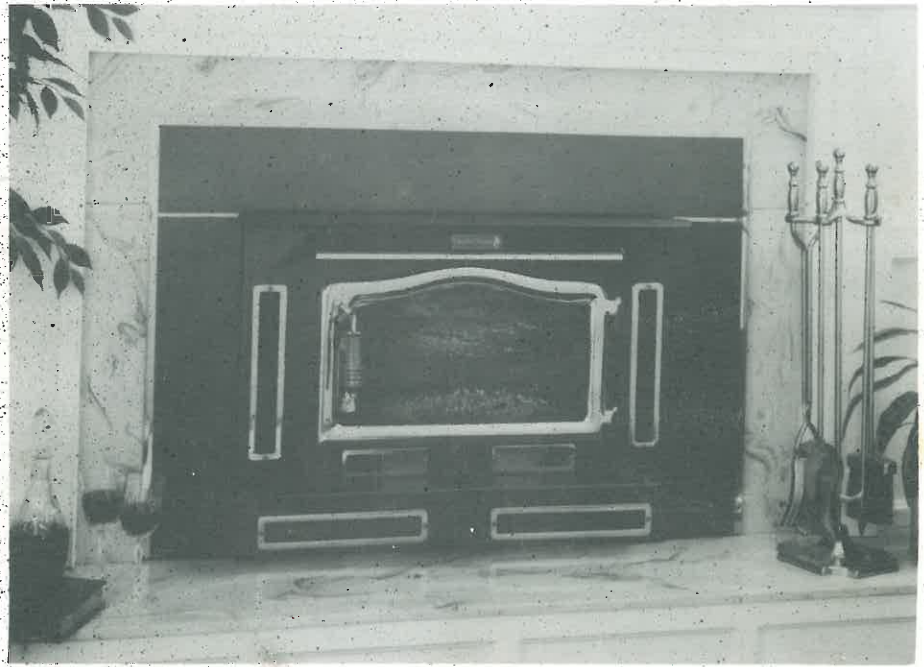


# 63992

1988



~~1-800-795-7075~~



**DO NOT DESTROY. KEEP FOR FUTURE REFERENCE.**

# **OWNER'S MANUAL**

**Models**

**BBF-6, BBF-I, B-6, B-I, S-6, S-I, E1-6, E1-I, E2-6, R-6, 02-I, E2-I**

**Country Flame, Inc.  
P.O. Box 151  
Mt. Vernon, Missouri 65712**

Part # PP-574 \$285<sup>00</sup>

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**CAUTION: DO NOT INSTALL ANY OF THESE UNITS IN MOBILE HOMES.**

### COUNTRY FLAME OWNER'S MANUAL

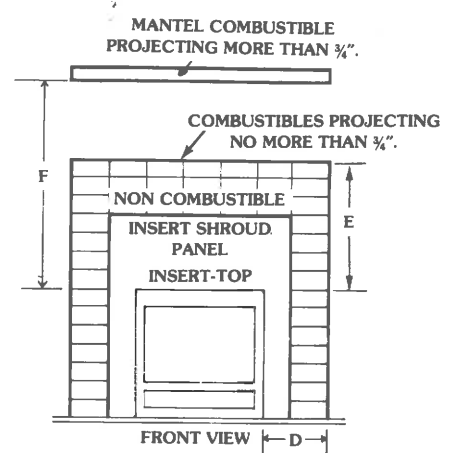
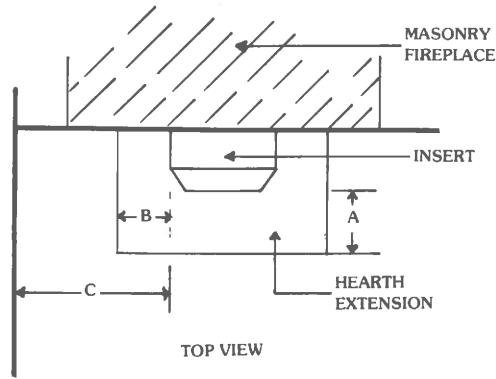
**SAFETY NOTICE: If this unit is not properly installed, a house fire may result. For your safety, follow the installation directions.**

All Country Flame heaters are tested to U.L. standards and recognized by I.C.B.O. report #3825.

Cracking of firebrick is normal and will not affect the efficiency of your heater. Wooden handles will darken with use. A good brass cleaner will restore brightness to tarnished brass. The glass will blacken with use, but may be cleaned. The first few times you use your stove, paint smoke may be seen rising from the unit and through the air discharge grill. This condition will cease after few uses. You may wish to open doors and/or windows to ventilate the room during the first firing of your heater. Some warpage inside the firebox is normal. Minor imperfections in the solid brass door may be considered normal.

