# **Installation Instructions**

# for Front Control Dryers





Inside	
Dimensions	
Before You Start	
Installing the Dryer	
Installer Checklist	Back Cove
Date Purchased	
Model Number	
Carial Number	

Keep these instructions for future reference. (If this machine changes ownership, this manual must accompany machine.)





# **WARNING**

FOR YOUR SAFETY, the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or death.

W033

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS:
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Clear the room, building or area of all occupants.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

W052

IMPORTANT: Purchaser must consult the local gas supplier for suggested instructions to be followed if the dryer user smells gas. The gas utility instructions plus the SAFETY and WARNING note directly above must be posted in a prominent location near the dryer for customer use.



## **WARNING**

- Installation of unit must be performed by a qualified installer.
- Install clothes dryer according to manufacturer's instructions and local codes.
- DO NOT install a clothes dryer with flexible plastic venting materials. If flexible metal (foil type) duct is installed, it must be of a specific type identified by the appliance manufacturer as suitable for use with clothes dryers. Refer to section on connecting exhaust system. Flexible venting materials are known to collapse, be easily crushed, and trap lint. These conditions will obstruct clothes dryer airflow and increase the risk of fire.

W729R1



## **WARNING**

#### FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

W053

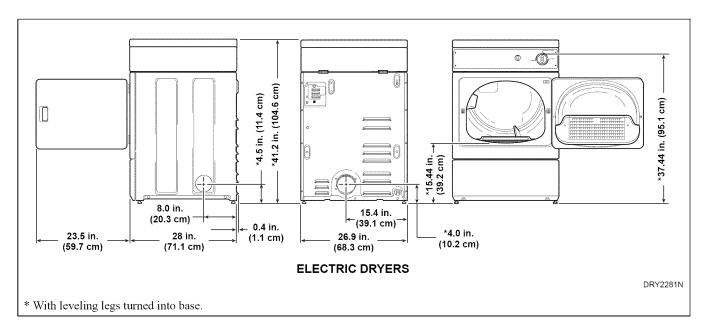
The following information applies to the state of Massachusetts, USA.

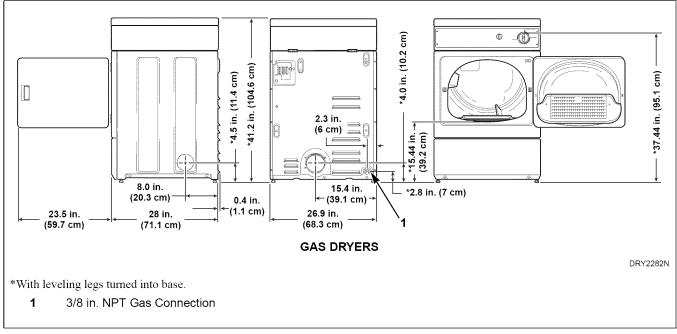
- This appliance can only be installed by a Massachusetts licensed plumber or gas fitter.
- This appliance must be installed with a 36 inch (91 cm) long flexible gas connector.
- A "T-Handle" type gas shut-off valve must be installed in the gas supply line to this appliance.
- This appliance must not be installed in a bedroom or bathroom.

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## **Dimensions**





## **Before You Start**

# **Supplies**

For most installations, the basic supplies you will need are:

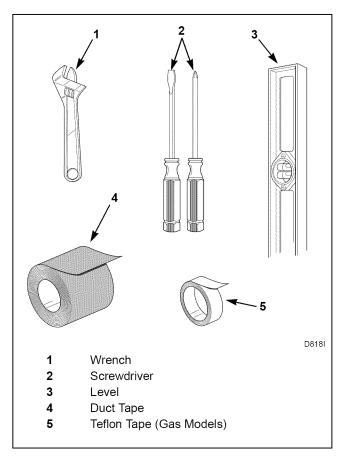


Figure 1



# **WARNING**

Any disassembly requiring the use of tools must be performed by a suitably qualified service person.

