

POWER VENT SYSTEM KIT

Inline Power Vent Kit # 666-945

End of Line Power Vent Kit # 946-535



www.regency-fire.com

Power Vent System Installation Instruction

Approved for use with the following **Gas Fireplace** Models only:

City 40 Series, City 50 Series, City 60 Series, City 72 Series

WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult an authorized installer, service agency or the gas supplier.

FOR YOUR SAFETY

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

Installation and service must be performed by an authorized installer, service agency or the gas supplier.

FOR YOUR SAFETY

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 neighbour's phone. Follow the gas supplier's instructions.
- * If you cannot reach your gas supplier, call the fire department.

Tested by: Intertek



Intertek

C#4001172

Manufactured by:
FPI Fireplace Products International Ltd.
6988 Venture St.,
Delta, B.C. Canada, V4G 1H4

**PLEASE KEEP THESE INSTRUCTIONS
FOR FUTURE REFERENCE**

Power Vent System Kit

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Power Vent System Kit

LISTINGS AND CODE APPROVALS

This Kit has been approved for use with the following Gas Fireplace Models: City 40 Series, City 50 Series, City 60 Series & City 72 Series. This kit has been tested in accordance with National Safety Standards, and has been certified by Warnock Hersey/Intertek for installation and operation in the United States and Canada as described in these Installation and Operating Instructions.

Check with your local building code agency before you begin your installation to ensure compliance with local codes, including the need for "permits" and follow-up inspections. If any problems are encountered regarding code approvals, or if you wish clarification on any of the instructions contained here, contact your local dealer.

GENERAL INFORMATION

This installation manual covers Regency In-line Power Vent System & End-line Power Vent System only. This Power Vent System must be used with only Regency Fireplaces listed on the Power Vent System installation manual.

IMPORTANT INSTALLATION NOTES

1. The appliance installation must conform with local codes or, in the absence of local codes, with the current Canadian or National Gas Codes, CSA B149.1 or ANSI Z223.1 Installation Codes.
2. The appliance when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes with the current National Electrical Code, ANSI/NFPA 70 or CSA C22.1 Canadian Electrical Code.

- 3) This kit is tested and safe when installed in accordance with this installation manual. Please read all instructions before starting installation and follow all instructions carefully during installation.
- 4) Installation of this kit must be performed by a qualified service technician.
- 5) The Power Vent System Kit must be installed only as specified. Any modifications of the kit or components will void the warranty and may cause a fire hazard.
- 6) Please read this installation manual carefully before operating this equipment.

Power Vent System Kit

4"X 6-5/8" (102 MM X 168 MM) RIGID PIPE CROSS REFERENCE CHART

Components from different Manufacturers may not be mixed. Not All Rigid Pipe components are available directly from FPI.

IMPORTANT : When using the inline Power Vent system & rigid pipe:

Vertical Terminations : Only Simpson Duravent rigid pipe is approved for use. Must use the 46DVA-VCH vertical high wind cap as this is the only approved cap. Horizontal Terminations when using inline Power Vent kit: Only the 946-523/P Astro horizontal cap may be used in conjunction with any of the vent systems noted below.

IMPORTANT : The 50, 60 & 72 models come with a 5" inner and 8" outer collar which must be reduced to 4" inner x 6-5/8" outer (102 mm x 168 mm) in all applications. Both a 5" x 8" Adaptor (770 - 994) & 4" x 6 5/8" Collar Reducer (946 - 606) must be purchased separately.

For the 40 series a 4" x 6 5/8" Adaptor (510 - 994) must be purchased separately.

Description	Simpson Direct Vent Pro®	Selkirk Direct Temp™	American Metal Products® Amerivent Direct	Metal-Fab™ Sure Seal	Security Secure-Vent®	ICC Excel Direct	Olympia Ventis DV*
High Wind Vertical Cap	46DVA-VCH	N/A	N/A	N/A	N/A	N/A	N/A
Flashing Flat Roof	46DVA-FF	N/A	N/A	N/A	N/A	N/A	N/A
Flashing 0/12-6/12	46DVA-F6	N/A	N/A	N/A	N/A	N/A	N/A
Flashing 7/12-12/12	46DVA-F12	N/A	N/A	N/A	N/A	N/A	N/A
Storm Collar	46DVA-SC	N/A	N/A	N/A	N/A	N/A	N/A
6" Pipe Length-Galvanized	46DVA-06	4DT-6	N/A	4D6	SV4L6	TC-4DL6	VDV-0406
6" Pipe Length-Black	46DVA-06B	4DT-6B	N/A	4D6B	SV4LB6	TC-4DL6B	VDVB-0406
7" Pipe Length-Galvanized	N/A	N/A	4D7	N/A	N/A	N/A	N/A
7" Pipe Length-Black	N/A	N/A	4D7B	N/A	N/A	N/A	N/A
9" Pipe Length-Galvanized	46DVA-09	4DT-9	N/A	N/A	N/A	TC-4DL9	VDV-0409
9" Pipe Length-Black	46DVA-09B	4DT-9B	N/A	N/A	N/A	TC-4DL9B	VDVB-0409
12" Pipe Length-Galvanized	46DVA-12	4DT-12	4D12	4D12	SV4L12	TC-4DL1	VDV-0412
12" Pipe Length-Black	46DVA-12B	4DT-12B	4D12B	4D12B	SV4LB12	TC-4DL1B	VDVB-0412
18" Pipe Length-Galvanized	46DVA-18	4DT-18	4D18	4D18	SV4LA	TC-4DL18	VDV-0418
18" Pipe Length-Black	46DVA-18B	4DT-18B	4D18B	4D18B	SV4LA	TC-4DL18B	VDVB-0418
24" Pipe Length-Galvanized	46DVA-24	4DT-24	4D24	4D24	SV4L24	TC-4DL2	VDV-0424
24" Pipe Length-Black	46DVA-24B	4DT-24B	4D24B	4D24B	SV4LB24	TC-4DL2B	VDVB-0424
36" Pipe Length-Galvanized	46DVA-36	4DT-36	4D36	4D36	SV4L36	TC-4DL3	VDV-0436
36" Pipe Length-Black	46DVA-36B	4DT-36B	4D36B	4D36B	SV4LB36	TC-4DL3B	VDVCB-0436
48" Pipe Length-Galvanized	46DVA-48	4DT-48	4D48	4D48	SV4L48	TC-4DL4	VDV-0448
48" Pipe Length-Black	46DVA-48B	4DT-48B	4D48B	4D48B	SV4LB48	TC-4DL4B	VDVB-0448
60" Pipe Length-Galvanized	46DVA-60	4DT-60	N/A	N/A	N/A	N/A	N/A
60" Pipe Length-Black	46DVA-60B	4DT-60B	N/A	N/A	N/A	N/A	N/A
Adjustable Length 3"-10"-Galvanized	N/A	N/A	N/A	4DAL	N/A	TC-4DLT	N/A
Adjustable Length 3"-10"-Black	N/A	N/A	N/A	4DALB	N/A	TC-4DLTB	N/A
Adjustable Length 7"-Galvanized	N/A	N/A	4D7A	N/A	N/A	N/A	N/A
Adjustable Length 7"-Black	N/A	N/A	4D7AB	N/A	N/A	N/A	N/A
Extension Pipe 8-1/2"-Galvanized	46DVA-08A	N/A	N/A	N/A	N/A	N/A	N/A
Extension Pipe 8-1/2"-Black	46DVA-08AB	N/A	N/A	N/A	N/A	N/A	N/A
Adjustable Length 12"-Galvanized	N/A	N/A	4D12A	N/A	SV4LA12	TC-4dLSI	N/A
Adjustable Length 12"-Black	N/A	N/A	4D12A	N/A	SV4LBA12	TC-4dLSIB	N/A
Extension Pipe 16"-Galvanized	46DVA-16A	N/A	N/A	N/A	N/A	N/A	N/A
Extension Pipe 16"-Black	46DVA-16AB	N/A	N/A	N/A	N/A	N/A	N/A
45° Elbow-Galvanized	46DVA-E45	4DT-EL45	4D45L	N/A	N/A	TE-4DE45	VDV-EL0445
45° Elbow-Black	46DVA-E45B	4DT-EL45B	4DT-EL45B	N/A	N/A	TE-4DE45B	VDVB-EL0445
45° Elbow Swivel-Galvanized	See 46DVA-E45	N/A	N/A	4D45L	SV4E45	N/A	N/A
45° Elbow Swivel-Black	See 46DVA-E45B	N/A	N/A	4D45LB	SV4EB45	N/A	N/A
90° Elbow-Galvanized	46DVA-E90	4DT-EL90S	4DT-EL90S	N/A	N/A	TE-4DE90	VDV-EL0445
90° Elbow-Black	46DVA-E90B	4DT-EL90SB	4DT-EL90SB	N/A	SV4EBR90-1	TE-4DE90B	VDVB-EL0445
90° Elbow, Swivel-Galvanized	See 46DVA-E90	N/A	N/A	4D90L	SV4E90-1	N/A	N/A
90° Elbow, Swivel-Black	See 46DVA-E90B	N/A	N/A	4D90LB	SV4EB90-1	N/A	N/A
90° Starter Elbow, Swivel-Galvanized	N/A	N/A	N/A	4D90A	N/A	N/A	N/A
Adaptor*	N/A	N/A	N/A	4D90L	N/A	N/A	VDV-UAA04
Ceiling Support	N/A	4DT-CS	4DSP	4DFSP	SV4SD	TM4-RDS	VDV-SCR04
Cathedral Support Box	46DVA-CS	4DT-CSS	4DRSB	4DRS	SV4CSB	TM4-SDS	VDV-CSS04
Wall Support/Band	46DVA-WS	4DT-WS/B	4DWS	4DWS	SV4BM	TM-SWS	VDV-WS04

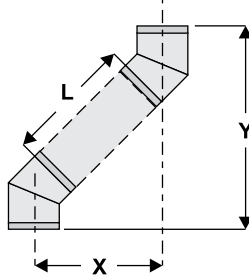
*Not available at Regency

Power Vent System Kit

Description	Simpson Direct Vent Pro®	Selkirk Direct Temp™	American Metal Products® Amerivent Direct	Metal-Fab™ Sure Seal	Security Secure-Vent®	ICC Excel Direct	Olympia Ventis DV*
Offset Support	46DVA-ES	4DT-OS	N/A	N/A	SV4SU	TM-SOS	N/A
Wall Thimble-Black	46DVA-WT	4DT-WT	4DWT	4DWT	SV4RSM	N/A	VDV-WPT04
Wall Thimble Support/Ceiling Support	46DVA-DC	N/A	N/A	N/A	SV4PF	N/A	N/A
Firestop Spacer	46DVA-FS	4DT-FS	4DFSP	4DFS	SV4BF	TM-4CS	VDV-FS04
Trim Plate-Black	N/A	4DT-TP	4DFPB	4DcP	SV4LA	TM-4TP	VDV-WTC04
Attic Insulation Shield 12"	46DVA-IS N/A @ FPI	N/A	4DAIS12	DDIS	SV4RSA	N/A	VDV-AIS04
Attic Insulation Shield - Cold Climates 36"	N/A	N/A	4DAIS12	N/A	N/A	TM-4AS	N/A
Wall Firestop	46DVA-WFS	N/A	N/A	N/A	N/A	TM-4TR	VDV-FS04

Offset Pipe Selection: Use this table to determine offset pipe lengths.

Pipe Length (L)	4" x 6-5/8" Venting	
	Run (X)	Rise (Y)
0" (0mm)	4-7/8" (124mm)	13-7/8" (340mm)
6" (152mm)	8" (203mm)	16-1/2" (419mm)
9" (229mm)	10-1/8" (257mm)	18-5/8" (473mm)
12" (305mm)	12-1/4" (311mm)	20-3/4" (527mm)
24" (610mm)	20-5/8" (524mm)	29-1/8" (740mm)
36" (914mm)	29" (737mm)	37-1/2" (953mm)
48" (1219mm)	37-7/16" (951mm)	45-15/16" (1167mm)



For specific instructions on venting components - visit the manufacturers website listed below.

Simpson Direct Vent Pro: www.duravent.com

Selkirk Direct-Temp: www.selkirkcorp.com

American Metal Products: www.americanmetalproducts.com

Metal-Fab Sure Seal: www.mtffab.com

Security Secure Vent: www.securitychimneys.com

Industrial Chimney Company: www.icc-rsf.com

Olympia Ventic DV: www.olympiachimney.com

Power Vent System Kit

INTRODUCTION

IMPORTANT

- The instructions contained in this manual must be read carefully prior to installation of this appliance.
- 120 Volt AC power is required for this appliance to operate. A receptacle box, receptacle, and cover are provided. See the "Wiring the Unit" section in this manual. Electrical power must be brought to the appliance by a licensed electrician.

The City 40, City 50, City 60 & City 72 Series power vent system is designed to allow the installation of this gas appliance when typical vent configurations (Non-Power Vent Direct Vent Systems With no Fan Assist) are not possible due to excessive offsets, long or negative vent runs, etc.

When installed as a power vent appliance, this unit is designed to use flex or rigid venting.

NOTES

The City 50, 60 & 72 models come with a 5" inner and 8" outer collar which must be reduced to 4" inner x 6-5/8" outer (102 mm x 168 mm) in all applications. See required reducers required as per below depending if using rigid/flex pipe.
 The 40 series has a 4" inner x 6 5/8" outer (102 mm x 168 mm) collar already and does not require to be reduced in size.

The Vent Pipe Adaptor must always be used for Power Vent System: See below " Pipe Adaptor & Reducer CHART".

Vent Pipe Adaptor & Reducer Chart

	Ridge Pipe Adaptor	Flex Pipe Reducer
City 50, 60 & 72 Series	5" x 8" Adaptor (770 - 994)	4" x 6 5/8" Reducer (946 - 758)
	4" x 6 5/8" Collar Reducer (946 - 606)	
City 40 Series	4" x 6 5/8" Adaptor (510 - 994)	

NOTES

- Rigid pipe is approved for up to 72 feet (21.95 m).
- Flex pipe is approved for up to 40 feet (12.19 m) using 2 X 946-756-- 20 foot (6.10 m) flex kits.

There are two options available when installing this unit as a power vent appliance:

- End of line flush horizontal power vent system (Part #946-535): flush power vent fan acts as the termination cap and sits flush to the outside wall. Allowed for horizontal termination only.
- Inline power vent system (Part #666-945): power vent fan terminal is incorporated into the vent run - allows for both horizontal and vertical termination.

This unit may be terminated vertically or horizontally using the Power Vent Systems available. See the following pages for various vent configurations using rigid or flex & vertical or horizontal terminations. The instructions contained in this manual must be read carefully prior to installation.

