Owner's Manual

Residential Factory Built Fireplace

Operation • Maintenance • Installation

FOCUS 250



Keep these instructions for future use.



Dear Customer,

The FOCUS 250 incorporates technology with elegance to give you a beautiful view of the fire without compromising on heating efficiency or environmental quality.

We have designed your new FOCUS 250 to be easy to install, operate and maintain. It is in your best interest to become familiar with it. Study your manual to be sure that the installation is correct, then follow the guidelines for operation and maintenance.

We at RSF Woodburning Fireplaces congratulate you on your choice of the FOCUS 250, and are confident that you have purchased a fireplace that is *simply, the best*.

Sincerely,

RSF Woodburning Fireplaces Team

June 2012

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SAFETY FIRST

DO'S AND DONT'S

If this fireplace is not properly installed, a house fire could result. For your safety, follow the installation directions. Contact your local authority having jurisdiction (such as municipal building department, fire department, fire prevention bureau, etc.) regarding restrictions and installation requirements, and the need to obtain a permit.

To ANYONE using this fireplace: these **DO's** and **DONT's** are for your safety.

- 1. **DO** read this instruction manual before lighting your first fire.
- 2. **DO** burn seasoned wood fuel or densified fuel logs.
- 3. To avoid glass breakage, **DO NOT** slam the fireplace door.
- 4. **DO NOT** ever use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or freshen up a fire in this fireplace. Keep all such liquids well away from the fireplace while it is in use.
- 5. DO NOT overfire the fireplace. If you are unable to slow down the burn rate of the fire or if the chimney connector behind the top louver glows red, you are overfiring the fireplace.
- 6. **DO operate the fireplace with the door fully closed**. If the door is left partly open, gas and flame can be drawn out of the fireplace opening, creating both fire and smoke hazards.
- 7. **DO** keep all combustible materials (furniture, firewood, etc.) at least 4' away from the front of the fireplace.
- 8. **DO NOT** use a fireplace grate or other products not specified for use with this fireplace.



• NOTE: We strongly recommend that our products be installed and serviced by professionals who are certified by the National Fireplace Institute in the U.S. or by Wood Energy Technology Transfer Inc. in Canada.



CREOSOTE: FORMATION AND REMOVAL

When wood is burned slowly, it produces tar and other organic vapors which combine with the expelled moisture from the wood to form creosote. The creosote vapors can condense in the relatively cool chimney of a slow burning fire. When ignited, this creosote makes an extremely hot fire. The chimney should be inspected periodically during the heating season to see if a creosote build-up has occurred. If a significant layer of creosote has accumulated (1/4" or more), it should be removed to reduce the risk of chimney fire.

❖ WARNING: BURN DRY WOOD ONLY. DO NOT BURN: DRIFTWOOD,

TREATED WOOD, COAL, GARBAGE,

PLASTIC.

Do not use construction scraps (e.g. 2x4 or plywood scraps) as your only supply of fuel as you can overheat and seriously damage the fireplace. We do not recommend using wax fuel logs (e.g. Duraflame) in this fireplace because it will dirty the glass. If you choose to use them, do not use more than one at a time and do not poke or stir the log while it is burning. Use only firelogs that have been evaluated for fireplace use. In Canada, they should meet the requirements of ULC/ORD-C127-M1990. Refer to the firelog warnings and caution markings prior to use.

GENERAL SPECIFICATIONS

The FOCUS 250 fireplace is environmentally friendly as well as efficient. It is approved by the United States Environmental Agency (EPA) at an emission rate of 4.0 grams per hour.

THE COMBUSTION CONTROL SYSTEM

Since the door is sealed, all combustion air must come through the FOCUS 250's primary air control.

For the first few days, it is best to operate the fireplace with the primary air control fully open (handle pushed to the far right). Just control the fire as you would any normal fireplace, using one or two logs at a time for a smaller fire, or more logs for more heat. Once you become familiar with operating the fireplace with the control open, you can start experimenting with lower settings.

OPTIONS

For increased air circulation and marginally more heat output, you can add the Inline Fan. The options FO-CIF and FO-CID are then necessary.

If you have any rooms directly above or adjacent to the room with the fireplace that you would like to heat, you may want to consider the Gravity Vent Kit (FO-V2). The gravity vent distributes hot air to these rooms without the need for a blower.

For a simple way to circulate a moderate amount of warm air from the fireplace to another room, we offer the Heat Dump Kit (FO-HD). It includes a 180 cfm blower and is most often used to provide supplemental heating to a basement room when the fireplace is on the main floor, but it can also be used to send the warm air to an adjacent room or upstairs.

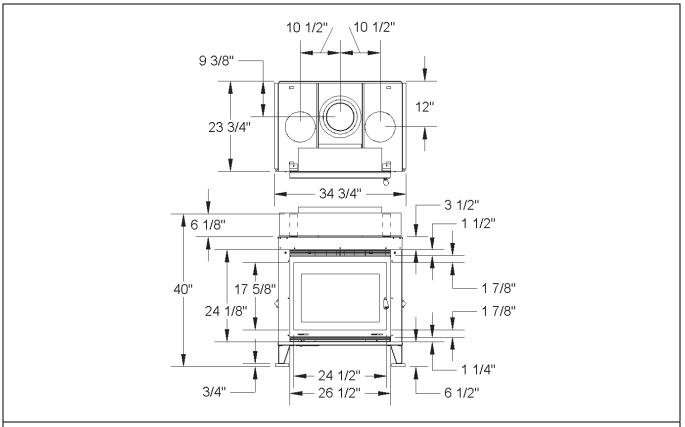
Decorative andirons (FO-A) are also an optional feature. The decorative andirons are made of cast iron and are more aesthetically appealing than the basic ones included with the fireplace. The decorative andirons are also taller, which reduces the chance of logs rolling forward.

• **NOTE**: Many options require wiring and/or electricity for their installation. If there is any chance that any of these options will be installed in the future then suitable wiring should be run during framing. Otherwise, it will be difficult to install these options later. You can refer to page 22 for a list of options that require electricity.

Detailed installation instructions are included in the box with each option. These can also be obtained from our Internet Web Site: www.icc-rsf.com.

*WARNING: THIS FIREPLACE HAS NOT BEEN TESTED WITH A GAS LOG SET (UNVENTED OR VENTED). TO REDUCE RISK OF FIRE OR INJURY, DO NOT INSTALL A GAS LOG SET (UNVENTED OR VENTED) INTO THIS FIREPLACE. DO NOT INSTALL A GAS LOG LIGHTER BECAUSE THE HEAT PRODUCED BY THE FIREPLACE WILL PERMANENTLY DAMAGE THE GAS LOG LIGHTER.