W299

# **Installing the Dryer**

### Step 1: Position and Level the Dryer

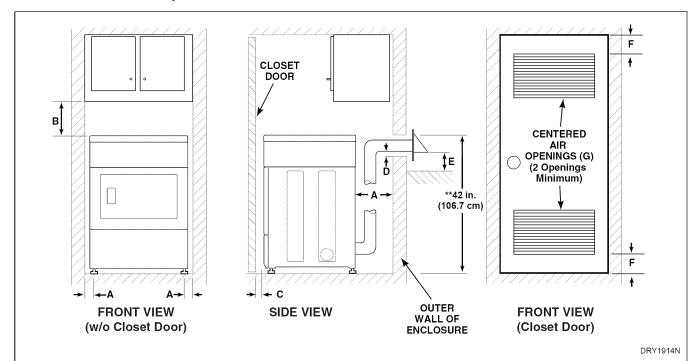
Install dryer before washer. This allows room for attaching exhaust duct.

Select a location with a solid floor. Dryers installed in residential garages must be elevated 18 inches (46 cm) above the floor.

No other fuel burning appliance should be installed in the same closet with the dryer. The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.

Leveling legs can be adjusted from inside the dryer with a 1/4 inch driver. All four legs must rest firmly on the floor so the weight of the dryer is evenly distributed. The dryer must not rock.

The dryers needs sufficient clearance and an adequate air supply for proper operation and ventilation, and for easier installation and servicing. (Minimum clearances are shown below).



Area	Description	Free Standing/Alcove Installation	Closet Installation
Α	Dryer sides and rear clearance	0 in. (0 cm)	0 in. (0 cm)
В	Dryer top clearance	12 in. (30.5 cm)	12 in. (30.5 cm)
С	Dryer front clearance	Not Applicable	2 in. (5.1 cm)
D	Exhaust duct clearance to combustible material	2 in. (5.1 cm)	2 in. (5.1 cm)
E	Weather hood to ground clearance	12 in. (30.5 cm)	12 in. (30.5 cm)
F	Distance from floor or ceiling to hole edge	Not Applicable	3 in. (7.6 cm)
G*	Area of centered air openings in closet door	Not Applicable	40 sq. in./open (260 sq. cm)

<sup>\*</sup>Louvered door with equivalent air openings is acceptable. (Minimum clearances are shown.)

Figure 2

<sup>\*\*</sup>NOTE: For new installations, locate top of wall vent 42 inches (106.7 cm) above floor to make venting easier to connect.

Place the dryer in position, and adjust the legs until the dryer is level from side to side and front to back. The dryer must not rock.

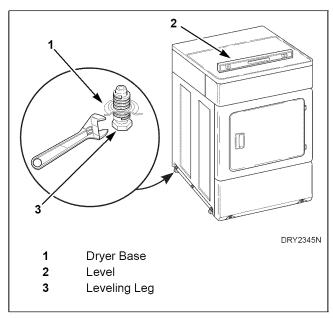


Figure 3

IMPORTANT: In mobile home installations, gas dryers MUST be permanently attached to the floor at the time of installation. Order No. 526P3 Dryer Installation Kit (available at extra cost) for a manufactured (mobile) home installation. Follow the instructions supplied with the kit.

**Step 2: Connect Dryer Exhaust System** 



### WARNING

A clothes dryer produces combustible lint. To reduce the risk of fire and combustion gas accumulation the dryer MUST be exhausted to the outdoors.

W116

To reduce the risk of fire and the accumulation of combustion gases, DO NOT exhaust dryer air into a window well, gas vent, chimney or enclosed, unventilated area, such as an attic, wall, ceiling, crawl space under a building or concealed space of a building.

W045



## WARNING

This gas appliance contains or produces a chemical or chemicals which can cause death or serious illness and which are known to the State of California to cause cancer, birth defects, or other reproductive harm. To reduce the risk from substances in the fuel or from fuel combustion, make sure this appliance is installed, operated, and maintained according to the instructions in this manual.

W115

To reduce the risk of fire, DO NOT use plastic or thin foil ducting to exhaust the dryer.

W354

• DO NOT use plastic or thin foil ducting. Rigid metal duct is recommended.

