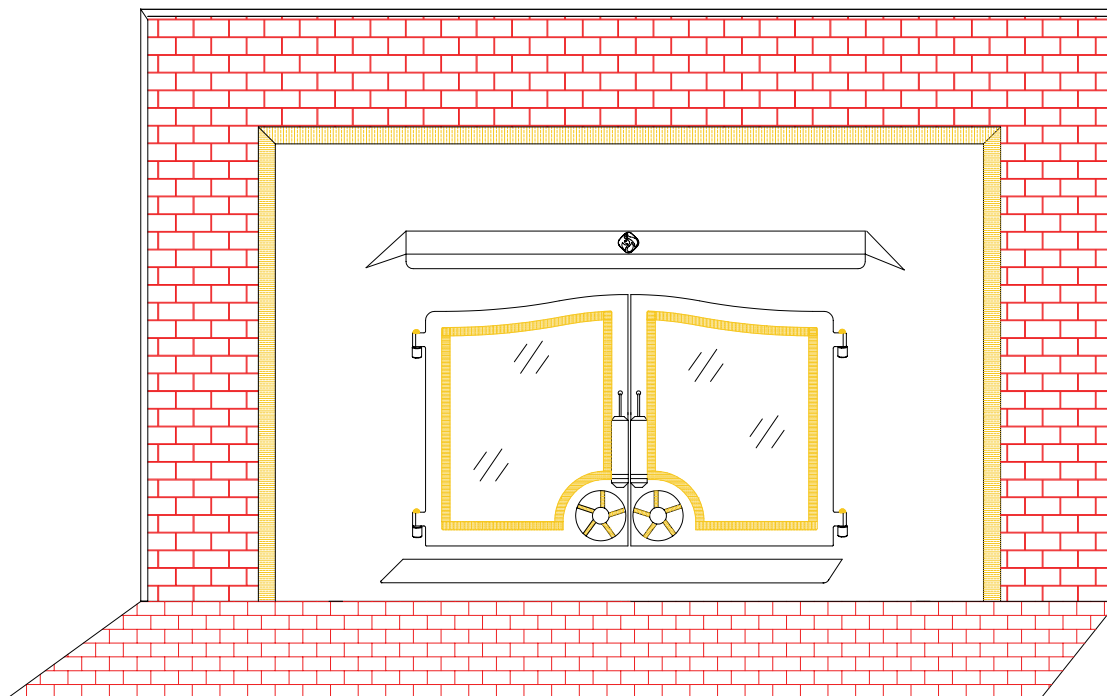




COUNTRY FLAME TECHNOLOGIES

Fireplace Doors (Series 400, and 500)



400 Series Fireplace Doors Shown

Operation, Maintenance & Installation Manual

KEEP FOR FUTURE REFERENCE
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Country Flame

Installation, Operation & Maintenance Manual

FIREPLACE DOORS (SERIES 400, 500)

© 2004

Country Flame Technologies

150 Michigan Street SE

Hutchinson, MN 55350

www.countryflame.com

Phone 320-587-6565 Fax 320-587-8872

FOR YOUR SAFETY

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

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

**PLEASE READ THIS MANUAL
AND ALL 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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LIMITED WARRANTY

1. **To Whom Extended.** Country Flame Technologies, hereafter known as Country Flame only warrants its products to the original retail consumer.
2. **Products/Components Warranted.** *Country Flame* makes the following warranties regarding its *Country Flame* Fireplace Doors. Except as set forth below, *Country Flame* warrants *Country Flame* Fireplace Doors to be free from defects in materials and workmanship for a period of one (1) year from date of original retail purchase so long as the unit is owned by the original retail customer, subject to the terms, conditions, and restrictions set forth below.
3. **Terms, Conditions, and Restrictions.**
 - i. **Products Not Covered.** The above warranties do not apply to glass, gaskets, and paint.
 - ii. **Exclusions.** The above warranties do not apply to the following conditions or circumstances:
 1. To conditions resulting from *Country Flame* Fireplace Doors that are installed other than in accordance with *Country Flame's* specifications.
 2. To conditions resulting from failure to provide reasonable and necessary maintenance for the *Country Flame* Fireplace Doors in accordance with *Country Flame's* operating and maintenance instructions.
 3. To conditions resulting from the alteration or modification of any *Country Flame* Fireplace Doors by anyone other than *Country Flame* or a person duly authorized by *Country Flame* to complete such alteration or modification.
 4. To conditions resulting from failure to use and operate the *Country Flame* Fireplace Doors in accordance with *Country Flame's* operating and maintenance instructions, or as a result of other misuse of the product.
 5. To conditions not involving defects in material or workmanship.
 6. To conditions resulting from over firing, or burning of improper materials while *Country Flame* Fireplace Doors are in use.
 7. **Warranty Registration Card.** The above warranties are void and will not apply unless the enclosed Warranty Registration Card is filled out by the original retail customer and returned to *Country Flame* within thirty (30) days subsequent to date of original retail purchase.
4. **Remedies in the Event of Failure.** In the event *Country Flame* Fireplace Doors fail to perform as warranted, the following terms and conditions will apply:
 - i. **Fireplace Door Unit.** *Country Flame* will repair, or at its option, replace any warranted part of the fireplace door unit which fails to perform as warranted for a period of one (1) year from date of purchase subject to the terms, conditions, and restrictions set forth herein.
 - ii. **Warranty Service.** Service on *Country Flame* Fireplace Doors will be provided by any *Country Flame* authorized dealer or distributor. If there is no authorized *Country Flame* dealer or distributor in the original retail customer's area, the original retail customer may notify *Country Flame Technologies* of any defect by providing the following information:
 1. The Model Number of the *Country Flame* Fireplace Doors.
 2. The date of original purchase along with a copy of the retail receipt.
 3. The date of installation and the installer's name, address, and phone number; and
 4. A description of the nature of the defect or problem.
 - iii. **Freight Costs.** Should service be required during the warranty period, the original retail customer must send the defective product or component, **freight or postage prepaid**, direct to *Country Flame*. *Country Flame* WILL NOT pay freight or postage costs relating to any item returned for warranty service.

- iv. **Repairs.** All repairs made by *Country Flame* will be to the original manufacturing specifications.
- v. **Cost of Repair or Replacement.** *Country Flame* will repair, or at its option, replace the defective products or components pursuant to the conditions set forth above. The original retail customer is responsible for the payment of any costs and expenses incurred for disassembly, removal and reinstallation of any defective product or component and any other services involved. None of the aforementioned costs or expenses is covered by this warranty and *Country Flame* is not liable for any said costs.
5. **Limit on Damages.** In no event shall *Country Flame* be liable for damage to property, lost profits, injury to goodwill, or any other special, incidental, or consequential damages resulting from any defective *Country Flame* Fireplace Doors or any breach of the above expressed warranties. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply.
6. **Limitation of Implied Warranties.** *Country Flame* expressly limits all implied warranties. INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE TO ONE YEAR FROM THE DATE OF ORIGINAL RETAIL PURCHASE. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply.
7. **Legal Rights.** This warranty gives the original retail customer specific legal rights, and the original retail customer may also have other rights, which vary from state to state.
8. **No Other Warranty – These Remedies are Exclusive.** Unless otherwise explicitly agreed to in writing, it is understood that this is the only warranty given by *Country Flame* and *Country Flame* neither assumes nor authorizes anyone to assume for it any other obligations or liability in connections with this *Country Flame* Fireplace Door system.
9. **Additional Information.** If you wish to obtain additional information, resolve questions concerning the interpretation of any warranties of *Country Flame*, or return a defective product, please write or ship the product to:

American Energy Systems, Inc.
150 Michigan Street SE
Hutchinson, MN 55350

PLACE
STAMP HERE

American Energy Systems, Inc
150 Michigan Street SE
Hutchinson, MN 55350

Fold Here

Name_____ Address_____

City_____ State_____ Zip_____

Dealer_____

Dealer's Name_____

City_____ State_____ Zip_____

Date of Purchase_____

Model No._____ Serial No. (Not Applicable)

The express warranties made by Country Flame do not apply unless the original retail customer returns this warranty card, along with a copy of the original receipt, no later than thirty (30) days from date of original retail purchase to Country Flame Technologies.

