

B-VENT DECORATIVE GAS FIREPLACE OWNER'S OPERATION AND INSTALLATION MANUAL



MODELS P324E, VP324E, P325E(B) AND VP325E(B) NATURAL GAS

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

FOR YOUR SAFETY

- Do not store or use gasoline or any other flammable vapors or 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.
 - 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.

INSTALLER: Leave this manual with the appliance. **CONSUMER:** Retain this manual for future reference. A WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

NOT FOR USE WITH SOLID FUEL CHECK LOCAL CODES PRIOR TO INSTALLATION

SAVE THIS BOOK

This book is valuable. In addition to instructing you on how to install and maintain your appliance, it also contains information that will enable you to obtain replacement parts or optional accessory items when needed. Keep it with your other important papers.

This appliance may be installed in an aftermarket*, permanently located, manufactured (mobile) home, where not prohibited by state or local codes.

This appliance is only for use with the type of gas indicated on the rating plate.

This appliance is not convertible for use with other gases, unless a certified kit is used.

*Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.

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SAFETY

WARNING: This product contains and/or generates chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate or service this fireplace. Improper use of this fireplace can cause serious injury or death from burns, fire, explosions, electrical shock and carbon monoxide poisoning.

DANGER: Carbon monoxide poisoning may lead to death!

This fireplace is a vented product. This fireplace will not produce any gas leakage into your home if properly installed. This fireplace must be properly installed by a qualified service person. If this unit is not properly installed by a qualified service person, gas leakage can occur.

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness or nausea. If you have these signs, the fireplace may not have been installed properly. **Get fresh air at once!** Have fireplace inspected and serviced by a qualified service person. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol and those at high altitudes.

Propane/LP gas and natural gas are both odorless. An odor-making agent is added to each of these gases. The odor helps you detect a gas leak. However, the odor added to these gases can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

WARNING: Any change to this fireplace or its controls can be dangerous.

- This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used.
- For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
- 3. If you smell gas
 - shut off gas supply
 - do not try to light any appliance
 - do not touch any electrical switch; do not use any phone in your building
 - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
 - if you cannot reach you gas supplier, call the fire department.
- 4. Never install the fireplace
 - · in a recreational vehicle
 - where curtains, furniture, clothing or other flammable objects are less than 36" from the front and 42" from the top top of the fireplace. For side clearances see Figure 6, page 7
 - in high traffic areas
 - in windy or drafty areas
- This fireplace reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.
- 6. Carefully supervise young children when they are in the room with fireplace.
- A hearth extension is not required with this appliance. If one is installed, it is for aesthetic purposes only and does not have to meet the standard requirements.
- Turn fireplace off and let cool before servicing or repairing. Only a qualified service person should install, service or repair this fireplace. Have fireplace inspected annually by a qualified service person.
- You must keep control compartments, burners and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust from carpeting, bedding material, etc. Turn off the gas valve and pilot light before cleaning fireplace.
- Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. See <u>Cleaning and Maintenance</u>, page 20.

SAFETY Continued

- Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapor and liquids. Do not run fireplace where these are used or stored. Do not place items such as clothing or decorations on or around fireplace.
- 12. Do not use this fireplace to cook food or burn paper or other objects.
- Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on fireplace nameplate.
- 14. This appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local

The following items are packed inside the firebox. Remove before positioning firebox into framing.

- Ceramic Log Pack Shrink-wrapped on cardboard
- Three (3) plastic bags containing lava rock, pan and ember materials

codes, with the National Electrical Code, ANSI/NFPA 70.

- 15. Do not install fireplace directly on carpeting, vinyl tile or any combustible material other than wood. The fireplace must set on a metal or wood panel extending the full width and depth of the fireplace.
- 16. Do not use fireplace if any part has been exposed to or under water. Immediately call a qualified service person to arrange for replacement of the unit.
- 17. Do not operate fireplace if any log is broken.
- Provide adequate clearances around air openings.

UNPACKING

- Rear Log (P325E/VP325E Models Only)-Remove the two plastic quick ties from around burner and grate
- Grate Stand Lift off of burner pan Check all items for any shipping damage. If damaged, promptly inform dealer or distributor where you bought the product.

Safely retain these items for later installation.

INTRODUCTION

These fireplace models are vented gas fireplaces that use an electronic ignition system. Models P325E/VP325E have a 5" B-vent and P324E/VP324EA have a 4" B-vent. A properly sized B-type venting system and a listed type vent cap are not supplied but are required for proper operation. See venting instructions on page 9.

WARNING: This gas appliance must not be connected to a chimney flue servicing a solid fuel burning appliance.

These models are factory equipped for use with natural gas and must be converted when intended for use with proper propane/LP gas. Conversion kits PCBE-324 and PCBE-325 may be purchased for simple conversion to propane/LP gas. See <u>Accessories</u>, page 25.

BEFORE YOU BEGIN

Before beginning installation of your appliance, read these instructions completely. This FMI PRODUCTS, LLC appliance and its approved components are safe when installed according to this installation manual and are operated as recommended by FMI PROD-UCTS, LLC. Unless you use FMI PRODUCTS, LLC approved components tested for this appliance, **YOU MAY CAUSE A FIRE HAZARD!** The FMI PRODUCTS, LLC warranty will be voided by and FMI PRODUCTS, LLC disclaims any responsibility for the following actions :

- A) Modification of the appliance or any of the components.
- B) Use of any component part not approved by FMI PRODUCTS, LLC in combination with this appliance.
- C) Installation and/or operation in a manner other than instructed in this manual.
- D) The burning of anything other than the type of gas approved for use in this gas appliance.

