

St. Croix York Insert Installation Manual

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"Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death."

"Contact local building or fire officials about restrictions and installation inspection requirements in your area."

Save these Instructions

708

GENERAL INFORMATION

SAFETY PRECAUTIONS

**SAVE THIS
INSTALLATION MANUAL**

SAFETY NOTICE: The stove must be properly installed in order to prevent the possibility of a house fire! These installation instructions must be strictly observed! Failure to follow instructions may result in property damage, bodily injury or even death.

The stove's exhaust system works with negative combustion chamber pressure and a slightly positive chimney pressure. Therefore, it is imperative that the air intake and exhaust system be airtight and installed correctly. Do not install a flue damper in the exhaust vent of this unit.

Do not connect this unit to a chimney flue serving another appliance or to any air distribution duct or system.

BUILDING PERMIT

CONTACT THE LOCAL BUILDING OFFICIALS TO OBTAIN A PERMIT AND INFORMATION ON ANY LOCAL INSTALLATION RESTRICTIONS AND INSPECTION REQUIREMENTS.

DEFINITION OF "STOVE"

The word "stove" as used in this manual is interpreted to mean a wood pellet burning freestanding stove, insert, or zero-clearance fireplace unless otherwise noted.

SAFETY TESTING

The stove has been independently tested and listed by Warnock Hersey Laboratories in accordance with the proposed ASTM E 1509-2004 Standards and the applicable portions of UL 1482 and ULC S627/B366.2, and Oregon Administrative Rules 814-23-901 through 814-23-909, stating requirements for installation as a stove, heater or hearth insert for masonry, metal and zero clearance fireplaces and for mobile home installations. The safety-listing label is located on top of the hopper.

DISCLAIMER OF WARRANTY

Since Even Temp Company has no control over the installation of a stove, Even Temp Company grants no warranty, implied or stated, for the installation of a stove and assumes no responsibility for any special, incidental or consequential damages.

INSTALLATION CHECK LIST

BEFORE INSTALLATION

Thoroughly read and understand this manual. SAVE THIS MANUAL.

Check with local authorities and obtain needed permits

3. It is strongly recommended that the stove receive a Dealer's **"Pre-delivery Check"** prior to installation.
4. We recommend installation by a qualified professional.

BEFORE STARTING THE STOVE FOR THE FIRST TIME

1. Outside combustion air may be recommended for certain installations (negative pressure). Use only approved parts as listed on page 17.
2. All joints of PL vent and single wall stainless steel pipe should be fastened by at least 3 screws and correctly installed. (Follow vent manufacturer's instructions). Seal all joints with high temperature silicone to create an airtight seal.
3. Any "plated" areas should be cleaned thoroughly with a glass cleaner such as Windex® and a soft cloth just before lighting the first fire. This will remove fingerprints and oils that may cause a permanent stain or mark on the gold plating the first time it is heated. Never use an abrasive cleaner or material on any plated or painted surfaces. Never clean the plated surfaces when stove is hot.
4. **WARNING:** The high temperature paint on this stove may take several hours of burning at a high fuel setting to cure fully. During this time, an odor that is not harmful may be evident. When odors are present, the area around the stove should be well ventilated.
5. **Caution:** The high temperature paint can be easily scratched prior to burning the stove.

APPROVED INSTALLATIONS

The York Insert is approved for CONVENTIONAL and MOBILE HOME installations in:



1. In a Masonry Fireplace – The Masonry Fireplace must be built according to the requirements of the **Standards of Chimneys, Fireplaces, Vents and Solid Fuel Burning appliances, N.F.P.A. 211** and any National, State or Local codes that apply.
2. In a Zero Clearance Fireplace – The Factory built Zero-Clearance Fireplace and its Chimney must be listed per UL 127 or ULC S610 standards.

WARNING: The Insert must not be installed in a sleeping room.

EXHAUST VENTING

VENTING: APPROVED MATERIALS

The stove requires a venting system, approved for pellet stoves by a certified testing lab. Approved pellet stove venting materials are: 1) PL vent, a double wall vent with a stainless steel liner; and 2) Single wall rigid or flexible stainless steel pipe. PL Vent and Single wall vent is available through manufacturers such as: Simpson DuraVent, Energy Vent LTD, James A. Ryder and Selkirk Metalbestos and is carried by many local pellet stove dealers. In this manual approved venting will be referred to a “PL vent” or “Single wall vent”. All single wall vent adaptors must be stainless steel.

CAUTION: DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE.

NOTE: TYPE “B” GAS VENT MUST NOT BE USED IN ANY PELLET STOVE INSTALLATION.

Examples of venting system components follow:



High temperature ceramic roping reduces potential fly ash escaping through joints.

Stainless steel inner liners resist corrosive flue gas damage to the system.



Flex pipe is 430 stainless steel, 4 ply construction with a total thickness of approx. .07 inches.

TYPICAL PL VENT COMPONENTS



*RAIN CAP
VERTICAL OR
HORIZONTAL*



WALL THIMBLE



*CHIMNEY
ADAPTER*



SUPPORT BRACKET



*ADJUSTABLE LENGTH
PIPE*



*SINGLE TEE
w/TEE CAP*



*SINGLE REDUCTION
TEE w/TEE CAP*



*DOUBLE TEE
w/TEE CAP*



PIPE ADAPTER



INCREASER



45° ELBOW



90° ELBOW

VENTING: DETERMINING MATERIALS

TYPE OF MATERIALS:

1. **Single wall stainless steel may be used inside a fireplace or fireplace chimney.** (No clearances to combustibles are needed on single wall stainless steel adaptors, rigid or flex pipe installed within a fireplace or inside a chimney.) PL Vent may also be used if there are no offsets in the installation.

2. A clean out “tee” (PL Vent or “Quick-Connect Exhaust”) must be installed directly to the stove and at the bottom of each vertical run of the exhaust system. These tees are to assist in periodically cleaning the pipe. Single or double clean-out tees may be used. **The exhaust system must be installed so the entire system can be cleaned without disassembly.**

3. All Joints in the venting installation must be fastened together using three screws. All joints of the venting system must be sealed with High Temp Silicone to make a gas tight fit.

NOTE: ADHERE TO THE PL VENT CLEARANCES TO COMBUSTIBLES AS REQUIRED. STRICTLY OBSERVE THE PL VENT MANUFACTURER’S SAFETY SPECIFICATIONS.

QUANTITY OF MATERIALS:

1. It is recommended that the vent system of the existing Masonry or Zero-Clearance fireplace be fully relined using 4” stainless steel flex (*See Figure 9 on Page 12*). A positive connection to the existing chimney system may also be used, by blocking off the opening to the chimney with metal plate and connecting the flex directly to the positive connect plate (*See Figure 10 on Page 13*).

2. A unit installed in a Masonry fireplace may also be vented horizontally using 3” PL vent (*See Figure 11 on page 14*).

