

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

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

# **HIGH CAPACITY POWER VENT KIT**

- **Horizontal Termination Applications Only**

## **TCVT.PVAX21 INSTALLATION AND OPERATING INSTRUCTIONS**

For use with the TC54 “C” & “D” Series  
Town & Country Fireplaces Only

### **NOTE:**

**THIS POWER VENT KIT  
USES ONLY T&C 8X11  
FLUE PIPE**



RECOGNIZED  
COMPONENT



**Intertek**

**Intertek**

We endorse



**NATIONAL  
FIREPLACE  
INSTITUTE**  
A CERTIFICATION AGENCY

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# High Capacity Power Vent Installation

This Power Vent can only be used with the TC54 Town and Country fireplace. Locate the fireplace as per the main instructions supplied.

Make the following modifications to add the components used with the Power Vent Kits.

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.

## Contents of High Capacity Power Vent

**UNDER NO CIRCUMSTANCES SHALL A RHEOSTAT BE USED TO ALTER THE VOLTAGE SUPPLY TO THIS UNIT.**

Any of the silicon seals on the outer box that are broken during servicing must be re-sealed using RTV silicon during re-assembly to ensure a weather-proof seal.

ITEM	DESCRIPTION	QTY
1	Power Vent Terminal	1
2	Venting Adaptor	1
3	Pressure Switch Wiring	2
4	Pressure Switch Brackets	1
5	Pressure Switch	2
6	Tubing, 6 inch section	2
7	Hose Clamp	6
8	Module Switch Wires	1
9	Pressure Switch Tubing Tee	1
10	Tubing, 6 ft section	1

### MINIMUM CLEARANCES TO COMBUSTIBLE

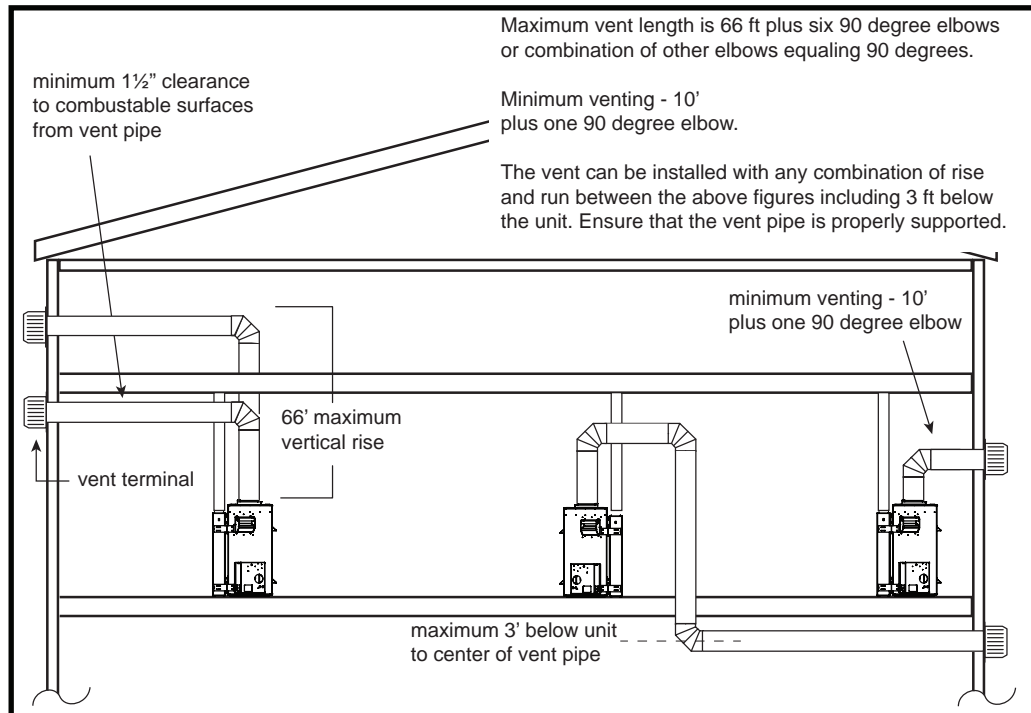
Vertical vent pipe:  
1.75 in. (45mm)

Horizontal vent pipe:  
Top 1.75 in. (45mm)  
Sides 1.75 in. (45mm)  
Bottom 1.75 in. (45mm)

All other clearances are as per the fireplace installation instructions.

## High Capacity Power Vent

Figure 1:  
Venting configurations.



# High Capacity Power Vent Terminal Dimensions

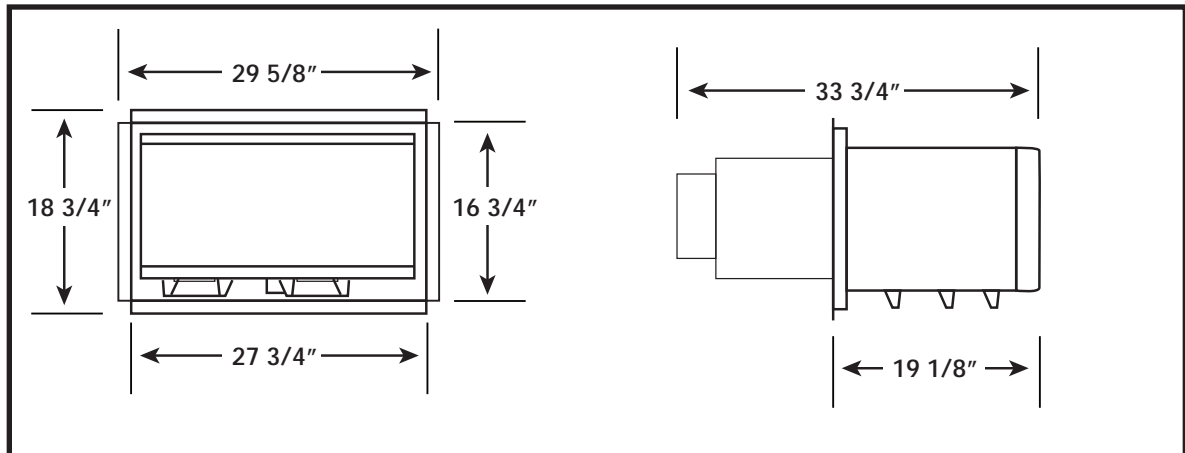


Figure 2: Power vent dimensions.

# Vent Terminal Minimum Clearances

Vent Terminal Minimum Clearances Table

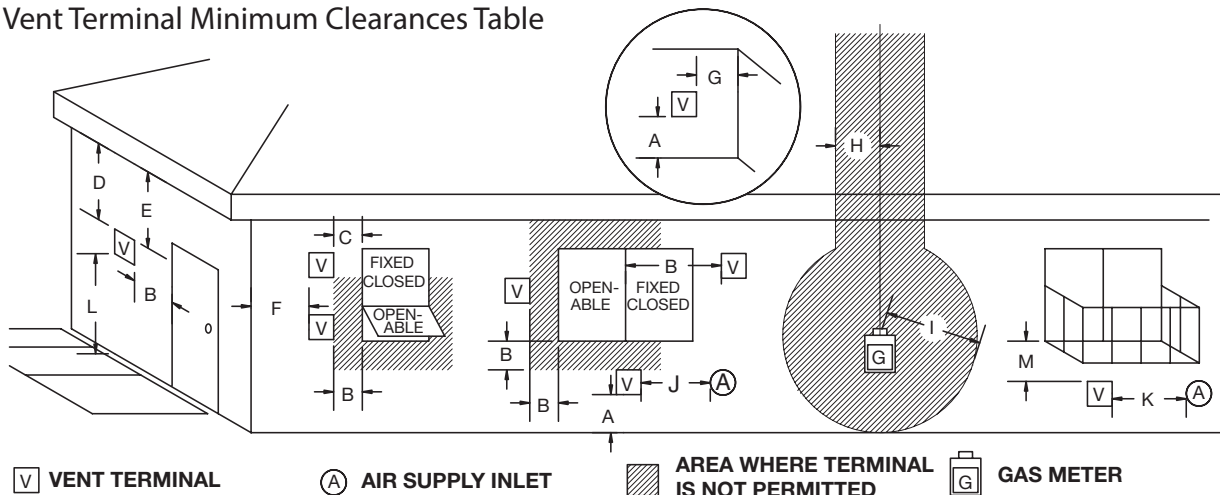


Figure 3: Vent terminal minimum clearances.

