

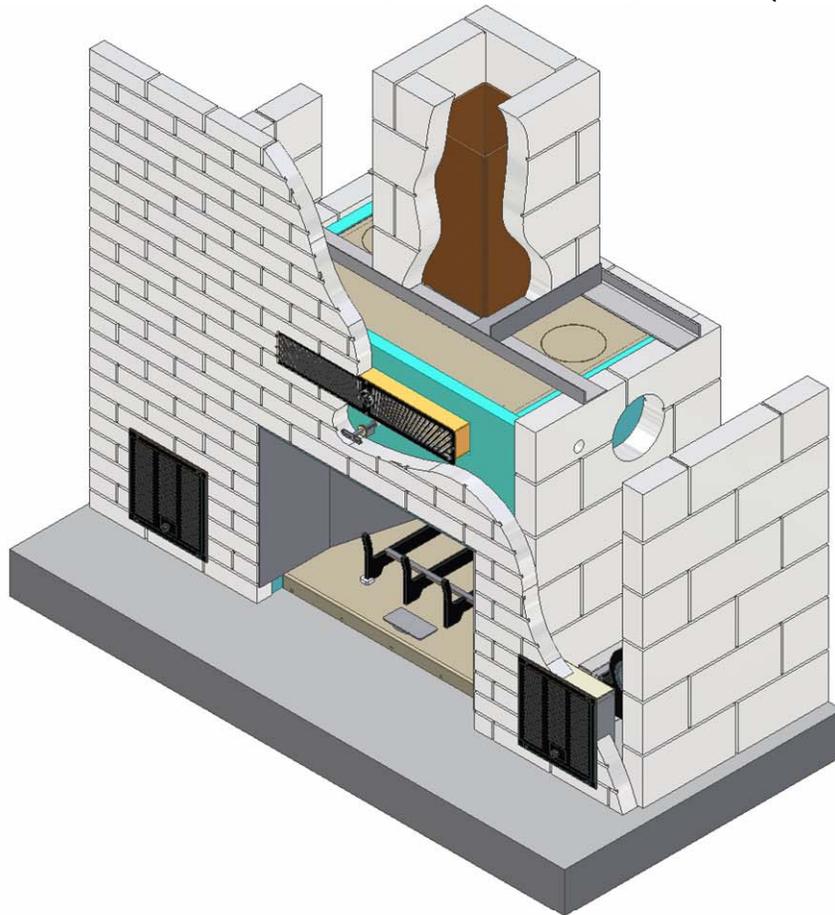
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**COUNTRY FLAME TECHNOLOGIES**

Smart Fireplace Furnace Products, FP-33, FP-37, FP-42 (Wood Burning Only)



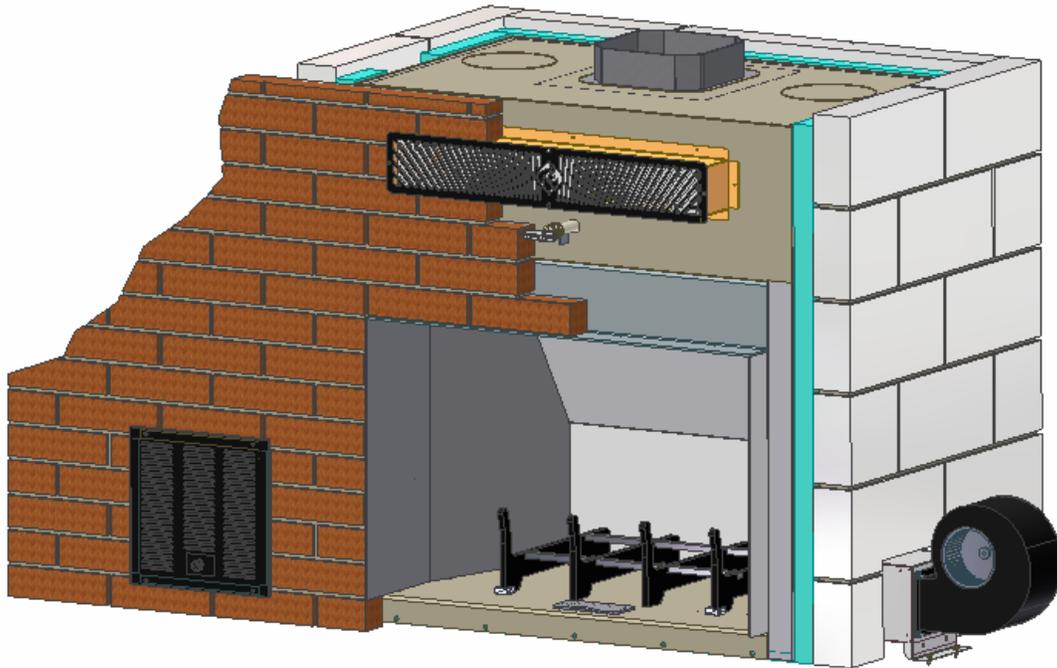
Optional Parts Shown

# Installation, Operation & Maintenance Manual



# Country Flame

## Installation, Operation & Maintenance Manual



### SMART FIREPLACE FURNACES (FP-33, FP-37, FP-42) WOOD BURNING PRODUCT ONLY

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Country Flame Technologies

A Division of American Products, L.L.C.

900 George Street, Marshfield, Missouri 65706-2364

[www.countryflame.com](http://www.countryflame.com)

Phone 417 859-0990 • Fax 417 859-0192

#### FOR YOUR SAFETY

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

**\\ DO NOT DESTROY //  
KEEP FOR FUTURE REFERENCE**

**PLEASE READ ALL OF THIS  
MANUAL AND SAFETY NOTES**

**WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause injury, property damage or even death. Refer to this manual or markings on the appliance for additional information. For assistance in installation consult a qualified installer, service agency or dealer.

**CONTACT YOUR LOCAL BUILDING OR FIRE DEPARTMENT ABOUT RESTRICTIONS AND  
INSTALLATION INSPECTION REQUIREMENTS FOR YOUR LOCATION.**

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**COUNTRY FLAME LIMITED WARRANTY**  
**900 George Street, Marshfield, MO. 65706**

Country Flame Technologies warrants to you, the original consumer purchaser, that this product's stove body is free from defects in material and workmanship for a period of six years from the original purchase date, and that the product's remaining components including electrical parts, are free from defects in material and workmanship for a period of one year from the original purchase date. In the event the product fails to conform to this warranty, Country Flame (through its authorized dealer) will provide the labor, parts, and components necessary to remedy such nonconformity. Country Flame will not be responsible for any shipping cost under this warranty. This warranty is not transferable.

In order to obtain performance under this warranty, you must (1) have registered this warranty within 30 days of purchase by completing and returning the attached warranty registration card, and (2) promptly report the claimed nonconformity to your selling Country Flame dealer, also providing your name, address, phone number, proof of purchase, date of purchase, the model and serial number of the stove. All claims must be submitted to the selling Country Flame dealer.

Country Flame shall have no warranty obligations if this product; (1) was not purchased from an authorized Country Flame dealer; (2) was not installed by a Country Flame dealer or other preauthorized, professional installer; (3) was not operated and maintained in strict accordance with the manufacturer's instructions, or (4) was subject to abuse, misuse, negligence or accident. Country Flame shall have no warranty obligation for damage caused by improper handling, overfiring, unapproved fuel, or the unauthorized disassembly or modification of the product. Country flame shall have no warranty obligation if this warranty is not timely registered, for claims which are not submitted through the selling Country Flame dealer, or for claims submitted without the required information and documentation.

THE WARRANTY PRINTED ABOVE IS THE ONLY WARRANTY APPLICABLE TO THE PRODUCT. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED. IT IS UNDERSTOOD AND AGREED THAT COUNTRY FLAME'S LIABILITY UNDER THIS WARRANTY SHALL BE LIMITED TO THE PROVISION OF REPLACEMENT PARTS AND SHALL NOT INCLUDE LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. ANY ACTION BROUGHT UNDER THIS WARRANTY MUST BE BROUGHT WITHIN ONE YEAR OF THE ACCRUAL OF THE CAUSE OF ACTION AND MAY ONLY BE BROUGHT IN THE CIRCUIT COURT OF WEBSTER COUNTY, MISSOURI.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damage, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**This warranty is in effect on all products sold after 02/01/2007.**

(Please keep a copy for your personal records)



**Country Flame Technologies**  
**A Division of American Products, LLC**

-----

**WARRANTY INFORMATION**

Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

State: \_\_\_\_\_ Zip \_\_\_\_\_ Phone Number \_\_\_\_\_

**Authorized Dealer** \_\_\_\_\_

Dealer Telephone #: \_\_\_\_\_

**Date Purchased:** \_\_\_\_\_

**Model No#** \_\_\_\_\_ **Serial No#** \_\_\_\_\_

**Installed By:** \_\_\_\_\_

**Trained By:** \_\_\_\_\_

**NOTE: FILL OUT THE ABOVE WARRANTY INFORMATION AND KEEP THIS COPY FOR YOUR PERSONAL RECORDS. REGISTRATION OF THIS WARRANTY CONSTITUTES YOUR ACCEPTANCE OF ALL TERMS CONTAINED THEREIN.**

## FOREWORD

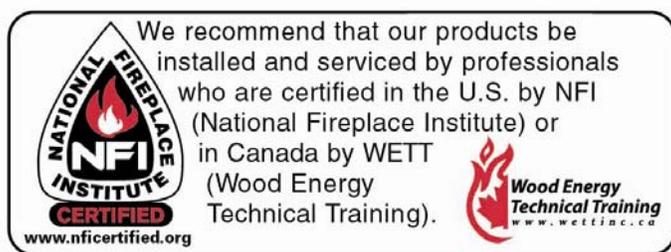
Country Flame and all its employees would like to thank you for selecting a Country Flame Smart Fireplace Furnace product for your home. All of us at Country Flame are very proud of our American born, American tested, and American produced products. With pride and dedication, Country Flame employees wish you and your family a lifetime of happiness and warmth through the use of this product.

Country Flame also recognizes that no manufacturer brings a modern product to market without the valuable assistance of many other organizations that collaborate to ensure the safest and highest quality product does arrive at your doorstep. From design reviews, through initial product testing, to government certification, to repetitive manufacturing process, Country Flame has been assisted in many ways to bring you, the customer, a high quality Fireplace Furnace product. Through a lifetime of use, Country Flame hopes that your family comes to appreciate and enjoy this product and take as much pride in the ownership as Country Flame has taken in producing it.

Country Flame wants to thank those agencies and individuals that have assisted in ensuring the Fireplace Furnace product is a safe and reliable product. Without the contribution of time, effort, and knowledge by others, Country Flame's efforts would have been far more strenuous. Country Flame is extremely grateful for the assistance of all agencies and each individual, along with the contributions of our distribution and dealer network that strives to ensure your satisfaction with our product.

On behalf of Country Flame Technologies and its parent company, American Products, L.L.C. our employees THANK YOU for your purchase.

Country Flame Technologies



## SAFETY NOTES

1. Country Flame Technologies has no control over the installation or proper care of your unit. Failure to properly install a Country Flame product can create unsafe conditions for both property and human life. Country Flame Technologies grants no warranty, implied or written, for the installation or maintenance of your unit. As such, Country Flame Technologies assumes no responsibility for any consequential damage resulting from improper installation or improper care of any specific unit.
2. Please fill out the warranty card included in this manual. Return the portion of the warranty card to Country Flame Technologies. Please retain the other portion of the warranty card.
3. Smart Fireplace Furnace products require natural draft. Plan for proper venting during installation. Improperly designed chimney, flue, or improperly installed fireplaces will restrict natural draft. Problems with natural draft will create problems with fireplace combustion. Operating internal home exhaust fans will add to problems with a fireplace's natural draft.
4. Never attempt to repair any part of a Smart Fireplace Furnace unless following explicit instructions. Only qualified service personnel should make installations and repairs. Any parts removed for servicing must be replaced prior to operation.
5. Any modifications to a Smart Fireplace Furnace unit, unless authorized in writing by Country Flame Technologies, could be dangerous and immediately voids the warranty.
6. **NEVER** use an extension cord. **NEVER** cut or remove the grounding prong. **ALWAYS** properly ground all metal parts of a Smart Fireplace Furnace. Ensure power is provided from a code approved 120-volt 60-hertz grounded electrical source. It is strongly recommended to use a dedicated electrical circuit. Consult a qualified electrician.
7. **ALWAYS** perform maintenance or cleaning on only a cool Smart Fireplace Furnace.
8. **NEVER** place combustibles on or near a fireplace. Fireplaces will become extremely hot and will cause combustible material to ignite if placed on or near the unit.
9. **NEVER** allow children near any fireplace during operation. Familiarize yourself with all operating instructions contained in this manual.
10. Children and adults should be alerted to the hazards of high surface temperature and maintain a safe distances to avoid burns or clothing ignition. Children should be supervised when they are in the same room with an operating fireplace.
11. **NEVER** connect a fireplace furnace to a chimney flue serving any other appliance.
12. All plenums installed with this furnace are to be constructed of proper gauge metal.
13. **ALWAYS** follow lighting instructions in this manual; short cuts of any kind are dangerous.
14. Check local building codes and consult your insurance company before installing your unit.

15. Due to high temperatures, the fireplace furnace should be located out of traffic and away from furniture and draperies.
16. Clothing or other flammable material should not be placed on or near the fireplace furnace.
17. When disposing of ash accumulations from a fireplace, always place them in a metal container with a tight fitting lid. The closed container must be placed on a non-combustible surface well away from all combustible materials, pending final disposal. The ashes should be retained in the closed container until all cinders have thoroughly cooled.
18. Safety screens, doors, or guards removed for maintenance must be replaced prior to operation.
19. In accordance with the Uniform Building Code, this fireplace is designed for installation in a masonry fireplace hull designed for burning wood fuel. Failure to comply with restrictions voids all warranties and violates the safety listing of the unit. Poor quality fuel directly (*and adversely*) affects efficiency and cleanliness of operation. A Country Flame Dealer can provide advice on the proper fuel choice for your area.
20. **NEVER** use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or “freshen up” a fire in this heater. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
21. **INSTALL** a smoke detector within the proximity of the Smart Fireplace Furnace.
22. **NEVER** put foreign objects or burn unapproved material in the Smart Fireplace Furnace.
23. **NEVER** block free airflow through open vents connected to the Smart Fireplace Furnace.
24. Chimney systems need to be checked twice a year (minimum) for soot or creosote buildup. An improperly installed and maintained Smart Fireplace Furnace can cause home fires.
25. If optional fireplace doors are installed and closed, in the event of an extended power outage, the combustion air opening of the fireplace door system must be opened at least one turn.
26. Maximum static pressure in fireplace furnace ductwork is one-quarter inch of water column.
27. If heated air from the Smart Fireplace Furnace is to be connected into the home central duct system, the connection can only be on the air outlet side of the gas furnace.
28. If the Smart Fireplace Furnace is connected to the home central furnace system, care must be taken NOT to violate any home central furnace manufacturer’s specified operating conditions.
29. The Smart Fireplace Furnace must incorporate a “Y” configuration connection from the fireplace ductwork to the central duct system.
30. **ALWAYS** use a log grate or andiron while burning a fire. See warning label for more details.

# FIREPLACE FURNACE SAFETY LABEL (PP-741)



W/N 11667

Model FP33, FP37, FP42 Solid (Wood) Fuel  
Fireplace/Furnace

Tested to UL 391, UL 127, UL 1482

Listing Report #32048002-E Electrical Rating: 120 V, 6.5 Amps, 60/50 Hertz

**INSTALLATION:** Use only chimneys suitable for solid fuel. The use of air filters is not required. Place only on non-combustible flooring with adequate support. Maintain the following clearances to combustibles:

24" = Fireplace Furnace opening to combustible sidewall

24" = Floor level non-combustible hearth extension

8" = Non-combustible hearth extension on each side of opening

12" = Combustible mantle above outlet air grilles

2" = Warm air duct to combustibles

Static pressure = 0.25" wc

## CHIMNEY SIZE:

Models FP33 and FP 37 use 13" x 13" masonry flue or 10" listed type HT or UL 103 flues.

Model FP 42 use 13" x 17" masonry flue or 12" listed type HT or UL 103 flues.

Refer to owner's manual supplied with this appliance. Burn Wood Only. Load fuel carefully or damage may result.

## WARNING:

Do not store fuel within the above clearances.

Do not use chemical fluids to start the fire.

Do not burn garbage, gasoline, naphtha, engine oil, or other flammable liquids.

Inspect and clean chimney regularly.

The heat exchanger, flue pipe, and chimney must be cleaned regularly to remove accumulated creosote and ash.

Ensure that the heat exchanger and chimney are cleaned at the end of the heating season to minimize corrosion during the summer months.

## CAUTION – Hot surfaces:

Keep children away.

Do not touch during operation.

**DURING AN ELECTRICAL POWER FAILURE, IF FIREPLACE DOORS ARE INSTALLED, COMBUSTION AIR CONTROL SHOULD BE OPEN TO ONLY THE MINIMUM SETTING WITH DOORS CLOSED.**

In case of a "run-away" fire, be sure all doors are closed tightly and the combustion air control is at the minimum setting.