FAILURE TO PROVIDE THE NATURAL DRAFT THAT RESULTS FROM A VERTICAL RISE MAY RESULT IN SMOKE BEING RELEASED INTO THE HOUSE WHEN ELECTRICITY TO THE UNIT IS INTERRUPTED WHILE BURNING OR SMOLDERING PELLETS REMAINS IN THE BURN GRATE.

2. Additional vertical exhaust venting may be needed when using:

- a. More than one (1) elbow or tee; and/or
- b. Horizontal runs of over three (3) feet.

3. For a venting system ending in a horizontal run, the exhaust pipe must be terminated by a listed end cap or a PL vent elbow (45 or 90 degrees). Note: End caps or elbows must vent exhaust gases away from the building.

4. For termination above the building roofline a rain cap is required.

5. The exhaust pipe on all stoves is 2.95” O.D. to accommodate a 3” stove pipe adaptor. Your installation may require the use of 4” vent. (3” to 4” adapters are available for both PL Vent and Single Wall Vent.)

Venting size Guidelines

Type of Installation: _____ Size: _____

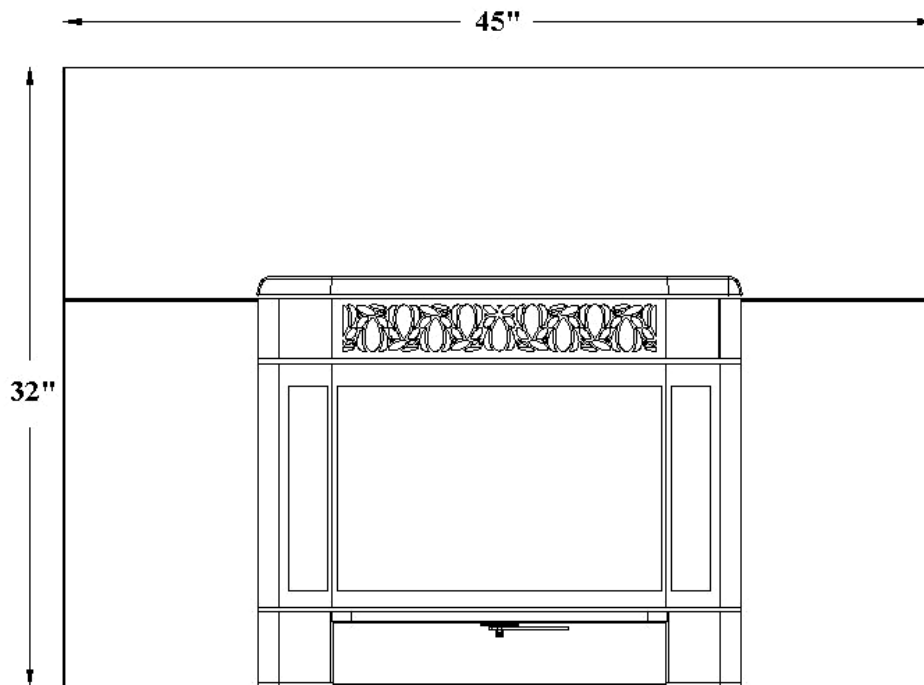
- | | | | |
|----|---------------------------|----------|------------|
| A. | Less than 10' horizontal: | 3" | Acceptable |
| B. | 10' to 12' horizontal: | 3" or 4" | Acceptable |
| C. | Over 12' horizontal: | 4" | Required |

(A horizontal installation over 12' is NOT RECOMMENDED)

- | | | | |
|----|-------------------------|----------|------------|
| D. | Less than 15' vertical: | 3" | Acceptable |
| E. | Over 15' vertical: | 4" | Required |
| F. | Above 4000' elevation: | 3" or 4" | Acceptable |

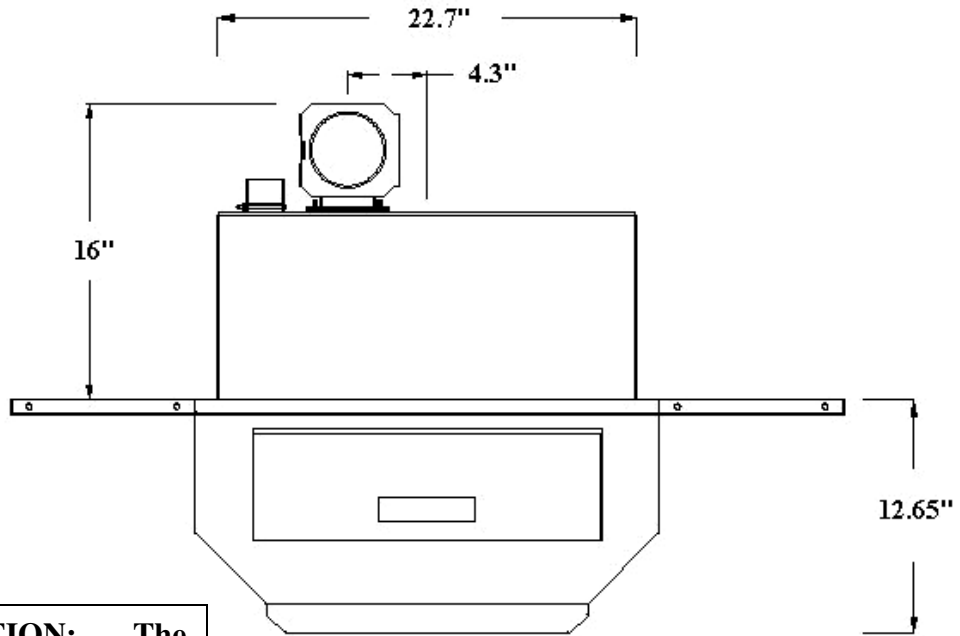
Note: Four (4) inch vent may be used in all installations. If in doubt, use 4" vent.

York Insert Dimensions



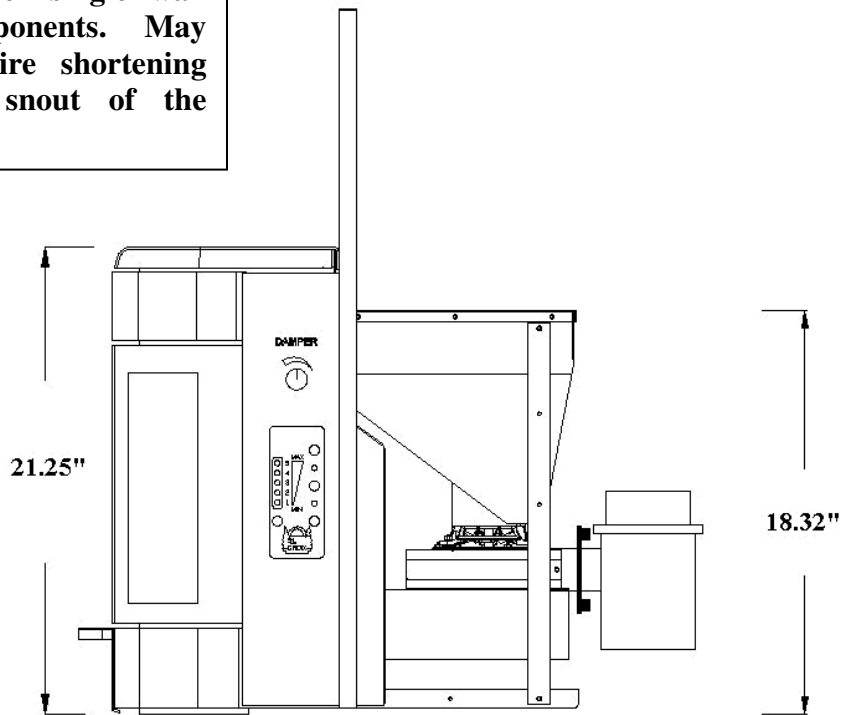
**Front View
Standard surround**

Figure 1



CAUTION: The minimum depth of 16 inches is only attainable with a 3" vent system and the use of single wall components. May require shortening the snout of the Tee.