Signature_____ Date_____

FOREWARD

Country Flame and all its employees would like to thank you for selecting a Country Flame Fireplace Door product for your home. Country Flame is very proud of this American designed, American tested, and American produced product. With a commitment to quality, 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 arrives at your doorstep. From design reviews, through initial product testing, to repetitive manufacturing process control, Country Flame has been assisted in many ways to produce a quality fireplace door system. 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 this product.

Country Flame wants to thank all those involved in ensuring each and every Fireplace Door system is safe, reliable, and properly installed. Without the contribution of time, effort, and knowledge of others, Country Flame's efforts would have been far more difficult.

On behalf of Country Flame Technologies and its parent company American Energy Systems, Inc. our employees THANK YOU for your purchase.

SAFETY NOTES

1. Country Flame Technologies has no control over the proper installation or proper care of a product. As such, Country Flame Technologies grants no warranty, implied or written, for the installation or maintenance of any product. 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 with this manual. Return the portion of the warranty card to Country Flame Technologies within 30 days of retail purchase in order to activate the product warranty. Please retain a copy of the warranty card and the original retail receipt with this manual.
3. Fireplace Furnace products require a natural draft to operate properly. Installation of a Country Flame Door product will improve efficiency of the fireplace through the control of combustion air. Blockage of any input air or exhaust air system is a violation of Country Flame's warranty. Further, blockage of any draft system, whether input, or output air, will create a dangerous condition that can lead to a house fire or even death. Ensure that this and any fireplace product has been properly installed and inspected before it is operated. Improper installation can also impact homeowner's insurance. Improperly designed chimney, flue, or an improperly installed fireplace or fireplace door will restrict natural draft thus causing problems with proper fireplace combustion. Operating internal home exhaust fans will also cause problems with fireplace natural draft.
4. Never attempt to repair any part of a Country Flame product unless following explicit instructions provided by competent authority. 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 Fireplace Door must be authorized in writing by Country Flame Technologies. Any modification of a Fireplace Door product could be dangerous and immediately voids Country Flame's product warranty.
6. **ALWAYS** wait until the unit is completely cool to perform any maintenance or cleaning procedures.
7. **NEVER** place combustible objects on or near the unit. Units can become extremely hot and will cause combustible material to ignite if placed on or near the unit.
8. **NEVER** allow children near any fireplace during operation. Become familiar with all operating instructions contained in this and associated product manuals.
9. Children and adults should be alerted to the hazards of high surface temperature and maintain a safe distances to avoid burns or clothing ignition.
10. Children should be supervised when they are in the same room with an operating fireplace.
11. **ALWAYS** follow the proper lighting procedures. Use of any kind of fire starter accelerant is dangerous and can cause damage to Fireplace Doors.
12. Check your local building codes and consult your insurance company before installing the Fireplace Door system.
13. Ensure Fireplace Doors are properly secured to the fireplace. Routinely check the tightness of the bolts holding the fireplace door frame to the fireplace. If the Fireplace Door system comes loose from the fireplace, opening or closing the doors may cause the door system to fall away from the fireplace unit. **WARNING:** If the door system should fall out of the fireplace all steel and glass parts will be extremely **HOT**. **DO NOT ATTEMPT** to pick up the heavy door system without wearing proper insulated gloves or severe burns can occur.
14. Any safety screen, guard, or door removed for fireplace maintenance must be replaced and properly secured prior to operation.

15. **NEVER** use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or “freshen up” a fire. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
16. **INSTALL** a smoke detector within the proximity of a fireplace.
17. **NEVER** put foreign objects or burn unapproved material in any fireplace.
18. **NEVER** block any free airflow through open vents connected to the fireplace or fireplace door units.
19. The chimney system should be checked twice a year (minimum) for any buildup of soot or creosote. Improperly installed and maintained fireplace furnaces can cause home fires.
20. When 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.
21. When Country Flame Fireplace Doors are installed on a new or existing fireplace, it is essential that all fireplace hot air vents be left open. Open vents discharge hot air into the home. Closed vents will cause a heat buildup that can violate the safety ratings of the fireplace, fireplace doors, or other components in the heating system. For safety reasons, it is strongly recommended that all grilles mounted on fireplace duct outlets be of the non-closable type.
22. **NEVER** install a Country Flame fireplace door on a zero clearance fireplace.

INTRODUCTION

Fireplaces remain a central feature of many homes today. Fireplaces provide comfort and enjoyment for years, if designed and installed properly. Country Flame continues its American Tradition by manufacturing high quality practical fireplaces and fireplace door systems for almost four decades. This manual provides the basic information to assist in proper installation of a fireplace door system. All fireplaces contain essentially the same elements: a base, a combustion chamber, a smoke chamber, a chimney system, and optional front doors that improve the look and efficiency of the heating system. Requirements for installation are based on the *2003 International Residential Code*. Contact the local building codes departments along with the local fire department to obtain the latest installation requirements. Failure to properly install a fireplace door 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 a fireplace product manufactured by Country Flame Technologies.

Operation of the Country Flame Fireplace Door system 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 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, wood systems have no automatic safety devices. If the firebox reaches an unsafe temperature due to over firing, there is only limited means to “turn off” the flame. As a result of this limited control, a wood fireplace requires greater knowledge and care from the operator. 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 without endangering the surroundings or the occupants.

Maintenance requirements contained in this manual must be followed in order to ensure proper installation, operation, and maintenance of the fireplace door system. Failure to follow maintenance requirements will reduce the 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 or improper care. Routine visual inspections of the fireplace box, the chimney connector, the fireplace door system, and the chimney can greatly reduce the possibility of uncontrolled fires. Immediately contact your local fire department representative, your local Country Flame Dealer, or a fireplace specialist should a problem be detected in a fireplace system. It is the responsibility of the operator of the fireplace product to become familiar, understand, and ensure adherence to all maintenance requirements associated with proper operation. Failure to adhere to proper maintenance requirements voids the Country Flame product warranty. Monthly inspections should ensure that the door, its moving parts, and its mounting hardware are operating properly. The chimney, firebox, and chimney connectors should be professionally inspected and cleaned at least once a year. As with all fireplace products, the efficiency of wood burning fireplace doors depends on how well they are maintained. Country Flame will be happy to assist the homeowner in ensuring your purchase is maintained in the best possible state. Keep your Country Flame Dealer’s telephone number handy.

WHAT'S INCLUDED IN A FIREPLACE DOOR PURCHASE?