A=	36 inches (91.5 cm) min.	Clearances above grade, veranda, porch, deck, or balcony
B=	12 inches (30 cm) min.	Clearance to window or door that may be opened
C=	12 inches (30 cm) min.	Clearance to permanently closed window recommended to prevent condensation on window
D=	12 inches (30 cm) min.	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the edge of the terminal
E=	12 inches (30 cm) min.	Clearance to unventilated soffit
F=	12 inches (30 cm) min.	Clearance to outside corner
G=	36 inches (91.5 cm) min.	Clearance to inside corner
H=	3 feet (90 cm) min.	*Not to be installed above a meter/regulator assembly horizontally from the center-line of the regulator
I=	*3 feet (90 cm) min.	Clearance to service regulator vent outlet
J=	*12 inches (30 cm) min.	Clearance to non mechanical air supply inlet to building or the combustion air inlet to any other appliance
K=	*6 feet (1.8 m) min.	Clearance to a mechanical air supply inlet
L=	*7 feet (2.1 m) min.	^ Clearance above paved side-walk or a paved driveway located on public property
M=	12 inches (30 cm) min	Clearance under veranda, porch, deck, or balcony

^ 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\*  
 \*\* only permitted if veranda, porch, deck, or balcony is fully open on a minimum of 2 sides beneath the floor\*  
 \* as specified in CGA B149 Installation Codes, Note: local Codes or Regulation may require different clearances  
 \* for U.S.A. Installations follow the current National Fuel Gas Code, ANSI Z223.1

## Horizontal (Side Wall) Venting

This kit uses Town and Country direct vent pipe with a 8" inner pipe and an 11" outer pipe. For part numbers see the table of venting components on page 12 & 13 of this manual.

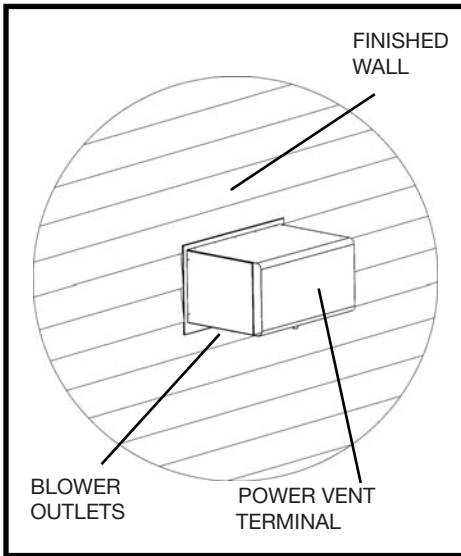


Figure 4: Mounted power vent.

1. Locate the power vent termination following the clearance to combustible table, venting configuration diagram (Figure 1) and terminal location diagram (Figure 3).
2. Cut and frame a 14" x 14" opening. The centre of the square hole should line up with the centre line of the horizontal pipe.
3. Install the Town and Country firestop in the opening to retain any insulation in the wall and maintain proper clearances. If the wall being penetrated is constructed of non-combustible material only (i.e. Masonry block or concrete) the wall thimble is not required and a hole with zero clearance is acceptable. (11" hole)
4. Attach the terminal to the outside wall. Ensure that the terminal is the right way up and that only the outer flanges that are used to secure the terminal to the building are covered by the exterior wall or siding (Figure 4). Note: No other part of the terminal can be recessed into the exterior wall or siding.
5. Attach the vent adaptor directly to the appliance with three screws and seal outer pipe with aluminium tape provided. Note: The inner pipe does not need to be sealed

### TO PAINT TERMINAL

**THIS TERMINAL MUST BE PAINTED AT THE TIME OF INSTALLATION.**

**THE PAINT USED SHOULD BE CERTIFIED TO WITHSTAND TEMPERATURE OF AT LEAST 225 F. (157 C).**

**WHEN PAINTING IT IS SUGGESTED THAT THE INLET AND OUTLET VENTS BE BLOCKED TO PREVENT PAINT BEING ACCIDENTALLY SPRAYED ON THE INTERNAL COMPONENTS OF THIS TERMINAL.**

**PLEASE ENSURE THAT INLET AND OUTLETS OF THIS TERMINATION ARE CLEAR PRIOR TO OPERATING THE FIREPLACE. FAILURE TO DO SO MAY CAUSE A FIRE OR EXPLOSION THAT MAY RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.**

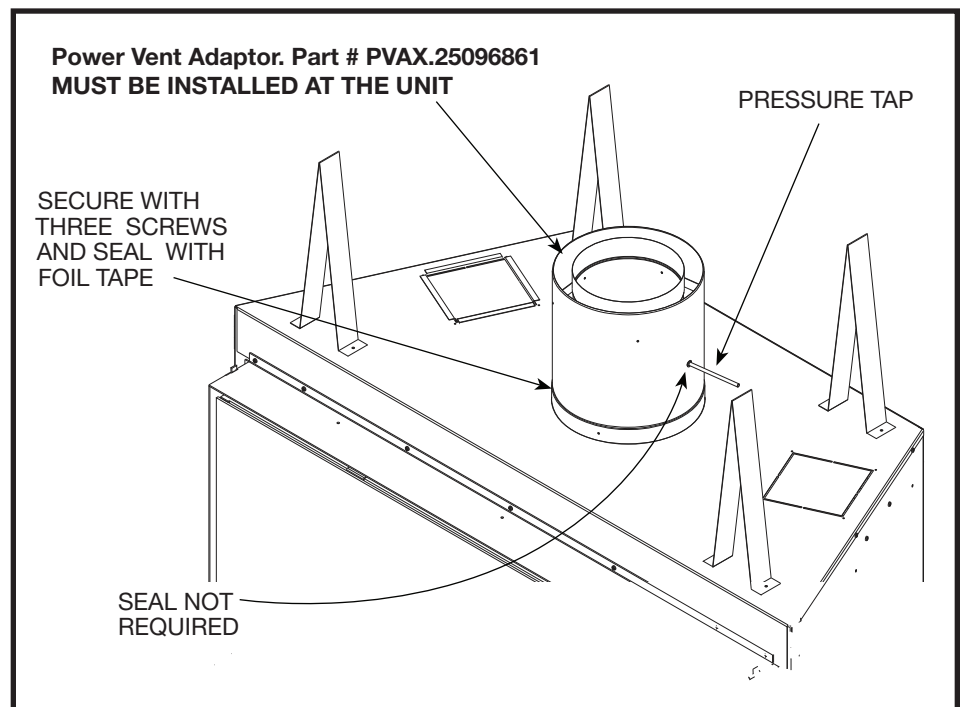


Figure 5: Power vent adaptor.

6. Connect the high temperature silicone tube to the vacuum pressure tap on the adaptor, secure with the hose clamp provided and route the tube through any hole back to control box (Figure 5). Tube may touch unit and be trimmed if required.  
**Note: Ensure that there are no blockages in this tube, as this will cause the control to malfunction.**
7. Run the required pipe from the adaptor to the terminal assembly.

# Control System Connections for Built-in Relay

## C Series instructions

The gas control system is located on the right hand side of the firebox behind an access panel and the decorative brick panel.

1. Remove burner grate, logs and brick panels if already installed.
2. Remove access panel from right hand side of the firebox (Figure 6).
3. Locate and disconnect the spade connectors in the black wire loop on the right side of the module (Figure 7).

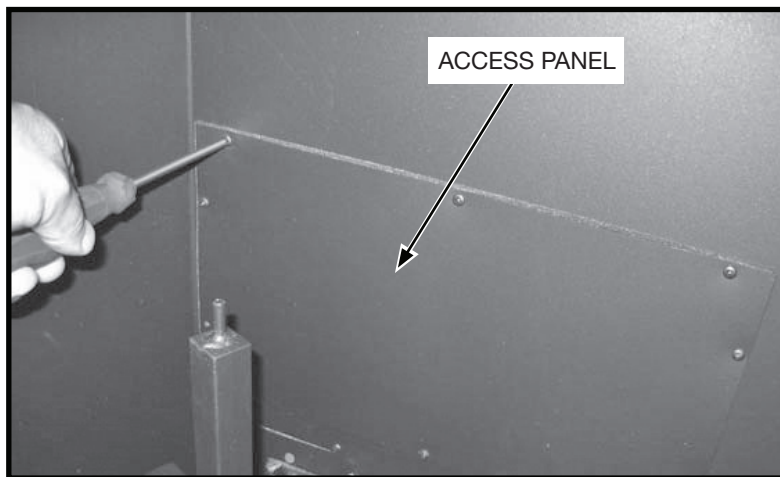


Figure 6: Access panel.