UNIT DIMENSIONS AND CLEARANCES



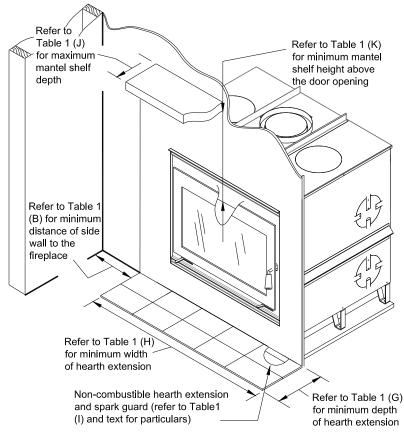


Figure 1 Unit Dimensions and Clearances

Table 1 Unit Dimensions and Clearances				
Α	Distance of combustible material from side, back and top standoffs	0"	(0,0 mm)	
В	Minimum distance from the side wall to the side of the firebox opening	12"	(305 mm)	
С	Minimum ceiling clearance: from the base of the fireplace to the ceiling	6'	(1,83 m)	
D	Minimum chimney height: minimum total chimney height from fireplace top to below the chimney rain cap – Refer to Table 3 on page 14 if elbows are present	12'	(3,66 m)	
Е	Maximum chimney height: maximum total chimney height from fireplace top to below the chimney rain cap	45'	(13,72 m)	
F	Maximum chimney height supported by the fireplace	12'	(3,66 m)	
G	Minimum depth of non-combustible hearth extension: from the front of the fireplace	16"	(406 mm)	
Н	Minimum width of non-combustible hearth extension: total width, must be centered on the firebox opening	40½"	(1,03 m)	
1	Minimum width of the spark guard	32½"	(825 mm)	
J	Maximum mantel shelf depth (see Table 2 for other mantel sizes)	12"	(305 mm)	
K	Minimum height of a combustible mantel shelf above the top of the firebox opening: to the bottom of the combustible mantel (refer to the "Installation: Mantel" section for particulars)	See Table 2		

Table 2 Various Mantel Shelf Depths and Corresponding Installation Heights

Maximum Mantel Shelf Depth	Minimum Installation Height		
0" to 4"	16½"		
12"	28½"		

No combustible mantel shelf can be installed lower than 16½" above the top of the firebox opening. A combustible mantel shelf cannot be deeper than 12".

For any combustible mantel shelf depths between 4" and 12", you can calculate the minimum installation height. For example:

- Mantel shelf depth to be installed: 9¼"
- So: $((9.25 4) \times 1.5) + 16.5 = 24.375 = 24^{3}/8"$
- Thus minimum installation height of a 91/4" mantel: 243/8" above the firebox opening.

If the combustible mantel shelf has a cross-section with variable depth, it has to be installed so that its widest part is not installed lower than the corresponding minimum installation height while making sure that the lowest point of the mantel is not installed lower the minimum installation height corresponding to it depth.

Refer to the "Installation: Mantel" section for particulars.

OPERATION

AIR CONTROLS

All the FOCUS 250 air controls are located below the door (see Figure 2 and Figure 3).

Combustion Air Control

Unlike most open fireplaces, RSF fireplaces don't have flue dampers. Instead, the system is sealed by closing the door, and the amount of air entering the firebox is controlled by the combustion air control lever (see Figure 2). Setting the air control lever all the way open (towards the right) will allow the maximum amount of air into the firebox. Closing the air control (towards the left) will reduce the amount of air entering the firebox.

Outside Air Control

The FOCUS 250 is designed to use outside air for combustion (see Figure 3).

Setting the outside air control lever towards the right will completely open the outside air damper and allow fresh air into the base of the fireplace. Because outside air is generally colder and denser it will help to start the fire. In some cases, fresh air will help compensate for negative pressure problems within the house; however it will not prevent the fireplace from smoking in a severely depressurized house.

We recommend always using outside air for combustion but you may choose to use room air for combustion instead. To do so, move the outside air control lever towards the left to close the outside air damper. This control should be closed when the fireplace isn't burning to prevent cold air infiltration.

BURN TIME VS. HEAT OUTPUT

The faster your fireplace burns the more heat it will create; however, faster fires result in much more hot air flow up the chimney which means you are sacrificing efficiency. Fast burning fires (lots of air) go through much more wood than slow burning fires. To get the most out of your FOCUS 250 fireplace, adjust the



Figure 2 Combustion Air Control



Figure 3 Outside Air Control

combustion air control lever at the appropriate time. If the fire seems to be burning too quickly, turn the air down. If the fire is smoldering and there are no visible flames, turn the air up. This way you'll always be getting the most out of your fuel.

FUEL

All modern high efficiency fireplaces and woodstoves are designed to burn best with seasoned cordwood. Seasoned wood can be defined as wood that has been cut, split and let dry under cover for a minimum of 6 months, preferably a year or more. Dry seasoned wood generally contains less than 20% moisture content. Attempting to burn fuel with an high moisture content will be difficult and result in lower efficiency, increased creosote buildup and dark deposits on the glass. It's possible to burn a very large amount of wood, and get very little heat if the wood is wet.

The type of wood you select is also important. All types of wood give off more or less the same number of BTU's per pound. Since softer woods are less dense than hardwoods it is possible to put more weight of hardwood in the firebox; in other words all woodburning appliances will burn longer and more evenly with hardwoods. Never burn scrap, garbage, treated wood or driftwood as they produce much more pollution and can corrode the firebox and chimney as well. Burning large amounts of paper, cardboard, mill ends or construction waste can easily over fire and damage the fireplace or even ignite a chimney fire if the flue is dirty.

FIRST FIRES

You will experience a slow start-up during the first few fires. The refractory bricks lining the firebox contain moisture from manufacturing and require a few hot fires to evaporate the moisture. While there is still moisture in the bricks, they will be black with smoke deposits. When the moisture has dissipated, the bricks will turn white. Unlike cast iron stoves, there is no need to cure the fireplace itself by starting with small fires and progressively larger ones. Feel free to light a large fire from the very start.

You will experience a slight odor during the first few fires. This odor comes from curing paint and oil burning off the metal. The odor may be strong enough to set off your smoke detector. Open the doors and windows to allow the room to properly ventilate.

LIGHTING

Ensure that the combustion air control lever is all the way in the open position. You will want as much air as possible for the lighting process.

Start by laying your fire starter and kindling. Traditional fire starter is crumpled newspaper; make sure to use enough to light the kindling (5-6 pieces should do). Next lay the kindling crisscrossed over the newspaper. Using plenty of kindling ensures that the chimney will heat up quickly and establish a strong draft, **never use any flammable liquids**. Light the paper and close the door most of the way, but don't shut it completely. If the door is positioned correctly you will see air rushing into the fireplace, this will help the lighting process.

Once the kindling is lit and sustaining fire, you can add some small pieces of seasoned cordwood. Use the andirons in front to help position the cordwood so as not to flatten and smother the fire you've just created. Always add at least 3 pieces of cordwood. Position your cordwood in a manner that the fire will hit several pieces as it rises and has air gaps to flow through. Continue to leave the door slightly open until the cordwood is lit. Close the door completely when the fire is established, if the fire goes out you've shut the door too early.