# SECTION I INSERT INSTALLATION

## INSERT CLEARANCES



MODEL	A	B	C	D*	E*	F
BBF-I	18"	8"	36"	10"	12"	26"
O2	18"	8"	24"	12"	12"	24"
B-I						
S-I	16"	8"	24"	8"	12"	16"
E1-I						
E2	16"	8"	16"	13"	24"	30"

\*SEE PLATE ON REAR OF INSERT FOR ADDITIONAL CONSTRUCTION CLEARANCES TO COMBUSTIBLES.

## SUGGESTED COUNTRY FLAME INSERT INSTALLATION PROCEDURES

Step 1. When installing the BBF-I, B-I, S-I, E1-I, or E2-I the chimney must be of masonry construction with an open cross section of at least 50 sq. in. (7.25"x7.25" or 8" round). The O2-I may be installed in masonry or approved zero clearance fireplace with a minimum cross sectional area of 28 sq. in. (5.3"x5.3" or 6" round).

Step 2. Read the clearance chart above and give particular attention to the minimum

clearance to the mantel, wood trim to the top and sides of the insert, and requirements for a hearth extension.

Step 3. Before installing a Country Flame insert or any other heating appliance, Country Flame strongly recommends that your chimney should be inspected and cleaned by a certified chimney sweep. Note: Copy serial number located on the front of stove onto warranty card before installing stove.

Step 4. If you have a removable damper in your fireplace, we recommend that you remove it entirely. If your damper is not the removable type, then it must be wired in the open position with a heavy wire.

Step 5. After removing the damper so that any additional soot has fallen out of the flue, vacuum your fireplace thoroughly.

Step 6. Place the stove on the hearth of the fireplace, being careful not to scratch or chip the brick or stone hearth (Photo 1). A flat piece of thick cardboard will protect your hearth and allow easier sliding adjustments. Push the insert approximately 2" in the fireplace. At this point adjust leveling legs down until the legs touch the floor of the fireplace. The leveling legs for the BBF-I, B-I, S-I, E1-I and E2-I screw into the two bottom openings at the rear of the unit. Adjust them until your insert is level. Leveling legs on the O2-I screw into the exterior mounts on the rear of the stove.



Photo 1

Cardboard



Photo 2

Step 7. Push your Country Flame insert all the way back into the fireplace where it will be when fully installed. Double check the location by measuring from both sides of the front of the insert to the edge of the hearth. These measurements must be the same in order to properly align the heater. The insert flue opening must be behind the lintel.

Step 8. After you have properly aligned the insert in the fireplace, you are ready to mark the trim panels for mounting. This is done by pressing both right and left trim panels directly against the face of your fireplace as they will be when mounted. While holding

the panel in place, mark the edge with a pencil (Photo 2). Do this to each panel leaving the top trim panel for last because it will also mount directly above the two side panels.

Step 9. Pull the stove approximately 18"-20" back from the fireplace for mounting the trim panels. In this step you will align front edge of panel with mark you have just made, then mark the slots with pencil. By marking the exact center of the slot you will have slight adjustment up or down, depending upon the evenness of your hearth. A slight gap at the top of each side panel can be filled by the brass trim and/or fiberglass insulation. Remove panel and mark center of each slot with hammer and steel "center punch".



Photo 3



Photo 4

Step 10. Drill your holes with a 7/32" drill bit (Photo 3).

Step 11. Place trim panels along the line previously marked and insert your self-tapping screws in each of the holes. The tightening of these screws secures the trim panels firmly in place. (Photo 4).



Photo 5

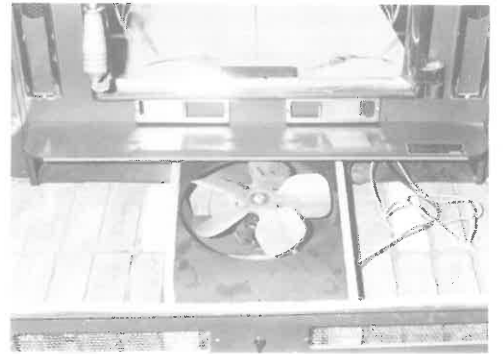


Photo 6

Step 12. Remove the backing from the roll of fiberglass insulation included in your trim panels. For stone or irregular surfaces you may require additional fiberglass to fill voids. Very irregular surfaces with large voids will require some masonry fill. Install brass trim as per instructions enclosed with trim kit. (Photo 5).

