

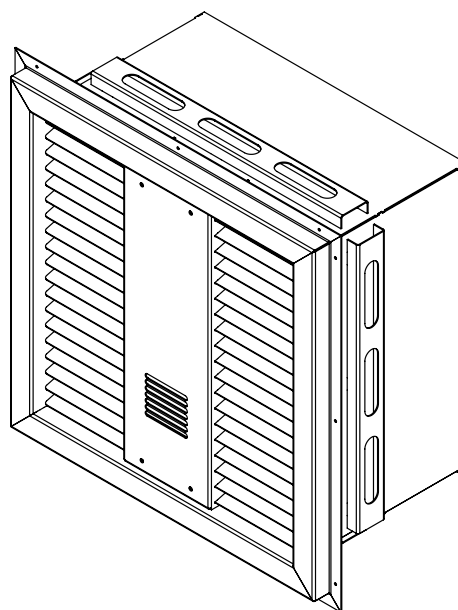
**IMPORTANT:  
THESE INSTRUCTIONS ARE TO REMAIN  
WITH THE HOMEOWNER**

These instructions are supplementary to the Installation and Operating Instructions supplied with the fireplace and should be kept together. Refer to the Installation and Operating Instructions for proper gas supply, safety requirements and operating instructions.



**TOWN & COUNTRY**  
LUXURY FIREPLACES

## **ARCHITECTURAL SERIES FLUSH MOUNT POWER VENT KIT**



**FOR USE WITH ARCHITECTURAL UNITS  
EQUIPPED WITH GLASS TEMPERATURE  
SENSING CONTROL.**

**\*FOR HORIZONTAL INSTALLATIONS  
SKU: 22080041**



## **INSTALLATION AND SERVICING INSTRUCTIONS**

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## Power Vent Installation

Locate the fireplace as per the main instructions supplied. This kit can only be used in conjunction with the Architectural Series Fireplaces. This installation must conform with local codes or, in the absence of local codes, with the Natural Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1.

All electrical installation should be performed by a qualified electrician to national codes (CSA C22.1, ANSI/NFPA 70) and/or local electrical codes.

