<u>Installation Instructions</u> Home Laundry Automatic Dryers (Electric and Gas Models)



KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE. (If the dryer changes ownership, be sure this manual accompanies the dryer.)

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.

- 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

Part No. 503953 May 1997

Table of	Replacement Parts	
	Roughing In Dimensions	
Contents	Before You Start	A
Vullents	Tools	
	Exhaust	
	Electrical	
	Gas	
	Location	
	Installing the Dryer	5
	STEP 1 (Position and Level the Dryer)	
.	STEP 2 (Connect Dryer Exhaust System)	
	STEP 3 (Connect Gas Supply Pipe) STEP 4 (Connect Electrical Plug)	
	STEP 5 (Wipe Out Inside of Dryer)	
	STEP 6 (Plug in the Dryer)	
	STEP 7 (Check Installation)	
•	Heat Source Check	
	Electric Dryers	
	Gas Dryers	
	Reversing Door Procedure	
	Manufactured (Mobile) Home Installation	
	Electrical Requirements (Electric Dryers)	
	Electrical Plug Connection	
	Electrical Requirements (Gas Dryers)	
	Gas Requirements	
	Location Requirements	
	Dryer Exhaust Requirements	
	Exhaust System Materials	
	Make Up Air Requirements	
	Exhaust System	
	Exhaust Direction	
	Exhaust System Maintenance	
	Dryer Airflow	
	Reduced Clearance Elbow	
	User-Maintenance Instructions	
	Lubrication	
	Care of Your Dryer	
	Exhaust System	
	Information for Handy Reference	Inside Back Cover
	Installer Check	

Replacement Parts...

If replacement parts are required, contact the source where you purchased your dryer, or contact Raytheon Appliances Amana Home Appliance Division 2800 220th Trail P.O. Box 8901 Amana, IA 52204-0001 Phone: (800) 843-0304 in U.S.A. (319) 622-5511 Outside U.S.A. FAX: (319) 622-2977 for the name and address of the nearest authorized Amana parts distributor.

© Copyright 1997, Raytheon Appliances

All rights reserved. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the written permission of the publisher.





Before You Start . . .

Tools

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



Exhaust

Use rigid metal duct and exhaust the dryer to the outside by the shortest route possible.



NOTE: For more detailed information, refer to Section on *Dryer Exhaust Requirements*.

Electrical

- ELECTRIC DRYER Dryer needs a 3 or 4 wire 120/ 240 Volt, 60 Hertz, 1 Phase electrical supply.
- GAS DRYER Dryer needs a 120 Volt, 60 Hertz, polarized 3-slot effectively grounded receptacle.

NOTE: For more detailed information, refer to Section on *Electrical Requirements*.

Gas

Dryer is equipped for Natural Gas with a 3/8" (9 5 mm) NPT gas supply connection. For more detailed information, refer to Section on *Gas Requirements*.

Location

Place the dryer on a solid floor with an adequate air supply. For more detailed information, refer to Section on *Location Requirements*.

Installing the Dryer . .

STEP 1:

Position and Level the Dryer

For further assistance refer to Section on *Location Requirements*.

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

Place the dryer in position, and adjust the legs until the dryer is level.



STEP 2:

Connect Dryer Exhaust System

For further assistance refer to Sections on *Location Requirements* and *Dryer Exhaust Requirements*.

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.

- DO NOT use plastic or thin foil flexible ducting.
- Locate dryer so exhaust duct is as short as possible.
- Be certain old ducts are cleaned before installing your new dryer.
- Use 4" (10.2 cm) diameter rigid or flexible metal duct.
- Use as few elbows as possible.
- Use duct tape on all joints.
- Failure to exhaust dryer properly will void warranty.





503953

STEP 3: (Gas Dryer ONLY)

Connect Gas Supply Pipe

For further assistance, refer to Section on Gas Requirements

- 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" (9.5 mm) NPT gas connection.
- 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.
- 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.
- 5. For L.P. gas connection, refer to Section on *Gas Requirements*.



STEP 4: (ELECTRIC DRYER ONLY)

Connect Electrical Plug

For further assistance, refer to Section on *Electrical Requirements*.

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



NOTE: For more detailed information on connecting threewire or four-wire plugs, refer to Section on *Electrical Plug Connection*.

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



STEP 5:

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.



STEP 6:

Plug in the Dryer

Refer to Section on *Electrical Requirements*, and connect the dryer to an electrical power source.



STEP 7:

Check Installation

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

Heat Source Check . . .

Close the loading door and start the dryer in a heat setting (refer to the Use and Care Guide supplied with the dryer). After the dryer has

Electric Dryers

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 Use and Care 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:

- a. Loosen the air shutter lockscrew.
- b. 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.

- c. After the air shutter is adjusted for proper flame, tighten the air shutter lockscrew securely.
- d. Reinstall the lower front panel.



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

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



Reversing Door Procedure ...