Step 13. Located in the sealed plastic bag you will find two brass hinge caps. These hinge caps are to be placed in the respective hinge holes in the Country Flame door.

Step 14. Remove the plastic covering from all brass trim.

Step 15. Push your Country Flame insert back into the fireplace where the actual weight of the stove will seat the trim panels against the masonry fireplace front.

Step 16. Make sure power is NOT CONNECTED. Unscrew the two fan tray screws beneath the ash fender and pull the fan tray out (Photo 6). Spin the fan blade to be sure it is free. Remove electrical cord and plug it into the nearest 110V wall receptacle. Slide drawer back. You are now ready to build a fire.

## **INTERNAL THERMOSTAT**

The internal thermostat for your B-I and S-I is located inside the right side discharge. This internal thermostat is a heat disc which acts as a relay to trigger your blower to a preset fan speed when the discharge temperature reaches 110°F. The thermostat will automatically turn off the blower when the discharge drops to 90°F. The thermostat for the BBF-I is located inside the blower tray. A manual override switch is provided for the BBF-I directly above the 3 speed switch. Refer to operations section.

## **THE O2-I**

### **BEFORE YOU START**

1. The Country Flame O2-I has been tested and is approved for the following fireplace manufacturers: Heatilator, Superior, Preway, Marco, Majestic, Martin. The approval for these manufacturers extends to all models provided that the minimum fireplace cavity allows a 1" air space between the O2-I insert and the sides, back and top of the zero clearance firebox.

Only two modifications may be made to the zero clearance fireplace before installing the O2-I.

- a. The damper may be removed.
- b. The ember catcher located in the base of the flue can be removed.

2. See Figure 1 for clearances to combustibles in a masonry fireplace.

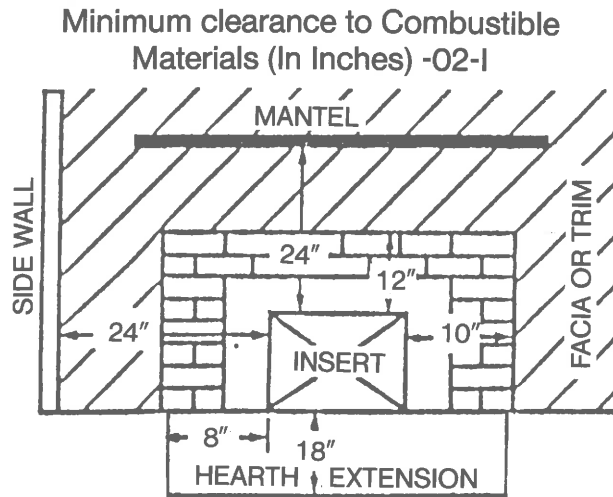


Figure 1

Install O2-I with a minimum of 24" clearance to combustible sidewall, 10" to a flush side fascia or 12" to an extended fascia and 12" to top trim, 24" from top of insert mantel. Floor protector must be 3/8" minimum non-combustible material or equivalent extending 18" in front of insert and 8" to both sides.

3. Do not block any of the zero clearance fireplace's vents with the shroud when installing the O2-I.

4. Install according to the greater clearances of the zero clearance fireplace's or the insert's stated clearances.

5. Hearth extension as supplied as part of the zero-clearance fireplace must always be used. There must also be at least 18" of floor protection in front of the insert as measured from the face of the insert. This floor protection should be 3/8" asbestos millboard or the equivalent.

6. A positive connection is not required for the O2-I but it is recommended. These are available from your Country Flame dealer in sizes that flare from the 6" opening on the O2-I to 6", 7", 8", 9", and 10" of your chimney flue opening. The crimped section of the connector fits into the chimney pipe and should be connected with screw and/or plumbing strap and furnace cement.

The shorter piece slides onto the flared piece and is pushed up and out of the way after the flared piece is secured into the pipe with furnace cement and plumbing strap. When the O2-I is placed in position beneath the chimney connections the short piece can be lowered into the 6" flue opening of the insert. NOTE: The two pieces may be trimmed to fit your installation needs. If you use this positive connection you may omit the shroud in your installation.

In the event that you do not make a positive connection we recommend that a 2' piece of starter pipe be attached to the 6" flue opening on the O2-I and extended into the

chimney pipe. At this time you may want to put insulation between the 6" pipe and the existing flue to provide a better seal. This will promote faster starting and a better draw.

7. The hearth extension to support the insert must be of non-combustible material.

NOTE: When installing an O2-I into a zero clearance fireplace the insert flue exhaust must be at least 2" from the back of the fireplace lintel. (See figure 2). Be certain to confirm the presence of adequate insulation between the lintel and the zero clearance fireplace. It may be necessary to provide additional insulation if settling has occurred.

