INSTALLER: LEAVE THESE INSTRUCTIONS WITH THE APPLIANCE THIS TERMINAL IS SERVING. CONSUMER: RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE. THESE INSTRUCTIONS ARE TO BE USED IN CONJUNCTION WITH THE APPLIANCE AND PVA INSTRUCTIONS.



CERTIFIED UNDER CANADIAN AND AMERICAN NATIONAL STANDARDS: ANSI Z21.88 • CSA 2.33 FOR VENTED GAS FIREPLACE HEATERS AND ANSI Z21.50 • CSA 2.22 FOR GAS FIREPLACES.

# GAS POWER VENT (GPV)

#### **GENERAL INFORMATION**

These Installation Instructions must be used in conjunction with the appliance and appropriate PVA adapter kit Installation Instructions. Clearances listed in these Instructions supersede those in the appliance's Installation Instructions.

Power venting of direct vent appliances may result in the reduction of efficiencies by as much as ten percent. Consider this in making any venting and heating decisions in any installation application.

#### SELECTING AND INSTALLING THE FIREPLACE

When selecting a gas appliance for use with the GPV, take into consideration the various requirements and limitations in the venting installation section for the following models:

#### Models Equipped with an Intermittent Pilot Ignition (I.P.I.)

It is recommended that the GPV be used with a gas appliance equipped with an Intermittent Pilot Ignition (I.P.I.). Downward vertical vent runs are permitted with an I.P.I. system. See venting section in appropriate PVA Installation Instructions.

#### Models Equipped with Millivolt/ Standing Pilot

Downward vertical vent runs are not permitted with a standing pilot system. See venting section in appropriate PVA Installation Instructions.

INSTALLATION TO BE DONE BY A QUALIFIED INSTALLER to conform with local codes. In absence of local codes install to the current National Building Code in Canada or to regional building codes in the United States. It must be electrically connected and grounded in accordance with local codes. In the absence of local codes, use the current CSA C22.1 CANADIAN ELECTRICAL CODE in Canada or the ANSI/NFPA 70 NATIONAL ELECTRIC CODE in the United States.

The GPV operates on 120 VAC 60 HZ electrical service which is supplied at the firebox junction box.

The GPV is a Direct Vent Terminal designed to allow installation of gas appliances where typical vent configurations cannot be achieved.









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### **TABLE OF CONTENTS**

1.0	VENTING		
	1.1	INSTALLATION OVERVIEW	3
	1.2	VENT TERMINAL CLEARANCES	4
	1.3	VENT LENGTHS	5
	1.4	POWER VENT TERMINAL	5
	1.4.1	TERMINAL INSTALLATION	5
	1.4.2	POWER VENT INSTALLATION	6
	1.4.3	INITIAL FIRING PROCEDURES	6
	1.4.4	ELECTRICAL BOX INSTALLATION	7
	1.5	RESTRICTOR PLATE INSTALLATION	8
	1.6	WIRING DIAGRAM AND INSTALLATION	8
	1.6.1	SIT IPI 885 PROFLAME COMPLETE WITH GPV POWER VENT TERMINAL	8
	1.6.2	SIT MILLIVOLT 820 NOVA COMPLETE WITH GPV POWER VENT TERMINAL	10
	1.6.3	SIT IPI 880/886 PROFLAME COMPLETE WITH GPV POWER VENT TERMINAL	11
	1.6.4	DEXEN IPI 6003-3V COMPLETE WITH GPV POWER VENT TERMINAL	12
2.0	ADJU	STMENTS	13
	2.1	VENTURI ADJUSTMENTS	13
3.0	REPL	ACEMENTS	13
4.0	TROU	BLE SHOOTING	14

**<u>NOTE:</u>** Changes, other than editorial, are denoted by a vertical line in the margin.

### **1.0 VENTING**

There are specific adaptors and venting requirements for each appliance, refer to your power vent adaptor leaflet for more information.