**DO NOT CONNECT THIS UNIT TO A CHIMNEY SERVING ANOTHER APPLIANCE.**

Manufactured by: COUNTRY FLAME TECHNOLOGIES Marshfield, MO 65706

Manufacturer Date:

## INTRODUCTION

The fireplace is an American tradition. It remains a central feature of many homes and provides comfort and enjoyment for years to come, if designed and installed properly. Country Flame continues an American Tradition with decades of experience in manufacturing high quality practical fireplaces. To get the most out of a Smart Fireplace Furnace, ensure competently trained installation personnel follow all restrictions and clearance requirements listed in this manual in accordance with all state, local or national zoning and building codes. This manual provides basic information for proper installation. Consideration must be given to site specific conditions and designs. All fireplaces contain essentially the same elements: a base, a combustion chamber, a smoke chamber, and a chimney system. Requirements for installation are based on the *2003 International Residential Code*. Contact your state and local building codes departments along with the local fire department to ensure proper installation requirements have been met. Failure to properly install a fireplace furnace system can cause a house fire. Country Flame Technologies disavows any liability for any damages that may occur as a result of improper installation or misuse of the Smart Fireplace Furnace manufactured by Country Flame Technologies

Operation of the Smart Fireplace Furnace should be in accordance with this manual and should be operated in accordance with any local zoning codes or local operating restrictions. Home heating is usually achieved by burning natural gas, fuel oil, or propane. The combustion process, including the fuel supply, can be mechanically controlled. This is not the case with solid fuel. Solid fuel burning is very unpredictable as there are many variables affecting the combustion process. Adding fuel is a manual operation. The amount of wood added depends on the individual operating the system. Also, the requirement for combustion air changes during the burning of a load of wood. Thus the temperature of the wood fire system varies considerably. Burning solid fuel is relatively dirty, compared to liquid fuels, with the buildup of ash and residue. Importantly, there are very limited automatic safety devices. If the firebox temperature reaches an unsafe temperature do to over firing, there is no means to just “turn off” the flame; as a result, controlling a wood fire takes more knowledge and care than most liquid fuel burning processes. A homeowner must understand they are basically burning a fire in the middle of their home. It is both prudent and wise for the homeowner to ensure the fire can be restricted (limit combustion air) and under control (do not allow over firing) in order to enjoy a safe warm fire to provide maximum heat energy in the home without endangering the surroundings or the occupants.

Maintenance requirements contained in this manual must be followed to ensure proper operation of the Smart Fireplace Furnace. Failure to follow maintenance requirements will reduce efficiency of operation or can create unsafe operating conditions. The majority of fires and accidents that occur with wood burning fireplaces are a result of improper maintenance. A visual inspection of the fireplace box, the chimney connector and the chimney will reduce the possibility of uncontrolled fires or assist in preventing accidents from occurring. Immediately contact your local fire department representative, your local Country Flame Dealer, or a fireplace specialist should a problem be detected with your fireplace furnace. It is the responsibility of the operator of the fireplace furnace product to become familiar, understand, and ensure adherence to all maintenance requirements associated with proper operation of this product. Failure to adhere to maintenance requirements voids Country Flame’s product warranty. Monthly inspections should ensure that dampers and all moving parts are properly working. The chimney, firebox, and chimney connectors should be professionally inspected and cleaned at least once a year. As with any product, the efficiency of your wood burning fireplace furnace depends on how well the Country Flame product is maintained. Your Country Flame Dealer will be happy to assist you in ensuring your fireplace furnace product is maintained in the best possible state. Keep his number handy.

## WHAT'S INCLUDED WITH YOUR SMART FIREPLACE?



Unpack all material provided with the Country Flame product. Important materials and small components are located inside the fireplace furnace. Ensure that every item listed below is present during the unpacking process. If you find extra items or believe some items are missing, please contact your Country Flame Dealer, Distributor, or Country Flame to verify and obtain all parts necessary for proper installation. The installation of this fireplace is to be in accordance with these instructions and local codes. Any changes, alterations, misuse, or the placing of combustibles closer than specified tolerances will void the warranty. Following are the items provided with each Smart Fireplace Furnace:

<b><u>ITEM DESCRIPTION</u></b>	<b><u>QUANTITY PROVIDED</u></b>
FIREPLACE FURNACE	1
525 CFM (cubic feet per minute) Blowers, 120 Volt AC, 6.5 Amps, 60 Hz	2
Blower Mounting Frames	2
Air Intake Grilles (13.5" by 13.5")	2
Air Intake Grille Frames (13 1/4" by 13 1/4" by 4 1/2" each)	2
Blower Speed Controls mounted on Air Intake Grilles	2
Heat Discharge Grilles (5.25" by 30.975")	1
Heat Discharge Boot Assembly	1
Ash Dump Cover	1
Ash Dump Clean-Out Door Assembly	1
Ceramic Air Discharge Snap Disc (110 degrees Fahrenheit)	1
Wall Thermostat (120 Volt AC)	1
Rotary Damper Control Assembly	1
Fiberglass Insulation Roll (4' wide by 15' long by 2" thick)	1
Bag, miscellaneous screws and electrical components	1

# FIREPLACE FURNACE SPECIFICATIONS



Country Flame manufactures a number of different Smart Fireplace Furnace models. Table 1 and FIGURE 1 provide general information for each of the specific models manufactured by Country Flame. Crosscheck and refer to this table and FIGURE 1 when determining the installation requirements for a particular model you purchased. All installation specifications must be met in order to ensure you maintain your warranty. In addition, by ensuring all installation specifications are adhered to, you will ensure safe and proper operation of your fireplace furnace for years to come.

**COUNTRY FLAME TECHNOLOGIES DISAVOWS ANY LIABILITY FOR ANY DAMAGES THAT MAY OCCUR AS A RESULT OF IMPROPER INSTALLATION OR MISUSE OF THE FIREPLACE FURNACE.**

**TABLE 1**

MODEL 33	MODEL 37	MODEL 42
<b>A</b> - Firebox width 33"	<b>A</b> - Firebox width 37"	<b>A</b> - Firebox width 42"
<b>B</b> - Firebox outside width 38"	<b>B</b> - Firebox outside width 42"	<b>B</b> - Firebox Outside width 48"
<b>C</b> - Outside width 50" w/ insulation and concrete	<b>C</b> - Outside width 54" w/ insulation and concrete	<b>C</b> - Outside width 60" w/ insulation and concrete
<b>D</b> - Width w/ Fan Boxes 76"	<b>D</b> - Width w/ Fan Boxes 80"	<b>D</b> - Width w/ Fan Boxes 86"
<b>E</b> - Fan Boxes/Brick Width 84"	<b>E</b> - Fan Boxes/Brick Width 88"	<b>E</b> - Fan Boxes/Brick Width 94"
<b>F</b> - Base Width 92"	<b>F</b> - Base Width 96"	<b>F</b> - Base Width 102"
<b>G</b> - Height is 48"	<b>G</b> - Height is 48"	<b>G</b> - Height is 48"
<b>H</b> - Depth is 26"	<b>H</b> - Depth is 26"	<b>H</b> - Depth is 26"
<b>I</b> - Duct Diameter 6"	<b>I</b> - Duct Diameter 8"	<b>I</b> - Duct Diameter 8"
<b>J</b> - 13" x 13" Flue Tile or 10" pipe*	<b>J</b> - 13" x 13" Flue Tile or 10" pipe*	<b>J</b> - 13" x 17" Flue Tile or 12" pipe*
<b>K</b> - Firebox Depth 24"	<b>K</b> - Firebox Depth 24"	<b>K</b> - Firebox Depth 24"
<b>#</b> - Weight around 530 pounds	<b>#</b> - Weight around 580 pounds	<b>#</b> - Weight around 630 pounds

\* Requires rectangular to round adapter for stovepipe

## Model Numbers Correspond to Opening Width of Firebox

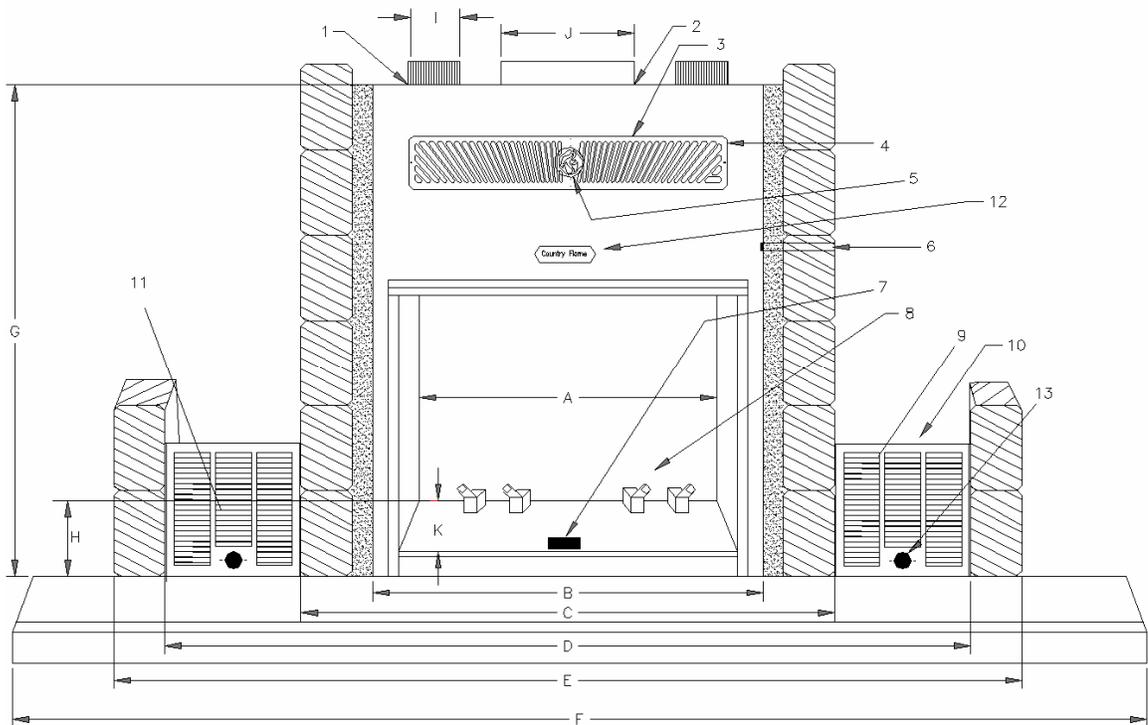
- |  |  |  |
|--|--|--|
| 1. (2) Duct Rings  | 6. Hole for Wire From Air Discharge Snap Disc    | 11. (2) 525 Blowers with variable speed controls |
| 2. Flue  | 7. Ash Dump                                      | 12. Damper Control                               |
| 3. Heat Discharge Boot (behind heat grilles)                 | 8. 1/2" x 3" Built-in Grates and Andirons        | 13. (2) Fan Control Rheostats                    |
| 4. (1) Heat Grilles (525" x 30.975")                         | 9. (2) Air Intake Grilles 13 1/2" x 13 1/2"      |  |
| 5. Air Discharge Snap Disc (mounting bracket behind grilles) | 10. (2) Grille Frames 13 1/4" x 13 1/4" x 4 1/2" |  |

**SAFETY NOTICE: IF A SMART FIREPLACE IS NOT INSTALLED PROPERLY, A HOUSE FIRE MAY RESULT. FOR YOUR FAMILIES SAFETY, FOLLOW ALL INSTALLATION INSTRUCTIONS AND ADHERE TO ALL LOCAL CODES. CONTACT YOUR LOCAL BUILDING CODE OFFICE AND FIRE DEPARTMENT ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS FOR YOUR LOCALE. COUNTRY FLAME RECOMMENDS HIRING A CERTIFIED PROFESSIONAL TO ENSURE PROPER INSTALLATION.**

**TABLE 2**

Room Size (ft x ft)	Width of Fireplace Furnace	
	In short wall	In long wall
10 x 14	24	24 to 32
12 x 16	28 to 36	32 to 36
12 x 20	32 to 36	36 to 40
12 x 24	32 to 36	36 to 48
14 x 28	32 to 40	40 to 48
16 x 30	36 to 40	48 to 60
20 x 36	40 to 48	48 to 72

Table 2 is provided to assist in the proper selection of the fireplace furnace model that is right for your home. These specifications are to be used as a basic guide. Many factors affect the size and heating capacity of the fireplace unit selection. Check with a qualified contractor or dealer to assist in the selection process. The fireplace firebox (FIGURE 1, Item A) opening should be based on room size both for aesthetics and to prevent overheating of the room. Once the fireplace firebox opening width is selected for a specific application, the fireplace furnace model can be selected from the specifications in Table 1. After selecting the appropriate fireplace model for a specific room size, the specifications for masonry construction details can be selected for the applicable fireplace model listed in Table 1.



**FIGURE 1: FIREPLACE DIMENSIONS**

# 9 STEPS TO INSTALL A SMART FIREPLACE

## STEP 1 - FOOTINGS AND FOUNDATIONS



A Country Flame manufactured fireplace furnace is designed for installation in a masonry fireplace hull in accordance with the Uniform Building Code. Only qualified installation personnel should install the fireplace furnace unit. Qualified installation personnel shall be knowledgeable in fireplace construction, air-handling ductwork, heating systems and both local and national building code requirements. A Country Flame manufactured fireplace furnace can be connected directly into a home central heat and air conditioning system. This option can add to the efficiency of a home heating system.

A fireplace furnace base consists of all necessary footings and foundation to support the fireplace furnace and concrete masonry foundation fireplace walls. FIGURE 2 shows both a typical above floor grade and a typical floor grade fireplace furnace installation.

The thickness of the concrete footing and concrete foundation will depend on a) local soil pressures, b) the height of your specific chimney, and c) the weight of your chimney material. Select the site for your fireplace and mark the foundation area. Check local building codes to ensure conformance of both the footing and foundation. Table 3 lists the standard dimensions for Smart Fireplace Furnace footing installations:

**TABLE 3**

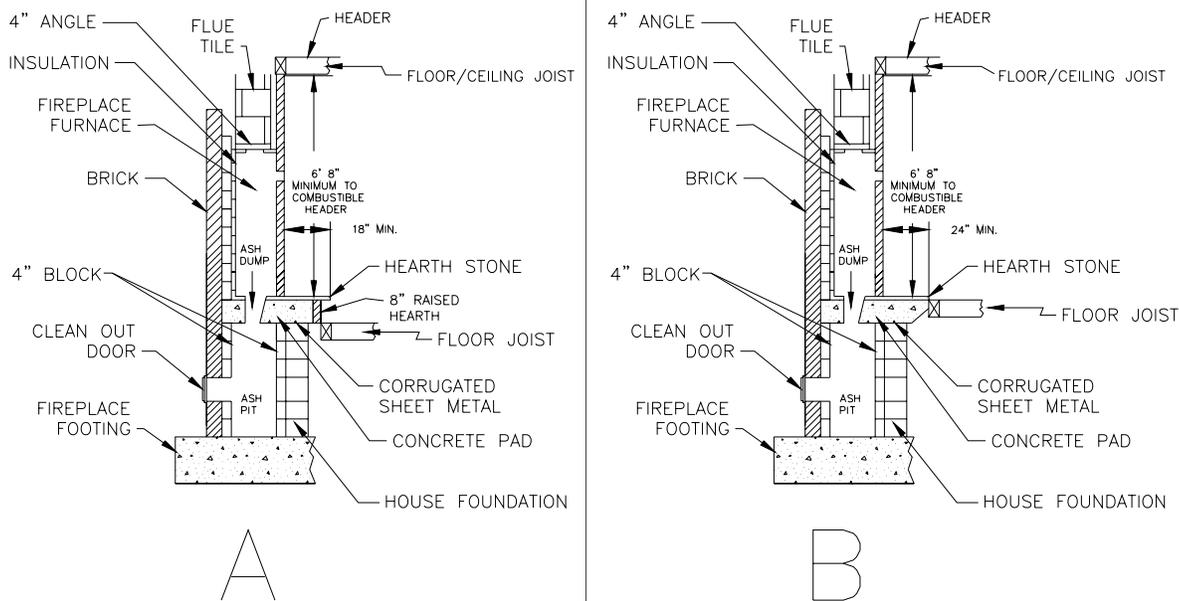
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<b>Model 33</b>	<b>92" wide x 40" deep x 10" thick</b>
<b>Model 37</b>	<b>96" wide x 40" deep x 10" thick</b>
<b>Model 42</b>	<b>102" wide x 40" deep x 10" thick</b>

---

### NOTES:

1. Table 3 assumes the use of four-inch (4") concrete masonry unit (CMU) blocks to build the fireplace furnace walls. If a wider CMU block material is used for fireplace wall construction then you must increase the footing to accommodate the change.
2. Table 3 footing depths are adequate for chimney heights up to seventeen feet in standard soil. If the chimney height exceeds seventeen feet or soil pressures are non-standard, increases footing depths at least six inches. Use of reinforced concrete, rebar or steel mesh for stress reduction is recommended. Refer to local building codes.
3. For sandy, loose, or non-standard soil pressures, or for areas that have landfill, Table 3 footing thickness should be increased accordingly. Ensure all local building codes are met. The fireplace furnace foundation must be solid.
4. The CMU foundation wall should end level with the top of the floor joists. Refer to FIGURE 2a. If a floor level installation is planned, then refer to FIGURE 2b, in which case the CMU foundation wall will end below the bottom of the floor joists.
5. Use of a non-combustible H-beam or I-beam may be substituted in the event a combustible header cannot be maintained a minimum distance of 6'8" above a raised hearth.
6. Additional floor protection is not required for installation of the Smart Fireplace Furnace as long as unit is installed per hearth clearances listed in Table 1.