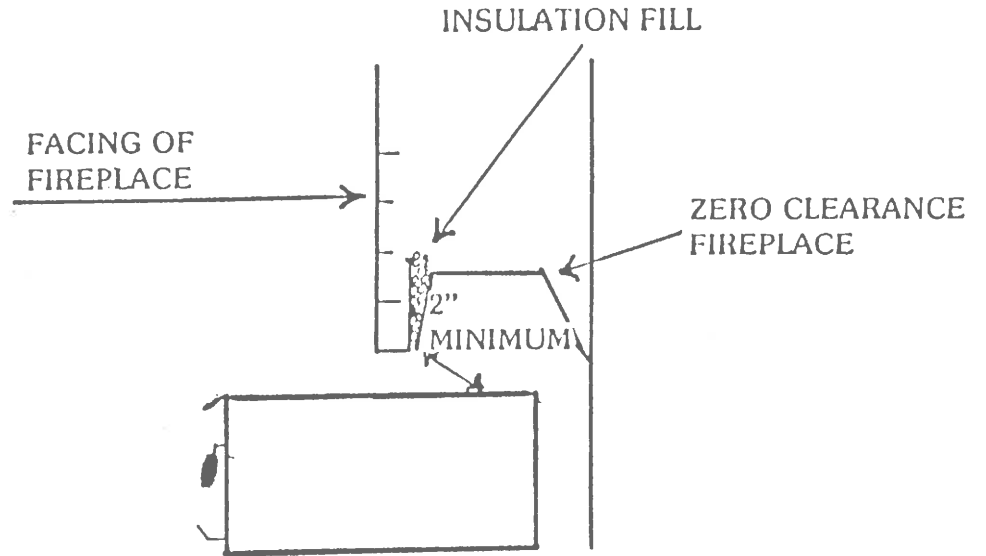


Figure 2



## INSTALLATION OF THE O2-I

Many installations will require front legs to prevent the O2-I from tipping (See Photo 7). Be certain to mount the legs before installing the O2-I into a fireplace.

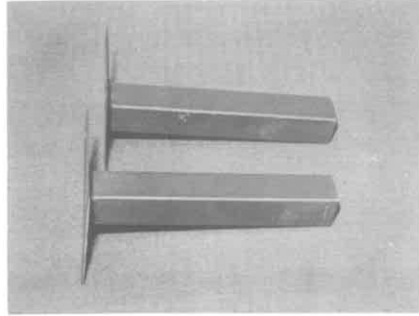


Photo 7

Step 1 - Place a level flat on the floor of the existing fireplace floor with one end extending directly over the hearth where the legs will rest. Measure the distance from the bottom of the level to the hearth and cut the legs to these measurements. If the legs are cut slightly too short it is possible to use washers as spacers to adjust the height.

Step 2 - Lay the insert on its back.

Step 3 - Measure and mark the location for each leg as illustrated for the front two legs on page 12 of the transition instructions.

Step 4 - Place the self drilling screw and washer on the socket and drive the screw until secure. Use a low speed drill to avoid breaking off the screw.

The remaining installation instructions for the O2-I are identical to the other inserts beginning with Step I in this section through 15.

## SECTION II - STOVE INSTALLATION

### INSTALLING YOUR COUNTRY FLAME WOOD STOVE B-6, BBF-6, E1-6, R-6, S-6, E2-6

**SAFETY NOTICE:** If this unit is not properly installed, a house fire may result. For your safety, follow the installation directions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.

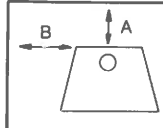
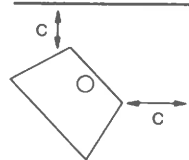
**CAUTION; DO NOT INSTALL ANY OF THESE UNITS IN MOBILE HOMES.**

#### Locating Your Country Flame

**Hearth:** Your Country Flame stove must sit on approved hearth or stove pad of non-combustible material. For a quick and simple installation you can purchase an approved metal and asbestos stove pad at least 3/8" thick. For a more decorative and permanent installation, you can build one out of brick, slate, rock, or concrete blocks covered with ceramic tile. Your hearth should extend 18" past the front of the stove and 8" beyond the sides. Even though the stove has an attached hearth extension to catch coals or ashes, this extra extension will serve as added protection for your floor or rug.

When installing your Country Flame stove over a combustible floor you may choose between a manufactured unit or an approved alternative method. In any case the floor protection must extend at least 8" from the rear and sides of the unit, and 18" from the front of your unit.