The installation must conform with local codes or, in the absence of local codes, with the current *National Fuel Gas Code, ANSI Z223.1/ NFPA 54.* This appliance complies with *ANSI Z21.50.*

INTRODUCTION

Continued

WARNING: Installation of this appliance should be done by a qualified service person well trained in the installation of such appliances. You will also need a building permit from your local Building and Safety Commissioner before installing this appliance; otherwise your insurance company may not cover this appliance.

NOTICE: This appliance is not intended to be used as a primary source of heat.

A CAUTION: Do not connect appliance before pressure testing gas piping. Damage to gas valve may result and an unsafe condition may be caused.

The appliance and it's individual shutoff 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 psig (3.5 kPa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).

For the purpose of input adjustment two pressure taps (for IN and OUT pressures) are provided on the gas control valve for test gauge connections to the appliance.

SELECTING LOCATION

To determine the safest and most efficient location for your appliance, you must take into consideration the following guidelines:

- The location must allow for proper clearances (see <u>Clearances</u>, page 7).
- Consider a location where heat output would not be affected by drafts, air conditioning ducts, windows or doors.
- A location that avoids the cutting of joists or roof rafters will make installation easier. Figure 1 shows a plan view of a few common locations.

Flush installations are recommended where living space is limited or at a premium and since the space required to enclose the appliance would be located beyond an outside wall, this would also reduce the cutting of joists, roof rafters and such. Check local codes for any restrictions.

Projected installations can extend any distance into the room. A projection may be ideal for a new addition on an existing, finished wall.

Corner installations make use of space that may not normally be used and provides a wider and more efficient range for radiant heat transference.

Internal wall installations provide a discreet option for room separation and can also be ideal as an addition to an existing wall.



Figure 1 - Possible Locations for Installing Appliance

PRODUCT SPECIFICATIONS

GAS RATING - NATURAL					
	P324E, VP324E P325E(B), VP325E(B)				
Max. Input Rating:	15,000 Btu/Hr	25,000 Btu/Hr			
Manifold Pressure:	3.5" WC (.87 kPa)	3.5" WC (.87 kPa)			
Minimum Supply Pressure:	4.5" WC (1.12 kPa)	4.5" WC (1.12 kPa)			
Maximum Supply Pressure:	10.5" WC (2.66 kPa)	10.5" WC (2.66 kPa)			
Orifice Size:	# 49	# 40			
GAS RATING - PROPANE/LP					
Max. Input Rating:	15,000 Btu/Hr	25,000 Btu/Hr			
Manifold Pressure:	10" WC (2.49 kPa)	10" WC (2.49 kPa)			
Minimum Supply Pressure:	11" WC (2.74 kPa)	11" WC (2.74 kPa)			
Maximum Supply Pressure:	13" WC (3.23 kPa)	13" WC (3.23 kPa)			
Orifice Size:	# 56	# 54			



Figure 2 - Appliance Dimensions

PRE-INSTALLATION PREPARATION

CLEARANCES

Minimum clearances to combustibles are:

- Top of Spacers 0" min.
- Back/Sides of Outer Surround 0" min.
- Drywall to Sides of Front Face
- (Nailing Flanges) 0" min. • "B" Vent Surfaces 1" min
- Ceiling to Opening
 42" min.
- Floor 0" min.
- Perpendicular Wall
 See Figure 6

CAUTION: Do not block required air spaces with insulation or any other material. Do not obstruct effective opening of appliance with any type of facing material.



Figure 3 - Minimum Clearances (Top View)



MANTEL CLEARANCES AND WALL DETAILS

A combustible mantle shelf maybe installed a maximum 12" (22.90 cm) from the wall. Figures 5 and 6 show the minimum allowable distances from various combustible mantle components in relation to the fireplace opening.



Figure 5 - Mantel Clearances - Side View (Cross Section)



Figure 6 - Side Clearances - Top View (Cross Section)

PRE-INSTALLATION PREPARATION Continued

FRAMING

 Frame appliance enclosure as illustrated in Figures 7 and 8. Note: If a wall covering is used to line

enclosure, then all measurements must be from surface of covering.

- Place appliance into framing and secure. Note: If appliance is to be raised above floor level, a platform must be built to support appliance.
- Install supply line to appliance using a 1/2" NPT black iron gas line terminating 2^{5/16}" above bottom of appliance. The gas line must be installed through the lower left side access point or alternate access hole in bottom of appliance (see Figure 16, page 12).
- 4. Feed flexible gas line through one of three gas line conduit sleeves and repack insulation to cover any openings. Prepare the incoming gas line with teflon tape or pipe joint compound and hook up incoming gas line to flexible gas line.

Note: If 1/2" NPT black iron pipe does not mate with fitting at end of flexible gas line, remove fitting and replace with a 37° flare 3/4"-12, 1/2" NPT (female) fitting.

WARNING: When finishing appliance, do not overlap combustible material onto the black front face. Brick, tile or other noncombustible materials may be applied to the face provided that any gap is between the material used and the face is caulked with a noncombustible caulking.



Figure 7 - Rough Opening for Installing in Wall

These Dimensions Allow for a 3/4" Clearance at Sides and Back of Fireplace. However, 0" Clearance is Permitted



Nailing Flanges

Figure 8 - Corner Installation Guidelines

VENTING INSTALLATION

A B-type venting system must be connected to appliance for venting to outside of building. The following section is provided as a guide to a standard B-type vent installation.

Standing codes requirements concerning Btype vent installations may vary within your state, province or local codes jurisdiction. Therefore, it is recommended that you check with your local building codes for specific requirements or in absence of local codes, follow Section 7.0 of the current *National Fuel Gas Code ANSI Z223.1/NFPA 54*.

This gas appliance must be vented to the outdoors only and may not be terminated into an attic space or into a chimney flue servicing a solid fuel burning appliance.