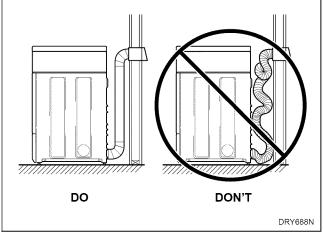


Figure 4

- Locate dryer so exhaust duct is as short as possible.
- Be certain old ducts are cleaned before installing your new dryer.
- Use 4 inch (102 mm) diameter rigid or flexible metal duct.
- The male end of each section of duct must point away from the dryer.
- Use as few elbows as possible.

- Use duct tape or pop-rivets on all duct joints. DO NOT use sheet metal screws or fasteners on exhaust pipe joints which extend into the duct and catch lint.
- Ductwork that runs through unheated areas must be insulated to help reduce condensation and lint build-up on pipe walls.
- When exhausting the dryer to the outdoors, the dryer can be installed with "0" inch clearance at sides and rear. Clearance of the duct from combustible construction must be a minimum of 2 inches (5.08 cm).
- For proper operation, it is important that the dryer has an ample amount of outside make-up air. The free area of any opening for the introduction of outside air must be at least 25 in.<sup>2</sup> (163 cm<sup>2</sup>).
- In mobile home installations, dryer exhaust duct must be secured to mobile home structure.
- Dryer exhaust duct MUST NOT terminate under mobile home.
- Exhaust duct must not be connected to any other duct, vent, or chimney.
- Dryer exhausts 220 cfm (measured at back of dryer).
- Never install flexible duct in concealed spaces, such as a wall or ceiling.

- Energy efficient homes with low air filtration rates should be equipped with an air exchanger that can accomodate on demand make-up air needs in the home. These devices can be obtained through your building contractor or building material suppliers.
- Static pressure in exhaust duct should not be greater than .6 inches water column (1.5 cm), measured with manometer placed on exhaust duct two feet (61 cm) from dryer (check with dryer running and no load).
- Exhausting dryer in hard-to-reach locations can be done by installing 521P3 Flexible Metal Vent Kit (available as optional equipment at extra cost).
- Failure to exhaust dryer properly will void warranty.

NOTE: Venting materials are not supplied with the dryer (obtain locally).

### **Exhaust Direction**

The dryer can be exhausted to the outdoors through the back, left, right or bottom of the dryer. **EXCEPTION:** Gas dryers cannot be vented out the left side because of the burner housing.

Dryer is shipped from factory ready for rear exhaust.

Exhausting the dryer through sides or bottom can be accomplished by installing a Directional Exhaust Kit, 528P3, available as optional equipment at extra cost.

### **Exhaust System**

For best drying results, recommended maximum length of exhaust system is shown in *Table 1*.

To prevent backdraft when dryer is not in operation, outer end of exhaust pipe must have a weather hood with hinged dampers (obtain locally).

NOTE: Weather hood should be installed at least 12 inches (30.5 cm) above the ground. Larger clearances may be necessary for installations where heavy snowfall can occur.

Number of	Weather Hood Type					
90° Elbows	Recommended	Use Only for Short Run installations				
	4 in. (10.2 cm) (10.2 cm)	2-1/2 in. (6.35 cm)				
	Maximum length of 4 in. (10.2 cm) diameter rigid metal duct.					
0	65 feet (19.8 m)	55 feet (16.8 m)				
1	55 feet (16.8 m)	47 feet (14.3 m)				
2	47 feet (14.3 m)	41 feet (12.5 m)				
3	36 feet (11.0 m)	30 feet (9.1 m)				
4	28 feet (8.5 m)	22 feet (6.7 m)				
NOTE: Deduct 6 feet (1.8 m) for each additional elbow.						

Table 1

NOTE: The maximum length of a 4 in. (10.2 cm) diameter flexible metal duct must not exceed 7.87 ft. (2.4 m), as required to meet UL2158, clause 7.3.2A.

Step 3: (Gas Dryer Only) Connect Gas Supply Pipe



### WARNING

To reduce the risk of gas leaks, fire or explosion:

- The dryer must be connected to the type of gas as shown on nameplate located in the door recess.
- Use a new flexible stainless steel connector.
- Use pipe joint compound insoluble in L.P. (Liquefied Petroleum) Gas, or Teflon tape, on all pipe threads.
- Purge air and sediment from gas supply line before connecting it to the dryer.
   Before tightening the connection, purge remaining air from gas line to dryer until odor of gas is detected. This step is required to prevent gas valve contamination.
- Do not use an open flame to check for gas leaks. Use a non-corrosive leak detection fluid.
- Any disassembly requiring the use of tools must be performed by a suitably qualified service person.