**Wall Clearances:** The clearances to combustibles for all Country Flame stove models are located on the testing label located on the back of the stove and the following diagram. Remember that clearances must be measured from the part of the stove nearest to the combustible.

Stove Clearances			
	Sides & Back	Corners	
			
Model	A	B	C
<b>BBF-6</b>	32"	28½"	32"
<b>BBF-6*</b>	13"	19½"	15"
<b>B-6</b>	22"	19"	19"
<b>R-6</b>	21"	29"	29"
<b>E1-6, E2-6</b>	26"	32"	32"
<b>S-6</b>	22"	20"	20"

Note: All clearances are to combustibles.

\*Note: Reduced clearances when installed with 8 inch diameter double wall air-insulated connector pipe with listed factory-built Class "A" chimney or a masonry chimney and wall pads having a 1" air space.

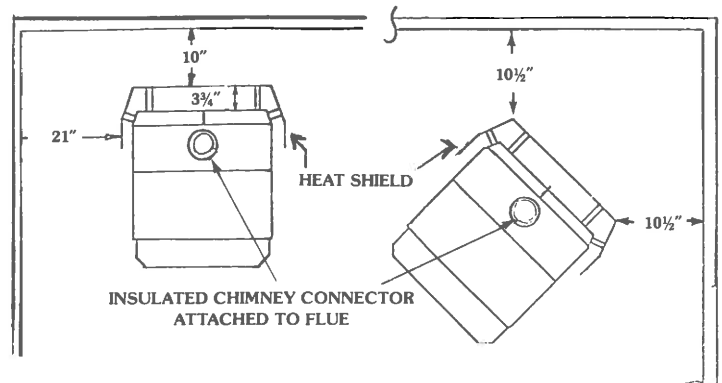
## REDUCING CLEARANCES TO COMBUSTIBLES WITH THE MODEL R-6 HEAT SHIELD

### CAUTION

The clearances to combustibles listed below are to be used only when both the heat shield and insulated chimney connector (stove pipe) are attached to the Model R-6.

If either the heat shield or insulated chimney connector is omitted refer to the clearances on page 9.

NOTE; The heat shield is 1 1/2" from the side of the Model R-6 and 3 3/4" from the rear of the Model R-6.



NOTE: CLEARANCES TO BE USED WITH DOUBLE WALL  
LOW CLEARANCE CHIMNEY PIPE  
AND LOW CLEARANCE SHIELD ONLY.

## ALTERNATIVES FOR WALL PROTECTION

### REDUCING CLEARANCES TO COMBUSTIBLE

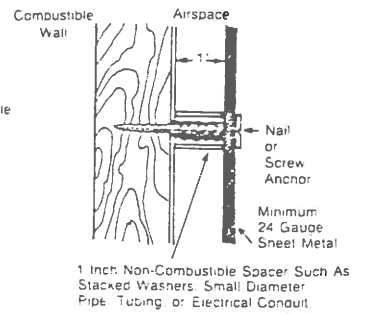
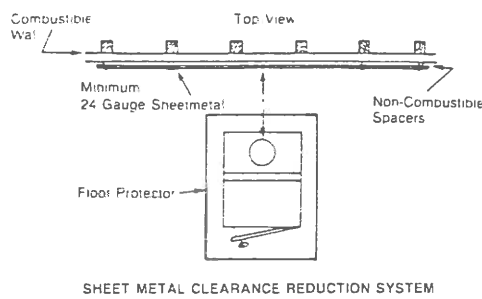
NFPA 211 is a national fire safety standard used in building codes. It is a standard, rather than a law, and the local building inspector may use all, part, or ignore it all together. You will want to consult with local authorities before starting the installation of your Country Flame stove/insert. This may be the building inspector or the fire inspector. In the absence of local codes NFPA 211 provides a basis for a safe installation.

Method

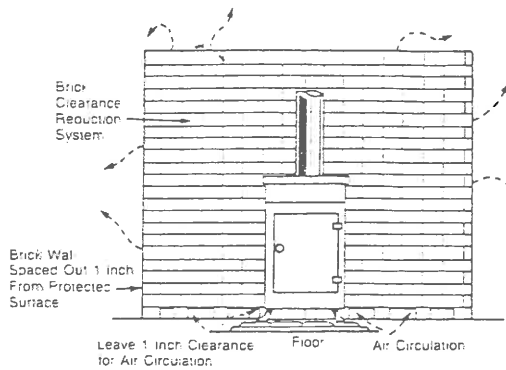
Method	Percentage Reduction
1. 3 1/2-inch-thick masonry wall with ventilated airspace.	66
2. 3 1/2-inch-thick masonry wall without ventilated airspace.	33
3. 1/2-inch-thick non-combustible insulation board over one-inch glass fiber or mineral wool batts without ventilated airspace.	50
4. 24-gauge sheet metal over one-inch glass fiber or mineral wool batts reinforced with wire or equivalent, on rear face with ventilated airspace.	66
5. 1/2-inch-thick non-combustible insulation board with ventilated airspace.	66
6. 24-gauge sheet metal with a ventilated airspace over another sheet of 24-gauge sheet metal with ventilated airspace to the combustible wall.	66
7. 1-inch glass fiber or mineral wool batts sandwiched between two sheets of 24-gauge sheet metal with ventilated airspace.	66