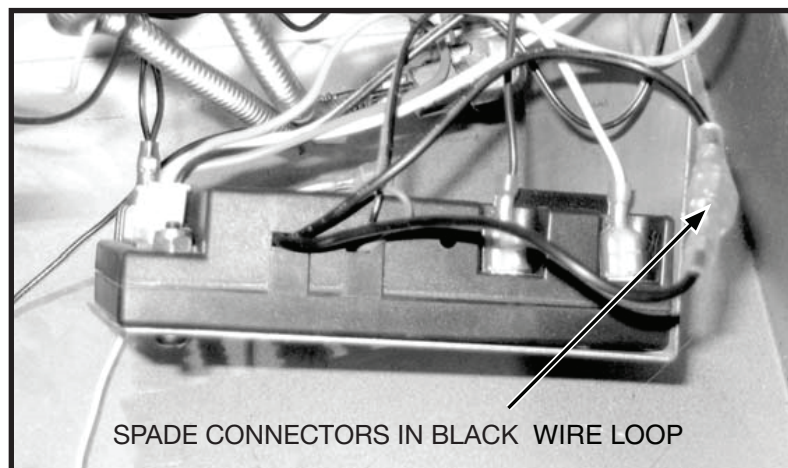


Figure 7: Spade connector location.

4. Connect the two modules in series by connecting a male connector from black wire loop from the one module to the female connector from the black wire loop on the other module (Figure 8).
5. Connect the remaining male and female connectors from the black loops on each module to the pig tail connections supplied (Figure 9).

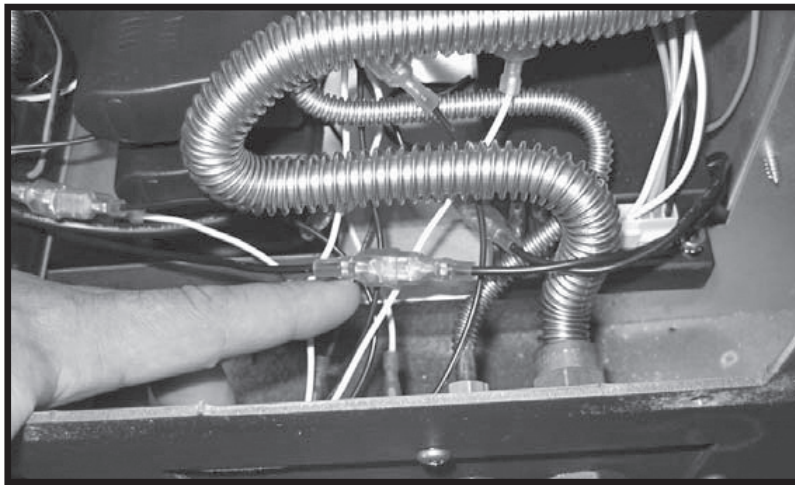


Figure 8: Connecting modules.

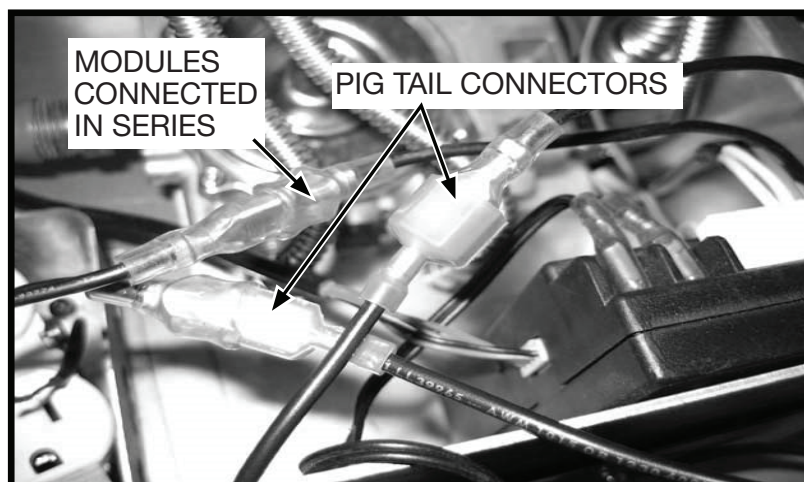


Figure 9: Connecting pig tails.

## C Series instructions

6. Connect the 120V hot supply wire to one of the pig tails from the module (Figure 10).
7. Connect the white (neutral) wire from the 120V power supply to the remaining wire from the blowers (Figure 10).
8. Connect one of the black wires from the blowers to the other pig tail from the module (Figure 11).

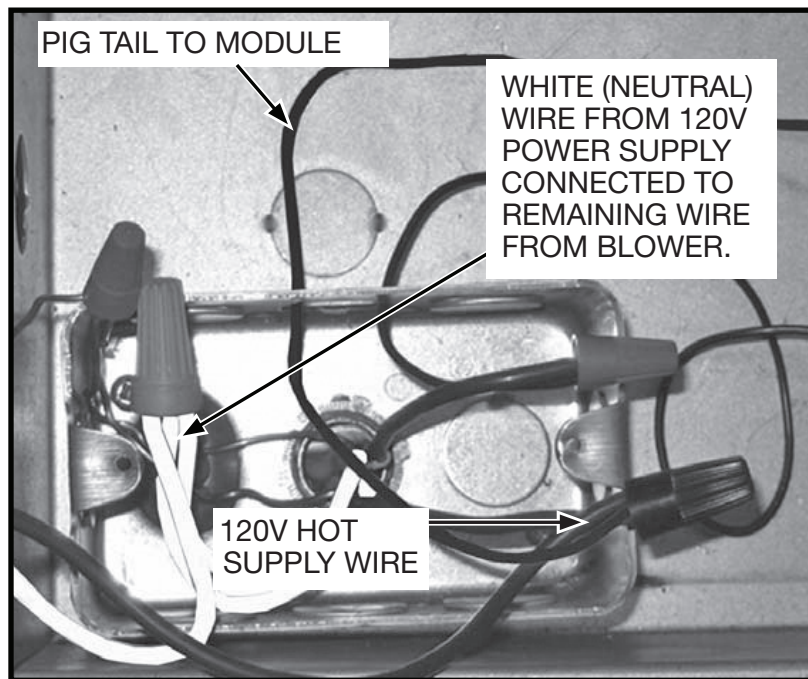


Figure 10: Wiring from power supply.

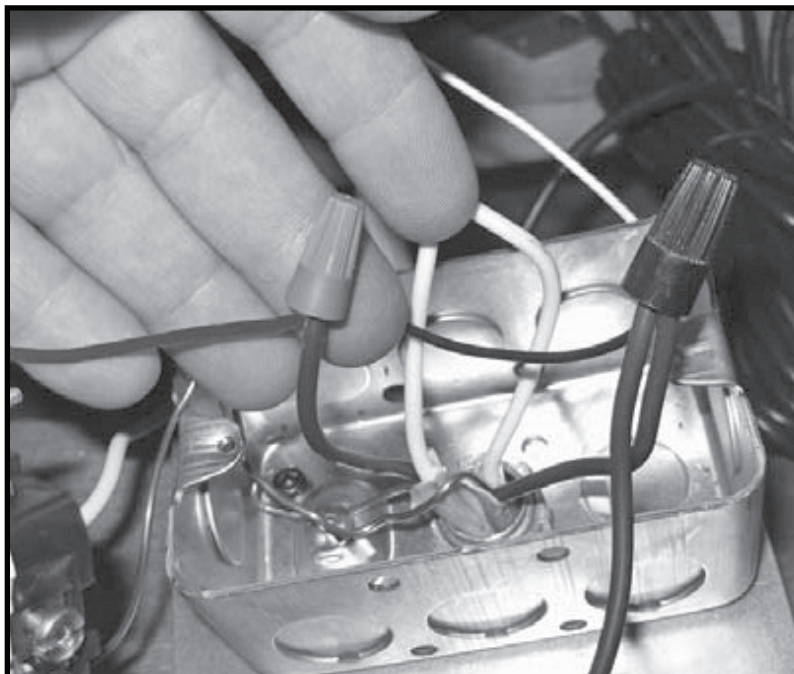


Figure 11: Wiring from blowers.



