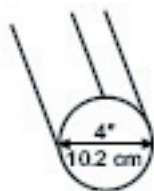
If using an existing vent system

- Clean lint from the entire length of the system and make sure exhaust hood is not plugged with lint.
- Replace any plastic or metal foil vent with rigid or flexible heavy metal vent.
- Review Vent system chart. Modify existing vent system if necessary to achieve the best drying performance.

If this is a new vent system

Vent Material

- Use a heavy metal vent. Do not use plastic or metal foil vent.
- 4" (10.2 cm) heavy metal exhaust vent and clamps must be used. DURASAFE™ venting products are recommended.



4" (10.2 cm) heavy metal exhaust vent

DURASAFE™ vent products can be purchased from your dealer or by calling Whirlpool Parts and Accessories.

Rigid metal vent

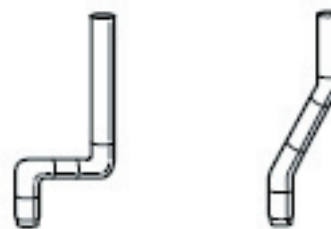
- For best drying performance, rigid metal vents are recommended.
- Rigid metal vent is recommended to prevent crushing and kinking.

Flexible metal vent

- Flexible metal vents are acceptable only if accessible for cleaning.
- Flexible metal vent must be fully extended and supported when the dryer is in its final position.
- Remove excess flexible metal vent to avoid sagging and kinking that may result in reduced airflow and poor performance.
- Do not install flexible metal vent in enclosed walls, ceilings or floors.

Elbows

45° elbows provide better airflow than 90° elbows



Good

Better

Clamps

- Use clamps to seal all joints.
- Exhaust vent must not be connected or secured with screws or other fastening devices that extend into the interior of the duct. Do not use duct tape.

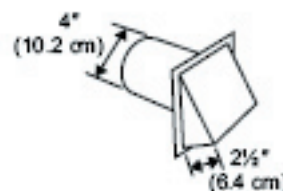


Exhaust

Recommended hood styles are shown here.



The angled hood style (shown here) is acceptable.



- An exhaust hood should cap the vent to prevent rodents and insects from entering the home.
- Exhaust hood must be at least 12" (30.5 cm) from the ground or any object that may be in the path of the exhaust (such as flowers, rocks or bushes, snow line, etc.).

- Do not use an exhaust hood with a magnetic latch.

Improper venting can cause moisture and lint to collect indoors, which may result in:

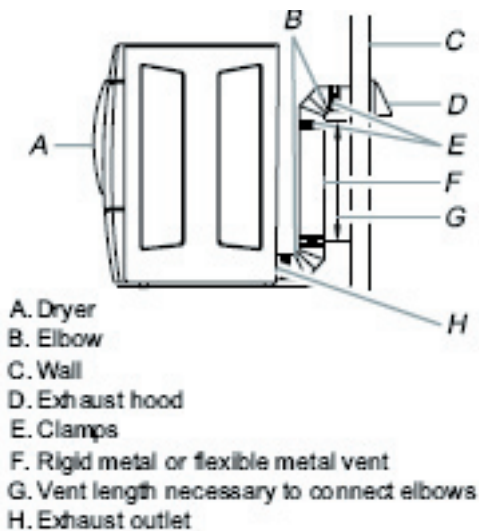
- Moisture damage to woodwork, furniture, paint, wallpaper, carpets, etc.
- Housecleaning problems and health problems.

PLAN VENT SYSTEM

Choose your exhaust installation type

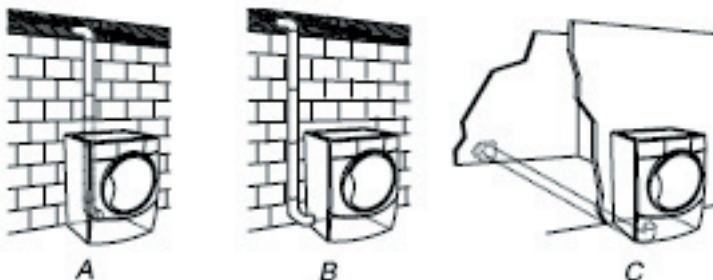
Recommended exhaust installations

Typical installations vent the dryer from the rear of the dryer. Other installations are possible.



Optional exhaust installations

This dryer can be converted to exhaust out the right side, left side, or through the bottom. Contact your local dealer to have the dryer converted.



⚠ WARNING



Fire Hazard

Cover unused exhaust holes with the following kit:

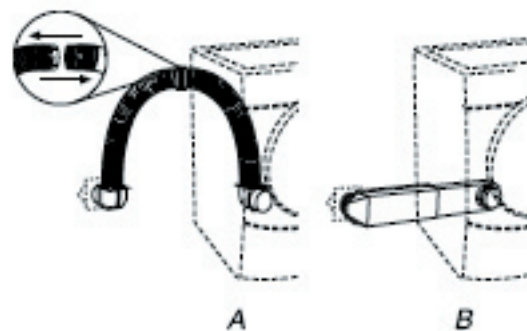
279818 (white)

Contact your local dealer.

Failure to follow these instructions can result in death, fire, electrical shock, or serious injury.

Alternate installations for close clearances

Venting systems come in many varieties. Select the type best for your installation. Two close-clearance installations are shown. Refer to the manufacturer's instructions.

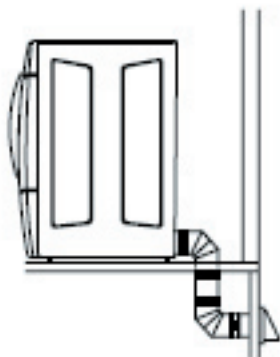


NOTE: The following kits for close clearance alternate installations are available for purchase.

- Over-the-top Installation:
Part Number **4396028**
- Periscope Installation (For use with dryer vent to wall vent mismatch):
Part Number **4396037** - 0" (0 cm) to 18" (45.72 cm) mismatch
Part Number **4396011** - 18" (45.72 cm) to 29" (73.66 cm) mismatch
Part Number **4396014** - 29" (73.66 cm) to 50" (127 cm) mismatch

Special provisions for mobile home installations

The exhaust vent must be securely fastened to a noncombustible portion of the mobile home structure and must not terminate beneath the mobile home. Terminate the exhaust vent outside.



Determine vent path

- Select the route that will provide the straightest and most direct path outdoors.
- Plan the installation to use the fewest number of elbows and turns.
- When using elbows or making turns, allow as much room as possible.
- Bend vent gradually to avoid kinking.
- Use the fewest 90° turns possible.

Determine vent length and elbows needed for best drying performance

- Use the following Vent system chart to determine type of vent material and hood combinations acceptable to use.

NOTE: Do not use vent runs longer than those specified in the Vent system chart. Exhaust systems longer than those specified will:

- Shorten the life of the dryer.
Reduce performance, resulting in longer drying times and increased energy usage.

The Vent system chart provides venting requirements that will help to achieve the best drying performance.

Vent System Chart

NOTE: Side and bottom exhaust installations have a 90° turn inside the dryer. To determine maximum exhaust length, add one 90° turn to the chart.

Number of 90° turns or elbows	Type of vent	Box or louvered hoods	Angled hoods
0	Rigid metal	64 ft (20 m)	58 ft (17.7 m)
	Flexible metal	36 ft (11 m)	28 ft (8.5 m)
1	Rigid metal	54 ft (16.5 m)	48 ft (14.6 m)
	Flexible metal	31 ft (9.4 m)	23 ft (7 m)
2	Rigid metal	44 ft (13.4 m)	38 ft (11.6 m)
	Flexible metal	27 ft (8.2 m)	19 ft (5.8 m)
3	Rigid metal	35 ft (10.7 m)	29 ft (8.8 m)
	Flexible metal	25 ft (7.6 m)	17 ft (5.2 m)
4	Rigid metal	27 ft (8.2 m)	21 ft (6.4 m)
	Flexible metal	23 ft (7 m)	15 ft (4.6 m)

INSTALL VENT SYSTEM

1. Install exhaust hood. Use caulking compound to seal exterior wall opening around exhaust hood.
2. Connect vent to exhaust hood. Vent must fit inside exhaust hood. Secure vent to exhaust hood with 4" (10.2 cm) clamp.
3. Run vent to dryer location. Use the straightest path possible. See "Determine vent path." Avoid 90° turns. Use clamps to seal all joints. Do not use duct tape, screws or other fastening devices that extend into the interior of the vent to secure vent.

INSTALL LEVELING LEGS

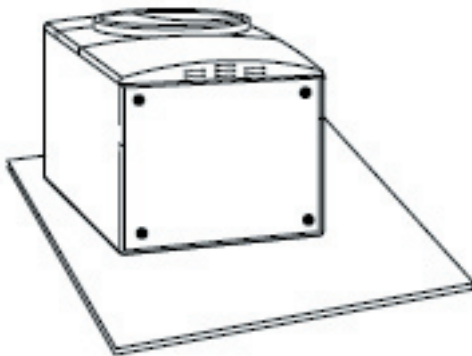
⚠ WARNING

Excessive Weight Hazard

Use two or more people to move and install dryer.

Failure to do so can result in back or other injury.

1. To protect the floor, use a large flat piece of cardboard from the dryer carton. Place cardboard under the entire back edge of the dryer.
2. Firmly grasp the body of the dryer. Gently lay the dryer on the cardboard. See illustration.



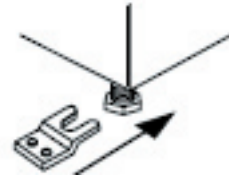
3. Examine the leveling legs. Find the diamond marking.



4. Screw the legs into the leg holes by hand. Use a wrench to finish turning the legs until the diamond marking is no longer visible.
5. Place a carton corner post from dryer packaging under each of the 2 dryer back corners. Stand the dryer up. Slide the dryer on the corner posts until it is close to its final location. Leave enough room to connect the exhaust vent.

For mobile home use

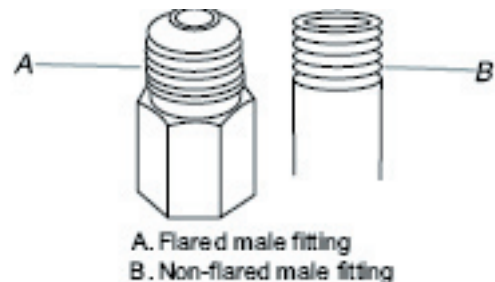
Gas dryers must be securely fastened to the floor at the time of installation.



Mobile home installations require a Mobile Home Installation Kit. For more information, please reference the service numbers in the "Assistance or Service" section of the "Use & Care Guide."

MAKE GAS CONNECTION

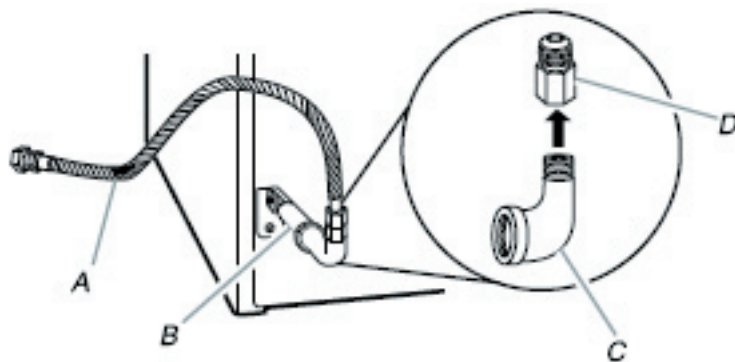
1. Remove the red cap from the gas pipe.
2. Using a wrench to tighten, connect the gas supply to the dryer. Use pipe-joint compound on the threads of all nonflared male fittings. If flexible metal tubing is used, be sure there are no kinks.



NOTE: For LP gas connections, you must use pipe-joint compound resistant to the action of LP gas. Do not use TEFLON[†] tape.

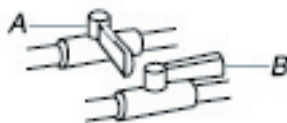
[†] TEFLON is a registered trademark of E.I. Du Pont De Nemours and Company.

A combination of pipe fittings must be used to connect the dryer to the existing gas line. Shown is a recommended connection. Your connection may be different, according to the supply line type, size and location.



A. 3/8" flexible gas connector
B. 3/8" dryer pipe
C. 3/8" to 1/2" pipe elbow
D. 3/8" pipe-to-flare adapter fitting

3. Open the shutoff valve in the supply line. The valve is open when the handle is parallel to the gas pipe.



A. Closed valve
B. Open valve

4. Test all connections by brushing on an approved noncorrosive leak-detection solution. Bubbles will show a leak. Correct any leak found.

CONNECT VENT

1. Using a 4" (10.2 cm) clamp, connect vent to exhaust outlet in dryer. If connecting to existing vent, make sure the vent is clean. The dryer vent must fit over the dryer exhaust outlet and inside the exhaust hood. Make sure the vent is secured to exhaust hood with a 4" (10.2 cm) clamp.
2. Move dryer into its final position. Do not crush or kink vent.
3. (On gas models) Check that there are no kinks in the flexible gas line.
4. Once exhaust vent connection is made, remove corner posts and cardboard.

LEVEL DRYER

Check the levelness of the dryer. Check levelness first side to side, then front to back.



If the dryer is not level, prop up the dryer using a wood block. Use a wrench to adjust the legs up or down and check again for levelness.

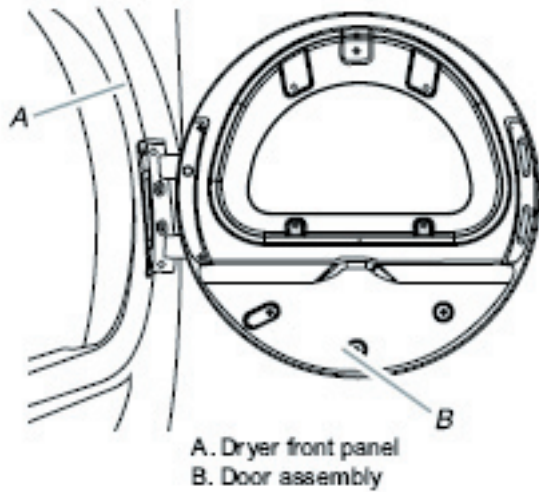
REVERSE DOOR SWING

You can change your door swing from a right-side opening to a left-side opening, if desired.

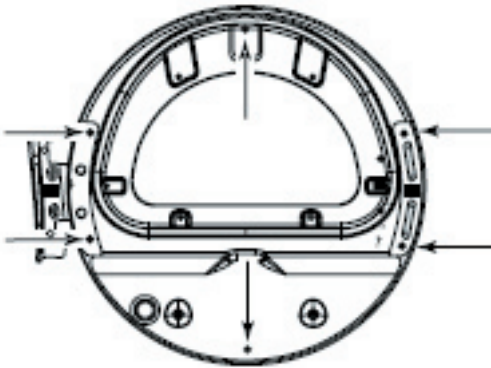
1. Place a towel or soft cloth on top of the dryer or work space to protect the surface.

Remove the door assembly

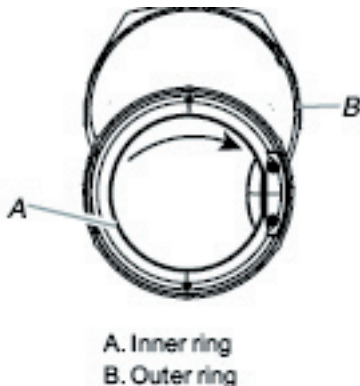
1. Remove the 4 screws that hold the door hinge on the front panel of the dryer.



2. Lay the door assembly on a flat, protected surface with the inside (inner door assembly) facing up.
3. Remove the 6 Phillips head screws to release the outer door assembly from the inner door assembly, as indicated below. See illustration. It is important that you remove only the 6 indicated screws.



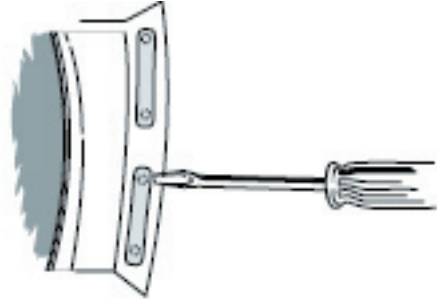
4. Lift the inner door assembly off the outer door assembly.
5. Disengage locking tabs by rotating inner ring clockwise. See illustration.



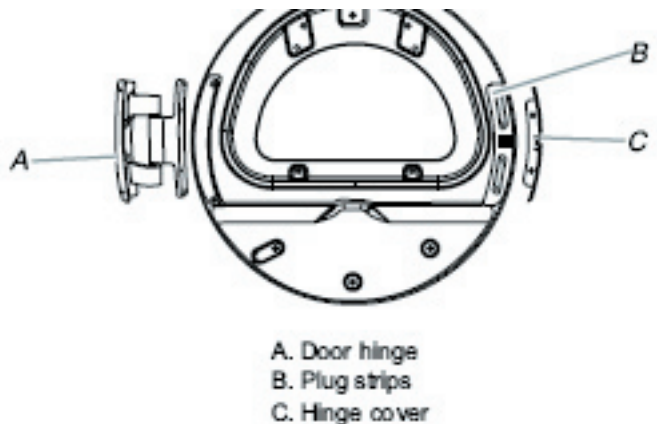
6. Turn inner ring 180° and lock tabs into place.

Reverse hinge

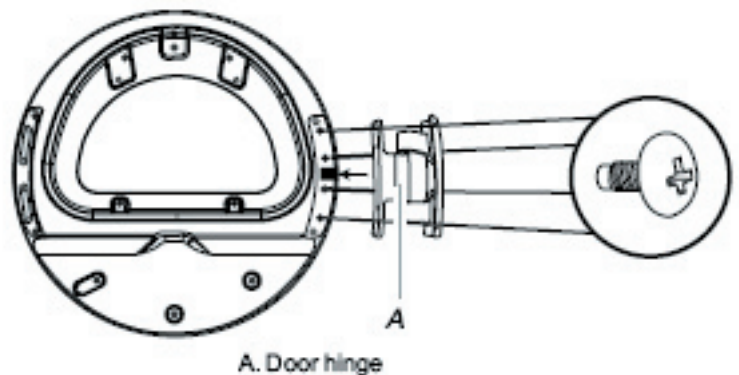
1. Use a small flat-blade screwdriver to remove 2 plug strips from the inner door. Slide the head of the screwdriver under the plugs, being certain not to scratch the inner door surface. Lift up.



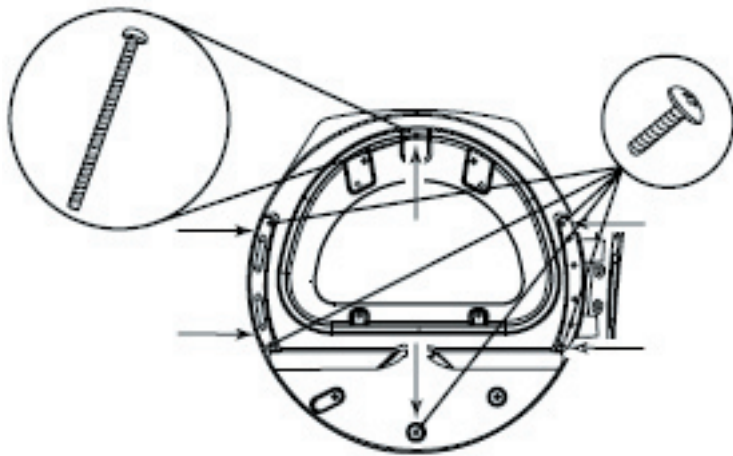
2. Remove hinge cover.



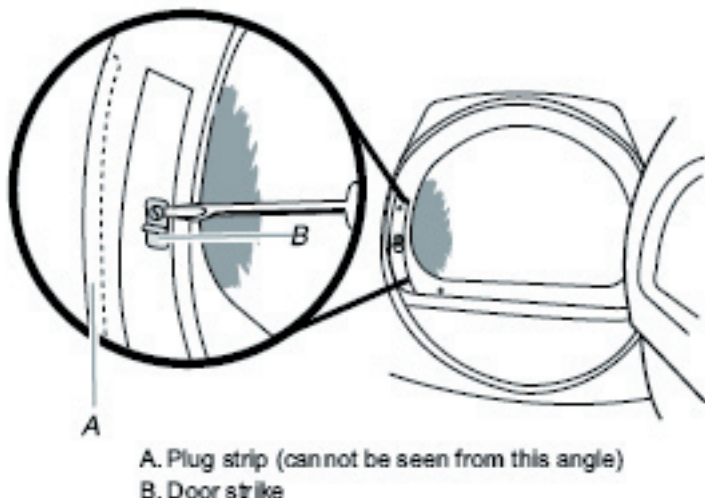
3. Remove the 4 screws that attach to the inner door hinge and move the hinge to the other side. Reinstall the 4 screws.



4. Reinstall plug strips on opposite side of the inner door.
5. Check for fingerprints on the glass. Clean glass if necessary.
6. Place the inner door assembly inside the outer door assembly. To fit correctly, the inner door assembly edge fits completely inside the outer door assembly edge.
7. Reassemble the inner and outer door assemblies with the 6 screws.

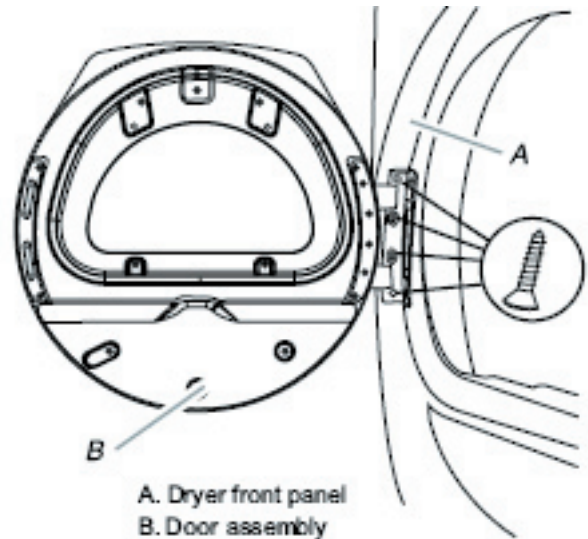


1. Use a small flat-blade screwdriver to remove plug strip from the dryer door opening. Slide the head of the screwdriver under the plugs, being certain not to scratch the dryer surface. Lift up.
2. Remove the strike.
3. Insert strike and plug strip on the opposite side.



Reinstall the door

1. Reattach door to dryer front panel with the 4 screws.



2. Check for fingerprints on the glass. Clean the glass if necessary.
3. Close door and check that it latches securely.

COMPLETE INSTALLATION

1. Check that all parts are now installed. If there is an extra part, go back through the steps to see which step was skipped.
2. Check that you have all of your tools.
3. Dispose of/recycle all packaging materials.
4. Check the dryer's final location. Be sure the vent is not crushed or kinked.
5. Check that the dryer is level. See "Level Dryer."
6. For power supply cord installation, plug into an outlet. For direct wire installation, reconnect power.

7. Remove any protective film on the console and any tape remaining on the dryer.
8. Read "Dryer Use" in the Dryer User Instructions.
9. Wipe the dryer drum interior thoroughly with a damp cloth to remove any dust.

For Electric Models Only

10. Select a Timed Dry heated cycle, and start the dryer. Do not select the Air Only modifier.

If the dryer will not start, check the following:

- Controls are set in a running or "On" position.
- Start button has been pushed firmly.
- Dryer is plugged into an outlet and/or electrical supply is connected.
- Household fuse is intact and tight, or circuit breaker has not tripped.