As an example an R-6 with a side wall clearance of 29" could be reduced to 10" if the existing wall is protected by 3 1/2 inch brick over a 1 inch ventilated airspace.

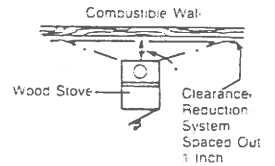
Two of these clearance reduction systems are galvanized steel sheet metal with a minimum thickness of 24 gauge, or 3 1/2-inch nominal thickness brick (See below). Either of these materials must be spaced out 1 inch from the wall surface. With sheet metal, non-combustible spacers are used to anchor the brick to the wall and maintain the 1-inch air space. To avoid excessive heat transmission, the spacers or wall ties should not be placed directly behind the heater or chimney connector. The 1-inch space provides free air circulation. For best insulating results, it is essential that there are openings completely around the system including the bottom, so that cool air can circulate in the 1-inch air space.



Do Not Use Fasteners Directly Behind Chimney Connector or Stove



Brick Walls May be Attached to Combustible Walls Using Wall Ties  
If Brick is Used Be Sure Floor Can Withstand Weight of Brick.



The clearance reduction system should extend as high as the thimble penetration of the wall to the chimney to protect the wall behind the vertical run of the chimney connector.

## STANDARD LEG ASSEMBLY MOUNTING INSTRUCTIONS MODELS - BBF-6,B-6, S-6, E1-6, E2-6

Parts for mounting of legs consist of 4 welded leg assemblies, 16 self drilling screws, and 16 flat washers.

Step 1-Lay the stove on its back, remove drawer, and remove legs from box.

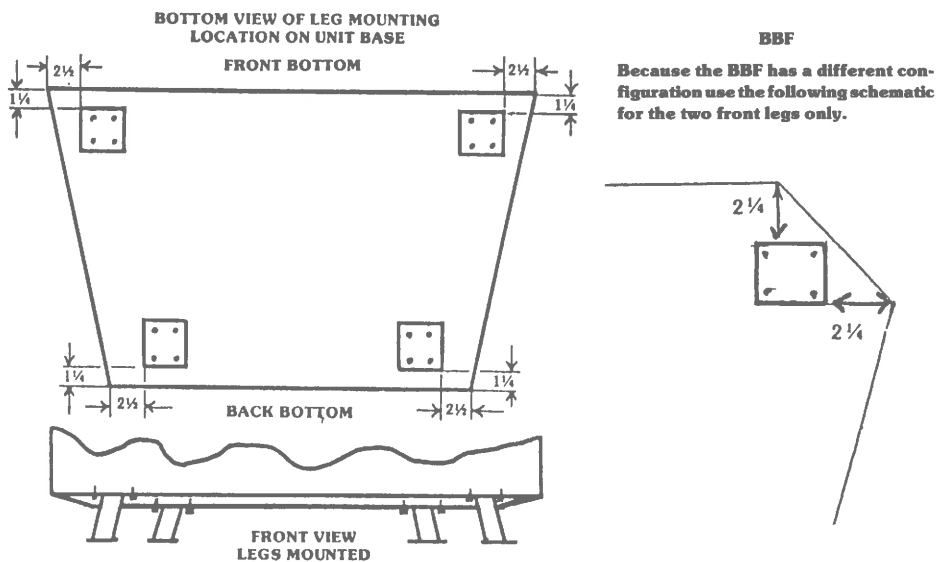
Step 2-Measure and mark the location for each leg as illustrated. Position the leg in the marked lines.

Step 3-Place self drilling screw and washer on socket and drive screw until secure. Caution: use a low speed on a variable speed drill to avoid breaking off the screw.