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











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









Manufactured (Mobile) Home Installation . . .

IMPORTANT: Installation must conform to the Manufactured Home Construction and Safety Standards, Title 24 CFR, Part 32-80 or Standard CAN/CSA-Z240 MH.

The dryer can be installed in a manufactured (mobile) home by following these instructions:

- 1. IMPORTANT: Gas dryers MUST be permanently attached to the floor at the time of installation. Order No. 526P3 Dryer Installation Kit for a manufactured (mobile) home installation. Follow the instructions supplied with the kit.
- 2. Electrical Connections (Electric Dryer Only) must be a 4-wire connection, refer to page 13.
- 3. Venting—Dryer MUST be exhausted to the outdoors.



WARNING

To reduce the risk of fire and combustion gas accumulation, the dryer MUST BE EXHAUSTED TO THE OUTDOORS. Refer to Section on Dryer Exhaust Requirements.

W047

- The dryer can be exhausted to the outdoors through the back, left, right or bottom panel. Gas dryers cannot be exhausted out the left side because of the burner housing.
- The dryer exhaust duct must be secured to the mobile home structure.
- Exhaust ducts MUST NOT be connected with sheet metal screws or fasteners which extend into the duct.
- Exhaust duct must not be connected to any other duct, vent or chimney.
- Dryer exhaust duct MUST NOT terminate under the mobile home.
- For proper operation, it is important that the dryer has an ample amount of outside makeup air. The free area of any opening for the introduction of outside air must be at least 25 in² (163 cm²).

- When exhausting the dryer to the outdoors, the dryer can be installed with "0" inch clearance at the sides and rear. Clearance of the duct from combustible construction must be a minimum of 2 inches (5.08 cm).
- Venting materials are not supplied with the dryer (obtain locally).



To reduce the risk of fire, the exhaust duct and weather hood MUST be fabricated of a material that will not support combustion. Rigid or flexible metal pipe is recommended for a clothes dryer.

W048

Electrical Requirements ...

(Electric Dryers)

NOTE: The wiring diagram is located inside the control hood.

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 checked by a qualified electrician to make sure your home has adequate electrical power to operate the dryer. W113

Grounding Instructions

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.



Electrical Plug Connection . . .





1. Remove access cover from rear of dryer.



2. Remove ground screw and save for use in Step 4. Remove wire and use in Step 5.



3. Use a strain relief and insert end of power cord through power supply hole. 4. Attach power cord ground (greer) wire to rear bulkhead using ground screw removed in Step 2.



- 5. Use the three screws from the envelope located in the cylinder 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.

NOTE: When installing the white wire, loop the free eyelet end of the ground wire (removed in Step 2) and attach along with the white wire to the neutral (center) terminal on the terminal block.

6. Tighten all screws and reinstall access cover removed in Step 1.

Electrical Requirements...

NOTE: The wiring diagram is located inside the control hood.



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 checked by a qualified electrician to make sure vour home has adequate electrical power to operate the dryer. W113



(Gas Dryers)

Grounding Instructions

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 3-prong grounding plug. The three-prong grounding plug on the power cord should be plugged directly into a polarized three-slot effectively grounded receptacle rated 110/120 Volts AC (alternating current) 15 Amps.



WARNING

Improper connection of the equipment-grounding 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.

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.

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.

STANDARD 120 VOLT, 60 HERTZ, 3-WIRE EFFECTIVELY GROUNDED CIRCUIT NEUTRAL GROUND n 115 ± 12 V.A.C. V.A.C NEUTRAL 115 ± 12 SIDE V.A.C. ROUND GROUNDING PRONG D090IE0D

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.



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

Gas Requirements . . .

(Gas Dryers)

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/CGA-B149, National Gas Installation Code.

Natural Gas service must be supplied at 6.5 ± 1.5 inch water column pressure.

For proper operation at altitudes above 2,500 feet (760 m) the natural gas valve spud orifice size must be reduced to ensure complete combustion. See table at right.

L.P. Gas service must be supplied at 10 ± 1.5 inch water column pressure.

NOTE: DO NOT connect the dryer to L.P. Gas Service without converting the gas valve. An LPK1 Sales Accessory (L.P. Gas Conversion Kit 649P3) must be installed.)

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). (See illustration on page 10.)

The dryer must be isolated from the gas supply piping system by closing the equipment shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.45 kPa)

NOTE: When connecting to a gas line, an equipment shutoff valve must be installed within 6' (1.8 m) of the dryer. An 1/8" (3.1 mm) N.P.T. pipe plug must be installed as shown. See illustration.



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 metal connector.
- Use pipe joint compound insoluble in LP Gas 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 noncorrosive leak detection fluid.

Altitude		Orifice Size			Part
ft	m	#	Inches	mm	Number
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
10000	3050	47	0.0785	1.99	503781



Location Requirements . .