Dryer door is closed.

11. When the dryer has been running for 5 minutes, open the dryer door and feel for heat. If you feel heat, cancel cycle and close the door.

If you do not feel heat, turn off the dryer and check the following:

There may be 2 fuses or circuit breakers for the dryer. Check that both fuses are intact and tight, or that both circuit breakers have not tripped.

NOTE: You may notice a burning odor when the dryer is first heated. This odor is common when the heating element is first used. The

For Gas Models Only

12. Select a Timed Dry heated cycle, and start the dryer. Do not select the Air Only modifier.

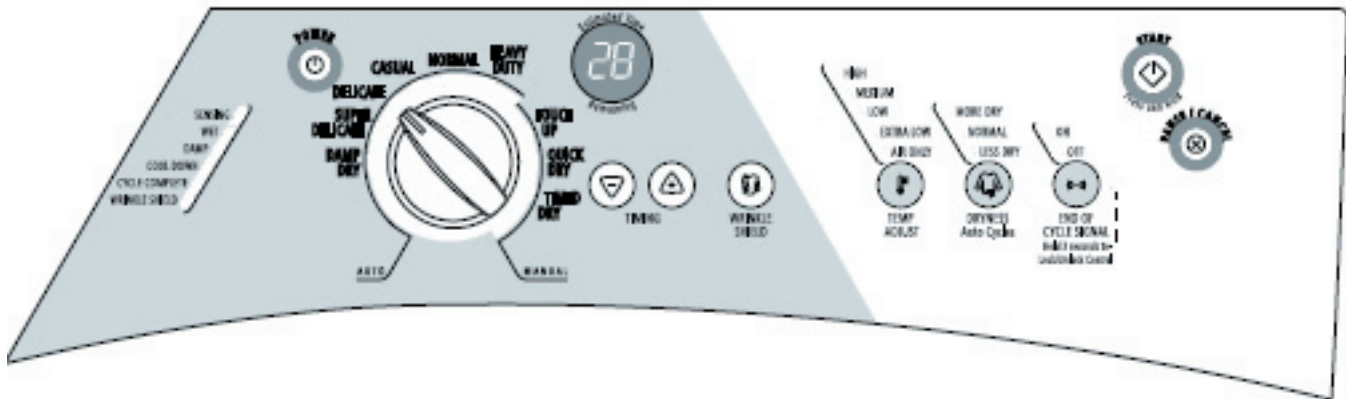
If the dryer will not start, check the following:

- Dryer is plugged into a grounded 3 prong outlet.
 - Electrical supply is connected.
 - Household fuse is intact and tight, or circuit breaker has not tripped.
 - Dryer door is closed.
13. When the dryer has been running for 5 minutes, open the dryer door and feel for heat. If you feel heat, cancel cycle and close door. If you do not feel heat, turn off the dryer and check that the gas supply line shutoff valve is open.
 - If the gas supply line shutoff valve is closed, open it, then repeat the 5-minute test as outlined above.
 - If the gas supply line shutoff valve is open, contact a qualified technician.

-NOTES-


PRODUCT OPERATION

DRYER USE



STARTING THE DRYER

⚠ WARNING



Explosion Hazard

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

Do not dry anything that has ever had anything flammable on it (even after washing).

Failure to follow these instructions can result in death, explosion, or fire.

⚠ WARNING



Fire Hazard

No washer can completely remove oil. Do not dry anything that has ever had any type of oil on it (including cooking oils).

Items containing foam, rubber, or plastic must be dried on a clothesline or by using an Air Cycle.

Failure to follow these instructions can result in death or fire.

WARNING: To reduce the risk of fire, electric shock, or injury to persons, read the IMPORTANT SAFETY INSTRUCTIONS before operating this appliance.

Follow these basic steps to start your dryer. Please refer to specific sections of this manual for more detailed information.

1. Clean lint screen before each load. See "Cleaning the Lint Screen."
2. Place laundry into dryer and shut door.
3. Press POWER.
4. Point the dial to an Auto or Manual Cycle. The preset settings for Auto or Manual Cycles will illuminate. The estimated (auto cycle) or actual (manual) cycle time (in minutes) will show in the display.

NOTE: A preset time is displayed when an automatic cycle is selected. During the first few minutes of the drying process, the cycle time may automatically vary from the preset time based on the size and fabric type of the load. Toward the end of the drying process, the estimated time display will adjust again, showing the final drying time.

To use an Auto Cycle

- Select an Auto Cycle. Auto cycles will default to the last dryness setting used for that cycle.
- Select DRYNESS to adjust how dry you want the load. The time displayed is an estimated length of the cycle based on the Dryness selected. As the cycle runs, the control senses the dryness of the load and adjusts the time automatically for the selected dryness level.

NOTE: Time is not adjustable for Automatic Cycles. Pressing the Timing Up or Down buttons will cause a triple beep, indicating that the time cannot be changed.

To make changes to the Dryness and/or Options during an Auto Cycle:

- Press PAUSE/CANCEL once.
- Adjust Dryness and/or Options.

NOTE: Dryness level selections can be made only while using Auto Cycles. Selecting More Dry, Normal or Less Dry automatically adjusts the sensed time needed.



Auto Dry cycles take the guesswork out of drying time and enhance fabric care. The amount of time that is displayed is the estimated time remaining in the cycle.

To use a Manual Cycle

- Point the dial to a Manual Cycle.
- Press TIMING Up or Down until the desired drying time is displayed. Tap TIMING Up or Down, and the time will change by 1-minute intervals. Press and hold TIMING Up or Down, and the time will change by 5-minute intervals.

NOTE: The Timing feature can be used only with Manual Cycles.



- Press TEMP ADJUST until the desired temperature illuminates.

To make changes to Time, Temperature, WRINKLE SHIELD™ feature and Cycle Signal during a Manual Cycle:

- Press PAUSE/CANCEL once.
 - Adjust the Time, Temperature, WRINKLE SHIELD™ feature and End of Cycle Signal.
5. (OPTIONAL STEP) If desired, select WRINKLE SHIELD™ feature. For more details, see "WRINKLE SHIELD™ Feature" in "Additional Features."
 6. (OPTIONAL STEP) The Cycle Signal is preset to ON. If desired, you may turn the Cycle Signal OFF.

7. Press and hold START for approximately 1 second until dryer starts. Be sure the door is closed.
 - If you do not press Start within 5 minutes of selecting a cycle, the dryer automatically shuts off.

STOPPING OR RESTARTING THE DRYER

To pause/stop the dryer at any time

Open the door or press PAUSE/CANCEL once.

To restart the dryer

Close the door. Press and hold START until dryer starts.

To cancel the dryer at any time

Press PAUSE/CANCEL twice.

NOTE: Drying will continue from where the cycle was interrupted if you close the door and press Start within 5 minutes. If the cycle is interrupted for more than 5 minutes, the dryer will shut off. Select new cycle settings before restarting the dryer.

LOCK CONTROLS

This feature allows you to lock your settings to avoid unintended use of the dryer. You can also use the control lock feature to avoid unintended cycle or option changes during dryer operation.

To enable the control lock feature:

Press and hold END OF CYCLE SIGNAL button for 3 seconds. The Lock/Unlock Control icon lights up, and a single beep tone is heard. To unlock, press and hold END OF CYCLE SIGNAL button for 3 seconds. The indicator light turns off.

DRYING AND CYCLE TIPS

Select the correct cycle and dryness level or temperature for your load. If an Auto Cycle is running, the display shows the estimated cycle

time when your dryer is automatically sensing the dryness level of your load. If a Manual Cycle is running, the display shows the exact number of minutes remaining in the cycle.

Cool Down tumbles the load without heat during the last few minutes of all cycles. Cool Down makes the loads easier to handle and reduces wrinkling. The length of the Cool Down depends on the load size and dryness level.

Drying tips

- Follow care label directions when they are available.
- If desired, add a fabric softener sheet. Follow package instructions.
- Remove the load from the dryer as soon as tumbling stops to reduce wrinkling. This is especially important for permanent press, knits and synthetic fabrics.
- Avoid drying heavy work clothes with lighter fabrics. This could cause overdrying of lighter fabrics, leading to increased shrinkage or wrinkling.

Cycle tips

- Dry most loads using the preset cycle settings.
- Refer to the Auto or Manual Preset Cycle Settings chart (in the “Cycles” section) for a guide to drying various loads.
 - Drying temperature and Dryness are preset when you choose an Auto Cycle. You can choose a different dryness level, depending on your load by pressing the DRYNESS button to select MORE DRY or LESS DRY.
 - If you wish to adjust the cycle length of a Manual Cycle, you must press TIMING Up or Down. Adjust the temperature of a Manual Cycle by pressing TEMP ADJUST until the desired temperature is selected.

NOTE: You cannot choose a Dryness Level with Manual Cycles.

STATUS LIGHTS

You may follow the progress of your dryer with the drying Status indicator lights.



Sensing

When a cycle is first turned on, the SENSING light illuminates until a wet item is detected.

- In an Auto Cycle, if a wet item has not been detected within 5 minutes, the Sensing light will turn off.
- In a Manual Cycle, if a wet item is not detected within 5 minutes, the Sensing light will turn off and the Damp light will turn on.

Wet

The WET light will turn on when a wet item has been detected in the dryer. The Wet light will remain on until:

- The damp dry point is reached in an Auto and Manual Cycle.

Damp

The DAMP light indicates that the load has reached the damp dry level.

Cool Down

The COOL DOWN light illuminates during the cool down part of the cycle. Laundry is cooling down for ease in handling.

Cycle Complete

This light illuminates when a drying cycle is finished. If the WRINKLE SHIELD™ feature has been selected, the WRINKLE SHIELD™ feature indicator light will also be illuminated.

The Cycle Complete light turns off 1 hour after the end of a drying cycle (including the WRINKLE SHIELD™ cycle of 90 minutes), when Pause/Cancel is pressed, or when the door is opened.

WRINKLE SHIELD™ Feature

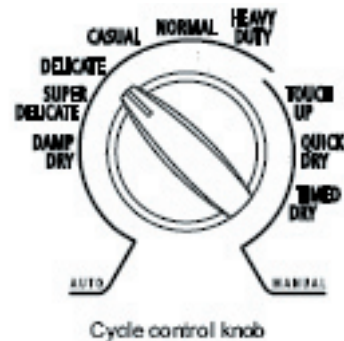
The WRINKLE SHIELD™ feature light illuminates when this option is selected. This indicator stays on with the Cycle Complete light.

Indicator lights

Other indicator lights on the control panel show when Cycle, Temp Adjust, and End of Cycle settings are selected.

CYCLES

Select the drying cycle that matches the type of load you are drying. See Auto Preset or Manual Preset Cycle Settings charts.



AUTO CYCLES

Auto Cycles allow you to match the cycle to the load you are drying. See the following Auto Preset Cycle Settings chart. Each cycle dries certain fabrics at the recommended temperature. A sensor detects the moisture in the load and automatically adjusts the drying time for optimal drying.

Heavy Duty

Use this cycle to get High heat for heavy fabrics such as cotton towels or bedspreads.

Normal

Use this cycle to get Medium heat for drying mixed loads and sturdy fabrics such as work clothes.

Casual

Use this cycle to get Low heat for drying no-iron fabrics such as sport shirts, casual business clothes and permanent press blends.

Delicate

Use this cycle to get Low heat for drying synthetic fabrics, washable knit fabrics and no-iron finishes.

Super Delicate

Use this cycle to get Extra Low heat to gently dry items such as lingerie, exercise wear or sheer curtains.

Damp Dry

Use this cycle to dry items to a damp level, or to dry items that do not require an entire drying cycle. Damp dry items such as jeans (to avoid stiffness) or cotton clothing (to make ironing easier). Choose a temperature setting based on the fabrics in your load. Items will have different levels of dampness. At the end of this cycle, clothes will be damp.

Auto Preset Cycle Settings

Auto Cycles Load Type	Temp.	Time* (Minutes)
HEAVY DUTY Heavyweight, towels	High	40
NORMAL Mixed loads, corduroys, work clothes, sheets	Medium	35
CASUAL Permanent press, synthetics	Low	35
DELICATE Lightweight items, blouses, synthetics	Low	30
SUPER DELICATE Lingerie	Extra Low	25
DAMP DRY Clothes to come out suitable for ironing	Low	20

Estimated time with AUTO DRYNESS (Normal) setting.

Time will vary depending on load type and load size.

MANUAL CYCLES

Use Manual Cycles to select a specific amount of drying time and a drying temperature. When a Manual Cycle is selected, the ESTIMATED TIME REMAINING display shows the actual time remaining in your cycle. You can change the actual time in the cycle by pressing TIMING Up or Down.

Timed Dry

Use this cycle to complete drying if items are still damp after an Auto Cycle. Timed Dry is also useful for drying heavyweight and bulky items such as bedspreads and work clothes.

Quick Dry

Use this cycle for drying small loads or loads that need a short drying time.

Touch Up

Use this setting to help smooth out wrinkles from such items as clothes packed in a suitcase or items wrinkled from being left in the dryer too long.

Manual Preset Cycle Settings

Manual Cycles Load Type	Temp.	Default Time (Minutes)
TIMED DRY Heavyweight, bulky items, bedspreads, work clothes	High*	40
QUICK DRY Small loads	Medium	27
TOUCH UP Helps smooth out wrinkles	Medium	20

* The Timed Dry cycle will default to the last temperature used for Timed Dry.

ADDITIONAL FEATURES

WRINKLE SHIELD™ Feature

The WRINKLE SHIELD™ feature helps smooth out wrinkles that form when you cannot unload the dryer promptly at the end of a cycle. During this option, the dryer stops tumbling and then tumbles again for a brief period.

- Press the WRINKLE SHIELD™ feature to get up to 90 minutes of heat-free, periodic tumbling at the end of a cycle.
- During the WRINKLE SHIELD™ feature, you may continue the option after opening and closing the dryer door by pushing START.
- Cancel at any time by pressing the WRINKLE SHIELD™ feature button.

NOTE: If you do not select the WRINKLE SHIELD™ feature, the dryer stops after the cool down period.

Temperature

Temperature settings are used with the Manual Cycles. Press TEMPADJUST until the desired temperature setting illuminates. Temperature modifiers cannot be used with the Auto Cycles.



Air Only

Use the Air Only modifier for items that require drying without heat such as rubber, plastic and heat-sensitive fabrics. This chart shows examples of items that can be dried using Air Only.

Type of Load	Time* (Minutes)
Foam rubber - pillows, padded bras, stuffed toys	20 - 30
Plastic - Shower curtains, tablecloths	20 - 30
Rubber-backed rugs	40 - 50
Olefin, polypropylene, sheer nylon	10 - 20

* Reset time to complete drying, if needed.

When using Air Only

- Check that coverings are securely stitched.
- Shake and fluff pillows by hand periodically during the cycle.
- Dry item completely. Foam rubber pillows are slow to dry.

NOTE: Auto Cycles are not available when you are using the Air Only setting.

End of Cycle Signal

The End of Cycle Signal produces an audible sound when the drying cycle is finished. Promptly removing clothes at the end of the cycle reduces wrinkling.



Press and release the END OF CYCLE SIGNAL to turn off the signal.

Hold the END OF CYCLE SIGNAL for 3 seconds to lock or unlock this control.

NOTE: When the WRINKLE SHIELD™ feature is selected and the End of Cycle Signal is on, an audible sound will be emitted every 5 minutes until the clothes are removed, or the WRINKLE SHIELD™ feature is finished.

CHANGING CYCLES, OPTIONS AND MODIFIERS

You can change Auto Cycles, Timed Cycles, Modifiers and Options anytime before pressing Start.

- Three short tones sound if an unavailable combination is selected. The last selection will not be accepted.

Changing Cycles after pressing Start

1. Press STOP twice. This ends the current cycle.
2. Select the desired cycle and options.
3. Press and hold START. The dryer starts at the beginning of the new cycle.

NOTE: If you do not press Start within 5 minutes of selecting the cycle, the dryer automatically shuts off.

Changing Modifiers and Options after pressing Start

You can change a Modifier or Option anytime before the selected Modifier or Option begins.

1. Press STOP once.
2. Select the new Modifier and/or Option.
3. Press and hold START to continue the cycle.

NOTE: If you happen to press Stop twice, the program clears and the dryer shuts down. Restart the selection process.

DRYING RACK OPTION

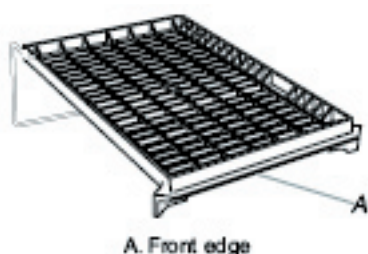
Use the Drying Rack to dry items such as sweaters and pillows without tumbling. The drum turns, but the rack does not move.

If your model does not have a drying rack, you may be able to purchase one for your model. To find out if your model allows drying rack usage and for ordering information, please refer to the "Use & Care Guide," or contact the dealer from whom you purchased the dryer.

NOTE: The rack must be removed for normal tumbling. Do not use the automatic cycle with the drying rack.

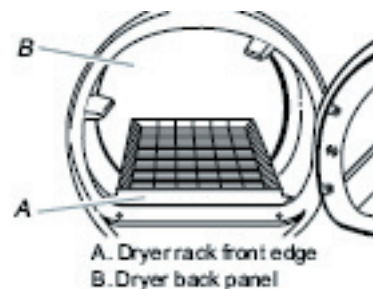
To use the drying rack

Do not remove the lint screen.



A. Front edge

2. Place drying rack inside dryer drum, positioning the back wire on the ledge of the inner dryer back panel. Push down on front edge of drying rack to secure over the lint screen.



A. Dryer rack front edge
B. Dryer back panel

3. Put the wet items on top of the rack. Leave space between the items so air can reach all the surfaces.



NOTE: Do not allow items to hang over the edge of the rack.

4. Close the door.
5. Press the POWER button.
6. Select a timed drying cycle and temperature (see following chart). Items containing foam, rubber or plastic must be dried on a clothesline or by using the Air Only temperature setting.
7. You must select a time by pressing TIMING Up or Down. Reset time as needed to complete drying. Refer to the following table.
8. Press (and hold) START button (about 1 second).

This chart shows examples of items that can be rack dried and the suggested cycle, temperature setting and drying time. Actual drying time will depend on the amount of moisture items hold.

Rack Dry	Setting	Temp.	Time*
Wool Sweaters Block to shape and lay flat on the rack.	Timed Dry	Low	60
Stuffed toys or pillows Cotton or polyester fiber filled	Timed Dry	Low	60
Stuffed toys or pillows Foam rubber filled	Timed Dry	Air Only (no heat)	90
Sneakers or canvas shoes	Timed Dry	Air Only (no heat)	90

* (Minutes) Reset time to complete drying, if needed.

DRYER CARE

CLEANING THE DRYER LOCATION

Keep dryer area clear and free from items that would obstruct the flow of combustion and ventilation air.

⚠ WARNING



Explosion Hazard
Keep flammable materials and vapors, such as gasoline, away from dryer.
Place dryer at least 18 inches (46 cm) above the floor for a garage installation
Failure to follow these instructions can result in death, explosion, or fire.

CLEANING THE LINT SCREEN

Every load cleaning

The lint screen is located in the door opening of the dryer. A screen blocked by lint can increase drying time.

To clean

1. Pull the lint screen straight up. Roll lint off the screen with your fingers. Do not rinse or wash screen to remove lint. Wet lint is hard to remove.



2. Push the lint screen firmly back into place.

IMPORTANT:

- Do not run the dryer with the lint screen loose, damaged, blocked, or missing. Doing so can cause overheating and damage to both the dryer and fabrics.
- If lint falls off the screen into the dryer during removal, check the exhaust hood and remove the lint. See "Venting Requirements."

As needed cleaning

Laundry detergent and fabric softener residue can build up on the lint screen. This build-up can cause longer drying times for your clothes, or cause the dryer to stop before your load is completely dry. The screen is probably clogged if lint falls off while the screen is in the dryer.

Clean the lint screen with a nylon brush every 6 months, or more frequently, if it becomes clogged due to a residue buildup.

To wash

1. Roll lint off the screen with your fingers.
2. Wet both sides of lint screen with hot water.
3. Wet a nylon brush with hot water and liquid detergent. Scrub lint screen with the



4. Rinse screen with hot water.
5. Thoroughly dry lint screen with a clean towel. Replace screen in dryer.

CLEANING THE DRYER INTERIOR

To clean dryer drum

1. Make a paste with powdered laundry detergent and very warm water.
2. Apply paste to a soft cloth.

OR

Apply a liquid, nonflammable household cleaner to the stained area and rub with a soft cloth until all excess dye and stains are removed.

3. Wipe drum thoroughly with a damp cloth.
4. Tumble a load of clean cloths or towels to dry drum.

NOTE: Garments which contain unstable dyes, such as denim blue jeans or brightly colored cotton items, may discolor the dryer interior. These stains are not harmful to your dryer and will not stain future loads of clothes. Dry unstable dye items inside out to prevent dye transfer.

REMOVING ACCUMULATED LINT

From Inside the Dryer Cabinet

Lint should be removed every 2 years, or more often, depending on dryer usage. Cleaning should be done by a qualified person.

From the Exhaust Vent

Lint should be removed every 2 years, or more often, depending on dryer usage.

VACATION AND MOVING CARE

Vacation care

Operate your dryer only when you are at home. If you will be on vacation or not using your dryer for an extended period of time, you

should:

1. Unplug dryer or disconnect power.
2. Close shutoff valve in gas supply line.
3. Clean lint screen. See "Cleaning the Lint Screen."

Moving care

For power supply cord-connected dryers:

1. Unplug the power supply cord.
2. Close shutoff valve in gas supply line.
3. Disconnect gas supply line pipe and remove fittings attached to dryer pipe.
4. Cap the open fuel supply line.
5. Make sure leveling legs are secure in

⚠ 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.

For direct-wired dryers:

1. Disconnect power.
2. Disconnect wiring.
3. Make sure leveling legs are secure in dryer base.
4. Use masking tape to secure dryer door.

TROUBLESHOOTING

DRYER OPERATION

Dryer will not run

- **Has a household fuse blown, or has a circuit breaker tripped?**

There may be 2 fuses or circuit breakers for the dryer. Check that both fuses are intact and tight, or that both circuit breakers have not tripped. Replace the fuse or reset the circuit breaker. If the problem continues, call an electrician.

- **Is the correct power supply available?**
Electric dryers require 240-volt power supply. Check with a qualified electrician.
 - **Was a regular fuse used?**
Use a time-delay fuse.
 - **Is the dryer door firmly closed?**
 - **Was the Power button pressed?**
 - **Was the Start button firmly pressed?**
Press and hold for 1 second.
-

No heat

- **Has a household fuse blown, or has a circuit breaker tripped?**
The drum may be turning, but you may not have heat. Electric dryers use 2 fuses or circuit breakers. Replace the fuse or reset the circuit breaker. If the problem continues, call an electrician.
- **Is the valve open on the gas supply line?**

Unusual sounds

- **Has the dryer had a period of non-use?**
If the dryer hasn't been used for a while, there may be a thumping sound during the first few minutes of operation.
 - **Is a coin, button, or paper clip caught between the drum and front or rear of the dryer?**
Check the front and rear edges of the drum for small objects. Clean out pockets before laundering.
 - **Is it a gas dryer?**
The gas valve clicking is a normal operating sound.
 - **Are the four legs installed, and is the dryer level front to back and side to side?**
The dryer may vibrate if not properly installed. See the Installation Instructions.
 - **Is the clothing knotted or balled up?**
When balled up, the load will bounce, causing the dryer to vibrate. Separate the load items and restart the dryer.
-

Dryer displaying code message

- **“PF” (power failure), check the following:**
Was the drying cycle interrupted by a power failure? Press and hold START to restart the dryer.
- **“F-” Variable (F-01, F-22, F-23, F-26) service codes (the display alternately flashes “F-” and then the error code number):**
Call for service.