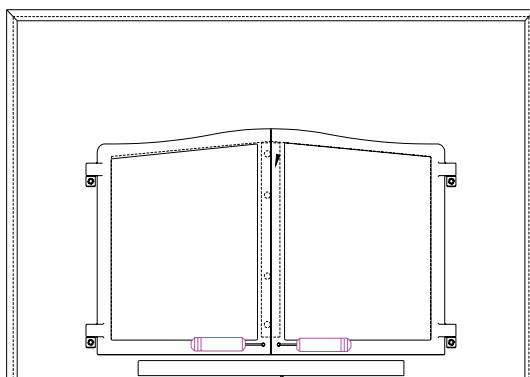


The fireplace door system has finally arrived. Now what? FIRST and most important is to unpack all material provided with the Country Flame Fireplace Door System. Installation instructions, important materials and small components are located inside the fireplace door system shipping box. Review and please check to ensure that every item listed below is present during the unpacking process. If any items are missing, please contact Country Flame or the authorized dealer/distributor immediately to verify and obtain all parts necessary for proper installation. The installation of this fireplace door is to be in accordance with these instructions and local codes. Any changes, alterations, misuse, or the placing of combustibles closer to this system than is specified will immediately void the Country Flame Warranty.

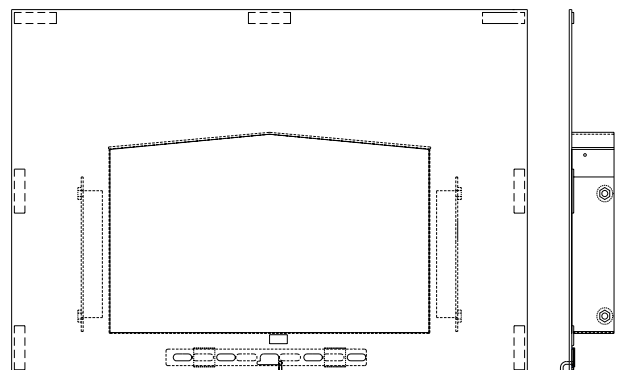
500 DOOR SYSTEM KIT DESCRIPTION

QTY PROVIDED

500 FIREPLACE DOOR SYSTEM	1
Steel Sliding Air Control Cover	1
Bag, miscellaneous parts	1
a) 1/2" by 13 (thread per inch) by 2 1/2" bolts***	4
b) Cap, bolt end	4
c) Brass hinge plug 1/4"	4
d) Insulation, fiberglass (1 1/2" wide by 117" long by 3/4" thick)	2
e) Owner's Manual (same for all doors)	1
***1/2" by 13 (thread per inch) by 7 5/8" bolt available if required for installation	4



FRONT



BACK W/O DOORS

SIDE

FIGURE 1: 500 DOOR SYSTEMS

(Model 3347-502A shown)

400 DOOR SYSTEM KIT DESCRIPTION

400 FIREPLACE DOOR SYSTEM

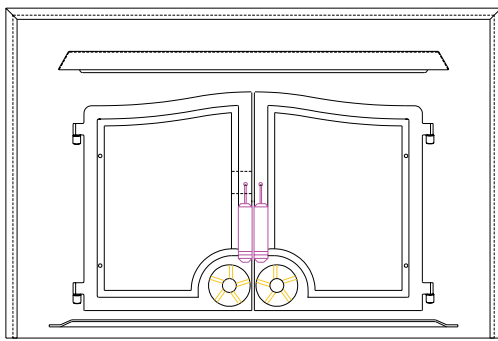
Bag, miscellaneous parts

- a) 1/2" by 13 (thread per inch) by 2 1/2" bolts***
- b) Cap, bolt end
- c) Brass hinge plug 5/16"
- d) Insulation, fiberglass (1 1/2" wide by 117" long by 3/4" thick)
- e) Owner's Manual (same for all doors)

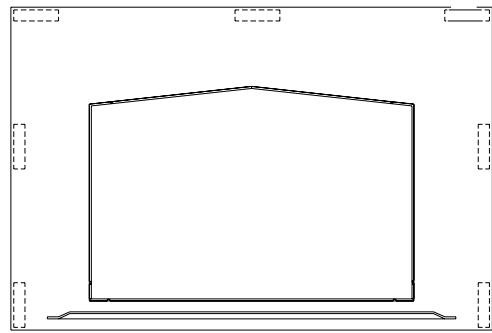
***1/2" by 13 (thread per inch) by 7 5/8" bolt available if required for installation

QTY PROVIDED

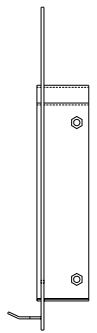
1
1
4
4
4
2
1
4



FRONT



BACK W/O DOORS



SIDE

FIGURE 2: 400 DOOR SYSTEMS

(Model 2943-400A shown)

FIREPLACE DOOR SPECIFICATIONS



Country Flame manufactures a number of different fireplace door models. These door systems are designed not only to provide the homeowner with different style choices but also to meet the requirements of fitting different size and different manufacturer's masonry and factory built fireplaces. TABLE 1, TABLE 2, TABLE 3 and TABLE 4 list the different size and styles of fireplace doors made by Country Flame. It is strongly recommended that before any purchase of a fireplace door is completed, the homeowner consult with Country Flame or one of its local authorized dealers to ensure the correct size door has been chosen for a specific application.

TABLE 1: FIREPLACE 500 DOOR SPECIFICATIONS

Model Number	Fireplace Number	Door System Description
2742-500A	33 & 37	27" X 42" Air-Tight Fireplace Doors w/Air Wash
2947-501A	42	29" X 47" Air-Tight Fireplace Doors w/ Air Wash
3347-502A	Non-Country Flame Fireplace	33" x 47" Air-Tight Fireplace Doors w/ Air Wash
2742G-500A	33 & 37	27" X 42" Gold Air-Tight Fireplace Doors w/Air Wash
2947G-501A	42	29" X 47" Gold Air-Tight Fireplace Doors w/ Air Wash
3347G-502A	Non-Country Flame Fireplace	33" x 47" Gold Air-Tight Fireplace Doors w/ Air Wash
Custom Size Orders for 500 Series:		NON-RETURNABLE! A drawing showing dimensions must be faxed with order. Custom size pricing is quoted upon request.

TABLE 2: FIREPLACE 400 DOOR SPECIFICATIONS

2943-400A	33 & 37	29" X 43" Air-Tight Fireplace Doors w/Air Wash
2948-400A	42	29" X 48" Air-Tight Fireplace Doors w/Air Wash

TABLE 4: FIREPLACE CUSTOM 400 DOOR SPECIFICATIONS

3148-400A	Non-Country Flame Fireplace	31" X 48" Air-Tight Fireplace Doors w/Air Wash

FIREPLACE DOOR OPERATION

BASIC DOOR OPERATION

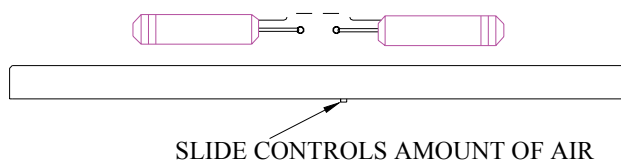


Once properly installed, a Country Flame Fireplace Door System has two operating parts: (a) the door system and (b) the combustion air control system. All Country Flame fireplace door systems come with double doors (left and right.) The left door is locked in place by the right door. This means that the handle on the left door is fixed. If a large amount of turning pressure is applied to the left door handle, DAMAGE will occur. The left door handle is to be used to pull open or push shut the left door. The right door handle must be turned counterclockwise about 90 degrees and then pulled open. To close and lock the right door, first close the left door and then close the right door. The right door can now be locked by turning the handle clockwise about 90 degrees. Try operating the doors several times before a fire is started in order to work with cool handles and doors. The doors are large to allow easy fuel loading and to provide a large viewing area of the burning fire. Door systems should be operated only in the fully open or fully closed position. If doors are open, an optional fire screen should be installed for safety purposes.