Top View
Figure 2



Side View
Figure 3

Clearance to Combustibles

Masonry and Zero-Clearance

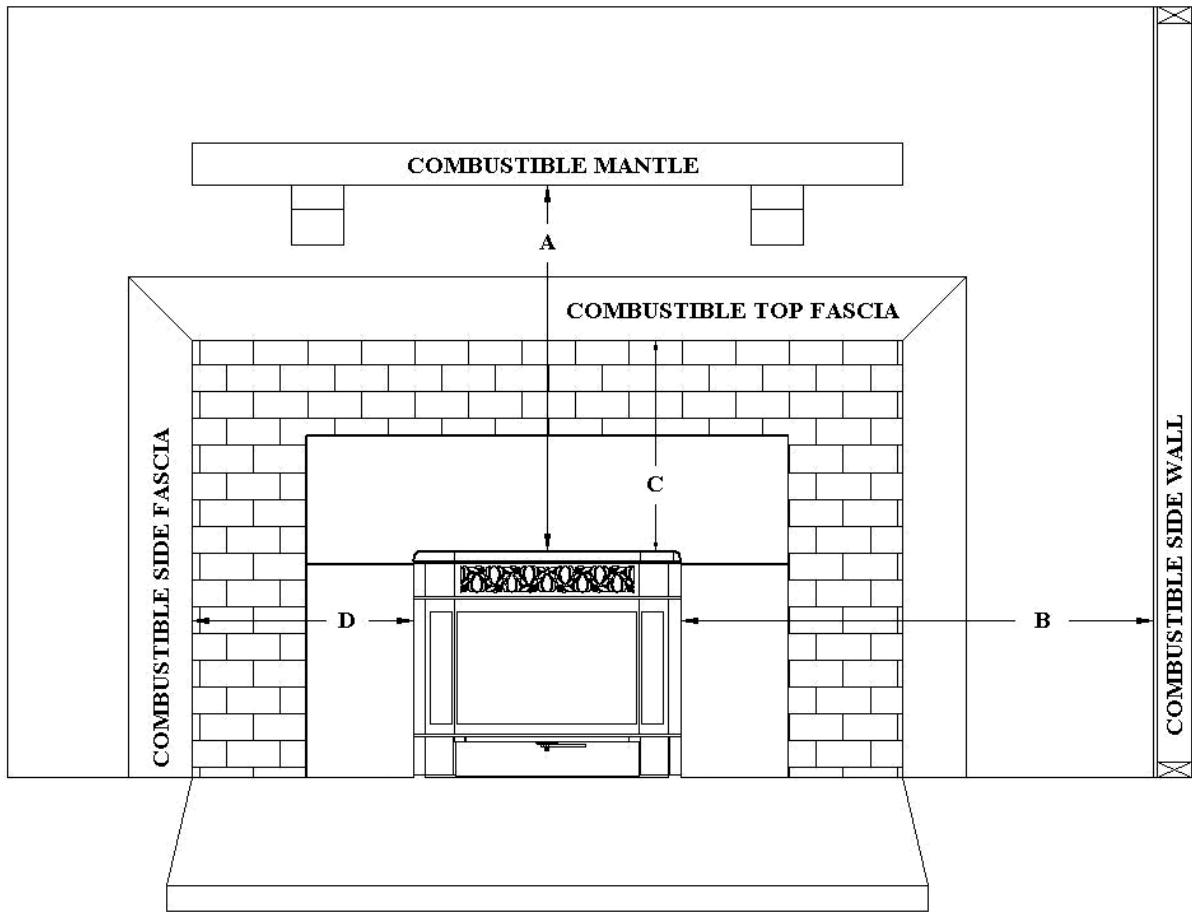
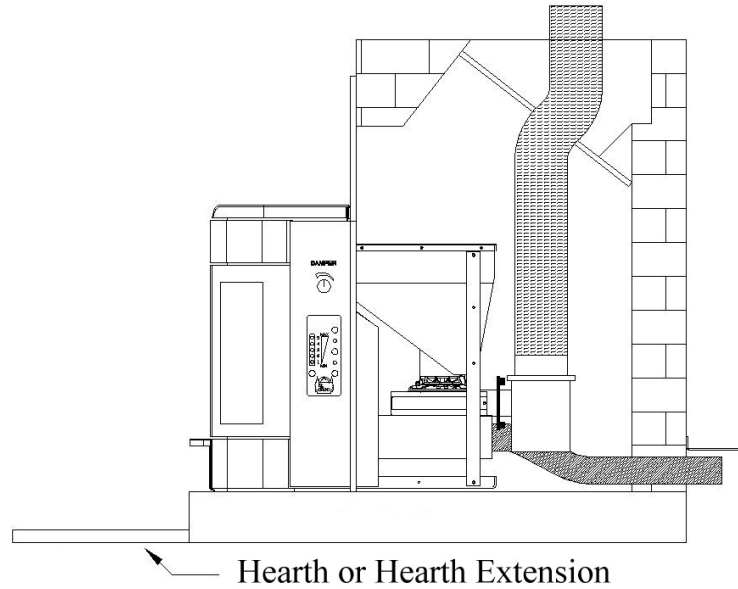


Figure 4

A	Top of Insert to Combustible Mantle	12"
B	Side of Insert to Combustible Wall	4"
C	Side of Insert to Combustible Side Fascia	6"
D	Top of Insert to Combustible Top Fascia	4"

For information on Hearth requirements see Figure 5 on page 9. The York Insert must be installed on the non-combustible hearth of the fireplace. A non-combustible surface must extend a minimum of 6" measured from the face of the unit.