W316

1. Make certain your dryer is equipped for use with the type of gas in your laundry room. Dryer is equipped at the factory for **Natural Gas** with a 3/8 inch NPT gas connection.

NOTE: The gas service to a gas dryer must conform with the local codes and ordinances, or in the absence of local codes and ordinances, with the latest edition of the National Fuel Gas Code ANSI Z223.1/NFPA 54 or the CAN/CSA-B149.1 Natural Gas and Propane Installation Code.

**Natural Gas**, 1000 Btu/ft<sup>3</sup> (37.3 MJ/m<sup>3</sup>) service must be supplied at minimum 5.0 inch water column pressure to maximum 10.5 inch water column pressure.

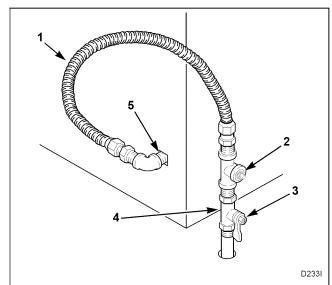
For proper operation at altitudes above 2500 feet (760 m) the natural gas valve spud orifice size must be reduced to ensure complete combustion. Refer to *Table 2*.

	Natural Gas Altitude Adjustments					
Altit	Altitude Orifice Size		Altitude Orifice Size		е	Part No.
feet	m	No.	inches	mm	Part No.	
3000	915	43	0.0890	2.26	503778	
6000	1830	44	0.0860	2.18	58719	
8000	2440	45	0.0820	2.08	503779	
9000	2740	46	0.0810	2.06	503780	
10,000	3050	47	0.0785	1.99	503781	

Table 2

- 2. Remove the shipping cap from the gas connection at the rear of the dryer. Make sure you do not damage the pipe threads when removing the cap.
- 3. Connect to gas supply pipe using a new flexible stainless steel connector.

NOTE: When connecting to a gas line, an equipment shut-off valve must be installed within 6 feet (1.8 m) of the dryer. An 1/8 in. NPT pipe plug must be installed as shown for checking inlet pressure. Refer to *Figure 5*.



- New stainless steel flexible connector (Use design CSA certified connector)
   Use only if allowed by local codes
- 2 1/8 in. NPT Pipe Plug
- 3 Equipment Shut-Off Valve
- 4 Black Iron Pipe
  Shorter than 20 ft. (6.1 m) –
  Use 3/8 in. (9.5 mm) pipe
  Longer than 20 ft. (6.1 m) –
  Use 1/2 in. (12.7 mm) pipe
  3/8 in. NPT Gas Connection

Figure 5

4. Tighten all connections securely. Turn on gas and check all pipe connections (internal & external) for gas leaks with a non-corrosive leak detection fluid.

NOTE: The dryer and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.45 kPa). Refer to Step 9 (Check Heat Source).

**L.P. (Liquefied Petroleum) Gas**, 2500 Btu/ft<sup>3</sup> (93.1 MJ/m<sup>3</sup>) service must be supplied at  $10 \pm 1.5$  inch water column pressure.

For proper operation at altitudes above 2500 feet (760 m) the L.P. gas valve spud orifice size must be reduced to ensure complete combustion. Refer to *Table 3*.

	L.P. Altitude Adjustments				
Alti	tude	Orifice Size			Dant Na
feet	m	No.	inches	mm	Part No.
3000	915	55	0.0520	1.32	58755
8000	2440	56	0.0465	1.18	503786

Table 3

NOTE: DO NOT connect the dryer to L.P. Gas Service without converting the gas valve. Install L.P. Gas Conversion Kit 649P3, available at extra cost.

# Step 4: (Electric Dryer Only) Connect Electrical Plug

Dryer requires 120/240 Volt or 120/208 Volt, 60 Hertz, 3 wire electrical suppy. Refer to serial plate for specific electrical requirements.

IMPORTANT: Use only a new U.L. listed No. 10 (copper wire only) three or four conductor power supply cord kit rated 240 Volts (minimum) 30 Amperes and labeled as suitable for use in a clothes dryer.