VENTING INSTALLATION Continued

This appliance may be vented through a manufactured chimney system or a masonry chimney using a B-vent adapter or a chimney liner system if all are listed, inspected and approved by local codes and/or building authorities.

The examples shown in Figure 9 are typical of most B-vent installations and codes practices.

Example 1: Shows the minimum allowable system height and lateral offset for a 60° or greater inclination. Code specifies that offsets at 60° or greater are considered horizontal and must follow the 75% rule for lateral to total vertical system height. Codes also allows only one offset in the total system when at 60° or greater. The total vertical height in this example represents the minimum height of 8 feet and therefore the allowable lateral is 6 feet when the 75% rule applies. If the lateral length must exceed 75% then the system must be sized in accordance with the Category I venting tables.

Example 2: Shows a multiple offset each at 45° of inclination. Multiple offsets are permitted if they do not exceed 45° of inclination. The total lengths of the two offsets are not required to meet the 75% allowable rule.

Example 3: Shows a single offset at 45° of inclination and therefore the lateral length at 10 feet of offset does not have to meet the 75% rule.

In each case the offsets must be supported and firestops must be positioned wherever the vent must pass through a sub-floor, ceiling joist or an attic overhang. The vent pipe must terminate vertically into a listed type vent cap and extend a sufficient height through an approved roof flashing, roof jack or a roof thimble. At all points the listed clearances must be maintained.

Vent terminations must be located in accordance with height and proximity rules of NFPA No. 54. These rules apply to vents at 12" diameter or less and require a minimum height in accordance with the roof pitch and a minimum of 8 feet distance from a vertical wall or obstruction (see Figure 10, page 10).

If venting horizontally through a side wall becomes necessary, a listed thimble approved for use with B-type vent must be used. Check with your local codes before venting through a side wall.

Some codes areas allow the use of existing Btype vent systems if the system is at or above the recommended diameter of the flue.

The flue connection must be made using listed B-type connectors and the existing system must be code inspected for damage and proper installation.



Figure 9 - Typical B-Vent Configuration

VENTING INSTALLATION Continued

It is not recommended that this appliance be common vented with an existing gas burning appliance. However, if it becomes necessary to common vent this appliance, the venting system must be sized and configured in accordance with the common venting guides Appendix G of the current *National Fuel Gas Code NFPA No. 54/ANSI Z223.1.*

Note: Before connecting this appliance to an existing vent system or a common venting system consult with your local architect, planner, or building official.

WARNING: This appliance must be properly connected to a system and must not be connected to a chimney flue servicing a separate solid fuel burning appliance.



Roof Pitch	H (Min.) Ft.	m
Flat to 6/12	1.0	0.30
6/12 to 7/12	1.25	0.38
Over 7/12 to 8/12	1.5	0.46
Over 8/12 to 9/12	2.0	0.61
Over 9/12 to 10/12	2.5	0.76
Over 10/12 to 11/12	3.25	0.99
Over 11/12 to 12/12	4.0	1.22
Over 12/12 to 14/12	5.0	1.52
Over 14/12 to 16/12	6.0	1.83
Over 16/12 to 18/12	7.0	2.13
Over 18/12 to 20/12	7.5	2.27
Over 20/12 to 21/12	8.0	2.44

Figure 10 - B-Vent Terminations

CHECKING FOR PROPER VENTING

After completing and checking electrical, gas and vent connections, follow lighting instructions and allow main burner to run for approximately 5 minutes. Hold a lighted match or cigarette near top edge of fireplace opening and play it along entire length of the opening (see Figure 12). Proper venting should tend to draw the flame or smoke into the appliance. Improper venting or escaping of spillage of burned gas, is indicated when the match flickers or goes out. Smoke from a cigarette will also tend to disperse away from the appliance.

If the appliance is found to be improperly venting, shut it off and notify your installer or a qualified service agency to inspect the venting system.

NOTICE: This appliance is equipped with a vent safety shutoff switch which will shut down the appliance in the case of a venting problem. Do not bypass the vent safety switch. If the appliance should shut down, contact a qualified installer, service agency or your gas supplier to have the vent inspected before operating.



Figure 11 - Checking for Spillage

FIREPLACE INSTALLATION

WALL SWITCH INSTALLATION

The installation of a wall switch allows you to activate the gas control valve and turn the fireplace on and off. The wall switch is to be connected to the incoming 120 volt regular household wiring that supplies the electricity to the fireplace. Refer to <u>Wiring Diagram</u>, page 21.

OPTIONAL REMOTE CONTROL INSTALLATION (Model WRC)

Note: If using optional wireless hand-held remote control, wall switch must be in ON position to be operational. The remote control then becomes the switching mechanism for fireplace operation.

- 1. Remove front refractory access panel by lifting up and angling out of firebox opening (see Figure 12).
- WRC model receiver does not require a battery. Receiver can be installed by first plugging short extension cord into fireplace receptacle. Plug receiver unit into extension cord. Finally, plug ignition module plug into receiver unit (see Figure 13).
- Activate remote handset battery by removing insulating tab on back of handset (see Figure 14). Battery is included preinstalled.
- 4. Once battery is activated, unit is ready to use.
- 5. Replace front refractory access panel.



Figure 12 - Removing Front Refractory Access Panel (P325E/VP325E Model Shown)



Figure 13 - Installing the WRC Remote Receiver



Figure 14 - Installing Battery into Back of Handset

FIREPLACE INSTALLATION

Continued

GAS LINE HOOK-UP

WARNING: Gas line hookup should be done by your gas supplier or a qualified service person.

WARNING: Before you proceed, make sure your gas supply is OFF.