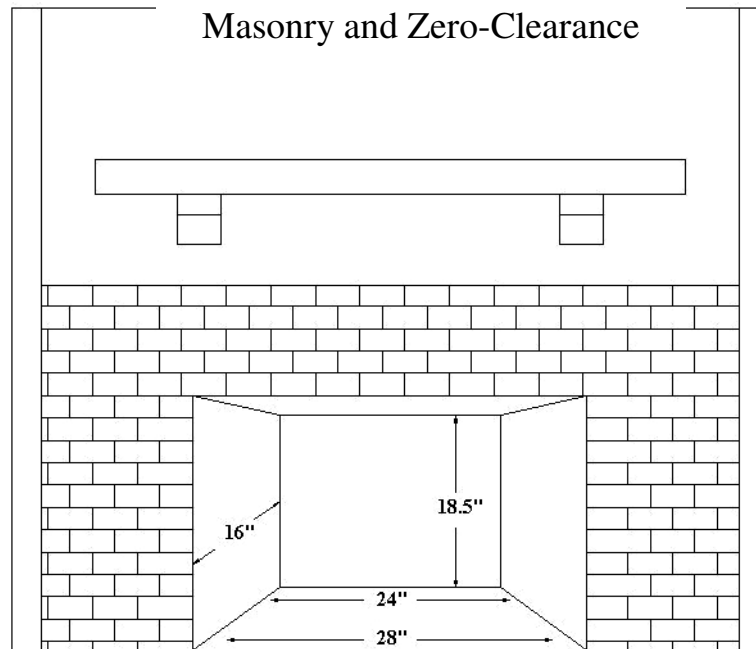
Figure 5



The Hearth must extend a minimum of 6" (152 mm) in Front of Unit *and* beyond each side of the Fuel Loading and Ash Removal Opening(s). If the hearth is too short a non-combustible Hearth Extension must be installed.

Minimum Fireplace Opening

Figure 6



Note: Certain brands of venting components may require more than 16" minimum fireplace depth. 16" depth can only be attained with 3" single wall venting. May require shortening the snout on the Single wall Tee.

Surround Instructions

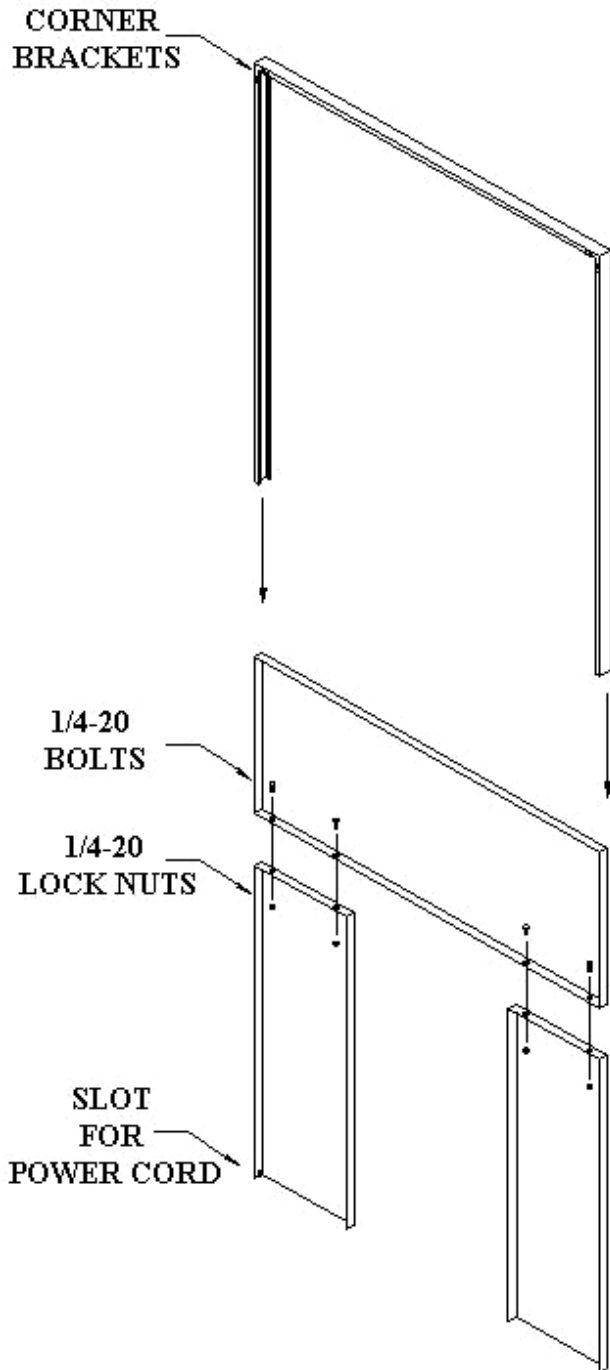


Figure 7
Surround Assembly

1. Lay the top surround, right surround and left surround panels face down on non-abrasive surface and bolt the panels together with the hardware provided in the surround kit.
2. The power cord exits through the right hand surround panel. Be sure to bolt the panel with the cord relief on the right hand side.
3. Lay out the 3 piece trim kit and use the L-Corner Brackets to attach the Trim kit together.
4. Take the Trim kit and slide it down over the edges of the trim kit as shown in Figure 7.
5. Slide the assembled surround around the insert and in front of the fireplace opening. Slowly slide the insert back and insert the side panels into the slot on each side of the surround as shown in Figure 8.