VENT RESTRICTOR POSITION

	City 50 Series, City 60 Series City 72 Series	City 40 Series	
In_Line	Full open	Full open	
End_Line	Full open	1" Open	
Restrictor Position			

Minimum Vent Clearances to Combustibles

Horizontal Top	3" (76mm)
Horizontal Side	2" (51mm)
Horizontal Bottom	2" (51mm)
Vertical Vent	2" (51mm)

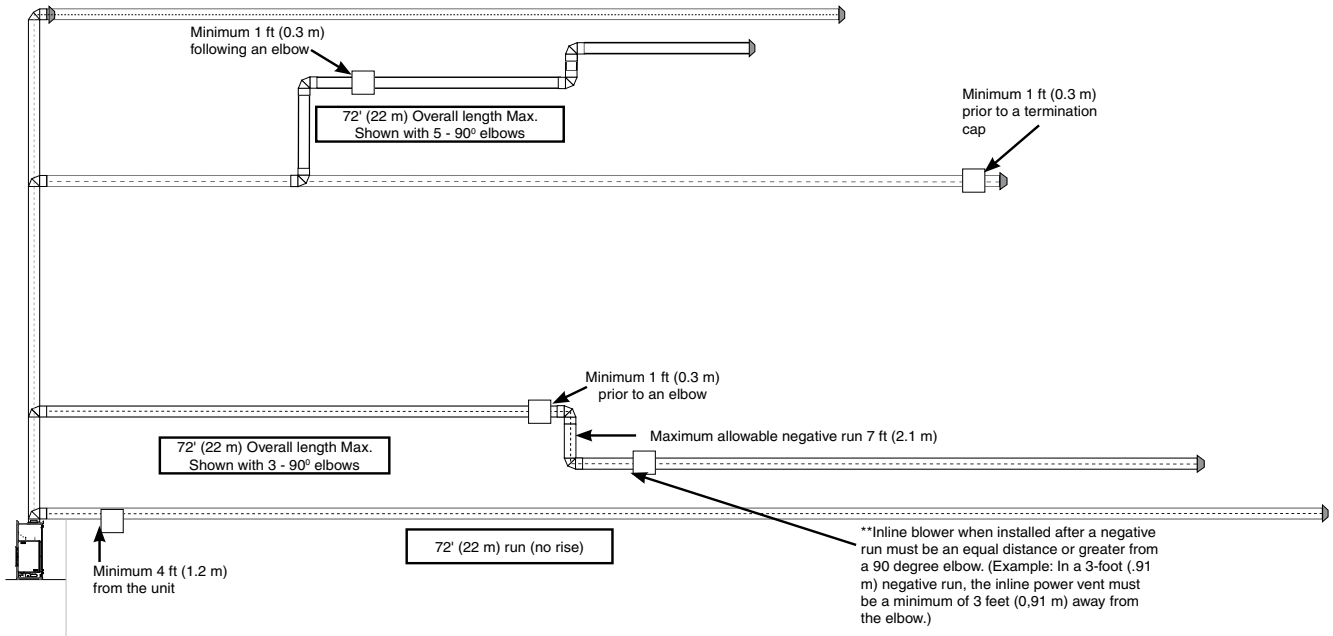
Power Vent System Kit

HORIZONTAL TERMINATIONS - INLINE HORIZONTAL VENT CHART INLINE POWER VENT KIT # 666-945

NOTES

- Rigid pipe is approved for up to 72 feet (21.95 m).
- Flex pipe is approved for up to 40 feet (12.19 m) using 2 X 946-756-- 20 foot (6.10 m) flex kits.

The gas power vent system is designed to allow the installation of a gas appliance when typical vent configurations (Non-Power Vent Direct Vent Systems With no Fan Assist) are not possible.



IMPORTANT

- **Maximum total vent length (based on overall length of combined chimney components) = 72' (22 m)**
- **Maximum total negative vent length = 7' (2.1 m).**
- **Do not run positive venting after a negative run.**
- **Maximum of six - 90° elbows permitted.**
- **One 90° elbow = two 45° elbows.**
- **Minimum 4' (1.2 m) from the unit prior to terminating.**

Inline power vent location restrictions:

- Minimum 4 ft (1.2 m) from the unit
- Minimum 1 ft (0.3 m) prior to an elbow.
- Minimum 1 ft (0.3 m) following an elbow.
- Minimum 1 ft (0.3 m) prior to a termination cap.

When the inline blower is installed after a negative run, for every foot of negative run the inline blower must be an equal distance or greater from the 90-degree elbow. See example above.

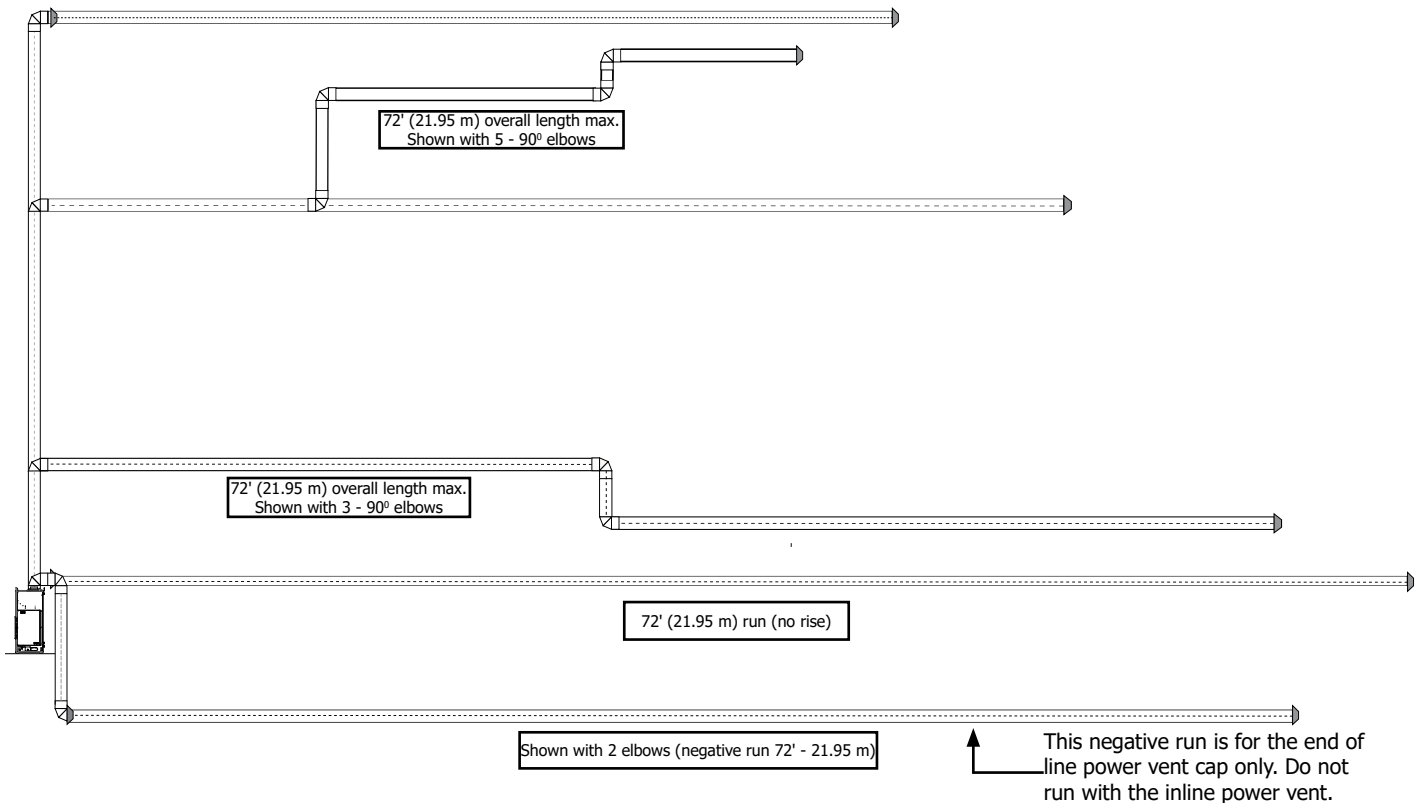
Power Vent System Kit

HORIZONTAL TERMINATIONS - END OF LINE HORIZONTAL VENT CHART END OF LINE POWER VENT KIT # 946-535

NOTES

- Rigid pipe is approved for up to 72 feet (21.95 m).
- Flex pipe is approved for up to 40 feet (12.19 m) using 2 X 946-756-- 20 foot (6.10 m) flex kits.

The gas power vent system is designed to allow the installation of a gas appliance when typical vent configurations (Non-Power Vent Direct Vent Systems With no Fan Assist) are not possible.



IMPORTANT

- **Maximum total vent length (based on overall length of combined chimney components) = 72' (21.95 m)**
- **Maximum total negative vent length = 7' (2.1 m).**
- **Do not run positive venting after a negative run.**
- **Maximum of six - 90° elbows permitted.**
- **One 90° elbow = two 45° elbows.**
- **Minimum 4' (1.2 m) from the unit prior to terminating.**

Power Vent System Kit

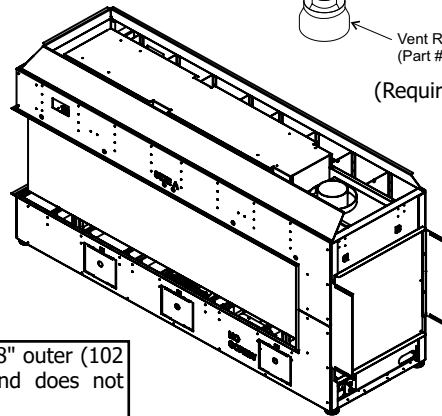
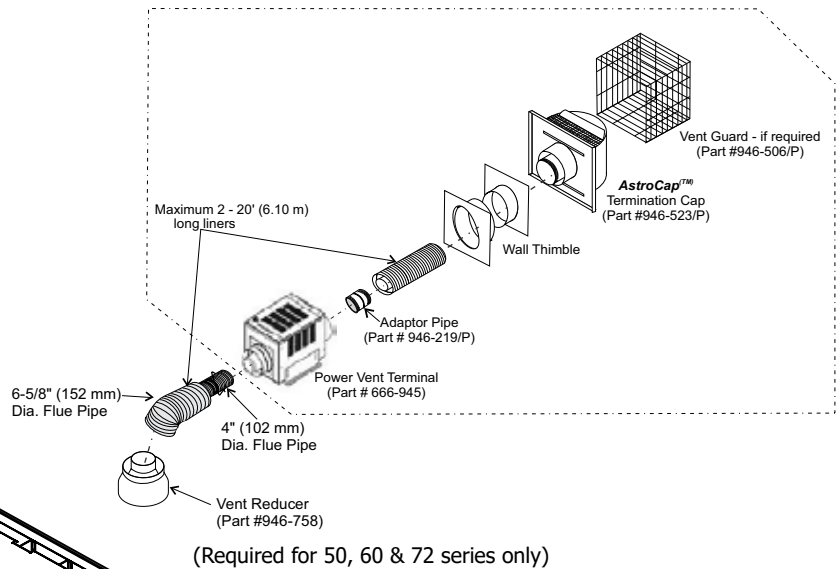
HORIZONTAL TERMINATIONS - INLINE POWER VENT 4" X 6-5/8" FLEX VENT

These venting systems, in combination with this model direct vent gas fireplace, have been tested and listed as a direct vent heater system by Intertek. The location of the termination cap must conform to the requirements in the Vent Terminal Locations diagram in "Exterior Vent Termination Locations" section.

Regency® Direct Vent (Flex) System Termination Kits include all the parts needed to install this model using a flexible vent.

NOTES

- Only flex pipe purchased from Regency® may be used for Flex installations
- Horizontal vent must be supported every 3 feet (0.9 m).
- Regency® Direct Vent System (Flex) is only approved for horizontal terminations.
- Flex system can only be used up to a maximum vent length of up to 40 feet (12.2 m) using up to 2 x 20 ft (6.1 m) flex kits (part # 946-756). If longer runs are required, rigid pipe must be used.
- Must use adaptor pipe (946-219/P) to connect inner flex pipe as shown.



CST60E shown

NOTES

The 40 series has a 4" inner x 6 5/8" outer (102 mm x 168 mm) collar already and does not require to be reduced in size.

Power Vent Kit (Part 666-945)			
2 Max.	946-756	20' Flex Kit	Sold separately
1		Power Vent Fan	Included w/Power Vent kit
1	911-250/P	45' (13.72 m)-5 Wire BX Cable or	Sold separately
1	911-251/P	90' (27.43 m) 5-Wire BX Cable	Sold separately
1	666-945	Power Vent Kit	Sold separately
1	946-219/P	Adaptor Pipe	Included w/power vent kit
1	946-206	Vinyl Siding Standoff	Sold separately
1	946-523/P	Astro Cap Termination	Sold separately
1	946-763	Wall Thimble	Sold separately
1	946-506/P	Vent Guard	Sold separately
1	946-758	Vent Reducer (Required for both 50, 60 & 72 series only)	Sold separately

IMPORTANT

- Maximum total vent length (based on overall length of combined chimney components) = 72' (22 m)
- Maximum total negative vent length = 7' (2.1 m).
- Do not run positive venting after a negative run.
- Maximum of six - 90° elbows permitted.
- One 90° elbow = two 45° elbows.
- Minimum 4' (1.2 m) from the unit prior to terminating.

Inline power vent location restrictions:

Minimum 4 ft (1.2 m) from the unit
 Minimum 1 ft (0.3 m) prior to an elbow.
 Minimum 1 ft (0.3 m) following an elbow.
 Minimum 1 ft (0.3 m) prior to a termination cap.
 Minimum 6 ft (1.8 m) rise from top of unit if there is a negative run.

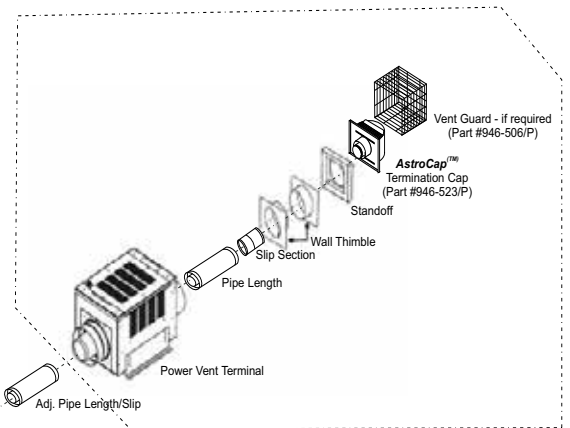
Power Vent System Kit

HORIZONTAL TERMINATIONS - INLINE POWER VENT 4" X 6-5/8" RIGID PIPE

The minimum components required for a basic horizontal termination are:

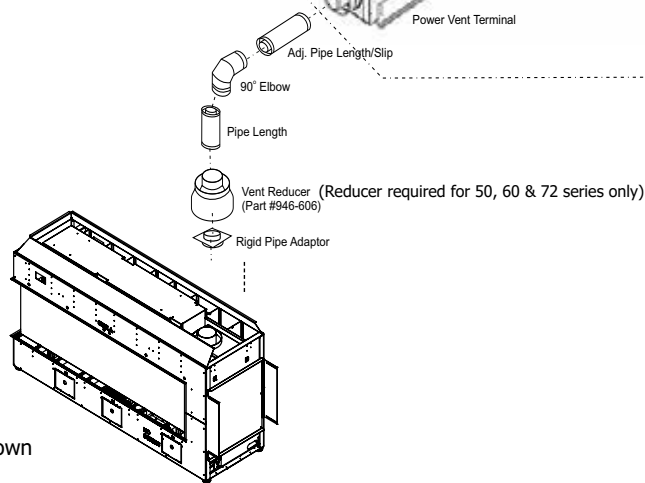
- 1 Horizontal Termination Cap
- 1 Power Vent Kit
- 1 Rigid Pipe Adaptor (Part #770-994) (50, 60 & 72 series)
- 1 Rigid Pipe Adaptor (Part #510-994) (40 series)
- 1 Vent Reducer (Part #946-606) (50, 60 & 72 series)
- 1 Length of pipe to suit wall thickness and total vent run (see Table 1)
- 1 Adjustable pipe lengths/slips

Wall thickness is measured from the back standoffs to the inside mounting surface of termination cap. Create a level surface to mount the vent terminal. The Terminal must not be recessed into siding. Measure the wall thickness.



Flat Wall Installation	
Wall Thickness	Vent Length Required
4" - 5-1/2" (102 mm - 140 mm)	6" (152 mm)
7" - 8-1/2" (178 mm - 216 mm)	9" (229 mm)
10" - 11-1/2" (254 mm - 292 mm)	12" (305 mm)
9" - 14-1/2" (228 mm - 368 mm)	11" - 14-5/8" Adj. Pipe (279 mm - 371 mm)
15" - 23-1/2" (381 mm - 597 mm)	17" - 24" Adj. Pipe (432 mm - 610 mm)

Table 1



CST60E shown

- IMPORTANT**
- Maximum total vent length (based on overall length of combined chimney components) = 72' (22 m)
 - Maximum total negative vent length = 7' (2.1 m).
 - Do not run positive venting after a negative run.
 - Maximum of six - 90° elbows permitted.
 - One 90° elbow = two 45° elbows.
 - Minimum 4' (1.2 m) from the unit prior to terminating.