DRYER RESULTS

Clothes are not drying satisfactorily, drying times are too long, or load is too hot

- **Is the lint screen clogged with lint?**
Lint screen should be cleaned before each load.


⚠ WARNING



Fire Hazard
Use a heavy metal vent.
Do not use a plastic vent.
Do not use a metal foil vent.
Failure to follow these instructions can result in death or fire.

- **Is the exhaust vent or outside exhaust hood clogged with lint, restricting air movement?**
Run the dryer for 5-10 minutes. Hold your hand under the outside exhaust hood to check air movement. If you do not feel air movement, clean exhaust system of lint or replace exhaust vent with heavy metal or flexible metal vent. See "Venting Requirements."
- **Are fabric softener sheets blocking the grille?**
Use only one fabric softener sheet, and use it only once.
- **Is the exhaust vent the correct length?**
Check that the exhaust vent is not too long or has too many turns. Long venting will increase drying times. See "Plan Vent System."
- **Is the exhaust vent diameter the correct size?**
Use 4" (10.2 cm) diameter vent material.

⚠ WARNING



Explosion Hazard
Keep flammable materials and vapors, such as gasoline, away from dryer.
Place dryer at least 18 inches (46 cm) above the floor for a garage installation
Failure to follow these instructions can result in death, explosion, or fire.

- **Is the dryer located in a room with temperature below 45°F (7°C)?**
Proper operation of dryer cycles requires temperatures above 45°F (7°C).
- **Is the dryer located in a closet?**
Closet doors must have ventilation openings at the top and bottom of the door. The front of the dryer requires a minimum of 1" (2.5 cm) of airspace, and, for most installations, the rear of the dryer requires 5" (12.7 cm). See "Installation Instructions."
- **Has the Air Only modifier been selected?**
Select the right cycle for the types of garments being dried. See "Cycles."
- **Is the load too large and heavy to dry quickly?**
Separate the load to tumble freely.

Cycle time too short

- **Is the automatic cycle ending early?**
The load may not be contacting the sensor strips. Level the dryer.
Change the dryness level setting on Auto Cycles. Increasing or decreasing the dryness level will change the amount of drying time in a cycle.
Do not use a drying rack with an Auto cycle.

Lint on load

- **Is the lint screen clogged?**
Clean lint screen. Check for air movement.

Stains on load or drum

- **Was dryer fabric softener properly used?**

Add dryer fabric softener sheets at the beginning of the cycle. Fabric softener sheets added to a partially dried load can stain your garments.

Drum stains are caused by dyes in clothing (usually blue jeans). This will not transfer to other clothing.

Loads are wrinkled

- **Was the load removed from dryer at the end of the cycle?**
- **Was the dryer overloaded?**
Dry smaller loads that can tumble freely.

Odors

- **Have you recently been painting, staining or varnishing in the area where your dryer is located?**

If so, ventilate the area. When the odors or fumes are gone from the area, rewash and dry the clothing.

- **Is the dryer being used for the first time?**

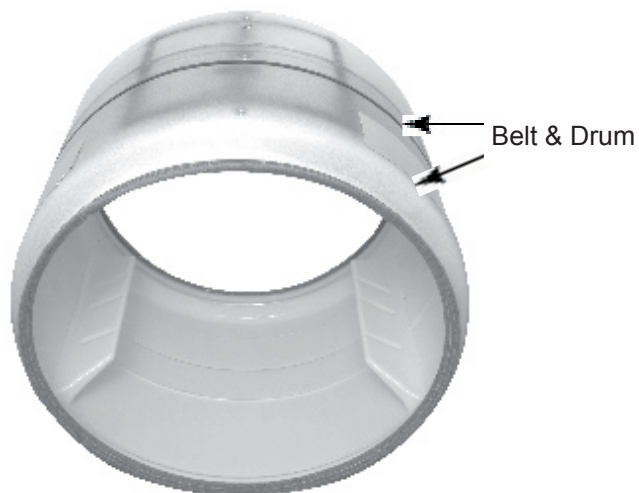
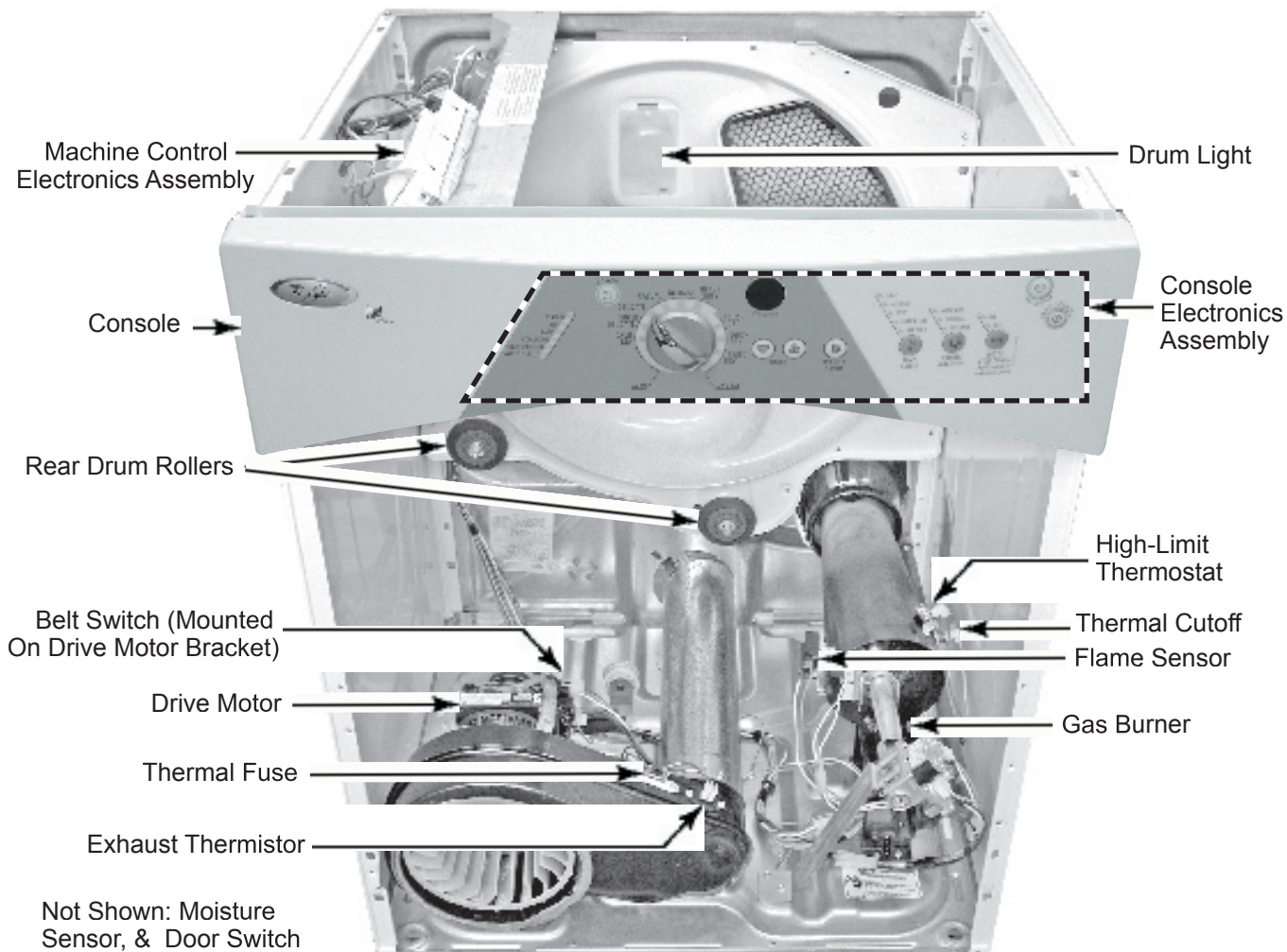
The new electric heating element may have an odor. The odor will be gone after the first cycle.

— NOTES —

COMPONENT ACCESS

This section instructs you on how to service each component inside the Duet Sport™ Electronic Gas & Electric Dryers. The components and their locations are shown below.

COMPONENT LOCATIONS

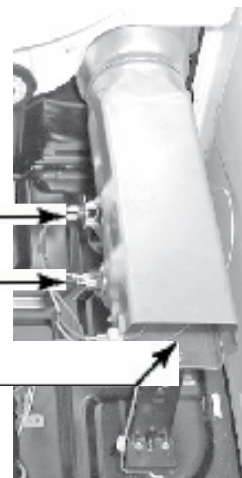


Electric Heater Assembly

Thermal Cutoff

High-Limit Thermostat

Heater Element



REMOVING THE CONSOLE AND THE CONSOLE ELECTRONICS ASSEMBLY

⚠ WARNING

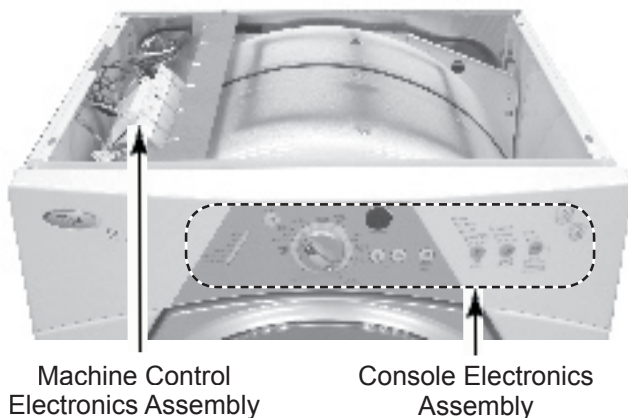


Electrical Shock Hazard

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

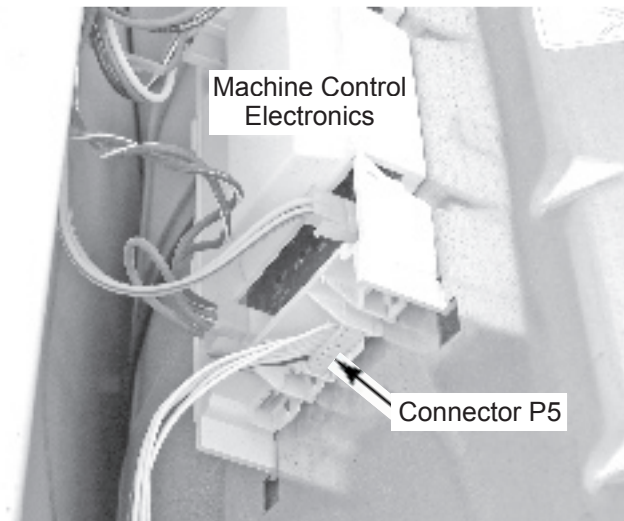
**Failure to do so can result in death or
electrical shock.**

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the rear screws from the top cover of the dryer.
4. Lift the rear of the cover, pull back, and remove the cover from the dryer.

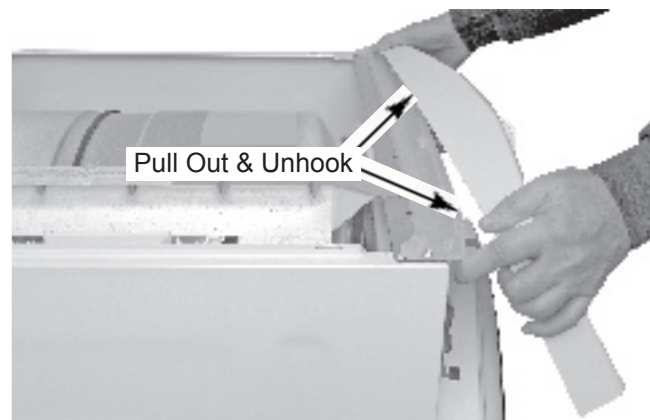
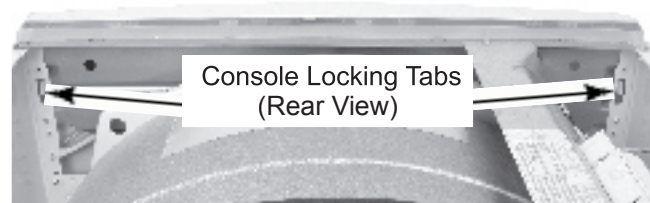


5. To remove the console:

- a) Release the locking tab, and disconnect the console electronics board connector from the machine control electronics at P5.

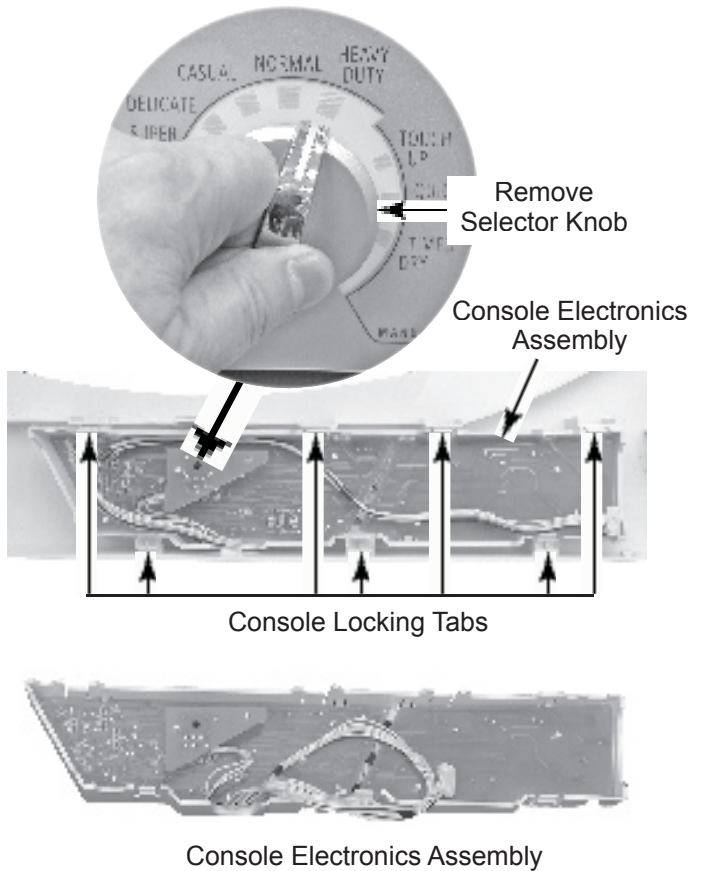


- b) Press out and unhook the two locking tabs on the back of the console from the chassis slots. Pull the bottom of the console out slightly, then pull and unhook the top catches from the plastic holder, and remove the console.



6. **To remove the console electronics assembly:**

- a) Pull the selector knob off the switch shaft.
- b) Press the seven console locking tabs, and unsnap the console electronics assembly, then lift the assembly from the console and remove it.



REMOVING THE MACHINE CONTROL ELECTRONICS

⚠ WARNING



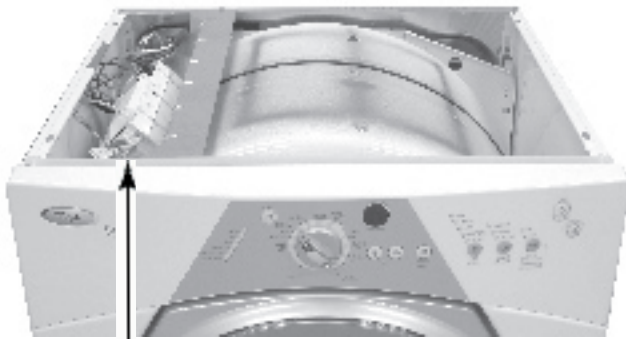
Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

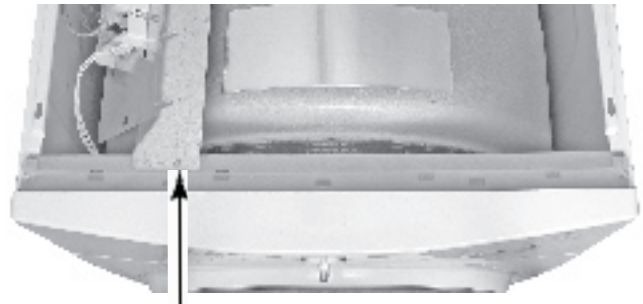
Failure to do so can result in death or electrical shock.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the rear screws from the top cover of the dryer.
4. Lift the rear of the cover, pull back, and remove the cover from the dryer.



Machine Control Electronics Assembly

5. Remove the front machine control electronics (MCE) bracket screw.



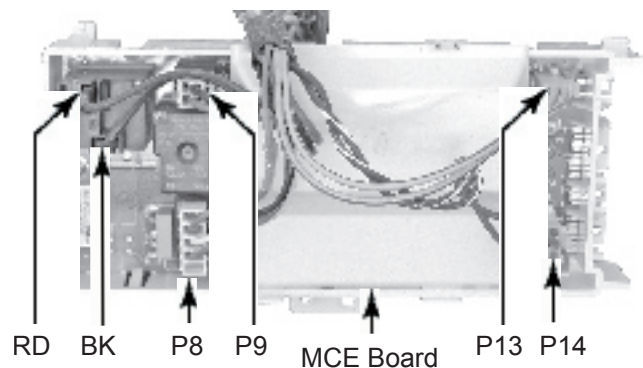
MCE Bracket Screw

6. Remove the screw from the MCE, unhook the tabs from the bracket, and remove the electronics.




MCE Screw

7. Disconnect the wire connectors from the MCE board at P8, P9, P13, P14, and the black and red wires from relay K2.

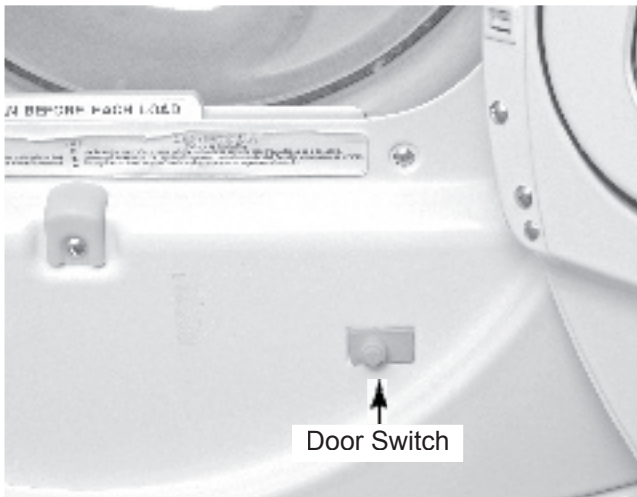


REMOVING THE DOOR SWITCH

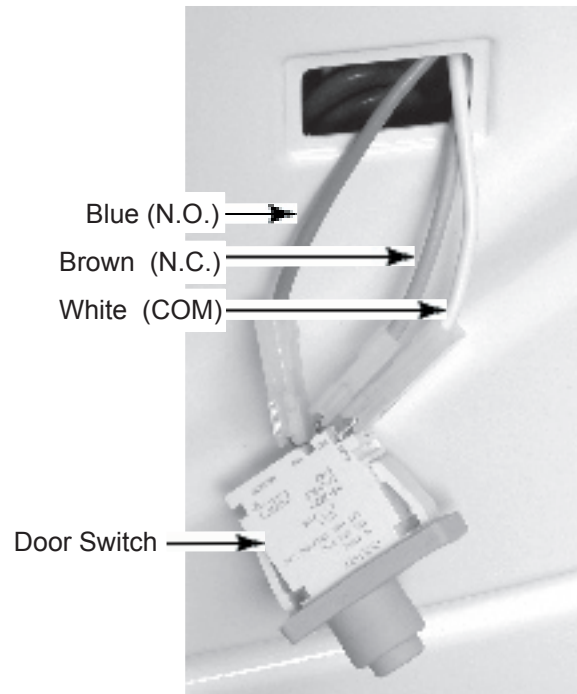
⚠ WARNING


Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Pull or pry the door switch out of the front panel cutout. If necessary, press a small screwdriver blade against the locking tab on each end of the switch, and pull out on the switch.



4. Disconnect the wires from the door switch terminals.



REMOVING THE MOISTURE SENSOR

⚠ WARNING

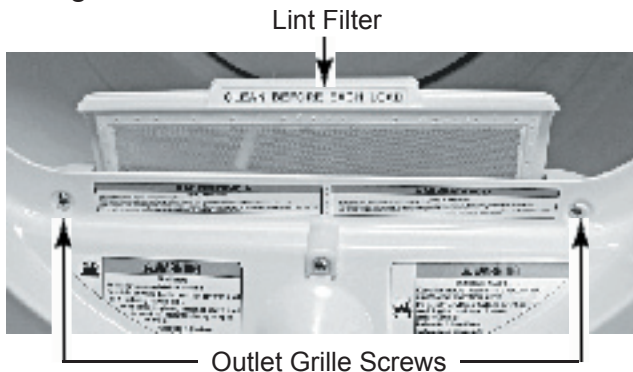


Electrical Shock Hazard

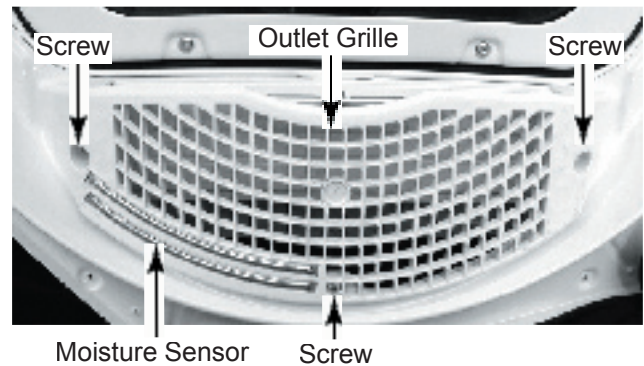
Disconnect power before servicing.
Replace all parts and panels before
operating.

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

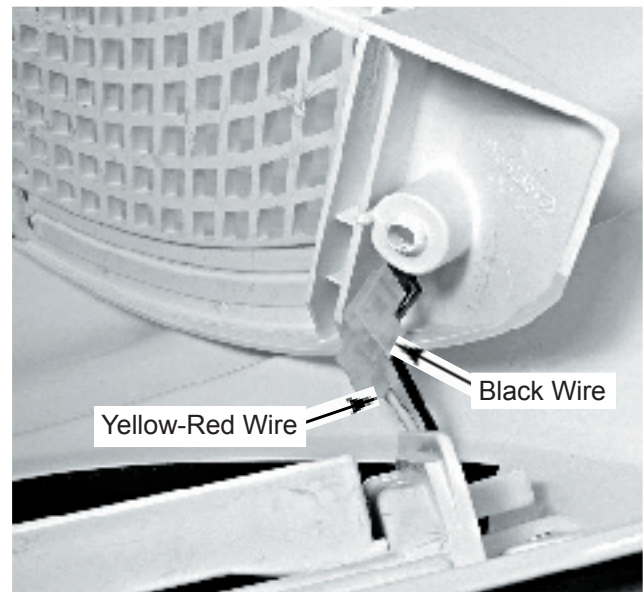
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Open the dryer door, remove the lint filter, and close the door.
4. Remove the two screws from the outlet grille.