To get maximum efficiency out of your fireplace you will want to adjust the amount of air entering the firebox at the appropriate times. Gauge how much to close the combustion air by how the fire reacts once the combustion air control lever has been moved. If the fire goes out and begins to smolder, there's too little combustion air entering the firebox. If there's no change to the burn pattern, you can continue to close the combustion air further. Eventually you should be able to close the combustion air all or most of the way. There should always be visible fire inside the firebox at every step of the process.

❖ WARNING: USE ONLY THE RSF ANDIRONS PROVIDED WITH THE FIREPLACE.

❖ WARNING: MAKE SURE TO KEEP THE FIRE BEHIND THE ANDIRONS. REPLACE THE LOGS IF THEY FALL AGAINST THE GLASS.

REFUELING

The door should be opened slowly to keep smoke from spilling into your room. If you have a problem with smoke spillage, check to see that all kitchen and bathroom fans have been shut off. They can cause negative pressure in the house which pulls smoke out of the fireplace.

• NOTE: The inline fan, if installed, should be shut off during refuelling to prevent smoke from spilling out of the fireplace.

TROUBLESHOOTING PROBLEMS

If smoke comes into the house when the door is opened:

- You may have opened the door too quickly and created a suction of air into the room, this can be avoided by opening the door more slowly.
- Ensure your chimney is clean and your chimney cap is not plugged. Chimney caps with screens are more likely to become clogged with creosote buildup.
- Make sure you have adequate chimney height for your system. Refer to the Chimney section of this booklet and make sure to take altitude, and number of elbows into consideration.
- If you have purchased the inline fan, make sure the blower is off before opening the door.

- Check to see if other fans in the home are running, particularly a kitchen range hood, or bathroom exhaust fan. This can affect the pressure in the home.
- Try opening a window near the fireplace a little, this will equalize the pressure in the home and should correct a draft problem. Once proper draft is established the window can be closed.
- Make sure you've used enough kindling to establish a hot fire quickly. The most likely time that smoke will enter the home is during the lighting process.

MAINTENANCE

GENERAL CLEANING

The high heat paint and plating can be cleaned with a soft damp cloth. Use a mild detergent and water. Do not use abrasive cleaners.

PAINT

You can touch up the face of the FOCUS 250 with *Stove Bright* Metallic Black high temperature paint which is available at most fireplaces dealers. Follow the directions outlined on the spray can. **DO NOT** attempt to paint the fireplace while it is still warm. Keep the spray can away from any source of heat or open flame. Ensure that there is adequate ventilation in the room from the time you start painting until the paint is dry. *Stove Bright* is available in a wide range of colors if you want to change the color of your FOCUS 250.

We recommend that you take the time to protect or remove any item that you do not want to paint such as: the door glass, the plated door, the fireplace surroundings, etc. The glass can be removed from the door but you will have to replace the window gasket.

GLASS CLEANING

In a controlled combustion firebox, temperatures are not always high enough to keep the glass perfectly clean. A good hot fire once a day usually cleans off most of the deposits that have accumulated. Remember: the drier the wood and the hotter the fire, the cleaner the glass. A word of caution: although heat will not break the glass, impact can. Be careful not to hit the glass.

* WARNING: NEVER CLEAN THE GLASS WITH AN ABRASIVE CLEANER. USE ONLY A CLEANER RECOMMENDED BY YOUR DEALER. NEVER CLEAN THE GLASS WHILE IT IS HOT, A SERIOUS BURN CAN RESULT. THERE ARE A NUMBER OF EXCELLENT WOOD STOVE GLASS CLEANERS AVAILABLE WHICH ARE FAR SUPERIOR TO REGULAR GLASS AND OVEN CLEANERS FOR WOOD STOVE APPLICATIONS.

CHIMNEY CLEANING

Check the chimney for creosote buildup every week or so until experience shows how often you need to clean it. A buildup of ½" or more should be cleaned before more creosote accumulates. Use an 7" round brush. The baffle in the firebox can be removed to gain access to the flue from below.

Follow the directions in the Refractory Brick Installation section to remove and replace the baffle. If you prefer, you can simply lift the baffle and move it forward and let the debris fall in the firebox. Do not forget to push the baffle back in its place after cleaning the chimney. This second option is much easier than removing the baffle.

DISPOSAL OF ASHES

Remove the ashes before they become too deep, i.e., before you have a spillage problem when you open the door. The ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials pending final disposal. If the ashes are disposed of by burial, or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

DOOR ADJUSTMENT

To check for a proper door seal, insert a sheet of paper between the door and the front of the fireplace and latch the door. Pull gently but firmly on the sheet of paper. If the paper either tears or is hard to retrieve, the adjustment is correct. Repeat this procedure along all sides of the door.

The most important factor for controlling the burn rate of the FOCUS 250 is a good seal on the door gasket. If the door gasket is worn or damaged to the point where the seal is not adequate as described above, then remove and replace the gasket. Replacement kits are available from your RSF dealer.

To ensure a proper seal on the latch side, you can adjust the tightness of the door against the front of the fireplace as follows:

- 1. Open the door and turn the handle 360° counterclockwise. Beware not to over tighten the door latch; this will result in premature failure of the door gasket or cause undue stress on the door handle.
- 2. Verify the seal with the sheet of paper as described above.

If needed, the hinges can be adjusted to improve the alignment of the door latch with respect to the hole in the fireplace facing, and for easy installation/removal of the door.

• NOTE: An improperly adjusted door seal can have a significant effect on the performance and durability of the fireplace. A poorly adjusted door can result in reduced efficiency, over firing, excessive wood consumption and premature fireplace failure.

INSTALLATION

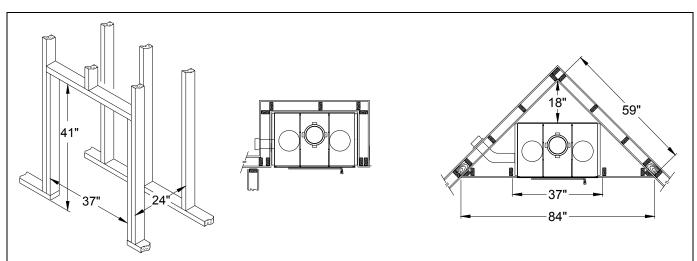
Check with your local authority having jurisdiction (such as municipal building department, fire department, fire prevention bureau, etc.) regarding restrictions and installation requirements, and the need to obtain a permit.

• **NOTE:** We recommend that you remove the door until after all finishing work is completed around the fireplace. This will reduce the possibility of scratches, vandalism, or damage to the finish caused by drywall dust, muriatic acid, plaster, cement, paint or any other harmful spray or liquid.