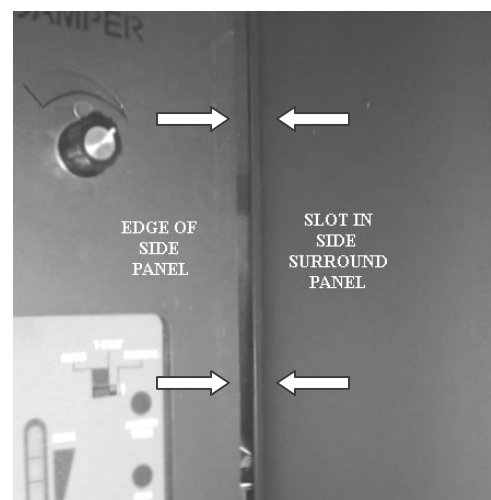


Figure 8

Installation

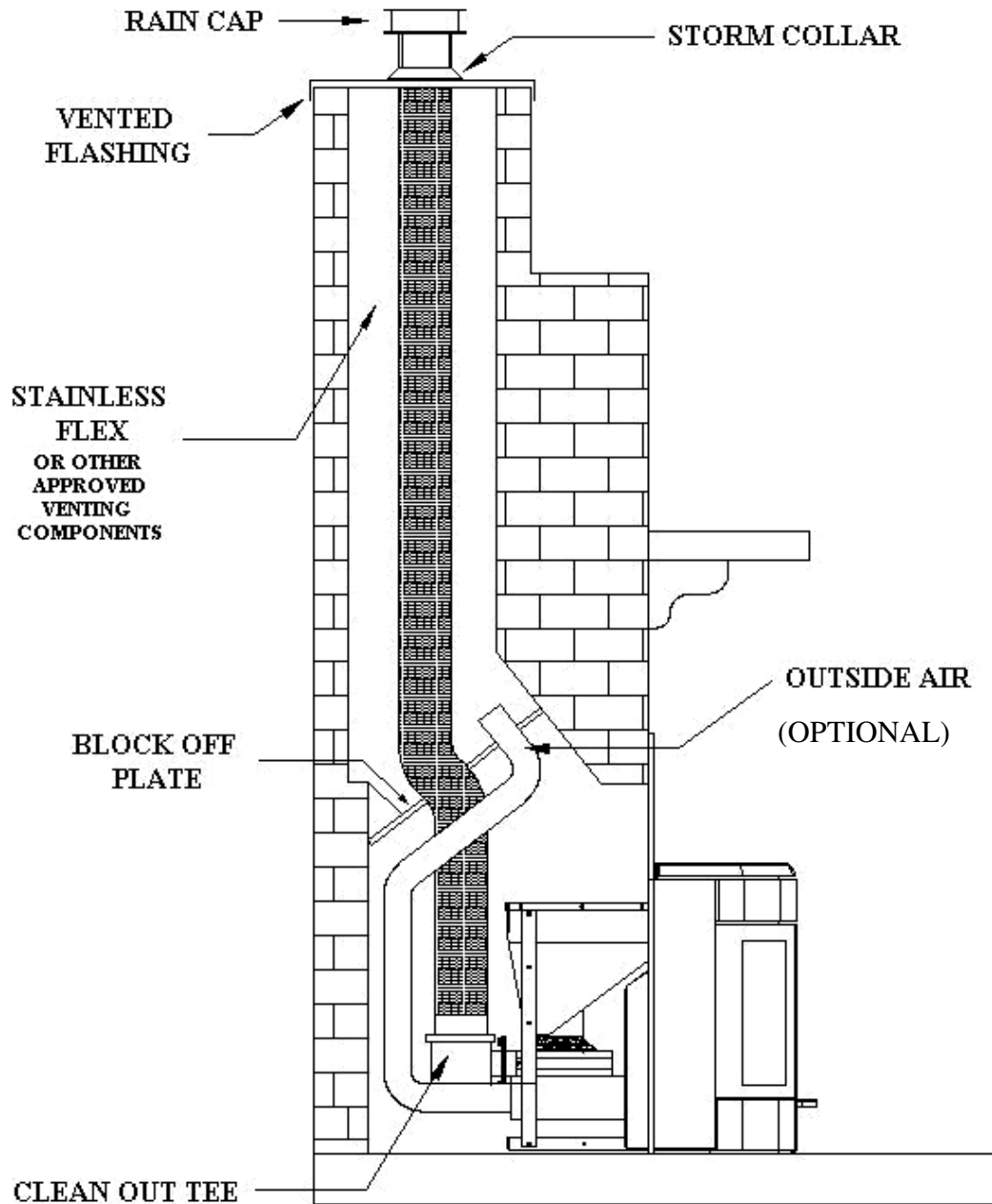


Figure 9

Full reline using existing Chimney as the source for Outside Air (Outside Air is Optional). Outside combustion air may be recommended when certain conditions exist (i.e. negative pressure). A chimney system with known drafting problems may require a liner, which may also need to be insulated to keep vent system warm in cold chimney environment.

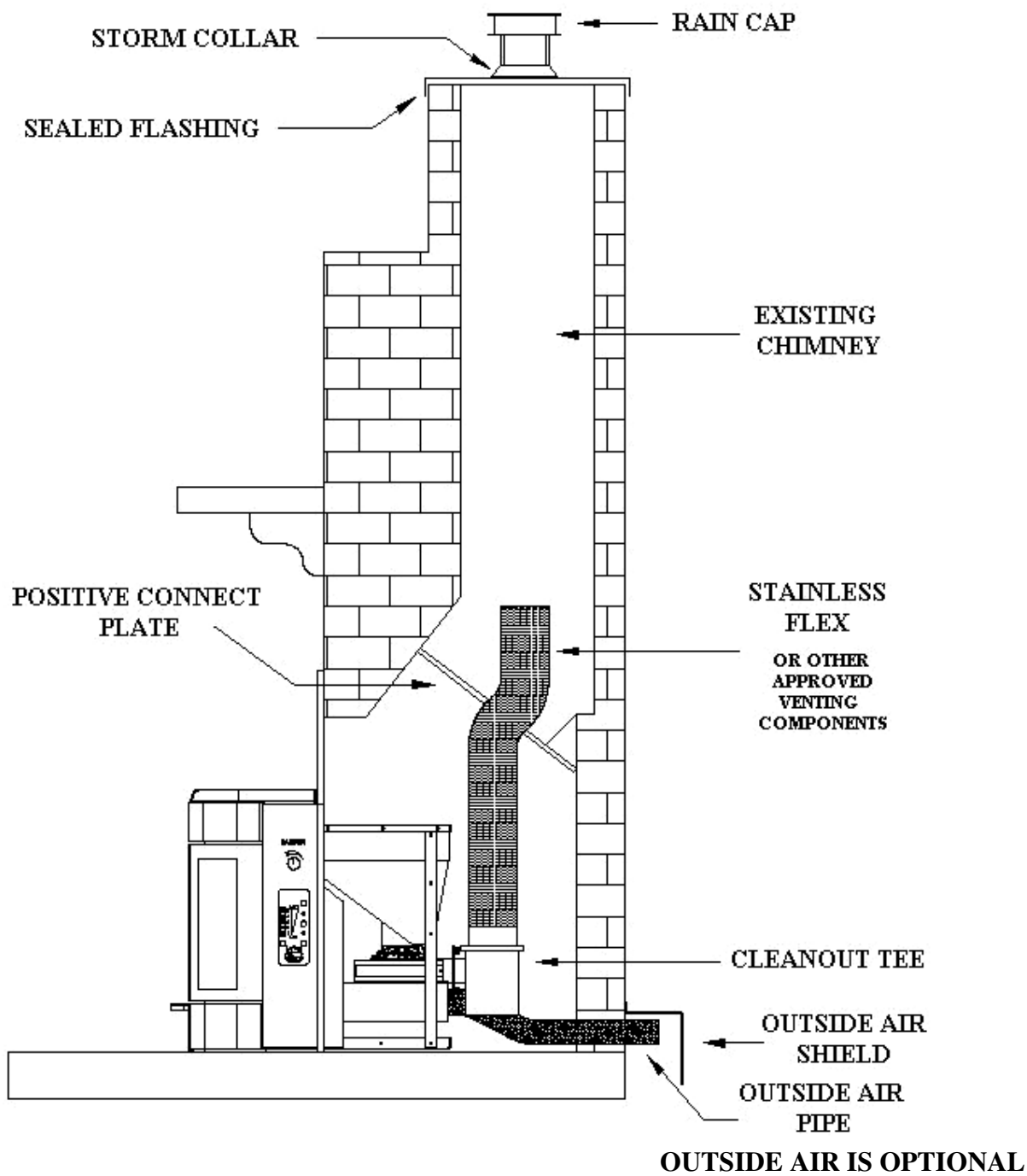


Figure 10

Positive Connection to an existing Chimney with outside air (optional). The stove may be connected to an existing Class A chimney or a masonry chimney which meets the minimum requirements of NFPA 211.