NOTE: The wiring diagram is located behind the control panel, inside the control cabinet.



### **WARNING**

To reduce the risk of fire, electric shock, serious injury or death, all wiring and grounding MUST conform with the latest edition of the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1, and such local regulations as might apply. It is the customer's responsibility to have the wiring and fuses installed by a qualified electrician to make sure adequate electrical power is available to the dryer.

W521

### Grounding Information

This appliance 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. The cord-kit must be 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 equipmentgrounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the dryer is properly grounded.

W038

Do not modify the plug provided with the cord-kit - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

The dryer has its own terminal block that must be connected to a separate branch, 60 Hertz, single phase circuit, AC (alternating current) circuit, fused at 30 Amperes (the circuit must be fused on both sides of the line). Electrical service for the dryer should be of maximum rated voltage (208 or 240 Volt, depending on heating element) listed on the nameplate. Do not connect dryer to 110, 115, or 120 Volt circuit.

Heating elements are available for field installation in dryers which are to be connected to electrical service of different voltage than that listed on nameplate, such as 208 Volt.

# NOTE: Branch circuit wire size requirements to laundry room outlet are shown in *Table 4*.

Wire Length	Wire
Less than	Listed No. 10 AWG
4.5 m (15 ft.)	Copper wire only
Longer than	Listed No. 8 AWG
4.5 m (15 ft.)	Copper wire only

Table 4

The power cord connection between wall receptacle and dryer terminal block **IS NOT supplied with dryer.** Type of power cord and gauge of wire must conform to local codes.

# Connecting Power Cord with Three-Wire Plug

NOTE: Four-wire cord is required for new branchcircuit installations, mobile homes or where codes do not permit grounding through neutral.

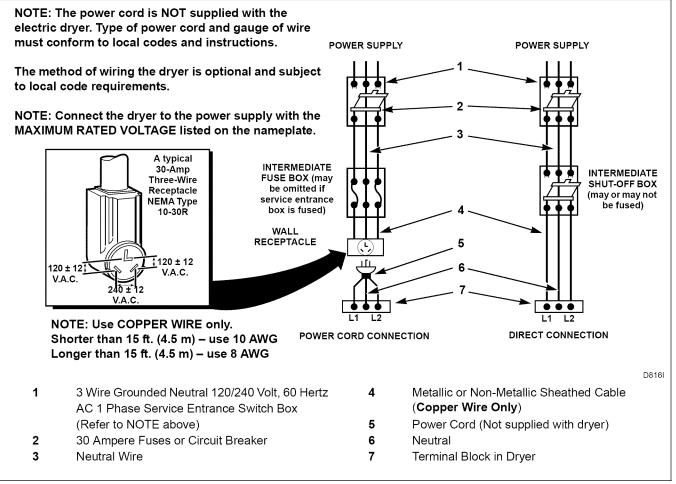


Figure 6

- 1. Disconnect power to dryer.
- 2. Remove access cover from rear of dryer.

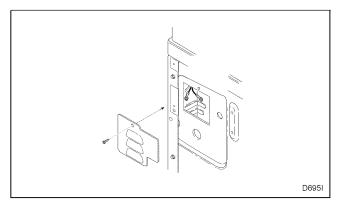


Figure 7

3. Use a strain relief and insert end of power cord through power supply hole.

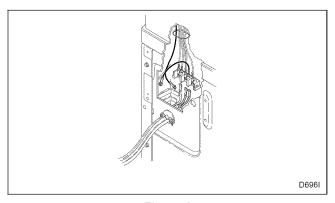


Figure 8

4. Use the three screws from the accessories bag to attach the power cord wires to the terminal block. Refer to *Figure 9*.

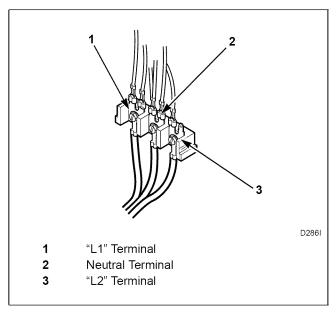


Figure 9

5. Tighten all screws firmly.

# IMPORTANT: Failure to tighten these screws firmly may result in wire failure at the terminal block.

- 6. Secure the strain relief to the power cord, or wires, where they enter the dryer cabinet.
- 7. Check the continuity of the ground connection before plugging the cord into an outlet. Use an acceptable indicating device connected to the center grounding pin of the plug and the green screw on the back of the cabinet.
- 8. Reinstall access cover and screw.