LOCATION

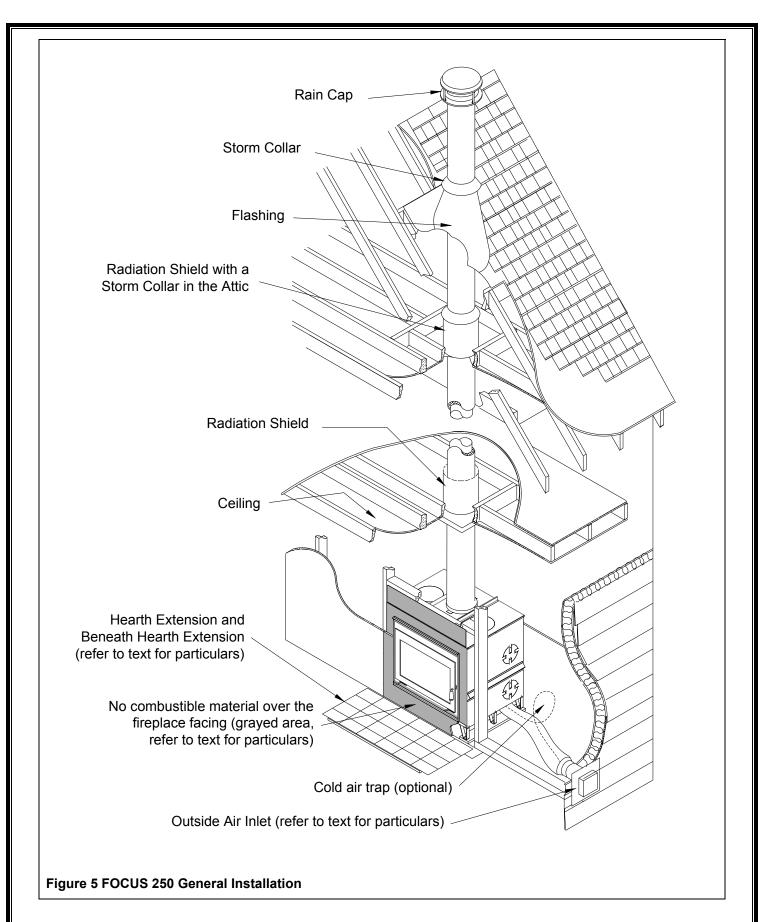
Your FOCUS 250 fireplace may be installed in many different ways (see Figure 4) without any special floor reinforcement. We recommend that you take the time to plan your entire installation (fireplace, chimney, and options) before beginning the actual installation (refer to Figure 5).

Dimensions of the fireplace along with clearances are shown in Figure 1 and Table 1.



The framing dimensions are larger than required for ease of installation. The Heat Dump Option will require an extra 12" on the selected side.

Figure 4 FOCUS 250 Framing Examples



❖ WARNING: IF THIS FIREPLACE IS NOT PROPERLY INSTALLED, A HOUSE FIRE CAN RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS AND CLEARANCES. DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS.

- 1. Note the location of roof and floor joists. Try to choose a location that does not require cutting them.
- 2. Do not build shelves or cupboards in the area above the fireplace. This space must be kept empty.
- 3. If at all possible, run the chimney up through the inside of the house. If it must be run outside, it should be enclosed in an insulated enclosure (see Installation: Chase Enclosure). Remember, a cold chimney causes poor draft.

CEILING CLEARANCE

Ceiling clearance is the distance from the base of the fireplace to the ceiling. Under no circumstances should the distance between the ceiling firestop and the base fireplace be less than the dimension specified in Table 1 (C).

UNPACKING YOUR FOCUS 250

Make sure to remove, from the top of the fireplace, the two wood pieces (2"x4") that are glued to the top. They are there to protect the top of the fireplace and MUST be removed.

♦ WARNING: THERE ARE IMPORTANT COMPONENTS ATTACHED TO THE TOP OF THE FIREPLACE FOR SHIPPING. ENSURE THEY ARE NOT DISCARDED.

The following components MUST be installed and are attached to the top of the fireplace for shipping:

- The top standoff: it MUST be installed on the top of the fireplace, see "Standoff Installation" on page 12
- The L-shaped sparkguard: it MUST be installed at the bottom of the fireplace, see section "Beneath The Hearth Extension" on page 18.

The two 1"x4" attached to the legs of the fireplace will help move the fireplace in its final location. They can be left on the fireplace or removed depending on the particular installation.

The listing label has been temporarily placed in the firebox. Keep it there until the installation has been inspected. You can then drop it through the bottom louver, to the right of the firebox for future reference.

TOP LOUVER INSTALLATION

The top louver is not completely installed to facilitate the packaging. There are big flat bolts on either side of the top louver opening, visible from the front of the fireplace. Loosen them just enough to remove the padding that is holding them in place. This padding was installed to protect the louver during the shipping and MUST be removed. Pull the louver out until the top fin extends 1¾" out from the facing, the other fins should be aligned with the side lintels. Tighten both bolts.

Both louvers are fixed and cannot be removed.

STANDOFF INSTALLATION

Before you begin installing your fireplace, you MUST install the standoff provided on the top of the fireplace.

The back shield MUST be open on the back side as shown at the top of Figure 6. You can then install standoff on the fireplace as shown in Figure 6 with the screws provided in the manual bag.

DO NOT fill the gap between the fireplace and the standoff with insulation or any other material; it will be covered with the finishing material.

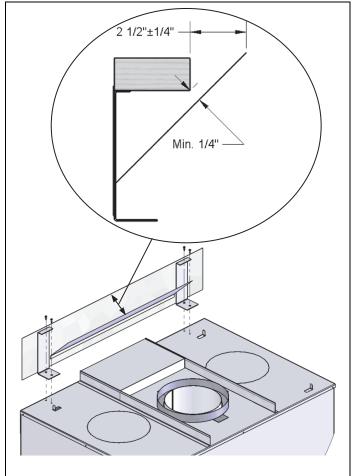


Figure 6 Standoff Installation

SECURING THE FIREPLACE IN PLACE

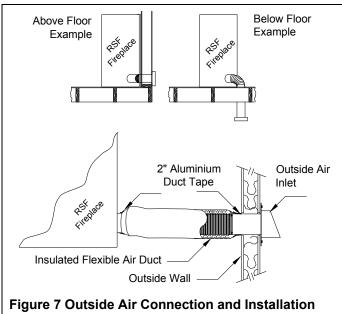
Once the fireplace is in its final location, take the time to attach it to the floor. You can either screw through the 1"x4" if you left them on the fireplace or through the hole in the legs of the fireplace if the 1"x4" have been removed. If possible, try to have at least one if not two 2" screws into the floor joist.

OUTSIDE AIR DUCT

After the fireplace is correctly positioned, connect the outside air inlet to the fireplace.

Use an insulated aluminium flexible duct rated at over 200° F. The duct should not exceed 12' vertical rise above the base of the unit. We suggest using the 4" RSF outside air kit (FO-INT).

The air inlet should never be less than 5' below the top of the chimney flue and must never terminate in attic spaces.



Example

A 4" diameter duct can be used if the total duct run is less than 25'. For longer runs, use 5" diameter duct. For a 5" run, you will need to start at the fireplace in 4" just to get from under the base and then use an increaser from 4" to 5" to be able to continue in 5".

Find a convenient location for the insulated flexible duct and outside air inlet. The outside air inlet can be above or below floor level (see Figure 7).

The connection for the outside air is located on the bottom of the fireplace. To ease the installation of the flexible duct, a special elbow was provided that allows the duct to be oriented as required.