The appliance and it's individual shutoff 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 psig (3.5 kPa).

The appliance must be isolated from the gas supply piping system by closing its individual equipment shutoff valve during any pressure testing of gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).

An equipment shutoff valve has been included in the appliance's gas supply system. You may consider installing an extra gas shutoff valve outside the appliance's enclosure (check with local codes) where it can be accessed more conveniently with a key through a wall as shown in Figure 15.

In conformance with local codes, route a 1/2" NPT gas line towards the appliance coming in from any of the 3 directions shown in Figure 16.

CAUTION: Do not kink flexible gas line.

FMI PRODUCTS, LLC recommends that a black iron gas line be routed from the gas source, through a sediment trap (shown in Figure 17, page 13) and into appliance. Once connected through appliance, a flexible gas line may be used for ease of installation to gas control valve (see Figure 18, page 13).

Before connecting black iron gas line to inside of appliance a sediment trap must be included outside appliance between gas line and gas shutoff valve. It must extend down 3" beyond center of pipe. Prepare incoming black iron gas line with teflon tape or pipe joint compound (Check with local building codes). CAUTION: Compounds used on threaded joints of gas piping shall be resistant to the action of Liquefied Petroleum (LP or propane) and should be applied lightly to ensure excess sealant does not enter the gas line.

WARNING: All gas piping and connections must be tested for leaks after the installation is completed.

After ensuring that the gas valve is on, apply a commercial leak detection solution to all connections and joints. If bubbles appear, leaks can be detected and corrected.

Do not use an open flame for leak testing and do not operate any appliance if a leak is detected.

Complete your gas installation by connecting incoming gas line with flexible gas line. Secure tightly with wrench but **DO NOT OVERTIGHTEN**.



Typical Exterior Wall Gas Shutoff Installation

Figure 15 - Shutoff Valve Installation



Figure 16 - Routing Incoming Gas Line

FIREPLACE INSTALLATION Continued



Figure 17- Sediment Trap



Figure 18 - Connecting Flexible Gas Line to Millivolt Valve

GRATE PLACEMENT

The grate must be placed in the burner pan so that the back grate fingers (P325E/VP325E) or pins (P324E/VP324E) fit into notches on back of burner pan and front legs fit inside burner pan as shown in Figure 19.



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FIREPLACE INSTALLATION

Continued

EMBER AND PAN MATERIAL PLACEMENT

- 1. Open bag(s) of vermiculite and fill entire burner pan until burner tube is completely covered (see Figure 20).
- 2. Smooth pan material just even with edges of burner pan.
- 3. Remove ember material from bag and flatten small amounts into quarter size pieces and lay on top of surface of pan material (see Figure 21).
- Place just enough to cover entire surface and leave about a 1/2" gap under lower grate members to allow air to flow (see Figure 22).



Figure 20 - Fill Entire Burner Pan with Vermiculite (P324E, VP325E Shown)



Figure 21 - Ember Material on Surface of Pan Material (Vermiculite) (P324E, VP325E Shown)



Figure 22 - Pan and Ember Material Clearances

LOG PLACEMENT FOR P324E/ VP324E MODELS

- 1. Place front log (log 1) onto front of grate sliding log all the way forward against grate fingers (see Figure 23).
- 2. Insert pegs on bottom of rear log (log 2) into holes in rear of grate (see Figure 23).
- 3. Place log 3 into notches on left side of logs 1 and 2 (see Figure 24, page 15).
- 4. Place log 4 into notches on right side of logs 1 and 2 (see Figure 24, page 15).

To enhance the look of the hearth you may optionally place provided lava rock around front and sides of burner.

NOTICE: Do not put lava rock inside the burner pan or around the air mixer fitting. Placing lava rock inside the burner pan or blocking the openings of the propane/LP air-mixer could cause performance problems.



Figure 23 - Installing Logs 1 and 2

FIREPLACE INSTALLATION Continued



Figure 24 - Installing Logs 3 and 4

LOG PLACEMENT FOR P325E(B)/ VP325E(B) MODELS

- 1. Place large back log (log 1) onto grate making sure notches rest over grate (see Figure 25).
- 2. Place log 2 onto front right side of grate and back of log 2 into notch on right front of log 1 (see Figure 25).



Figure 25 - Installing Logs 1 and 2

- 3. Rest front of log 3 between first two grate fingers on left of grate assembly and rear of log 3 into notch on left front of log 1(see Figure 26).
- Place top of log 4 into notch on log 1. Rest log 4 on center of grate as shown in Figure 27.
- Place top of log 5 into notch on top right of log 1 (see Figure 27). Rest log 5 between two middle grate fingers as shown in Figure 28, page 16

To enhance the look of the hearth you may optionally place provided lava rock around front and sides of burner.



Figure 26 - Installing Log 3



Figure 27 - Installing Logs 4 and 5

FIREPLACE INSTALLATION

Continued

NOTICE: Do not put lava rock inside the burner pan or around the air mixer fitting. Placing lava rock inside the burner pan or blocking the openings of the propane/LP air-mixer could cause performance problems.



Figure 28 - Logs Installed

COMBUSTION AIR KIT MODEL AK4 (OPTIONAL)

The outside air kit may be installed on the left side of fireplace only. The vent can be installed through any outside wall a minimum of 3 feet below fireplace termination cap. The handle to operate damper door for the outside air inlet will be located inside the left "screen pocket" of firebox (see Figure 29). Pull handle to open or push to close.

A CAUTION: Air inlet ducts are not to terminate in attic space.



APPLIANCE ENCLOSURE

Before finishing enclosure around appliance, inspect all joints around outer surround. Any gaps between nailing flanges and framing should be sealed with noncombustible insulation or caulking.