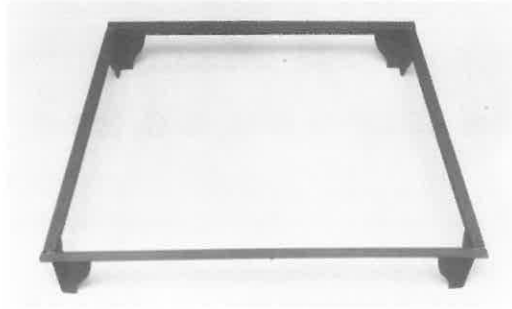
Step 4-Upon completing the installation the legs should appear as illustrated in "Front View" when set upright.

Step 5-Proceed with the remaining installation of the unit according to the instructions on page 14.

Caution: It is advisable to attach the legs to your heater in a location that is as close as possible to its final location. Transporting your heater over rough or uneven surfaces with legs attached (as on a two wheel dolly) may slightly bend the bottom of your heater because of the weight and result in an uneven installation.



## DE LUXE LEG FRAME



The De Luxe leg Frame, pictured above is the easiest and most attractive leg kit offered. Simply position the De Luxe Kit in the final location of the stove (all models are available except the R-6) and place the stove body on top of the frame. Make sure that the frame is centered beneath the stove body before continuing your installation.

### PREPARING THE STOVE FOR INSTALLATION

1. Remove the protective plastic wrapping from the stove and from the brass trim.
2. Inspect the stove for any obvious physical damage.
3. Check the air draft controls to be sure that they slide freely.
4. Check the operation of the damper control to be sure that it will open and close properly.

### INSTALLATION INSTRUCTION

#### FOR TRANSITION

Each Country Flame Flue Transition Kit comes supplied with 1 flue transition, 2 mounting brackets, 2 bottom mounting brackets, two bolts, two bracket nuts, and 4 washers. (See Photo 1-S.)

Step 1-Cut gasket material into 4 pieces of appropriate length to go around the bottom end of the flue transition. Peel away the adhesive back and apply as shown in Photos 2-S and 3-S.

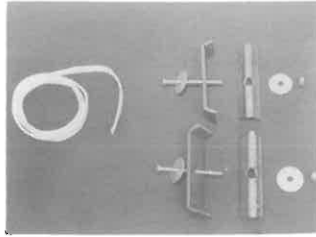


Photo 1-S

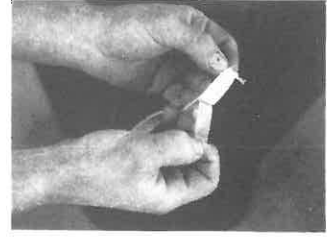
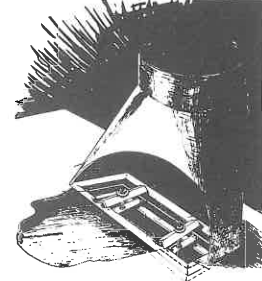


Photo 2-S



Photo 3-S



Step 2-Place the flue transition on the stove (see drawing)

Step 3-Place the bottom bracket, washer, and bolt into the flue as shown. Be certain that the bottom mounting bracket hooks under the outer shell of the body and not the innermost shell. Placement of each set of brackets is recommended at 2" from the edge.

Step 4-Attach the top mounting bracket, washer, and bracket nut as shown and tighten. After the transition has been fully tightened in place it should have a tight seal around all edges as shown in Photo 4-S.



Photo 4-S

## CHIMNEY INSTALLATION

Stove Pipe: The Country Flame uses standard 8" stove pipe, with the exception of the R-6 which is 6".

The single wall chimney connector should not be less than 18 inches from the nearest combustible material. The chimney connector and/or flue connectors must be installed in accordance with all local fire and building codes. These connections are very dangerous if not installed properly. Only a trained installer should do this work. Local building and fire codes must be adhered to.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER FIREPLACE.

When the stove is to be vented into a chimney flue by a chimney connector, the connector should be corrosion-resistant steel of 24 gauge or thicker. Lighter gauge stove pipe is more susceptible to rusting and corrosion from smoke condensates.

Do not use more than one elbow in the stove pipe. Any horizontal pipe must be pitched upward toward the chimney at least 1/4" for each foot of horizontal run. Be sure that there is at least 18" clearance between horizontal piping, if used, and combustible ceiling.

Assure that the chimney connection pipe extends at least 2" into the chimney, but does not extend so far into the chimney flue that it blocks any air flow. Assure that particular attention is paid to the point where the flue passes through a wall or ceiling. Penetration should always be made with insulated pipe and the proper accessories. No chimney should be used with a diameter of less than 6" and never use aluminum type-B gas vent for a chimney.

Note that the longer the pipe lengths and the larger the number of elbows, the greater the chance of dangerous creosote and ash buildup.