- 1. Use a short Phillips screwdriver to remove the outside air cover located on the bottom of the fireplace on the left side, three screws hold it in place.
- 2. Bend the central part of the cover back and forth to break away the two tabs and remove the central part (see Figure 8).
- 3. Attach the 4" aluminium duct to the inlet of the outside air elbow with metal screws.
- 4. If the insulated flexible duct has a plastic covering, remove this plastic cover over the flexible duct so that there is no plastic cover on the duct under the fireplace and for at least 3" away from the fireplace. The plastic cover MUST NOT get within 3" of the fireplace.
- 5. Tape the insulation to the aluminum ducting where the plastic cover was pulled back. Using aluminium tape to hold it in place.
- 6. If using 5" flexible duct for the rest of the duct run, cut the 4" insulated flexible duct long enough to clear the fireplace. Completely remove the plastic cover over the 4" duct. Pull back the insulation on the extremity of the 4" duct and attach it to the 4"-5" increaser with metal screws. Pull back the plastic cover and the insulation from one extremity of the 5" duct. Attach that extremity of the 5" aluminium duct to the 4"-5" increaser with metal screws. Replace the insulation and plastic over the 4" and 5" insulated flexible duct and tape it in place with aluminium duct tape. Remember, the plastic cover MUST NOT get within 3" of the fireplace.
- 7. Insert the outside air elbow into the support (see Figure 9) and install this assembly onto the fireplace, using at least two of the screws that were removed previously but do not tighten it yet.

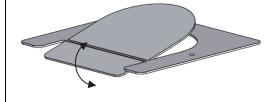


Figure 8 Removing the outside air cover

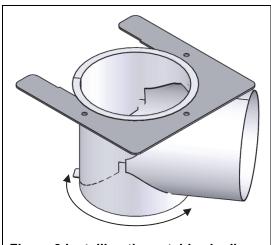


Figure 9 Installing the outside air elbow

- 8. Orient the outside air elbow in the direction you want the outside air duct to go and tighten the screws.
- 9. Make a 4 ¼" (5 ¼" if using a 5" diameter duct) hole in the outside wall of the house. Push the outside air inlet in from the outside. Seal the joint between the air inlet and the outside wall with an appropriate sealant.
- 10. Place the insulated flexible duct over the round sleeve on the outside air inlet. Carefully pull back the insulation and plastic cover, exposing the flexible duct. Attach the duct with metal screws to the air inlet. Replace the insulation and cover back over the duct. Tape the plastic cover in place with aluminium duct tape.
- **CAUTION: WHEN RUNNING THE DUCT AROUND CORNERS, BE SURE TO PREVENT CRIMPING THE DUCT IN A WAYTHAT WOULD RESTRICT THE COMBUSTION AIRFLOW.**

CHIMNEY

This fireplace is certified for use with 7" ICC Model EXCEL chimney only. Please refer to Table 1 (D-E) for the minimum and maximum chimney heights permitted with the FOCUS 250 fireplace.

We recommend that the minimum height be increased by approximately 1' for every 2000' elevation above sea level. Every 15°, 30° or 45° elbow also increases the minimum height by 1'. For example, if you are living 6000' above sea level, your chimney should terminate at least 15' from the top of the fireplace (12' + 3' for the 6000'). See Table 3 for more precise recommended flue heights.

3 Minimum Recommended Flue Heights In Feet From The Top Of The Fireplace							
Elevation (ft)	Number Of Elbows						
Licvation (it)	0	2 x 15°	4 x 15°	2 x 30°	4 x 30°	2 x 45°	4 x 45°
0 - 1000	12'	13'	14'	15'	18'	16'	20'
1000 - 2000	12'6"	13'6"	14'6"	15'6"	19'	16'6"	20'
2000 - 3000	13'	14'	15'	16'	19'6"	17'	21'6"
3000 - 4000	13'6"	14'6"	15'6"	17'	20'	18'	22'6"
4000 - 5000	14'	15'	16'	17'6"	21'	18'6"	23'
5000 - 6000	14'6"	15'6"	17'	18'	21'6"	19'	24'
6000 - 7000	15'	16'	17'6"	18'6"	22'	20'	24'6"
7000 - 8000	15'6"	16'6"	18'	19'	23'	20'6"	25'6"
8000 - 9000	16'	17'	18'6"	20'	24'	21'	26'6"
9000 - 10000	16'6"	17'6"	19'	20'6"	24'6"	22'	27'

CHIMNEY INSTALLATION

Make sure to read the EXCEL Chimney installation manual concerning requirements for supports, bracing, anchors, etc. Refer to Table 1 (F) for the maximum chimney height that can be supported by the top of the fireplace.

- ♦ WARNING: THE CLEARANCE BETWEEN THE CHIMNEY AND COMBUSTIBLE MATERIAL MUST BE 2" OR MORE. DO NOT FILL THIS AREA WITH INSULATION.
- 1. Cut and frame the required holes in the floor(s), ceiling(s) and roof where the chimney will pass through. The rough opening in the framing is 13" square (the opening can be slightly bigger, but NEVER smaller).
- 2. From below, install a radiation shield in each floor through which the chimney passes. At the attic level, install a radiation shield and a storm collar as shown in Figure 10.
 - ♦ WARNING: A RADIATION SHIELD MUST BE INSTALLED AT EACH FLOOR WHERE THE CHIMNEY PASSES THROUGH.
- 3. Place the first length of chimney on the fireplace. Secure the chimney length to the fireplace with the three screws provided. Assemble the rest of the chimney.

The chimney must extend at least 3' above its point of contact with the roof and at least 2' higher than any wall, roof, or building within 10' of it. If the chimney is higher than 5' above the roof, it must be secured using a roof brace.

4. Put the roof flashing into place. Seal the joint between the roof and the flashing with roofing tar or an exterior sealant. For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles. Secure the flashing to the roof using roofing nails or roofing screws.

If the chimney is enclosed to the roof:

- In USA: use a vented flashing;
- In **Canada**: use a vented flashing, or a roof radiation shield with a regular flashing.
- ♦ WARNING: DO NOT BLOCK ANY OF THE OPENINGS IN THE VENTED FLASHING WITH SEALANT, CAULKING OR ANY OTHER MATERIALS.
- 5. Place the storm collar over the chimney and flashing. Place a bead of exterior sealant around the chimney below the storm collar, pull the storm collar through the sealant and seal it once again on the top with the exterior sealant (DO NOT use roofing tar).
- 6. Fit the rain cap on the chimney. Secure it tightly in place.