**Under no circumstances shall a rheostat be used to alter the voltage supply to this unit.**

## Contents of Power Vent Kit

ITEM	DESCRIPTION	QTY
1	Power Vent Unit	1
2	Vibration Collar	1
3	Hardware	1 PK

## Power Vent Location

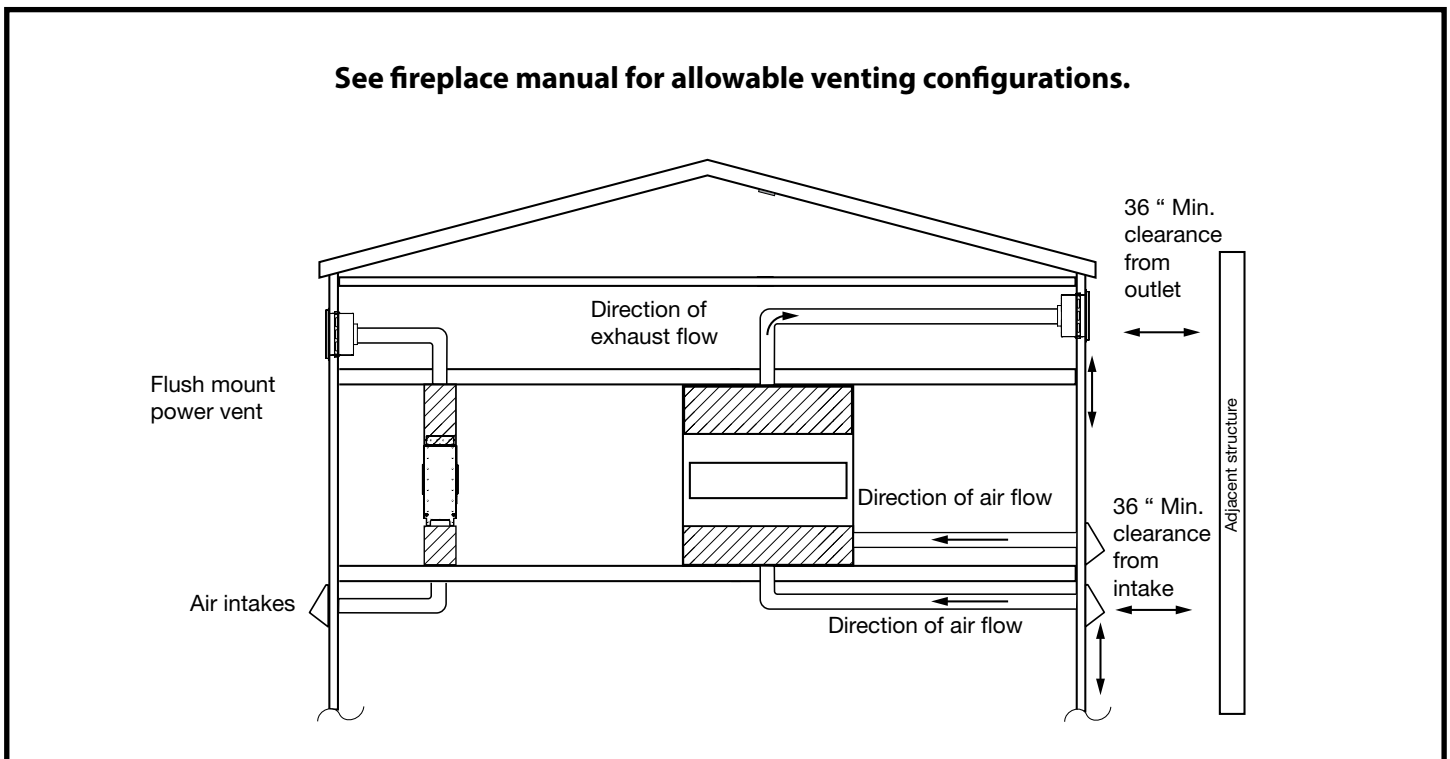


Figure 1: Architectural series flush mount power vent configuration.

# Vent Terminal Minimum Clearances

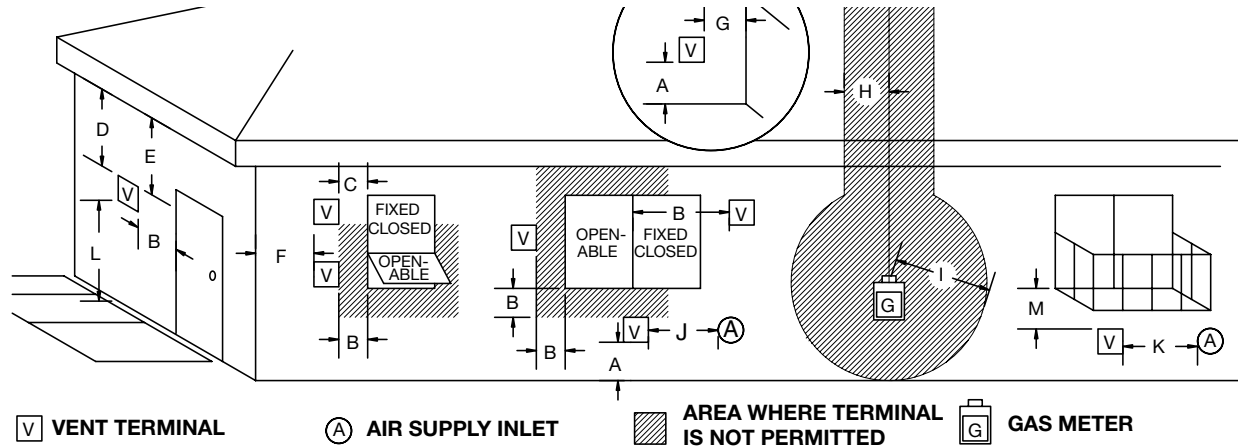


Figure 2: Vent terminal minimum clearances.

		Canada <sup>1</sup>	US <sup>2</sup>
A=	Clearances above grade, veranda, porch, deck, or balcony.	12 inches (30 cm) min.	12 inches min.
B=	Clearance beside or below a window or door that may be opened.	12 inches (30 cm) for appliances ≤ 100,000 Btuh., 36 inches (91cm) for appliances > 100,000 Btuh.	9 inches for appliances > 10,000 Btuh and ≤ 50,000 Btuh. *12 inches for appliances > 50,000 Btuh.,
C=	Clearance to permanently closed window recommended to prevent condensation on window.	12 inches (30 cm)	12 inches
D=	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal.	20 inches (51 cm) min.	20 inches min.
E=	Clearance to unventilated soffit from the center line of the terminal.	20 inches (51 cm) min.	20 inches min.
F=	Clearance to outside corner.	6 inches (15 cm) min.	6 inches min.
G=	Clearance to inside corner from the center line of the terminal.	20 inches (51 cm) min.	20 inches min.
H=	Clearance to each side of center line extended above meter/regulator assembly.	3 feet (90 cm) min. within a height of 15ft (4.5m) above the meter or regulator assembly	**
I=	Clearance to service regulator vent outlet.	3 feet (90cm) min.	**
J=	Clearance to non mechanical air supply inlet to building or the combustion air inlet to this unit or any other appliance.	12 inches (30 cm) ≤ 100,000 Btuh. 36 inches (91) cm > 100,000 Btuh	9 inches for appliances > 10,000 Btuh and ≤ 50,000 Btuh. 12 inches for appliances > 50,000 Btuh.
K=	Clearance to a mechanical air supply inlet.	6 feet (1.8 m) min.	3 feet (90cm) min. above if within 10ft (3m) horizontally
L=	Clearance above paved side-walk or a paved driveway located on public property	^ 7 feet (2.1 m) min.	**
M=	Clearance under veranda, porch, deck, or balcony	± 12 inches (25 cm) min.	± 12 inches min.