If mounted on a raised platform, it must be a continuous surface and not on blocks without a solid surface. This will prevent entry of cold air by means of conduction through total bottom of appliance (see Figure 30).



Figure 30 - Sealing Between Appliance and Framing

INSTALLING OPTIONAL GLASS DOOR ACCESSORY

CAUTION: Use only glass doors certified for use with this appliance.

Note: Glass door may be heavy for some individuals. If this is the case, please request help.

These B-vent fireplaces are approved for use with optional bi-fold glass doors (see <u>Accessories</u>, page 25). The glass panels may be ordered and installed anytime after the fireplace installation is complete.

Follow these steps to install left and right panels:

- 1. With handle at the bottom, completely fold panel on its hinges.
- With handle facing center of firebox opening, insert lower pivot pin on glass door panel into hole in pivot plate on bottom edge of fireplace opening (see Figure 31, page 17).
- Keeping folded door tilted, slide upper two pins into guide track found under upper facial edge of firebox opening.

Figure 29 - Air Kit Handle Location

FIREPLACE INSTALLATION Continued

- 4. Tilt glass assembly fully vertical until outer pivot pin snaps into mounting hole in upper spring clip (see Figure 31).
- 5. Once top and bottom pins are secured, unfold door into closed position.
- Repeat process for opposite door assembly.
- To adjust doors, slide them partially open. Using a screwdriver, loosen hold-down screws in spring clip and pivot plate (see Figure 32).
- Close both doors until evenly joined at middle and note gap at outer edges of the face.
- 9. Reopen one door at a time and retighten upper and lower hold-down screws.
- 10. Repeat process until both doors are evenly joined, spaced and working freely.

CAUTION: The glass panels become very hot while the appliance is operating. Do not attempt to adjust or clean the glass doors until the appliance has fully cooled.







Figure 32 - Adjusting Glass Doors

Removing Glass Doors for Replacement or Cleaning

- Partially open door and press up on upper spring clip with a screw driver until outer top pivot pin is free of clip.
- 2. Fully fold frame assembly and slide upper edge towards center of firebox opening until guide pins are free of frame rail (see Figure 33).

CAUTION: Always operate the appliance with the doors either fully opened or fully closed. Operating the appliance with the doors partially open can result in improper venting of flue products.



Figure 33 - Removing Glass Doors

OPERATION

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- 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.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician or gas supplier. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.



NOTICE: During initial operation of new heater, burning logs will give off a paper-burning smell. Orange flame will also be present. Open damper or window to vent smell. This will only last a few hours.

- 1. STOP! Read safety information, column 1.
- 2. Turn wall switch to the OFF position.
- 3. Turn off all electric power to appliance.
- 4. Fully open glass doors if installed.
- 5. Remove front refractory brick access panel.
- 6. Turn equipment shutoff valve clockwise to the OFF position (see Figure 34).
- Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information, column 1. If you don't smell gas, go to the next step.
- 9. Replace front refractory brick access panel.
- 10. Fully close glass doors if installed.
- 11. Turn on all electric power to appliance.
- 12. Turn wall switch to ON position.
- 13. Visually locate the pilot. The ignitor should begin to spark and the main burner should ignite once flame appears at pilot.
 - If lighting the appliance for the first time each season, it may take several attempts before the supply gas can reach the pilot and main burners.
 - If the appliance will not stay lit after several attempts, follow the instructions <u>To Turn Off Gas To Appliance</u>, page 19, and call your service technician or gas supplier.



Figure 34 - Turning Equipment Shutoff Valve to the OFF Position

OPERATION Continued

TO TURN OFF GAS TO APPLIANCE

- 1. Turn off wall switch.
- 2. Turn off all electric power to appliance if service is to be performed.
- 3. Fully open glass doors if installed.
- 4. Remove front hearth brick and control access panel.



Figure 35 - Pilot

INSPECTING BURNERS

Check pilot flame pattern and burner flame patterns often.

PILOT ASSEMBLY

The pilot assembly is factory preset for the proper flame. Alterations may have occurred during shipping and handling. The pilot is located on the back right hand side of burner.

The flame must envelope 1/4" of top of the ignitor/sensor and grounding stem.

If your pilot assembly does not meet these requirements:

- · Turn adjustment screw marked PILOT clockwise to decrease or counterclockwise to increase flame to proper size (see Figure 36). Do not remove adjustment screw.
- see Troubleshooting, page 22



Figure 36 - Correct Pilot Flame Pattern

- 5. Turn equipment shutoff valve clockwise ★ to the OFF position. Do not force.
- 6. Replace front refractory brick access panel.
- 7. Fully close glass doors if installed.

OPTIONAL REMOTE OPERATION

Note: The WRC receiver and hand-held remote control kit must be purchased separately (see Accessories, page 25). Follow installation instructions on page 11.

Turn equipment shutoff valve to the ON position. You can now turn the burner on and off with the hand-held remote control unit.

IMPORTANT: Be sure to press the ON/OFF buttons on the hand-held remote control unit for up to 3 seconds to assure proper operation.

BURNER FLAME PATTERN

Burner flames will be steady, not lifting or floating. Flames should go up through the middle of log set. Flames should not "spill" to edges of pan or sides of log set.

Figure 37 shows a typical flame pattern. If burner flame pattern differs from that described:

- turn appliance off (see To Turn Off Gas to Appliance, above)
- see <u>Troubleshooting</u>, page 22



P325E(B) and VP325E(B) Models Figure 37 - Typical Flame Pattern

CLEANING AND MAINTENANCE

WARNING: Installation and repair should be done by a qualified service person. The appliance should be inspected before each use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, pet hair, etc. It is imperative that the control compartments, burners and circulating air system be kept clean.