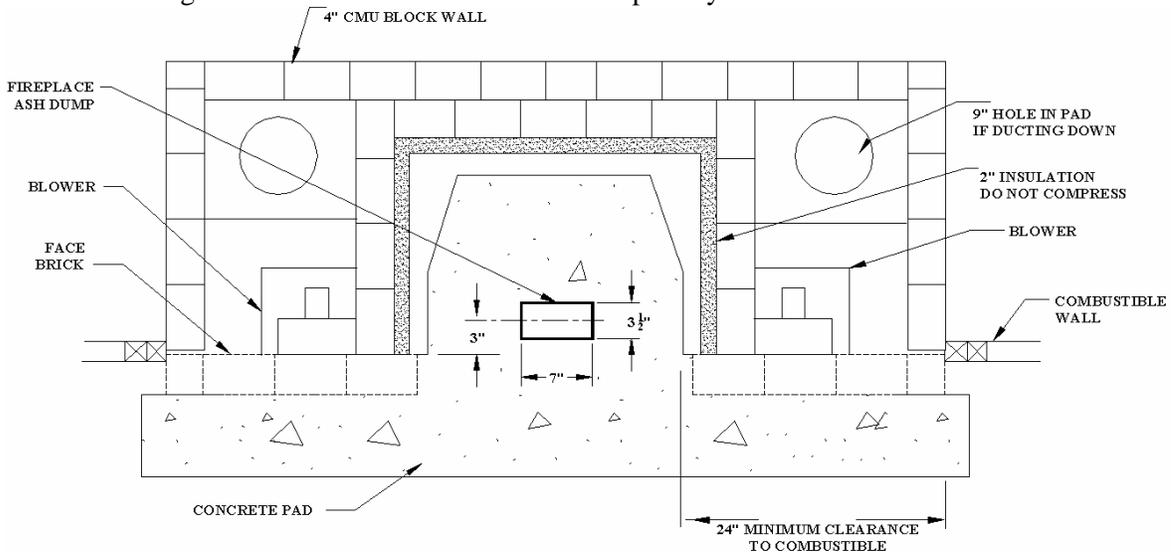


**FIGURE 2: SINGLE OPENING FIREPLACE SYSTEMS**

FIGURE 2a shows a fireplace installation where the floor joists are located below the hearth (raised hearth system.) FIGURE 2b shows a fireplace installation where the floor joists are located at the same level as the hearth. Note the changes in hearth depth required for these two different types of installations. FAILURE to observe proper clearances will increase the potential for a fire in the home due to improper installation.

## STEP 2 – CONCRETE PAD & HEARTH EXTENSIONS

 Determine whether the fireplace is to be installed on an outside wall or an inside wall. The clearances for an inside wall installation differ from an outside wall installation. The type of wall installation will impact the size of the concrete pad and hearth extension to be poured. Ensure conformance to all local building codes. Void areas are often provided in the base to form an air passage for external combustion air (recommended), or an opening for an ash pit or for both. Any nonessential void areas below the hearth should be filled to avoid unwanted air leakage into the furnace. Immediately above the foundation or foundation walls, pouring a concrete pad and creating the required hearth extension will create support for the fireplace furnace and allow an interface to the floor joists. Corbelling may be used to support the hearth extension, but a poured concrete slab, that also supports the fireplace furnace, usually is used to create a hearth extension. Forming the concrete pad requires “block outs” for external combustion air dampers (recommended.) Forming the concrete pad requires an interface with the ash dump provided in the Smart Fireplace Furnace. The concrete pad ash dump block out should be larger than the opening provided for the ash dump in the bottom of the fireplace furnace floor. If a Smart Fireplace Furnace is to be ducted down to a lower level, then include block outs in the concrete pad for the hot air ducting. Refer to FIGURE 3 for a typical outside wall fireplace furnace installation and refer to FIGURE 4 for a typical inside wall fireplace furnace installation. Note that both drawings include block outs for down duct capability.

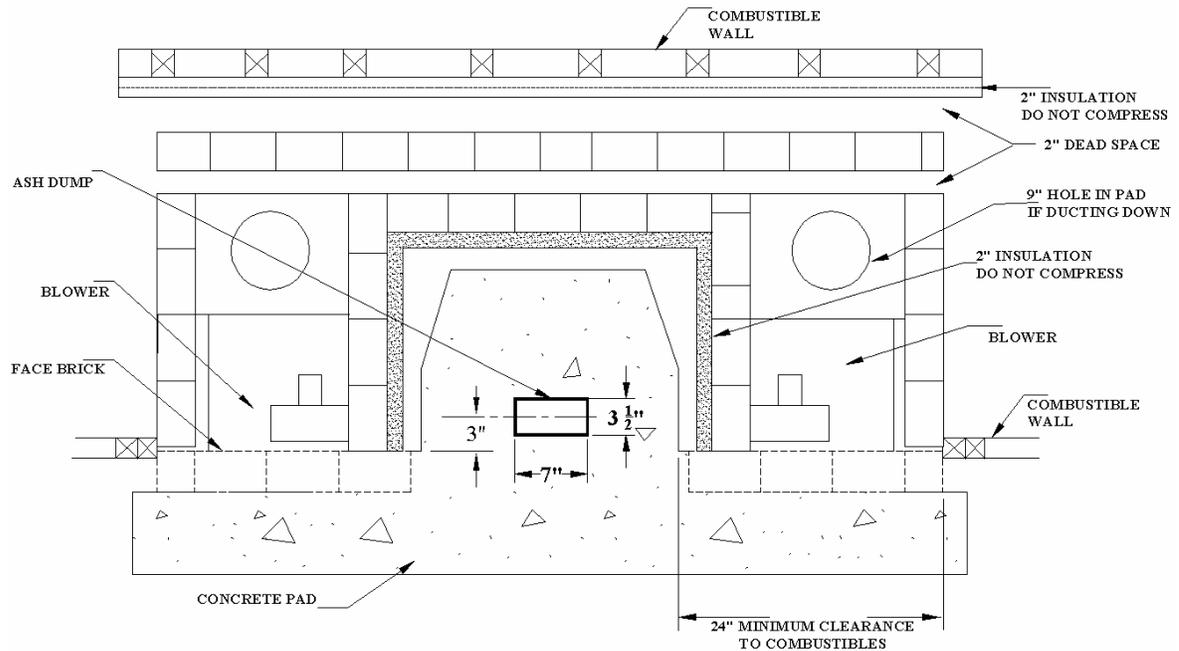


**FIGURE 3: OUTSIDE WALL PAD INSTALLATION**

Use of non-combustible forms will be required for the concrete pad since removal of these forms will not be possible once the concrete pour is complete. Corrugated galvanized sheet metal can be used for the concrete pad form to eliminate any future fire hazard. NOTE: ALL combustibles used in the hearth extension and concrete pad must not be left in place once the concrete pour is complete. The concrete pad must be a minimum of eight inches thick and be capable of resisting thermal stresses resulting from high temperatures. Check local building codes and specific requirements in order to define the proper thickness requirement of the concrete pad and hearth extension for your specific fireplace furnace application.

Hearth extensions must be constructed of noncombustible materials. A U.L. listed hearth extension may be used or the hearth extension can be a continuation of the poured concrete pad.

Refer to FIGURE 2 for the depth requirements of a hearth extension. Hearth extension requirements vary according to where the floor joists meet the hearth and what local code requires.



**FIGURE 4: INSIDE WALL PAD INSTALLATION**

**NOTES:**

1. If installing a fireplace furnace on an inside wall, refer to FIGURE 4. An inside wall concrete pad must be six inches deeper than FIGURE 3 shows to allow for additional air space required for inside wall installation.
2. Overall concrete pad and hearth extension sizes can be determined by referring to FIGURE 3. Remember that a pad should contain rebar or steel mesh for stress reduction and improved strength.
3. All combustible ash pit forms should be removed before the concrete pad is poured, as removal will be impossible once the concrete pad has been poured.

### **STEP 3 – FIREPLACE POSITION ON THE CONCRETE PAD**



In order to accomplish Step 3, it is assumed that all combustible forms have been removed from the fireplace foundation, the ash pit, the combustion air void (if designed in for fireplace,) the concrete pad, and the hearth extension. Once all combustible forms have been removed the fireplace furnace is ready for installation on the concrete pad.

Position the fireplace unit square to the floor and centered over the ash pit opening on top of the concrete pad. The concrete ash pit opening should be larger than the steel ash pit hole. If this is not the case, it will be difficult to push ash into the ash pit once the fireplace is in use. Ensure, in the event that down draft hot air ducts are to be utilized, that the fireplace furnace hot air outlets align properly with the block outs located in the concrete pad.

As the fireplace furnace is positioned on the concrete pad, verification of dimensions should be made to ensure proper distances from an inside wall installation or for an outside wall installation. Verifying that proper clearances have been maintained is important before proceeding to Step 4. Remove the roll of insulation from its wrapping. Use the insulation to wrap the fireplace furnace on its top, back, front, and both sides.

### **STEP 4 – FIREPLACE WALL & CHIMNEY CONSTRUCTION**

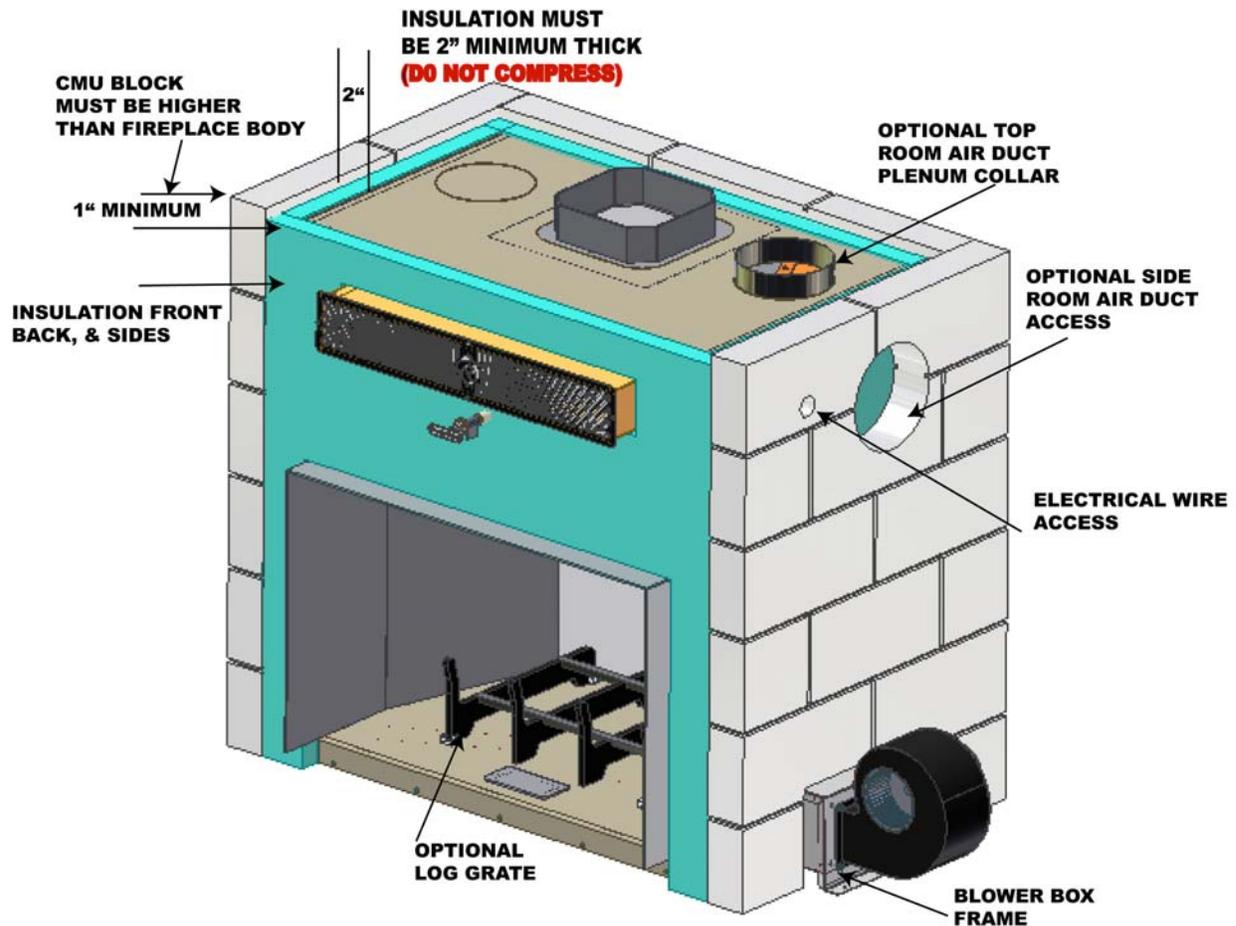
#### **FIREPLACE WALL CONSTRUCTION –**



Fireplace wall construction is critical to the long term success of the fireplace for several reasons. The non-combustible brick, concrete, and masonry walls protect the combustible material that is ultimately used as the core home construction material from the intense fireplace heat. These same non-combustible walls must support the weight of the chimney system. Finally, the aesthetics of the masonry work will define the warmth and comfort of all who view the fireplace furnace for years to come. Refer to FIGURE 5 and the following steps as a guide to installing fireplace walls. Again, local codes and a chimney construction expert should be involved in the design and construction of the fireplace.

1. The Smart Fireplace Furnace must be enclosed on all sides and back with a minimum of 8” thick masonry material. It is permissible to use 4” concrete block and standard or common brick to achieve this eight-inch thickness.
2. 4” CMU (concrete masonry block) should be used for the side and rear walls.
3. The left and right side CMU block walls must frame the Smart fireplace furnace blower boxes. Frame the blower boxes with CMU block as shown in FIGURE 5.
4. CMU side support walls must extend a minimum of 1” above the fireplace unit. These extended CMU walls will be used for supporting the angle iron that will be used to support the masonry chimney parts. FIGURE 7 shows the angle iron installation that supports the chimney brick and the clay flue liner tile.
5. An electrical box is preinstalled in the right side of the fireplace. This box is pre-wired for a snap disk and electrical ground. Before completing the right CMU wall, the electrician should properly wire the air discharge snap disk. Leave a ½” diameter hole in the right side CMU block wall. The electrician will need to bring Romex wiring to the electrical box. The CMU block hole should align with the fireplace furnace electric box cover.
6. The fireplace face brick wall must extend from the floor to the ceiling line.
7. FIGURE 5 shows the insulation installed on the Smart Fireplace exterior sides, front and back. Insulation also must cover the top of the Smart Fireplace once the chimney is installed. Compressing insulation reduces its effectiveness. Ensure proper clearance.

8. A minimum of 24" sidewall clearance must be maintained between combustibles and the inside firewall of the firebox.
9. Maintain a 4" clearance from the masonry chimney to combustibles below the roofline.
10. The fireplace cavity must remain open, unobstructed, and free from any combustibles from the top of the fireplace through the attic space.
11. NOTE: Country Flame's optional log grate is shown in FIGURE 5.



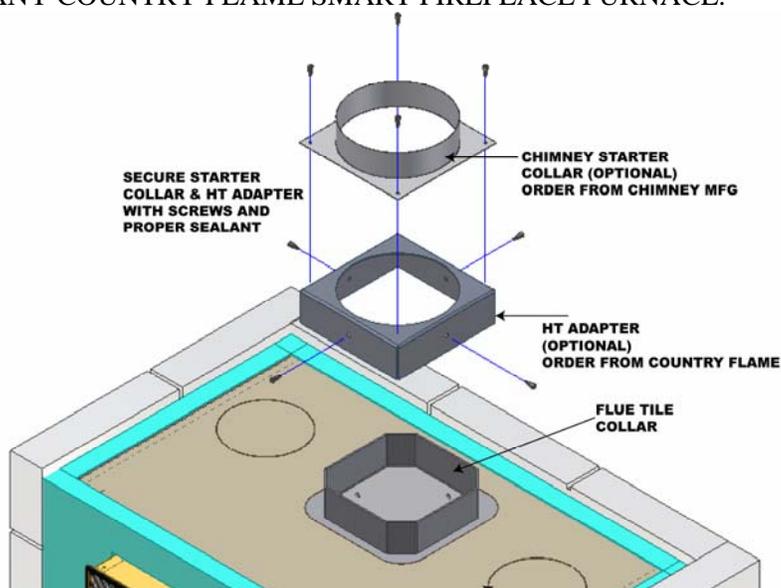
**FIGURE 5: MASONRY WALL INSTALLATION**

### **STEP 5 – CHIMNEY FLUE INSTALLATION**



**FACTORY-BUILT INSULATED CHIMNEY INSTALLATION** – The Smart Fireplace Furnace models 33 and 37 can be installed with a Class A ten inch (10") diameter U.L. 103 HT listed factory built chimney. The Smart Fireplace Furnace model 42 can be installed with a Class A twelve inch (12") diameter U.L. HT listed factor built chimney. In order to use factory-built insulated chimney with a Smart Fireplace Furnace, refer to FIGURE 5 and follow the **FIREPLACE WALL CONSTRUCTION steps 1 through 8 listed above and then follow steps 12 through 16:**

12. Install the HT Adapter as shown in FIGURE 6. This optional square to round adaptor can be obtained from your Country Flame Dealer or direct from Country Flame. The 4" wide pieces of angle iron are not required across the interior masonry walls when using factory-built insulated chimney materials.
13. The innermost masonry walls must extend the equivalent of one block above the top of the fireplace.
14. Factory-built insulated chimney pipe must maintain a minimum of 6" to any combustibles below the roofline.
15. Follow the specific chimney manufacturer's clearances to combustibles for factory-built chimneys. If a factory-built chimney passes through an occupied space, such as a closet or room, it must be enclosed in a properly built chase. This chase protects the chimney from physical damage that would impair or limit the factory-built chimney's effectiveness.
16. FOLLOW THE SPECIFIC CHIMNEY MANUFACTURER'S GUIDELINES WHEN INSTALLING FACTORY-BUILT INSULATED CHIMNEY PRODUCT ON TOP OF ANY COUNTRY FLAME SMART FIREPLACE FURNACE.