1) - In accordance with the current CSA B149.1 Natural Gas and Propane Installation Code

2) - USA - In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code,

\*\* Clearance in accordance with local installation codes and the requirements of the gas supplier

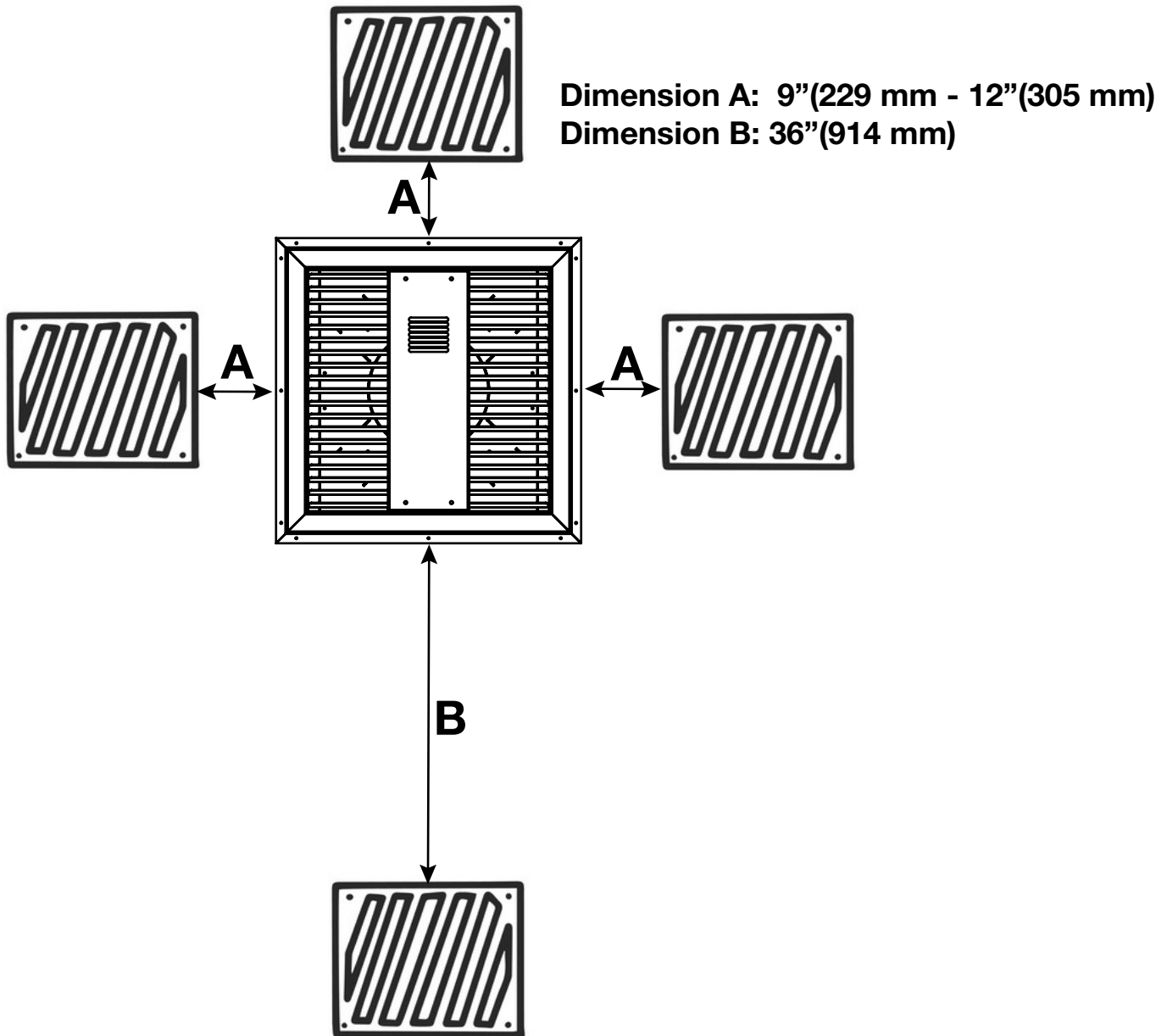
^ A vent shall not terminate directly above a side-walk or paved driveway which is located between two single family dwellings and serves both dwellings\*

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



## Minimum Clearances to Inlets

The clearances to any inlet around the power vent are 9"(229 mm) to 12"(305 mm) above or to the sides and 36"(914 mm) below. It is recommended to install the inlets to the sides of the power vent. See "J" on page 4.