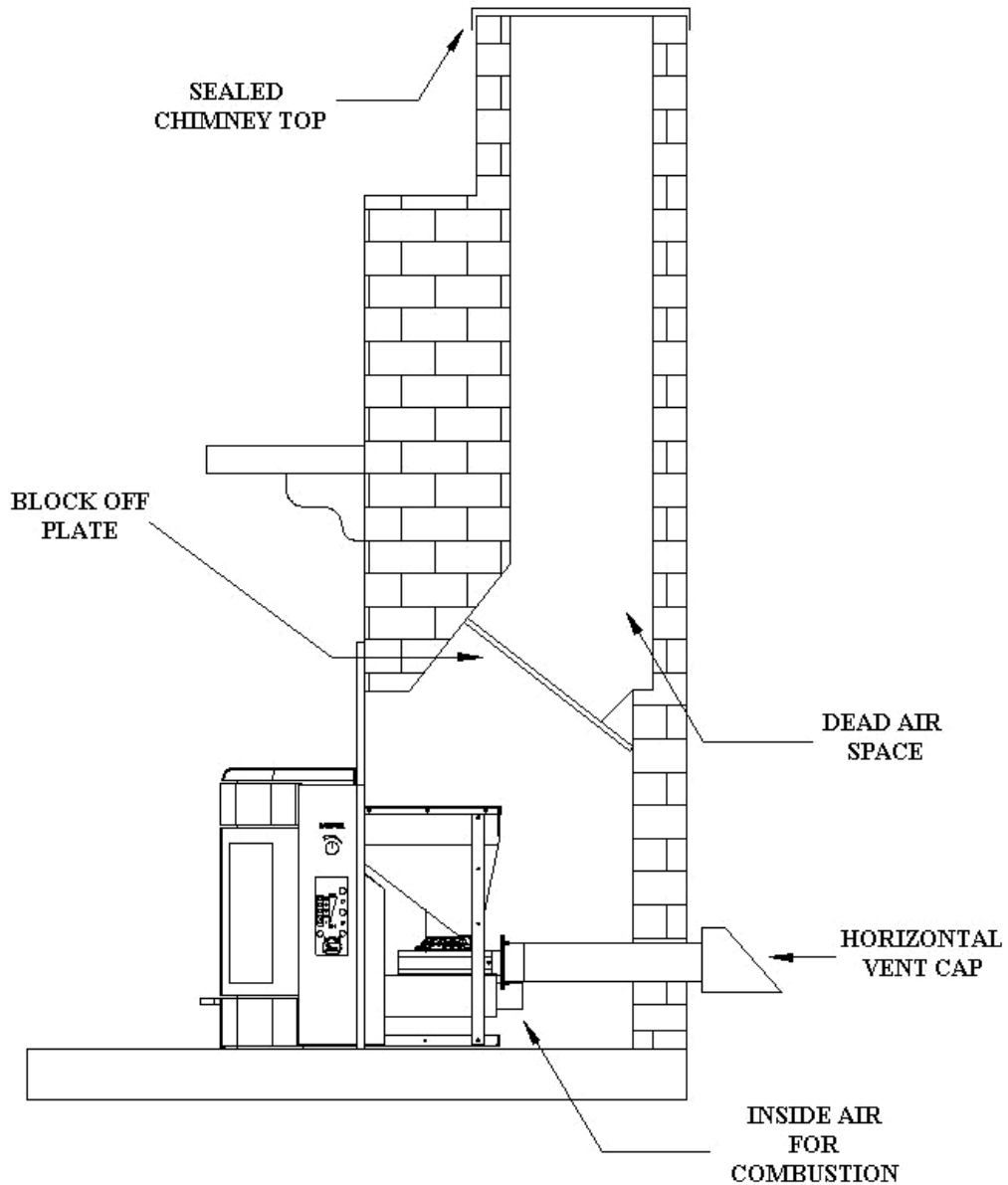


Figure 11

Direct Connect using 3" PL Vent using Inside Air for Combustion
(Masonry Fireplaces only)

ATTENTION: We strongly recommend using a battery backup system if the stove is installed using horizontal venting only. This prevents any smoke from entering your home in the event of a power failure.

Venting: Termination Requirements

In determining optimum vent termination, carefully evaluate external conditions especially when venting directly through a wall. Since you must deal with odors, gases, and fly ash, consider aesthetics, prevailing winds, distances from air inlets and combustibles, location of adjacent structures and any code requirements.

1. Exhaust must terminate above combustion air inlet elevation.
2. Do not terminate vent in any enclosed or semi-enclosed area, (i.e. Carports, garage, attic crawl space, etc.) or any location that can build up a concentration of fumes.
3. Vent surfaces can get hot enough to cause burns if touched by children. Non-combustible shielding or guards may be required

The clearance under a veranda, porch, deck or balcony must be a minimum of 24" as long as the veranda, porch, deck or balcony is fully open on 2 sides beneath the floor

4. Distance from doors, windows, cavity or ventilation air inlet into building:
 - a. Not less than 4' (1.2 m) BELOW;
 - b. Not less than 4' (1.2 m) HORIZONTALLY from;
 - c. Not less than 1' (305 mm) ABOVE

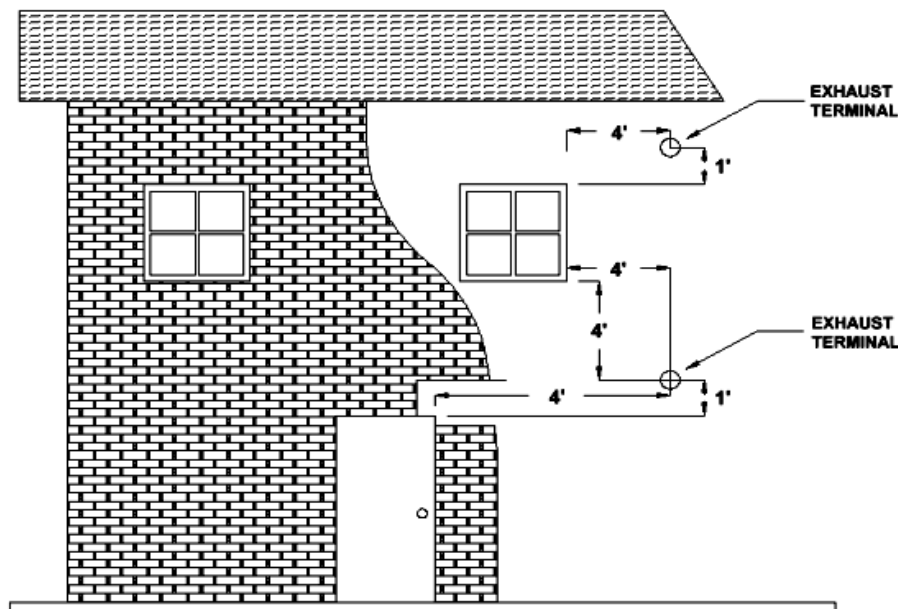


Figure 12

Note: These dimensions do not apply to a window that cannot be opened or that has been fixed in a closed position.