9. Locate Mounting position for Pressure Switch (Figure 12) & (Figure 13).

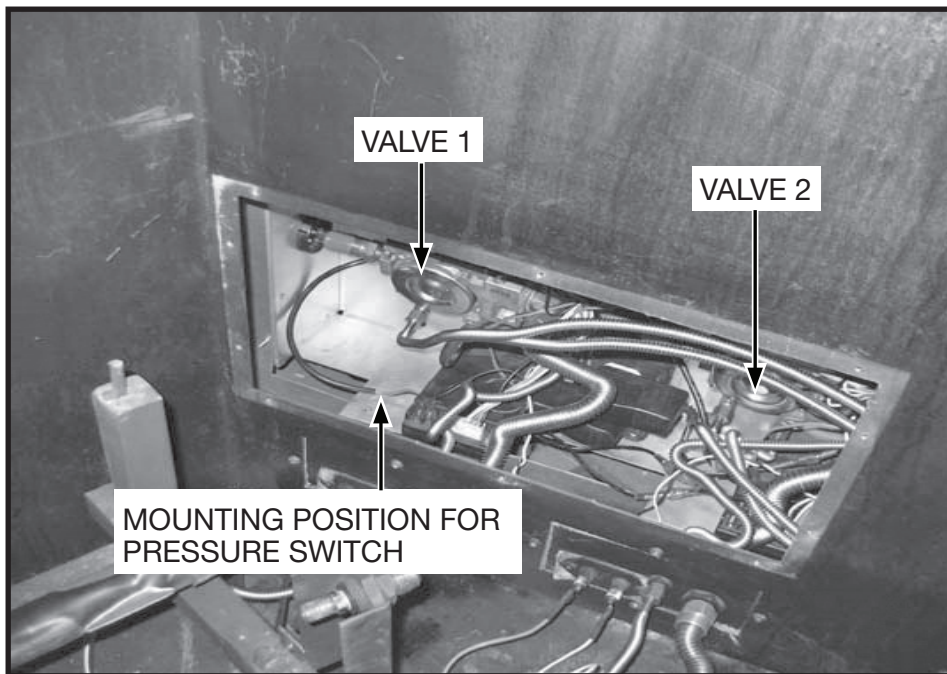


Figure 12: Opened access panel.

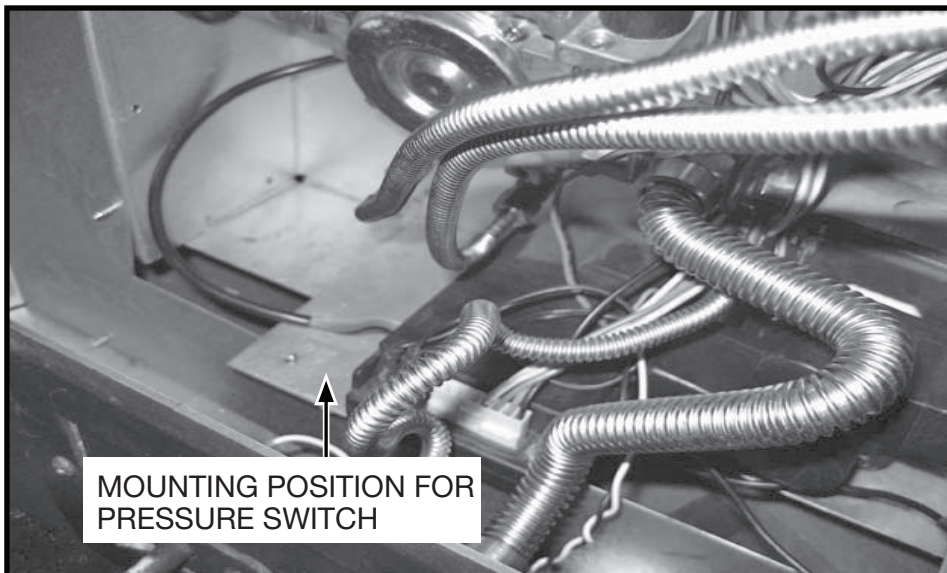


Figure 13: Pressure switch mounting location.

## C Series instructions

10. Connect the Orange wires from the pressure switch to the orange wires on both modules. Valve1 to left Module and Valve 2 to the right Module (Figure 14).
11. Secure the pressure switch in the control box using the bracket provided with this kit (Figure 15).

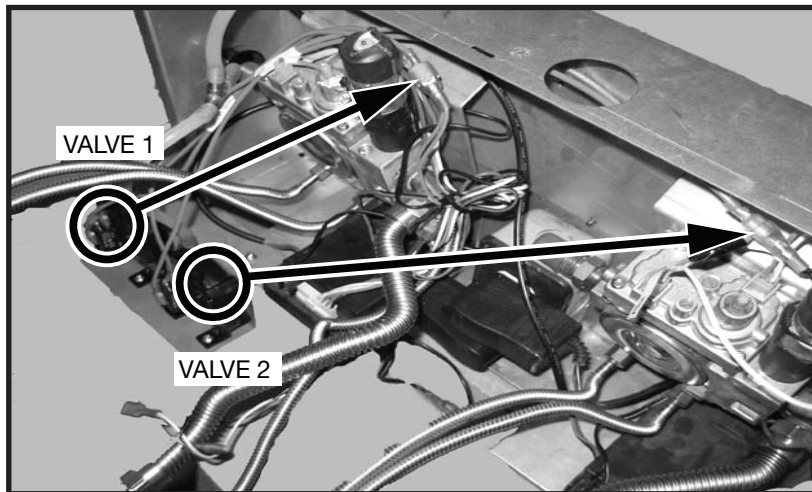


Figure 14: Connecting valves to pressure switches.

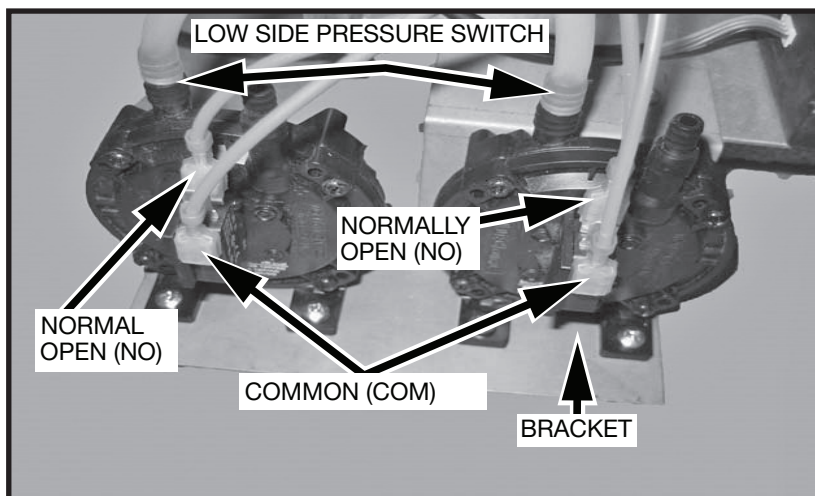


Figure 15: Pressure switches.

12. Attach the silicone tube from the pressure tap to the Tee connected to the low side of the pressure switches and secure using the hose clamps provided (Figure 17).
13. Position all wiring to ensure that there is no contact with the firebox side.
14. Continue with installation and reassemble all of the parts previously removed.

NOTE: IF THERE IS NO MOUNTING HOLE IN CONTROL BOX, DRILL A HOLE USING 1/8" DRILL BIT

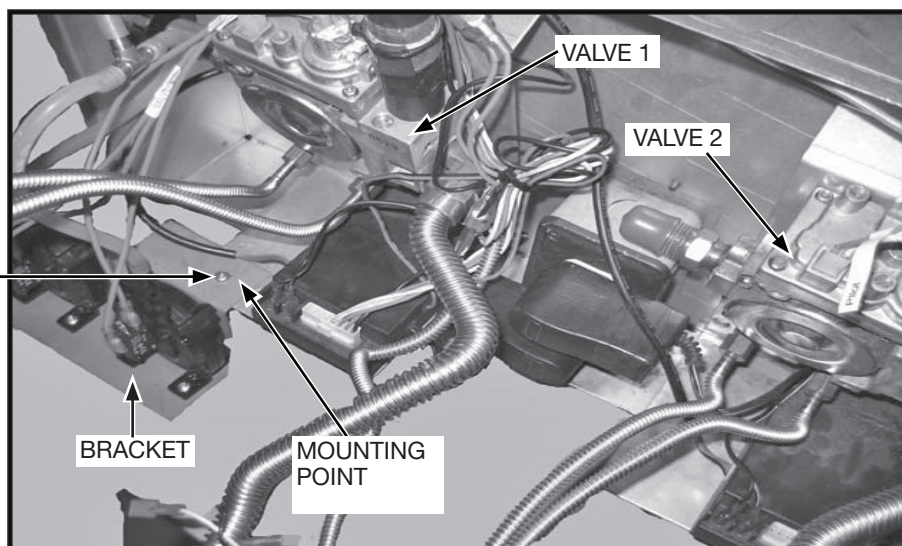


Figure 16: Mounting location.