### Connecting Power Cord with Four-Wire Plug

NOTE: Four-wire cord is required for new branchcircuit installations, mobile homes or where codes do not permit grounding through neutral.

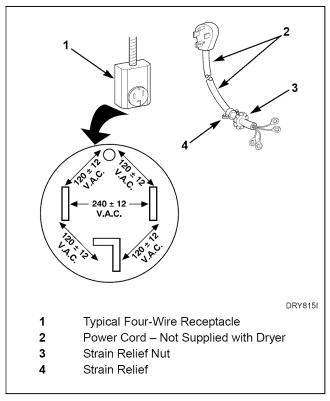


Figure 10

- 1. Disconnect power to dryer.
- 2. Remove access cover from rear of dryer.

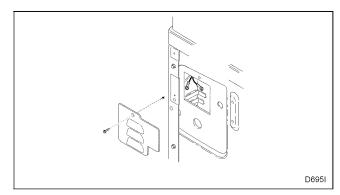


Figure 11

3. Remove the three screws holding the three wires to the terminal block terminals. **Save these screws.** Loosen the strain relief screw and pull the cord or wires out through the rear of the dryer.

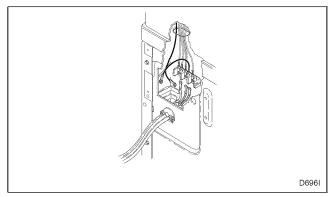


Figure 12

4. Remove ground screw and save for use in Step 6. Remove wire and use in Step 7.

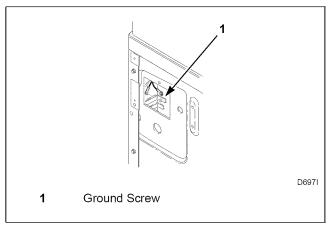


Figure 13

5. Use a strain relief and insert end of power cord through power supply hole.

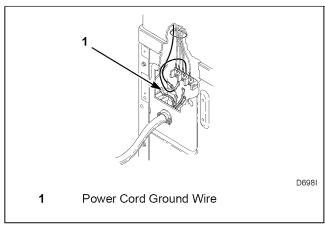


Figure 14

- 6. Attach power cord ground (green) wire to rear bulkhead using ground screw removed in Step 4.
- 7. Use the three screws from the accessories bag to attach the remaining power cord wires to the terminal block as follows:
  - a. Red wire to "L1" terminal.
  - b. Black wire to "L2" terminal.
  - c. White wire to Neutral terminal.

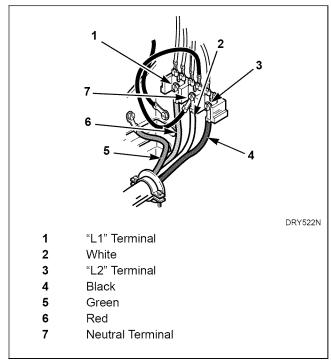


Figure 15

NOTE: When installing the white wire, loop the free eyelet end of the ground wire (removed in Step 4) and attach along with the white wire to the neutral (center) terminal on the terminal block.

8. Tighten all screws firmly.

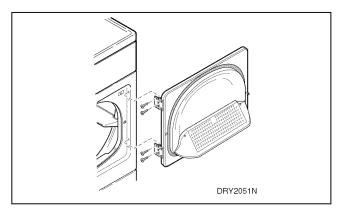
# IMPORTANT: Failure to tighten these screws firmly may result in wire failure at the terminal block.

- 9. Check the continuity of the ground connection before plugging the cord into an outlet. Use an acceptable indicating device connected to the center grounding pin of the plug and the green screw on the back of the cabinet.
- 10. Reinstall access cover and screw.