## Power Vent Details

115 VAC Single phase  
60/50 Hz  
1/2 HP  
6.8 Amps  
Weight: Aprox. 30 lbs.

## Power Vent Dimensions

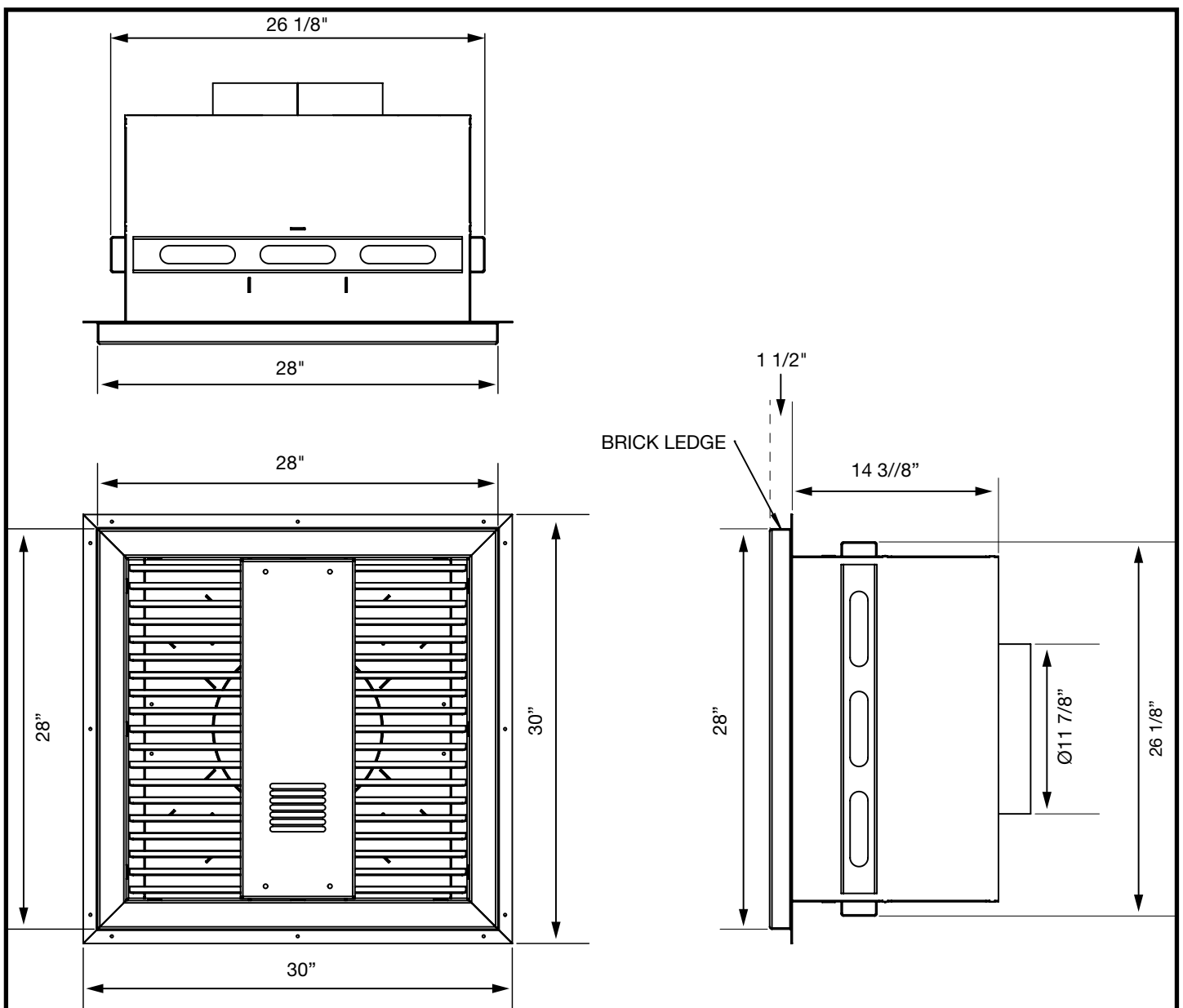


Figure 3: Architectural series power vent dimensions.



## Mounting the Power Vent

The Architectural Series Power Vent must be mounted into a constructed frame. The size of the unit (28" x 28") means that part of a stud will need to be removed in order to build the frame.

Before installing the fan into the frame, the front grill must be removed so an electrical connection can be established.

### Removing the grill

The front grill must be removed before installing the unit into its frame. Locate and remove the four screws affixing the grill to the unit (Figure 4) - remove grill and set aside.



Figure 4: Screws for grill.

### Installing the fan unit

The fan unit weighs approximately 30 lbs and so the constructed frame must be able to support its weight.

The fan unit is secured to the constructed frame using the 12 supplied screws.

**Note: The constructed frame must be built in accordance with local building codes.**

## Minimum Clearances to Combustibles

Body of Power Vent: 0"

Vent pipe: 0"



## Framing the Power Vent

Recommended framing. Consult local building codes for more information on framing and building envelope waterproofing.