- Inline power vent location restrictions:**
- Minimum 4 ft (1.2 m) from the unit
 - Minimum 1 ft (0.3 m) prior to and following an elbow.
 - Minimum 1 ft (0.3 m) following an elbow.
 - Minimum 1 ft (0.3 m) prior to a termination cap.
 - Minimum 6 ft (1.8 m) rise from top of unit if there is a negative run.

NOTE: The 40 series has a 4" inner x 6 5/8" outer (102 mm x 168 mm) collar already and does not require to be reduced in size.

Power Vent Kit (Part 666-945)			
1	770-994	Rigid Pipe Adaptor (50, 60 & 72 series)	Sold separately
1	946-606	Reducer (required) (50, 60 & 72 series)	Sold separately
1	510-994	Rigid Pipe Adaptor (40 series)	Sold separately
1	911-250/P	45' (13.71 m) -5 Wire BX Cable or	Sold separately
1	911-251/P	90' (27.43 m) 5-Wire BX Cable	Sold separately
	Amount required for install	4" x 6-5/8" (102 mm x 168 mm) Rigid Pipe	Sold separately
1	666-945	Power Vent Kit	Sold separately
1	946-206	Vinyl Siding Standoff	Sold separately
1	946-523/P	Astro Cap Termination	Sold separately
1		Wall Thimble	Sold separately
1	946-506/P	Vent Guard	Sold separately

NOTE: Slip section is mandatory.

Power Vent System Kit

HORIZONTAL TERMINATIONS - END OF LINE POWER VENT RIGID PIPE 4" X 6-5/8" (102 MM X 168 MM)

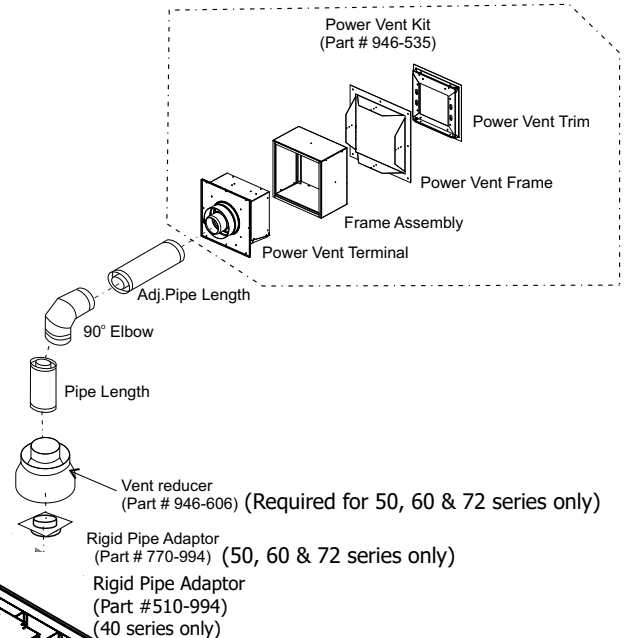
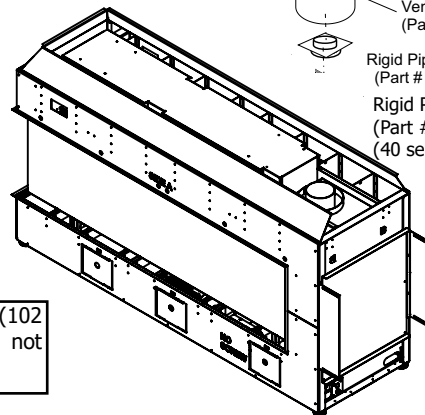
The minimum components required for a basic horizontal termination are:

- 1 Power Vent Kit
- 1 Rigid Pipe Adaptor
- 1 Vent Reducer (Required for 50, 60 & 72 series only)
- 1 Length of pipe to suit wall thickness and total vent run (see Table 1)

Wall thickness is measured from the back standoffs to the inside mounting surface of the termination cap. Create a level surface to mount the vent terminal. The terminal must not be recessed into siding. Measure the wall thickness.

Flat Wall Installation	
Wall Thickness (inches)	Vent Length Required (inches)
4" - 5-1/2"	6"
7" - 8-1/2"	9"
10" - 11-1/2"	12"
9" - 14-1/2"	11" - 14-5/8" Adj. Pipe
15" - 23-1/2"	17" - 24" Adj. Pipe

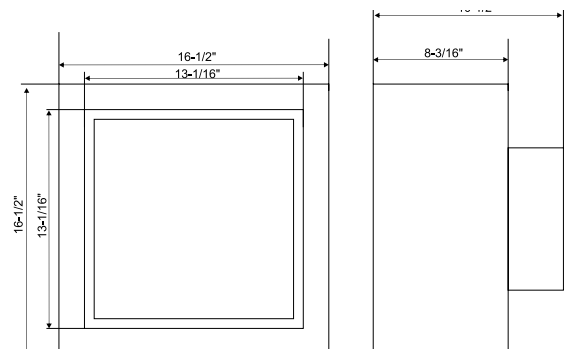
Table 1



NOTES The 40 series has a 4" inner x 6 5/8" outer (102 mm x 168 mm) collar already and does not require to be reduced in size.

Power Vent Kit with Vent Terminal			
1	770-994	Rigid Pipe Adaptor (50, 60 & 72 series only)	Sold separately
1	946-606	Vent Reducer (required) (50, 60 & 72 series only)	Sold separately
1	510-994	Rigid Pipe Adaptor (40 series only)	Sold separately
	946-535	Power Vent Kit- includes: Frame, Frame Assembly, Vent Trim, Fan, and Terminal	Sold separately
1	911-250/P	45'-5 Wire BX Cable or	Sold separately
1	911-251/P	90' 5-Wire BX Cable	Sold separately
	Amount required for install	4" x 6-5/8" Rigid Pipe	Sold separately

NOTE: *Slip section is mandatory.



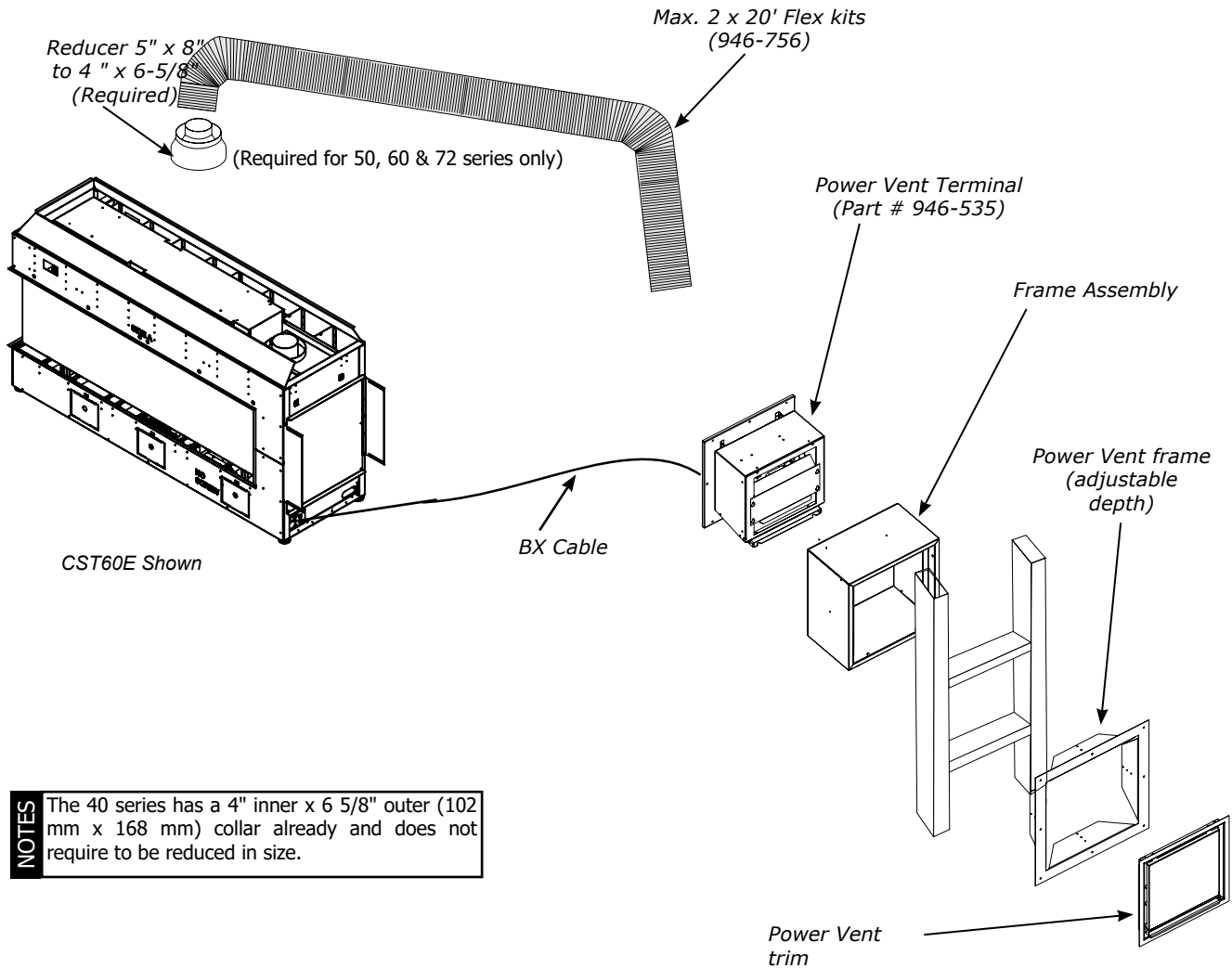
Power Vent System Kit

GAS POWER VENT INSTALLATION - END OF LINE POWER VENT FLEX PIPE

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

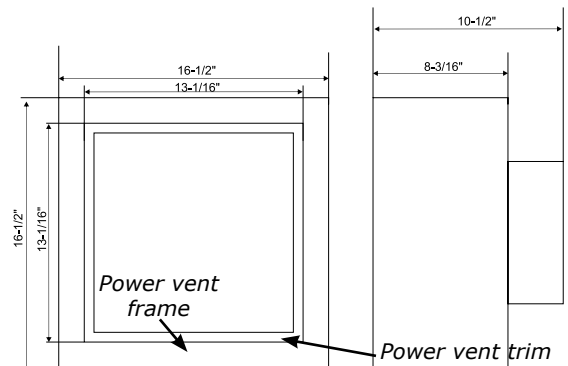
These installation instructions must be used in conjunction with the appliance and appropriate Power Vent components installation instructions. 120 Volt power supply is required to operate this system.

Models Equipped with Surefire Ignition. The Power Vent system can only be used with units that have been tested with the Regency Power Vent system. Downward vertical vent runs are permitted with the Surefire Ignition system. See vent configuration in unit manual.



NOTES The 40 series has a 4" inner x 6 5/8" outer (102 mm x 168 mm) collar already and does not require to be reduced in size.

946-535 Power Vent Kit with Vent Terminal			
1	946-758	Reducer (Required for 50, 60 & 72 series only)	Sold separately
2 Max.	946-756	20' Flex Kit	Sold separately
1		Power Vent Fan	Included w/Power Vent kit
1		Power Vent Frame	Included w/Power Vent kit
1	911-250/P	45' 5-Wire BX Cable or	Sold separately
1	911-251/P	90' 5-Wire BX Cable	Sold separately
1	946-535	Power Vent Kit	Sold separately



Power Vent System Kit

HORIZONTAL TERMINATION

4" X 6-5/8"
(102 MM X 168 MM)

VENTING

(RIGID VENT SYSTEMS)

Minimum Vent Clearances to Combustibles

Horizontal Top*	3" (76mm)*
Horizontal Side	2" (51mm)
Horizontal Bottom	2" (51mm)
Vertical Vent	2" (51mm)

* Clearances noted below must be maintained, except when passing through a wall, ceiling, or at the termination where the use of a firestop or wall thimble reduces clearance to 1-1/2" (38 mm).

The recommended framing dimensions (inside measurements) for the 4" x 6-5/8" (102 mm x 168 mm) rigid vent terminations are below, for use with a firestop or wall thimble.

Recommended Framed Opening Size	
Vent Size	Framing Size
4" (102 mm) x 6-5/8" (168 mm)	10" (254mm) x 10" (254mm)

Install the vent system according to the manufacturer's instructions included with the components.

- Set the unit in its desired location. Check to determine if wall studs or roof rafters are in the way when the venting system is attached. If this is the case, you may want to adjust the location of the unit. Rough in the gas, preferably on the right side of the unit, and the electrical (junction block is on the left side) on the left.
- Direct vent pipe and fittings are designed with special twist-lock connections to connect the venting system to the appliance flue outlet. A twist-lock appliance adaptor is required.
- In conjunction with the approved vent system, install the adaptor after the unit is set in its location. Put a bead of Mill-Pac inside the outer section of the adaptor and a bead of Mill-Pac on the inner collar. Slip the adaptor over the existing inner and outer flue collar. Fasten to the outer collar only with the 3 supplied screws (drilling pilot holes will make this easier).
- Level the fireplace and fasten it to the framing using nails or screws through the top and side nailing strips.

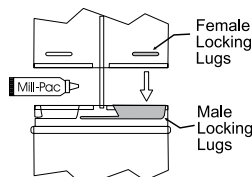


Diagram 1

- Assemble the desired combination of pipe and elbows to the appliance adaptor and twist lock for a solid connection.

NOTES

- For best results and optimum performance with each approved venting system, application of Mil-Pac sealant (supplied) to every inner pipe connection is recommended. Failure to apply Mil-Pac may result in drafting or performance issues not covered under warranty.
- Horizontal runs of vent must be supported every 3 feet (0.9 m). Wall straps are available for this purpose.

- Mark the wall for a square hole - see chart on this page for size. The center of the square hole should line up with the centerline of the horizontal pipe. Cut and frame the square hole in the exterior wall where the vent will be terminated. See diagram 2 for center line requirements.

If the wall being penetrated is constructed of non-combustible material, i.e. masonry block or concrete, an 8" (203 mm) diameter hole is acceptable.

NOTES

- The horizontal run of vent must be level, or have a 1/4 inch rise for every 1 foot of run towards the termination. Never allow the vent to run downward; this could cause high temperatures and cause a fire.
- The location of the horizontal vent termination on an exterior wall must meet all local and national building codes.

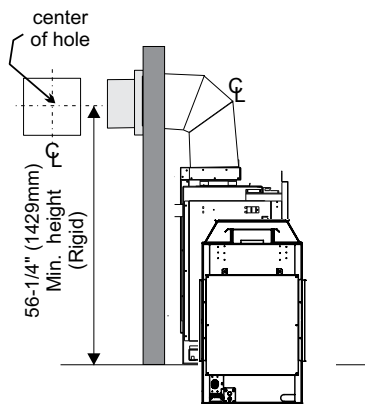


Diagram 2

- Ensure that the pipe clearances to combustible materials are maintained (Diagram 3). Install the termination cap.

NOTE

- If installing termination on a vinyl siding covered wall, a vinyl siding standoff or furring strips must be used to ensure that the termination is not recessed into the siding.

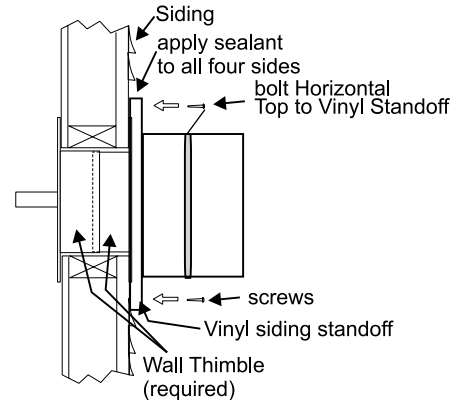


Diagram 3

The four wood screws provided should be replaced with appropriate fasteners for stucco, brick, concrete, or other types of sidings.