THIS POWER VENT SYSTEM CAN ONLY RUN ON 115 V AC. BEFORE OPERATING THE UNIT, THE BATTERY BACKUP LOCATED BEHIND THE WALL SWITCH RECEIVER MUST BE REMOVED.

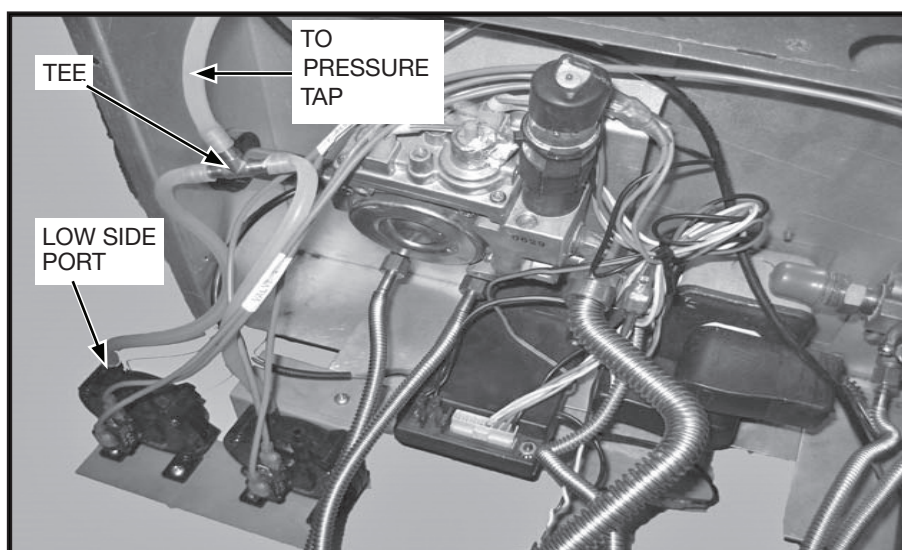


Figure 17: Securing tubes.

**Pressure Switches must be mounted vertically**

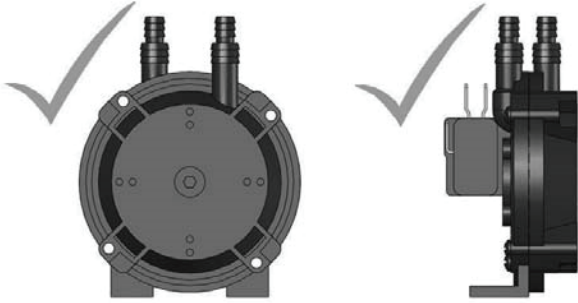


Figure 18: Properly mounted pressure switch.

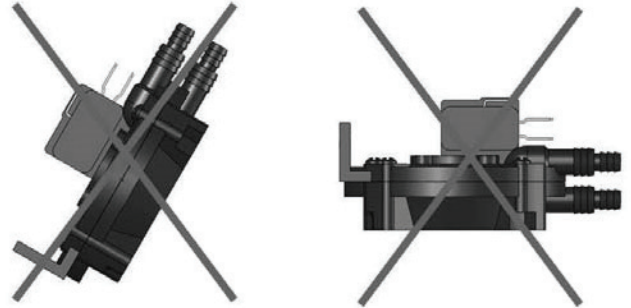
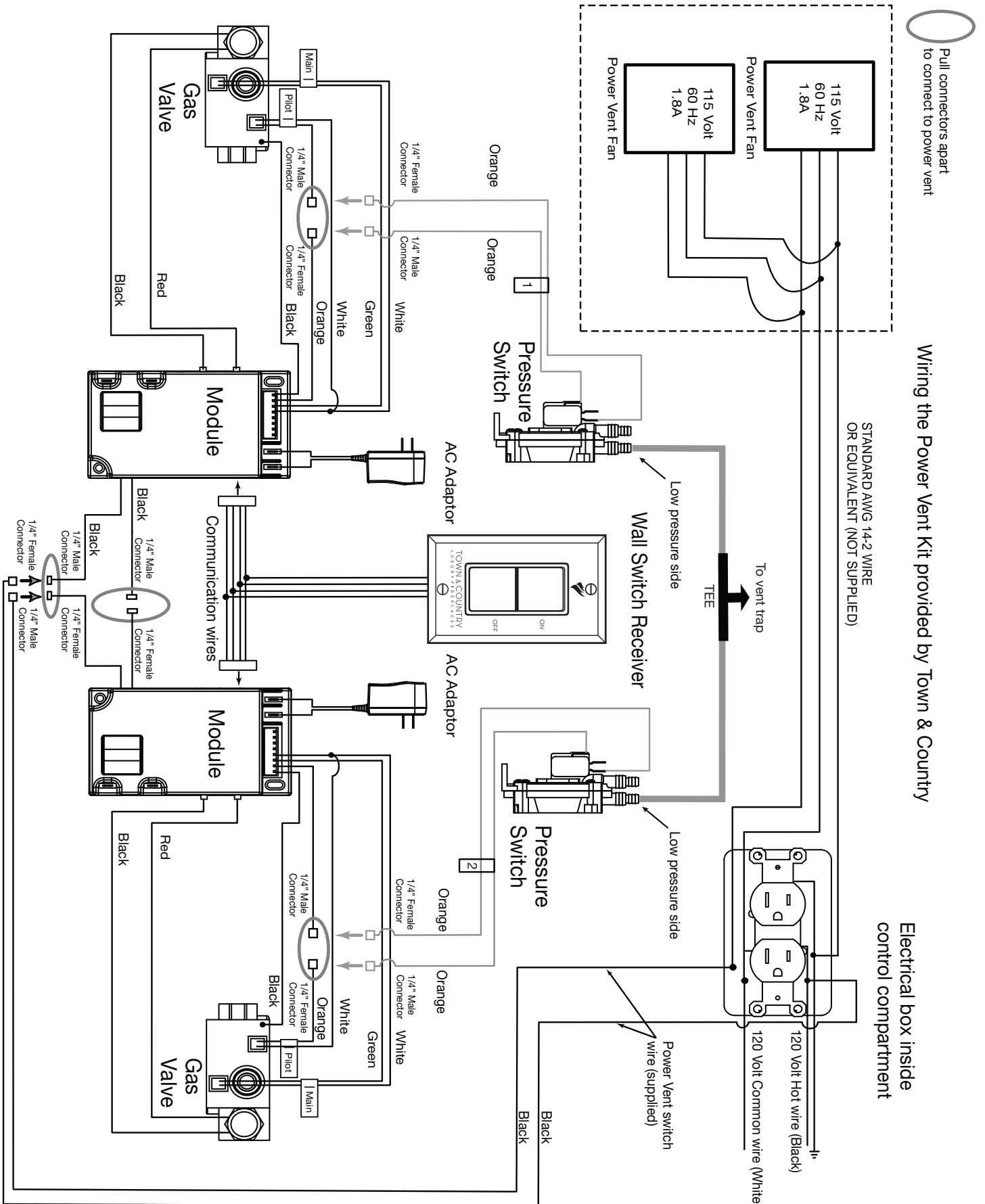
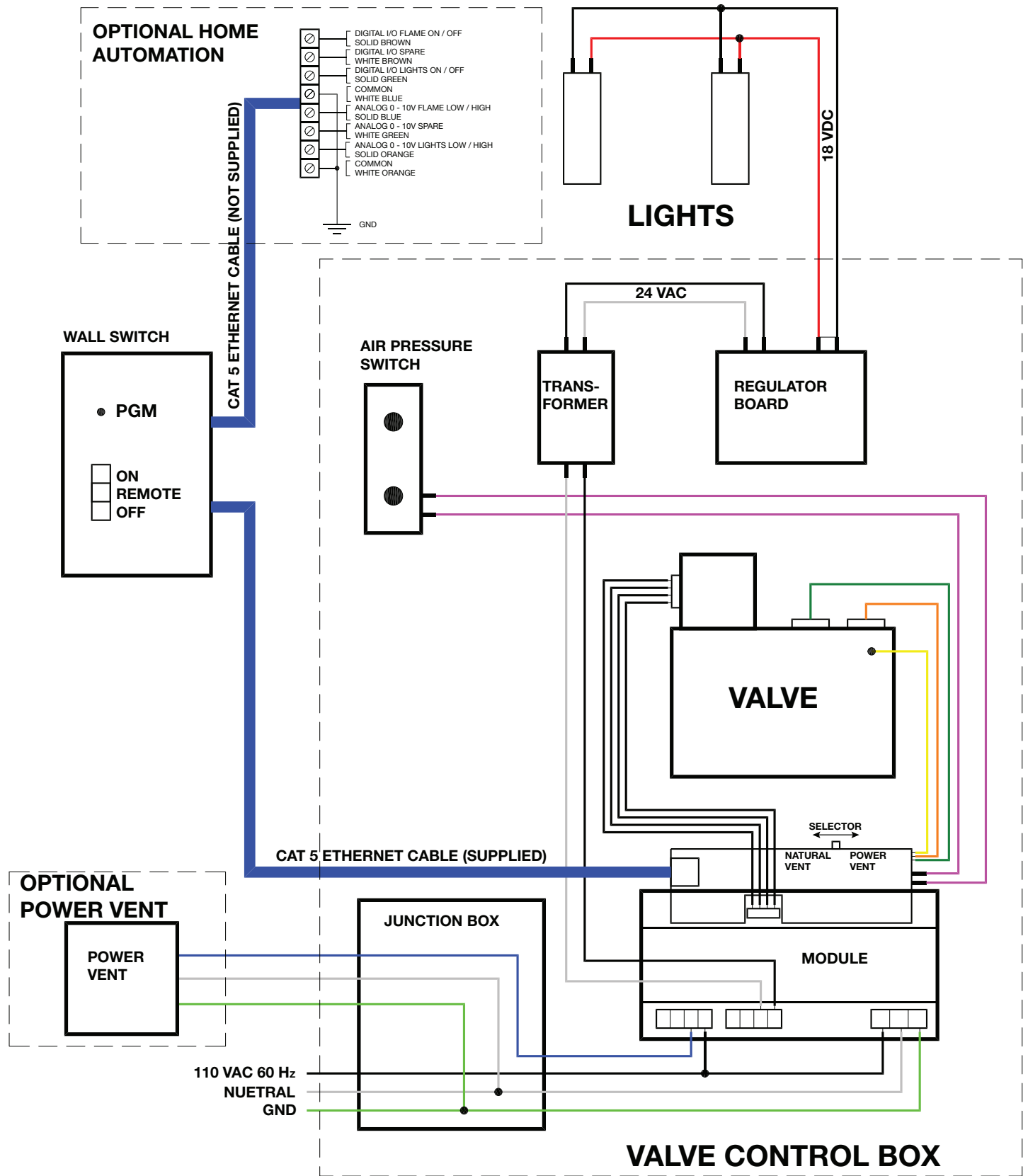