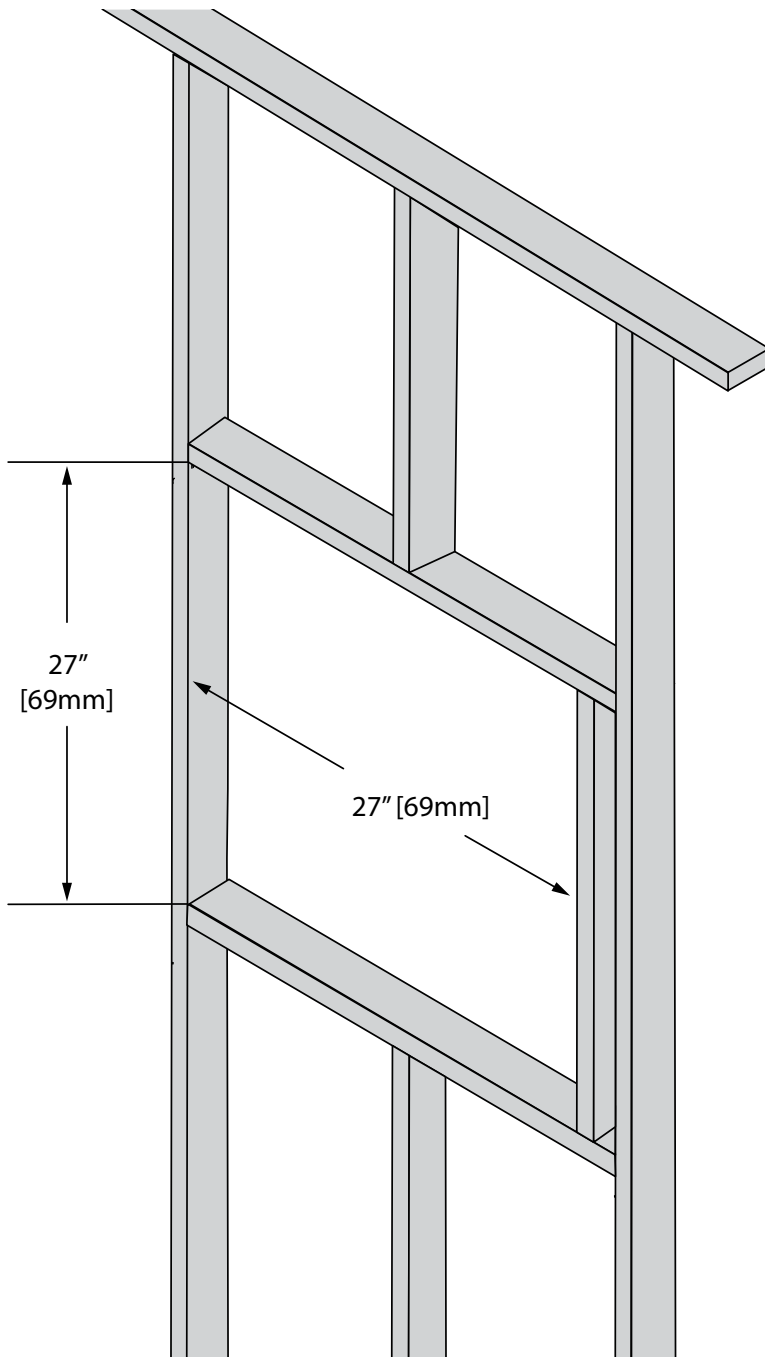


Figure 5: PV Framing Dimensions.

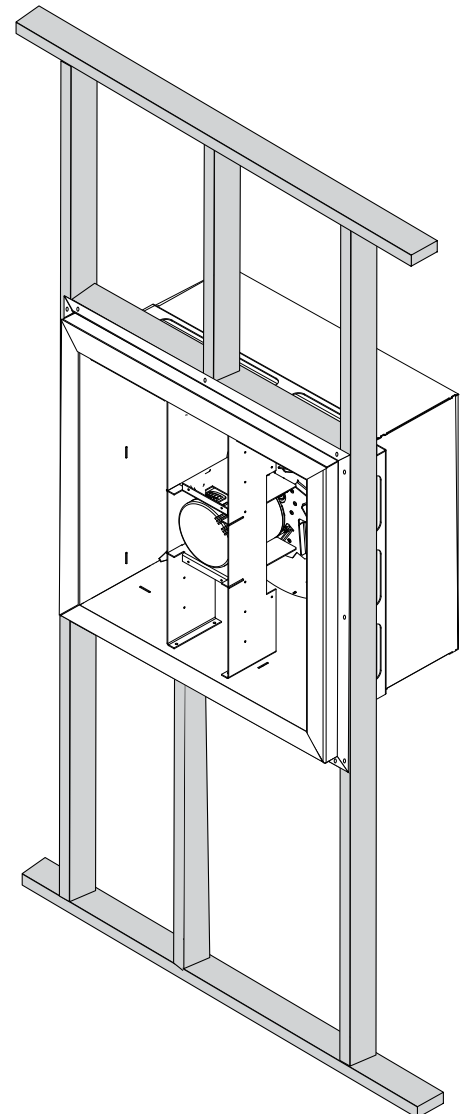


Figure 6: Fan - without grill, installed.  
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## Electrical Connection

**NOTE:** The installer must supply;

- approved 14ga. household wire from the fireplace to the Power Vent, for the 120VAC power. and,
- minimum 18ga, 2 conductor (bell/alarm) wire from the fireplace to the power vent for the 24VAC blower control.

See the fireplace manual for connections at the fireplace.



Figure 7: Feeding wires.

**Note:** Ensure that the power is disconnected at its source before proceeding.

The fan unit operates using 120VAC supplied from the fireplace and a 24VAC control signal from the fireplace as well. Once the fan unit is secured to its frame, the power line and control wires can be brought in from the rear of the unit. Be sure that the plastic grommet is installed in the hole where the power line is coming through (Figure 7).