**FIGURE 6: TYPICAL HT ADAPTER (optional) INSTALLATION**



**OPTIONAL FLU ADAPTER** – Factory-built insulated chimney requires an optional rectangular to round flu adapter collar that is defined in the parts section of this manual. These adaptors can be ordered through Country Flame or its Authorized Dealers. In order to use a manufacturer's chimney starter collar, it must be a minimum 24 gauge black or blued steel. FIGURE 6 shows a typical installation of the Country Flame HT Adapter along with a generic chimney starter collar. The Model 33 or Model 37 fireplace furnace units use the same specific model of the optional HT Adapter while the Model 42 fireplace furnace uses its own specific optional HT Adapter. Do not use other manufacturers rectangular to round flu adapters with the Country Flame Smart Fireplace Furnace. Insulation must be installed on the top and front of fireplace furnace.



**MASONRY CHIMNEY CONSTRUCTION** – Refer to FIGURE 7 and TABLE 4 for the procedures and materials required to construct a masonry chimney. Masonry chimney construction also requires a qualified and knowledgeable chimney mason that understands masonry construction, local codes, and local site conditions. A masonry chimney must be positioned and sealed correctly to ensure an effective flue draft occurs once fireplace operation begins. All new residential fireplace masonry chimney construction, including the clay flue liner, must comply with *Standard Specification for Clay Flue Linings, ASTM C315*. Clay flue liners are required to be installed with an air space between the chimney wall and the clay liner to allow free movement of air. Each clay flue tile must be properly sealed at the initial base joint and at each joint where additional clay flue tile meet in order to prevent the escape of heat, flame, and flue gasses into the surrounding exterior brick or home walls.

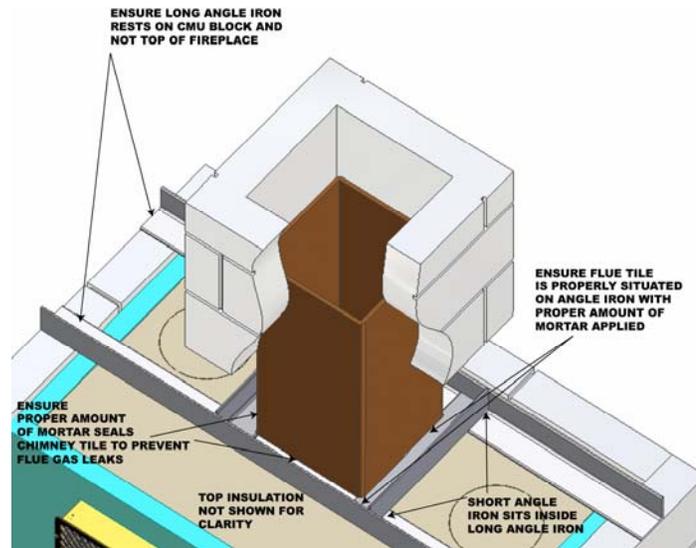
In general masonry chimneys can include any number of passageways. Each of these passageways requires their own clay liner system. Two passageways that are enclosed in a single chimney must be separated by an air space between the flue liners. If more than two passageways are to be installed in a single chimney, each clay flue liner passageway must be separated by at least 4 inches of masonry.



The first step to ensuring a Smart Fireplace Furnace will draw adequately, is to size and construct a chimney flue correctly. The *International Residential Code* indicates that the chimney height as well as the fireplace opening area determines the flue size. Country Flame has installed the proper flue lip during factory construction of the Smart Fireplace Furnace. TABLE 1 provided general product specifications that included information to be used in constructing a proper chimney flue. In addition, unless local code or qualified installers encounter site specific conditions that require different parameters, it is recommended to follow Country Flame specifications. TABLE 4 provides additional information for the selection of angle iron to be used to set a masonry chimney and clay flue tile. **DO NOT** set the clay tile or chimney material on the top of the Smart Fireplace as the angle iron must support the weight of the clay flue tile and the chimney brick. Please follow TABLE 4 recommendations to select proper material sizes to avoid future problems.

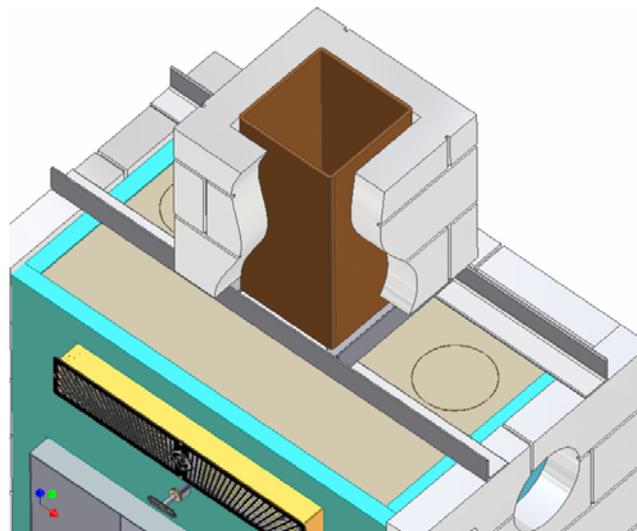
**TABLE 4**

Model No.	Angle Iron Sizes	Duct Size	Flue Size	Height	Depth
Model 33	2 pcs. 50" 2 pcs. 20" Angle Spec. 4"x4"x1/4"	6"	13" x 13"	48"	26"
Model 37	2 pcs. 56" 2 pcs. 20" Angle Spec. 4"x4"x1/4"	8"	13" x 13"	48"	26"
Model 42	2 pcs. 60" 2 pcs. 20" Angle Spec. 4"x4"x1/4"	8"	13" x 17"	48"	26"



**FIGURE 7A: MASONRY CHIMNEY INSTALLATION**

The two longest pieces of angle iron are to be set on top of the block support walls as shown in FIGURE 7A. The two shortest angle iron pieces are to span between the two long angle iron pieces as shown in FIGURE 7A. Before installing these angle iron pieces, mortar should be spread around the flue opening of the fireplace, extending four inches to the sides of the flue lip and a half-inch higher than the masonry-supporting wall. Once the mortar has been applied to the proper thickness, lay the two long angle irons across the supporting sidewalls so that they are embedded in the mortar. The angle iron edges should butt up against the flue opening. The short angle irons should now be installed so they bridge across the two long angle irons and be placed tight against the flue lip. These short angle iron pieces should rest on the top inside face of the long pieces of angle iron. If properly applied, mortar should embed the angle iron and form a good seal around the angle iron.



**FIGURE 7B: MASONRY CHIMNEY INSTALLATION**

Lay one half inch of mortar on top of the angle irons around the flue and set the first section of the clay flue tile on top of the angle irons. Now fill the space between the outside of the flue tile and the vertical leg of the angle irons with mortar. Be certain that the mortar is level with the top edge of all the angle iron. Now begin setting the four-inch brick or block on top of the mortar. Ensure

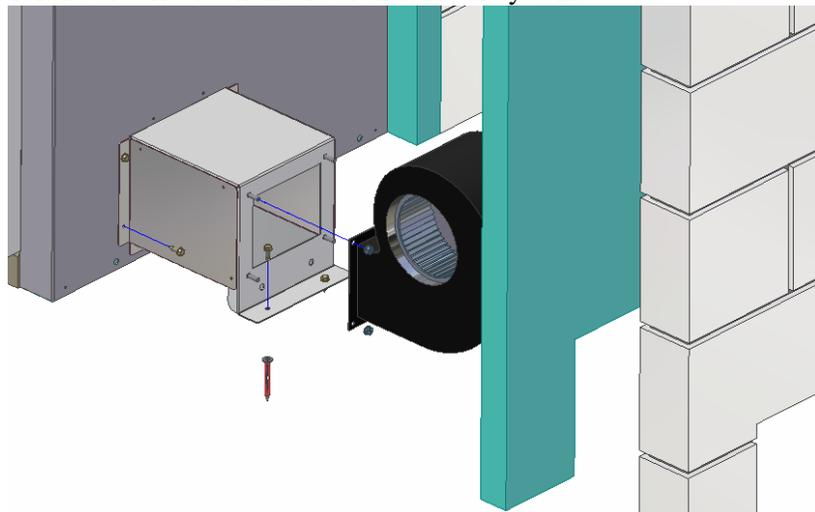
that this block is centered on the edge of the angle iron and maintains a distance of ½ inch from the clay flue tile face. Once the clay flue tile and first course of brick are checked and verified for proper installation, proper level, and proper clearances, each successive clay flue tile, and courses of chimney brick can be added until the chimney cap height is reached. Check local building code for specifics on masonry chimney installations. For those in earthquake prone areas, ensure that local seismic requirements are met when building a masonry chimney. FIGURE 7B is provided to show the proper positioning of chimney brick from the clay flue tile and position on the top edge of the angle iron.

Both masonry and factory-build chimneys must extend at least three feet above a point where the chimney passes through any roof. A chimney must also be at least two feet above any part of the building or roofline within ten feet of a horizontal radius around the chimney structure. A taller chimney may be required under certain site specific conditions for adequate draft. Good draft is normally achieved with chimney heights at least fifteen feet high measured from the top of the fireplace opening to the top of the chimney. A chimney must be capped to resist water penetration. A mortar wash that is feathered to the edge of the chimney wall is not an adequate cap. The chimney cap should be cast-in-place or pre-cast concrete. Check with a builder, masonry chimney installer and always consult local codes to ensure proper chimney installation.

## STEP 6 – BLOWER INSTALLATIONS

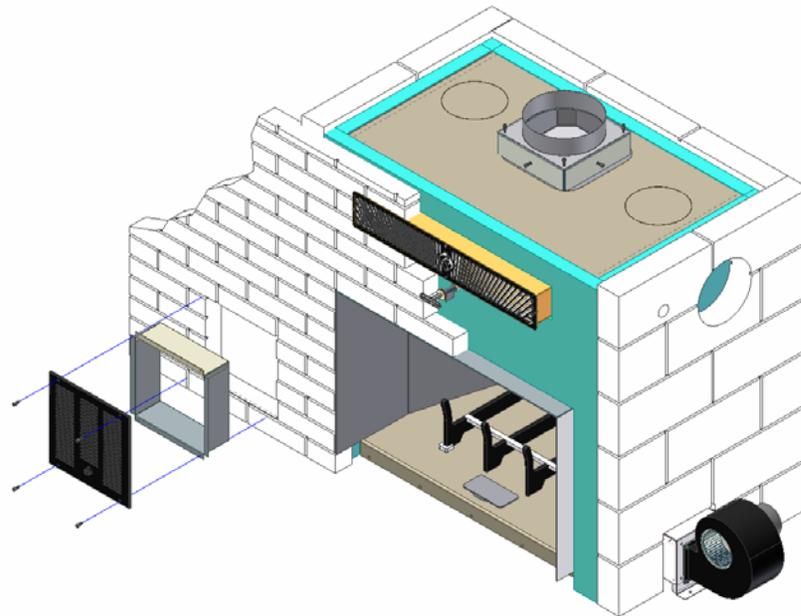


Blowers add to the efficiency of the Smart Fireplace Furnace by moving room air across the heat exchanger fins built into the Smart Fireplace Furnace. This air is heated and then returned to the room or home duct system to provide more uniform heating throughout the house. Country Flame provides two grille frames that are to be framed in by the mason when finishing the front face of the Smart Fireplace Furnace. FIGURE 8A shows how a blower is mounted to the Smart Fireplace. Figure 8B shows the proper installation of the air intake grills with variable speed controls attached. Follow the steps listed below to install each blower. Refer to FIGURE 12 for the electrical schematic of the blower system.



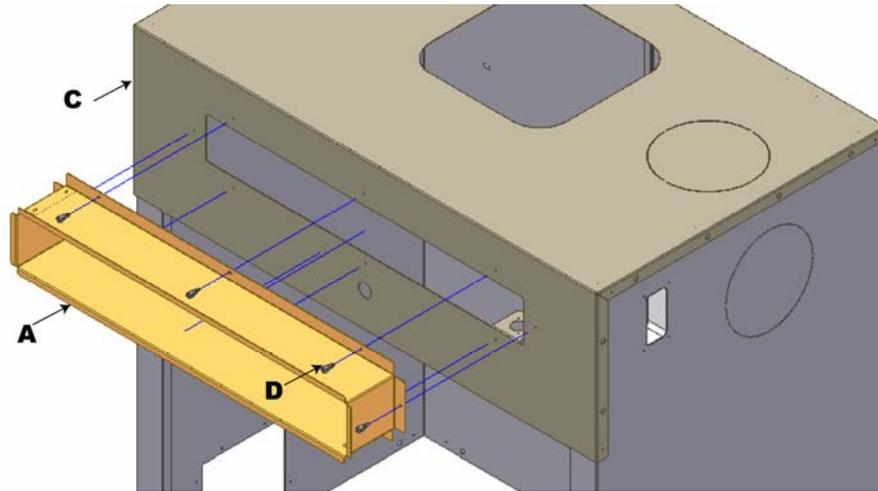
**FIGURE 8A: BLOWER INSTALLATION**

1. Attach one blower mount to the Smart Fireplace on the right side as shown in FIGURE 8A. Repeat the process for installing the blower mount and fan on the left side. **NOTE:** Ensure an electrician wires and properly grounds the Smart Fireplace blowers. Once the brick mason has completed the face, no access to the blower wiring is possible. Bolt blower mounts to the concrete footing in order to minimize movement or vibration of the blower assembly as shown in FIGURE 8A.
2. Wrap the sides and blower mounts with the fiberglass insulation provided. Again, ensure that the fan mounts are securely mounted and insulated in order to eliminate any unwanted vibration noise.
3. Once Step 1 and 2 are complete, the air intake grilles and grille frames can be installed when the mason bricks the front of the fireplace. Refer to FIGURE 8B to see the recommended procedure for proper installation of the grille frames and the air intake grille with variable speed control rheostat mounting. Ensure that the electrician properly wires the variable speed control provided on the air grilles to the blowers.
4. FIGURE 9A demonstrates the installation of the top front warm air discharge boot to the front of the Smart Fireplace. FIGURE 9B demonstrates the procedure for installation of the adjustable warm air discharge boot (optional.) This optional item allows the mason to adjust for any variation in non-standard brick or stone that is being used on to face the fireplace.

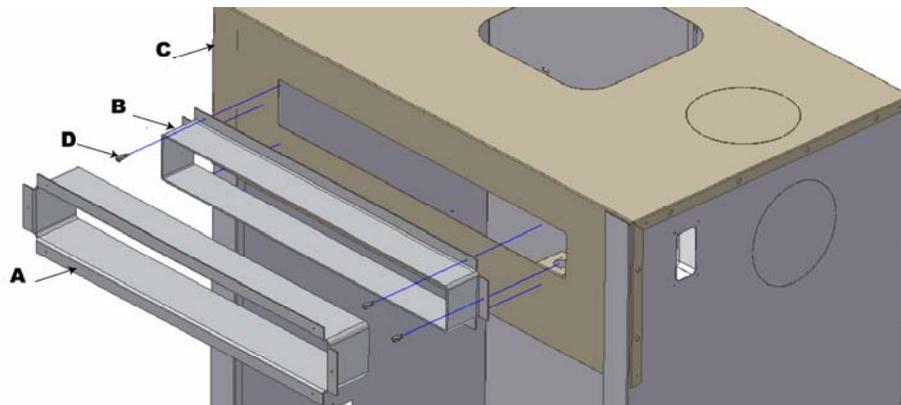


**FIGURE 8B: AIR INTAKE GRILLE INSTALLATION**

5. The temperature snap disc was mounted and pre-wired at the factory. Refer to FIGURE 14 and ensure a qualified electrician properly wires and grounds the Smart Fireplace to the electrical box, shown in FIGURE 13. **NOTE:** It is important to remember that no access to wiring and grounding of the fireplace is possible once the brick mason has completed all brick work. Ensure that wiring is proper and functioning before allowing brick work to be completed.
6. Unless local building code specifies otherwise, use a minimum Romex electrical wire, 14-2 with ground when connecting the blower system to an electrical power source. Heavier wire can be used but consult with local code and a qualified electrician.



**FIGURE 9A: HEAT DISCHARGE BOOT**



**FIGURE 9B: ADJUSTABLE HEAT DISCHARGE BOOT (OPTIONAL)**

FIGURE 9A shows the proper assembly of the standard heat discharge boot. FIGURE 9B shows the optional adjustable heat discharge boot that is required in the event anything but 4" wide brick is used to complete the masonry work. The optional slide in FIGURE 9, Item B, allows for a lintel adjustment from 4 inches to 7 inches. By ordering the adjustable heat discharge boot the brick mason can adjust for variations in custom masonry finishes that might be used on a particular fireplace. Refer to **STEP 7 - COMPLETION OF MASONRY FRONT** for step-by-step procedures for installing the parts shown in FIGURE 9.