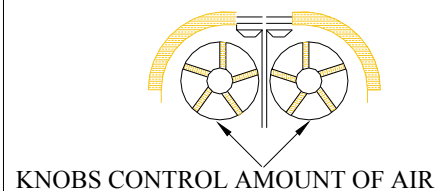
DOOR AIR CONTROL



Fireplace door systems are installed to improve the efficiency of the fireplace (use less wood per unit of heat output), provide additional safety, and to add value to the home. Each Country Flame fireplace door system comes standard with combustion air controls built into the door. No matter which set of Country Flame doors have been purchased, the combustion air control is conveniently located just below the two front doors. FIGURE 4 shows just the control mechanisms. On all 500 doors, a slider controls the amount of combustion air entering a fireplace's firebox. By moving this control sideways (left or right) the amount of combustion air is decreased or increased. On all 400 doors, two cast knobs control the amount of combustion air. By turning the knobs clockwise, the amount of air is reduced and by turning the knobs counterclockwise, the amount of air is increased. **WARNING:** When in use, the fireplace's combustion air controls can be extremely hot. To adjust the combustion air control after a fire has been started, it is strongly recommended to always wear approved fireplace gloves. Experiment with these controls before starting a fire to ensure a complete understanding of their operation. These air controls are critical to maintaining correct wood fuel burn rates.



500 DOOR



300/400 DOOR

FIGURE 4: COMBUSTION AIR CONTROL

The door combustion air control allows the homeowner to adjust fuel burn rates. This adjustment can dramatically improve the overall efficiency of the fireplace after the homeowner understands and masters the use of these air controls. Too much air mixing with wood fuel can create a condition known as over fire. The over fire condition is DANGEROUS. Learn and understand how to prevent and control over firing from occurring in your fireplace. Too little air mixing with wood fuel will cause the wood fuel to burn inefficiently. Repeated poor fuel burn will increase the fireplace's cost of operation dramatically. Proper air-fuel mixture is critical to obtaining maximum heat with minimum operational and maintenance cost. Obtaining the proper air-fuel mixture will take experimentation and experience in a specific application. If problems persist with controlling a fireplace fire after installing Country Flame doors, contact Country Flame or its local authorized dealer or any certified chimney sweep for assistance in mastering the controls of a fireplace equipped with fireplace doors.

DOOR GLASS



Model 500 (black) fireplace door systems come standard with plain ceramic glass that has been cut by Country Flame to ensure a proper fit. Model 400 and 500 (plated) door systems come standard with etched glass. Optional etched glass is available from Country Flame for all door systems. Should a customer want special designs or pictures on the glass, please contact Country Flame direct to discuss custom etching. Otherwise, Country Flame or its authorized dealers will be able to explain the standard (optional) glass etching patterns that are available to choose from. Refer to Glass-Ceramic Specifications in this manual in the event fireplace door glass ever needs to be replaced. NEVER use tempered glass or any other glass that has not been specifically approved for high temperature applications. Improper glass, if used in the fireplace door, can literally explode from the intense heat and become flying shrapnel. Country Flame or its authorized dealer will be happy to assist in obtaining replacement glass for any product. Refer to the maintenance section for more information on maintaining, cleaning, or replacing door glass or associated gasket material.

CAUTION: Never attempt to clean hot glass and always use approved hearth glass cleaner.

AIR WASH SYSTEM



Each Country Flame Fireplace Door is manufactured with an air wash system installed. This air wash system assists in reducing creosote buildup on the glass during operation. This air wash system will not eliminate creosote buildup but it aids in reducing creosote buildup. In addition, as the homeowner gains knowledge in fire building techniques, the fireplace door system should assist in keeping the firebox hot which will further assist in the reduction of creosote. Creosote is residue left in the smoke and represents unburned fuel. The cleaner the fireplace is burning the cleaner the glass will stay during fireplace operation.


The air wash system makes it possible for the fire to pull air in and over the top of the door glass. As this air is pulled in and down the glass, the smoke and combustion gasses are pushed back towards the fire. As the air and combustion gasses combine, additional heat is released and additional fireplace efficiency is achieved. The homeowner will need to experiment with the amount of combustion air provided to the fire both through the fireplace door's combustion air control and air allowed into the fireplace through the fireplace door's air wash system. Obviously, a proper balance needs to be met between combustion air control operation and air wash operation in order to minimize the creosote buildup on the inside of the fireplace glass. The homeowner should be ever cautious to an over burn situation (too much fuel and combustion air)

that can create extreme heat buildup in the fireplace system and increases the potential of a chimney fire.


SAFETY NOTICE: IF A FIREPLACE DOOR SYSTEM 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 A SPECIFIC LOCALE. IT IS STRONGLY RECOMMENDED THAT A CERTIFIED PROFESSIONAL INSPECT, INSTALL, OR PERFORM BOTH SERVICES FOR THE HOMEOWNER.

FIREPLACE DOOR MAINTENANCE

BASIC MAINTENANCE REQUIREMENTS


 Maintenance requirements are minimal for Country Flame's fireplace door system. Routine cleaning (at least once a season) and routine inspections (monthly) that depend on the frequency of usage is all that is required. The door frame should remain securely fastened to the fireplace face at all times. If it is discovered that the fireplace door system is coming loose, the system should be retightened immediately. FAILURE to properly secure and maintain the door system tight against the fireplace can lead to problems such as an over fire condition due to uncontrolled air flow around the doors, sparks escaping from the fireplace, or in the extreme case, a fireplace door system falling away from the fireplace during use. During use, the door system will be extremely hot. Proper clearances to humans and combustible materials must be maintained at all times. Country Flame recommends the homeowner contact a local authorized dealer or a certified chimney sweep to complete these inspections and make maintenance adjustments as necessary.

PLATED DOOR MAINTENANCE

 Before a FIRST FIRE is ever started on a fireplace door system that has optional plated (gold or nickel) doors, ensure they are properly cleaned. Cleaning is required to prevent the heat from "etching" any fingerprints or dirt into the plating during the first fire. A non-abrasive glass cleaner (such as Windex®) and a soft cloth should be used to wipe down all plated surfaces. Polishes with abrasives will only damage the plated finish. Any damaged door can be replaced or repaired by Country Flame but the cost of such repairs is expensive.

IMPORTANT NOTE: CLEAN PLATED SURFACES BEFORE A FIRE IS EVER STARTED.

GLASS CLEANING

 A Country Flame Fireplace Door System has an air wash system that is designed to extend the time between required cleaning of door glass. If the fireplace doors are operated continuously with the combustion air damper partially or fully closed, the door glass will get dirty quicker than when a medium to high fire is fueling the firebox. In order for glass to remain clean, a high temperature fire must be maintained in the firebox.

CAUTION: Do not attempt to clean hot glass. If a fireplace door glass requires cleaning, use an approved hearth product glass cleaner. Country Flame or one of its many authorized dealer will be happy to recommend a suitable glass cleaner. Regular household glass cleaners are not effective in cleaning creosote and other residue from the glass.

GLASS REPLACEMENT



The glass used in Country Flame fireplace doors is a 1400 degree Fahrenheit (°F) high temperature ceramic glass. If the glass should crack or break for any reason, it must be replaced with an equal or better grade ceramic glass. The use of tempered glass or ordinary glass IS NOT AUTHORIZED. The use of such unauthorized glass would create a hazardous situation. Fireplace door replacement glass can be purchased from Country Flame or any authorized dealer. See FIGURE 5 for securing points for the door glass. Refer to the following sections for additional information on how to replace glass in a fireplace door.