Figure 19: Improperly mounted pressure switch.

# C Series Wiring Diagram



# D Series Wiring Diagram



# Control System Connection

## D Series instructions

The gas control system is located on the right hand side of the firebox behind an access panel and the decorative firebox panel (if installed). The fireplace is operated via a wall control and a hand held remote control unit.

The wall control is connected to the fireplace by a 40 ft. communication cable supplied with the fireplace.

### Installation

1. Place the fireplace in the desired location.
2. Remove the window from the fireplace.
3. Remove access panel from right hand side of the firebox (Figure 20).
4. Connect 110 V. AC electrical supply to the wires installed inside the junction box (Figure 21). The fireplace is rated at 110 volts, 60Hz, 0.25A. The optional power vent kit is rated at 115 volts, 60Hz, 1.8A.

The electrical wires can be accessed from both inside and outside the junction box by removing one of the two small access panels (Figure 21) & (Figure 22).

5. Connect the gas supply to the valve (Figure 22).
6. Attach one end of the wall switch control cable to the wall control. (not shown), and the other end to the interface board (Figure 22).
7. If not already installed, install the burner using the instructions supplied with the burner kit.
8. Turn on the gas supply and check that all connections are tight and leak free.

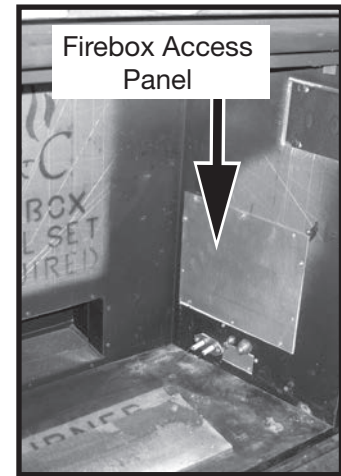


Figure 20: Firebox access panel.

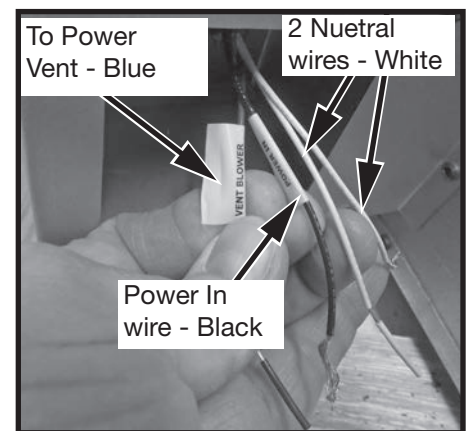


Figure 21: Junction box wiring.

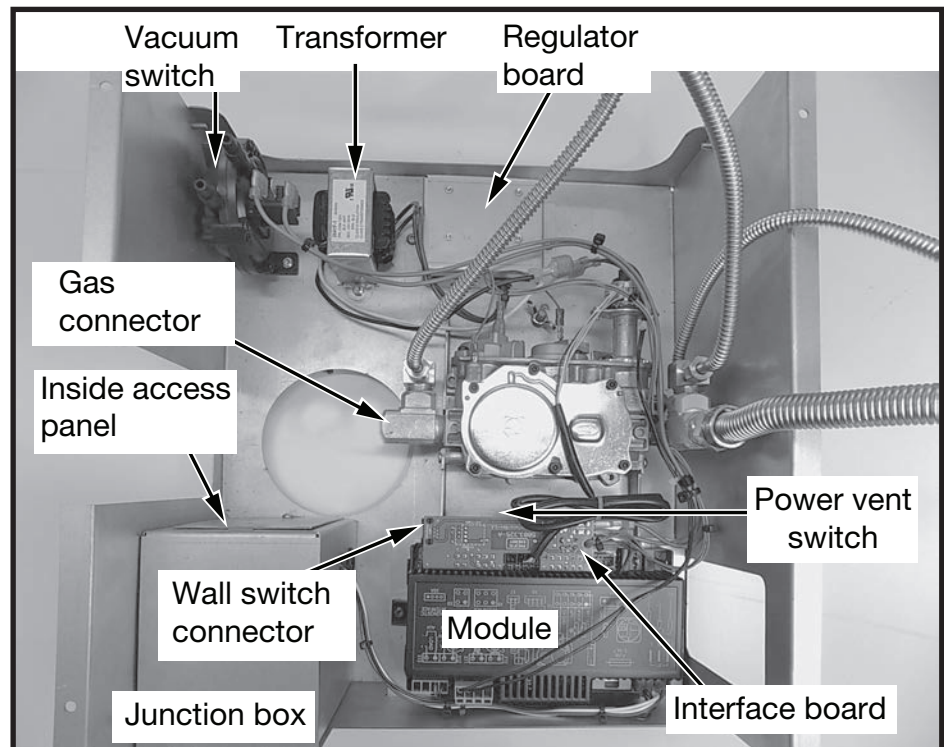


Figure 22: Valve assembly components.

## Pressure Switch Installation

Attach the silicone tube from the upper pressure tap on the power vent adaptor (Figure 5) to the “low” port of the pressure switch. (Figure 23).