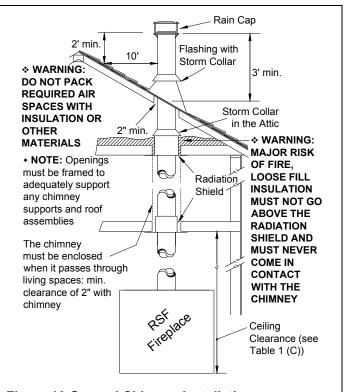


Figure 10 General Chimney Installation

OFFSET CHIMNEY

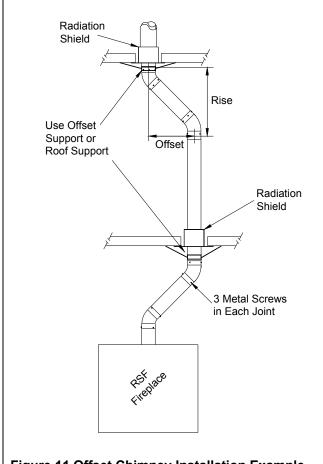
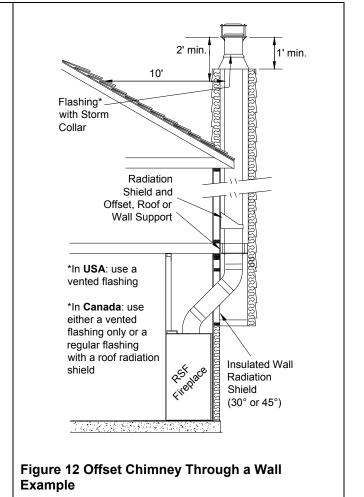


Figure 11 Offset Chimney Installation Example



FOCUS 250 Owner's Manual

An elbow may be installed directly on top of the fireplace if required. See the detailed offset charts in the EXCEL chimney installation manual. Use the offset option if you need to clear a joist or pass around a cupboard. See Figure 11 and Figure 12 for examples.

- Maximum offset angle:
 - In USA: 30°;
 - In Canada: 45°.
- Maximum number of elbows: four, resulting in two offsets and returns.

Install the fireplace and chimney as described earlier. When you require an elbow, proceed as follows:

- 1. Install the required elbow. Turn it in the desired direction, and fasten it to the chimney length with the three metal screws provided at the joints.
- 2. Install enough lengths to obtain the desired offset. Secure each joint with three metal screws. Refer to the offset charts provided with the EXCEL chimney installation manual for exact offset dimensions.
 - If the chimney goes through an outside wall as shown in Figure 12 and is enclosed on the other side of the wall, then the outside plate of the angled wall rediation shield MUST NOT be installed.
- 3. Use another elbow to return the chimney to the vertical direction.
- 4. Install a roof support, a wall support, or an offset support above each offset to support the weight of the chimney (elbows are not designed to support the chimney above an offset).

CHASE ENCLOSURE

If the chimney runs up the outside of the house, we recommend that it be enclosed in a chase structure. The chase should be constructed in such a way that it is an extension of the home (see Figure 13). It should be well insulated between the footings and the floor of the home to prevent heat loss. If the climate in your area is mild, insulate the chase at least to the first firestop. If the climate in your area is very cold, insulate the chase to the top to keep the chimney warmer, increase the draft, and reduce creosote buildup. We also recommend to insulate the ceiling of the chase just as if it were in the attic space. This will prevent cold air from dropping down through the chase and into the room where the fireplace is installed (see Figure 13).

Some local codes require that the walls be insulated, vapor sealed and sheathed with a fire rated gypsum board (see Figure 13). We strongly recommend this procedure for all installations to prevent cold drafts from originating in the fireplace enclosure. If you follow this procedure, we recommend that you do not insulate the wall above the front of the fireplace.

• **REMEMBER:** Check local codes concerning installation requirements and restrictions in your area.

MASONRY CHIMNEY

Installing your FOCUS 250 fireplace with a masonry chimney still requires using EXCEL chimney from the top of the fireplace to where it will connect to a listed liner that will run up inside the masonry chimney (see Figure 14).

Insulation

Chase liner of fire rated gypsum board is recommended (may be required by local authorities)

Radiation Shield, with Storm Collar in the Attic

Figure 13 Chimney Installed with a Chase Enclosure Example

that will run up inside the masonry chimney (see Figure 14).

The stainless steel liner should be fitted inside the clay liner all the way to the top of the masonry chimney. It is not meant to replace the clay liner. You can use either the EXCEL liner or any other listed liner to ULC-S635, ULC-S640 or UL-1777.

Special care is to be taken to make sure that you have a good solid connection between the EXCEL chimney and the liner. A masonry adaptor (FO-FDM7) was designed specifically for that purpose and is available from your

RSF dealer. It will attach to the liner with 3 stainless steel rivets (provided) and to the EXCEL chimney with 3 screws (provided).

After mortaring in place, the connection between the EXCEL chimney and the liner should not be visible in order to isolate the heat released through the liner from the fireplace enclosure.

As depicted in Figure 14, you must install at least one 18" length of EXCEL chimney after the EXCEL chimney elbow. The uppermost part of the EXCEL chimney - where it enters the masonry chimney - must be a minimum of 12" from the ceiling.

• **NOTE:** If the ceiling is high enough, you can install one or more EXCEL chimney lengths directly on the fireplace before the elbow.

If you use a flexible liner, make sure to be careful when cleaning to

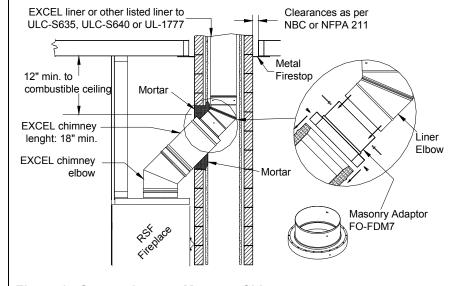


Figure 14 Connection to a Masonry Chimney

ensure that the stainless steel flexible liner is not dislodged in any way.

Using an Existing Masonry Chimney

- ♦ WARNING: IF YOU ARE CONSIDERING USING AN EXISTING CHIMNEY, IT MUST FIRST BE THOROUGHLY INSPECTED BY AN AUTHORITY HAVING JURISDICTION TO DETERMINE THE FOLLOWING:
- The masonry chimney is well constructed and fully lined, in accordance with Local Building Codes and the National Building Code of Canada (NBC) or National Fire Protection Association chimney standard (NFPA 211).
- 2. It has been thoroughly cleaned of any soot or creosote residue and inspected to determine that it is in good working condition.
- 3. There is no insulation of any type in contact with the masonry chimney and there is no insulation stuffed anywhere in the chimney.
- 4. All the necessary clearances around the masonry chimney, along the complete run of the chimney, are respected as per NBC or NFPA 211. If the masonry chimney is enclosed in drywall, openings will probably be required in order to verify clearances at all points.
- 5. The masonry chimney will only be used for the fireplace and no other appliance.

If major repairs are required to meet the above conditions, a new chimney should be constructed.

To make the hole through the masonry chimney and make the connection to the fireplace, we recommend that you follow these steps:

- 1. Sight-in and mark the outline of where the EXCEL chimney will penetrate the masonry chimney.
- 2. Using a large (¾" 2") masonry drill bit, drill a hole exactly in the center of the oval outline. With a masonry hammer and drill, slowly enlarge the hole to the size required. Remember to work from the center out. Be especially careful with the clay liner behind the brick because three sides of it must stay in place.
- 3. Bring the stainless steel liner down from the top of the chimney.
 - If you are using a rigid liner you will need enough room to secure an elbow to it with at least two screws.
 - If it is difficult to install rigid stainless steel liner in the existing masonry chimney or for a masonry chimney with less than 10"x10" inside, a listed stainless steel flexible liner can be used along with a flexible/rigid adaptor (LM-7LAF) available from your RSF dealer.
- 4. Install the liner elbow and masonry adaptor on the lower end of the liner.