Select a location with a solid 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" 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 dryer needs sufficient clearance and an adequate air supply for proper operation and ventilation, and for easier installation and servicing. (Minimum clearances are shown below.)



*Louvered door with equivalent air openings is acceptable. (Minimum clearances are shown.)

** NOTE: For new installations, locate top of wall vent 42 inches above floor to make venting easier to connect.

Dryer Exhaust Requirements ...

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.

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 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.

To reduce the risk of fire, DO NOT use plastic pipe or flexible plastic pipe to exhaust the dryer.

Never install flexible duct in concealed spaces, such as a wall or ceiling.



Exhaust System Materials

Exhaust duct must be four inches (10.2 cm) in diameter having no obstructions. Rigid metal duct is recommended. Non-combustible semi-rigid flexible metal duct is acceptable. **Do not use** plastic pipe or flexible plastic pipe, because it contributes to poor drying performance and collects lint, which can lead to a fire hazard.

DO NOT use sheet metal screws on exhaust pipe joints or other fastening means which extend into the duct that could catch lint and reduce the efficiency of the exhaust system. Secure all joints with duct tape.

Make-Up Air Requirements

For proper operation it is important that you locate the dryer in an area that has an ample amount of make-up air to replace the amount exhausted by the dryer.

Energy efficient homes with low air infiltration rates should be equipped with an air exchanger that can accommodate on demand make-up air needs in the home. These devices can be obtained through your building contractor or building material suppliers.

Exhaust System

IMPORTANT: Keep exhaust duct as short as possible.

NOTE: Be certain old ducts are cleaned before installing your new dryer.

For best drying results, recommended maximum length of exhaust system is shown below.

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.

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; no kits required.

Exhausting the dryer through sides or bottom can be accomplished by installing a DK1 Sales Accessory (Directional Exhaust Kit 528P3) available as optional equipment at extra cost.





NOTE: Deduct 6 feet (1.8 m) for each additional elbow.

Exhaust System Maintenance

The dryer interior and the complete exhaust system should be inspected after one year of use and cleaned if necessary. Inspect and clean exhaust duct every one to two years as required thereafter. The weather hood should be checked frequently to make sure the dampers move freely, dampers are not pushed in and that nothing has been set against them. This maintenance work should be done by a qualified service person.



WARNING

To reduce the risk of electric shock, disconnect the electrical service to the dryer before cleaning.

Exhausting the dryer in hard-toreach locations can be accomplished by installing the 521P3 Flexible Metal Vent Kit, available as optional equipment at extra cost. The kit comes in two halves that can be separately attached to the dryer and wall outlet. Once attached, the dryer can be slid back into position and the two halves can be connected from the front.



Dryer Airflow

Efficient dryer operation requires proper dryer airflow. Proper dryer airflow can be evaluated by measuring the static pressure.

Static pressure in the dryer's exhaust duct should be no greater than that shown in the chart below. (Check with dryer running and no load.)

NOTE: This can be measured with a manometer placed on the exhaust duct approximately two feet (61 cm) from the dryer, see illustration below.



Reduced Clearance Elbow

Installing the dryer in shallow closets can be accomplished by using an Elbow, Part No. 62688, which is one inch narrower than a standard venting elbow.



User-Maintenance Instructions . . .

Lubrication

All moving parts are sealed in a permanent supply of lubricant or are equipped with oilless bearings. Additional lubrication will not be necessary.

• Care of Your Dryer

Clean the lint filter after drying each load. The lint filter may be washed if needed. Occasionally remove lint filter and vacuum the area under it.

Ordinarily, the dryer cylinder will need no care.

Wipe the dryer cabinet as needed. If detergent, bleach or other washing products have been spilled on the dryer, wipe immediately. Some products will cause permanent damage if spilled on the cabinet. Do not allow sharp or rough objects to lean against the dryer. The finish could be damaged.

Use only a damp or sudsy cloth for cleaning the control panel. Some spray prewash products may harm the finish on the control panel.

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



Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

Exhaust System

The exhaust duct should be inspected after one year of use and cleaned if necessary. Inspect and clean exhaust duct every one to two years as required thereafter.

The weather hood should be checked frequently to make sure the dampers move freely, dampers are not pushed in and that nothing has been set against them.

Keep dryer area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

Do not obstruct the flow of combustion and ventilation air.

NOTE: Verify proper operation after servicing.

۰.

:

Information for Handy Reference . . .

Raytheon Appliances Amana Home Appliance Division 2800 220th Trail P.O. Box 8901 Amana, IA 52204-0001

Date Purchased		
Model Number	Serial Number	
Dealer's Name		
Dealer's Address	Phone Number	
Service Agency		
Service Agency Address	Phone Number	

NOTE: Record the above information and keep your sales slip. Model and serial numbers are located on the nameplate.

9

Installer Check . . . Fast Track for Installing the Dryer

(Refer to the manual for more detailed information)