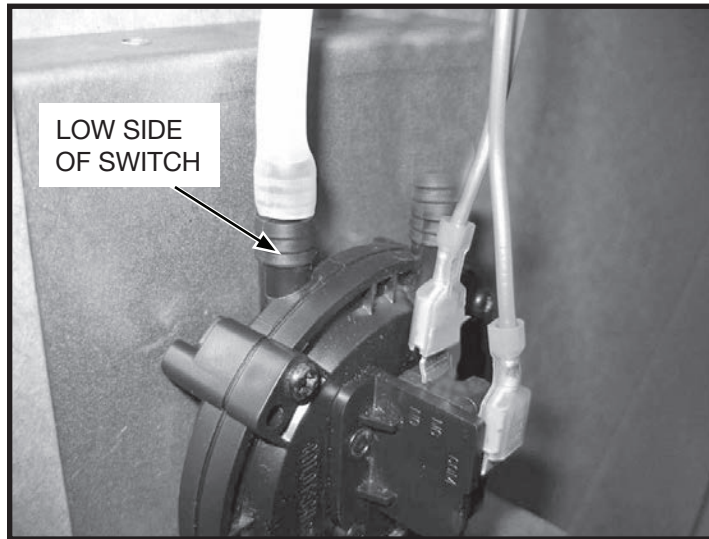


Figure 23: Switch sides.

## Selecting Natural Vent & Power Vent Modes

The NV / PV (Natural Vent / Power Vent) switch (Figure 24) on the interface board (Figure 22) is set according to which type of evacuating vent system is present. If the fireplace is vented without the assistance of a power vent, the switch should be set to “NV”. If using a power vent, “PV” should be selected.

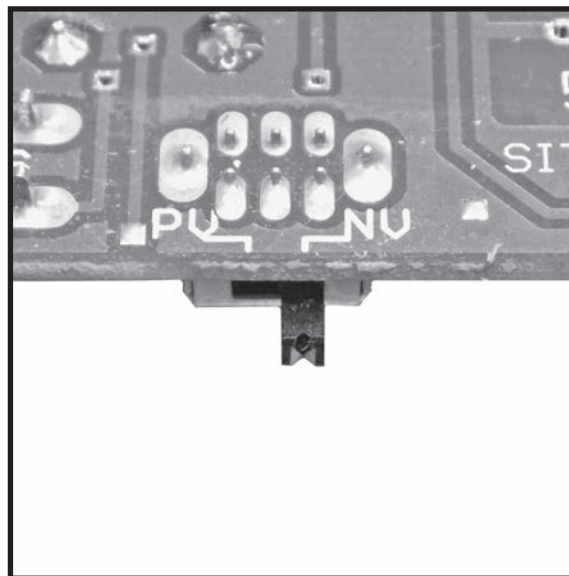


Figure 24: Vent mode selection switch.

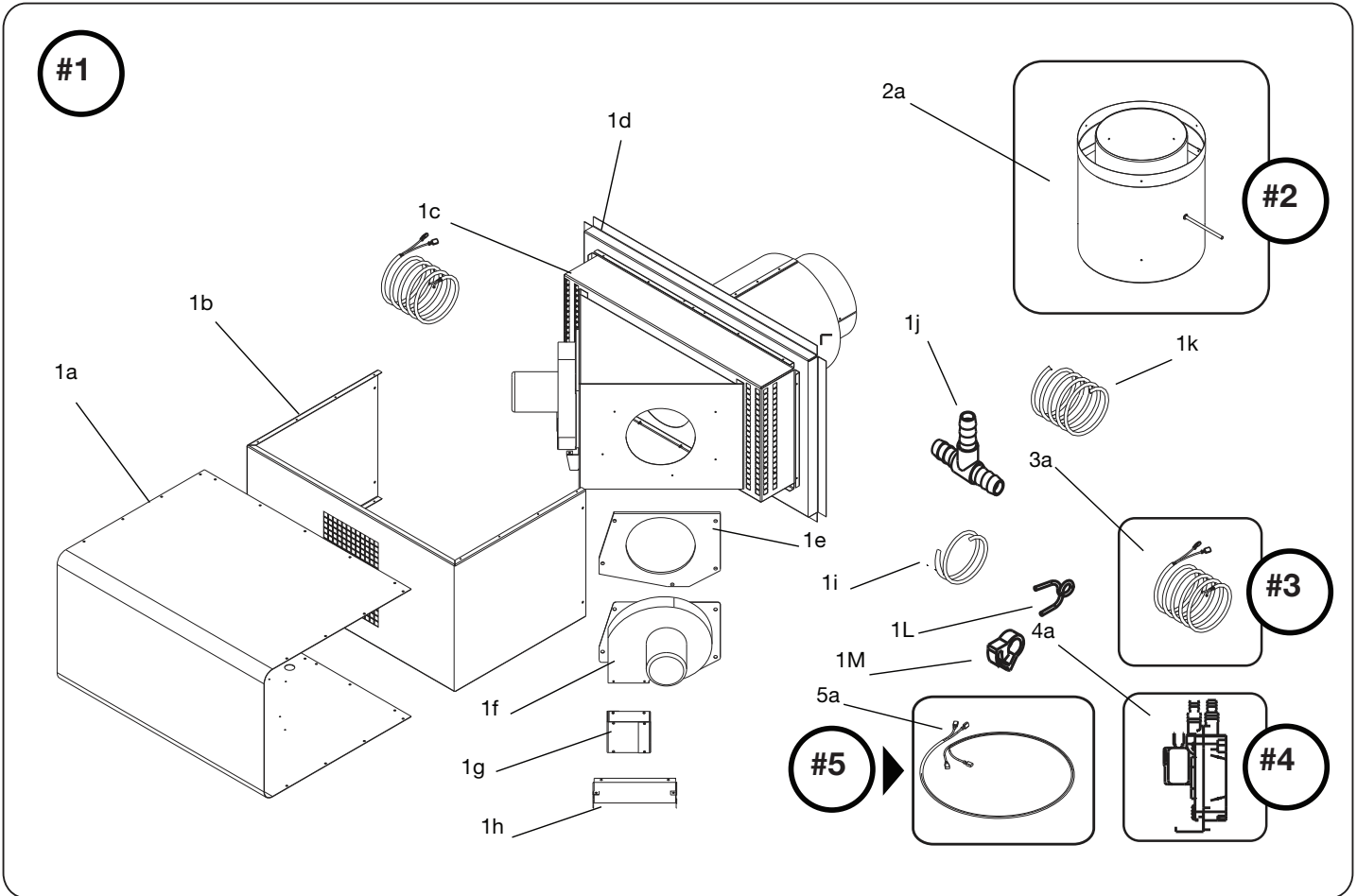
### Important Note:

**When switching between NV and PV, both the electrical power supply to the fireplace must be turned off and the backup batteries removed to properly re-set the module.**



# Replacement Parts TCVT.PVAX21

ITEM	DESCRIPTION	PART NO.
#1	HIGH CAPACITY POWER VENT KIT .....	TCVT.PVAX21
#2	VENTING ADAPTER.....	PVAX.25096861
#3	MODULE SWITCH WIRES .....	TCVT.507156C
#4	PRESSURE SWITCH (2 required for C series, 1 for D series).....	5027.15
#5	PRESSURE SWITCH WIRING (2 included) .....	TCVT.50271C2



## KIT CONTENTS:

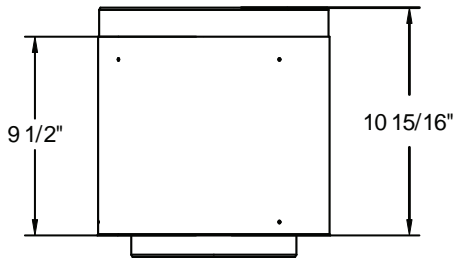
### #1.....HIGH CAPACITY POWER VENT KIT

- 1a .....TOP COVER (1)
- 1b .....SIDE COVER (1)
- 1c .....EXHAUST CHAMBER WELD (1)
- 1d .....INLET AIR CHAMBER WELD (1)
- 1e ..... 1/4" LDF PAPER (HI TEMP GASKET) (2)
- 1f .....BLOWER POWER VENT (2)
- 1g .....OUTLET AIR ASSEMBLY (2)
- 1h .....EXHAUST SHIELD (2)
- 1i..... TUBE, 5/16" OD, 1/16" THICK (1)
- 1j.....TEE OD 5/16"
- 1K..... TUBE,5/16"OD,6FT LENGTH (1)
- 1L .....HOSE CLAMP (1)
- 1M .....HOSE CLAMP (5)