5. Move the fireplace forward enough to install the EXCEL chimney on the fireplace (elbow and length) then move the fireplace back into position as you connect the masonry adaptor to the EXCEL chimney.

Using a New Masonry chimney

Since the masonry chimney is not build yet, we recommend that you position your fireplace, install the EXCEL chimney on it and connect to the first length of liner before building the chimney as explained above and shown in Figure 14. The liner sections can easily be installed as the layers of brick are being placed. Since this is a new chimney, we recommend that you build it to the right size so you do not have to ovalize the liner.

• Remember: The stainless steel liner should be fitted inside the clay liner all the way to the top of the masonry chimney. It is not meant to replace the clay liner.

FRAMING

The enclosure walls can be framed with any suitable materials (2x4 or 2x6 studs, plywood, gypsum board, etc.). Because of the high heat output potential of the FOCUS 250, combustible materials must NOT go closer to the fireplace than the standoffs, top, back and sides.

COVERING THE FIREPLACE FACING

Facing materials MUST BE NON-COMBUSTIBLE such as metal, brick, slate or ceramic tile. Gypsum board is NOT an acceptable facing material. Gypsum board cannot get closer to the fireplace than the side and top standoffs.

Facing this fireplace can be as simple as using cement boards that will be painted or gluing ceramic tiles with high temperature silicone sealant. The facing material can be installed directly against the lintels surrounding the door and louvers.

The area in front the fireplace legs, below the bottom louver, MUST also be covered with NON-COMBUSTIBLE materials (see Figure 5). The L-shape spark guard provided will cover the front of the legs and offer support for the facing materials. See below for the installation instruction of the spark guard.

The front surface of the top standoff is part of the fireplace facing and MUST also be covered with NON-COMBUSTIBLE materials (see Figure 5).

HEARTH EXTENSION

The area immediately in front of the fireplace must be protected by a non-combustible material such as brick, tile, stone, or slate. Refer to Table 1 (G-H) for the depth and width that the hearth protection should extend beyond the front and both sides of the door opening (see Figure 1). There is no minimum thickness required for the hearth extension.

BENEATH THE HEARTH EXTENSION

If the FOCUS 250 is installed on a non-combustible floor, the spark guard is needed to cover the legs of the fireplace.

The L-shape spark guard provided will not only protect against sparks and small embers that may fall at the very front of the fireplace but it will also close the front of the legs and support the facing materials.

If you have decided to remove the 1"x4" below the fireplace legs, you will need to cut off $\frac{3}{4}$ " from the tall side of the L-shape spark guard.

Install the L-shape spark guard provided (1" bend x $6^3/_8$ " x $32\frac{1}{2}$ " piece of sheet metal) in front of the legs of the fireplace. It should be aligned with the fireplace. Use a couple of wood screws to attach it to the floor and use the two self-tapping screws provided to attach it to the base of the fireplace. If you plan on covering the facing of the fireplace with glued ceramic tiles, place the screws so that they will be located behind the grout joint.

If you are preparing a raised installation, more than ½", you will need a custom made spark guard:

• You can add a custom plate (thickness: 0.060" minimum, width: 32½", height: raised height + 1½" for overlap) that will be attached to the base of the fireplace as an extension to the provided L-shape spark guard. Install the provided L-shape spark guard as described above, attaching it to the thick plate instead of the base of the fireplace.

- Or you can make a custom L-shape spark guard (thickness: 0.024", width: 32½", height: raised height + 6 ³/₈" + 1" for the bend) and install it as above.
- NOTE: Custom-made spark guards are site built.

MANTEL

For combustible mantels shelves, please see Table 1 (J-K) for the maximum depth of the mantel shelf and their clearance requirements. See Figure 1 for an example.

Combustible mantel posts, of any depth, can be installed on either side of the fireplace as long as they respect the same minimum distance as the side wall (see Table 1 (B)).

Masonry and other non-combustible mantels (shelf and posts) can be placed anywhere around the fireplace opening. If the non-combustible mantel is located between the top of the fireplace facing and the specified height

for a combustible mantel, then the wall portion between the top of the fireplace facing and the mantel must be covered in non-combustible material. If the non-combustible mantel is located at the same height allowed for a combustible mantel, or higher, then no special wall covering is required below the mantel.

DOOR HANDLE INSTALLATION

The FOCUS 250 door handle is not installed at the factory to facilitate the fireplace packaging.

Take the door handle from the manual bag. Start by removing the bolt and bushing from the handle. Screw the handle through the door frame until you have about 1" left on the front side of the door. Install the bushing on the bolt and screw them tight on the back end of the handle (see Figure 15).

Close the door and refer to page 10 to verify the door adjustment.

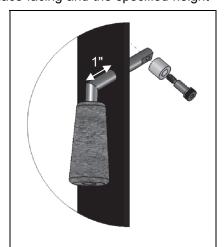


Figure 15 Door Handle Installation

REFRACTORY BRICK INSTALLATION

The refractory bricks are placed in the fireplace at the factory. If for any reason, they should need to be replaced, the following order should be observed. To remove any of the refractory bricks, just remove the andirons (back parts first, then the front parts) and then follow the installation procedure in the reverse sequence. Refer to Figure 16 to identify which refractory brick is the left and which is the right at each step of the installation.

- 1. First, remove the secondary air tube at the top front of the firebox. To do so, unscrew the bracket located on the left side of the tube.
- 2. Place the baffle (1) above the other two tubes and ensure its proper orientation: narrow part towards the rear and grooves towards the bottom.
- 3. Reinstall the first tube and screw it in place.
- 4. Continue by inserting the rear refractory brick in the firebox (2), then the left side refractory brick (3).
- 5. Then insert the refractory brick on the right side (4) of the firebox but do not position it yet. Ensure that it is resting firmly against right back corner of the firebox while being tilted at about 45° between the rear refractory brick and the right side of the firebox and also tilted with its bottom resting at approximately the middle of the firebox and the top closer to the back right corner (see Figure 17).
- 6. Next insert the top refractory brick (5) in the firebox and put its left end against the top front part of the left refractory brick. Lift the right end until it is in a horizontal position and then slide the right refractory brick until it is in place. The top refractory brick is supported by the two side refractory bricks.
- 7. Continue by installing the 2 bottom refractory bricks in the firebox (6 on the left and 7 on the right).
- 8. Finally, install the front refractory brick (8).

These refractory have been designed specifically for the FOCUS 250 and no modifications are required to ensure a proper fit.