For complete installation instructions refer to the following web sites:

Manufacturer	Website
Napoleon - English	http://www.napoleonfireplaces.com/Tech/installation_manuals/installations.html
Napoleon - French	http://www.napoleonfoyers.com/Fireplaces/powervent.html
Continental	http://www.continentalfireplaces.com/fireplaces/gas/powervent.html

#### 1.1 INSTALLATION OVERVIEW



### **1.2 VENT TERMINAL CLEARANCES**

INSTALLATIONS



#### **COVERED BALCONY APPLICATIONS** ††\*





	CANADA	U.S.A.		
Α	12"	12"	Clearance above grade, veranda porch, deck or balcony.	
В	12" △	9" <sup>∆</sup>	Clearance to windows or doors that open.	
С	12" *	12" *	Clearance to permanently closed windows.	
D	18" **	18" **	Vertical clearance to ventilated soffits located above the terminal within a horizontal distance of 2' from the center line of the terminal.	
Е	12" **	12" **	Clearance to unventilated soffit.	
F	0"	0"	Clearance to an outside corner wall.	
	0"	0"	Clearance to an inside <b>non</b> -combustible corner wall or protruding <b>non</b> -combustible obstructions (chimney, etc.).	
G	2"	2"	Clearance to an inside combustible corner wall or protruding combustible obstructions (vent chase, etc.).	
н	3'	3' ***	Clearance to each side of the center line extended above the meter / regulator assembly to a maximum vertical distance of 15'.	
Ι	3'	3' ***	Clearance to a service regulator vent outlet.	
J	12"	9"	Clearance to a non-mechanical air supply inlet to the building or a combustion air inlet to any other appliance.	
К	6'	3'	Clearance to a mechanical air supply inlet.	
L	7' ‡	7' ***	Clearance above a paved sidewalk or paved driveway located on public property.	
М	12" ††	12" ***	Clearance under a veranda, porch or deck.	
Ν	12"	12"	Clearance above the roof.	
0	2' †*	2' †*	Clearance from an adjacent wall including neighbouring buildings.	
Р	8'	8'	Roof must be <b>non</b> -combustible without openings.	
Q	3'	3'	See chart for wider wall dimensions.	
R	6'	6'	See chart for deeper wall dimensions. The terminal shall not be installed on any wall that has an open- ing between the terminal and the open side of the structure.	
S	12"	12"	Clearance under a covered balcony	

Δ The terminal shall not be located less than 6 feet under a window that opens on a horizontal plane in a structure with three walls and a roof.

\* Recommended to prevent condensation on windows and thermal breakage

\*\* It is recommended to maximize the distance to vinyl clad soffits.

\*\*\* This is a recommended distance. For additional requirements check local codes.

+ A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

the Permitted only if the veranda, porch, or deck is fully open on a minimum of two sides beneath the floor.

t\* Recommended to prevent recirculation of exhaust products. For additional requirements check local codes.

 $\dagger \dagger^{\star}$   $\,$   $\,$  Permitted only if the balcony is fully open on a minimum of one side.

#### **1.3 VENT LENGTHS** REFER TO POWER VENT ADAPTER KIT (PVA) FOR SPECIFIC VENTING INSTRUCTIONS

### 1.4 POWER VENT TERMINAL

### **1.4.1 TERMINAL INSTALLATION**

This application occurs when venting through an exterior wall. Having determined the correct height for the terminal location, cut and frame a hole in the exterior wall as illustrated to accommodate the GPV.

- **A.** Remove the electrical access plate from the frame assembly, then remove the knock out from this plate.
- B. Insert the wiring through the electrical access plate and engage the conduit bushing. Re-secure this plate. <u>NOTE:</u> The GPV includes a 20 foot wire harness cable. If this cable does not reach the appliance, then it may be cut and a splice added. These connections must conform with local codes or, in the absence of local codes, use the current CSA C22.1 Canadian Electrical Code in Canada or the ANSI/NFPA 70 National Electrical Code in the United States.
- **C.** Remove terminal access cover, see "INSTALLATION OVERVIEW" for location and route cable through terminal.
- **D.** Assemble gas power vent terminal to frame assembly.
- **E.** Connect the male and female connectors.
- **F.** Replace terminal access cover.

<u>NOTE:</u> Where possible, it is strongly recommended to have an access panel inside the building for servicing the unit.





### **1.4.2 POWER VENT INSTALLATION**

- A. Stretch the inner flex pipe to the required length taking into account the additional length needed for the finished wall surface. Slip the vent pipe a minimum of 3" over the inner sleeve of the terminal and secure with 3 #8 screws. Apply a heavy bead of the high temperature sealant W573-0007 Mill Pac (not supplied).
- **B.** Using the outer flex pipe, slide over the outer combustion air sleeve of the terminal and secure with 3 #8 screws. Seal using high temperature sealant W573-0002 (not supplied).
- C. Apply a bead of caulking (not supplied) to the framed opening and secure the terminal. Ensure the arrows stamped into the frame assembly are pointing upwards. <u>NOTE:</u> For firestop spacer installation instructions, see PVA kit or the appliance Installation Manual.
- **D.** Route venting through framed opening and firestop spacer to the appliance.
- **E.** The terminal mounting plate may be recessed into the exterior wall or siding no greater than the depth of its return flange.
- F. If more vent pipe needs to be used to reach the appliance, couple them together as illustrated. The vent system must be supported approximately every 3 feet for both vertical and horizontal runs. Use noncombustible strapping to maintain the minimum clearance to combustibles.
- G. Install the reducer (if required) or vent and properly secure and seal to the unit using high temperature sealant W573-0007 Mill Pac (not supplied).