WARNING: The logs can be hot. Handle only when cool.

WARNING: Turn off gas and electrical power before servicing appliance.

Note: Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

Contact authorized dealers of this product. If they can't supply original replacement part(s), call FMI PRODUCTS, LLC at 1-866-328-4537.

SERVICE HINTS

When Gas Pressure Is Too Low

- · pilot will not stay lit
- burner will have delayed ignition
- · fireplace will not produce specified heat
- propane/LP gas supply may be low if using propane/LP gas

If using propane/LP gas, you may feel your gas pressure is too low. If so, contact your local propane/LP gas supplier.

WARNING: Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.

PILOT AND BURNER

- Remove logs and ember material before cleaning burner and replace when cleaning is complete.
- Burner and controls should be cleaned with compressed air to remove dust, dirt or lint.
- Use a vacuum cleaner or small, soft bristled brush to remove excess dust, dirt or lint.

LOGS

- If you remove logs for cleaning, refer to log placement information on page 14 to properly replace logs.
- Use a vacuum cleaner to remove any carbon buildup on logs.
- Replace log(s) if broken. See <u>Replacement</u> <u>Parts</u>.
- Replace ember material periodically as needed. See <u>Replacement Parts</u>.

REPLACEMENT PARTS

When calling, have ready:

- your name
- · your address
- model and serial numbers of your heater
- · how heater was malfunctioning
- · purchase date

Usually, we will ask you to return the part to the factory.

TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact FMI PRODUCTS, LLC at 1-866-328-4537. When calling please have your model and serial numbers of your heater ready.

You can also visit our web site at **www.fmiproducts.com**.

WIRING DIAGRAM



TROUBLESHOOTING

Note: Before troubleshooting the system, make sure the gas shutoff valve is ON. The two most common causes of a malfunctioning gas appliance are:

- 1. Loose wiring connections
- 2. Construction debris clogging the pilot and/or gas control valve filter

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
lgnitor will not spark or pilot will not light	1. No gas supply, or shutoff valve is OFF	 Check to see if you have gas supply and that equip- ment shutoff valve is opened
	2. Air in gas line	 Repeat lighting procedure several times to purge all air out of lines. If after re- peated attempts appliance does not light, call for quali- fied service and repair.
	3. Construction debris clog- ging pilot orifice	3. Remove debris and dirt, inspect and clean any other possible obstructions
	4. Low gas pressure	4. Contact your gas supplier to check pressure
	5. Kinked pilot line	5. Have a qualified technician replace pilot line
	Control valve knob is not opening	 Replace control valve (Re- fer to <u>Replacement Parts</u>, page 20)
	7. No power to unit or the ignition module or power transformer is bad	7. Check that main power is on and that all wire connec- tions are made correctly to ignition model (see <u>Wiring</u> <u>Diagram</u> , page 21). Check for 24 VAC at secondary side of transformer. If 24 VAC is present, and mod- ule does not operate, have module replaced, otherwise have transformer replaced
	8. Vent damper not fully open	8. Open vent damper until fully locked in the OPEN position
Pilot will not stay lit	 Loose wiring on thermopile to regulator valve. No mil- livolt current is being sent back to regulator If valve knob and wall switch are in the ON posi- tion, probable defective regulator valve 	 Check wiring connections. Refer to wiring diagram shown in W<u>all Switch In- stallation</u>, page 11 Have a qualified technician replace valve
	3. Vent damper not fully open	3. Open vent damper until fully locked in the OPEN position

TROUBLESHOOTING

Continued

A WARNING: If you smell gas

- Shut off gas supply.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- 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.

IMPORTANT: Operating fireplace where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
No gas to burner, although wall switch and valve are set to the ON position	 Wall switch wires defective or too long Thermopile not generating sufficient voltage 	 Check electrical connections See <u>Pilot will not stay lit</u>, page 22
Frequent pilot outage	 Pilot flame may be too low, causing safety pilot to "drop out" Improper venting or exces- sive blockage 	 Clean and adjust pilot flame for maximum flame im- pingement on thermopile Have the vent system in- spected, including the ter- mination cap. Remove any restriction or obstruction
Fireplace produces a clicking/ ticking noise after burner is lit or shut off	 Metal expanding while heating or contracting while cooling 	1. This is normal with most fireplaces. If noise is ex- cessive, contact qualified service person
Fireplace produces unwanted odors	 Fireplace burning vapors from paint, hair spray, glues, etc. (See <i>IMPOR-TANT</i> statement above) For propane/LP gas, low fuel supply Gas leak. See Warning statement at top of page 	 Ventilate room. Stop using odor causing products while fireplace is running Contact local propane/LP supplier Locate and correct all leaks (see <u>Gas Line Hook-Up</u>, page 12)
Gas odor even when equip- ment shutoff valve is in OFF position	 Gas leak. See Warning statement at top of page Control valve defective 	 Locate and correct all leaks (see <u>Gas Line Hook-Up</u>, page 12) Replace control valve
Gas odor during combustion	 Foreign matter between control valve and burner Gas leak. See Warning statement at top of page 	 Take apart gas tubing and remove foreign matter Locate and correct all leaks (see <u>Gas Line Hook-Up</u>, page 12)

TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Dark residue on logs or inside of fireplace	 Improper log placement Air holes at burner inlet blocked 	 Properly locate logs Clean out air holes at burner inlets. Periodically repeat as needed
	3. Burner flame holes blocked	3. Remove blockage or re- place burner
	4. Improper venting or exces- sive blockage	 Have the vent system in- spected, including the ter- mination cap. Remove any restrictions or obstruction
	5. Excessive amounts of embers and pan material	5. Clear excess embers until a minimum gap of 1/2" remains under the grate

ACCESSORIES

Purchase these accessories from your local dealer. If they can not supply these accessories call FMI PRODUCTS, LLC at 1-866-328-4537 for information. You can also write to the address listed on the back page of this manual.