GLASS-CERAMIC SPECIFICATIONS



KERA LITE® glass-ceramic is specially manufactured for use in high temperature applications. This glass-ceramic has a thermal endurance far exceeding that of normal tempered glass. KERA LITE® is designed to operate at temperatures ranging from -400°F to +1400°F. Despite its superior thermal properties, KERA LITE® stove windows should be treated with care. This glass-ceramic can still be scratched or broken by mechanical abuse. When cleaning the window, use only non-caustic, non-abrasive cleaners. Country Flame fireplace doors use a KERA LITE® glass-ceramic that is 0.197 inches thick +/- 0.008 inches. Country Flame custom cuts each KERA LITE® glass at its factory to fit the fireplace door. If problems occur or should the glass-ceramic ever need replacement, contact Country Flame or a local authorized dealer for assistance. The glass-ceramic specifications are as follows:

Manufacturer
Window Type

Euro Kera
Glass-Ceramic, Kera Lite®

CAUTION: Do not attempt to clean hot glass. Do not strike, abuse, slam shut, or operate the fireplace door system with any broken glass-ceramic in a fireplace door.

DO NOT use abrasives such as steel wool or powder abrasives as they will permanently damage the glass. Once the glass has been scratched, complete replacement of the glass will be required. Use only approved 1400 degree Fahrenheit (°F) high temperature stove ceramic glass to replace any cracked or broken glass.

GLASS or GASKET REPLACEMENT



Remove the left and right door, whichever one needs repair, from the door frame. Place the door to be repaired face down on a protective surface to ensure no marring or scratching occurs during glass or gasket replacement. FIGURE 5 shows the glass clips, the glass, the gasket on the glass, and the door gasket. Ensure, if removing glass, that all screws and glass clips are stored in a safe place. These items will be needed when the glass is reinstalled. Any screws or clips that are damaged should be replaced in order to make their removal easier the next time repairs are completed. If new glass is ordered from Country Flame it will also require glass tape.

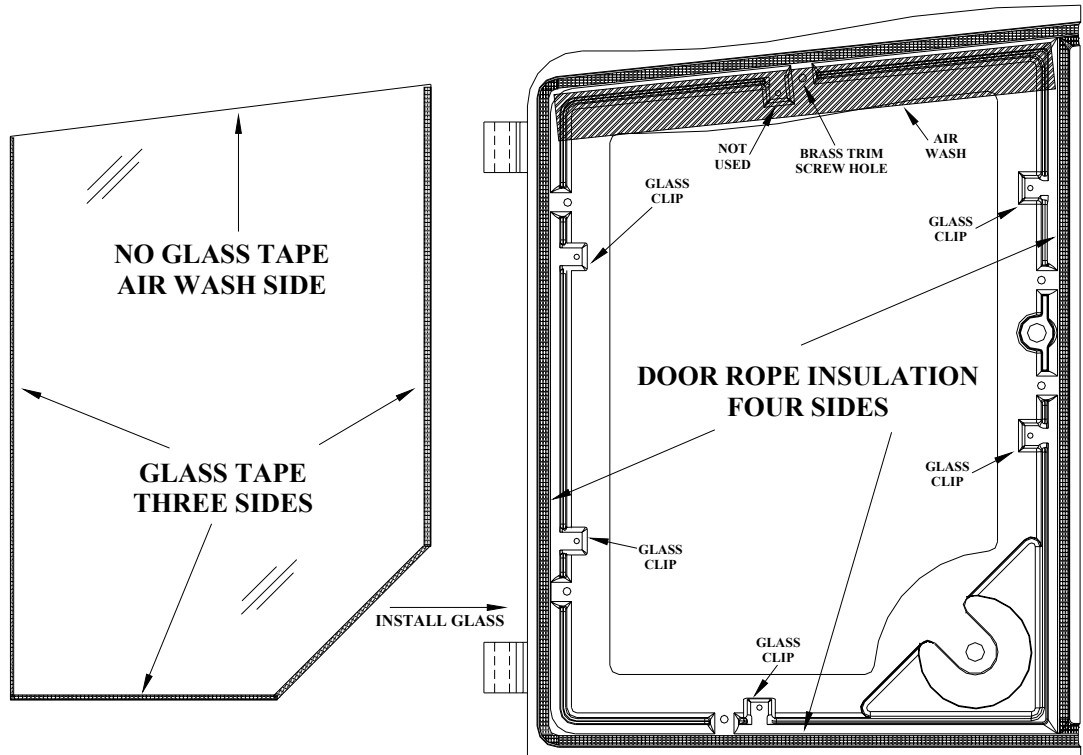
To replace the Thermoglass™ knitted rope and tape gasket, first remove all of the old material and gasket cement. Use a putty knife or other sharp instrument to assist in removal. Use caution to prevent injury when removing old material. It is important to ensure the doorframe area is totally clean before installing the new gasket cement and material. The door gasket must fit tight against the inside track of the door to ensure an airtight seal when the stove door is closed. Apply gasket cement to the gasket channel per instructions provided with the gasket kit. Once the cement has been properly applied, install the new gasket. Both gasket and gasket cement are available from Country Flame or an authorized dealer. Information on the next page defines the recommended gasket material to use in a specific Country Flame Fireplace Door Systems.

DOOR GASKET SPECIFICATIONS

<u>GASKET</u>	<u>LENGTH</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
500 DOOR SYSTEMS			
PP-88, both left & right glass	50 1/8"	2	3/4" wide by 1/16" thick tape
PP-815, Left doorframe	49"	1	3/8" diameter rope, high density
PP-815, Right doorframe	67"	1	3/8" diameter rope, high density
400 DOOR SYSTEMS			
PP-88, both left & right glass	42"	2	3/4" wide by 1/16" thick tape
PP-87, Left doorframe	42"	1	3/4" diameter rope, high density
PP-87, Right doorframe	63"	1	3/4" diameter rope, high density

NOTE:

- (1) ALL door rope gaskets are high density material to ensure proper seal.
- (2) All model door glass air wash systems require no glass tape (PP-88) to be installed along horizontal top edge of glass for both left and right door glass.
- (3) NO tempered or standard glass is to be used as replacement glass. Use proper replacement glass.



RIGHT 400 DOOR GLASS

RIGHT 400 DOOR BACK VIEW

FIGURE 5: 400 DOOR GLASS/GASKET REPLACEMENT

FIREPLACE & DOOR TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Fireplace smokes	Chimney cap restricted	Clean chimney cap. Remove debris that may have accumulated in the screen or that is clogging the chimney or chimney cap.
	Damper not adjusted	Adjust the damper to better control draft.
	Downdraft	Add a chimney cap designed to prevent downdrafts.
	Door Combustion Air Control Adjustment	Adjust door combustion air control for proper airflow into firebox.
	Atmospheric conditions	Occasional atmospheric conditions cause smoking condition if the chimney pipe is not straight up. Wait for conditions to change before burning with fireplace doors open.
	Chimney obstruction	Check entire flue system for obstructions and clean chimney flue system as necessary.
	Too many flues to a chimney	Consult with Certified Chimney Expert. Only one chimney per flue.
	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 on first fire.
	Leaky chimney	Joint leaks or flue mortar leaks will cause weak draft. Use cement or mortar to correct these leaks.
Glass gets dirty (optional doors)	Wet wood	Dry wood produces creosote buildup than wet wood. Ensure air wash is not blocked by dust or debris or that combustion air control is not adjusted properly.
Improper Cleaning of Ceramic Glass for Creosote Buildup	Normal buildup	A damp cloth dipped in wood ashes works well to clean glass. Regular household glass cleaners are not effective in cleaning glass. Using abrasives such as steel wool or powder abrasives permanently damages glass. Use Hearth Approved Fireplace glass cleaners.
	Position of fire	Burning logs, close to the glass, will tend to dirty the glass.
Lack of Heat	Wet wood	Dry wood produces almost twice the BTU's and burns at the same rate as wet wood. Proper seasoned wood 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.
	Blower speed too high	Adjust speed of blowers to match fire size. Blower can cool firebox causing poor burn.
Door (optional)	Door does not seal	Adjust hinges or Door Frame not square to face of fireplace opening.