5. From inside the drum, remove the three screws from the outlet grille.



6. Pull the moisture sensor away from the dryer and disconnect the black and yellow-red wires from the moisture sensor terminals.



REMOVING THE DRUM LIGHT SOCKET

⚠ WARNING



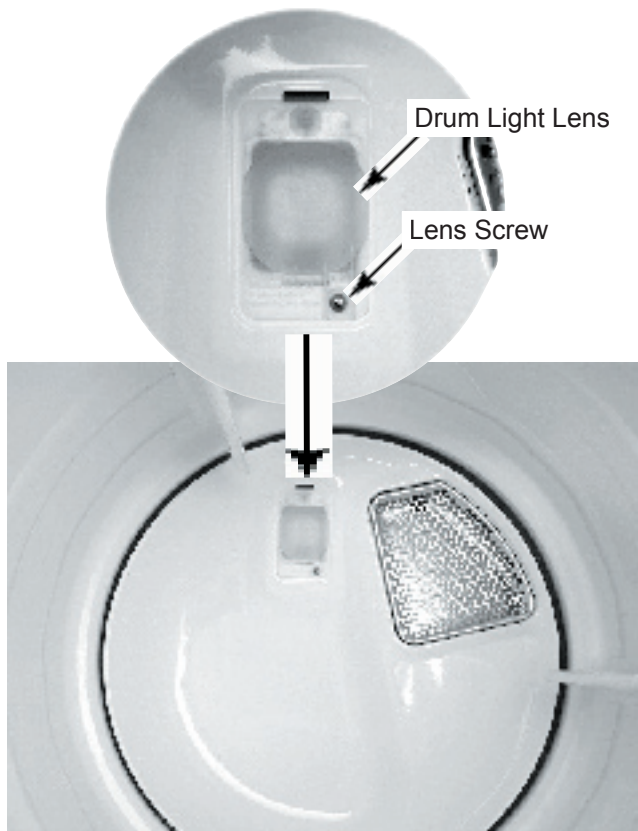
Electrical Shock Hazard

Disconnect power before servicing.

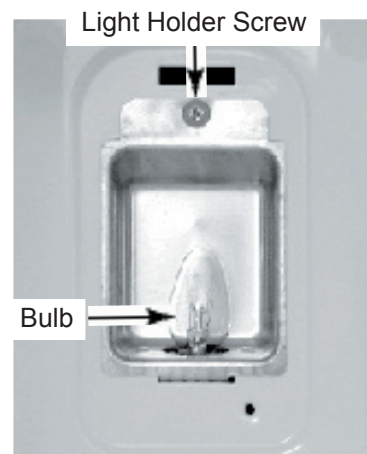
Replace all parts and panels before operating.

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

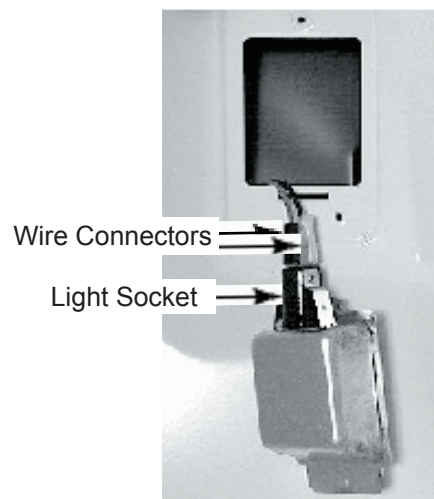
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Open the dryer door.
4. Remove the screw from the drum light lens and remove the lens.



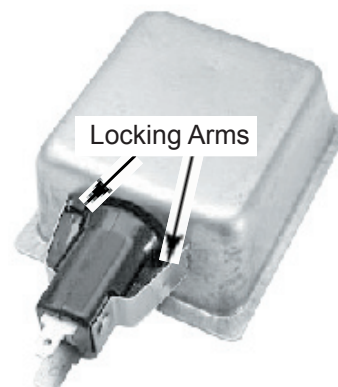
5. Remove the bulb from the light socket.
6. Remove the screw from the drum light holder and pull the holder forward so you can access the wires.



7. Disconnect the wires from the light holder terminals.



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



REMOVING THE FRONT PANEL

⚠ WARNING

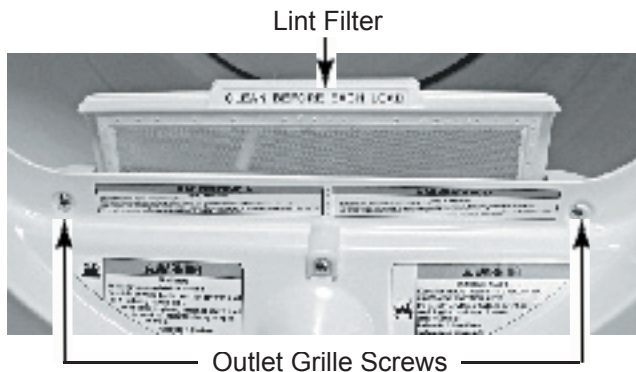


Electrical Shock Hazard

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

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

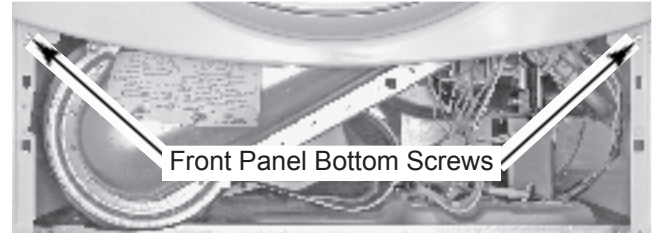
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the console from the dryer (see page 4-2 for the procedure).
4. Remove the door switch (see page 4-5 for the procedure).
5. Open the dryer door and remove the lint filter.
6. Remove the two screws from the outlet grille and then close the dryer door.



7. Remove the screws from the toe panel and remove the panel (see the top right photo).

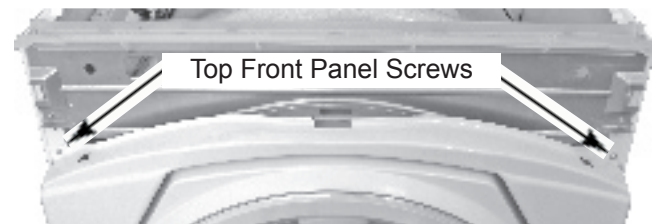


8. Remove the two screws from the bottom of the front panel.



NOTE: When you remove the two screws in the next step, support the front panel so that it does not fall.

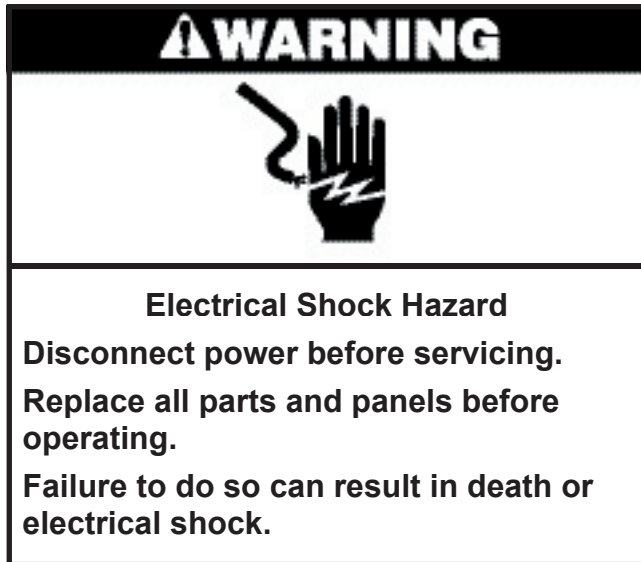
9. Remove the two screws from the top of the front panel and remove the panel from the dryer.



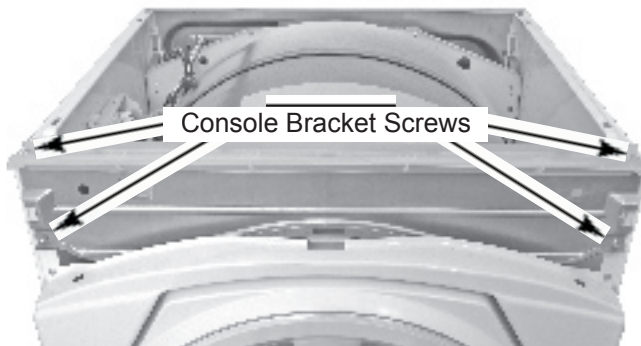
Remove
Front
Panel



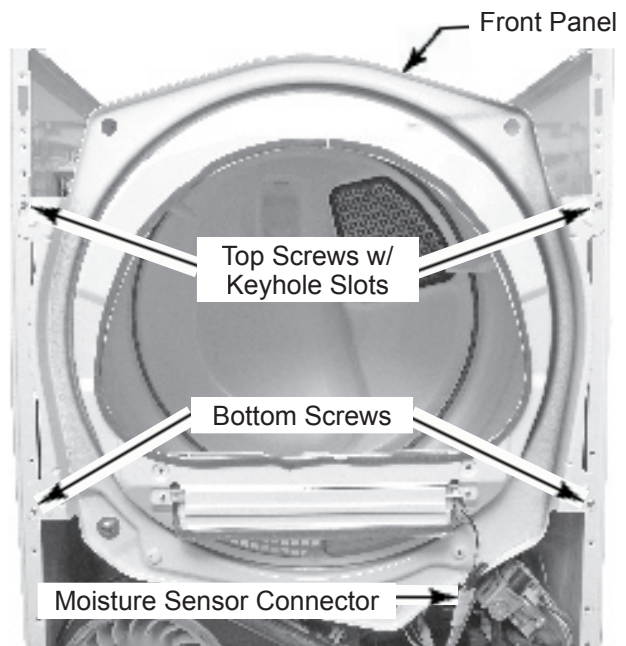
REMOVING THE BELT & DRUM, AND ROLLERS



1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the front panel from the dryer (see page 4-8 for the procedure).
4. Remove the four screws from the console bracket and remove the bracket.

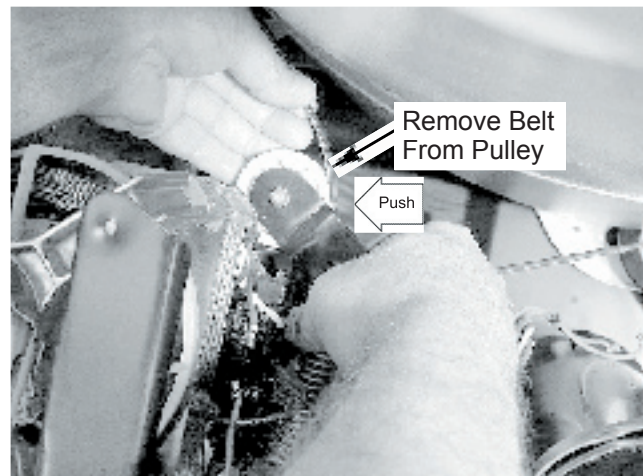


5. Disconnect the moisture sensor connector from the main harness (see the top right photo).
6. Remove the two bottom screws from the front support panel.
7. Loosen the two top screws on the front support panel, then lift the panel and unhook the screws from the two keyhole slots, and remove the panel.



8. To remove the belt and drum:

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



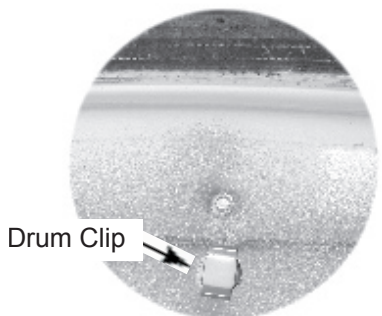
- b) Slide the belt off the front of the drum and remove it.

Remove Belt



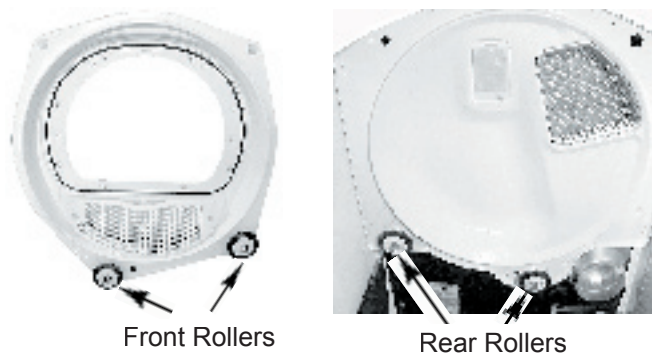
- c) Lift the drum and remove it from the dryer cabinet.

DRUM INSTALLATION NOTE: Be sure to position the drum in the cabinet with the clip toward the rear.

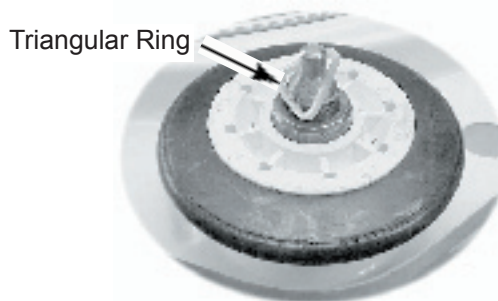


9. To remove a roller:

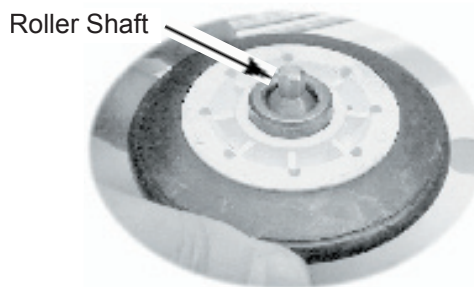
NOTE: There are two rollers on the front panel and two on the rear panel, as shown below.



- a) Pry the sides of the triangular ring out of the groove in the roller shaft with a small screwdriver.



- b) Slide the roller off the roller shaft.



- c) **To remove the roller shaft,** remove the 9/16" nut and washer from the roller support, and remove the support and remaining triangular ring.



Nut & Washer



Roller Shaft & Ring

REMOVING THE DRIVE MOTOR AND BELT SWITCH

⚠ WARNING



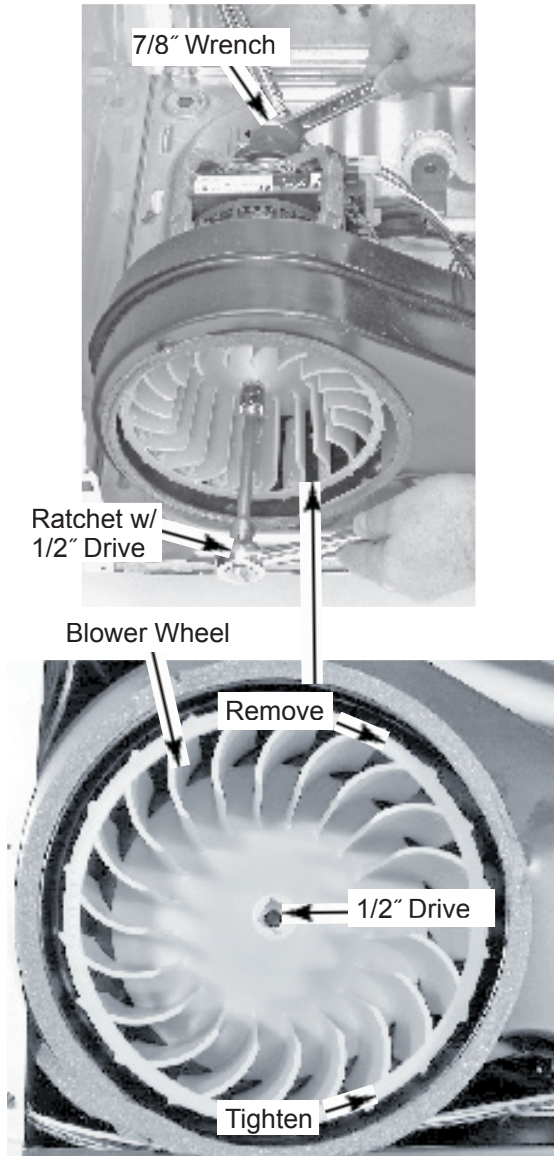
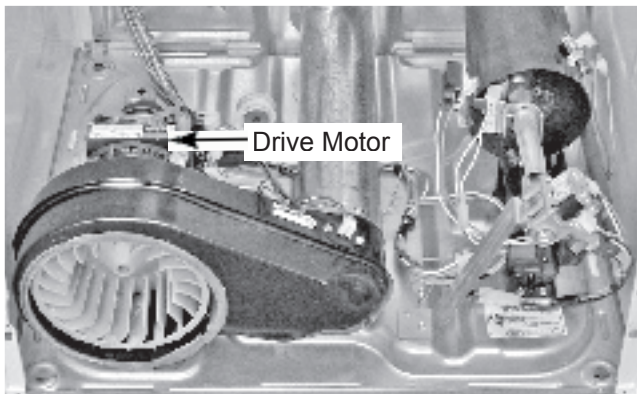
Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

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

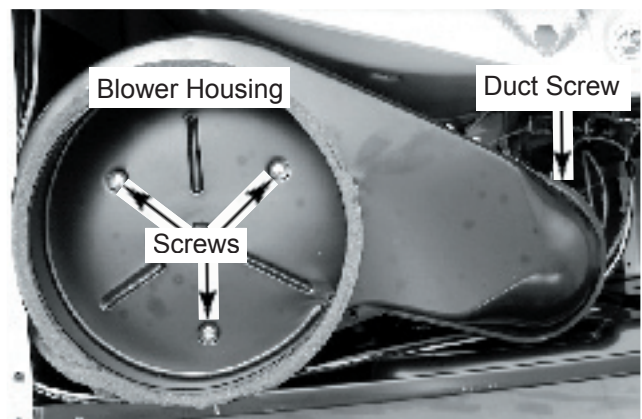
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the drum from the dryer (see pages 4-10 and 4-11 for the procedure).
4. Remove the thermal fuse and exhaust thermistor (see page 4-9 for the procedure).



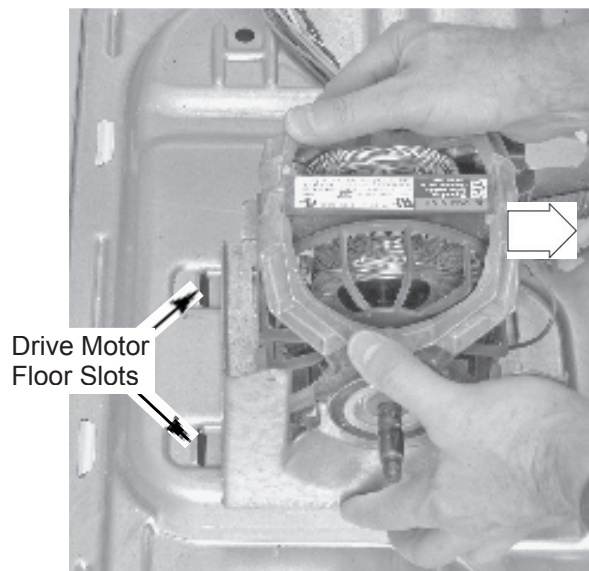
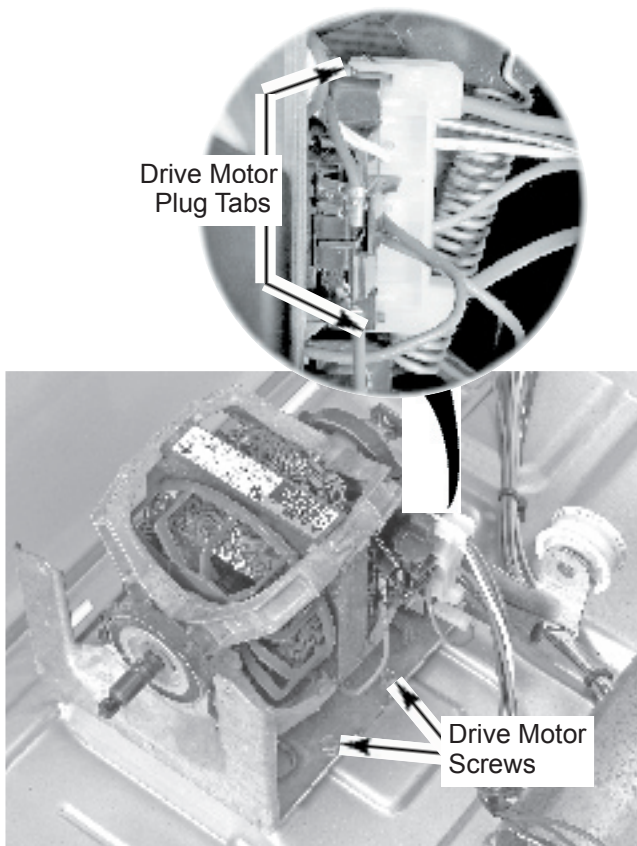
- c) Remove the four screws from the blower housing and exhaust duct and remove the housing.

5. To remove the drive motor:

- a) Reach around to the back of the drive motor and attach a 7/8" open-end wrench to the hex-end of the motor shaft, and a ratchet with a 1/2" drive in the blower wheel hub opening.
- b) Turn the blower wheel clockwise (shown by the "REMOVE" arrow that is embossed on the front of the wheel) and remove the wheel from the motor shaft.

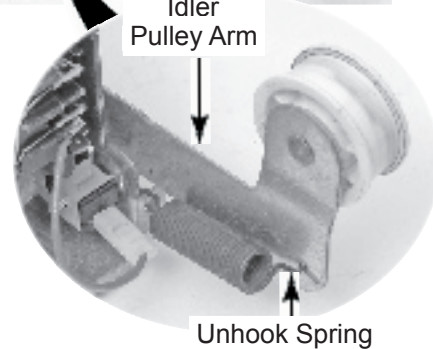
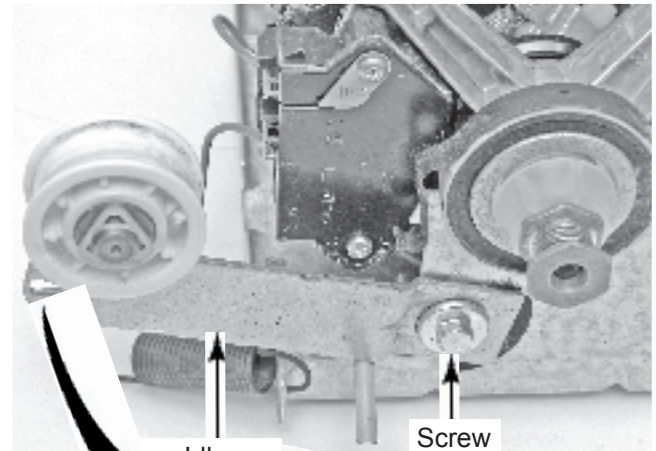


- d) Lift the locking tabs on the top and bottom of the motor harness plug and disconnect the plug from the motor terminals.
- e) Remove the two mounting screws from the drive motor, then pull the motor to the right until the two motor bracket tabs are out of the chassis floor slots, and remove the drive motor.