- Before connecting the horizontal run of vent pipe to the vent termination, slide the wall thimble over the vent pipe. The wall thimble is required for all horizontal terminations.
- Slide the appliance and vent assembly towards the wall, carefully inserting the vent pipe into the vent cap assembly. It is important that the vent pipe extends into the vent cap far enough to create a minimum pipe overlap of 1-1/4 inches (32 mm). Secure the connection between the vent pipe and the vent cap.
- Install the wall thimble in the center of the framed hole and attach it with wood screws (Diagram 4).

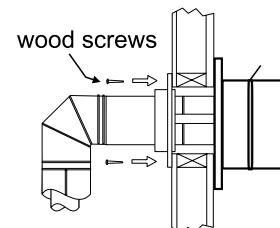


Diagram 4

Power Vent System Kit

VENTING ARRANGEMENT FOR VERTICAL TERMINATIONS INLINE POWER VENT

Vertical venting with straight vertical venting and or with a max. of six (6) 90° Elbows (1 - 90° = 2 - 45°)

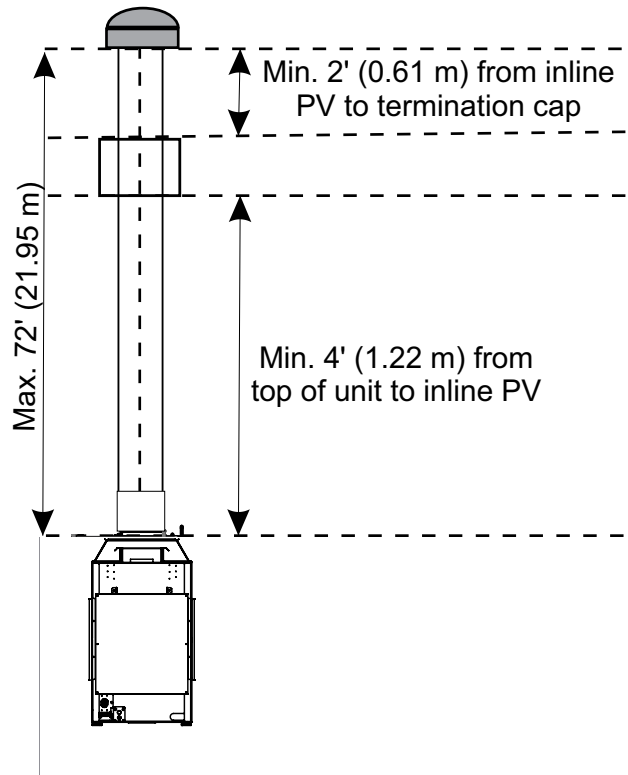
- NOTES**
- Rigid pipe is approved for up to 72 feet (22 m).
 - Flex pipe is approved for up to 40 feet (12.2 m) using two 20 foot (6.1 m) flex kits (part # 946-756).

- Two 45° elbows equal to one 90° elbow.
- Vent must be supported at offsets.
- Minimum distance between elbows is 1 ft. (0.3 m).
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Horizontal vent must be supported every 3 feet (0.91 m).
- Firestops are required at each floor level and whenever passing through a wall.

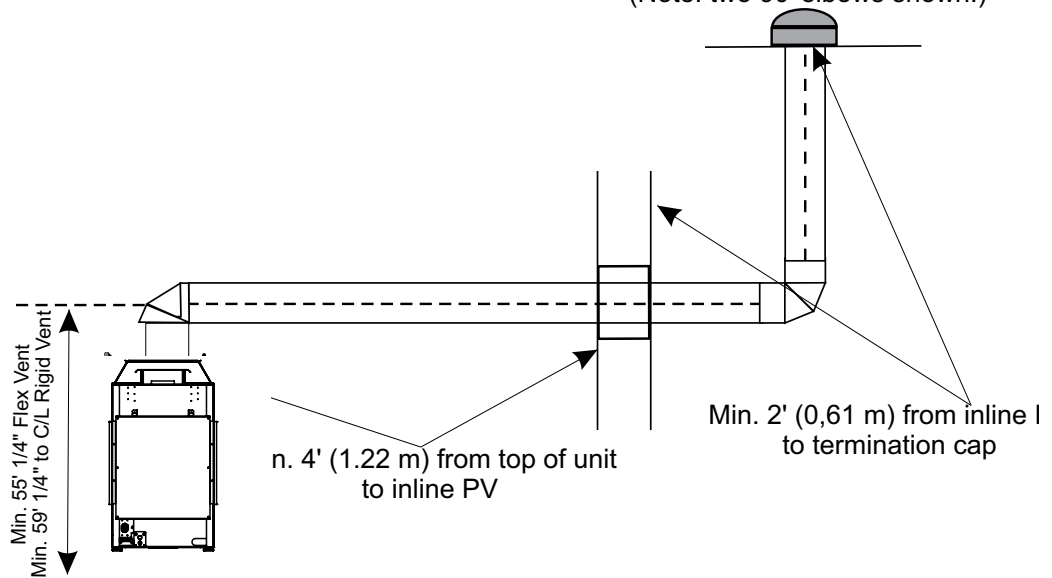
Restrictor set on 0 (fully open) regardless of vent run.

- Inline power vent location restrictions:**
- Minimum 4 ft (1.2 m) from the unit.
 - Minimum 1 ft (0.3 m) prior to an elbow.
 - Minimum 1 ft (0.3 m) following an elbow.
 - Minimum 2 ft (0.6 m) prior to a termination cap.
 - Minimum 2 ft. from inline PV to termination cap.
 - Minimum 4' from top of unit to inline PV.
 - Max. of 72' (22 m), using up to six 90° elbows (Example shows two 90° elbows).
 - No negative runs.

- NOTE**
- The inline power vent must be installed within the confines of the home/structure.



Max. of 72' (21.95 m), using up to six 90° elbows (Note: two 90° elbows shown.)



Power Vent System Kit

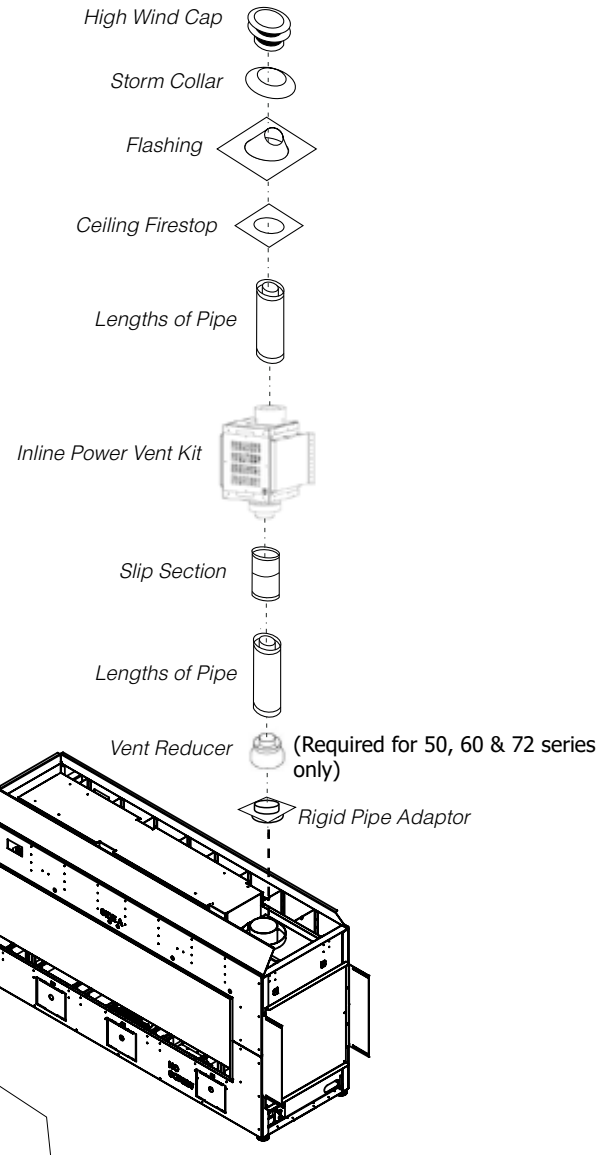
VERTICAL INLINE POWER VENT TERMINATIONS - RIGID PIPE

The minimum components required when using inline power vent are:

- 1 High Wind Cap
- 1 Rigid Pipe Adaptor (770-994) (50, 60 & 72 series)
- 1 Rigid Pipe Adaptor (Part #510-994) (40 series)
- 1 Ceiling Firestop
- 1 Flashing
- 1 Storm Collar
- 1 Lengths of pipe to suit wall thickness & vent run (see chart)
- 1 Vent Reducer (Part #946-606) (50, 60 & 72 series)
- 1 Inline Power Vent Kit

Galvanized pipe is desirable above the roofline due to its higher corrosion resistance. Continue to add pipe sections through the flashing until the height of the vent cap meets the minimum height requirements specified in table below or local codes. Note that for steep roof pitches, the vertical height must be increased. A poor draft, or down drafting can result from high wind conditions near big trees or adjoining roof lines, in these cases, increasing the vent height may solve the problem.

Roof Pitch	Minimum Vent Height	
	Feet	Meters
flat to 7/12	2	0.6
over 7/12 to 8/12	2	0.6
over 8/12 to 9/12	2	0.6
over 9/12 to 10/12	2-1/2	0.8
over 10/12 to 11/12	3-1/4	1
over 11/12 to 12/12	4	1.2
over 12/12 to 14/12	5	1.5
over 14/12 to 16/12	6	1.8
over 16/12 to 18/12	7	2.1
over 18/12 to 20/12	7-1/2	2.3
over 20/12 to 21/12	8	2.4



NOTES The 40 series has a 4" inner x 6 5/8" outer (102 mm x 168 mm) collar already and does not require to be reduced in size.

WARNING • Do not combine venting components from different venting systems.

When using Rigid Vent other than Simpson Dura-Vent, 3 screws must be used to secure rigid pipe to adaptor.

This product was evaluated by Intertek for using a Rigid Pipe Adaptor in conjunction with Duravent Direct-Vent, Selkirk Direct-Temp, Ameri Vent Direct Venting, ICC Excel Direct, Olympia Ventis DV, and Security Secure Vent systems. Use of these systems with the Rigid Pipe adaptor is deemed acceptable and does not affect the Intertek WHI listing of components.

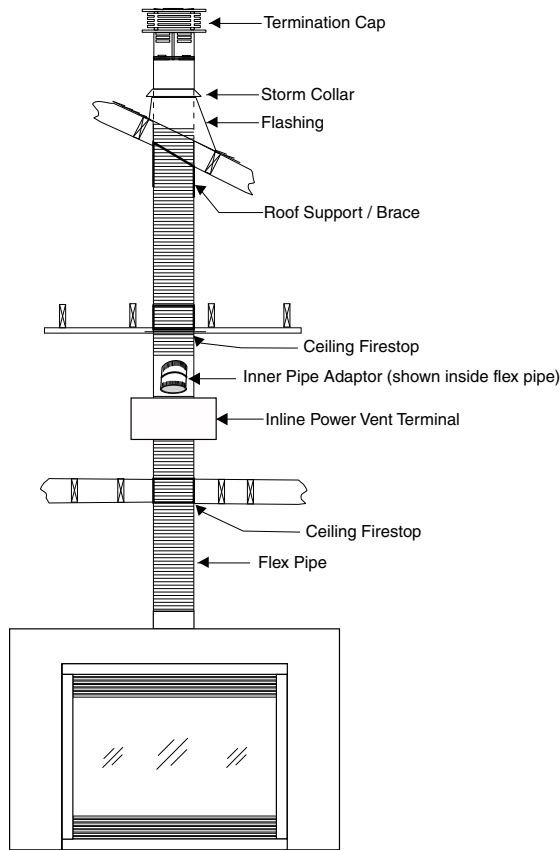
Power Vent System Kit

VERTICAL TERMINATIONS - FLEX PIPE INLINE POWER VENT TERMINATIONS

FLEX VENT: MUST USE REDUCER 946-758 TO 4" X 6 5/8" (102 mm x 168 mm) (Required for 50, 60 & 72 series only)

NOTE The 40 series has a 4" inner x 6 5/8" outer (102 mm x 168 mm) collar already and does not require to be reduced in size.

NOTE Flex pipe is approved for up to 40 feet (12.2 m) using one 20 foot (6.1 m) flex kit (part # 946-755) and one 20 foot (6.1 m) flex kit extension (part # 946-756).



Inline power vent location restrictions:

- Minimum 4 ft (1.2 m) from the unit.
- Minimum 1 ft (0.3 m) prior to an elbow.
- Minimum 1 ft (0.3 m) following an elbow.
- Minimum 2 ft (0.6 m) prior to a termination cap.
- Minimum 2 ft (0.6 m) from inline PV to termination cap.
- Minimum 4ft (1.2 m) from top of unit to inline PV.
- Max. of 72' (22 m), using up to six 90° elbows
- (Note: example shows two 90° elbows).
- No negative runs.

Power Vent Kit (Part #666-945)

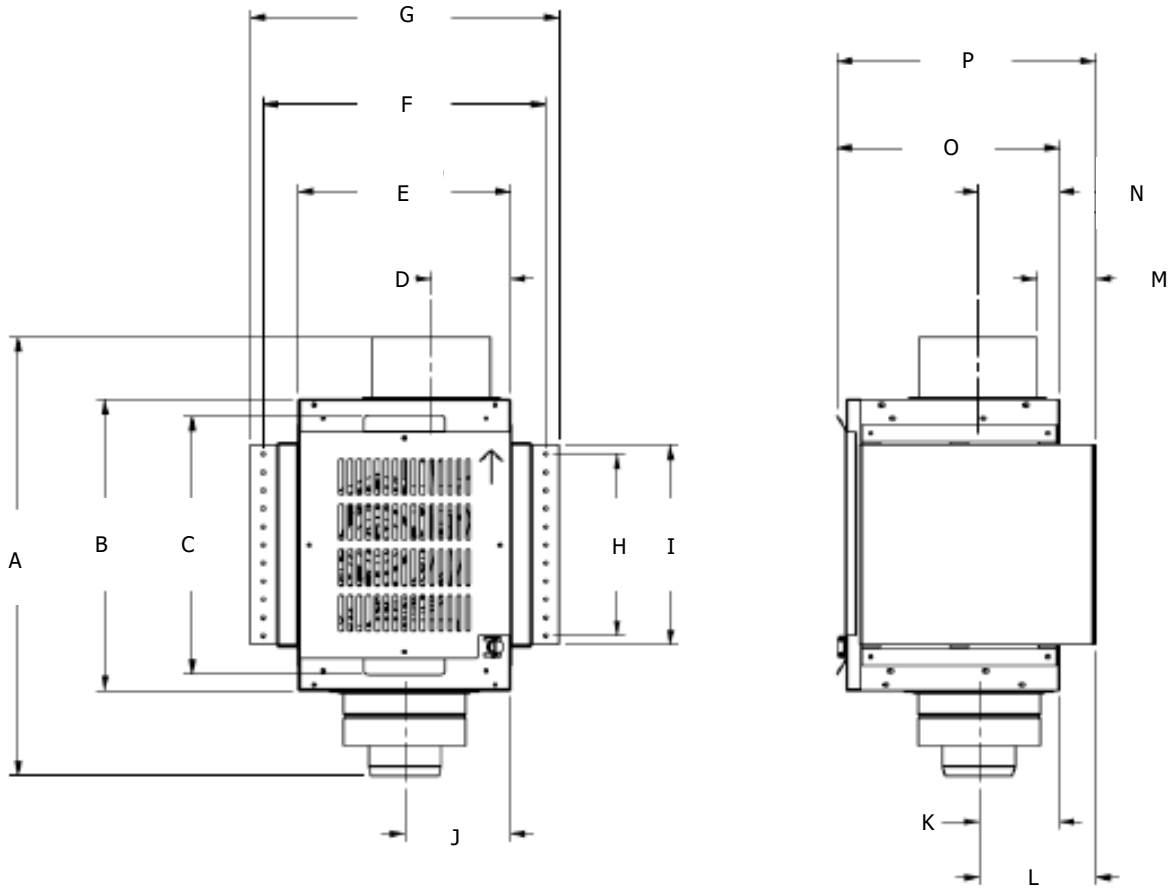
- 1 666-945 Power vent kit sold separately.
- 1 946-219/P Adaptor pipe included w/power vent kit.
- 1 946-755 20' (6.1 m) Vertical Flex Kit (sold separately) includes: 20 ft. (6.10 m) flex pipe with 10 spacers (inner & outer pipe), 3 wall straps, ceiling firestop, roof brace, flex to rigid adaptor, roof support/brace, 36 in. (914 mm) rigid Duravent pipe, storm collar, high wind termination cap, hardware.
- 1 Max. 946-756 20' (6.1 m) flex kit extension (sold separately).
- 1 946-758 Reducer (required - sold separately). (Required for 50, 60 & 72 series
- 1 Power vent fan included w/power vent kit. only)
- 1 911-250/P 45' (13.7 m) 5-wire BX cable (sold separately).
- OR
- 1 911-251/P 90' (27.4 m) 5-wire BX cable (sold separately).