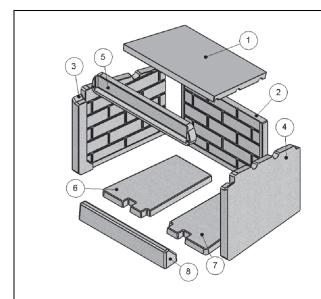


Figure 16 Refractory Bricks Installation

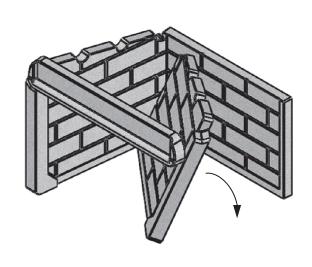
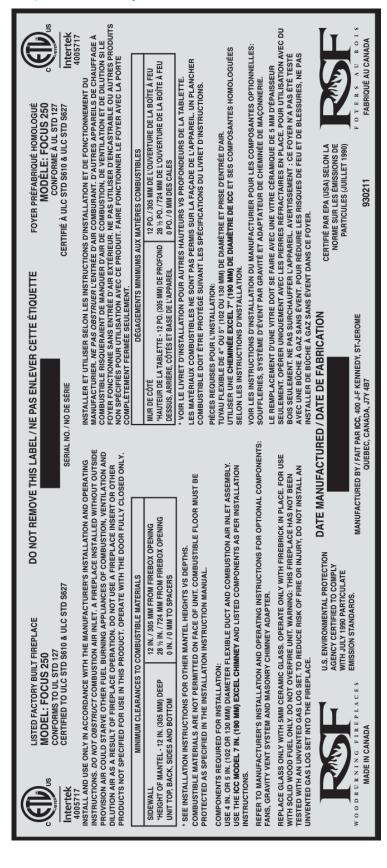


Figure 17 Right Side Refractory Bricks Installation

LISTING LABEL

The listing label is attached with a cable to the right of the bottom louver. Simply use a hook through the bottom louver, at its extreme right, to pull out the listing label and be able to read it.

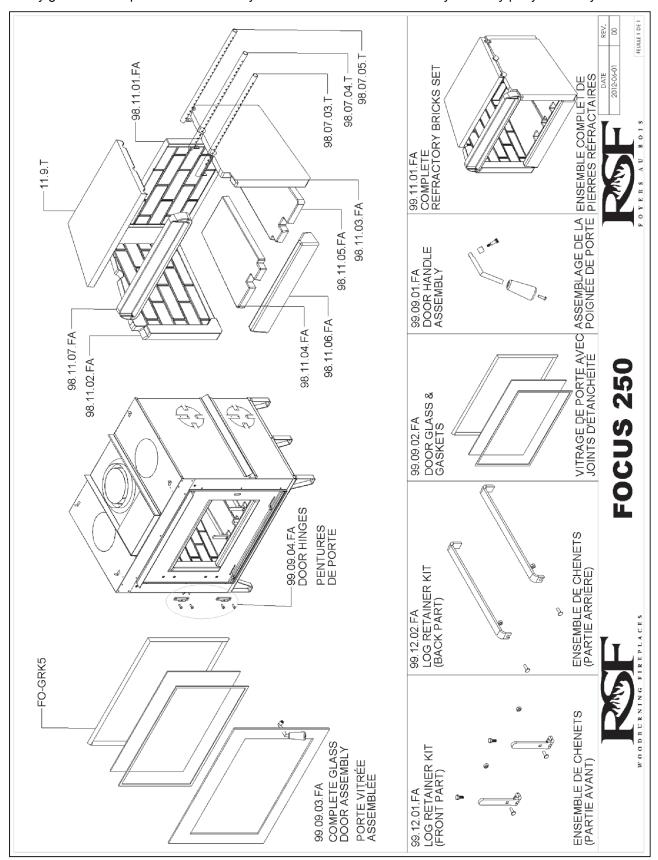


COMPLETE OPTIONS LIST

		Electricity Required
FO-A	Decorative Andirons	
FO-CID	Intake Duct (necessary for FO-CIF)	
FO-CIF	Inline Fan (needs also FO-CID)	✓
FO-DUCT5	Insulated Duct 5 feet	
FO-GRK5	Gasket Replacement Kit - FOCUS 250	
FO-FDM7	Masonry Chimney Adapter 7"	
FO-HD	Heat Dump Kit	✓
FO-INT	Outside Air Kit 4" Diameter	
FO-V2	Gravity Vent Kit	

REPLACEMENT PARTS

Use only genuine RSF parts. The use of any substitutes will void the warranty and may put your safety at risk.





LIMITED WARRANTY

30 Years Limited Warranty

All RSF Woodburning Fireplaces models are warranted against defects in material and workmanship for a period of 30 years, subject to the following conditions:

During the first year **RSF Woodburning Fireplaces** will repair or replace, at our option, any parts which upon examination by an authorized **RSF Woodburning Fireplaces** representative, are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. **RSF Woodburning Fireplaces** will also pay reasonable labor costs for the repair work.

During the second through fifth years **RSF Woodburning Fireplaces** will repair or replace, at our option, any parts which upon examination by an authorized **RSF Woodburning Fireplaces** representative, are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. **RSF Woodburning Fireplaces** shall not be responsible for any labor costs associated with this repair work.

During the sixth through thirtieth years **RSF Woodburning Fireplaces** will provide replacement parts, if available, at 50% of the published retail price, except for the parts listed in the EXCLUSIONS portion of this warranty. **RSF Woodburning Fireplaces** shall not be responsible for any labor costs associated with this repair work.

EXCLUSIONS:

- Electrical components are warranted for one year only.
- Glass and plating.
- Andirons (front and back parts).
- Damage due to normal wear and tear, such as paint discoloration, worn gaskets, eroded or cracked refractory components.
- Repairs or replacements necessitated by vandalism, neglect, abuse, over-firing, improper fuel or fuel loads, or failure to adequately service the unit, as stated in the owner's manual.
- Repairs or replacements (particularly charges for travel and labor) not authorized by RSF Woodburning Fireplaces in advance.

LIMITATIONS:

- All items found to be defective will be replaced or repaired upon return of the defective part to an authorized RSF Woodburning Fireplaces dealer. RSF Woodburning Fireplaces will not be responsible for freight costs related to shipping replacement parts.
- Any complete fireplace, or part thereof, that is replaced or serviced under this warranty, will be warranted for a period not exceeding the remaining term of the original warranty.
- This warranty is not transferable.
- This warranty does not apply to damage to the appliance while in transit.
- This warranty does not apply if the installation does not conform to the installation requirements in the owner's manual.

RSF Woodburning Fireplaces is free of liability for any damages caused by the appliance, as well as material and labor charges incurred in the removal or re-installation of any **RSF Woodburning Fireplaces** fireplace under this warranty. Incidental or consequential damages are not covered by this warranty.

The remedies set forth herein are exclusive, and the liability of the seller shall not exceed the price of the fireplace or part thereof upon which the liability is based.

This warranty is expressly in lieu of all other warranties expressed or implied, including the warranties of merchantability and fitness for use and all other obligations or liabilities on the part of **RSF Woodburning Fireplaces**.