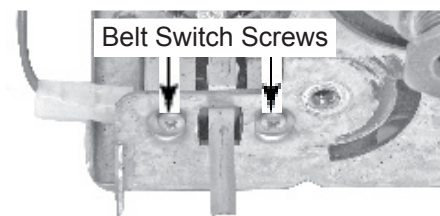


6. To remove the belt switch:

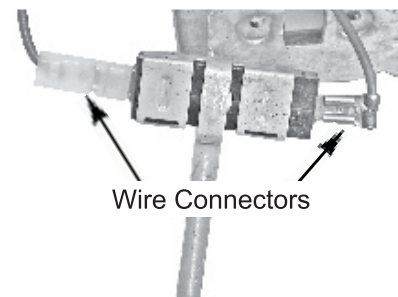
- a) Remove the drive motor from the dryer (see step 5).
- b) Unhook the end of the spring from the idler pulley arm.
- c) Remove the 3/8" hex-head screw from the idler pulley arm and remove the arm from the motor.



- d) Remove the two screws from the belt switch and remove it from the motor.



- e) Disconnect the two blue wires from the belt switch terminals.



REMOVING THE IGNITOR, FLAME SENSOR, HIGH-LIMIT THERMOSTAT, AND THERMAL CUTOFF (GAS MODELS ONLY)

⚠ WARNING



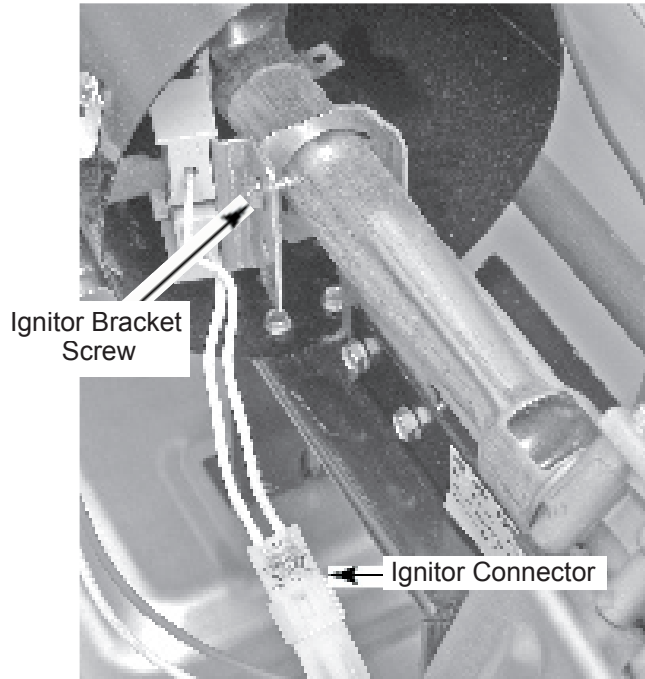
Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the toe panel from the dryer (see page 4-8 for the procedure).

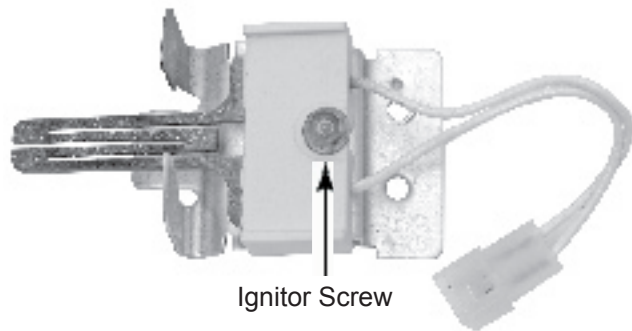


Gas Burner Assembly

4. **To remove the ignitor:**
 - a) Disconnect the ignitor wire connector from the main harness (see the top right photo).
 - b) Remove the 5/16" hex-head ignitor bracket screw from the burner venturi and remove the ignitor and bracket.

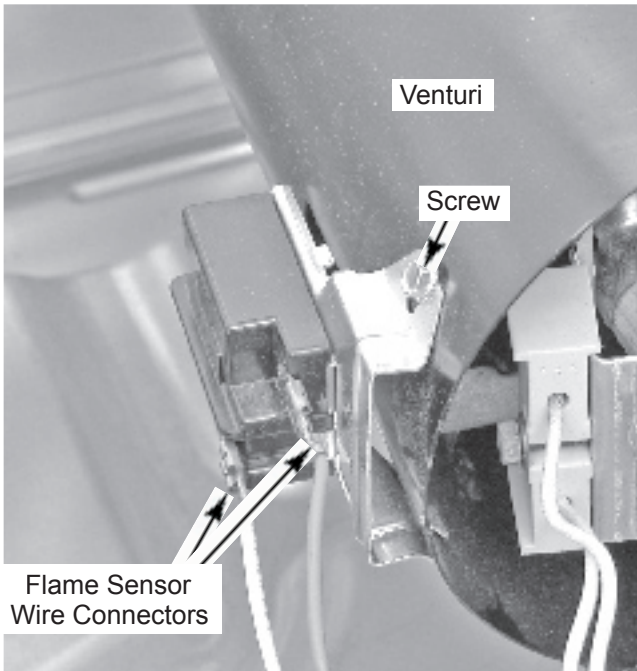


- c) Remove the 5/16" hex-head ignitor screw and remove the ignitor from the bracket.



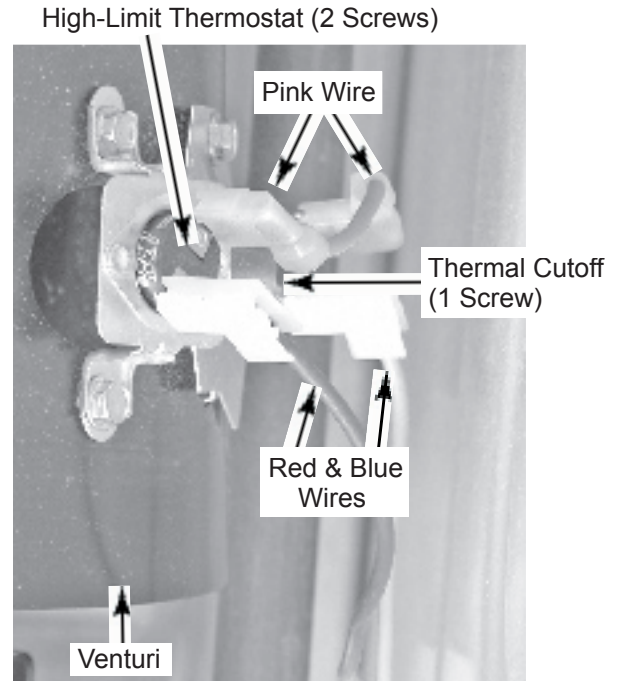
5. **To remove the flame sensor:**

- a) Disconnect the two wire connectors from the sensor terminals.
- b) Remove the flame sensor screw from the burner venturi and remove the sensor.




6. **To remove the high-limit thermostat or the thermal cutoff:**

- a) Disconnect the two wire connectors from the component terminals.
- b) Remove the two screws from the high-limit thermostat, or single screw from the thermal cutoff, and remove the component from the venturi.



REMOVING THE IGNITOR, FLAME SENSOR, HIGH-LIMIT THERMOSTAT, AND THERMAL CUTOFF (GAS MODELS ONLY)

⚠ WARNING



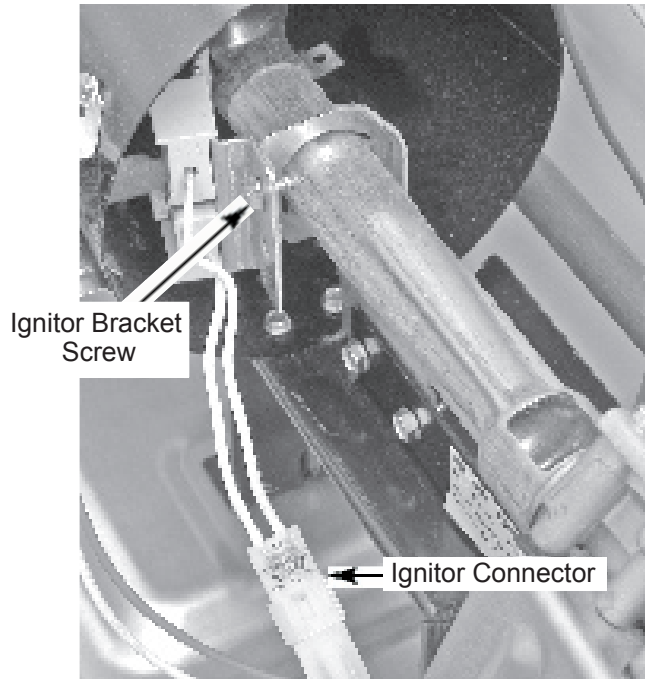
Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Remove the toe panel from the dryer (see page 4-8 for the procedure).

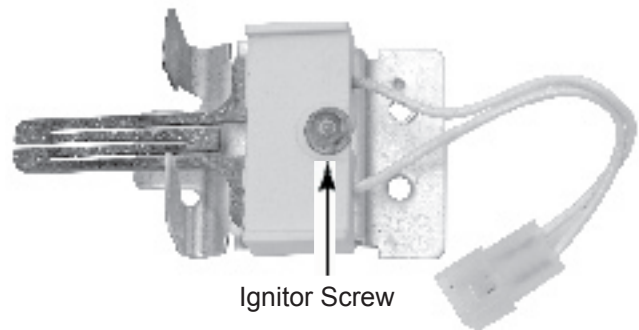


Gas Burner Assembly

4. **To remove the ignitor:**
 - a) Disconnect the ignitor wire connector from the main harness (see the top right photo).
 - b) Remove the 5/16" hex-head ignitor bracket screw from the burner venturi and remove the ignitor and bracket.

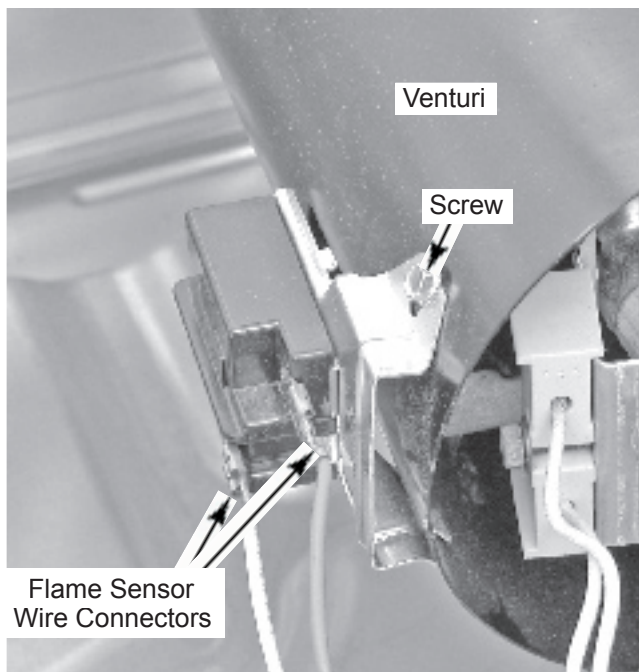


- c) Remove the 5/16" hex-head ignitor screw and remove the ignitor from the bracket.



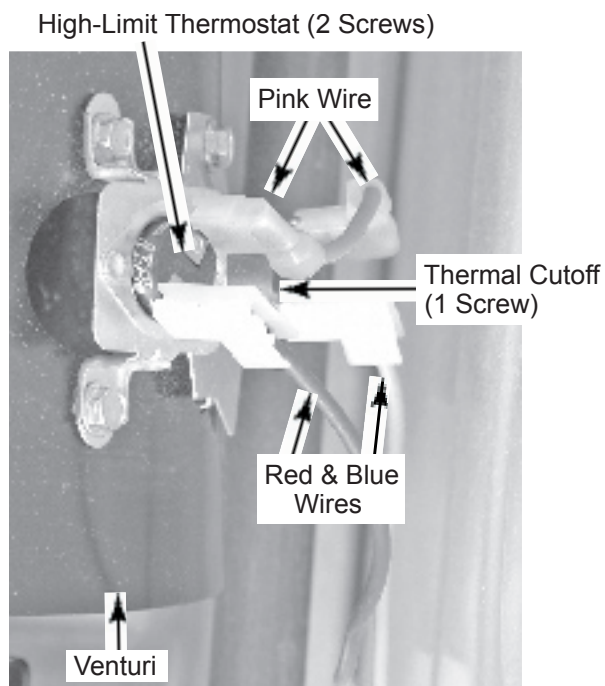
5. **To remove the flame sensor:**

- a) Disconnect the two wire connectors from the sensor terminals.
- b) Remove the flame sensor screw from the burner venturi and remove the sensor.



6. **To remove the high-limit thermostat or the thermal cutoff:**

- a) Disconnect the two wire connectors from the component terminals.
- b) Remove the two screws from the high-limit thermostat, or single screw from the thermal cutoff, and remove the component from the venturi.



REMOVING THE DRYER DOOR

⚠ WARNING



Electrical Shock Hazard

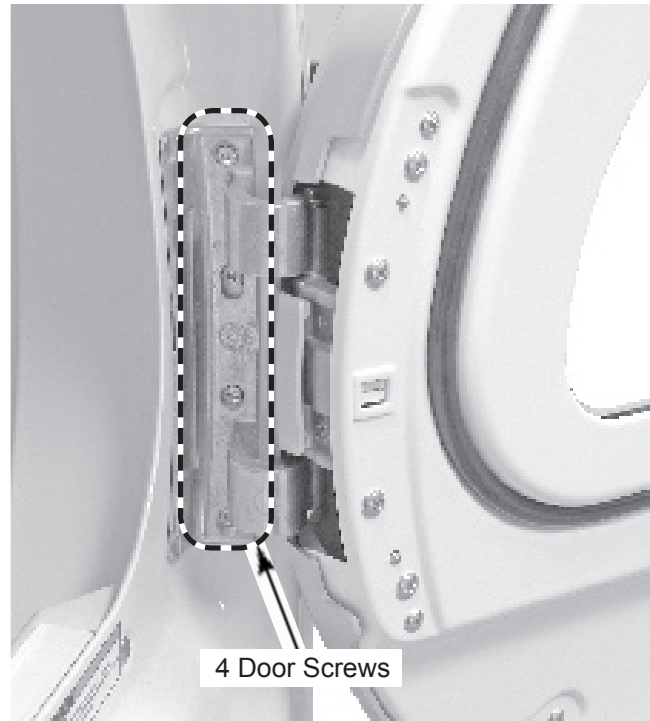
Disconnect power before servicing.

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. While supporting the dryer door, remove the four screws from the hinge, and remove the door.



COMPONENT TESTING

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

- Control failure can be the result of corrosion on connectors. Therefore, disconnecting and reconnecting wires will be necessary throughout test procedures.
- All tests/checks should be made with a VOM or DVM having a sensitivity of 20,000 ohms-per-volt DC, or greater.
- Check all connections before replacing components, looking for broken or loose wires, failed terminals, or wires not pressed into connectors far enough.
- Resistance checks must be made with power cord unplugged from outlet, and with wiring harness or connectors disconnected.
- Unless stated otherwise, make all resistance checks by disconnecting the component connectors either at the terminals, or at the central control unit.

	<div data-bbox="698 640 1047 703">⚠ WARNING</div> <div data-bbox="690 724 1063 766">Electrical Shock Hazard</div> <div data-bbox="324 766 1161 892"><p>Disconnect power before servicing. Replace all parts and panels before operating. Failure to do so can result in death or electrical shock.</p></div>
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MOISTURE SENSOR



Refer to page 4-6 for the procedure for accessing the moisture sensor.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Disconnect the wires from the moisture sensor.
4. Set the ohmmeter to the R X 1 scale.
5. Touch the ohmmeter test leads to the sensor connector pins. The meter should indicate an open circuit (infinite).
6. Bridge the two sensor strips with a wet cloth. The meter should indicate continuity.



⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

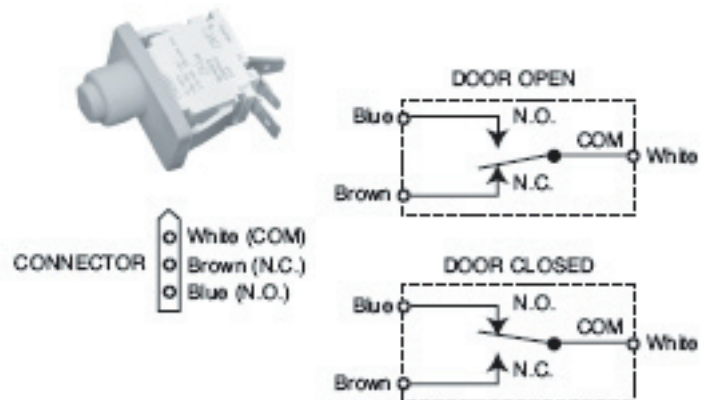
Failure to do so can result in death or electrical shock.

DOOR SWITCH

Refer to page 4-5 for the procedure for accessing the door switch.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Close the dryer door.
4. Disconnect the 3-wire connector from the door switch to the machine control electronics assembly at P8-4.
5. Set the ohmmeter to the R X 1 scale.
6. Touch the black ohmmeter test lead to the white wire pin in the connector and leave it there for the remaining tests.
7. Touch the red ohmmeter test lead to the brown wire pin in the connector. The meter should indicate an open circuit (infinite).
8. Touch the red ohmmeter test lead to the blue wire pin in the connector. The meter should indicate a closed circuit (0Ω).

9. Open the dryer door.
10. Touch the red ohmmeter test lead to the blue wire pin in the connector. The meter should indicate an open circuit (infinite).
11. Touch the red ohmmeter test lead to the brown wire pin in the connector. The meter should indicate a closed circuit (0Ω).
12. If the resistance test is incorrect, replace the wire and door switch assembly, (see page 4-5 for the procedure), and retest.





⚠ 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.

THERMAL FUSE

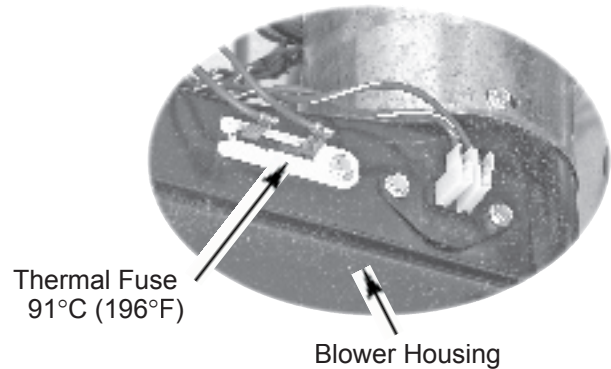
Refer to page 4-9 for the procedure for accessing the thermal fuse.

Electric Dryers: The thermal fuse is wired in series with the drive motor. If the thermal fuse opens, 91°C (196°F), power to the motor is turned off. A centrifugal switch on the motor also opens the heater circuit.

Once the thermal fuse has opened, it will not reset, and must be replaced. Check for a failed thermistor, or a shorted heater element.

Gas Dryers: The thermal fuse is wired in series with the gas valve. If the thermal fuse opens, 91°C (196°F), power to the valve is turned off. A centrifugal switch on the motor also opens the heater circuit.

Once the thermal fuse has opened, it will not reset, and must be replaced. Check for a failed thermistor.



1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Disconnect the wires from the thermal fuse.
4. Set the ohmmeter to the R X 1 scale.
5. Touch the ohmmeter test leads to the thermal fuse terminals. The meter should indicate continuity (0 Ω). If the meter indicates an open circuit (infinite), replace the thermal fuse.



⚠ WARNING

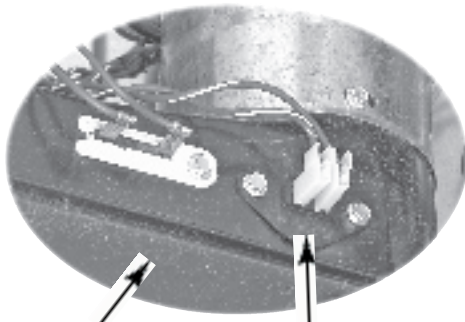
Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

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

EXHAUST THERMISTOR



Blower Housing

Exhaust Thermistor

Refer to page 4-9 for the procedure for accessing the exhaust thermistor.

The machine control electronics monitors the exhaust temperature using the thermistor, and cycles the heater relay on and off to maintain the desired temperature.

Begin with an empty dryer and a clean lint screen.

1. Plug in dryer or reconnect power.
2. Start the Timed Dry cycle.
3. If after 60 seconds, **F-22** or **F-23** flashes in the display and the dryer shuts off, the thermistor or wire harness is either open or shorted.
 - Unplug dryer or disconnect power.
 - Check wire connections at the machine control electronics and thermistor.
 - If wire connections are good, remove the two wires from the thermistor and replace the thermistor.
 - Plug in dryer or reconnect power.

4. If **F-22** or **F-23** does not flash in the display, the connections to the thermistor are good. Therefore, check the thermistor's resistance value at any or all of the temperature levels in question, using the Timed Dry cycle, and the following process:

Hold a glass bulb thermometer capable of reading from 90° to 180°F (32° to 82°C) in the center of the exhaust outlet. The correct exhaust temperatures are as follows:

EXHAUST TEMPERATURES		
TEMPERATURE SETTING	HEAT TURNS OFF*	HEAT TURNS ON
High	155° ± 5°F (68° ± 3°C)	10–15°F (6–8°C) below the heat turn off temperature
Medium	140° ± 5°F (60° ± 3°C)	
Low	125° ± 5°F (52° ± 3°C)	
Extra Low	115° ± 5°F (46° ± 3°C)	

- * The measured overshoot using the glass bulb thermometer in the exhaust outlet can be 30°F (17°C) higher.
5. If the exhaust temperature is not within specified limits, check the resistance of the thermistor.

NOTE: All thermistor resistance measurements (shown below) must be made while dryer is disconnected from power.

TEMP. SETTING	TEMPERATURE	Thermistor resistance value at heater shutoff (digital or analog meter) kΩ	
High	155° ± 5°F (68° ± 3°C)	2.1	1.7
Medium	140° ± 5°F (60° ± 3°C)	2.8	2.3
Low	125° ± 5°F (52° ± 3°C)	3.8	3.1
Extra Low	115° ± 5°F (46° ± 3°C)	4.7	3.8



⚠ 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.

DRIVE MOTOR

Refer to page 4-12 for the procedure for accessing the drive motor.

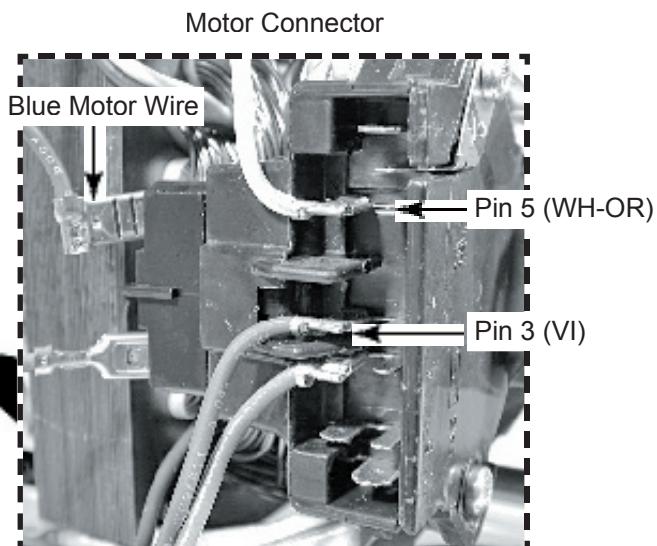
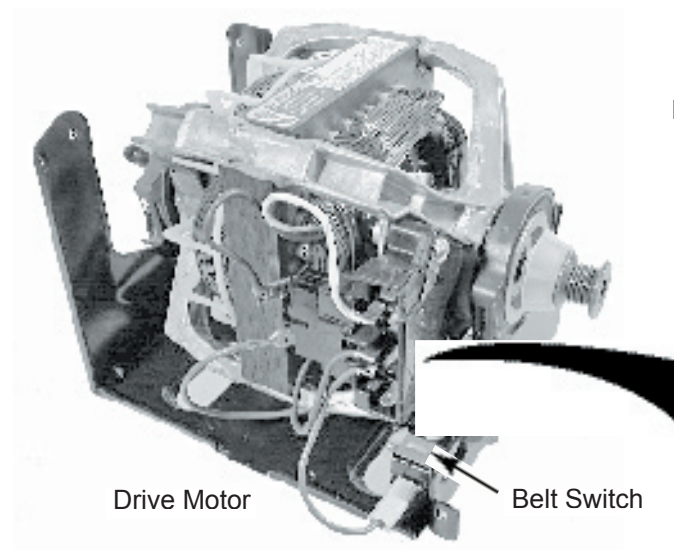
1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Disconnect the plug from the motor connector.
4. Set the ohmmeter to the R X 1 scale.
5. Touch one ohmmeter test lead to the blue motor wire connector, and the other test lead to connector pin 5 (white-orange wire). The meter should indicate between 2.4 and 3.6 Ω (main winding).