Must also purchase one of the flashings listed below:

- 1 46DVA-F12 Flashing 7/12 - 12/12
- 1 46DVA-F6 Flashing 0/12 - 6/12
- 1 46DVA-FF Flat roof flashing

Power Vent System Kit

INLINE POWER VENT DIMENSIONS



A	24-3/16" (614 MM)
B	16-1/16" (406 MM)
C	14-1/4" (362 MM)
D	4-3/8" (111 MM)
E	11-11/16" (297 MM)
F	15-5/8" (397 MM)

G	17-1/16" (433 MM)
H	10" (254 MM)
I	11" (279 MM)
J	5-7/8" (149 MM)
K	4-7/16" (113 MM)
L	6-7/16" (163 MM)

M	3-1/4" (62 MM)
N	4-1/2" (114 MM)
O	12-1/4" (312 MM)
P	14-1/4" (362 MM)

Power Vent System Kit

GAS POWER VENT INSTALLATION - FRAMING INLINE POWER VENT TERMINATIONS

- The inline power vent can be mounted directly onto a wall, ceiling, stud or truss. Additional supports can be built to support the power vent if needed.
- The inline power vent can be oriented in any way if the access panel is accessible.

NOTE • The inline power vent will have a directional arrow which must be pointed away from the appliance.

IMPORTANT • The pressure switch must be oriented as shown below:

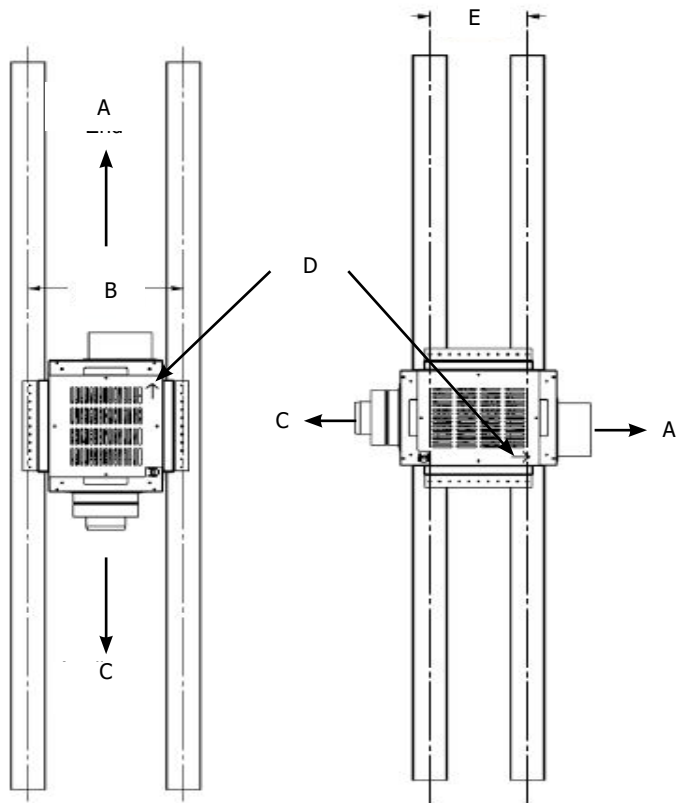
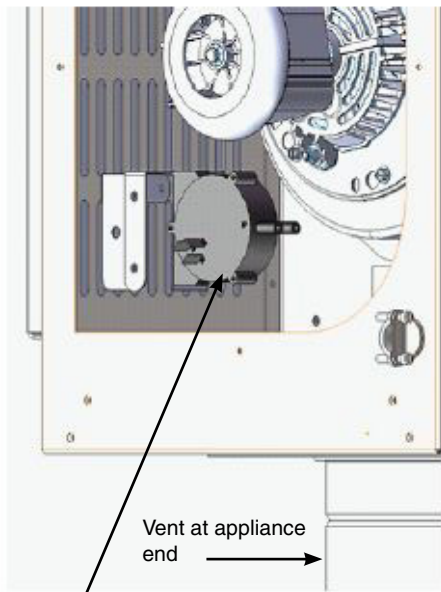
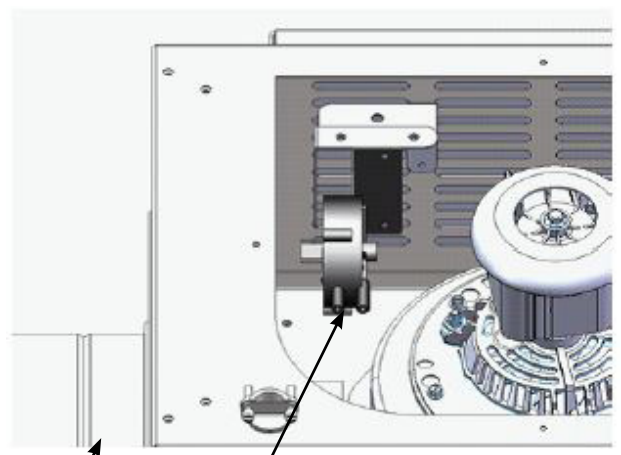


Diagram 1: Inline power vent oriented vertically

Diagram 2: Inline power vent oriented horizontally



Pressure switch orientation if inline power vent is oriented vertically (see Diagram 1)



Pressure switch orientation if inline power vent is oriented horizontally (see Diagram 2)

A	TERMINATION END
B	16" (406 MM)
C	APPLIANCE END
D	DIRECTIONAL ARROWS
E	10" (254 MM)

POWER VENT TERMINAL INSTALLATION INLINE POWER VENT TERMINATIONS

IMPORTANT

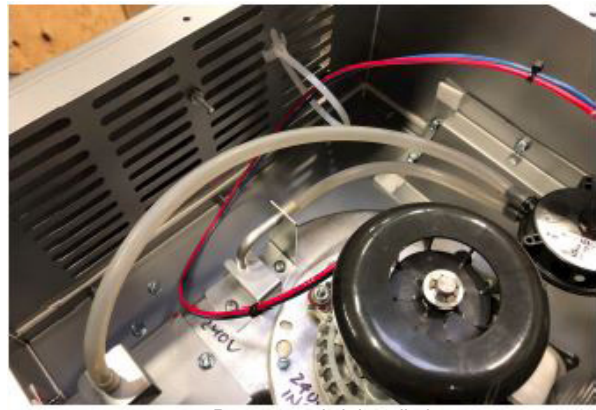
- Pressure switch (Part # 911-112) must always be oriented vertically inside the inline power vent.
- The longer silicone tube is connected to the pressure switch side labelled "P" and the shorter silicone tube is connected to the side labelled "V".



Pressure switch
side "P"



Pressure switch
side "V"



Pressure switch installed

To rotate the pressure switch in a horizontal position, follow the steps below:

1. Remove the 2 screws connecting the pressure switch mount to the mounting bracket.



2. Turn the mounting bracket 90 degrees, line up the holes and screw the bracket back onto the mount.



Fan (Part # 911-305)

Power Vent System Kit

GAS POWER VENT INSTALLATION CLEARANCE REQUIREMENTS INLINE POWER VENT TERMINATIONS

Confined spaces (chase, closet, attic, behind a wall):

- 3" (76 mm) clearance is required on top of the power vent in a horizontal configuration (Diagram 2).
- 2" (51 mm) clearance is required on the sides and bottom in a horizontal configuration (Diagram 2).
- 1' (305 mm) clearance is required from the ends of the power vent in a horizontal configuration (Diagram 1).
- 2" (51 mm) clearance is required on sides in a vertical configuration (Diagram 2).
- 1' clearance is required on ends in a vertical configuration (Diagram 1).
- A framed access hole with dimensions of 12" x 16" (305 mm x 406 mm) is required to access the access panel if the inline power vent is placed behind a wall (Diagram 3).
- The access hole can be covered with an open-air louver cover which allows 50% open air.
- The power vent must be installed where it can be easily accessed for servicing. An access hole as noted below, or an attic space, would be suitable.

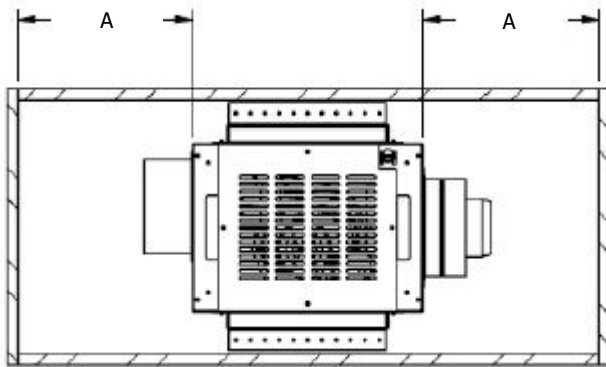


Diagram 1

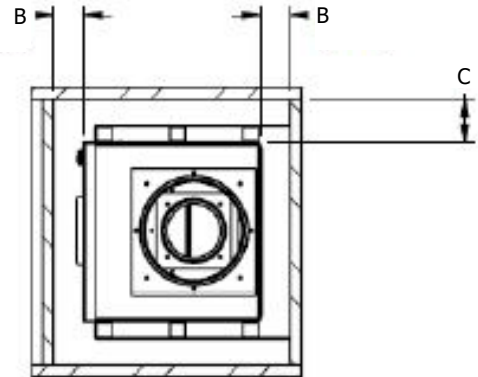


Diagram 2

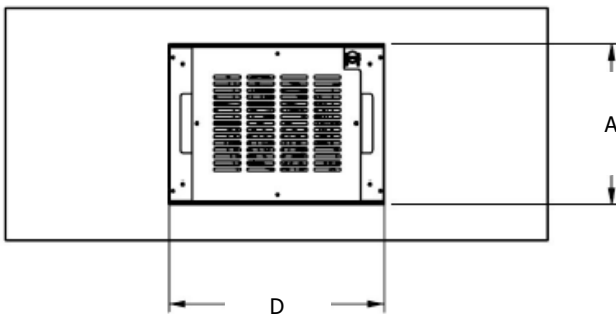


Diagram 3

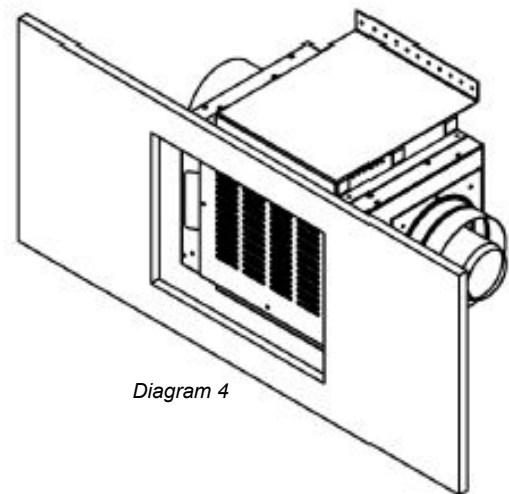


Diagram 4

A	12" (305 MM)
B	2" (51 MM)
C	3" (78 MM)
D	16" (406 MM)

HORIZONTAL TERMINATION - END OF LINE POWER VENT 4" X 6-5/8" (102 MM X 168 MM) RIGID VENTING

Minimum Vent Clearances to Combustibles

* Clearances noted below must be maintained, except when passing through a wall, ceiling, or at the termination where the use of a firestop or wall thimble reduces clearance to 1-1/2" (38 mm).

Horizontal Top*	3" (76mm)*
Horizontal Side	2" (51mm)
Horizontal Bottom	2" (51mm)
Vertical Vent	2" (51mm)

Below are the recommended framing dimensions (inside measurements) for the 4" x 6-5/8" (102 mm x 168 mm) rigid vent terminations - for use with a firestop or wall thimble.

Recommended Framed Opening Size	
Vent Size	Framing Size
4" x 6-5/8" (102 mm x 168 mm)	13-1/2" x 13-1/2" (343 mm x 343 mm)

Install the vent system according to the manufacturer's instructions, included with the components.

1. Set the unit in its desired location. Determine whether wall studs or roof rafters are in the way when the venting system is attached. If this is the case, you may want to adjust the location of the unit. Rough in the gas, preferably on the right side of the unit, and the electrical (junction block is on the left side) on the left.
2. Direct Vent pipe and fittings are designed with special twist-lock connections to connect the venting system to the appliance flue outlet. A twist-lock appliance adaptor is required.
3. In conjunction with the approved vent system, install the adaptor after the unit is set in its desired location. Put a bead of Mill-Pac inside the outer section of the adaptor and a bead of Mill-Pac on the inner collar. Slip the adaptor over the existing inner and outer flue collar. Fasten to the outer collar only with the 3 supplied screws (drilling pilot holes will make this easier).
4. Level the fireplace and fasten it to the framing using nails or screws through the top and side nailing strips.

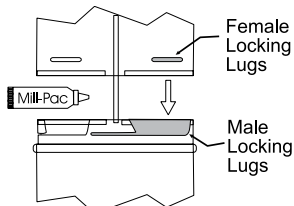


Diagram 1

5. Assemble the desired combination of pipe and elbows to the appliance adaptor and twist lock for a solid connection.

NOTES

- For best results and optimum performance with each approved venting system, application of Mil-Pac sealant (supplied) to every inner pipe connection is recommended. Failure to apply Mil-Pac may result in drafting or performance issues not covered under warranty.
- Horizontal vent runs must be supported every 3 feet (0.9 m). Wall straps are available for this purpose.

6. Mark the wall for a square hole (see chart to left for size). The center of the square hole should line up with the centerline of the horizontal pipe. Cut and frame the square hole in the exterior wall where the vent will be terminated. See diagram 2 for centerline requirements.

Power Vent System Kit

HORIZONTAL TERMINATION - END OF LINE POWER VENT 4" X 6-5/8" (102 MM X 168 MM) FLEX VENTING

Minimum Vent Clearances to Combustibles

* Clearances noted below must be maintained, except when passing through a wall, ceiling, or at the termination, where the use of a firestop or wall thimble reduces clearance to 1-1/2" (38 mm).

Horizontal Top*	3" (76 mm)*
Horizontal Side	2" (51mm)
Horizontal Bottom	2" (51mm)
Vertical Vent	2" (51mm)

Below are the recommended framing dimensions (inside measurements) for the 4" x 6-5/8" (102 mm x 168 mm) rigid vent terminations for use with a firestop or wall thimble.