#### **FIGURE 9 PARTS DEFINITION**

- (A) Outer Frame, Heat Discharge Boot (FIGURE 9A standard, FIGURE 9B optional)
- (B) Inner Frame, Adjustable Heat Discharge Boot (FIGURE 9B optional)
- (C) Fireplace Furnace
- (D) Four tek screws

Remember that the sides, back, front, and top of the fireplace must be faced with at least two inches of supplied insulation. This means that all masonry material will remain at least two inches from the fireplace body in order for the insulation to properly expand and provide the necessary insulating properties. Compressing the insulation will reduce its insulation value. With the items shown in FIGURE 9 properly installed and all electrical work completed and tested by a certified electrician, the brick mason can complete the masonry face of the Smart Fireplace Furnace.

## STEP 7 – COMPLETION OF MASONRY BRICK FRONT



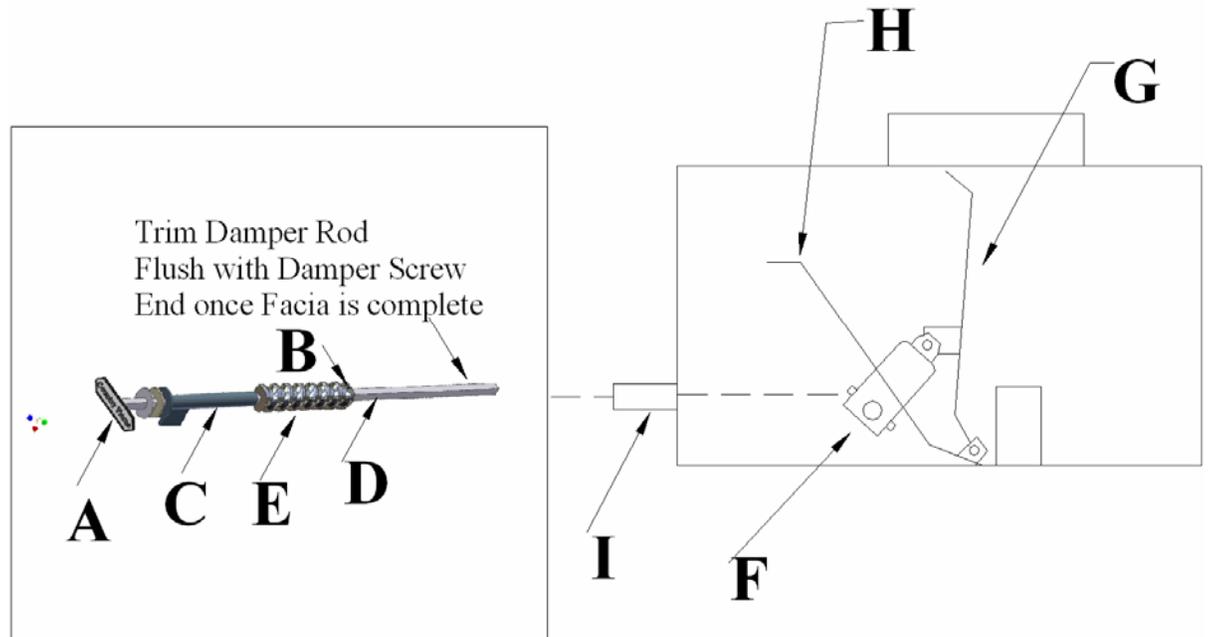
The fireplace furnace front can be finished in many different ways to enhance the appearance of your heating system. Ensure that all clearances have been met and that all insulation provided by Country Flame has been installed correctly. Refer to local codes for any limitations of fireplace fronts before completing the system. The following steps are provided as minimum requirements in completing the fireplace furnace front installation.

1. The fireplace face wall should be full masonry from floor to ceiling. An air space of at least two inches must separate **BOTH THE MASONRY AND THE MORTAR** from the front of the fireplace. Fill the two-inch void with the insulation provided by Country Flame. No mortar should be closer than two inches from the fireplace front to allow for heat expansion. Masonry may rest on the fireplace lintel and grille holder.
2. The fireplace mantle should be made of a non-combustible material. If combustible mantle material is used, it must be placed at least twelve inches above the air outlet grille.
3. FIGURE 10 defines all the working components of the fireplace damper system. When building the front masonry brick, be sure to locate and mortar in the adjustable damper rod sleeve, FIGURE 10, item (C).
4. The Smart Fireplace Furnace must be enclosed in a minimum of eight-inch thick masonry material on both sides and the rear. This thickness is usually a combination of four-inch thick concrete block and standard or common brick. Refer to **STEP 4 – FIREPLACE WALL CONSTRUCTION** for review of this requirement.
5. A minimum of twenty-four inch sidewall clearance must be maintained between combustibles and the interior firewall of the firebox.
6. The fireplace heat grille and heat discharge boot come preinstalled from the factory and can be used with any masonry brick up to 4” in thickness. If thicker masonry material is used, refer to FIGURE 9B for a pictorial view of the assembly process of the optional adjustable heat discharge boot. These optional parts are listed in the back of this manual. Order them from your dealer.
  - A. Mount “inner unit” (Part B, optional) to front of fireplace Part C using four (4) screws, Part D.
  - B. Slide “outer unit” (Part A) onto “inner unit” (Part B, optional). If optional Part B has not been purchased, mount Part A directly to Part C. Do not leave a gap between the outer and inner units.
  - C. Adjust in and out for proper fit to brick facing.
  - D. The air discharge snap disc comes pre-installed and wired from the factory. Ensure that it is wired to the home circuit by a certified electrician **AND** properly tested before final face masonry is completed. A complete electrical circuit diagram is shown in FIGURE 14.
  - E. Attach the grilles to the “outer unit” with the four screws provided.
7. Before completely enclosing the fireplace furnace unit, be sure the warm air ducts are connected and installed in accordance with local building codes and constructed of material capable of handling at least 250°F.
8. Maintain at least a four-inch clearance from the masonry chimney to combustibles below the roofline or maintain a six-inch clearance from the factory built chimney to combustibles below the roofline.
9. Use masonry or other non-combustibles to support the mantle.

## STEP 8 – FLUE DAMPER CONTROL INSTALLATION

 Country Flame's rotary controlled flue damper should be assembled as shown in FIGURE 10 after the fireplace is completely installed. The flue damper is extremely important to energy savings, reducing heat loss, and controlling a fire. The flue damper acts as a valve, closing off the opening to the chimney when a fire is not burning. Closing the damper reduces the amount of home heat or air conditioning that will be lost through the chimney.

Step 8 assumes that all masonry is complete and the adjustable rod sleeve, Item (C), FIGURE 10 has been or is ready to be embedded in the masonry veneer so that it cannot move. Refer to FIGURE 11b for more details on embedding Damper Handle Tab in mortar. Review FIGURE 10 to ensure a basic knowledge of each damper part and damper part name. Then follow the steps listed below in order to complete the installation of the rotary controlled damper rod. **WARNING:** Improper installation or operation of the damper system will make any fire difficult to control. Ensure the damper area is free from all construction or mortar debris.



**FIGURE 10: DAMPER PARTS**

The damper parts shown in FIGURE 10 are defined as follows:

- A. Country Flame Logo Damper Handle
- B. Damper Handle set screw. (Loosen to take handle off or tighten to hold handle in place)
- C. Adjustable Damper Rod Sleeve (Mortar in place before completion of fireplace face.)
- D. Damper Rod
- E. Damper Rod Screw (opens and closes the damper door when turned)
- F. Damper Screw Bracket (yoke with cast iron nut)
- G. Damper Door (controls exhaust gas output into chimney)
- H. Damper Door Frame (part of the fireplace welded assembly)
- I. Damper Pipe (stationary to fireplace)
- J. Washer

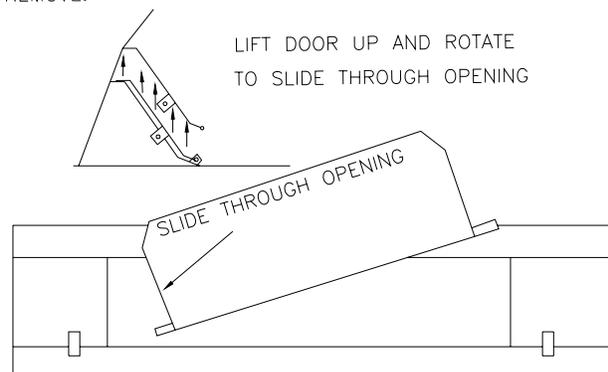
**INSTALLING DAMPER DOOR** - The rotary controlled damper of your Country Flame Fireplace should be assembled as shown in FIGURE 10 after the fireplace is completely installed. At this time the adjustable damper rod sleeve (C) will be embedded in the masonry veneer and cannot turn. Follow the steps below to complete the installation of your rotary controlled damper.



1. Begin with the damper door (G) in the fully open position. Insert the damper rod (D) through the adjustable damper rod sleeve (C) from the front of the fireplace.
2. From inside the fireplace guide the washer (J) over the end of the damper rod (D).
3. Reach inside the fireplace and slide the damper screw (E) over the end of the damper rod (D) with the setscrew opening positioned toward the rear of the fireplace.
4. Push the damper rod (D) as far toward the rear of the fireplace as possible. Push the damper screw (E) as far to the front of the fireplace as possible.
5. Mark the damper rod (D) flush with the end of the damper screw (E).
6. Remove the assembly and cut the damper rod (D) off at the mark you made in Step 5.
7. Replace the assembly as in Steps 1 and 2.
8. Insert the damper screw (E) into the damper screw bracket (F) and turn it completely counter clockwise until it seats.
9. Slide the end of the damper screw (E) without the setscrew opening over the end of the damper rod (D) and push both the damper screw (E) and the damper rod (D) toward each other as far as possible.
10. Tighten the setscrew (B) at the back of the damper screw (E).
11. Install the logo handle (A) on the outer end of the damper rod (D), align properly, and tighten the setscrew (B).

**NOTE:** Always close the damper door when the fireplace is not in use. Closing the damper door during non use periods will prevent airflow into or out of the house thus conserving energy whatever the season may be.

TO REMOVE:



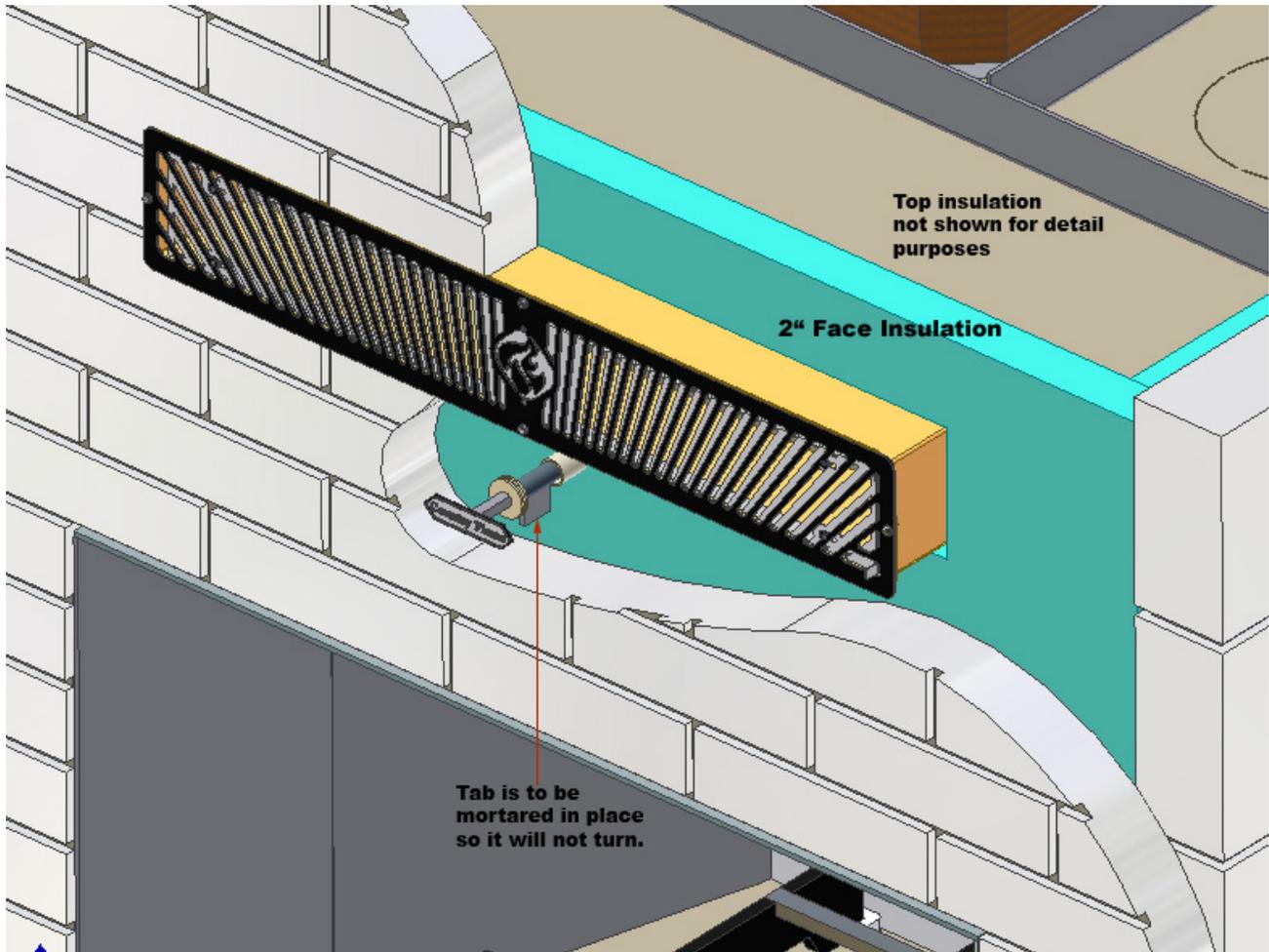
**FIGURE 11a: DAMPER DOOR REMOVAL**

**REMOVING DAMPER DOOR** - The rotary controlled damper of your Country Flame Fireplace can be removed if necessary. Whether for fireplace system cleaning or repair, follow the steps listed below to remove the damper. FIGURE 11a can be referenced when it is necessary to remove the damper door.



1. Reach through unit and remove screw in yoke. Swing yoke down out of the way. Lift Damper Door up and rotate slightly to slide through the opening. (See illustrations).
2. Clean out creosote and debris.
3. Replace Damper Door. Return yoke to its normal position and screw in place. Insure that the damper rod functions as intended.

NOTE: At installation, ensure the Damper Handle tab is mortared in place to prevent it from turning during use. Refer to FIGURE 11b for more detail on the Damper Handle.

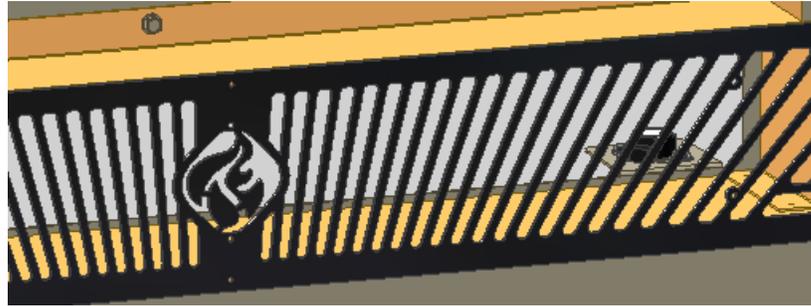


**FIGURE 11b: DAMPER DOOR CONTROL**

**WARNING:** The brick mason should ensure proper clearances are maintained between the face brick and the fireplace during final installation. Failure to maintain the minimum clearance (2 inch face insulation) can cause expansion fractures in face brick during fireplace operations.

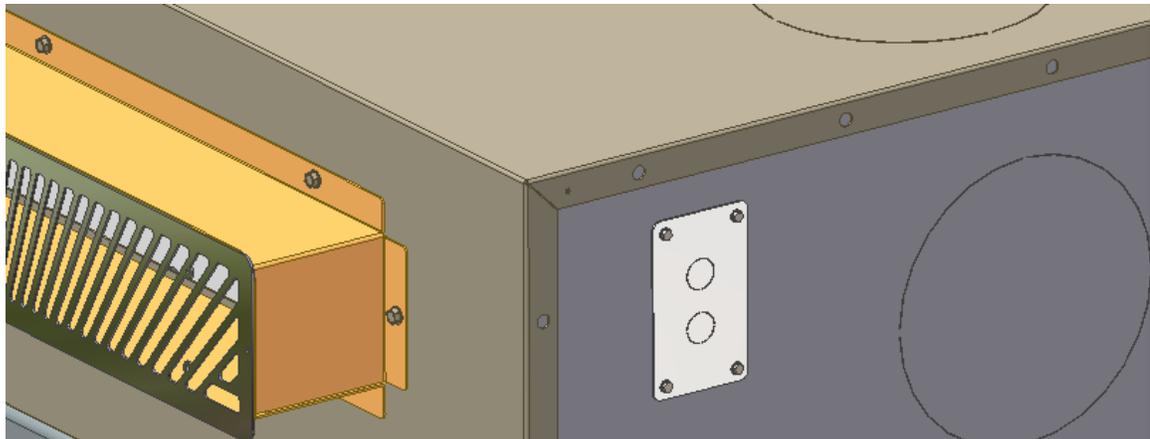
## STEP 9 – ELECTRICAL SYSTEM

 Country Flame's Smart Fireplace Furnace comes standard with two blowers each rated to move 525 cubic feet of room air per minute. The blower system includes all necessary parts, except some additional wire, required for a local certified electrician to install the blowers, speed controls, and the thermostat. The fireplace's electrical system **SHOULD BE** tested before final brickwork is completed. If electrical testing is not done, access to installed wiring may be limited or worse, not repairable without costly removal of brickwork. Request that the local electrician make sure all blowers, air discharge snap disc, and rheostats are properly working before completing the brickwork.