AIR KIT - AK4

Optional kit helps offset the negative pressure often existing in today's tightly constructed homes.

REMOTE CONTROL KITS

WRC - Standard On/Off Electronic Remote Control Kit GWMS2 - Wall Mount ON/OFF Switch

PROPANE CONVERSION KITS

PCBE-324 - 4" B-Vent Electronic Fireplace PCBE-325 - 5" B-Vent Electronic Fireplace

32" EXTRUDED ALUMINUM BI-FOLD GLASS DOORS

BD32 - Black Finish BD32B - Brushed Brass Finish BD32P - Platinum Finish

32" BRICK LINER KIT

BL32 - Refractory Standard Brick Liner Kit

BLOWER KIT

BK - Squirrel Cage Blower With Speed Control

32" PERIMETER TRIM KIT

PT32 - Black PT32B - Brushed Brass PT32P - Platinum

32" LOUVER TRIM KIT (Rolled Louvers Only)

LT32B - Brushed Brass LT32P - Platinum

FACE/LOUVER PANEL KITS

SP32 - Smooth Faced, Black
SL32 - Stamped Louver, Black
RL32 - Rolled Louver, Black
FP32 - Filigree Panel, Black
FP32B - Filigree Panel, Brushed Brass
FP32P - Filigree Panel, Platinum

FIRE CRACKLE - CF6-A1

Creates the sound of a real burning fire.

32" FIXED GLASS DOOR KIT FD32 - Black Finish FD32B - Brushed Brass Finish FD32P - Platinum Finish MODELS P324E AND VP324E



PARTS

MODELS P324E AND VP324E

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under <u>Replacement Parts</u> on page 20 of this manual.

KEY			
NO.	PART NO.	DESCRIPTION	QTY .
1 2	108769-03	Extension Deflector Wire Assembly Electric Harness	1
3	108864-01	Strain Relief 1/2" Bushing	1
4	108425-01	Air Rod Retainer	1
5	108423-01	Panel Closure	2
6	108863-01	24" Supply Connect Plug	1
7	14253	Flexible Supply Line with Shutoff Valve	1
8	108411-01	Air Separator	1
9	11186	Screw, #8-32 x 1" PPH Zinc.	2
10	11109	Screw, #8-32 x 1/2" PPH Zinc.	2
11	11201	Nut, #8-32 Hex Zinc.	4
12	108428-03	Bottom Front Refractory, Std. Brick	1
13 14	108426-03	Bottom Rear Refractory, Std. Brick	1
14	106683-01 24353	Firebox Support Leg Box Assembly	2
16	108701-01	Screen Rod	2
17	14301	Ignition Module	1
18	11165	Screw, #10x5/8 Mod. Tr. Blk. Ox	2
19	106703-02	Damper Door Assembly	1
20	108416-01	4" Collar	1
21	108412-01	Smoke Deflector	1
22	108415-01	Starter Pipe Collar	1
23	109797-01	Grate Assembly	1
24	109107-02	Burner Assembly	1
24-1	107742-03	Burner Pan	1
24-2 24-3	109794-01	Burner Tube Burner Bracket	1
24-3	107748-01 107985-01	Pilot Shield	1
24-5	109793-01	Divider Pan	1
24-6	11209	Nut, #10-24	1
24-7	11147	Screw, #10-24x1/2	1
24-8	901066-01	Brass Air Mixer (NG)	1
	901066-02	Brass Air Mixer (LP)	1
24-9	901064-12	Injector (NG)	1
04.40	901065-11	Injector (LP)	1
24-10 24-11	108866-01	Pilot (Natural Gas) Pilot Orifice (LP)	1
24-12	11102	Screw, #8-32x3/8	2
25	14569	Electronic Gas Valve (NG)	1
	14570	Electronic Gas Valve (LP)	1
26	107741-02	Valve Bracket	1
27	14129	Transformer	1
28	108368-01	3/8" Flex Line	1
29 30	11107 108005-05	Screw, #10-32 x 1/4 PPH Wire Harness	4
31	11418	Push-On Nut	2
32	108440-01	Screen	2
33	14123	Strain Relief	1
34	14574	Limit Switch	1
35	22912	Draft Diverter	1
36	106827-01	4" Gasket	1
37	20042	Air Kit Cover	1
38 39	20088 20089	Door Stop Pivot Clip	1
39 40	20089	Spring Clip	2
41	21171	Gas Knockout Cover	4
42	108652-01	Gas Conduit Assembly, Left	1
43	108654-01	Gas Conduit Assembly, Right	1
44	20280	Top Spacer	4
	901155-01	Vermiculite Bag	1
	901156-01	Pan Material	1
		Lava Rock	1

PARTS

MODELS P325E(B) AND VP325E(B)



PARTS

MODELS P325E(B) AND VP325E(B) This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under <u>Replacement Parts</u> on page 20 of this manual.