Recommended Framed Opening Size	
Vent Size	Framing Size
4" x 6-5/8" (102 mm x 168 mm)	13-1/2" x 13-1/2" (343 mm x 343 mm)

1. Locate the unit in the framing and rough in the gas, preferably on the right side of the unit. Locate the centerline of the termination and mark the wall accordingly. Cut a square hole in the wall (see chart for inside dimension.)
2. Level the fireplace and fasten it to the framing using nails or screws through the nailing strips.
3. Assemble the vent by applying Mill Pac to the inner flue collar of the termination and slipping the inner flex liner over by at least 1-3/8" (35mm) over it. Fasten with the three screws (drilling pilot holes will make this easier).
4. Apply Mill-Pac to the outer flex pipe and slip it over the outer flue collar of the vent terminal by at least 1-3/8"(35mm). Fasten with the three screws.

NOTE Horizontal sections must be supported at intervals not exceeding 3 feet (0.9 meter). Flame picture and performance will be affected by sags in the liner.

5. Slip the assembled liner and termination assembly through the thimble. Check the markings on the termination cap to ensure it is facing up; this will position the termination cap with the proper down slope for draining water. Fasten the cap to the outer wall with the 4 supplied screws.
6. Pull the centre inner and outer flex liner out enough to slip over the flue collars of the fireplace a minimum of 1-3/8" (35mm). You may wish to cut the liner shorter to make it more workable. Do not bend the liner more than 90°.
7. Apply Mill-Pac over the fireplace inner flue collar and slip the inner flex liner down over it. Attach with three supplied screws.
8. Do the same with the outer flue collar and outer flex liner.
9. Apply a bead of silicone between the thimble and termination and around the outer edge of the terminal at the wall in order to keep the water out.

IMPORTANT Do not locate termination hood where excessive snow or ice buildup may occur. Check vent termination area after snowfalls and clear to prevent blockage of the venting system. When using snow blowers, make sure snow is not directed toward vent termination area.

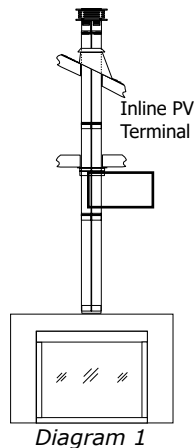
Power Vent System Kit

VERTICAL INLINE POWER VENT TERMINATIONS - RIGID PIPE

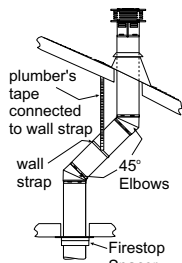
NOTE

A top clearance of 3" (76 mm) and side bottom clearance of 2" (51 mm) must be maintained, except when passing through a wall or ceiling or at the termination where a firestop or wall thimble reduces the required clearance to 1-1/2" (38 mm). We recommend framing an 11" (279 mm) x 11" (279 mm) (inside dimensions) hole to give structural rigidity for mounting the termination.

- 1) Maintain the 1-1/2" (38 mm) clearances (air spaces) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, or other nearby combustible surfaces, and ensure that a firestop or wall thimble is used as noted above. Do not pack air spaces with insulation. Check the "Venting Arrangement for Vertical Terminations" section for the maximum vertical rise of the venting system and the maximum horizontal offset.



- 2) Set the gas appliance in its desired location. Drop a plumb bob from the ceiling to the appliance flue exit and mark where the vent will penetrate the ceiling. Drill a small hole at this point. Next, drop a plumb bob from the roof to the hole drilled in the ceiling and mark where the vent will penetrate the roof. Determine whether ceiling joists, roof rafters, or other framing will obstruct the venting system. You may wish to relocate the appliance or to offset as shown in Diagram 2 to avoid cutting load bearing members.



- 3) A firestop spacer must be installed in the floor or ceiling at every level.

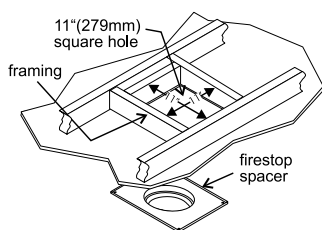


Diagram 3

- 4) Assemble the desired pipes and elbows. Ensure all pipes and elbow connections are twist-locked and sealed.

- 5) Cut a hole in the roof, centered on the small hole drilled in step 2. The hole should be sized to meet the minimum requirement of 1-1/2" (38 mm) clearance to combustibles. Slip the flashing under the shingles as per Diagram 4 (shingles should overlap half of the flashing).

A minimum of 4 feet is required between the unit and the inline power vent. Determine the overall height of the chimney from the top side of the inline power vent to the underside of the flashing.

NOTE

For best results and optimum performance with each approved venting system, Mill-Pac sealant is strongly recommended at every inner pipe connection. Failure to use Mill-Pac may result in drafting or performance issues not covered under warranty.

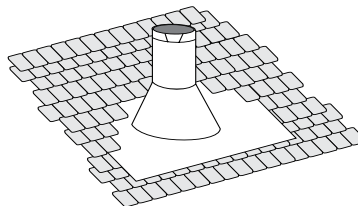
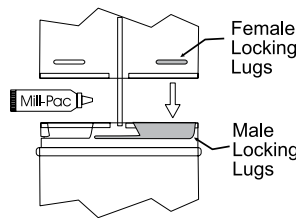


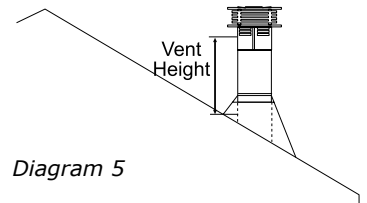
Diagram 4 -The upper half of the flashing is installed under the roofing material and not nailed down until the chimney is installed, to allow for small adjustments.

- 6) Continue to assemble pipe lengths. Support the inline power vent to avoid excessive stress on the pipe and elbows. The inline power vent can be screwed onto existing studs for support.

Galvanized pipe is desirable above the roofline due to its higher corrosion resistance. Continue to add pipe sections through the flashing until the height of the vent cap meets the minimum height requirements specified in Diagram 5 or local codes. Note that for steep roof pitches, the vertical height must be increased.

NOTE

If an offset is needed in the attic, it is important to support the vent pipe at every 3 ft (0.9 m) to avoid excessive stress on the elbows and possible separation. Wall straps are available for this purpose (Diagram 2).



Roof Pitch	Minimum Vent Height	
	Feet	Meters
flat to 7/12	2	0.6
over 7/12 to 8/12	2	0.6
over 8/12 to 9/12	2	0.6
over 9/12 to 10/12	2-1/2	0.8
over 10/12 to 11/12	3-1/4	1
over 11/12 to 12/12	4	1.2
over 12/12 to 14/12	5	1.5
over 14/12 to 16/12	6	1.8
over 16/12 to 18/12	7	2.1
over 18/12 to 20/12	7-1/2	2.3
over 20/12 to 21/12	8	2.4

A poor draft, or down drafting, can result from high wind conditions near big trees or adjoining roof lines. Increasing the vent height may solve this problem.

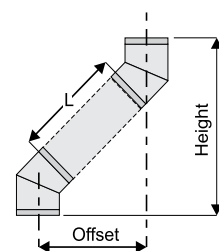
- 7) Ensure vent is vertical and secure the base of the flashing to the roof with roofing nails. Slide the storm collar over the pipe section and seal with mastic.
- 8) Install and twist lock the vertical termination cap.

NOTE

Any closets or storage spaces that the vent passes through must be enclosed.

Offset Chart

GS 8" (203mm) Nominal Diameter ID				
Offset inches	Offset mm	Pipe Length (L)		Height
		inches	mm	inches mm
4 3/4	121	0	0	13 1/4 337
9	229	6	152	17 1/2 445
11 1/4	286	9	229	19 1/2 495
13 1/4	337	12	305	21 3/4 552
21 3/4	552	24	610	30 1/4 768
30 1/4	768	36	914	39 991
38	965	48	1219	47 1194



Power Vent System Kit

VERTICAL INLINE POWER VENT TERMINATIONS FLEX PIPE (PART # 946-755)

Must choose 1 of the following:

Part #	Description
46DVA-F12	Flashing 7/12 - 12/12
46DVA-F6	Flashing 0/12-6/12
46DVA-FF	Flat Roof Flashing

IMPORTANT

- For the City 50, 60 Series & City 72 Series models, you must purchase the 946-758 reducer for the top of the appliance. It must be attached to the inner and outer flue collar of the appliance prior to installation.
- The roof flashing is not included with this kit and must be purchased separately.

1. Maintain the 1-1/2" (38 mm) clearance (airspace) to combustibles when passing through ceilings, walls, floors, enclosures, attic rafters, or other combustibles. Do not pack air spaces with insulation. Check venting sections of this manual for the maximum vertical rise of the venting system and the maximum horizontal offset limitations.

Ensure that you maintain clearances around enclosures and walls, and below or above floors, floor joists, etc. Each appliance has different clearance requirements (top, sides, bottom). See specific appliance manual for details.

2. Set the appliance in its desired position. Drop a plumb bob down from the ceiling/floor joist to the position of the appliance flue exit and mark the location where the vent will penetrate the ceiling. Drill a small hole at this point. Next drop a plumb bob from the roof to the hole previously drilled at the ceiling level and mark the spot where the vent will penetrate the roof.
3. Cut a hole in the roof centered on the small hole placed in the roof in the previous steps. The hole should be a minimum of 10-1/4 inches. The hole may be round and or square.
4. Slip the flashing under the shingles and line it up so it is centered on the hole. Shingles should overlap half of the flashing, as per Diagram 1.

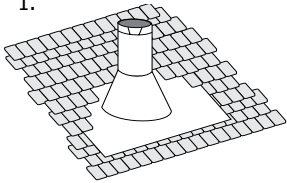


Diagram 1; The upper half of the flashing is installed under the roofing material and not nailed down until the chimney is installed. This allows for small adjustments.

5. A ceiling firestop/firestop spacer must be installed when passing through each floor or ceiling level. To install the ceiling firestop/firestop spacer in a flat ceiling or floor joist, cut a 10- 1/4 inch square hole. Frame the hole as show in Diagram 2 and install the ceiling firestop. Slide the top attic insulation spacer onto the top of the attic insulation shield/ firestop (see Diagram 2a). Secure with four screws/nails. If more than one is required, these can be purchased separately.

NOTE

- The ceiling firestop/firestop spacer may be cut down to size if it is too high for the application.

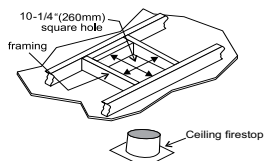


Diagram 2

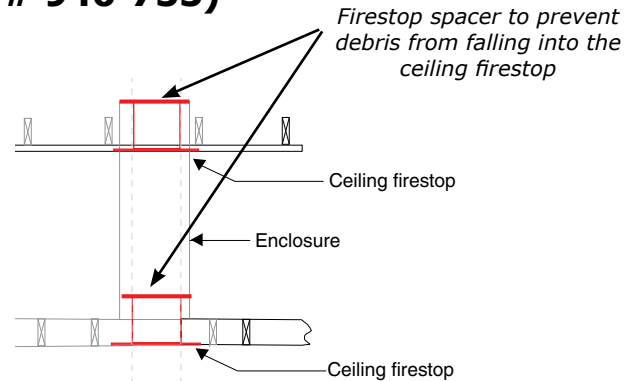


Diagram 2a

6. Determine the overall height of the chimney from the top of the appliance to the underside of the inline power vent. If required, cut the flexible inner and outer pipe to the desired length, up to a maximum of 20 feet (3.7 m).
7. Put a bead of Mill-Pac around the 4" (102 mm) collar on the appliance and slide the inner flex pipe over the inner collar of the appliance and secure with a minimum of three screws.
8. Install 4" (102 mm) spacers around 4" (102 mm) flex.
9. Repeat Step 7 to install the outer pipe to the outer collar of the appliance.
10. Repeat Step 7 to secure 4" (102 mm) flex to inline power vent. Repeat steps to attach outer collar to inline power vent.

NOTE

- If an offset is necessary in the attic or floor joists it is important to support the vent pipe every 3 feet (914 mm) to avoid excessive stress and sagging of the vent pipe. Wall straps (3 in total) are provided for this purpose. All round/plumbers strapping may also be used if further supports are required.

11. Determine the overall height of the chimney from the top side of the inline power vent to the underside of the flashing. If required, cut the flexible inner and outer pipe to the desired length.
12. Put a bead of Mill-Pac around the inner pipe adaptor (supplied with the inline power vent) and attach the inner pipe adaptor to the inner collar of the inline power vent (see Diagram 3, next page).
13. Put a bead of Mill-Pac around the other end of the inner pipe adaptor and slide the 4" (102 mm) flex over it; secure with three screws.
14. Install 4" (102 mm) spacers around 4" (102 mm) flex.
15. Put a bead of Mill-Pac around the outer collar of the inline power vent and slide outer pipe over the inline power vent; secure with 3 screws.
16. Attach the rigid pipe section to the flex-to-rigid adaptor using Mill-Pac on the inner/outer pipe. Use three screws to secure outer pipe.
17. Use Mill-Pac to secure the inner flex pipe to the pipe adaptor. Slide the inner pipe over the flex-to-rigid adaptor and secure with three screws.
18. Repeat Step 17 to secure outer flex.

Power Vent System Kit

VERTICAL INLINE POWER VENT TERMINATIONS - FLEX PIPE

19. Slide the finished length up towards the flashing. Ensure the length of pipe is a minimum of 2 feet (610 mm) measured from the top of the roof. Level the chimney and secure it to the bottom side of the roof using the roof support provided with the kit and a minimum of 2 screws per side (see Diagram 3b). See Diagram 4 for roof pitch and height requirements. See Diagram 3a for securing method. If 2 ft. (610 mm) is insufficient and additional lengths are required, these may be purchased separately. See the Simpson Duravent components list in the instruction manual for part numbers.

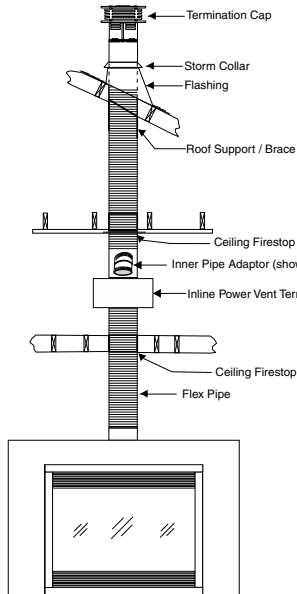


Diagram 3

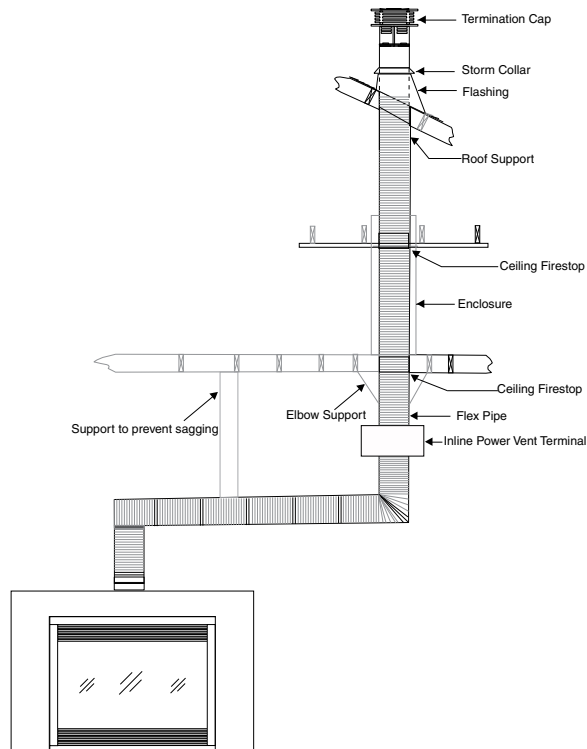


Diagram 3a

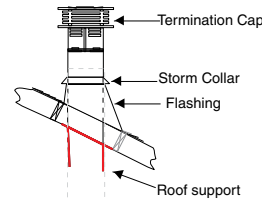


Diagram 3b

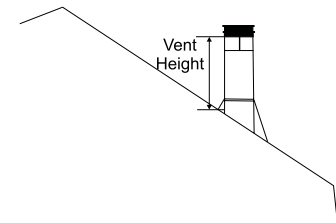


Diagram 4

Roof Pitch	Minimum Vent Height	
	Feet	Meters
flat to 7/12	2	0.6
over 7/12 to 8/12	2	0.6
over 8/12 to 9/12	2	0.6
over 9/12 to 10/12	2-1/2	0.76
over 10/12 to 11/12	3-1/4	1
over 11/12 to 12/12	4	1.2
over 12/12 to 14/12	5	1.5
over 14/12 to 16/12	6	1.8
over 16/12 to 18/12	7	2.1
over 18/12 to 20/12	7-1/2	2.3
over 20/12 to 21/12	8	2.4

20. Put a bead of caulking on the exterior between the outer pipe and flashing to prevent water from penetrating the chimney system.