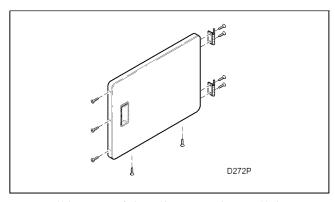
### Step 5: Reverse Door, if Desired

The door on this dryer is completely reversible. To reverse door proceed as follows:

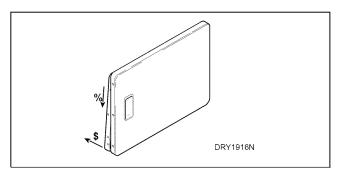
1. Remove four hinge attaching screws.



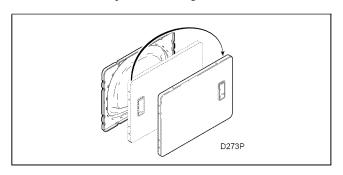
2. Remove all nine screws.



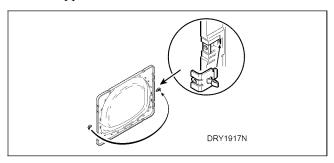
3. Pull bottom of door liner out, then pull down, removing door liner from door panel.



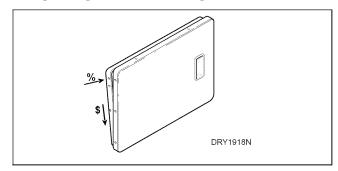
4. Rotate door panel 180 degrees as shown.



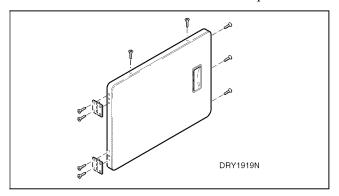
5. Remove door strike from door liner and reinstall on opposite side.



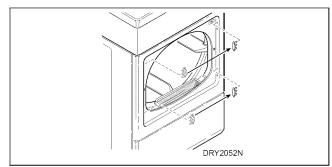
6. Insert liner under flange on bottom of door, then push top of door liner into place.



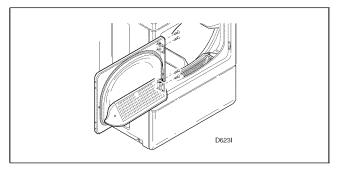
7. Reinstall nine screws removed in Step 2.



8. Using screwdriver, remove two door plugs, and reinstall on opposite side of door opening.



9. Reinstall four hinge attaching screws, removed in Step 1.



### Step 6: Wipe Out Inside of Dryer

Before using dryer for the first time, use an all-purpose cleaner, or a detergent and water solution, and a damp cloth to remove shipping dust from inside dryer drum.

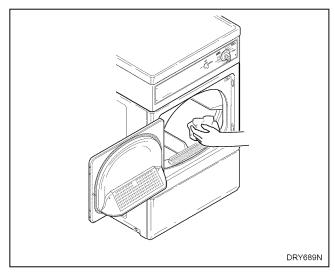


Figure 16

## Step 7: Plug In the Dryer

#### Electric Dryer

Connect the dryer to an electrical power source. Refer to Step 4 for information on connecting power cord.

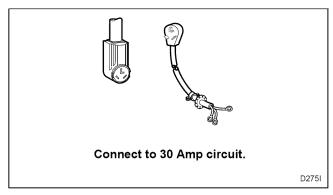


Figure 17

### Gas Dryer

Dryer requires 120 Volt, 60 Hertz electrical supply and comes equipped with a 3-prong grounding plug. Refer to serial plate for specific electrical requirements.

**NOTE:** The wiring diagram is located behind the control panel, inside the control cabinet.



### WARNING

To reduce the risk of fire, electric shock, serious injury or death, all wiring and grounding MUST conform with the latest edition of the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1, and such local regulations as might apply. It is the customer's responsibility to have the wiring and fuses installed by a qualified electrician to make sure adequate electrical power is available to the dryer.

W521

When plugging in the dryer:

- Do not overload circuits.
- Do not use an adapter.
- Do not use an extension cord.
- Do not operate both a washer and gas dryer on the same circuit. Use separetely fused 15 amp circuits.

The dryer is designed to be operated on a separate branch, polarized, three-wire, effectively grounded, 120 Volt, 60 Hertz, AC (alternating current) circuit protected by a **15 Ampere fuse**, equivalent fusetron or circuit breaker.