Exhaust Termination Clearances

Distance of Termination Location must:

- a. Not be less than 1' (305 mm) ABOVE the ground level
- b. Not be less than 7' (2.1 m) FROM a public walkway
- c. Not be less than 1' (305 mm) FROM the side of the house
- d. Not be less than 2' (610 mm) FROM any adjacent combustibles
Such as: Adjacent Buildings, Fences
Protruding Parts of the Structure,
Roof Eaves or Overhangs, Plants, etc.
- e. Not be less than 3' (915mm) FROM a gas meter/regulator assembly

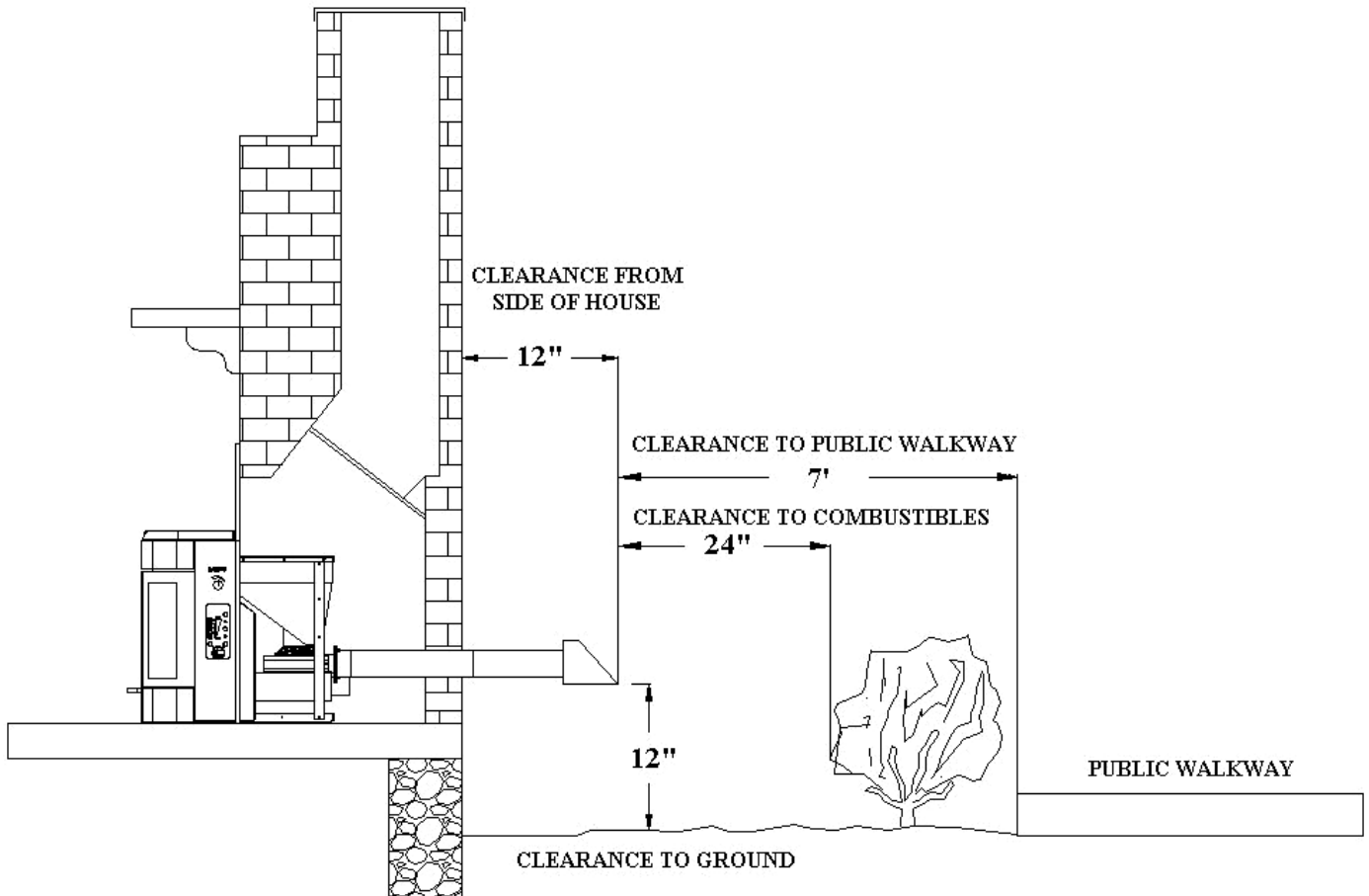


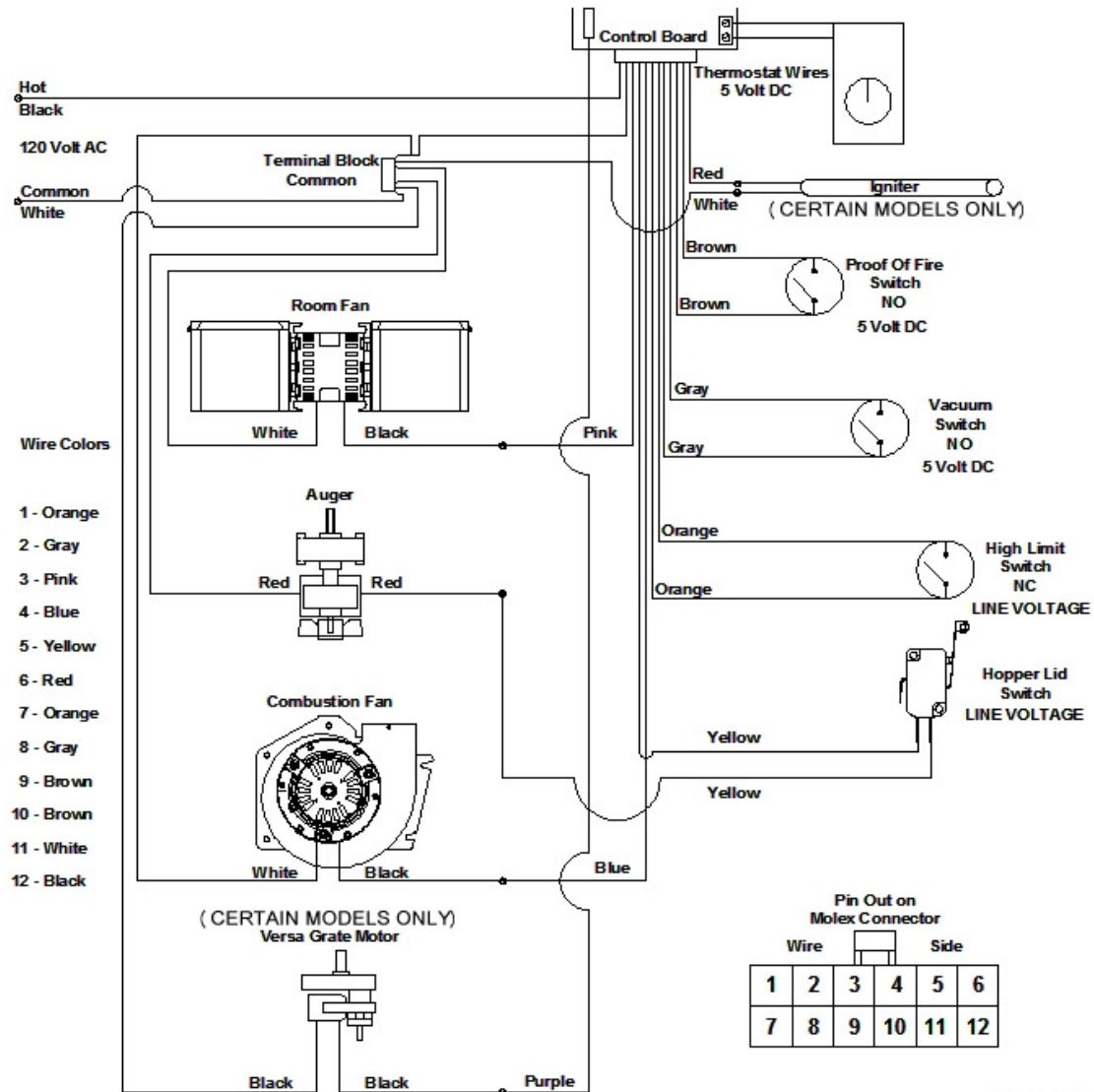
FIGURE 13

All dimensions show MINIMUM distances

(Direct Vent Installation in a Masonry Fireplace only)

ELECTRICAL CONNECTIONS

1. The York Insert is provided with a grounded electrical power cord that can extend from the rear of side. This should be connected to a standard 120 volt AC electrical outlet. The current requirement is approximately 3 amps. (5 amps with igniter running)
2. The power cord must be carefully routed to avoid contact with any hot or sharp exterior surface areas of the stove. Any stove installed in a mobile home must be electrically grounded to the steel chassis of the home and bolted to the floor in Model compliance with, and according to building code requirements.
3. In Canada, the electrical installation must meet the applicable requirements for CSA C22.2.



80P30563

Wiring Schematic
Figure 15

Mobile Home Installation

Unit must be installed in accordance with the:
Manufactured Home and Safety Standard (HUD), CFR 3280, Part 24

Unit may be installed in a Mobile Home, after the initial sale of the Mobile Home, not for Recreational Vehicles.



Figure 16.

Mobile home installations must observe the following:

- 1. WARNING: DO NOT INSTALL IN A SLEEPING ROOM.**
- 2. WARNING: COMBUSTION AIR MUST COME FROM THE OUTSIDE OF THE MOBILE HOME! FAILURE TO DO SO MAY CREATE NEGATIVE PRESSURE WITHIN THE MOBILE HOME AND COULD DISRUPT PROPER VENTING AND OPERATION OF THE PELLET STOVE.**

3. CAUTION: THE STRUCTURAL INTEGRITY OF THE FLOORS, WALLS, CEILING AND ROOF MUST BE MAINTAINED.

4. Electrically ground the insert to the metal chassis of the home. Use a number eight, (8), gauge or larger copper wire, (Y).
5. Maintain an effective vapor barrier at location where PL vent exits the structure.