Strip the Power wires and using wire nuts secure them to the power wires from the fireplace. Connect White to White and Black to black and the ground to green (Figure 8).

Strip the Control wires and connect using wire nuts, **make sure that the colour pairing matches that at the fireplace as well.** i.e. black to grey at both ends or red to red at both ends.

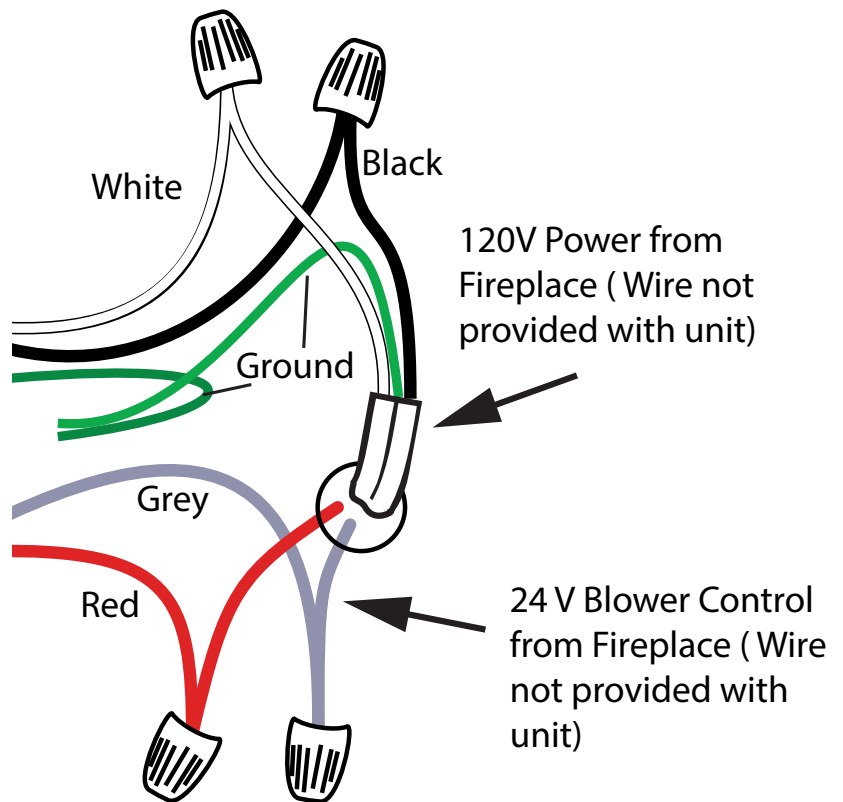


Figure 8: FMPV Wiring Diagram.

Once the connections have been secured, tighten the strain relief at the rear of the unit so that there is no undue stress on the power line(Figure 9). The noise supression foam may need to be removed for access. glue it back in place after strain relef is tightened.

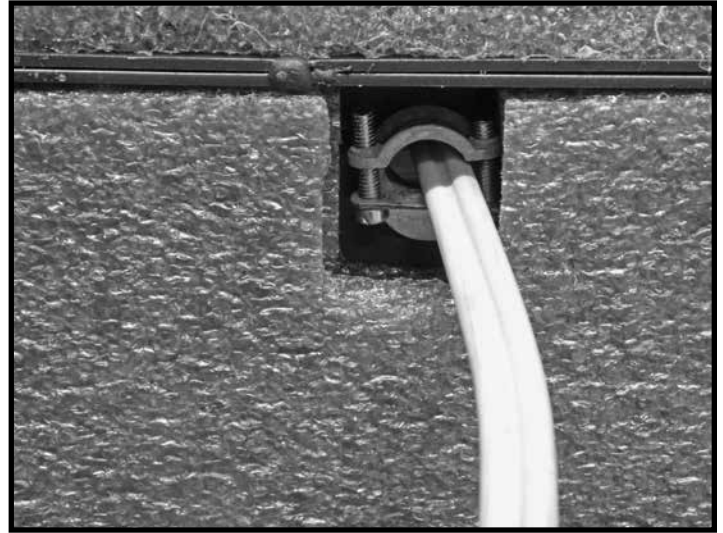


Figure 9: Strain relief.



## Vibration Collar Installation

The fan unit ships with a flexible 12" vibration collar (Figure 10) to connect the fan unit to the venting material.

### Attaching the vibration collar

Slip one end of the vibration collar onto the exposed flange (Figure 11) on the rear of the fan unit.

Affix the collar to the fan using six supplied Tek screws evenly distributed around the circumference of the collar (Figure 12).

Attach venting material to the outside ring of the vibration collar and affix with six supplied Tek screws evenly distributed around the circumference of the collar.



Figure 10: Vibration collar.