23.6

CAULKING

#### **1.4.3 INITIAL FIRING PROCEDURES**



In some instances the system may not light pilot/burner with the door open/removed. Partially blocking the exhaust flue collar will allow the safety pressure switch to activate and allow gas flow to the pilot during the initial test firing.

#### **1.4.4 ELECTRICAL BOX INSTALLATION**

NOTE: Before finishing in the appliance, the power vent must be installed.



- **A.** Start by removing the pre-finishing access panel or opening lower louvre.
- **B.** Position the Power Vent Control Module in a convenient location (not on top of the heat shield in the LHD50) and Velcro it to the base of the appliance.
- **C.** Slide the 20' power vent cable through the right side of the appliance and connect the box connector to the side panel, see "INSTALLATION OVERVIEW" section for illustration.
- **D.** Feed the wires through the inside panel, slide the split bushing over the coated wires and snap into the 7/8" hole to protect the wires as illustrated. Attach the connections as per the appropriate wiring diagram. See "WIRING DIAGRAM AND INSTALLATION" section.

#### **1.5 RESTRICTOR PLATE INSTALLATION**

REFER TO PVA KIT FOR APPLIANCE SPECIFIC INSTRUCTIONS.

#### **1.6 WIRING DIAGRAM AND INSTALLATION**

Connect the wiring to the power vent termination as outlined in the previous section, and connect the wiring to the appliance as outlined in the schematic below. Ensure that the proper clearances are maintained for the wiring and conduit. When installing the wiring it must never run above the vent run and it must be a minimum 1" from all venting.

<u>NOTE:</u> The GPV includes a 20 foot wire harness. If this harness does not reach the appliance, then it may be cut and a splice added. These connections must conform with local codes or, in the absence of local codes, use the current CSA C22.1 Canadian Electrical Code in Canada or the ANSI/NFPA 70 National Electrical Code in the United States.

#### 1.6.1 SIT IPI 885 PROFLAME COMPLETE WITH GPV POWER VENT TERMINAL

- 1. Disconnect the wires labeled ON/OFF (White/Green) and TH (Green). Reconnect them to the corresponding male/female connectors on the Power vent control module.
- 2. Disconnect the two D/C (Red/Black) wires from each other and reconnect them to the corresponding D/C connectors on the Power vent control module.
- 3. Disconnect the Orange wire from the gas valve and reconnect it to the Yellow wire (female connector) from the Power vent control module.
- 4. Connect the remaining Yellow wire (male connector) from the Power vent control module to the tab on the gas valve where the Orange wire was removed.



#### 1.6.2 SIT MILLIVOLT 820 NOVA COMPLETE WITH GPV POWER VENT TERMINAL

<u>NOTE:</u> Must use double pole switch (supplied) or double pole thermostat (not supplied) with specific power vent adaptor kit.

- 1. Connect the jumper wire to tabs 1 and 3 on the gas valve.
- 2. Connect the jumper wire to the two Yellow wires from the Power vent control module.



#### 1.6.3 SIT IPI 880/886 PROFLAME COMPLETE WITH GPV POWER VENT TERMINAL

# <u>NOTE:</u> Must use double pole switch (supplied) or double pole thermostat (not supplied) with specific power vent adaptor kit.

- 1. Connect the jumper wires to the wire labeled ON/OFF (Green/White) and the wire labelled TH (Green).
- 2. Connect the other end of the jumper wires to the Yellow wires from the Power vent control module.



#### 1.6.4 DEXEN IPI 6003-3V COMPLETE WITH GPV POWER VENT TERMINAL

<u>NOTE:</u> Must use double pole switch (supplied) or double pole thermostat (not supplied) with specific power vent adaptor kit.

1. Connect the Brown wires from the Ignition module to the yellow wires from the Power vent control module.



# 2.0 ADJUSTMENTS

### 2.1 VENTURI ADJUSTMENTS

REFER TO PVA KIT FOR SPECIFIC APPLIANCE INSTRUCTIONS.