21. Slide storm collar over pipe length until it reaches the flashing.

22. Install termination cap by twist locking it.

23. Secure the flashing to the roof using screws.

NOTE

- Any closets or storage spaces that the vent passes through must be enclosed.

Power Vent System Kit

VERTICAL FLUE EXTENSION KIT - HORIZONTAL POWER VENT KIT (PART # 946-756)

Used in conjunction with the 946-755 Vertical Flex kit for vertical installations or for horizontal installations when using the power vent option only where a maximum of two 946-756 may be used up to a maximum of 40 feet (12.19 m). Only approved for power vent models for any horizontal termination.

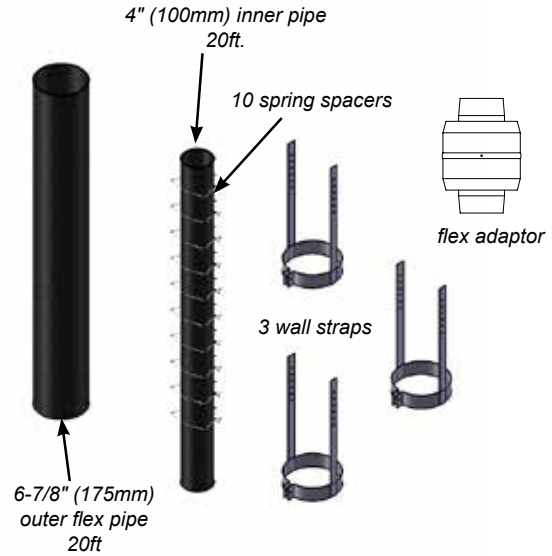
1. Stretch out both inner 4" (100 mm) and outer 6 7/8" (175 mm) pipe up to a maximum of 20 feet (6.1 m).

NOTE The inner and outer pipes may be cut if only a short length is required.

2. Install spring spacers around 4" (100 mm) inner pipe as shown. Slide outer flex pipe over and all the way down the 4" pipe.
3. Apply a bead of Mill-Pac around the perimeter of the 4" (100 mm) inner collar of the flex adaptor and slip the 4" (100 mm) inner flex pipe from the Vertical termination kit over the flex adaptor ensuring that the inner flex pipe overlaps the collar by at least 1-3/8" (35 mm). Fasten with 3 screws.
4. Apply a bead of Mill-Pac around the perimeter of the 6-7/8" (175 mm) outer collar of the flue adaptor and slip it over the 6-7/8" (175 mm) outer flex pipe from the vertical termination kit ensuring that the outer flex pipe overlaps the collar by at least 1-3/8" (35mm). Fasten with the 3 screws.
5. Repeat steps to secure the other end of the flex adaptor using the flex kit.
6. See vertical vent installation instructions or horizontal power vent installation instructions for installation of the complete vent system.

NOTE

- If an offset is necessary in the attic or floor joists it is important to support the vent pipe every 3 feet to avoid excessive stress and sagging of the vent pipe. Wall straps are provided (3 in total) for this purpose.
- Round/plumbers strapping may be used if further supports are required.



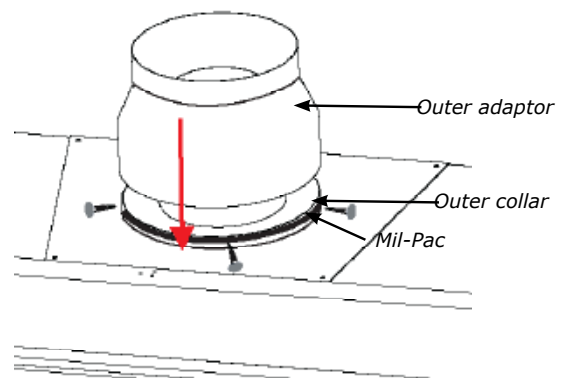
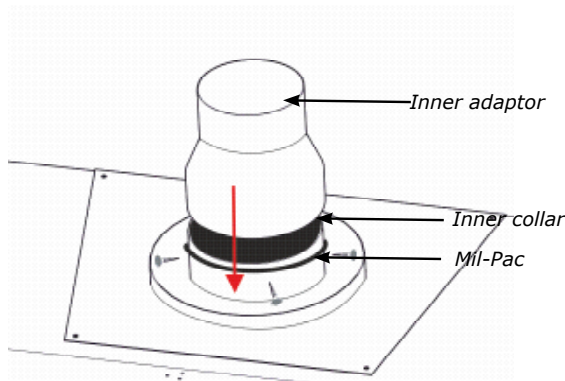
NOTE Power vent model only - the flex adaptor included with this kit is only required when joining two 946-756 flue extension kits to a maximum of 40 feet (12.9 m). If only one 946-756 20 foot (6.1 m) kit is used, the flex adaptor is not required.

Power Vent System Kit

TOP VENT REDUCER INSTALLATION (FLEX VENT) 5" X 8" (127 MM X 203 MM) TO 4" X 6-5/8" (102 MM X 168 MM) (PART # 946-758)

Used in applications where flex venting is used.

1. Apply a bead of Millpack around the base of the inner vent collar. Slide the inner adaptor over the collar and secure with 3 screws.
2. Apply a bead of Millpack around the base of the outer vent collar. Slide the outer adaptor over the collar and secure with 3 screws.



3. Follow installation instructions for the Flex venting kit.

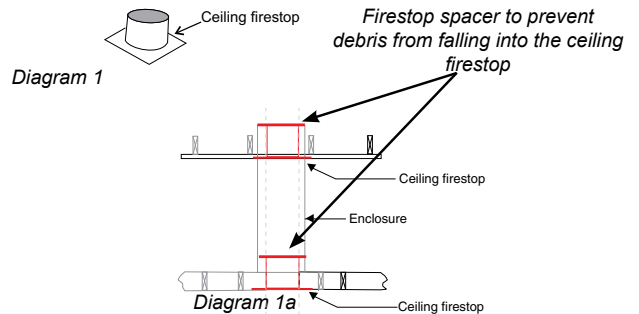
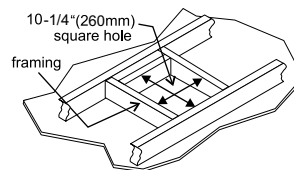
CEILING FIRESTOP/FIRESTOP SPACER (PART # 946-757)

Used in conjunction with the 946-755 Vertical Flex Kit and 946-756 Vertical Flex Extension Kit/Horizontal Power Vent Kit.

A ceiling firestop/firestop spacer must be installed when passing through each floor or ceiling level. To install the ceiling firestop/firestop spacer in a flat ceiling or floor joist, cut a 10- 1/4 inch square hole, frame it as show in Diagram 1, and install the ceiling firestop. Slide the top attic insulation shield/firestop spacer onto the top of the attic insulation shield/firestop (see Diagram 1a). Secure with 4 screws/nails. If more than one firestop is required, these can be purchased separately.

NOTE

- The ceiling firestop/firestop spacer may be cut down to size if the shield is too high for the application.



Power Vent System Kit

GAS POWER VENT INSTALLATION - WIRING THE INLINE POWER VENT TO THE UNIT

WARNING

- ELECTRICAL CONNECTIONS SHOULD ONLY BE CARRIED OUT BY A QUALIFIED AND LICENSED ELECTRICIAN

NOTE

- Must be mounted to the framing prior to wiring.

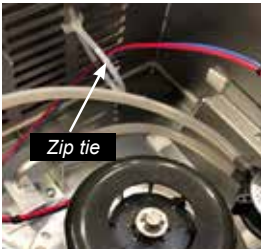
1. Remove the four screws and the cover plate.



2. Feed BX cable through the strain relief.



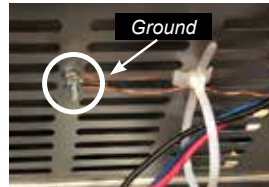
3. Tie the supplied zip tie loosely as shown below and pop it into the wall of the power vent box. Bring blue/red wires from the BX through the zip tie.



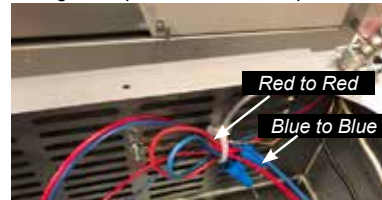
4. Install the second zip tie loosely on the bracket behind the pressure switch. Run the motor wires through the zip tie.



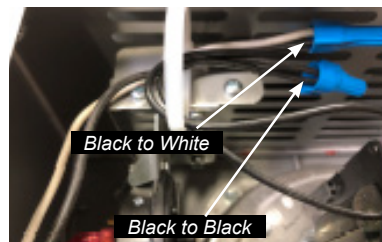
5. Connect ground wire to ground lug located on the side wall of the power vent box.



6. Connect wires from pressure switch to wires from BX cable - red to red and blue to blue. Cap paired wires with supplied marrette. Bundle and tighten zip tie installed in Step 3.



7. Connect the black and white BX cable wires to the fan motor wires. Cap paired wires with supplied marrette. Bundle wires connected in step 6. Tighten zip tie.



NOTES

- After exposure to heat, white wire will appear yellow and blue wires will appear green.
- Cut off existing connectors from fan motor and strip back to expose wires before connecting.

8. Reinstall cover plate with 4 screws.

NOTE

- Pressure switch must always be oriented vertically inside the inline power vent.

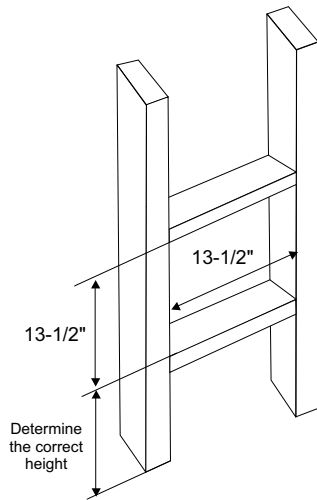
Power Vent System Kit

GAS POWER VENT INSTALLATION - WIRING END OF LINE POWER VENT

WARNING

• **Electrical connections should only be carried out by a licensed electrician.**

1. Frame an opening to the outside of the building at 13-1/2" W x 13-1/2" H (343 mm x 343 mm) to accommodate the power vent.



2. Run the venting and BX cable from the unit to the framed opening.
3. Install the strain relief (supplied) to the back of the power vent mount box.

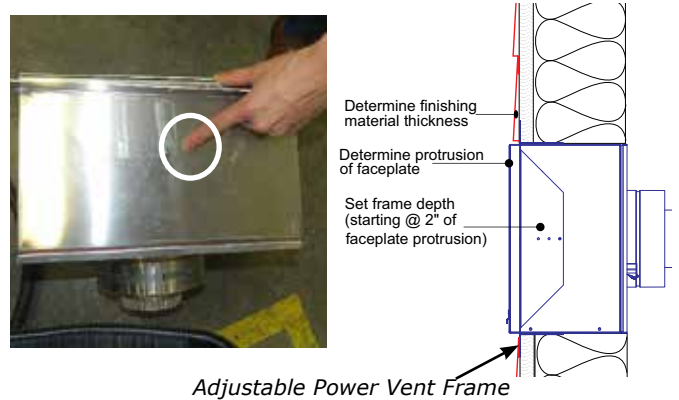


4. Strip the sheath from the BX cable to expose approximately 8" (203 mm) of exposed wires.
5. Feed the BX cable through the strain relief installed in step 3.

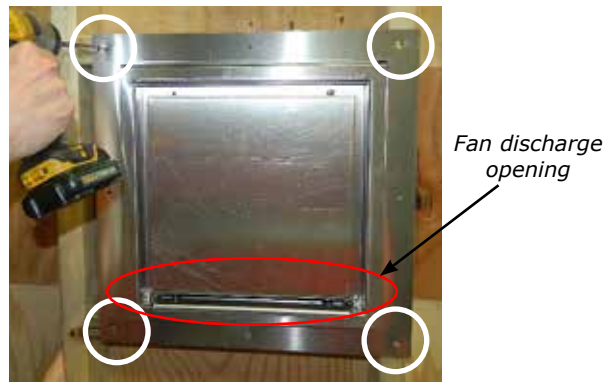


6. Determine the building finishing material thickness.
7. Depending on the building material thickness, install the frame onto the power vent mount using four screws. Mounting holes start at 2" (51 mm) from the front of the power vent unit cover and can be adjusted back in 3/4" (19 mm) increments.

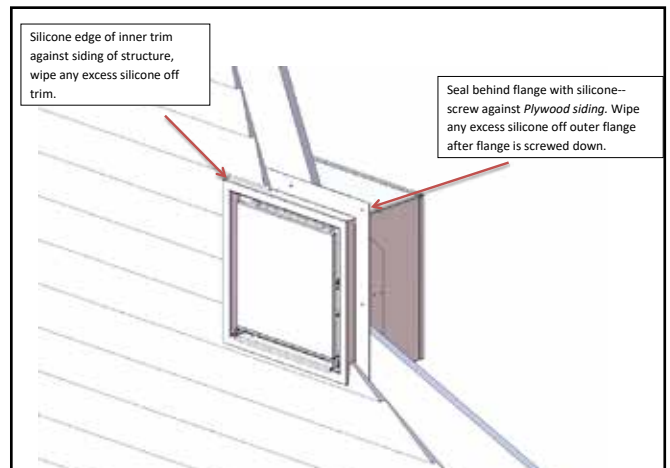
NOTE: Exterior finishes such as thin vinyl siding may warp if closer than 2" (51 mm) to the vent. For interior installations on vinyl siding, a 2" (51 mm) frame/buffer zone must be created between the finishing and the vent.



8. Install power vent unit into framed opening using four screws as shown below.



9. Seal the edges of the power vent unit to the framing (there are two seams).



Power Vent System Kit

GAS POWER VENT INSTALLATION - WIRING END OF LINE POWER VENT

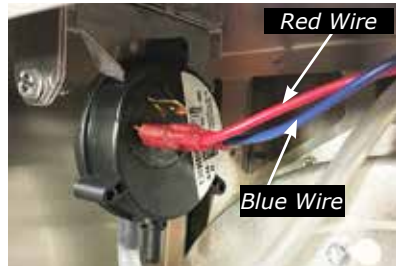
10. Remove front faceplate from power vent unit by removing four screws as shown below.



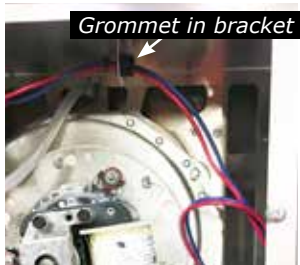
11. Loosen four screws in the locations shown below, lifting the rain guard off them (key hole slots).



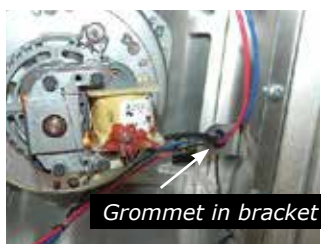
12. Inside the power vent box, connect the blue and red wires to the pressure switch as shown below.