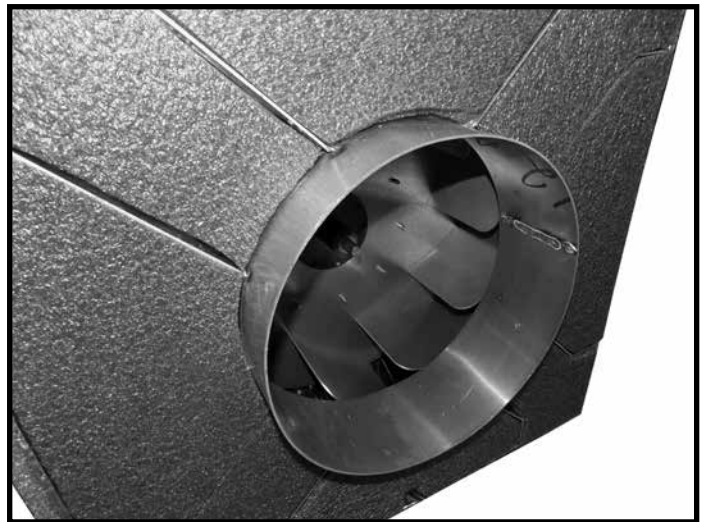


Figure 11: Rear of fan.



Figure 12: Vibration collar installed.

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## Fan Motor Replacement

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The fan motor can be replaced using the following instructions.

### Fan removal

Ensure that the power to the fan is disconnected at its source before proceeding. It is not necessary to loosen the strain relief at the rear of the fan housing.

With the front grill removed, locate the four 1/4" bolts (Figure 13 and Figure 14) which secure the fan assembly to the fan housing and remove all four bolts.

At this point, the fan assembly can be removed from the unit. There is one location post each at the top and bottom of the fan tower near the bolt locations (Figure 13 and Figure 14). The unit may stick a little when removing and reinstalling back into the housing. Remove the fan assembly from the housing.

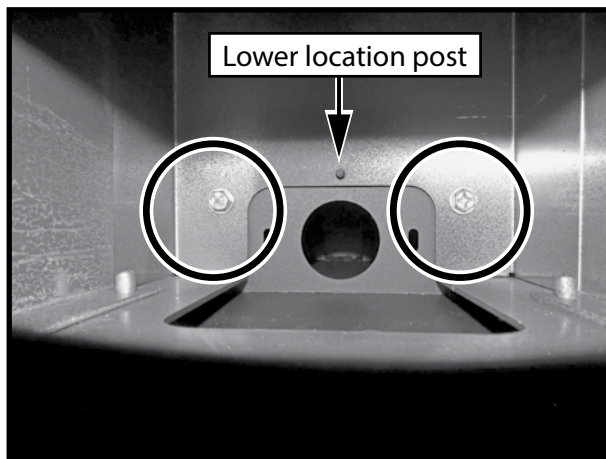


Figure 13: Lower bolts and location post.

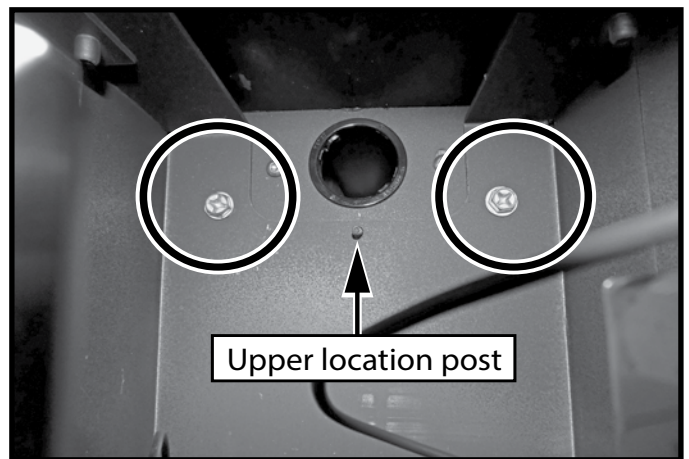


Figure 14: Upper bolts and location post.

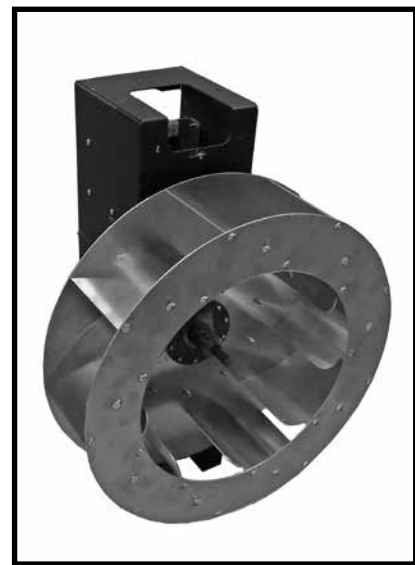


Figure 15: Fan assembly



## Disconnect the motor wiring

Before accessing the motor, the wiring to it needs to be disconnected. Document the wiring connections before disconnecting. Alternatively, refer to the wiring drawing (Figure 19 on page 15).



Figure 16: Motor electrical connections.

Locate and remove the 1/4-20 set screws using a 1/8" Allen key which secures the impeller to the motor shaft(Figure 18). Note that the motor shaft has a flat side for one of the set screws to engage with.