KEY		1 0	
NO.	PART NO.	DESCRIPTION	QTY.
1	108769-03		2
2	11201	Nut, #8-32 Hex Zinc.	2
3	11109	Screw, #8-32 x 1/2" PPH Zinc.	2
4	108425-01	Air Rod Retainer	1
5	108423-01	Panel Closure	2
6 7	11186 109098-01	Screw, #8-32 x 1" PPH Zinc.	2
8	109098-01	Wire Assembly Electric Harness Air Separator	1
9	108434-01	Left Refractory, Std. Brick (B Models)	1
10	108432-01	Right Refractory, Std. Brick (B Models)	1
11	108430-01	Right Refractory, Std. Brick (B Models) Rear Refractory, Std. Brick (B Models)	1
12	108428-01	Bottom Front Refractory, Std. Brick	1
13	108426-01	Bottom Rear Refractory, Std. Brick	1
14	106683-01	Firebox Support Leg	2
15	24353	Box Assembly	1
16	108701-01	Screen Rod Strain Relief 1/2" Bushing	2 1
17	108864-01	Strain Relief 1/2" Bushing	
18	11165	Screw, #10 x 5/8 Mod. Tr. Blk. Ox	2
19	106703-02	Damper Door Assembly	1
20	108863-01	24" Supply Connect Plug	1
21 22	108412-01 14253	Smoke Deflector	1
22	109040-01	Flexible Supply Line with Shutoff Valve	1
23	108712-06	Grate Assembly Burner Assembly	1
24-1	107742-03		1
24-2	109037-01	Burner Tube	1
24-3	107748-01	Burner Bracket	1
24-4	107985-01	Pilot Shield	1
24-5	901681-01	Burner Clamp	1
24-6	11209	Nut, #10-24	1
24-7	11147	Screw, #10-24 x 1/2	1
24-8	901066-01	Brass Air Mixer (NG)	1
04.0	901066-02		1
24-9	901064-11	Injector (NG)	1
24-10	901065-09	Injector (LP)	1
24-10	108866-01	Pilot (NG) Pilot Orifice (LP)	1
24-12	11102	Screw, #8-32 x 3/8	2
25	14569	Electronic Gas Valve (NG)	1
	14570	Electronic Gas Valve (LP)	1
26	107741-02	Valve Bracket	1
27	14129	Transformer	1
28	108368-01	3/8" Flex Line	1
29	11107	Screw, #10-32 x 1/4 PPH	4
30	108005-05	Wire Harness	1
31	11418	Push-On Nut	2
32 33	108440-01	Screen	2
33 34	14123	Strain Relief Limit Switch	1
34 35	14574 22912	Draft Diverter	1
36	22084	Brick Liner Retainer	2
37	20042	Air Kit Cover	1
38	20088	Door Stop	1
39	20089	Pivot Clip	2
40	20090	Spring Clip	2
41	21171	Gas Knockout Cover	4
42	108652-01	Gas Conduit Assembly, Left	1
43	108654-01	Gas Conduit Assembly, Right	1
44	20280	Top Spacer	4
45	108415-01	Starter Pipe Collar	1
46	108417-01	5" Collar	1
47	14301	Ignition Module	1
	901155-01	Vermiculite Bag	1
	901156-01	Pan Material	1
	901157-01	Lava Rock	1

LOG ASSEMBLY



P324E and VP324E Models

QTY.

1 1 1

1

KEY NO.	PART NO.	DESCRIPTION
-	109109-01	Log Set
1	105958-05	Front Log
2	105960-05	Rear Log
3	901100-02	Top Right Log
4	901102-02	Top Left Log



KEY NO.	PART NO.	DESCRIPTION	QTY.
-	109100-02	Log Set	
1	109421-01	Rear Log	1
2	109420-01	Front Right Log	1
3	108723-01	Front Left Log	1
4	108722-01	Top Y-Log	1
5	108720-01	Top Log	1

NOTES

WARRANTY

KEEP THIS WARRANTY

Model (located on product or identification tag)___

Serial No. (located on product or identification tag)_____

Date Purchased

Keep receipt for warranty verification.

FMI PRODUCTS, LLC LIMITED WARRANTIES

New Products

Standard Warranty: FMI PRODUCTS, LLC warrants this new product and any parts thereof to be free from defects in material and workmanship for a period of four (4) year from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with FMI PRODUCTS, LLC's warnings and instructions.

For products purchased for commercial, industrial or rental usage, this warranty is limited to 90 days from the date of first purchase.

Factory Reconditioned Products

Limited Warranty: FMI PRODUCTS, LLC warrants factory reconditioned products and any parts thereof to be free from defects in material and workmanship for 30 days from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with FMI PRODUCTS, LLC's warnings and instructions.

Terms Common to All Warranties

The following terms apply to all of the above warranties:

Always specify model number and serial number when contacting the manufacturer. To make a claim under this warranty the bill of sale or other proof of purchase must be presented.

This warranty is extended only to the original retail purchaser when purchased from an authorized dealer, and only when installed by a qualified installer in accordance with all local codes and instructions furnished with this product.

This warranty covers the cost of part(s) required to restore this product to proper operating condition and an allowance for labor when provided by a FMI PRODUCTS, LLC Authorized Service Center or a provider approved by FMI PRODUCTS, LLC. Warranty parts must be obtained through authorized dealers of this product and/or FMI PRODUCTS, LLC who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty.

Travel, handling, transportation, diagnostic, material, labor and incidental costs associated with warranty repairs, unless expressly covered by this warranty, are not reimbursable under this warranty and are the responsibility of the owner.

Excluded from this warranty are products or parts that fail or become damaged due to misuse, accidents, improper installation, lack of proper maintenance, tampering, or alteration(s).

This is FMI PRODUCTS, LLC's exclusive warranty, and to the full extent allowed by law; this express warranty excludes any and all other warranties, express or implied, written or verbal and limits the duration of any and all implied warranties, including warranties of merchantability and fitness for a particular purpose to four (4) year on new products and 30 days on factory reconditioned products from the date of first purchase. FMI PRODUCTS, LLC makes no other warranties regarding this product.

FMI PRODUCTS, LLC's liability is limited to the purchase price of the product, and FMI PRODUCTS, LLC shall not be liable for any other damages whatsoever under any circumstances including indirect, incidental, or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For information about this warranty contact:



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