**FIGURE 12: THERMAL SNAP DISK LOCATION**

FIGURE 12 shows the location of the thermal snap disk on the right side behind the front grille. Service to this component should only be accomplished by a qualified technician. This snap disk comes pre-wired from the factory. Once connected to the main power circuit, this snap disk will automatically turn the blower system on and off as the Smart Fireplace Furnace reaches either the appropriate hot or cold temperature.



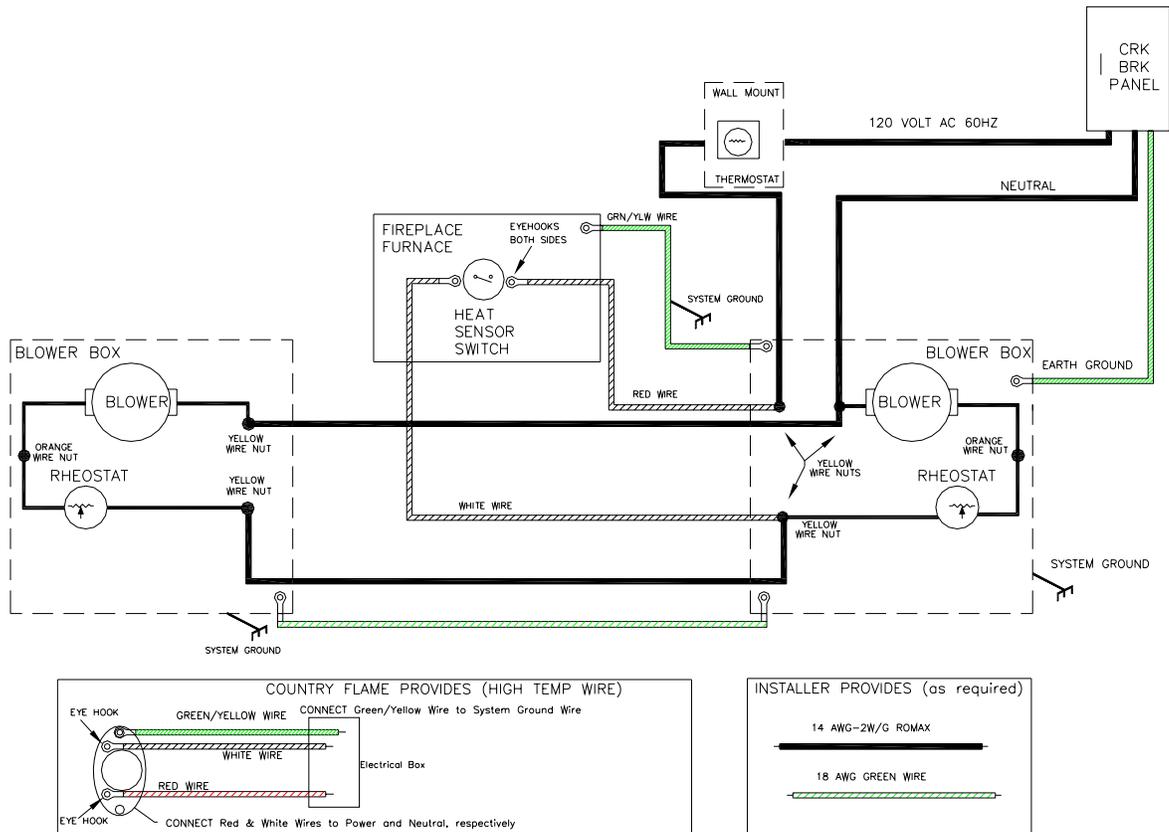
**FIGURE 13: ELECTRICAL JUNCTION BOX**

FIGURE 13 shows the location of the electrical junction box cover. A certified electrician should remove the cover of this junction box to connect the Smart Fireplace Furnace's blower system to the household electrical grid and the supplied thermostat with proper temperature rated romex wire. **WARNING:** Failure to properly wire in the blower system can lead to shock hazard, a malfunctioning blower system, or could create a fire hazard. Contact a certified electrician to ensure proper installation of the Smart Fireplace Furnace blower system. **NOTE:** All wiring should be completed before masonry work is complete.

Included with this blower system as:

- a) Two multi-speed blowers rated at 120 volts, 60Hz, 6.5 amperes, and 525 CFM each.
- b) Two ducts for mounting blowers to fireplace.
- c) Two blower grille covers with rheostat fan speed controls pre-mounted.
- d) 10 wire nuts.
- e) One Wall mountable thermostat.
- f) One air discharge snap disc mounted & wired in front air discharge duct (right side.)
- g) Electrical box, right side to connect snap disk to thermostat connection.

FIGURE 14 shows the proper components and wiring procedure for connecting the blower system. Follow all local electrical and safety codes as well as the National Electrical Code when installing electrical wiring.



**FIGURE 14: ELECTRICAL SYSTEM**

A certified electrician should provide the electrical circuit and connect the fireplace furnace to the electrical supply. The blower systems and the Smart Fireplace Furnace must be electrically grounded. Grounding can be accomplished with a grounded metal-clad raceway system or by using a separate ground wire connected to the bare metal of the blower frame and fireplace box or other suitable means. Disconnect all power sources from the fireplace before working on or near the blower motor system or its components. Be careful when touching the exterior of an operating blower motor. Modern motors are built to operate at high temperatures that may be hot enough to cause pain or personal injury. Be careful around the moving parts of the blower motor system. When installing the blower system ensure that the power cables and blower leads remain

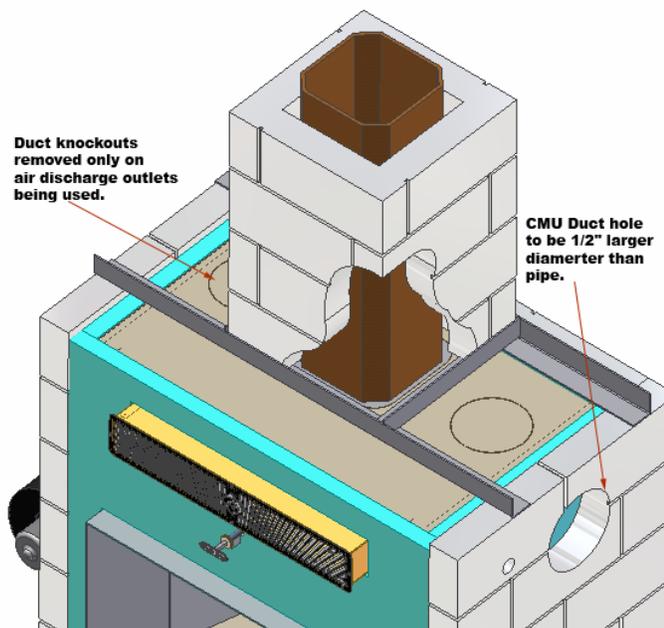
clear of sharp objects. Further, ensure that the power cables or motor leads are not kinked. Never allow the power cables or motor leads to come in contact with oil, grease, hot surfaces, or chemicals. Utilize the two high temperature wires (red and white) provided by Country Flame to connect the air discharge snap disc to the electrical system as shown in FIGURE 14. Use the high temperature wire (green/yellow) to ground the fireplace to the right blower box. The green/yellow wire installed by Country Flame at the factory should be connected to one of the screws used to hold the air discharge snap disc to the fireplace. Connect the other end of the green/yellow wire to the right blower box or another earth ground coming from the circuit breaker box. The installing electrician should ensure proper grounding is accomplished for both blower boxes and the fireplace unit as per FIGURE 14. Screws and wire nuts are provided by Country Flame to ensure all parts are available during installation.

High temperature blower motor systems are lubricated at the factory and should require no further lubrication; however, at higher inlet temperatures, increased bearing life can be achieved by annually re-lubricating the motors with 10 to 20 drops of Anderol Number 465 high temperature synthetic lubricant. **DO NOT USE** petroleum-based oil, as bearing failure will result.

## DUCTING OPTIONS



Properly ducting the Smart Fireplace Furnace will provide years of comfort because properly ducted fireplaces will allow for a more uniform distribution of heat throughout the home. Many ducting options are possible with the Smart Fireplace Furnace. Which option is selected depends on your installer's knowledge, local codes, and the desired results expected from the completed system. During the installation process, it is important to determine and ensure the compatibility of the Smart Fireplace Furnace with any gas or oil fired furnace that is to be installed in the residence. As a minimum, a test must be conducted to ensure the furnace installation is compatible with the existing Smart Fireplace Furnace's operating range of air temperature rise and/or external static pressure of those marked on the nameplate of the central furnace.



**FIGURE 15: (OPTIONAL) SIDE VENTED FIREPLACE**

**CAUTION:** The warm-air supply outlet of the Smart Fireplace Furnace should not be connected to the cold-air return inlet of the central furnace system. These warm-air to cold-air connections must not be made because the possibility exists of components in the central furnace system overheating and causing the central furnace system to operate other than as it was intended to operate.

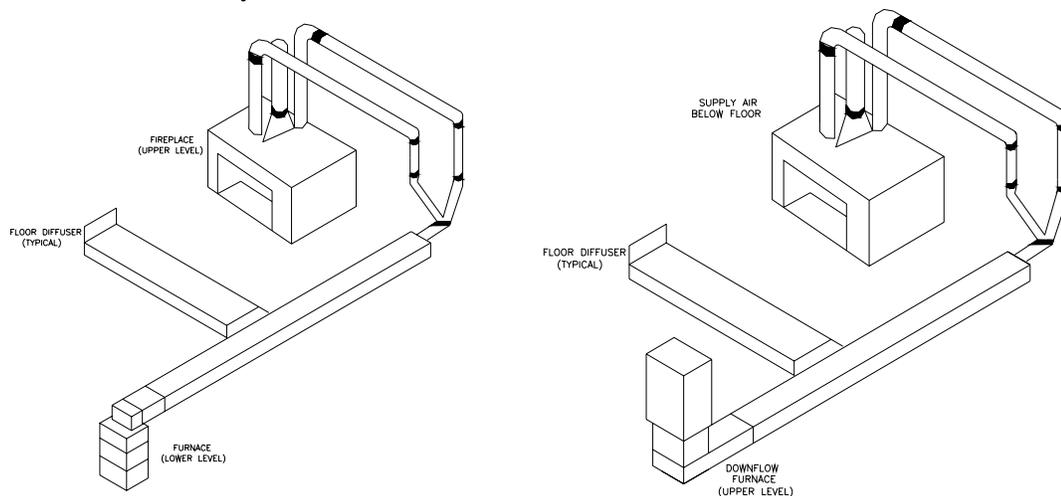
**OPTIONAL DUCT RINGS** are available from Country Flame Technologies and are unique to fireplace models. FIGURE 15 shows an example of a side duct system. Contact Country Flame or your dealer to order a duct kit for a specific fireplace model.

Holes in brick masonry should be a half-inch larger diameter hole than the duct pipe to be utilized. This will allow an area for expansion of the duct pipe as it heats up. Example: if ducting a Country Flame Model 33, a 6-½ inch diameter hole should be cut in the masonry for the duct; whereas, for the Model 37 and the Model 42, an 8-½ inch diameter hole should be cut in the masonry for the duct. All clearances listed in Table 1, page 2 must be strictly adhered to.

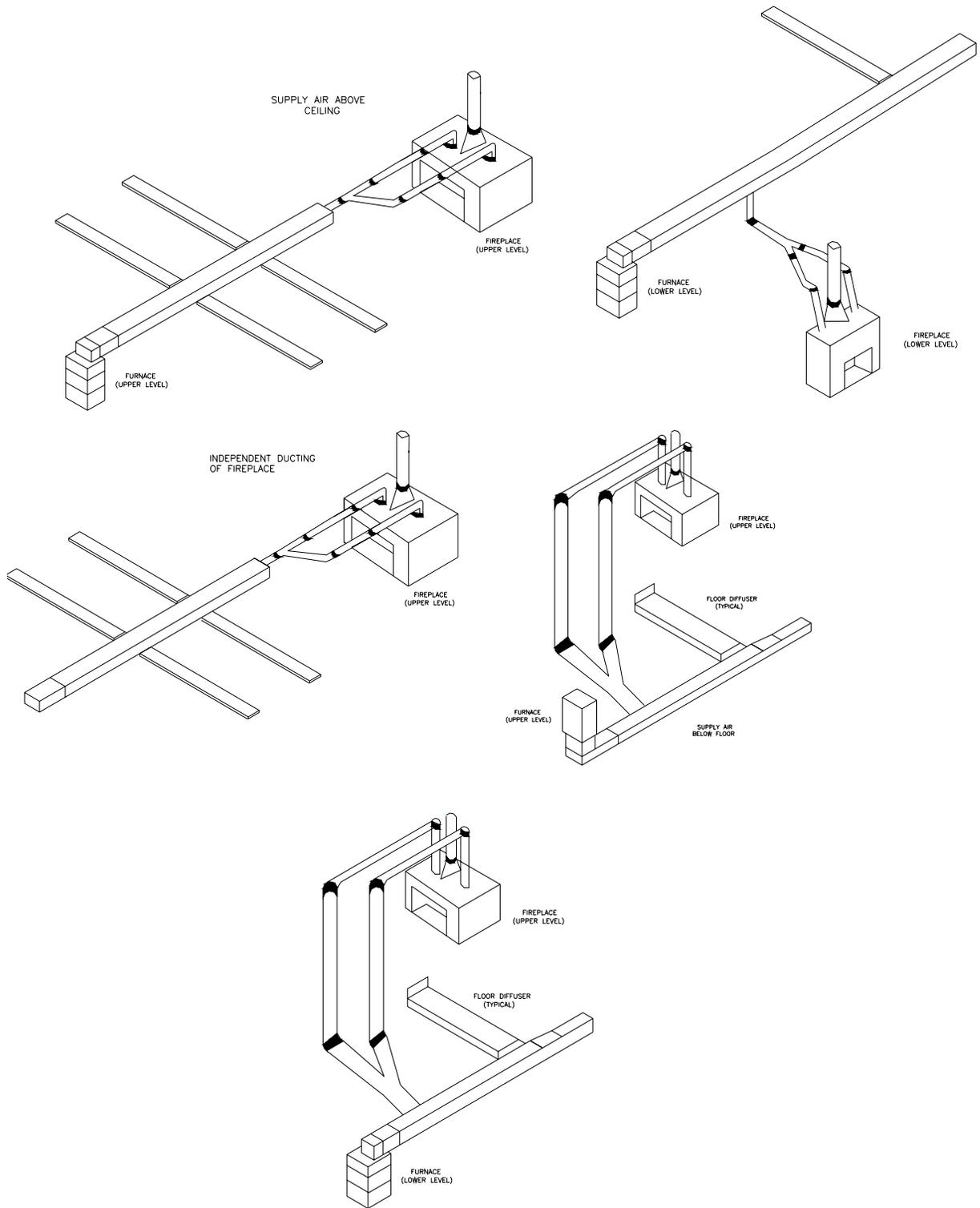
FIGURE 15 shows a side (one side only for clarity) view of the optional side vent fireplace. To order this optional side vented fireplace furnace, contact a Country Flame dealer or Country Flame direct.

FIGURE 16 provides a view of several different options that are possible for connecting fireplace furnace ducting systems. Clearly, a plan must be developed for how the ducts will be connected before installation is begun or completed. The following steps will assist in properly installing ductwork but local codes and your home's HVAC expert should be consulted.

1. Use 26 gauge or heavier galvanized pipes for ducting. **WARNING: DO NOT** use plastic or flex ducting. The ductwork must be wrapped with two inches of insulation as per table 10-D of the **Uniform Mechanical Code (UMC)** within the masonry cavity.
2. Wrap the duct pipe for the first fifteen feet out of the masonry cavity with a minimum of two inches of insulation as per 10-D of the UMC. After fifteen feet no insulation is required but is **HIGHLY RECOMMENDED** in order to minimize heat loss. **WARNING:** Maintain a minimum clearance of at least three inches to all combustible materials over the entire length of the ductwork.
3. Ducts must have adequate straps or other means of securing the ductwork to prevent sagging or movement.
4. Do not reduce the size of the ductwork. Avoid using 90° elbows where possible. Two 45° elbows are preferable to a single 90° elbow and will minimize pressure drops within the ductwork system.