PROBLEM	CAUSE	SOLUTION
Lack of Heat (continued)	Severely cold weather	More fuel is required on extremely cold days.
	Overdraft	Adjust door's combustion air control to ensure proper airflow into the firebox. Close fireplace doors, if open. Adjust Damper to reduce airflow up chimney.
	Combustion Air Setting	Combustion is restricted when the air is restricted. Be certain that the door and damper air intake is properly adjusted.
	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 (optional)	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 an "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 blower's 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 (older model stoves)	Normal	Flitz works well to shine brass. Newer model stoves have plated doors and trim and will NOT require cleaning. Improper cleaning will damage finish. Avoid placing fingers on brass to preserve the appearance.

FIREPLACE DOOR INSTALLATION

STEP 1 – PREPARING THE FIREPLACE



Okay, so you have checked to ensure all the required parts for the fireplace door installation are available. A Country Flame manufactured fireplace door system is designed for installation in a masonry fireplace hull in accordance with the Uniform Building Code. Only qualified installation personnel should install the fireplace door system. Qualified installation personnel shall be knowledgeable in fireplace construction and both local and national building code requirements; however, if the homeowner is going to install the door system, now is the time to prepare the fireplace. The following steps should serve as a general guideline; however, this guideline cannot substitute for the knowledge of a certified professional performing the door installation.

1. Clean all debris from around the fireplace opening to allow for easy installation.
2. Ensure the brick edges or metal housing of the firebox chamber are in good condition and of uniform shape. Any damage or broken brick should be replaced and allowed to properly set and cure before a fireplace door system is installed. Refer to FIGURE 6 below where measurement (A) is taken. It is critical that this part of the opening be in good shape as the door system will use this opening to “lock” the door frame into the fireplace. Refer to measurement (A) in FIGURE 6 and measure the opening of the fireplace. Write this measurement down.

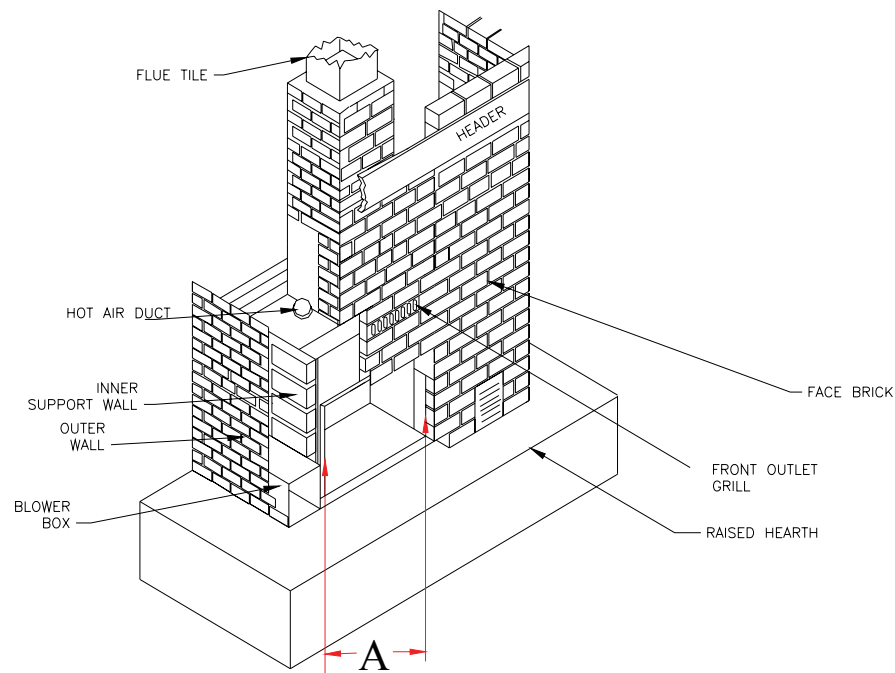



FIGURE 6: FIREPLACE OPENING

3. Refer to measurement (B) in FIGURE 7 and measure the width of the door frame at the welded anchor nuts. Write this measurement down.
4. Now add the length of two bolts (left and right side) to the measurement taken in Number 4 minus 2 inches (1 inch adjustment per bolt). Write this measurement down.
5. If the measurement calculated in Number 5 is:
 - a. Less than two inches smaller than the measurement taken in Number 3 then the fireplace door should fit the existing fireplace opening or if it is
 - b. Larger than the measurement taken in Number 3 then the fireplace door will not fit the existing fireplace opening and a different door system will need to be obtained.
6. Once fireplace opening measurements are complete, it is time to move to Step 2.

STEP 2 – PREPARING THE FIREPLACE DOOR SYSTEM

 FIGURE 7 shows the backside of the fireplace door. The left and right fireplace doors should already have been removed from the fireplace door frame. The fireplace doors should be placed out of the way where they will be safe. If the doors should fall over, the door glass can be broken, the door trim can be damaged, surrounding furniture can be damaged or the worst case for the homeowner would be if all these events occurred in a fall. **IMPORTANT:** Store these doors securely until they are needed again. The lighter and empty door frame is ready for additional preparation work.