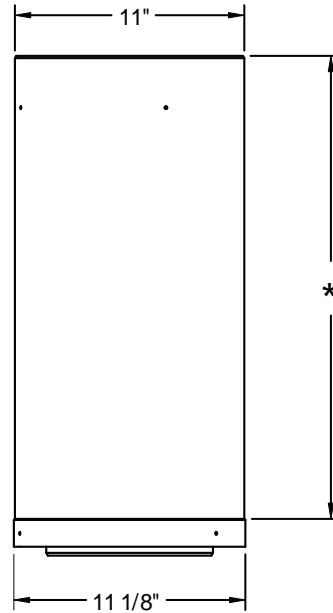
- #2 VENTING ADAPTER (1)
- #3 BLOWER WIRING (2)
- #4 PRESSURE SWITCH (2)
- #5 PRESSURE SWITCH WIRING (2)

\* Not shown. See TC54 Installation Manual

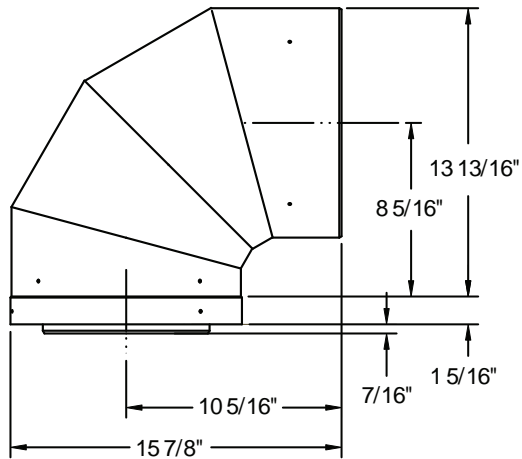
# Venting Components



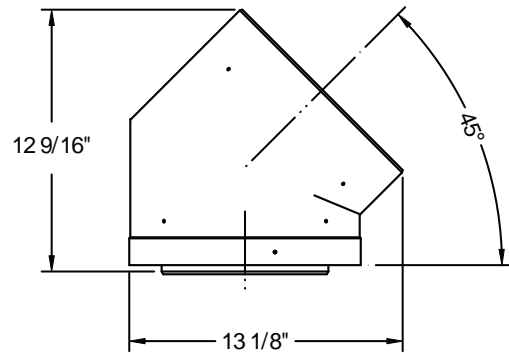
TCVT.811X12ADJ



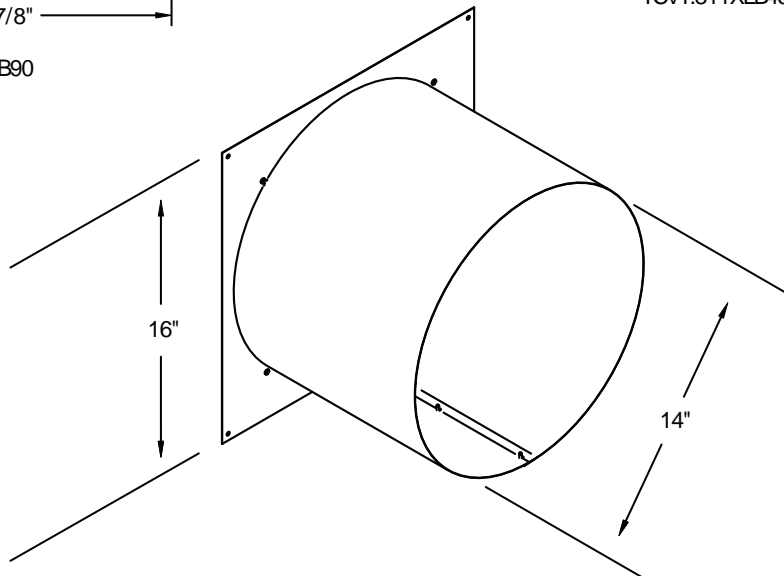
TCVT.811X\_\_



TCVT.811XLB90

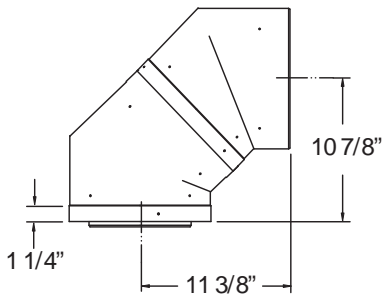


TCVT.811XLB45

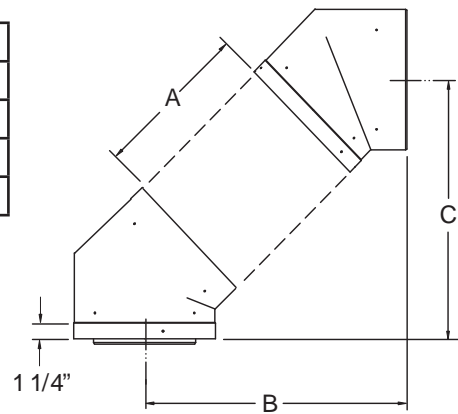


**WALL SHIELD/CEILING FIRESTOP THIMBLE TCVT.THIMA**

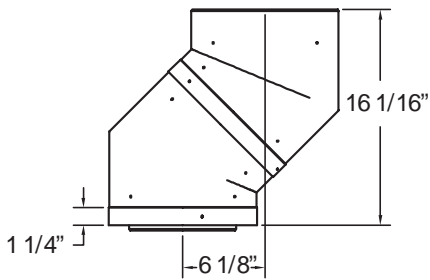
# Vent Offset Chart



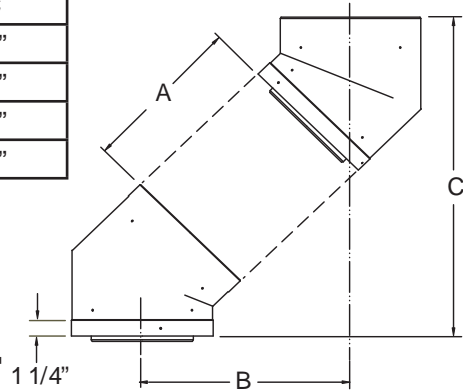
	A	B	C
12" PIPE	18 5/8"	18"	
18" PIPE	22 7/8"	22 3/8"	
24" PIPE	27 1/8"	26 1/2"	
48" PIPE	44 1/16"	43 1/2"	



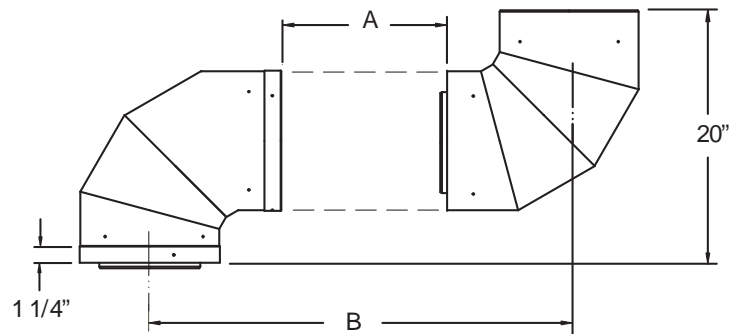
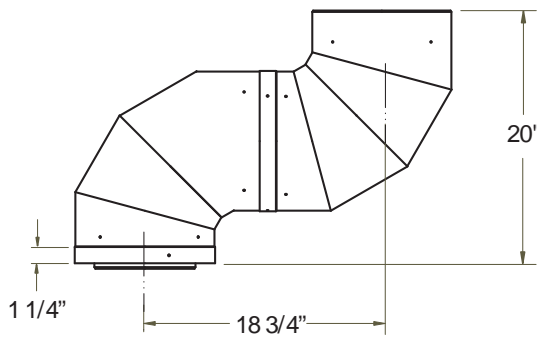
ADDING AN ADJUSTABLE SECTION TO PIPE WILL INCREASE OFFSET BY 2 1/8" TO 6 3/4"



	A	B	C
12" PIPE	13 7/16"	23 1/4"	
18" PIPE	17 9/16"	27 5/8"	
24" PIPE	21 7/8"	31 3/4"	
48" PIPE	38 3/4"	44 7/8"	



ADDING AN ADJUSTABLE SECTION TO PIPE WILL INCREASE OFFSET BY 2 1/8" TO 6 3/4"



A	B
12" PIPE	29"
18" PIPE	35"
24" PIPE	41"
48" PIPE	65"

ADDING AN ADJUSTABLE SECTION TO PIPE WILL INCREASE OFFSET BY 3" TO 9 1/2"

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**For technical support, contact your retailer.**

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