On the other side of the fan assembly, locate and remove four T20 Torx screws and remove the securing plate (Figure 17).

Return to the shaft side of the fan assembly. Locate and remove the four 5/16" nuts holding the motor to the tower (Figure 18).

Remove the motor.

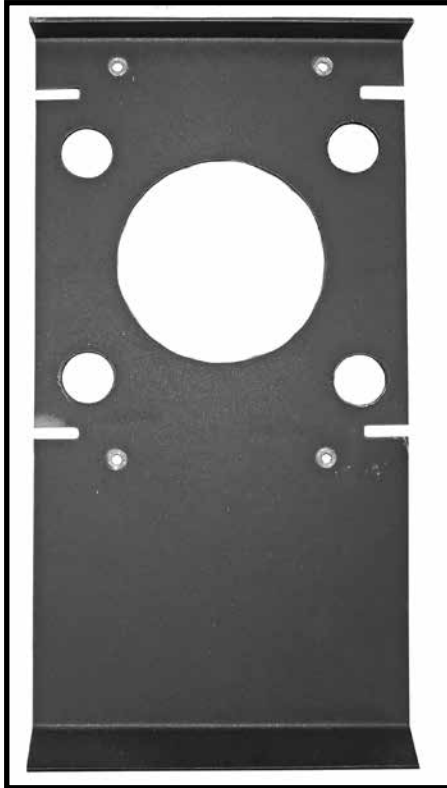


Figure 17: Securing plate.



Figure 18: Motor shaft with flat edge.jpg

## Installing the motor

Install the replacement motor into the fan tower and secure with the four nuts (Figure 18). Use thread lock on the threaded posts before installing the nuts. Be sure that the motor is positioned so that the connector socket is facing up.

Re-install the impeller on the shaft. There should be a space of 1" from the back of impeller to the mounting box. Re-install the rest of the assembly in the reverse order.



Reconnect the wiring to the motor.

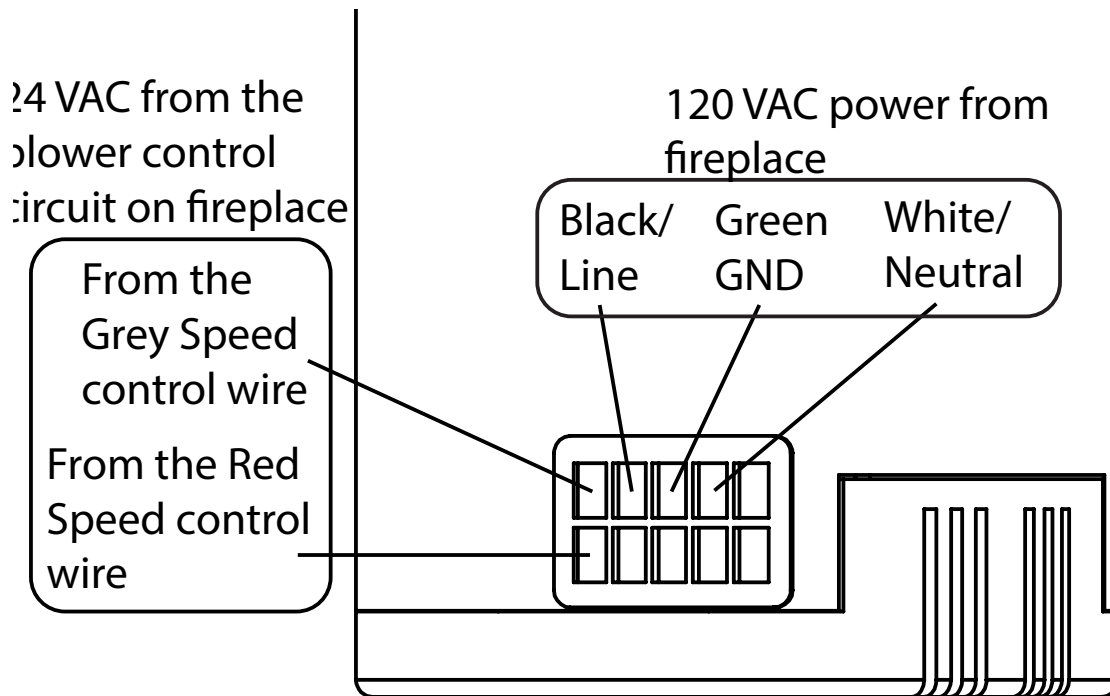


Figure 19: Fan motor connections.

Install the impeller onto the motor shaft and position it so that there is the same distance between the end of the shaft and the wheel bushing using the measurements previously written down.

Position the fan on the motor shaft so that one of the 1/4-20 set screws can tighten against the flat edge of the motor shaft.

Reinstall the fan assembly back into the fan housing. Locate and line up the two threaded location posts at the top and bottom of the tower near the securing bolts (Figure 13 and Figure 14). Secure using the four 1/4" bolts removed earlier. **Note** that there may be some resistance when reinstalling the fan assembly back into the housing.

Rotate the impeller to ensure that it rotates freely.

Reinstall the front grill.

Power to the fan unit can now be re-established.





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