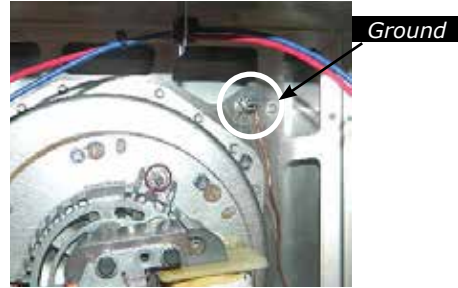
13. Bundle the wires together with the supplied grommet and pop them into the bracket on the roof of the power vent box.



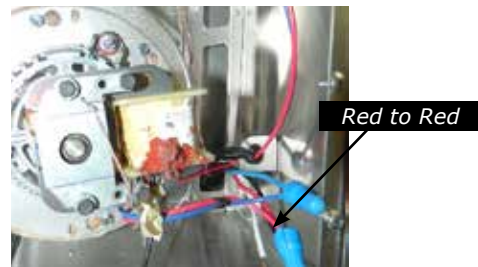
14. Install the second grommet onto the wires and secure them into a bracket located on the side of the power vent box.



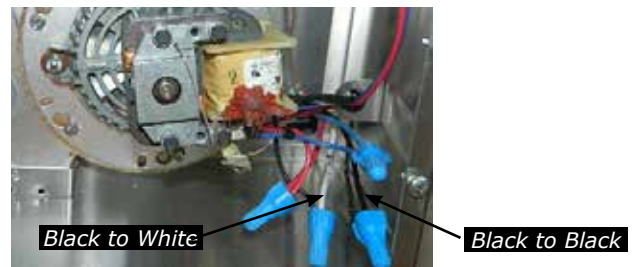
15. Connect ground wire to ground lug located at back of the power vent box.



16. Connect wires from pressure switch to wires from BX cable--red to red and blue to blue. Cap paired wires with supplied marrette.



17. Connect remaining wires from the power vent motor to the BX cable- black to black and black to white. Cap paired wires with supplied marrette.



NOTES

- Cut off existing connectors from fan motor and strip back to expose wires before connecting.
- After exposure to heat, white wires will appear yellow and blue wires will appear green.

18. Reinstall rain guard and tighten screws.

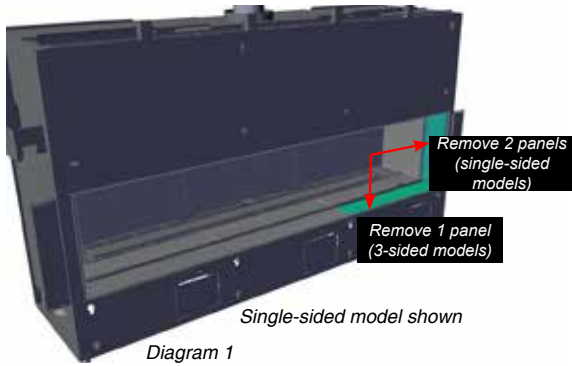
19. Reinstall front faceplate with 4 screws.

NOTE

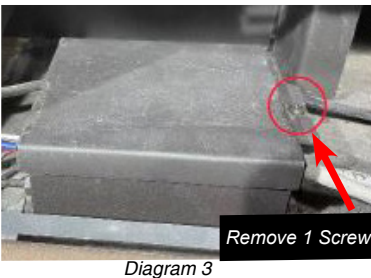
- The power vent cap can be serviced externally or internally. If access to the exterior is not possible due to height/location of the termination, it is recommended that an access panel be placed near the rear of the termination inside of the enclosure where the power vent cap is located. The access panel should be large/close enough to be able to service the power vent cap. See maintenance section of manual to see how servicing is completed internally.

GAS POWER VENT INSTALLATION WIRING THE POWER VENT TO THE UNIT BOTH INLINE/END OF LINE POWER VENT SYSTEMS

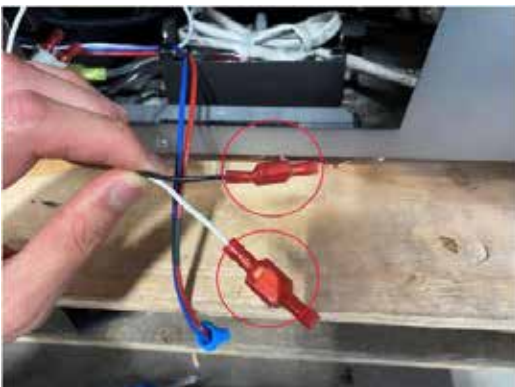
1. Remove exterior side panels and bottom panels (if installed) to gain access to junction box (Diagram 1).



2. Remove access panel by lifting panel up and out (Diagram 2). Unscrew 1 x Phillips head screw to gain access to junction box (Diagram 3).

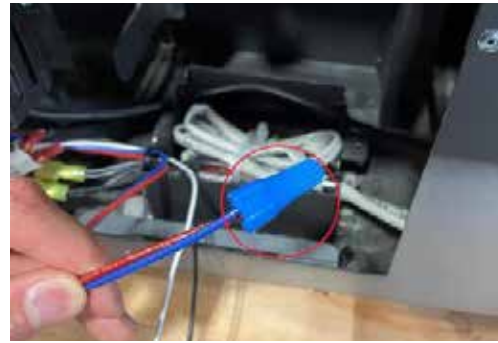


3. Locate the white and black power cables. Cut the connectors off and strip the wires.

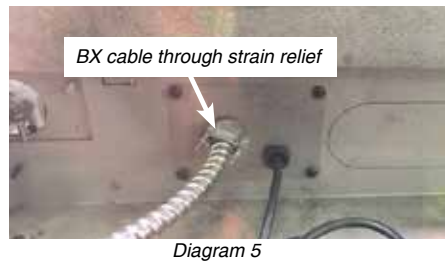
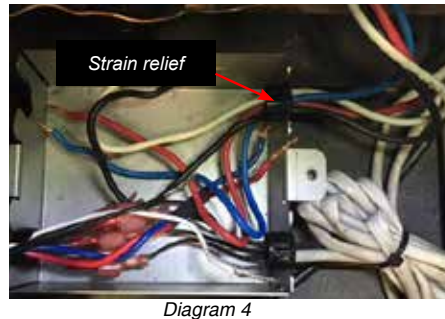


4. Locate the red and blue cables. Remove the twist-on wire connector.

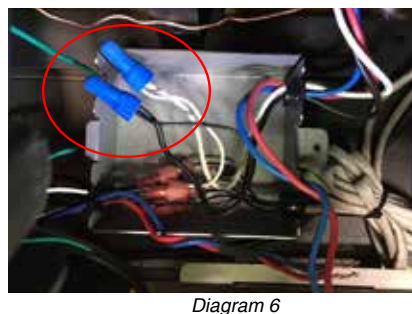
NOTE The ground wire must stay out of the junction box as this will be attached later. Only the 4 colored wires go into the junction box.



5. Strip 24" of BX exposing wires, then run BX through strain relief on right side of the unit into the junction box (Diagrams 4 & 5).



6. Join Powervent and BX cable wires together by firstly splicing 1" off wires-- join black to black, white to white (Diagram 8).



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7. Join the Pressure switch and BX cable wires by splicing 1" off wires-join red to red and blue to blue (Diagram 7).

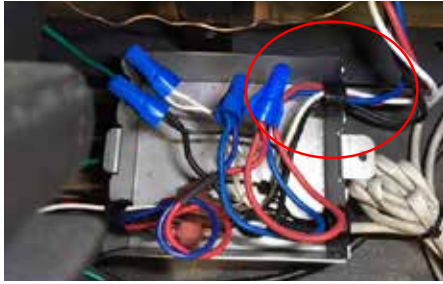


Diagram 7

8. After the power and pressure switches have been connected, place wired connections into junction box and screw the junction cover plate back in place.

9. To make the ground connection, release the front right glass gasket pad by turning clips (3 total) counter-clockwise (Diagram 8).



Diagram 8

10. Attach ground from the BX cable to existing ground located above IFC board (Diagram 9).

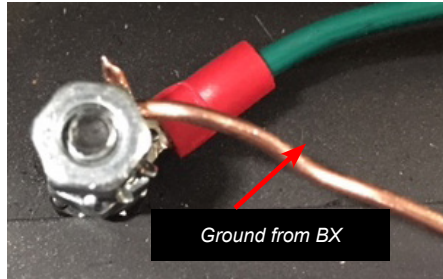


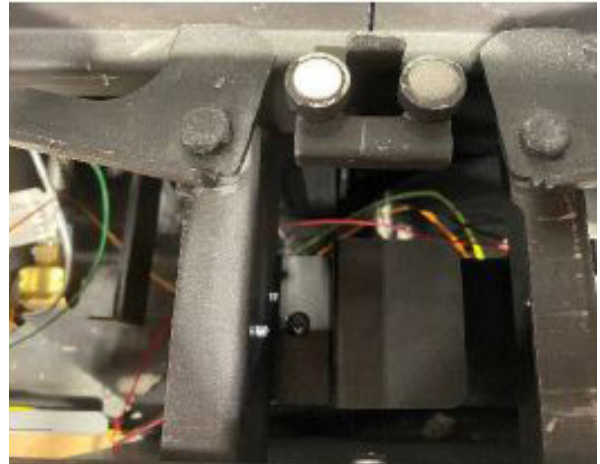
Diagram 9

11. Once wiring is complete, plug unit into power located on the right side of unit, next to junction box (Diagram 10). Reinstall gasket pad removed in Step 7, access panel removed in Step 2, and exterior panels removed in Step 1.

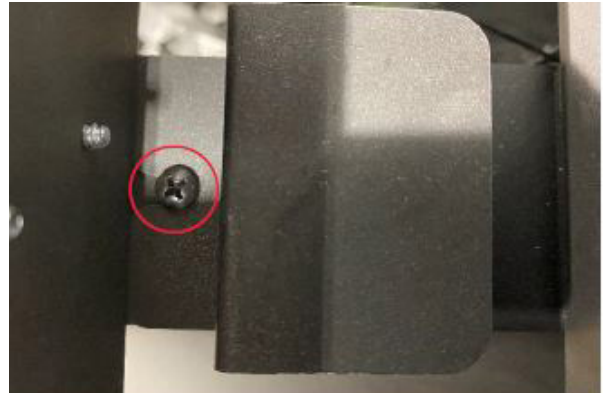


Diagram 10

12. Locate the power vent switch cover.



13. Remove the screw and pull the cover off.



14. Flip the switch to power vent mode (O) as shown.



Note: Some models which were dedicated Power Vent Models will not have a switch as shown above. This can be identified by the words PV in the model number description (IE: CB40EPV-NG). The switch will only be in place on models that are both Non-Power Vent Direct Vent Systems With no Fan Assist or power vent with fan assist.

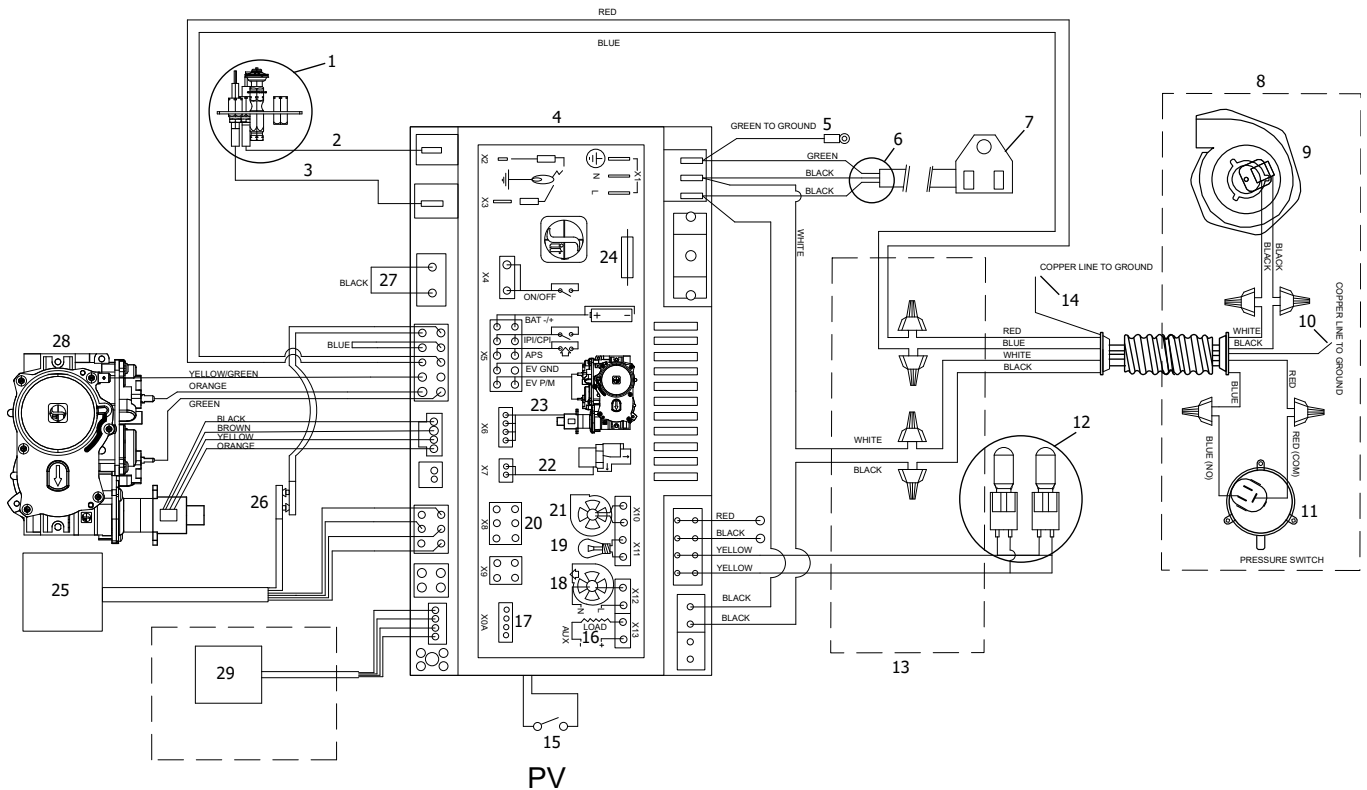
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WIRING DIAGRAM - POWER VENT APPLICATION

Power Vent Model: 120VAC Power is required to operate unit when installed as a power vent.
This appliance will not operate if 120 volt power is lost within the home.

CAUTION

- Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.
- Ensure that the wires do not touch any hot surfaces and are away from sharp edges.
- This appliance is equipped with a three-prong (grounding) plug for 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 the plug.
- Electrical power must be brought to the appliance by a licensed electrician. Do not cut the ground terminal off under any circumstances.



Item	Part #	Description
1	911-280	Pilot Assembly NG
	911-280	Pilot Assembly LP
	W840470	Pilot Gasket (not shown)
2	911-110	Spark Electrode
3	911-111	Flame Sensor Electrode
4	911-311	PFI IFC Board
5	N/A	Green to Ground
6	911-344	Power Harness w/ Aux Connector
7	911-253-ASM	Main Line
8	946-535/666-945	Power Vent
9	911-305/P (Inline)	Fan Motor

Item	Part #	Description
	911-244/P (End of Line)	
10	N/A	Copper Line to Ground
11	911-112 (Inline)	Pressure Switch
	911-112/P (End of Line)	
12	911-208	Variable Lights
13	666-138	Electrical Shielding Box
14	N/A	Copper Line to Ground
15	911-314	PV Switch
16	N/A	Load
17	N/A	Diagnostic Interface

Item	Part #	Description
18	N/A	Combustion Blower
19	N/A	Lamp
20	N/A	User Interface
21	N/A	Comfort Fan
22	N/A	Split Flow
23	N/A	Motor
24	911-182	Fuse
25	911-337/P	Battery Holder
26	911-181	Battery Connection
27	911-193	Connector w/ Jumper
28	911-188	Gas Valve NG
28	911-189	Gas Valve LP
29	946-799	SIT WIFI Dongle Kit

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