The three-prong grounding plug on the power cord should be plugged directly into a polarized three-slot effectively grounded receptacle rated 120 Volts AC (alternating current) 15 Amps. Refer to *Figure 18* to determine correct polarity of the wall receptacle.

### Grounding Information

The 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. The dryer is equipped with a cord having an equipment-grounding conductor and a three-prong 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**

This dryer is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

W036



### WARNING

Improper connection of the equipmentgrounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the dryer is properly grounded.

W038

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.

If the laundry room's electrical supply does not meet the above specifications and/or if you are not sure the laundry room has an effective ground, have a qualified electrician or your local electrical utility company check it and correct any problems.

NOTE: Have a qualified electrician check the polarity of the wall receptacle. If a voltage reading is measured other than that illustrated, the qualified electrician should correct the problem.

Do not operate other appliances on the same circuit when this appliance is operating.



### WARNING

To reduce the risk of an electric shock or fire, DO NOT use an extension cord or an adapter to connect the dryer to the electrical power source.

W037

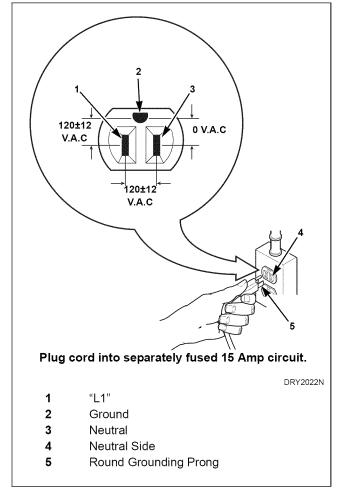


Figure 18

## Step 8: Recheck Steps 1-7

Refer to *Installer Checklist* on the back cover of this manual and make sure that dryer is installed correctly.

### Step 9: Check Heat Source

#### Electric Dryers

Close the loading door and start the dryer in a heat setting (refer to the User's Guide supplied with the dryer). After the dryer has operated for three minutes, the exhaust air or exhaust pipe should be warm.

### Gas Dryers

To view the burner flame, remove the lower front panel of the dryer.

Close the loading door, start the dryer in a heat setting (refer to the User's Guide supplied with the dryer); the dryer will start, the igniter will glow red and the main burner will ignite.

IMPORTANT: If all air is not purged out of gas line, gas igniter may go off before gas is ignited. If this happens, after approximately two minutes igniter will again attempt gas ignition.

After the dryer has operated for approximately five minutes, observe burner flame through lower front panel. Adjust the air shutter to obtain a soft, uniform blue flame. (A lazy, yellow-tipped flame indicates lack of air. A harsh, roaring, very blue flame indicates too much air.) Adjust the air shutter as follows:

- 1. Loosen the air shutter lockscrew.
- 2. Turn the air shutter to the left to get a luminous yellow-tipped flame, then turn it back slowly to the right to obtain a steady, soft blue flame.
- 3. After the air shutter is adjusted for proper flame, tighten the air shutter lockscrew securely.
- 4. Reinstall the lower front panel.

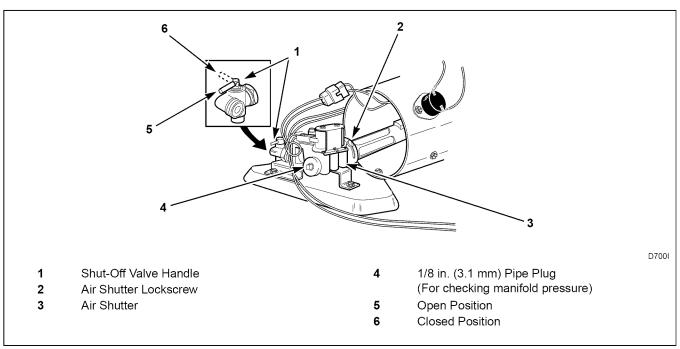


### WARNING

For personal safety, lower front panel must be in place during normal operation.

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After the dryer has operated for approximately three minutes, exhaust air or exhaust pipe should be warm.



# **Installer Checklist**

# **Fast Track for Installing the Dryer**

(Refer to the manual for more detailed information)