# **3.0 REPLACEMENTS**

Contact your dealer or the factory for questions concerning prices and policies on replacement parts. Normally all parts can be ordered through your Authorized dealer / distributor.

#### FOR WARRANTY REPLACEMENT PARTS, A PHOTOCOPY OF THE ORIGINAL INVOICE WILL BE REQUIRED TO HONOUR THE CLAIM.

When ordering replacement parts always give the following information:

- Model & Serial Number of appliance
- · Installation date of appliance
- Part number
- Description of part
- Finish

\* IDENTIFIES ITEMS WHICH ARE NOT ILLUSTRATED. FOR FURTHER INFORMATION, CONTACT YOUR AUTHORIZED DEALER. **A**WARNING

FAILURE TO POSITION THE PARTS IN ACCORDANCE WITH THIS MANUAL OR FAILURE TO USE ONLY PARTS SPECIFICALLY APPROVED WITH THIS APPLIANCE MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY.

— 41.1

COMPONENTS				
REF	GPV PART NO.	DESCRIPTION		
1	W062-0026	BLOWER		
2	W660-0056	SWITCH, VACUUM		
3*	W750-0195	WIRE HARNESS, TERMINAL		
4*	W750-0209	20' WIRE HARNESS CABLE FROM UNIT TO TERMINAL		
5	W010-1924PW	PEWTER MAIN BODY		
6	W010-1925PW	PEWTER FRAME		
7	W290-0138	BLOWER GASKET		
8	W500-0400	BLOWER MOUNTING PLATE		
9	W200-0256PW	PEWTER ACCESS COVER		
10	W500-0419	DILUTION AIR PLATE		
11*	W345-0008	HOSE		



# 4.0 TROUBLE SHOOTING

# **WARNING**

ALWAYS LIGHT THE PILOT WHETHER FOR THE FIRST TIME OR IF THE GAS SUPPLY HAS RAN OUT, WITH THE GLASS DOOR OPEN OR REMOVED.

IN SOME INSTANCES THE SYSTEM MAY NOT LIGHT PILOT/BURNER WITH THE DOOR OPEN/ REMOVED. PARTIALLY BLOCKING THE EXHAUST FLUE COLLAR WILL ALLOW THE SAFETY PRESSURE SWITCH TO ACTIVATE AND ALLOW GAS FLOW TO THE PILOT DURING THE INITIAL TEST FIRING.

SYMPTOM	PROBLEM	TEST SOLUTION
Main burner flame is	Leak in exhaust vent.	- Check exhaust vent pipe and all connection seals.
a blue lazy transpar- ent flame.	Incorrect installation.	- Refer to PVA kit for appliance specific restrictor.
Carbon is being deposited on glass or	Air shutter has become blocked or incorrect setting.	<ul> <li>Ensure air shutter opening is free of lint or other obstructions or has correct setting.</li> </ul>
combustion chamber surfaces.	Flame is impinging on the logs or combustion chamber.	<ul> <li>Check that the media is correctly positioned.</li> <li>Open air shutter to increase the primary air.</li> <li>Check the input rate: Check the manifold pressure and orifice size as specified by the rating plate values.</li> <li>Check that the door gasket is not broken or missing and that the seal is tight.</li> <li>Check that both 4" and 7" vent liners are free of holes and well sealed at all joints.</li> <li>Check that the proper restrictor is used</li> </ul>
White / Grey film forms.	Sulphur from fuel is being de- posited on glass, logs or com- bustion chamber surfaces.	<ul> <li>Clean the glass with a gas appliance glass cleaner. DO NOT CLEAN GLASS WHEN HOT.</li> <li>If deposits are not cleaned off regularly, the glass may become permanently marked.</li> </ul>
Exhaust fumes smelled in room, headaches.	Fireplace is spilling.	<ul> <li>Check door seal and relief flap seal.</li> <li>Check for proper restrictor.</li> <li>Check that the paint curing process is complete.</li> </ul>
Main burner will not light.	Main door is not installed.	- Install main door.
Main burner flames are very aggressive.	No restrictor.	- Add restrictor.
Main burner won't light.	Vacuum switch not activated.	<ul> <li>Remove blockage. In really cold conditions, ice buildup may occur on the terminal and should be removed as required.</li> <li>Test vacuum switch and replace as required.</li> </ul>

**IMPORTANT:** Prove all systems check before completely enclosing unit.

### **5.0 NOTES**

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