**FIGURE 16a: DUCTING SYSTEMS EXAMPLES**



**FIGURE 16b: DUCTING SYSTEMS EXAMPLES**

## FIREPLACE FURNACE OPERATIONAL REQUIREMENTS



Immediately after your Country Flame Fireplace has been properly installed it should be tested for draft. A draft test is a simple method used to ensure air is moving up the chimney (positive air flow versus a house that may have negative pressure.) Wad up one or two sheets of clean dry newspaper. Set this paper in the middle of the firebox. Ensure that the rotary control damper is turned fully open (clockwise). If the fireplace furnace is equipped with fireplace doors (optional), open the door's draft controls. If the chimney system is drawing properly, smoke from this burning newspaper and the paper's flames should be drawn up and into the open flue. If on the other hand, the smoke blows into the room or burns very slowly, either there is negative pressure in the house or the existing chimney system is not operating properly. Have the system checked by a qualified chimney sweep or certified contractor or contact a Country Flame dealer.

Things that should be checked in case of poor draft:

- Make sure the chimney flue damper is completely open. (Rotated clockwise)
- See that the flue is clear of obstructions such as debris, creosote, nests, etc.
- If chimney flue has chimney cap, remove it and make sure it is clean.
- The chimney flue may not extend high enough above the roof or it may be obstructed.
- The chimney system may have leaks substantial enough to reduce the draw.

After checking the installation for proper draft, you are ready to build your first fire. The first fire should be relatively light. This breaks in the heater slowly, rather than the sometimes-damaging effect of a flash fire in the initial firing. For this first firing we suggest the following procedure:

**Step 1** During the first firing of your Country Flame Fireplace, and anytime it is refired in the future; the rotary control damper should be turned completely clockwise in the fully open position. This allows for maximum draft.

**Step 2** Place several pieces of wadded-up newspaper in the forward section of your Country Flame heater directly on top of the grates.

**Step 3** Directly on top of the newspaper; place a good size bundle of lighter wood, rolled-up newspaper or small kindling.

**Step 4** On top of both the newspaper and the lighter wood, place two well seasoned, small-sized logs; one at the front, one directly behind it, and another small one in the middle top of the other two. A small log on the top avoids smothering the fire.

**Step 5** After the fire starts to burn, leave damper open and close fireplace doors (optional), if installed. If equipped with Fireplace Doors (optional) open the door's draft control and bring the fire to desired burn with these controls.

**Step 6** Allow the fireplace to warm thoroughly and all logs to begin burning well before either adding additional wood or closing your draft controls. This will normally require fifteen minutes or longer.

**Step 7** Adjust your wall thermostat to the desired setting. The blowers are equipped with speed controls to adjust airflow through the unit. These speed controls do not have an off position and can only minimize or maximize airflow by turning the speed control knob located on the front blower grille. As the fire heats up the fireplace furnace, the air discharge snap disc will close and the blowers will turn on unless the thermostat is not calling for heat. Once the fireplace furnace cools down, the thermostat or the air discharge snap disc will automatically shut the blowers off. Do not use speed controls with an "off position" as this may cause the fireplace furnace system to overheat.

**Step 8** Adjust the variable speed fans to the desired speed setting by rotating the individual knobs located in the middle of the blower box grilles.

#### **INTERNAL THERMOSTAT**

The internal air discharge thermostat (snap disc) is located on the inside right of the hot air discharge grille on the front of the Smart Fireplace Furnace. This snap disc activates the fireplace blowers once the air temperature in the discharge grille rises past 110° F. This same air discharge snap disc will automatically turn off the blower systems when the discharge temperature drops below about 90° F. This snap disc, along with a wall thermostat works controls the temperature of when the blower system operates. The combination of the air discharge snap disc and the wall thermostat ensures that a specific fireplace will not blow cold air or overheat the room by continuing to blow hot air when a specific room temperature has been reached.

#### **DISPOSAL OF ASHES**

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from any and all combustible materials, pending final disposal of the cool ashes. All ashes should be retained in the closed container until all cinders have thoroughly cooled. Ashes may also be removed through the ash dump opening.

#### **USE OF LIQUID FUELS**

Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen-up" a fire in the Country Flame fireplace furnace. Keep all such liquids or any other combustible fluids well away from the fireplace furnace while it is in use.

#### **CREOSOTE FORMATION AND REMOVAL**

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue or a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote

makes an extremely hot fire. It is the responsibility of the owner to periodically clean the chimney as regular maintenance. Local chimney sweeps can provide such a service. In any event, owners of wood burning fireplaces should become aware of care and maintenance required to prevent fires and creosote formation.

## **WOOD**

You may purchase wood by the stack, by the rick, by the pickup load, and by the cord. Buying wood can be frustrating if you do not know what to expect or how to avoid problems. Talk to a local chimney sweep or Country Flame dealer to locate knowledgeable personnel that provide cut wood.

A cord is 128 cubic feet of wood. It can be of various widths and lengths but the cubic measurement is always the same. You should measure the loads that you purchase and asking your woodcutter to stack the wood makes this job considerably easier. The ideal moisture content of wood is 12-20%, but this is seldom available for purchase – it is normally the product of careful cutting, splitting, stacking, and seasoning. The moisture content of green wood, full of sap, is approximately 80%. This green wood has so much moisture that it is hard to establish a fire with it, and half of its energy content is expended just to boil out its water content. This results in much less heat output for your home. A moisture meter is an invaluable aid in evaluating your wood purchases and your choice of woodcutters. It is recommended to order firewood that is 2” to 6” shorter than the firebox width to assure an easy fit.

Our particular definition of well-seasoned wood is wood that has been cut and split in the late winter and left to dry out during the summer months. This well-seasoned wood will provide the best burn with the least creosote build-up. Ordering your wood split will certainly be a convenience. If wood is to be split, ensure proper equipment is available and proper safety precautions are utilized. Splitting wood improperly can be very dangerous.

## **HEATING WITH WOOD**

Maintaining comfortable heat for extended periods of time throughout your home is a talent that you will acquire with time and experience. Your exact technique will vary with the layout of your home, your flue and wood. WE can make suggestions for you to use as guidelines.

**Timing** - When you add wood to your fire it influences how long the fire will last. A full charge added to a good set of coals and embers will burn several hours and produce even heat, ideal for overnight burns. The same charge when added to a very hot fire or set of coals produces more intense heat for a shorter period of time.

**Quantity** - Adding a large quantity of wood to a fire will cool the fire substantially and will be slow to catch. Naturally the heat output will be reduced for a period of time. Adding smaller quantities will produce faster starting and more even heating.

**Ashes** - Ashes in your heater insulate the coals in your fire and make them last longer. This means more heat in the firebox and faster starting of fires. When cleaning the heater it is not necessary to allow the fire to completely go out. Simply allow the fire to die down and push the coals and burning matter to one side, then remove the ash by dropping them through the ash dump opening or placing them in a closed container. (Refer to “Disposal of Ashes, page 23.) Alternate to the other side and leave a bed of coals in the middle of your Country Flame firebox to start your next fire. Remember that failure to clean your heater regularly will allow the ash to build up which will reduce the size of your firebox and lower heat output.

## FIREPLACE FURNACE MAINTENANCE REQUIREMENTS

### SYSTEM

The majority of fires and accidents occurring with solid fuel-wood burning appliances are a result of improper maintenance of a fireplace. Visual inspections of the fireplace furnace, the chimney, the chimney connectors and the chimney cap on a semi-annual basis will reduce the probability of a fire or accident.

A visual inspection should be made on monthly basis. All dampers and moving parts should move freely without sticking. All metal parts should be checked for corrosion or air leaks. Any weak or damaged metal should be replaced with equal or greater thickness metal. The inside of the chimney should be checked regularly for the buildup of any creosote. If the inside of the chimney has a flat black appearance it should be considered relatively clean. If the inside of the chimney has a shiny black appearance this would indicate that creosote is building up and the chimney needs to be properly cleaned.

All factory-built chimney and chimney connectors should be professionally cleaned at least once each year. Certified chimney sweeps advertise in the local yellow pages and should be contacted for professional cleaning services. The efficiency of a fireplace is directly impacted by the maintenance performed. Failure to keep the fireplace clean will limit the fireplace furnace heat output.

### BLOWERS

The two (2) blower assemblies each have an electrical motor that has one oil hole. These motors will require annual lubrication. High temperature blower motor systems are lubricated at the factory and should require no further lubrication during the first year; however, at higher inlet temperatures and with time, increased bearing life can be achieved by annually lubricating the motors with 10 to 20 drops of Anderol Number 465 high temperature synthetic lubricant. **DO NOT USE** petroleum-based oil, as bearing failure will result. Lubrication can be accomplished by removing the each grille from the blower box face. **WARNING:** Electrical power must be removed from the fireplace furnace to avoid shock hazard when lubricating the fans. Performing this simple annual maintenance on motors will ensure smoother, quieter, and longer life from each of these electrical devices.

### OVER FIRING

**Important:** If any part of the fireplace furnace metal frame glows red, it is being over fired. Over firing is dangerous. It not only reduces the life expectancy of the product, it can also overheat the immediate area and increases the potential for creating dangerous conditions that can ignite surrounding areas. Close the draft control to reduce a fire by limiting the amount of airflow through the firebox.

In the event of a power failure the blower motors will not operate. This will limit the amount of heat that is being distributed through the duct system and will cause the fireplace furnace to burn hotter. In case of a power outage, it is suggested that a medium to small fire be maintained in the firebox. **DO NOT OVERFIRE.** Do not expect to heat the house to a desired temperature during a power outage.

Whenever power is restored to a home, the blowers will automatically turn on; assuming a proper amount of heat is present in the firebox so the air discharge snap disc has closed to complete the electrical blower circuit.

If fireplace doors (optional) have been installed on a Country Flame Fireplace Furnace, then the fireplace door's air draft control should be open at least one turn while doors are in closed position with fire burning.

#### **OUTSIDE COMBUSTION AIR**

When local building codes require a source of outside air for combustion it is recommended that the outside air be routed to the firebox through the fireplace furnace foundation. Refer to STEP 1 - FOOTINGS AND FOUNDATIONS or confer with the local code department for further instructions on providing an outside combustion air source for the fireplace furnace.

Desire additional information on using wood fired units safely? Obtain such data from the "National Fire Protection Association" publications; "Using Coal and Woodstoves Safely", NFPA NO. HA-10-1978. Address: National Fire Protection Association, 470 Atlantic Ave., Boston, MA 02210 or check the worldwide web for information on burning wood fuel.

## TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Fireplace smokes	Chimney cap restricted	Clean the chimney cap and remove any debris that may have accumulated in the screen.
	Damper not adjusted	Secure the damper into the open position.
	Downdraft	Add a chimney cap designed to prevent downdrafts.
	Obstruction	Remove tree limbs or obstruction at least 10' from top of chimney or increase chimney height.
	Atmospheric conditions	Occasional atmospheric conditions will cause a smoking condition if the chimney pipe is not straight up. It is best to wait for conditions to change before burning with the doors open.
	Chimney obstruction	Check the flue system for obstructions and clean.
	Too many flues to a chimney	Consult with Certified Chimney Expert.
	House too tight	Open windows at first floor and close upper floor windows.
	Paint curing	New heaters always smoke on start up as the paint is heated. Open windows and doors for ventilation.
Glass gets dirty (optional doors)	Leaky chimney	Joint leaks or mortar leaks will cause the draft to be weak. Use cement or mortar to correct these leaks.
	Wet wood	Dry wood produces much less creosote buildup than wet wood and less glass staining.
	Normal buildup	A damp cloth dipped in wood ashes works well. Regular household glass cleaners are not effective in cleaning glass. Using abrasives such as steel wool or powder abrasives permanently damages glass. Approved Fireplace glass cleaners are available.
Lack of Heat	Position of fire	Burning logs, close to the glass, will tend to dirty the glass.
	Wet wood	Dry wood produces almost twice the BTU's and burns at the same rate as wet wood. Wood cut in January and allowed to dry will give excellent results for the fall season.
	Too small a fire	When starting a fire allow it to burn rapidly for several minutes to burn off excess creosote. A well-built fire is much more efficient and heats better than a few sticks. A fire built next to the sides of the heater provides much better heat transfer.
	Too high a speed on blower	Always adjust the speed of the blower to the size of the fire. Too high a fan speed produces a cooling effect.

PROBLEM	CAUSE	SOLUTION
Lack of Heat (continued)	Severely cold weather	Naturally you will require more fuel in the middle of winter than in the fall.
	Overdraft	Turn the rotary damper toward the closed setting until the draft is reduced.
	Draft controls not adjusted	Combustion is restricted when the air is restricted. Be certain that the air intake is properly adjusted and open enough.
	Bad wood	Hard wood gives more heat than soft wood. Rotten wood of any type gives very poor heat, burns quickly and produces excessive ash.
Blower Inoperative	Controls	Check Circuit Breaker. Ensure the thermostat is properly set and fire has warmed the firebox and air discharge snap disc. The fan speed should be set to the appropriate speed not to the "off" position.
	Sensor switch	Only comes on when the discharged air reaches 110 degrees or higher. Test the air discharge snap disc with a hair dryer. Fans should begin to operate if both the wall thermostat and air discharge snap disc completes the blowers' electrical circuit.
Excessive creosote	Poor quality wood	Unseasoned wood will produce more creosote than dry, seasoned wood. Buying your wood early will avoid these problems.
	Heater Controls shut down too tight	Closing the draft controls too tight prevents the entry of air necessary for complete combustion. Open your draft controls for up to 20 minutes once a day to burn off accumulations of creosote. Proper use of commercial preparations will also give satisfactory results.
	Humidifier	Adding moisture to the air, as when a humidifier is used, will increase the creosote formation. Be sure to clean your flue more often and burn your fires hotter.
Brass tarnishes	Normal	Flitz and other commercial preparations work very well for a bright, clear shine. Avoid placing fingers on brass to preserve the appearance.

## REPLACEMENT PARTS

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER per FIREPLACE</u>
PP-703	Electric Hardware	1
FP-0000-924	Air Intake Grille Frame	2
PP-558	Blower Motor – 525 CFM	2
PP-91	Heat Sensor – 110 Ceramic Snap Disk	1
PP-350	Rheostat, Variable Speed (No Off)	2
PP-563	Thermostat – 120V Wall Thermostat	1
PP-80	Control knob for Rheostat-FP	2
PP-37	Damper Logo Handle “Country Flame”	1
PP-35	Insulation K Wool, 4’ by 15’ by 2”	1
PP-559	Aluminum Clean Out Door 8” x 8”	1
FP-0000-916	Ash Dump Cover	1
FP-0000-921	Damper Door Assembly (nut, yoke & door)	1
FP-0000-923	Yoke Bracket Assembly	1
PP-582	Damper Cast Iron Nut	1

## REPLACEMENT PARTS (cont'd)

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER per FIREPLACE</u>
FP-0000-918	Damper Rod Sleeve (goes over rod)	1
FP-0000-920	Damper Rotary Rod Assembly	1
FP-0000-917	Damper Rotary Rod Only	1
PP-564	Damper Screw (goes over rod)	1
F-218	Flue adapter for Model 33 or 37	1
F-42-218	Flue adapter for Model 42	1
FP-0037-910	Hot Air Discharge Grille: 5.25" x 30.975"	1
PP-560	Air Intake Grille: 13.5" x 13.5"	2
FP-0000-925	Adjustable Heat Discharge Boot	1
PP-359	Owners Manual, FP Models 33, 37 & 42	1
LG-900	Log Grate (Optional)	1
FP-0033-20	6" Hot Air Duct Collar (set of 2) (Optional)	2
FP-0037-20	8" Hot Air Duct Collar (set of 2) (Optional)	2

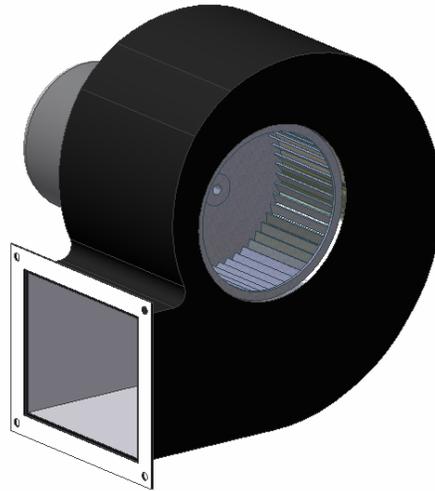
PART DRAWINGS

PP-703



**ELECTRICAL HARDWARE**

PP-558



**BLOWER, 525 CFM (2 each per fireplace,) PP-558**

FP-0000-902



**110 CERAMIC SNAP DISK, PP-91**

PP-350



**RHEOSTAT (2 each per fireplace,) PP-350**

PP-563



**THERMOSTAT, PP-563**

PP-80



**FP - RHEOSTAT KNOB (2 each per fireplace blower,) PP-80**

PP-37



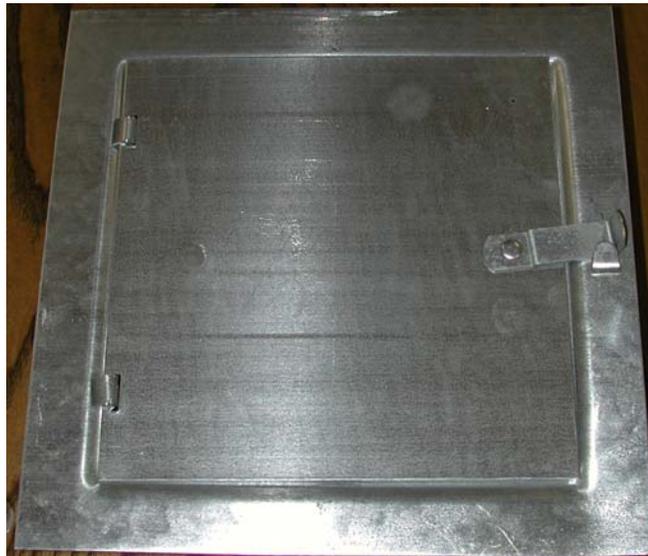
**DAMPER LOGO HANDLE, PP-37**

PP-35



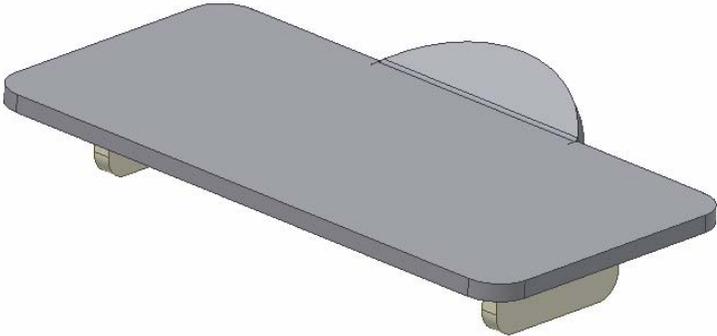
**INSULATION FOR TOP, SIDES, FRONT, AND BACK, PP-35**