6. Touch one ohmmeter test lead to the blue motor wire connector, and the other test lead to connector pin 3 (violet wire). The meter should indicate between 2.4 and 3.8 Ω (start winding).

7. If either resistance is much larger than 4 Ω , replace the motor.

If the resistances at the motor are correct, check for a failed belt switch.

If the belt switch is okay, check for an open circuit between the motor and the machine control electronics assembly.





⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

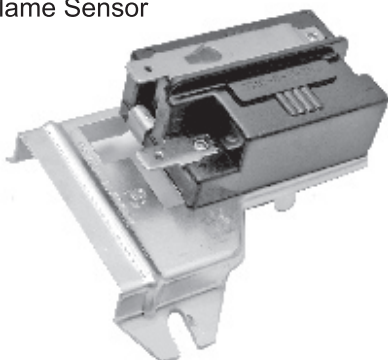
Failure to do so can result in death or electrical shock.

FLAME SENSOR

Refer to page 4-14 for the procedure for accessing the flame sensor.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Disconnect the wire connectors from the flame sensor terminals.
4. Set the ohmmeter to the R X 1 scale.
5. Touch the ohmmeter test leads to the flame sensor terminals. The meter should indicate a closed circuit (0 Ω).

Flame Sensor



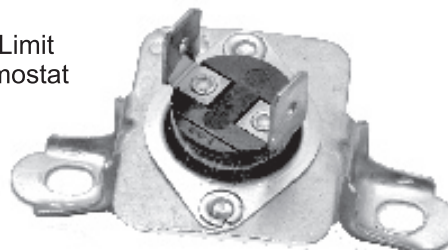
HIGH-LIMIT THERMOSTAT & THERMAL CUTOFF (GAS DRYERS ONLY)

Refer to page 4-14 for the procedure for accessing the high-limit thermostat or thermal cutoff.

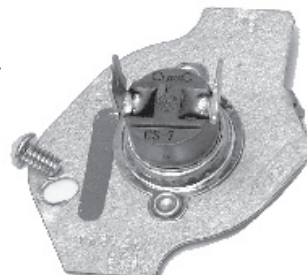
The thermal cutoff is a non-resettable device. The cutoff temperature is 178°C (352°F).

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Disconnect the wire connectors from the high-limit thermostat and thermal cutoff terminals.
4. Set the ohmmeter to the R X 1 scale.
5. Touch the ohmmeter test leads to the high-limit thermostat or thermal cutoff terminals. The meter should indicate a closed circuit (0 Ω).

High-Limit
Thermostat



Thermal Cutoff





⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

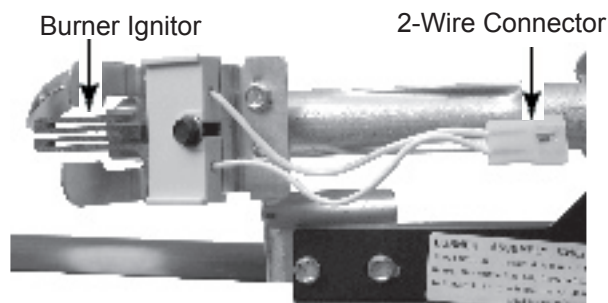
Replace all parts and panels before operating.

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

BURNER IGNITOR

Refer to page 4-16 for the procedure for accessing the gas burner assembly.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Disconnect the ignitor wire connector from the main harness connector.
4. Set the ohmmeter to the R X 1 scale.
5. Touch the ohmmeter test leads to the 2-wire connector pins. The meter should indicate between 50 and 250 Ω .



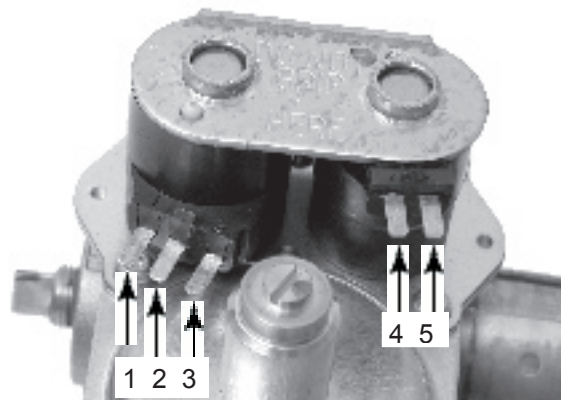
GAS BURNER COILS

Refer to page 4-16 for the procedure for accessing the gas burner assembly.

1. Unplug dryer or disconnect power.
2. Turn off gas supply to dryer.
3. Disconnect the wire connectors from the coil terminals.
4. Set the ohmmeter to the R X 100 scale.
5. Touch the ohmmeter test leads to the 2-pin coil. The meter should indicate between 1000 and 1300 Ω .
6. Touch the ohmmeter test leads to the 3-pin coil. The meter should indicate as follows:

Pins 1 & 2 = 1300 to 1400 Ω

Pins 1 & 3 = 500 to 600 Ω





⚠ 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.

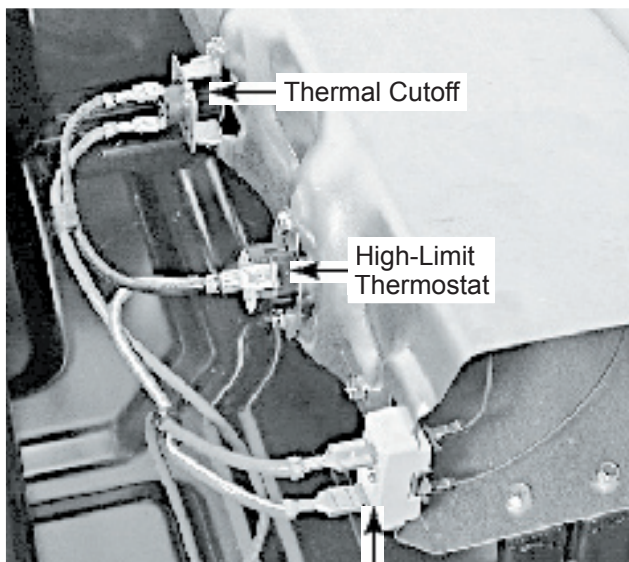
THERMAL CUTOFF (ELECTRIC DRYERS ONLY)

Refer to page 4-17 for the procedure for accessing the thermal cutoff.

The thermal cutoff is a non-resettable device. The cutoff temperature is 178°C (352°F).

If the dryer does not heat and there is 240 VAC to the dryer, perform the following test.

1. Unplug dryer or disconnect power.
2. Disconnect the wires from the thermal cutoff.
3. Set the ohmmeter to the R X 1 scale.
4. Touch the ohmmeter test leads to the thermal cutoff terminals. The meter should indicate continuity (0 Ω). If the meter indicates an open circuit (infinite), replace both the thermal cutoff and the high-limit thermostat. In addition, check for a failed heater element, or a blocked, or improper exhaust system.

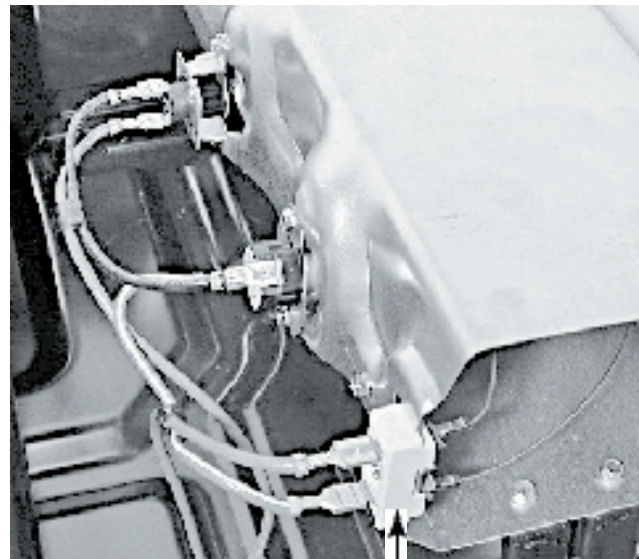


Heater Terminals

HEATER (ELECTRIC DRYERS ONLY)

Refer to page 4-17 for the procedure for accessing the heater.

1. Unplug dryer or disconnect power.
2. Disconnect one of the wire connectors from the heater terminal block.
3. Set the ohmmeter to the R X 1 scale.
4. Touch the ohmmeter test leads to the terminals on the heater terminal block. The meter should indicate between 7 & 12 Ω .



Heater Terminal Block

DIAGNOSTICS & TROUBLESHOOTING

DIAGNOSTIC GUIDE

Before servicing, check the following:

- Make sure there is power at the wall outlet.
- Has a household fuse blown or circuit breaker tripped? Time delay fuse?
- Is dryer vent properly installed and clear of lint or obstructions?
- All tests/checks should be made with a VOM (volt-ohm-milliammeter) or DVM (digital-voltmeter) having a sensitivity of 20,000 ohms per volt DC or greater.
- Check all connections before replacing components. Look for broken or loose wires, failed terminals, or wires not pressed into connectors far enough.
- A potential cause of a control not functioning is corrosion on connections. Observe connections and check for continuity with an ohmmeter.
- Connectors: Look at top of connector. Check for broken or loose wires. Check for wires not pressed into connector far enough to engage metal barbs.
- Resistance checks must be made with power cord unplugged from outlet.

DIAGNOSTIC TESTS

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

ACTIVATING THE DIAGNOSTIC TEST MODE

1. Be sure the dryer is in standby mode (plugged in with all indicators off, or with only the Cycle Complete indicator on).
2. Select any one button (except PAUSE/CANCEL) and follow the steps below, using the same button (remember the button):

Press/hold 3 seconds → Release for 3 seconds → Press/hold 3 seconds → Release for 3 seconds → Press/hold 3 seconds

3. If this test mode has been entered successfully, all indicators on the console are illuminated for 5 seconds with **88** showing in the “Estimated Time Remaining” two-digit display. If there are no Saved Fault Codes or Active Fault Codes, all indicators on the console will momentarily turn off, then stay on with **88** displayed.

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

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

Action: Select any cycle. If indicators come on, try to change the function for the button used to activate the diagnostic test mode. If that button fails to change the function, something is faulty with the button, and it is not possible to enter the diagnostic mode. Remove the console electronics and housing assembly. See Accessing & Removing the Electronic Assemblies.

- If no indicators come on after selecting the cycle, go to TEST #1.

Indication 2: Fault code flashes from the display.

Action: Review the Display Fault Codes table for the recommended procedure.

Diagnostic: Saved Fault Codes

If there are saved fault codes, the most recent fault code will alternately show “**F-**” and “**XX**” where **XX** is the fault code, and all the cycle selector indicators flash.

Press and release the same button used to activate Diagnostics	→ beep tone →	Second most recent fault code is displayed.
Repeat	→ beep tone →	Third most recent fault code is displayed.
Repeat	→ beep tone →	Fourth most recent fault code is displayed.
Repeat	→ All indicators momentarily turn off, then stay on.	

Diagnostic: Active Fault Codes

If there is an active fault code, it will be flashing in the display (the cycle indicators do not flash). Review the Display Fault Codes table for the recommended procedure.

If there is no active fault code, 88 will be displayed.

Diagnostic: Console Buttons and Indicators

Pressing buttons and rotating the cycle selector will turn off the corresponding indicator and sound a beep as shown in Figure 1, Console Diagnostics. Pressing more time will toggle the left digit on the display while sounding a beep. Pressing less time will toggle the right digit on the display while sounding a beep.

If indicators fail to come on and beep after pressing buttons and rotating the cycle selector, go to TEST #5.

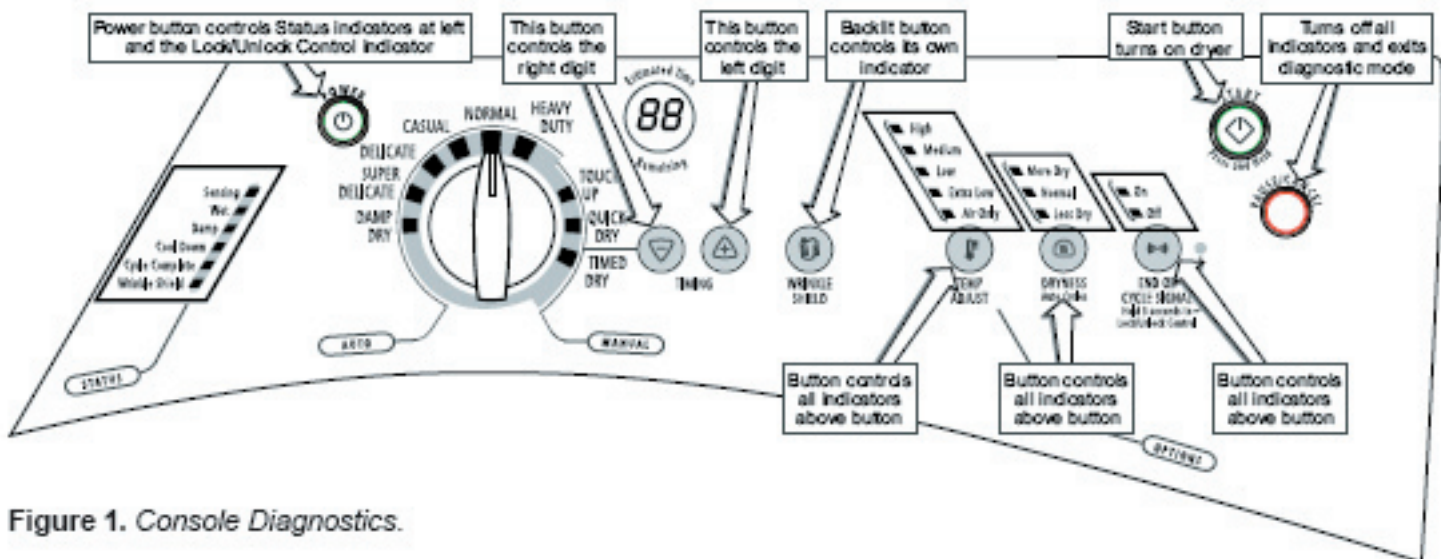


Figure 1. Console Diagnostics.

Diagnostic: Door Switch

Opening the door should cause a beep and an alphanumeric number to be displayed. Closing the door should cause a beep and **88** to be displayed.

If opening the door fails to cause a beep and a number and letter to be displayed, go to TEST #6.

Diagnostic: Moisture Sensor

Open the door and locate two metal strips on the face of the lint screen housing. Bridge these strips with a wet cloth or a finger. If a beep is heard and an alphanumeric number is displayed on the console, the sensor is OK. If not, or if a beep tone is heard before bridging the moisture strips, go to TEST #4.

Diagnostic: Motor, Heater, and Console ID

Close the door. Press the START button. The motor and heater will turn on, and the display will show one of the following Console IDs: 9b, 9C, 9d, 9E, or 9F.

While running, press the START button again. The motor and heater will turn off, and the display will show **88**.

- If none of the Console IDs are displayed, replace the console electronics and housing assembly. See Accessing & Removing the Electronic Assemblies.
- If the motor does not turn on, go to TEST #2.
- If no heat is detected, go to TEST #3.

DE-ACTIVATING THE DIAGNOSTIC TEST MODE

Press the PAUSE/CANCEL button to exit diagnostics.

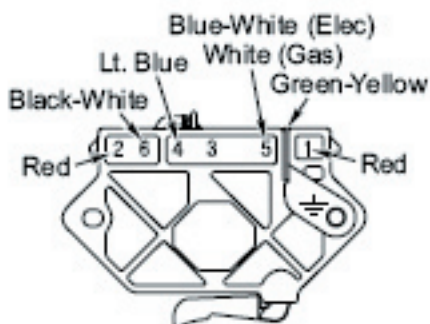
DISPLAY FAULT CODES

The fault codes below would be indicated when attempting to start a drying cycle, or after activating the diagnostic test mode.

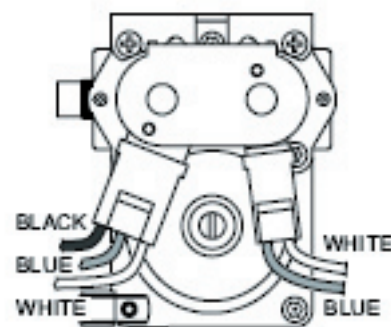
DISPLAY	DESCRIPTION	EXPLANATION AND RECOMMENDED PROCEDURE
<i>PF</i>	Power Failure	"PF" flashes to indicate that a power failure occurred while the dryer was running. Press START to continue the cycle, or press PAUSE/CANCEL to clear the display.
<i>F-01</i>	Primary Control Failure	"F-01" flashes when there is a primary control failure. Replace the machine control electronics. See Accessing & Removing the Electronic Assemblies.
<i>F-02</i>	Keypad/User Interface Failure	"F-02" flashes when there is a stuck button or user interface mismatch. This fault code will ONLY appear when in the diagnostic test mode. See TEST #5.
<i>F-22</i>	Exhaust Thermistor Open	"F-22" flashes if the thermistor is open. See TEST #3a.
<i>F-23</i>	Exhaust Thermistor Shorted	"F-23" flashes if the thermistor has shorted. See TEST #3a.
<i>F-26</i>	Motor Drive System Failure	"F-26" flashes if there is a motor drive system failure. See TEST #2.
<i>F-28</i>	Moisture Sensor Open	"F-28" flashes if the moisture sensor strip is open. This fault code will ONLY appear when in the diagnostic test mode. See TEST #4.
<i>F-29</i>	Moisture Sensor Shorted	"F-29" flashes if the moisture sensor strip has shorted. This fault code will ONLY appear when in the diagnostic test mode. See TEST #4.

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

Centrifugal Switch (Motor)



Pluggable Drive Motor Switch



Gas Valve - Gas Dryer

TROUBLESHOOTING GUIDE

Some tests will require accessing components. See Figure 2 for component locations.

PROBLEM	POSSIBLE CAUSE / TEST
NOTE: Possible Cause/Tests MUST be performed in the sequence shown for each problem.	
WON'T POWER UP. (No response when buttons are pressed.)	<ol style="list-style-type: none"> 1. Supply connections. See TEST #1. 2. Check harness connections. 3. Console electronics and housing assembly. See TEST #5.
WON'T START CYCLE WHEN START BUTTON IS PRESSED.	<ol style="list-style-type: none"> 1. If number display flashes, check to be sure the door is completely shut, and press and hold down START for about 1 second. 2. See TEST #2. 3. See TEST #6.
WON'T SHUT OFF WHEN EXPECTED.	<ol style="list-style-type: none"> 1. Check PAUSE/CANCEL button. See TEST #5. 2. Console electronics and housing assembly. See TEST #5. 3. Moisture sensor. See TEST #4.
CONTROL WON'T ACCEPT SELECTIONS.	Console electronics and housing assembly. See TEST #5.
WON'T HEAT.	<ol style="list-style-type: none"> 1. Heater. See TEST #3. 2. Check harness connections. 3. Check installation.
HEATS IN AIR CYCLE.	Heater. See TEST #3.
SHUTS OFF BEFORE CLOTHES ARE DRY.	<ol style="list-style-type: none"> 1. Check the dryness setting for auto cycles. 2. Check for full lint screen. 3. Check for clogged vent. 4. Moisture sensor. See TEST #4. 5. Dryness adjust. See TEST #4a.

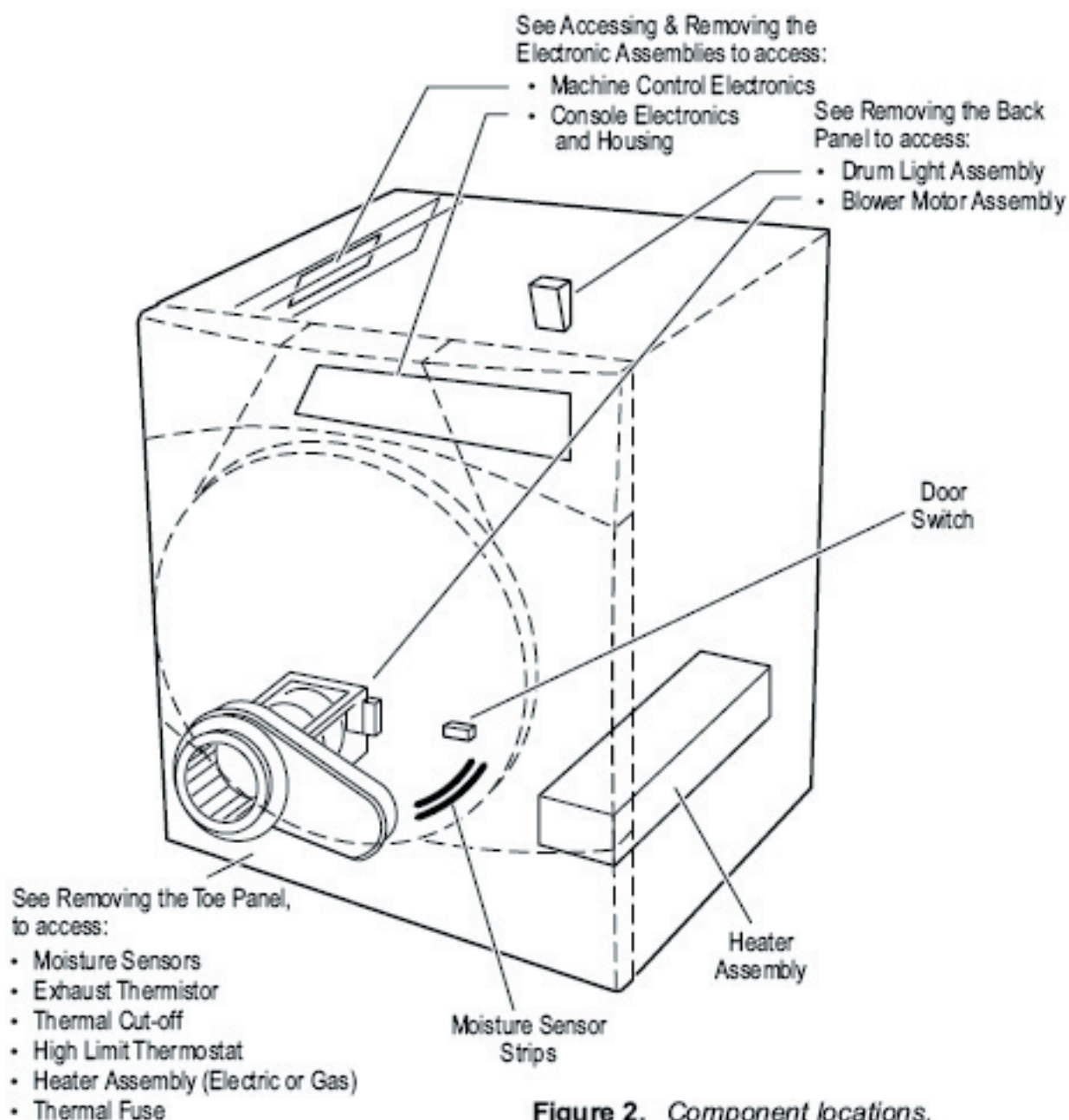


Figure 2. *Component locations.*

TROUBLESHOOTING TESTS

NOTE: These checks are done with the dryer unplugged or disconnected from power.