6. Check any other local building codes or other codes that may apply.
7. Do not use components other than those specified for use with this unit.
8. Floor protection requirement must be followed precisely.
9. See Figure 9 for detail on how to vent the unit and provide outside air for combustion. Approved Venting materials are Single Wall Stainless, Stainless Flex and PL Vent.

USE OF A THERMOSTAT

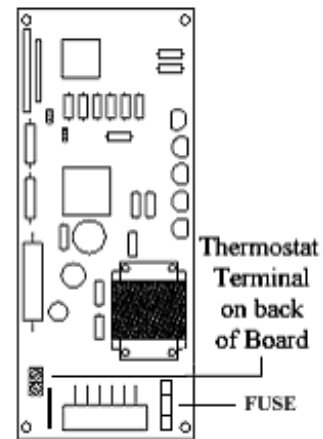
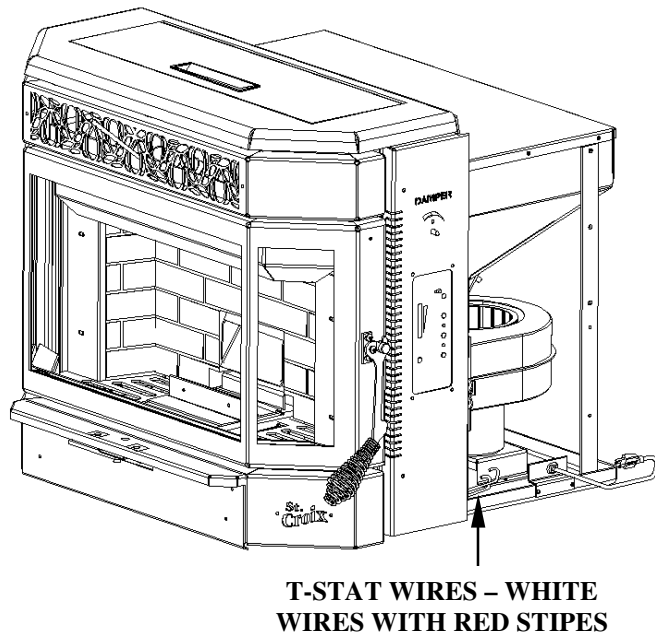
St. Croix Pellet stoves offer our customers the optional feature of thermostatically controlling your new stove. By using a thermostat to control the operation of your Pellet stove, you can benefit two ways. First of all, after setting the thermostat to your desired heating needs the stove will operate accordingly to uniformly maintain your desired temperature setting. Secondly, the fuel consumption is being optimized, which ultimately results in lowering your seasonal heating costs.

While the room temperature remains cooler than your desired thermostat setting, the stove will operate at any of the 5 HEAT ADJUST selector positions. Read the Operations manual to determine which Thermostat Mode you want to use. You can choose between the T-Stat Mode and the SmartStat Mode. **We recommend using the Fully Automatic “SmartStat” Mode.**

1. Once you have successfully lit your stove, set the thermostat to your desired heating needs.
2. Set the HEAT ADJUST selector to a position that will effectively create a rise in room temperature above your thermostat setting. The recommended heat adjust settings while using a thermostat are any position between 2 through 5.

Thermostat Hook-up

To hook up a thermostat connect the wires from the thermostat to the two white wires with red stripes in the harness. These wires are located on the right side of the stove and are labeled T-Stat.



Read the Frequently Asked Questions section in the Operations Manual to Troubleshoot the Thermostat.

Figure 17

NOTE: Installers must determine a neutral location of where to mount the thermostat panel in order for accurate room temperature measurements.

Notes:

Serial Number:

Date of Purchase:

Dealer Information:

**Even Temp, Inc.
P.O. Box 127
Waco, NE 68460**

EMAIL: support@stcroixstoves.com

WEB ADDRESS: www.stcroixstoves.com