PP-559



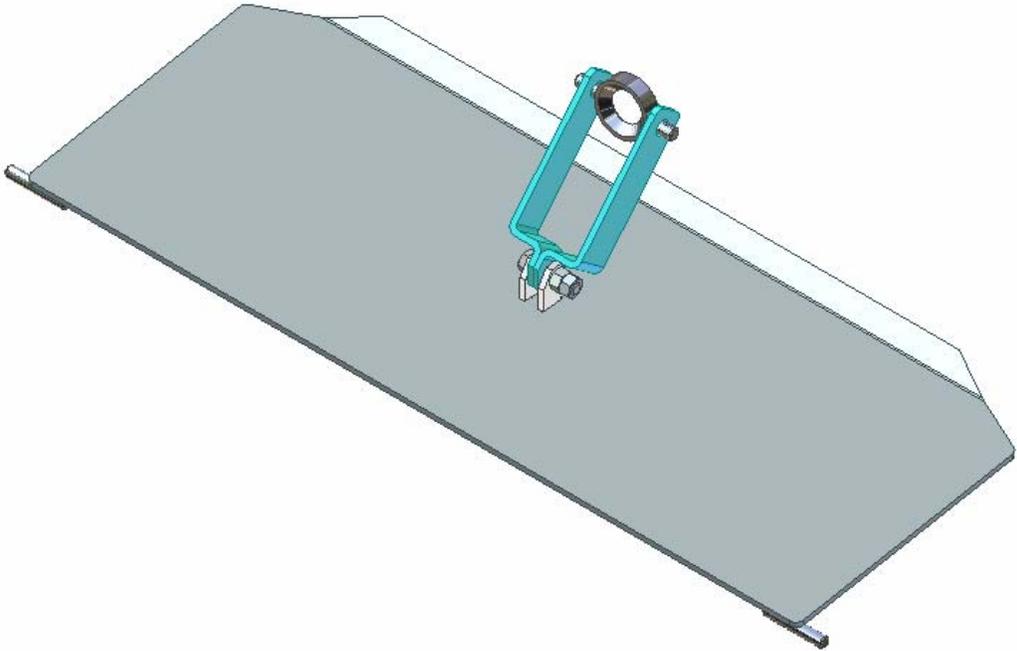
**ALUMINUM CLEAN OUT DOORS, 8" x 8," PP-559**

FP-0000-916



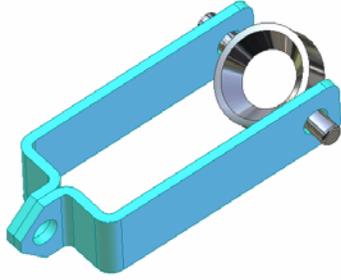
**ASH DUMP COVER, FP-0000-916**

FP-0000-921



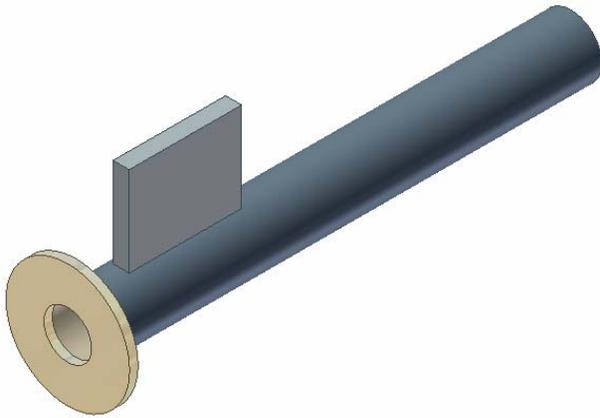
**DAMPER DOOR ASSEMBLY, FP-0000-921**

FP-0000-923



**YOKE BRACKET ASSEMBLY, FP-0000-923**

FP-0000-918



**DAMPER ROD SLEEVE, FP-0000-918**

FP-0000-917



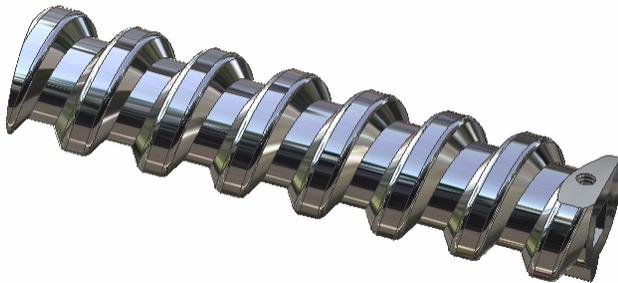
**DAMPER ROD, FP-0000-917**

FP-0000-920



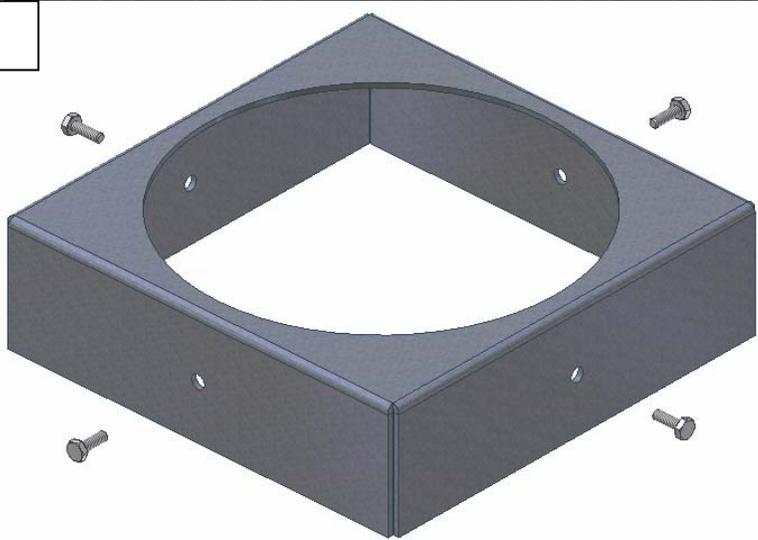
**DAMPER ROD ASSEMBLY, FP-0000-920**

PP-564



**DAMPER SCREW, PP-564**

F-218  
(Optional)



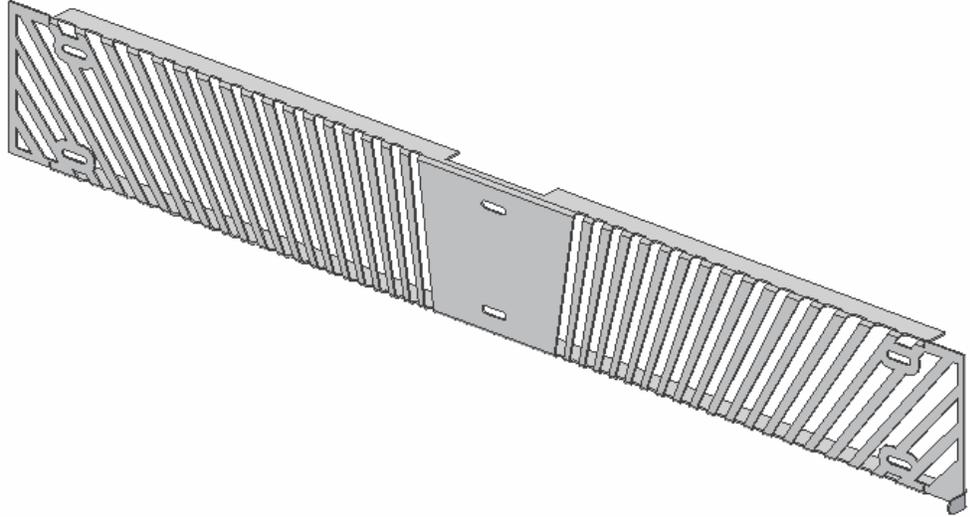
**FP-33 & FP-37 FLUE TO HT CHIMNEY ADAPTER, F-218**

F-42-218  
(Optional)

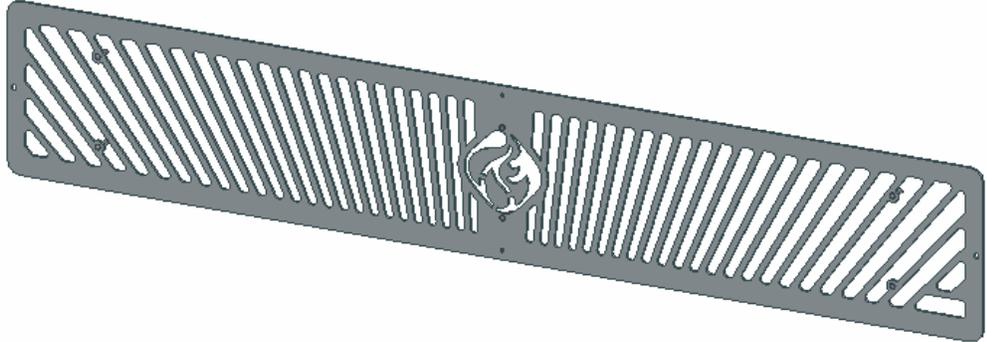


**FP-42 FLUE TO HT CHIMNEY ADAPTER, F-42-218**

FP-0000-32 & 33



**GRILLE BACK, FP-0000-33**



**GRILLE FRONT, FP-0000-32**

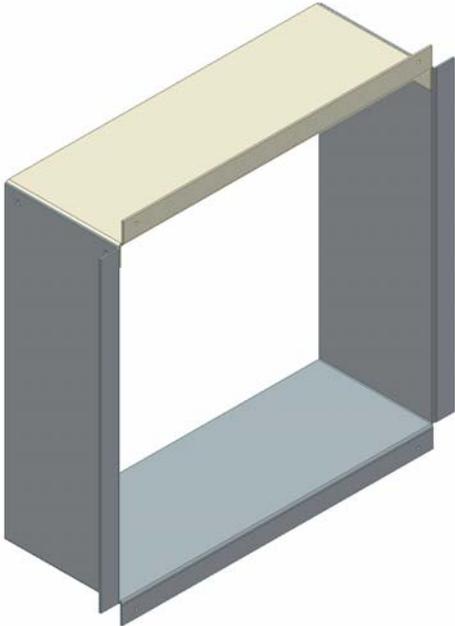
**TOGETHER: HEAT DISCHARGE GRILLE ASSEMBLY, FP-0037--910**

F-560



**AIR INTAKE GRILLE, PP-560**

FP-0000-924



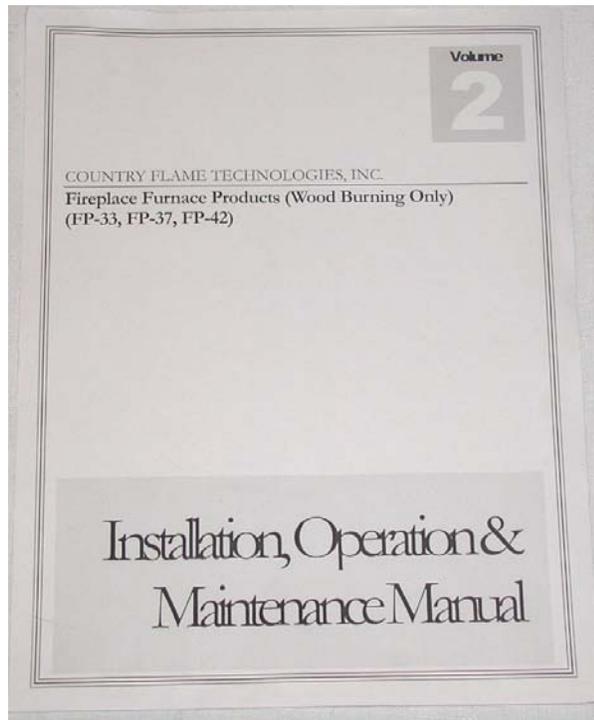
**AIR INTAKE GRILLE FRAME, FP-0000-924**

FP-0000-925



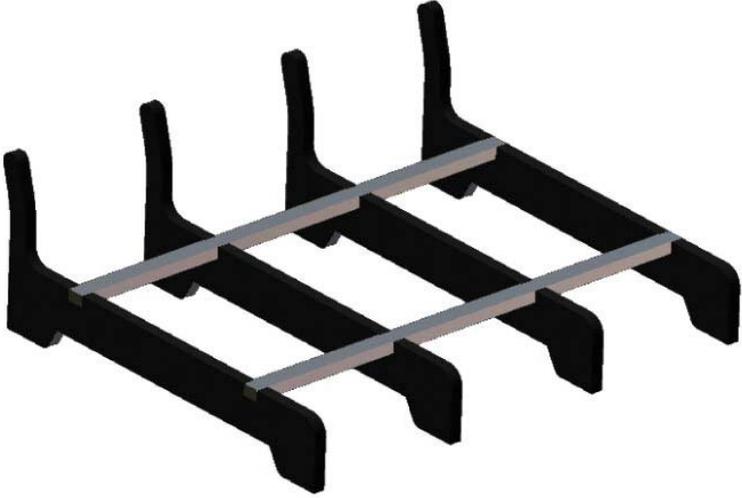
**ADJUSTABLE HEAT DISCHARGE BOOT (OPTIONAL,) FP-0000-925**

25-0051-00



**OWNERS MANUAL, PP-359**

FP-0000-49



**LOG GRATE (optional), LG-900**

## WARNING LABELS

PP-1333

### **ATTENTION: FIREPLACE INSTALLER/CONTRACTOR**

Ensure when building the hearth that the finished surface of the hearth is flush with the inside floor of the fireplace unit. The finished surface of the hearth may **NOT** be higher than the inside floor of the fireplace. The finish of the hearth floor will affect the way a fireplace door (optional) will mount to the fireplace.

PP-1321

### COMPANY LABEL



**Country Flame**  
Technologies

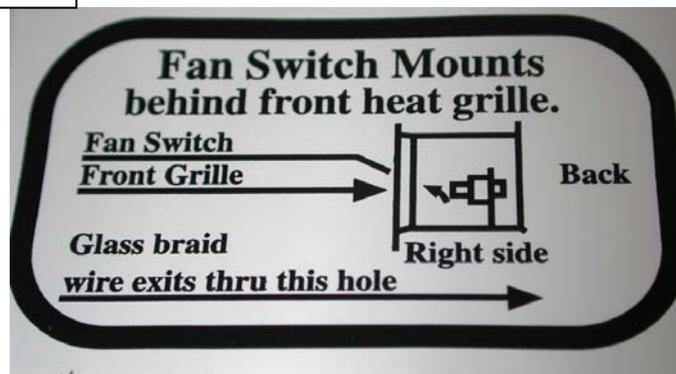
A DIVISION OF AMERICAN PRODUCTS LLC.

900 GEORGE STREET • MARSHFIELD, MO 65706 • (417) 859-0990

*"The Beauty of a Fireplace, with the Efficiency of a Wood Furnace."*

PP-1320

### FAN SWITCH LABEL



WARNING LABELS (cont'd)

PP-1333

**GRATE WARNING LABEL**

**WARNING**

**FIREPLACE MODELS, FP-33, FP-37, OR FP-42 REQUIRE AN ANDIRON/LOG GRATE. USE A COUNTRY FLAME LOG GRATE P/N FP-0000-49, OR USE A LOG GRATE WITH MINIMUM 3.0" (H) x 21.0" (W) DIMENSIONS.**

FAILURE TO USE A LOG GRATE VOIDS THE PRODUCT WARRANTY

Fold Here

---

Place  
Stamp  
Here

**Country Flame Technologies**  
A Division of American Products, LLC  
900 George Street  
Marshfield, MO 65706

REQUIRED WARRANTY INFORMATION

Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

State: \_\_\_\_\_ Zip \_\_\_\_\_ Phone Number \_\_\_\_\_

Authorized Dealer \_\_\_\_\_

Date Purchased: \_\_\_\_\_

Model No# \_\_\_\_\_ Serial No# \_\_\_\_\_

Installed By: \_\_\_\_\_

Trained By: \_\_\_\_\_

**NOTE: Failure to return the above warranty information within 30 days from the date of purchase will make the Country Flame warranty null and void.**