TEST #1 Supply Connections

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

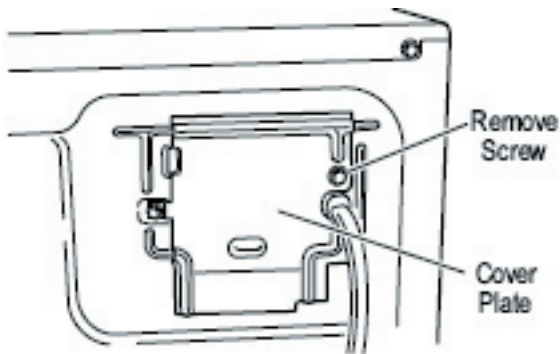


Figure 3. Remove the cover plate.

ELECTRIC DRYER

1. Unplug dryer or disconnect power.
2. Remove the cover plate from the top right corner of the back of the dryer. See Figure 3.
3. With an ohmmeter, check for continuity between the neutral (N) terminal of the plug and the center contact on the terminal block. See Figure 4.
 - 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 4.

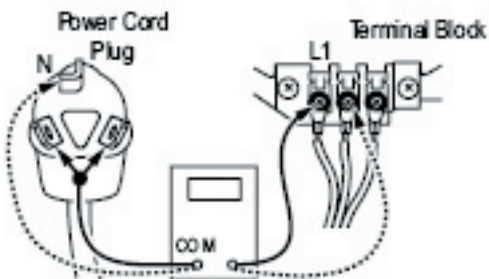
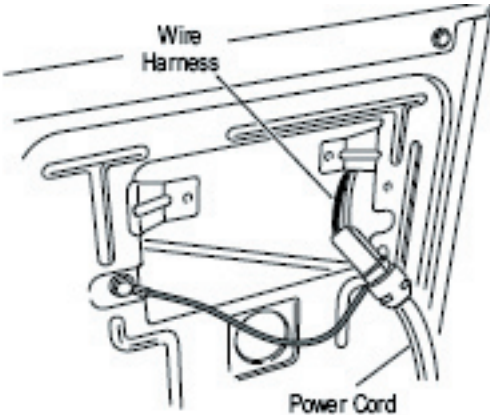


Figure 4. Plug-to-terminal connections for electric dryer.

- 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 test the dryer.
5. Access the machine control electronics without disconnecting any wiring to the control board. See figure 16.
 6. With an ohmmeter, check for continuity between the L1 terminal of the plug (found in step 4) and P9-2 (black wire) on the machine control board. See Figure 17.
 - 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 P8-3 (white wire) on the machine control board.
 - If there is continuity, go to step 8.
 - If there is no continuity and the mechanical connections of the wire are secure, replace the main wire harness.
 8. Visually check that the P5 connector is inserted all the way into the machine control electronics.
 9. Visually check that the console electronics and housing assembly is properly inserted into the front console.
 10. If both visual checks pass, replace the console electronics and housing assembly.
 11. Plug in dryer or reconnect power.
 12. Perform the Console Buttons and Indicators Diagnostic test to verify repair.
 13. If indicators still do not light, the machine control electronics has failed:
 - Unplug dryer or disconnect power.
 - Replace the machine control electronics.
 - Plug in dryer or reconnect power.
 - Perform the Console Buttons and Indicators Diagnostic test to verify repair.

GAS DRYER

1. Unplug dryer or disconnect power.
2. Remove the cover plate from the top right corner 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 5.



4. Access the machine control electronics without disconnecting any wiring to the control board. See figure 16.
5. With an ohmmeter, check for continuity between the neutral (N) terminal of the plug and P8-3 (white wire) on the machine control board. The left-hand side of figure 6 shows the position of the neutral terminal (N) on the power cord plug. Also see Figure 17.
 - If there is continuity, go to step 6.
 - If there is no continuity, disconnect the white wire of the harness from the power cord at the location illustrated in Figure 5. Test the continuity of the power cord neutral wire as illustrated in Figure 6. If an open circuit is found, replace the power cord. Otherwise, go to step 6.

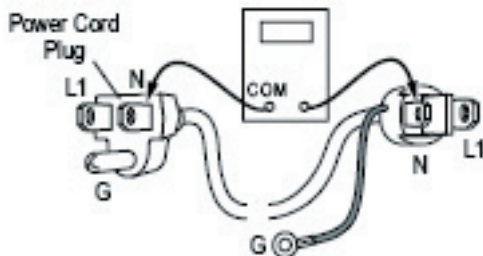


Figure 6. Power cord terminals, gas dryer.

6. In a similar way, check the continuity between the L1 terminal of the plug and P9-2 (black wire) on the control board. See Figure 17.
 - If there is continuity, go to step 8.
 - If there is no continuity, check the continuity of the power cord in a similar way to that illustrated in Figure 6, but for power cord's L1 wire.
 - If an open circuit is found, replace the power cord. Otherwise, go to step 7.
7. Replace the main harness.
8. Visually check that the P5 connector is inserted all the way into the machine control electronics.
9. Visually check that the console electronics and housing assembly is properly inserted into the front console.
10. If both visual checks pass, replace the console electronics and housing assembly.
11. Plug in dryer or reconnect power.
12. Perform the Console Buttons and Indicators Diagnostic test to verify repair.
13. If indicators still do not light, the machine control electronics has failed:
 - Unplug dryer or disconnect power.
 - Replace the machine control electronics.
 - Plug in dryer or reconnect power.
 - Perform the Console Buttons and Indicators Diagnostic test to verify repair.

TEST #2 Motor Circuit Test

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

Part of Motor System	Electric Dryer	Gas Dryer
- Harness/connection	✓	✓
- Thermal fuse	✓	no
- Belt/belt switch	✓	✓
- Drive motor	✓	✓
- Centrifugal switch	✓	✓
- Door switch	✓	✓
- Machine control electronics. See ESD information.	✓	✓

1. Unplug dryer or disconnect power.
2. Access the machine control electronics and measure the resistance across P8-4 and P9-1. See Accessing & Removing the Electronic Assemblies.
 - If resistance across P8-4 and P9-1 is in the range of 1 to 6 ohms, replace the machine control electronics.
 - Otherwise, go to step 3.
3. Check the wiring and components in the path between these measurement points by referring to the appropriate wiring diagram (gas or electric).

ELECTRIC DRYER ONLY: Check the thermal fuse. See TEST #3b.

ALL DRYERS: Continue with step 4 below to test the remaining components in the motor circuit.

4. Check the belt switch and drive motor. Access the belt switch and drive motor by removing the back panel. Carefully remove the drum belt from the spring-loaded belt switch pulley, gently letting the belt switch pulley down. See Figure 7.

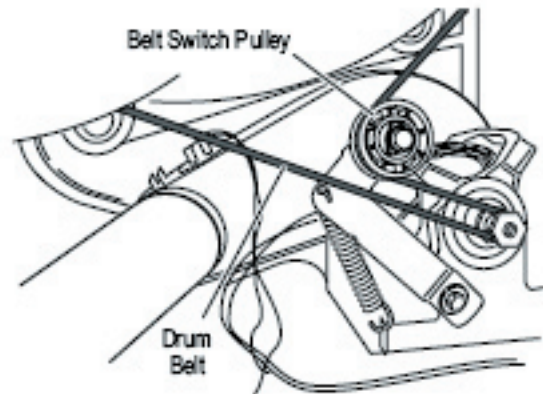


Figure 7. Carefully remove drum belt.

5. Remove the white connector from the drive motor switch. See Figure 8.

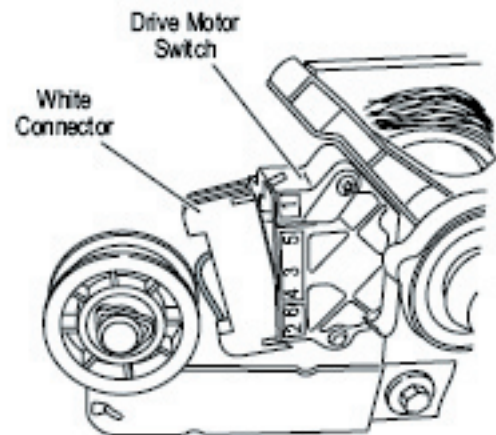


Figure 8. Remove white connector.

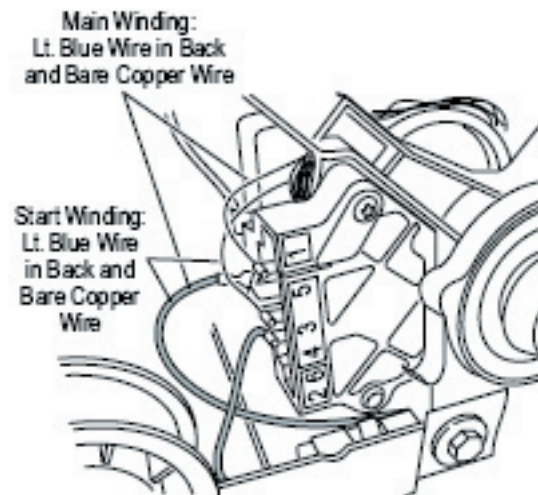


Figure 9. Main and start winding measure points.

- Using Figure 9, check for the resistance values of the motor's Main and Start winding coils as shown below.

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

WINDING	RESISTANCE (Ω)	CONTACT POINTS OF MEASUREMENT
MAIN	2.4–3.6 Ω	Lt. blue wire in back at pin 4 and bare copper wire on pin 5 of black drive motor switch
START	2.4–3.8 Ω	Lt. blue wire in back at pin 4 and bare copper wire 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 machine control electronics. Check for failed belt switch.
- Check the belt switch by measuring resistance between the two light blue wires, as shown in Figure 10, while pushing up the belt switch pulley.

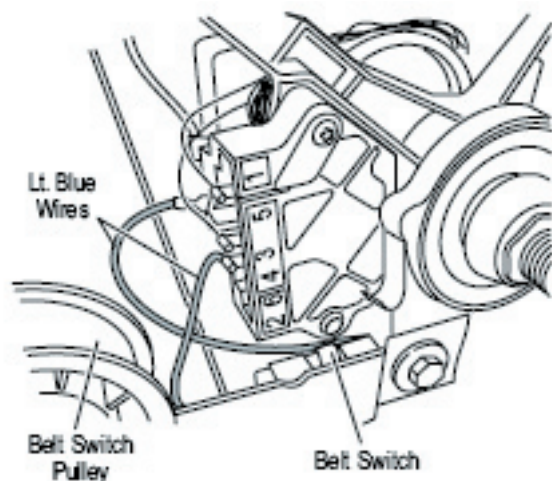


Figure 10. Checking the belt switch.

- If the resistance reading goes from infinity to a few ohms as pulley arm closes the switch, belt switch is OK. If not, replace the belt switch.
- If belt switch is OK and there is still an open circuit, check and repair the wiring harness.
- If the Start winding is in question and the resistance is much greater than 4 ohms, replace the motor.

- Door Switch problems can be uncovered in the Door Switch Diagnostic Test; however, if this was not done, the following can be done without applying power to the dryer. Connect an ohmmeter across P8-3 (neutral, white wire) and P8-4 (door, tan wire).

- With the door properly closed, the ohmmeter should indicate a closed circuit (0–2 ohms).
- If not, replace the door switch assembly.

TEST #3 Heater Test

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

- Dryer does not heat
- Heat will not shut off

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

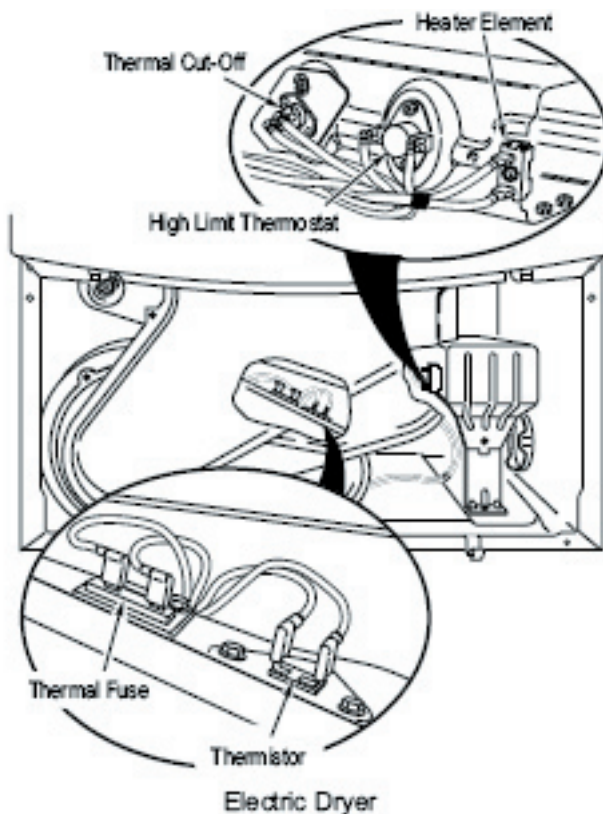
Part of Heating System	Electric Dryer	Gas Dryer
- Harness/connection	✓	✓
- Heater relay	✓	✓
- Thermal cut-off	✓	✓
- Thermal fuse	no	✓
- High limit thermostat	✓	✓
- Heat element assembly	✓	no
- Gas burner assembly	no	✓
- Centrifugal switch	✓	✓
- Exhaust thermistor	✓	✓
- Machine control electronics. See ESD information.	✓	✓
- Console electronics and housing assembly	✓	✓
- Gas supply	no	✓

Dryer does not heat:

Locate the components using Figure 11.

ELECTRIC DRYER:

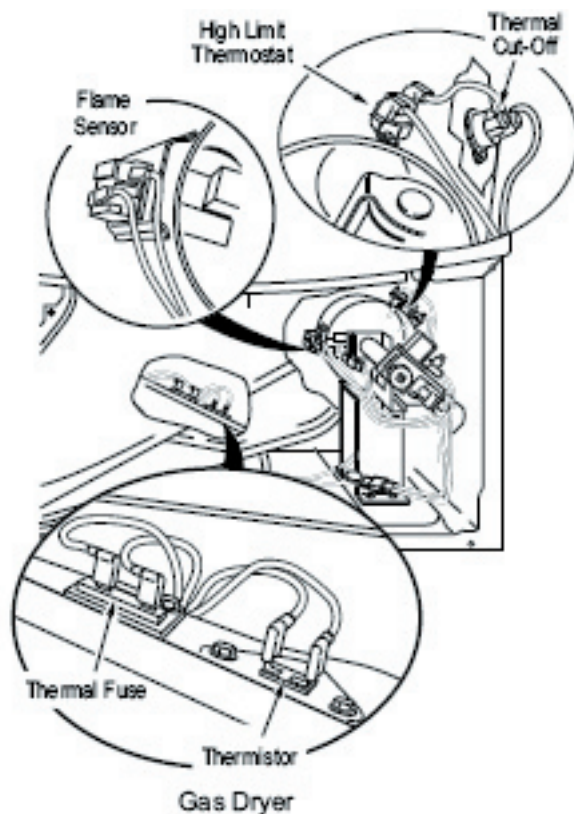
1. Unplug dryer or disconnect power.
2. Remove the toe panel to access the thermal components. See Figure 14.
3. Using an ohmmeter and referring to the wiring diagram, measure the resistance from the red wire at the thermal cut-off to the red wire at the heater.
 - If the resistance is about 10 ohms, go to step 5.
 - If an open circuit is detected, go to step 4.
4. Visually check the wire connections to the thermal cut-off, high limit thermostat, and heater. If connections look good, check for continuity across each of these components. Replace the heater if it is electrically open. Replace both the thermal cut-off and high limit thermostat if either one is electrically open.
5. If no open circuit is detected, measure the resistance between P14-3 (red-white wire) and P14-6 (red-white wire) at the machine control board. See Figure 17; and Accessing & Removing the Electronic Assemblies.



- If 5–15k Ω are measured, replace the machine control electronics.
- If the resistance is less than 1k Ω , replace the thermistor.

GAS DRYER:

1. Unplug dryer or disconnect power.
2. Remove the toe panel to access the thermal components. See Figure 14.
3. Perform TEST #3b. If the thermal fuse is OK, go to step 4.
4. Perform TEST #3c. If the thermal cut-off is OK, go to step 5.
5. Locate the high limit thermostat. See Figure 11. Measure the continuity through it by connecting the meter probes on the red wire and blue wire.
 - If there is an open circuit, replace the high limit thermostat and thermal cut-off.
 - Otherwise, go to step 6.
6. Perform TEST #3d (Gas Valve Test). If this is OK, replace the machine control electronics.



Heat will not shut off:

1. Unplug dryer or disconnect power.
2. Access the machine control electronics, and measure the resistance between P14-3 (red-white wire) and P14-6 (red-white wire). See Accessing & Removing the Electronic Assemblies.
 - If 5–15 k ohms are measured, replace the machine control electronics.
 - If the resistance is greater than 20 kΩ, replace the thermistor.

TEST #3a Thermistor Test

The machine control electronics monitors the exhaust temperature using the thermistor, and cycles the heater relay on and off to maintain the desired temperature.

Begin with an empty dryer and a clean lint screen.

1. Plug in dryer or reconnect power.
2. Start the Timed Dry cycle.
3. If after 60 seconds, *F-22* or *F-23* flashes in the display and the dryer shuts off, the thermistor or wire harness is either open or shorted.
 - Unplug dryer or disconnect power.
 - Check wire connections at the machine control electronics and thermistor. See Accessing & Removing the Electronic Assemblies, and for thermistor location see Figure 11.
 - If wire connections are good, remove the two wires from the thermistor and replace the thermistor. See Figure 11.
 - Plug in dryer or reconnect power.

4. If *F-22* or *F-23* does not flash in the display, the connections to the thermistor are good. Therefore, check the thermistor's resistance value at any or all of the temperature levels in question, using the Timed Dry cycle, and the following process:

Hold a glass bulb thermometer capable of reading from 90° to 180°F (32° to 82°C) in the center of the exhaust outlet. The correct exhaust temperatures are as follows:

EXHAUST TEMPERATURES		
TEMPERATURE SETTING	HEAT TURNS OFF*	HEAT TURNS ON
High	155° ± 5°F (68° ± 3°C)	10–15°F (6–8°C) below the heat turn off temperature
Medium	140° ± 5°F (60° ± 3°C)	
Low	125° ± 5°F (52° ± 3°C)	
Extra Low	115° ± 5°F (46° ± 3°C)	

* The measured overshoot using the glass bulb thermometer in the exhaust outlet can be 30°F (17°C) higher.

5. If the exhaust temperature is not within specified limits, check the resistance of the thermistor.

NOTE: All thermistor resistance measurements must be made while dryer is disconnected from power.

The table below gives the resistance values that should be observed for the various temperature settings.

TEMP. SETTING	TEMPERATURE	Thermistor resistance value at heater shutoff (digital or analog meter) k Ω	
High	155° ± 5°F (68° ± 3°C)	2.1	1.7
Medium	140° ± 5°F (60° ± 3°C)	2.8	2.3
Low	125° ± 5°F (52° ± 3°C)	3.8	3.1
Extra Low	115° ± 5°F (46° ± 3°C)	4.7	3.8

If needed, the following table gives temperatures and their associated resistance values.

THERMISTOR RESISTANCE			
TEMP. °F (°C)	RES. k Ω	TEMP. °F (°C)	RES. k Ω
50° (10°)	19.9	80° (27°)	9.2
60° (16°)	15.3	90° (32°)	7.4
70° (21°)	11.9	100° (38°)	5.7

- If the thermistor resistance checks within normal limits, replace the machine control electronics.

TEST #3b Thermal Fuse Test

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

GAS DRYER: The thermal fuse is wired in series with the dryer gas valve.

ALL DRYERS:

1. Unplug dryer or disconnect power.
2. Access the thermal fuse by first removing the toe panel. See Removing the Toe Panel; and for thermal fuse location see Figure 11.
3. Using an ohmmeter, check the continuity across the thermal fuse. See Figure 11 for location.
 - If the ohmmeter indicates an open circuit, replace the failed thermal fuse.

TEST #3c Thermal Cut-Off Test

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 first removing the toe panel. See Removing the Toe Panel.
3. Using an ohmmeter, check the continuity across the thermal cut-off. See Figure 11 for location.
 - If the ohmmeter indicates an open circuit, replace the failed thermal cut-off and high limit thermostat. In addition, check for blocked or improper exhaust system, or failed heat element (electric dryer).

TEST #3d Gas Valve Test, Gas Dryer Only

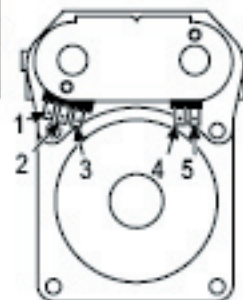
1. Unplug dryer or disconnect power.
2. Access the gas valve by removing the toe panel. See Removing the Toe Panel.

3. Use an ohmmeter to determine if a gas valve coil has failed. Remove harness plugs. Measure resistance across terminals. Readings should match those shown in the following chart. If not, replace coil.

Terminals	Resistance
1 to 2	1365 Ω \pm 25
1 to 3	560 Ω \pm 25
4 to 5	1220 Ω \pm 50

IMPORTANT:

Be sure all harness wires are looped back through the strain relief after checking or replacing coils.



TEST #4 Moisture Sensor Test

NOTE: This test is started with the machine completely assembled.

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

NOTE: Dryer will shut down automatically after 2-1/2 hours.

The following items are part of this system:

- Harness/connection
 - Metal sensor strips
 - Machine control electronics
1. Activate the diagnostic test mode and advance past saved fault codes.
 2. Open the dryer door. If a beep tone is heard and an alphanumeric number is displayed on the console as soon as the door is opened, a short circuit exists in the moisture sensor system.
 - If this doesn't happen, go to step 3.
 - Otherwise, go to step 4.

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

3. Locate the two metal sensor strips on the face of the lint screen housing. Bridge these strips with a wet cloth or finger.
 - If a beep tone is heard and a software revision number is displayed on the console, the sensor passes the test. Go to step 4.
 - If not, unplug dryer or disconnect power.
 - Access the moisture sensor wires by removing the toe panel. See Removing the Toe Panel. Disconnect the sensor wires from the harness. See Figure 12. Go to step 9.