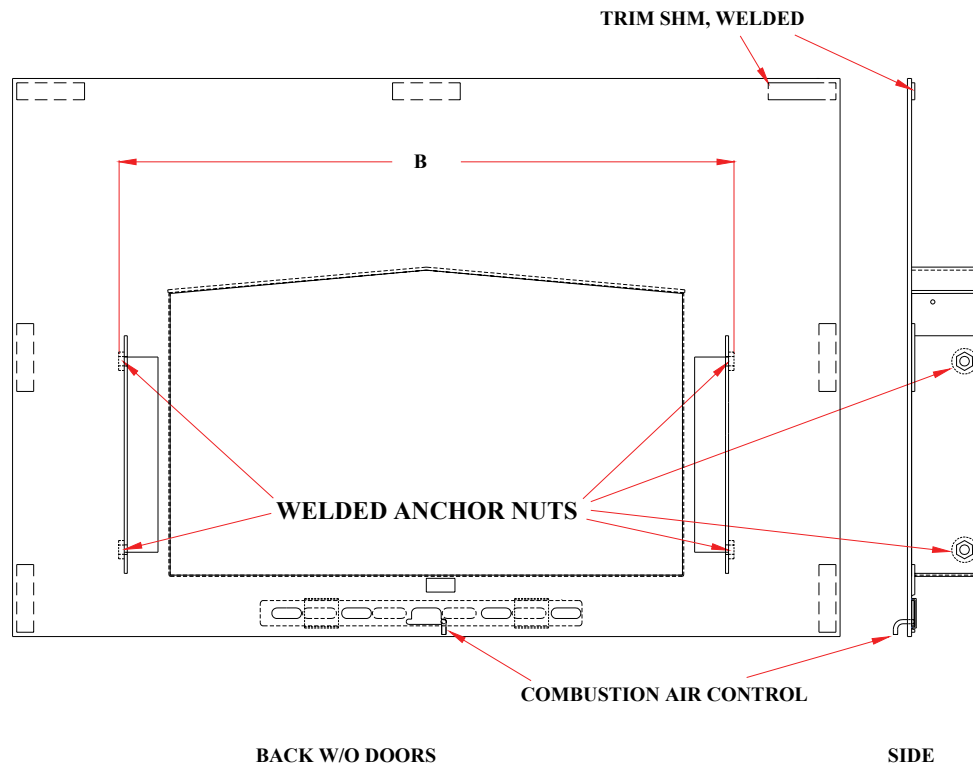


FIGURE 7: FIREPLACE DOOR FRAME BACK w/o DOORS

Two bags of fiberglass insulation have been provided for use in sealing the door frame against the fireplace front. This fiberglass insulation comes with an adhesive backing to hold the insulation in place during installation. **CAUTION:** This fiberglass insulation can be irritating to the eyes, skin, nose, and throat. Wearing gloves and a mask is recommended to prevent irritation. Once removed, the insulation has a paper strip that covers the adhesive. Remove the paper exposing the adhesive strip. Place the adhesive against the back of the door frame. Press the insulation against the door to ensure the adhesive makes solid contact with the door's back steel face. Use the second insulation as necessary. Again, the insulation will provide a seal against the face of the fireplace to

ensure no air leakage once the door has been installed. FIGURE 8 shows the insulation installed on the back of the door frame. Refer to FIGURE 8 for anchor bolt installation.

The four bolts should be started in each of the welded nuts, 2 on each side of the door. Also included with the door system are four anchor bolt caps. These caps are to be placed over the end of each bolt. These caps reduce the “point stress” on the brick. This lower stress reduces the potential of cracking or breaking the brick due to too much pressure being applied when the bolts are tightened against the fireplace opening. The bolts should protrude as necessary through the steel plate and welded nut but not so far as to interfere with setting the doorframe into the fireplace opening.

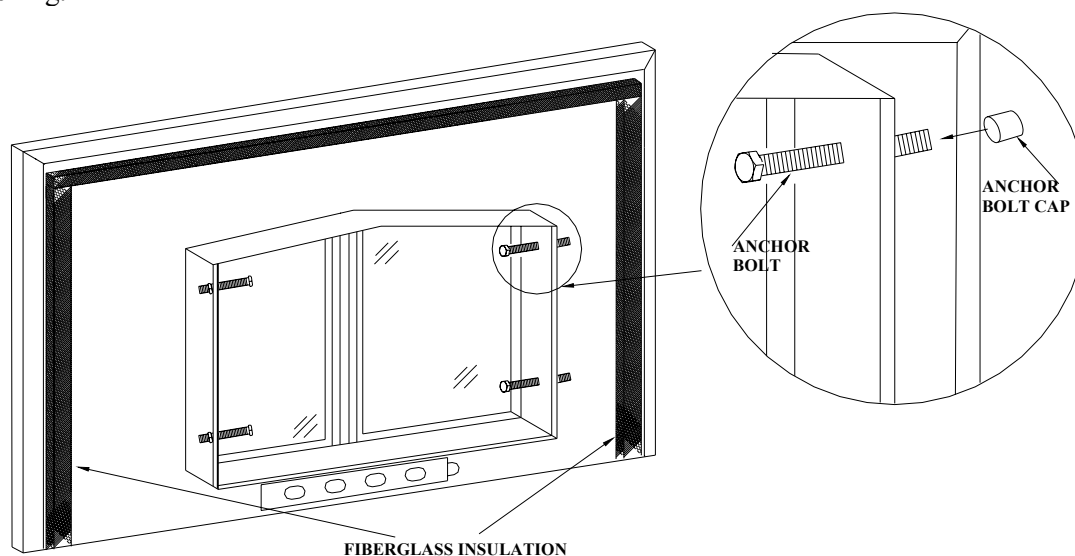



FIGURE 8: BOLT AND FIBERGLASS INSULATION

STEP 3 – INSTALLING THE DOOR SYSTEM TO THE FIREPLACE

 The fireplace door frame should now have the fiberglass insulation attached, the anchor bolts should be threaded through the welded anchor nuts, the anchor bolt caps should be attached to the end of the anchor bolts, and the brass trim should be squared and attached to the side edges of the door frame. The fireplace door frame is now ready for final placement and attachment to the fireplace.

Country Flame designs and manufacture’s fireplace door systems to maintain their appearance and functionality over years of abuse from the repeated intense heat generated by large fires. As such, these doors are built solid and they are heavy. The installer and homeowner should recognize that the next installation step requires the lifting and attaching of a very heavy door frame. If properly installed and attached to the fireplace, the fireplace door system will pay for itself over the years by reducing the amount of wood fuel required or will increase the heat output for the same amount of wood fuel burnt. This says nothing of the aesthetic value. Care should be taken to ensure that a good seal is obtained between the face of the fireplace and the door frame. In addition, the installer wants to ensure a solid door frame attachment to the fireplace.

At least two people should be used to set, level, and hold the fireplace door frame against the fireplace opening while it is securely attached with the four anchor bolts. FIGURE 9 shows the fireplace door set in place from inside the firebox. Ensure that the anchor bolts are tightened but not excessively. If the anchor bolts are excessively over tightened against the fireplace’s brick face, it could fracture the mortar or brick.