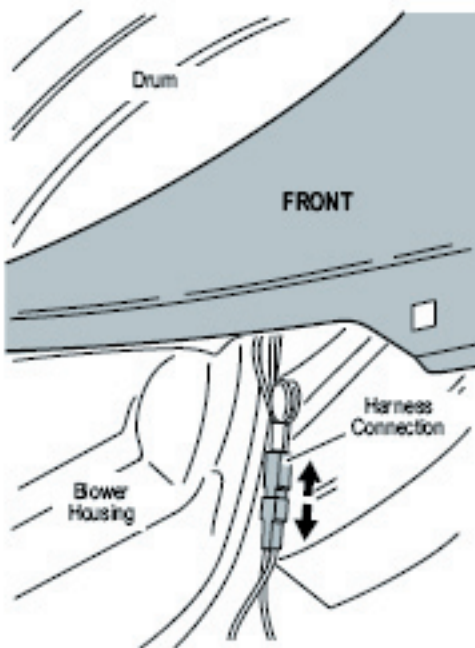


Figure 12. Disconnect sensor from wire harness.

4. Unplug dryer or disconnect power.
5. Access the machine control electronics. See Accessing & Removing the Electronic Assemblies. Remove the connector P13 from the circuit board. Measure the resistance across terminals 1 (yellow-red wire) and 2 (yellow-red wire). See Figure 17.

- If the ohmmeter does not indicate (infinity) open circuit, go to step 6.
- Otherwise, measure the resistance across between pins 1 and 2 of connector P13 on the machine control board. If a resistance less than 1 megohm is measured (with analog or digital ohmmeter), inspect the control board for any debris bridging these pins. If no debris, replace the machine control electronics.

6. Access the moisture sensor by removing the toe panel. See Removing the Toe Panel. Disconnect the sensor from the wire harness. See Figure 12.

7. Measure the resistance across the outermost contacts of the cable that includes the two red MOVs.



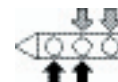
- If a small resistance is measured, replace this component (Wire Harness, Moisture Sensor).
- Otherwise, go to step 8.

8. Measure the resistance across the pins of the mating connector.



- If a small resistance is measured here, replace this harness (Digital Wire Harness).

9. Measure the resistance across each of the outermost contacts and the center terminal (ground connection).



- If a resistance less than infinity is measured, replace this component (Wire Harness, Moisture Sensor).

10. If moisture sensor diagnostic test passes, check the thermistor: Perform TEST #3a.
 - If the problem persists after replacing the moisture sensor and thermistor, replace the machine control electronics.

TEST #4a Adjusting Customer-Focused Drying Modes

NOTE: If the customer is complaining about the clothes being damp and the moisture sensor passes TEST #4 “Moisture Sensor Test” step 3, the total dry time for an automatic cycle can be lengthened by changing from a “1” or standard auto cycle to a “2” or “3” longer auto cycle.

1. Activate the diagnostic test mode, and advance past saved fault codes.
2. In diagnostic test mode, press and hold the Dryness button for 5 seconds. The dryer will beep and the current drying mode will be seen on the display. The factory default value is “1”.
3. To select a different drying mode, press the Dryness button again. The dryer display will flash and show 2, 3, or 1.
4. With the display flashing the selected drying mode, press the START button to save the drying mode and exit diagnostics (the START button in this mode does not start a drying cycle). The result will be stored in EEPROM of the control board, and will be retained after a power loss.
5. Press the PAUSE/CANCEL button at any time to cancel changes and exit from this mode.

TEST #5 Button and Indicator Test

This test is performed when any of the following situations occurs during the Console Buttons and Indicators Diagnostic Test:

- None of the indicators light up
- No beep sound is heard
- Some buttons do not light indicators

None of the indicators light up:

1. See Diagnostic Guide/Before Servicing.
2. Perform Test #1 to verify supply connections.
3. Perform steps in Accessing and Removing the Electronic Assemblies, and visually check that the P5 connector is inserted all the way into the machine control electronics.
4. Visually check that the console electronics and housing assembly is properly inserted into the front console.
5. If both visual checks pass, replace the console electronics and housing assembly.
6. Plug in dryer or reconnect power.
7. Perform the Console Buttons and Indicators Diagnostic test to verify repair.
8. If indicators still do not light, the machine control electronics has failed:
 - Unplug dryer or disconnect power.
 - Replace the machine control electronics.
 - Plug in dryer or reconnect power.
 - Perform the Console Buttons and Indicators Diagnostic test to verify repair.

No beep sound is heard:

1. Perform steps in Accessing and Removing the Electronic Assemblies, and visually check that the P5 connector is inserted all the way into the machine control electronics.
 - If visual check passes, replace the console electronics and housing assembly.
2. Plug in dryer or reconnect power.
3. Perform the Console Buttons and Indicators Diagnostic test to verify repair.

4. If replacing the console electronics and housing assembly failed:
 - Unplug dryer or disconnect power.
 - Replace the machine control electronics.
 - Plug in dryer or reconnect power.
 - Perform the Console Buttons and Indicators Diagnostic test to verify repair.

Some buttons do not light indicators:

1. Perform steps in Accessing and Removing the Electronic Assemblies, and visually check that the console electronics and housing assembly is properly inserted into the front console.
 - If visual check passes, replace the console electronics and housing assembly.
2. Plug in dryer or reconnect power.
3. Perform the Console Buttons and Indicators Diagnostics test to verify repair.

TEST #6 Door Switch Test

Activate the diagnostic test mode, and perform the Door Switch Diagnostic test. Functionality is verified with a beep each time the door is closed and opened, and a number and letter appears in the display (i.e., 0E, 09).

If any of the above conditions are not met, or if one of the dryer model codes listed above is displayed when the door is closed:

- Unplug dryer or disconnect power.
- Check that the wires between the door switch and machine control electronics are connected. See Figure 13 for switch location and see Accessing and Removing the Electronic Assemblies.

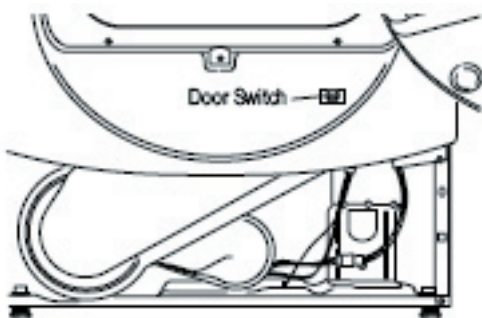


Figure 13. Door switch location.

- If the connections are OK, replace the wire and door switch assembly and re-test.
- If wire and door switch assembly have been replaced and dryer still does not start, replace the machine control electronics.

REMOVING THE TOE PANEL

1. Unplug dryer or disconnect power.
2. Remove two screws below the toe panel.
3. Slide the toe panel down, then pull it out from the bottom. See Figure 14.

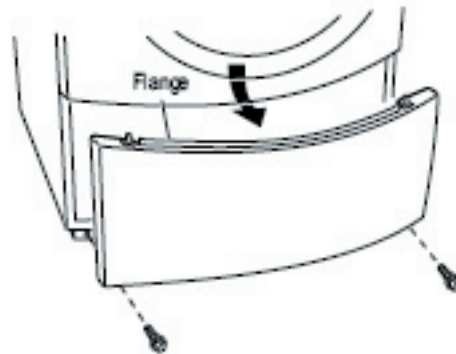


Figure 14. Pull the toe panel down to clear flange, then pull panel out.

ACCESSING & REMOVING THE ELECTRONIC ASSEMBLIES

1. Unplug dryer or disconnect power.
2. Remove the two rear screws from the top panel, and slide the top panel to the rear to remove.

There are two electronic assemblies; the Console Electronics and Housing, and the Machine Control Electronics. See Figure 15.

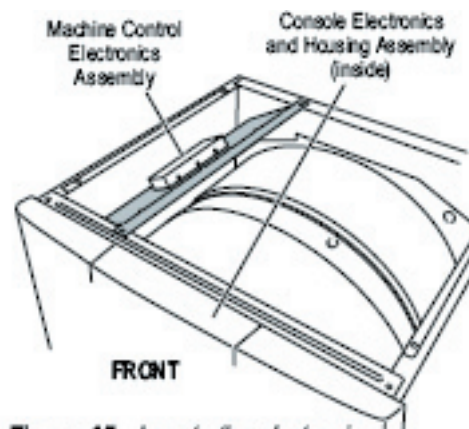


Figure 15. Locate the electronic assemblies.

ACCESSING THE MACHINE CONTROL ELECTRONICS

1. After locating the machine control electronics, remove the two screws that hold the machine control electronics bracket in place.
2. Slide the bracket over the top of the drum to access the machine control electronics connectors and mounting screw. See Figure 16.

REMOVING THE MACHINE CONTROL ELECTRONICS

1. Remove all the wire connections to the machine control electronics. See Figure 17.

2. Remove the screw holding the machine control electronics assembly to the mounting bracket. See Figure 16.
3. There are two plastic legs on the front of the machine control electronics that slide under the mounting bracket. There is one plastic leg on the rear of the machine control electronics that slides under the mounting bracket. There is a locking tab on the bottom of the machine control electronics that snaps into the mounting bracket. Press the locking tab on the bottom of the machine control electronics and slide the assembly to the front, then lift.

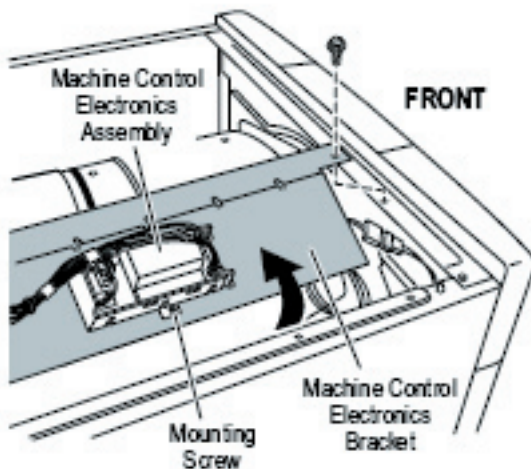


Figure 16. Remove machine control electronics from mounting bracket.

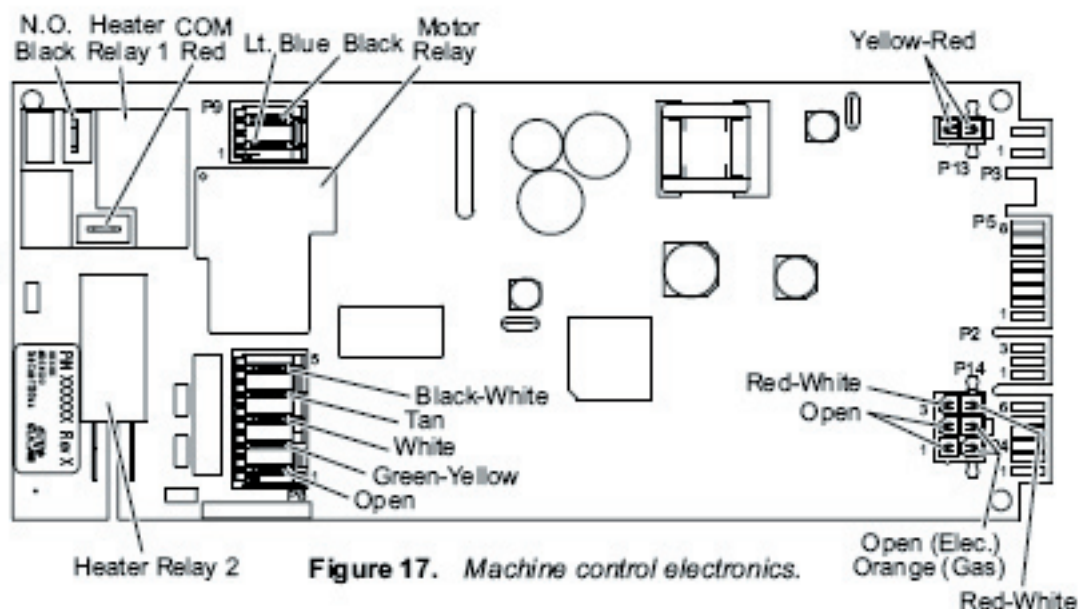


Figure 17. Machine control electronics.

ACCESSING THE CONSOLE ELECTRONICS AND HOUSING ASSEMBLY

1. Access the machine control electronics (see Accessing the Machine Control Electronics) and disconnect the P5 ribbon cable.
2. The console panel must be removed to access the console electronics and housing assembly. Remove the knob from the front of the console panel.
3. The console panel has two locking tabs on the left and right rear, one locking tab on the bottom (hidden), and three snap releases across the top. See Figure 18. Press the locking tab on the right rear, and gently rotate the console panel up as you pull the top free of the three snap releases, finally pressing the locking tab on the left, and lift the console panel off.

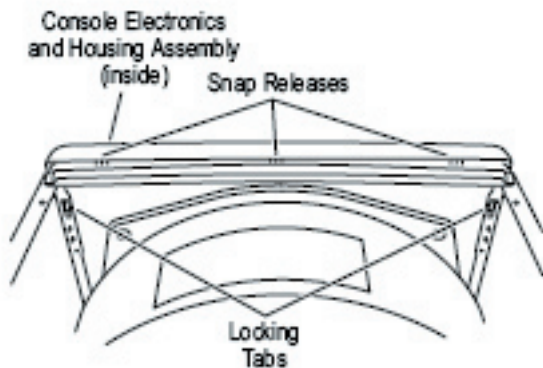


Figure 18. Remove the console panel to access the console electronics and housing assembly.

REMOVING THE CONSOLE ELECTRONICS AND HOUSING ASSEMBLY

The console electronics and housing assembly is held to the console panel by seven locking tabs. Press each of the locking tabs while gently lifting the console electronics and housing assembly out of the console panel. See Figure 19.

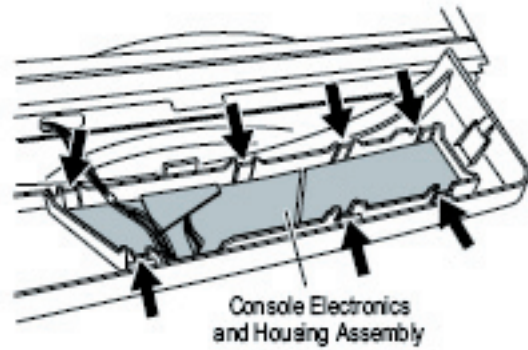


Figure 19. Locate seven locking tabs.

REMOVING THE BACK PANEL

1. Unplug dryer or disconnect power.
2. Remove the two rear screws from the top panel, and slide the top panel to the rear to remove.
3. Remove the cover plate, disconnect the power cord, and remove ground screw.
4. Remove the metal spring clip between the back panel and the exhaust outlet. See Figure 20.

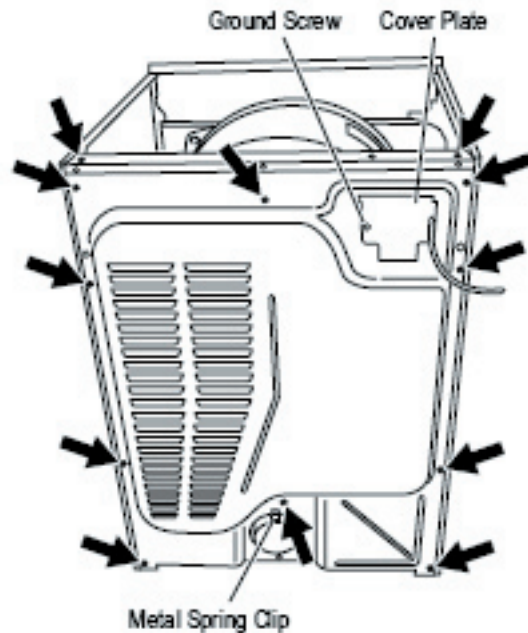


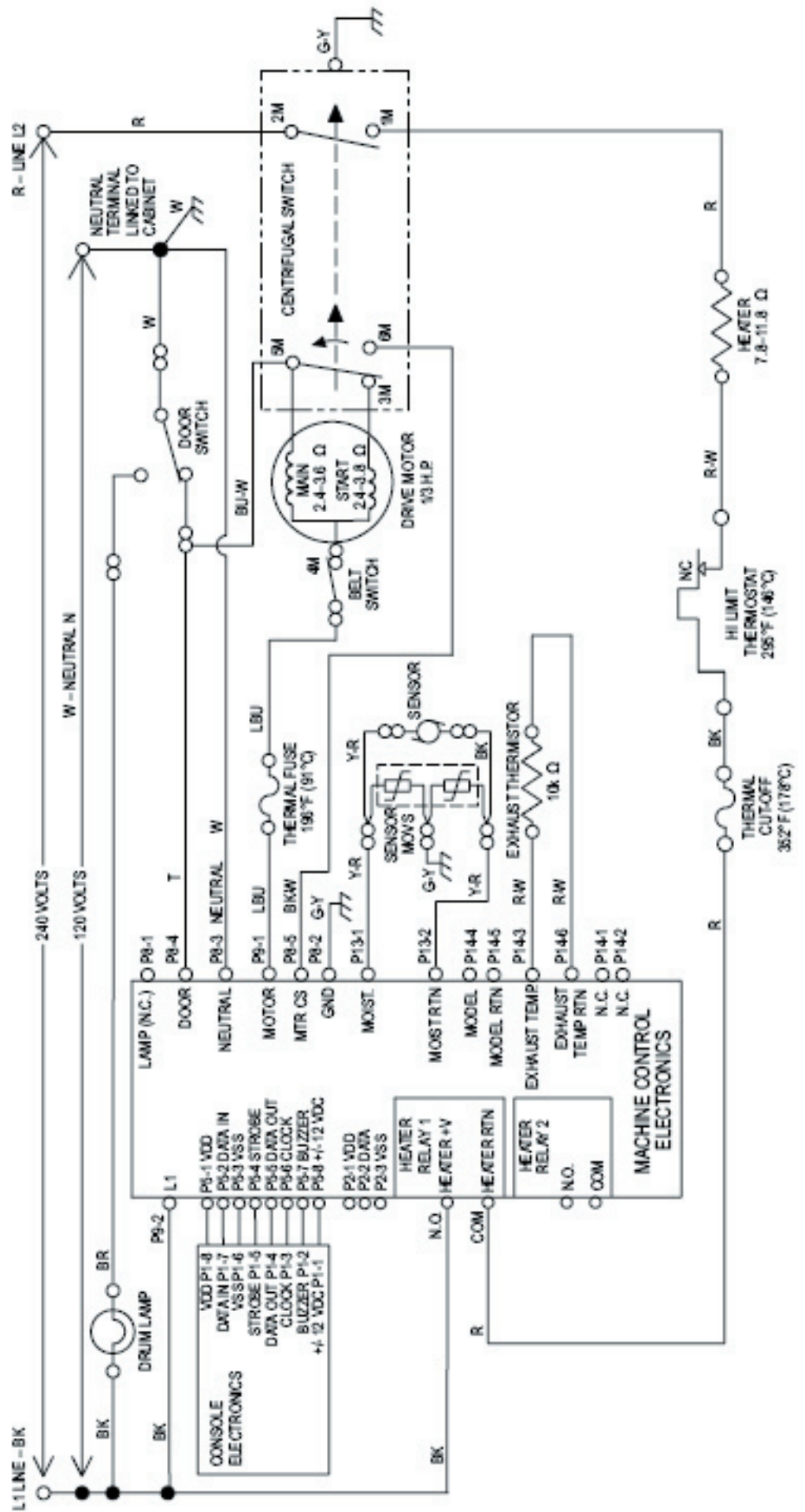
Figure 20. Remove 12 screws.

5. Remove the ten screws on the rear, and two screws on the top of the back panel. Pull the back panel off the machine. See Figure 20.

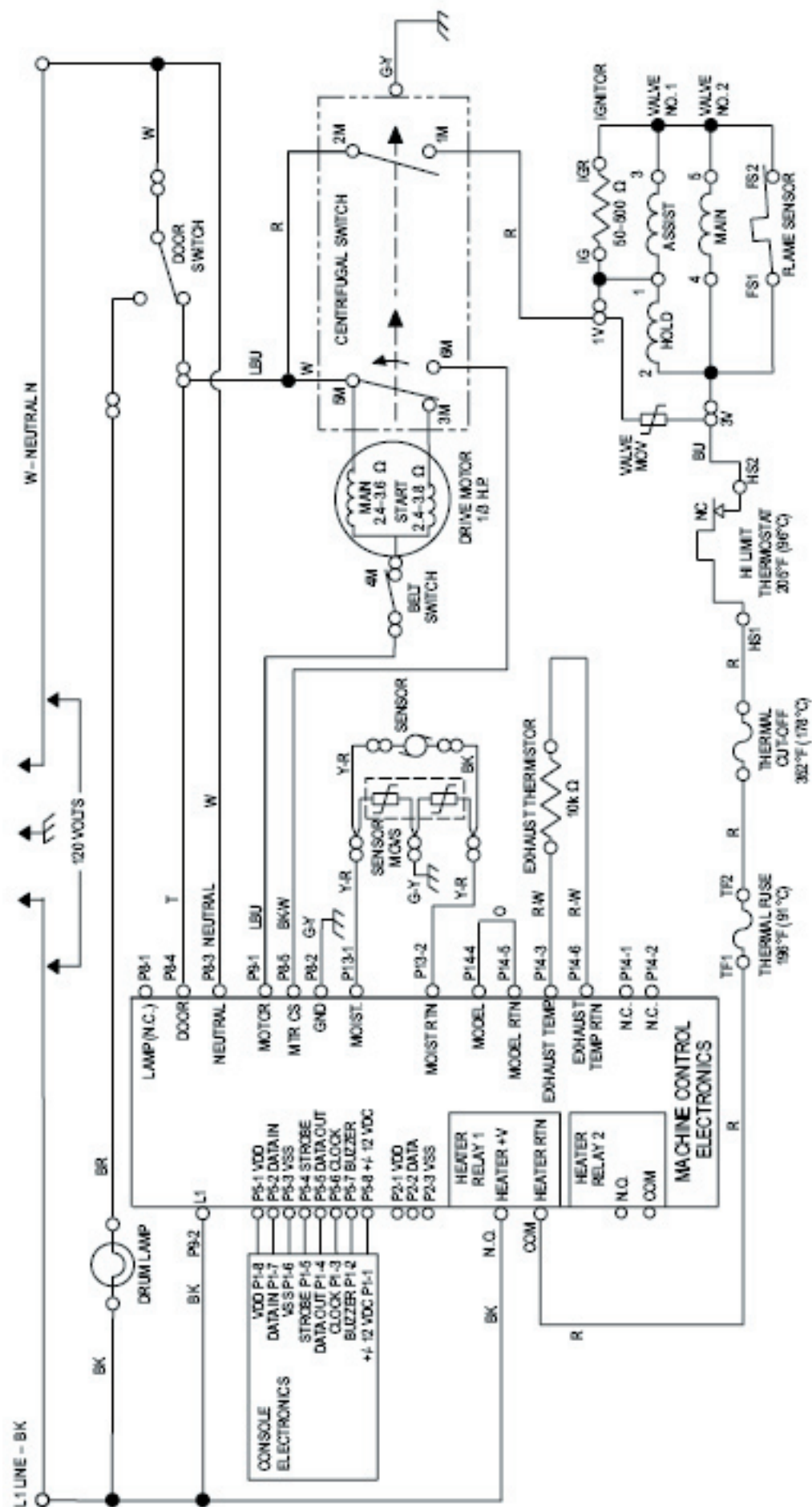
ELECTRIC DRYER: In addition to the above, remove the terminal block from the back panel.

— NOTES —

WIRING DIAGRAMS ELECTRIC DRYER



GAS DRYER



— NOTES —