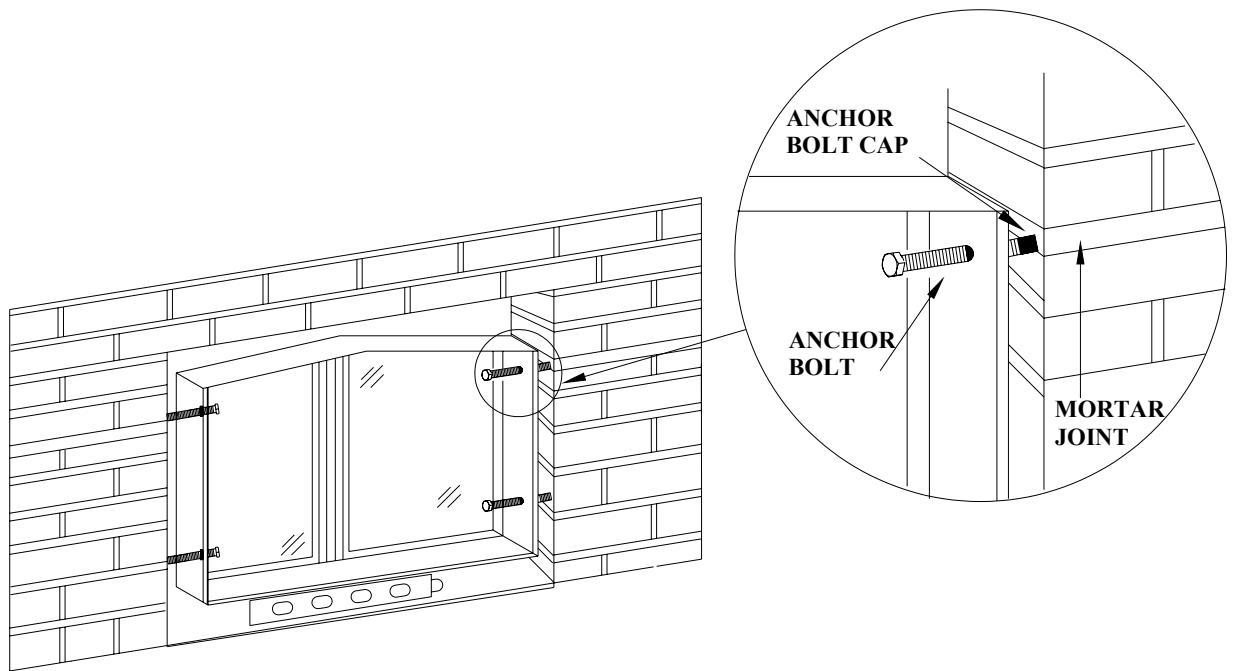



FIGURE 9: ANCHOR BOLT TIGHTENING

STEP 4 – REINSTALLING THE FIREPLACE DOORS

 The fireplace door frame installation is now complete. The door frame has been checked for correct level with the face of the fireplace, the door frame has been checked for being securely fastened to the fireplace wall, and the installer and homeowner are satisfied with the look of the doorframe's installation. Now it is time to reattach the doors. The left door should be installed first. Remember that the left door handle is only used to open and close (pull/push) the left door. Carefully set the left door onto its appropriate door hinges. Now repeat the installation process for the right door. The installer should take care not to drag the fireplace doors across the face of the door frame as damage to the painted frame will occur. Once the doors are in place, ensure that they open, close, and properly lock in place. FIGURE 10 shows a set of 500 doors set in the door frame. Now is the time for adjusting the hinge pins, if necessary. The doors and hinges were adjusted at the factory and no adjustment should be necessary unless the hinges have been removed or harsh handling has occurred.

The next step is to install the brass pins into the top of each door hinge. Four brass pins were provided with the door frame system. These brass pins are for aesthetic purposes. They can be used or stored away per the homeowner's direction. NOTE: The 500 Door System uses 1/4 inch brass pins to match the 1/4 inch hinge holes whereas the 400 Door Systems uses 5/16 inch brass pins to match the 5/16 hinge holes.

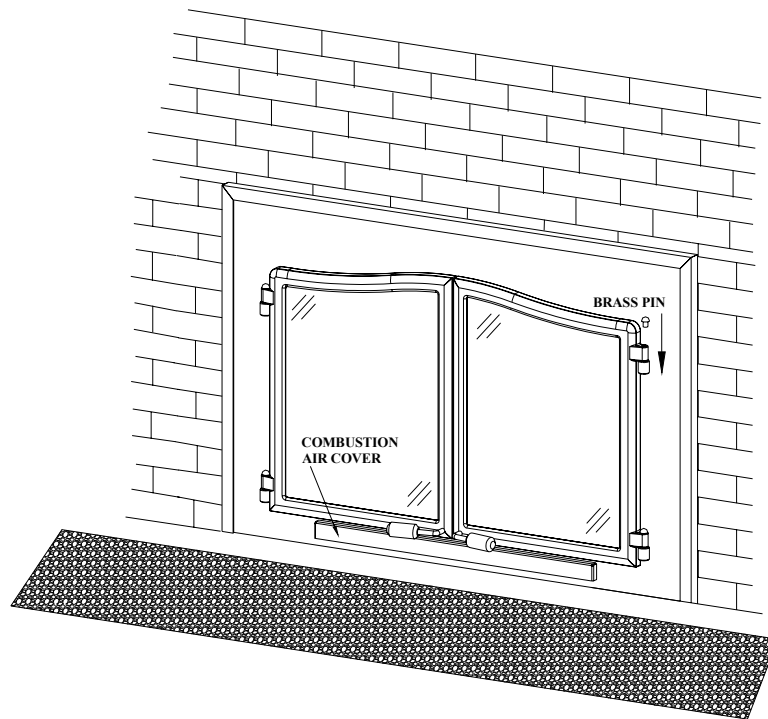


FIGURE 10: FINAL INSTALLATION STEP

Only 500 Door Systems require the next installation step. Install the combustion air slide cover onto the face of the door frame. This cover sits on two brackets just below both doors. This cover is removable. This allows the homeowner to vacuum lint or dirt that may get sucked into the combustion air holes from years of use. The 400 Door Systems have the cast combustion air controls that can be unscrewed from the door bolt for cleaning purposes.

The FINAL INSTALLATION STEP requires cleaning of the door and glass. It is important to ensure that any plated (gold or nickel) doors are clean. Refer to the section of this manual that pertains to proper cleaning of doors and glass. If the plated doors are not properly cleaned before the first fire, permanent damage will occur to the plating. This damage is expensive to repair and is not covered by Country Flame's warranty.

FIREPLACE DOOR REPLACABLE PARTS

GLASS PARTS

PP-332	FPD-400	12 x 16 1/2 plain
PP-333-L	FPD-400	12 x 16 1/2 etched - left hand
PP-333-R	FPD-400	12 x 16 1/2 etched - right hand
PP-753	FPD-500	14 3/8 x 18 3/8 plain
PP-754-L	FPD-500	14 3/8 x 18 3/8 etched - left hand
PP-754-R	FPD-500	14 3/8 x 18 3/8 etched - right hand
PP-412	All Models	Glass Clip 1/2" x 7/8" - ea.
PP-120		Nut: 8-32 Hex Nut - ea.
PP-149		Screw: 8-32 x 1 1/2 Brass - ea.
PP-134	All Models	Screw: 8-32 x 3/8 machine screw - ea.

HANDLES & KNOBS PARTS

PP-37	FPD	Charcoal Logo "Country Flame"
500-L	FPD-500	Door Handle Rod for 500 FPD - LH
500-R	FPD-500	Door Handle Rod for 500 FPD - RH
PP-811	FPD-500 & HR	Cam Lever
PP-406	FPD-500 & HR	Set Screw for Cam Lever
PP-71	FPD-500	Spring Handle: Med. Brass for 3/8" Rod
PP-1264	FPD-500	Spring Handle: Med. Chrome for 3/8" Rod
PP-329	FPD-400	Air Draft Control Knob - Brass - Each
PP-328	FPD-400	Oak Wood Handle

FIREPLACE DOOR REPLACABLE PARTS (cont'd)

TRIM PARTS

PP-795	FPD 500A	FP Front Trim Kit 27 X 42 X 500 Brass
PP-793	FPD 501A	FP Front Trim Kit 29 X 47 X 501 Brass
PP-794	FPD 502A	FP Front Trim Kit 33 X 47 X 502 Brass
2943-TK	FPD-400	FP Front Trim Kit 29 X 43
2948-TK	FPD-400	FP Front Trim Kit 29 X 48
3143-TK	FPD-400	FP Front Trim Kit 31 X 43
3148-TK	FPD-400	FP Front Trim Kit 31 X 48
PP-1210	FPD-500	Hinge Pin Cap 1/4 x 1/2 Brass
PP-33	FPD-400	Hinge Pin Cap Brass
PP-321	FPD-400	Hood Trim 30 1/2" Brass
PP-396-L	FPD-400	Window Frame 400 Brass - LH
PP-396-R	FPD-400	Window Frame 400 Brass - RH

MISCELLANEOUS PARTS

PP-840	500 FPD	NEW 500 FPD Screen's Rod
PP-841	500 FPD	NEW 500 FPD Screen
500-701	FPD-400 500	Mounting Hardware, standard
500-702	FPD-400, 500	Mounting Hardware, long

OWNER'S MANUALS

PP-392	400 FPD & 500 FPD	Owner's Manual, 400, & 500 Series FPD
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