Install stovepipe segments with the crimped end down at the joints and inside the stove transition or collar. This permits the creosote to drip back into the stove to be burned away. Horizontal pipe should have the pipe seam up.

Even a carefully crafted air-tight stove, such as the Country Flame, burning the best wood available, will not operate satisfactorily if it's connected to a poorly constructed flue or chimney. Seal each joint with furnace cement, starting with a section that sits on the stove.

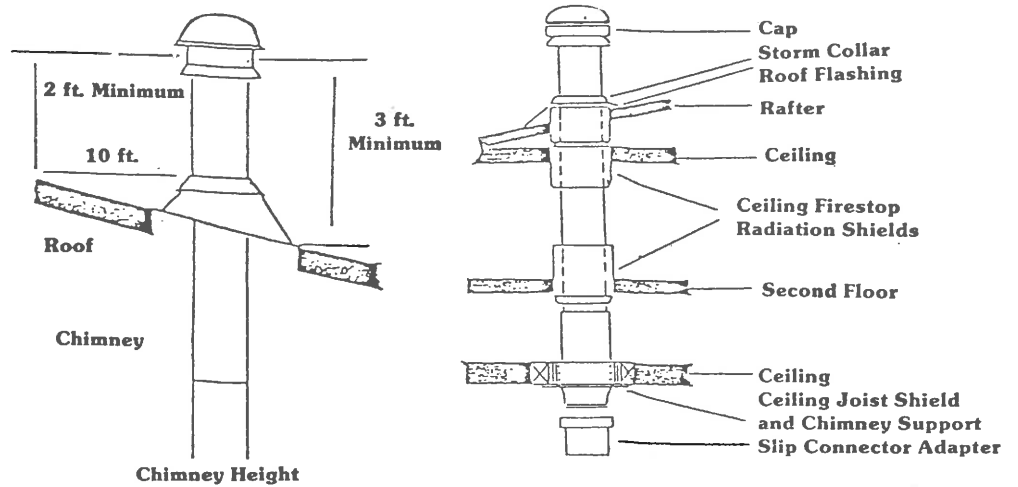
Each stovepipe joint should be secured to the next joint and to the stove transition or collar with three (3) metal screws to avoid possible separation during use.

Ceiling: You can use the traditional single wall stove pipe to connect into an existing masonry chimney or to a factory built chimney. When venting through the ceiling or exterior wall you must use approved HT-103 2100°F pipe (check your building codes). Your dealer will provide this fitting for you.

The BBF-6, B-6, E1-6 and E2-6 are designed for connection to either an 8" inside diameter HT-103 2100°F listed all-fuel residential type and Building Heating Appliance Chimney, or to a masonry chimney which meets the specifications of the National Fire Protection Association's 211 Code and has a minimum crown section area of 50 square inches (7 1/4"x7 1/4" or 8" round). The R-6 has a 6" inside diameter flue and requires the same grade of chimney pipe not less than 28 sq. in. (5.3"x5.3" or 6" round).

With factory built chimney you must use an approved roof flashing kit. A through-the-wall installation requires the approved HT-103 2100°F pipe mentioned above as well as a T-support package. Your dealer can advise you about these items. With a flat roof the top of the chimney must be at least 3' higher than the roof at the point of the chimney exit. With a pitched roof the top of the chimney must be at least 2' higher than any point on the roof within 10' of the chimney. Check with your building inspector for local code compliances.





## INSTALLING THE CHIMNEY

With the stove location determined and the proper materials purchased, you are ready to install the chimney. Be sure to follow the chimney manufacturer's instructions, which will generally be in this order:

1. Make the required openings in the ceiling and roof, as noted by the chimney manufacturer, allowing enough room to install your stove pipe and maintain the required clearances from combustibles.
2. Begin your chimney installation by nailing the ceiling joist shield and chimney support package squarely into the framed opening.
3. Proceed by inserting the first chimney length down into the chimney support and secure. Stack and secure the additional chimney sections.
4. Whenever a chimney passes through a combustible floor or ceiling framing, firestop assemblies must be installed to maintain proper clearances to combustibles.
5. Add chimney lengths up through the ceiling and roof until the desired height is reached. Attach the rain cap to the chimney.
6. When the chimney installation is complete, insert the slip connector provided by the chimney manufacturer into the base of the chimney support or first chimney section, if applicable.

## SECTION III - OPERATION OF THE COUNTRY FLAME INSERT/STOVE

### Internal Thermostat

The internal thermostat for the B-6 and S-6 is located inside the right discharge. The thermostat for the BBF-6 is located inside the blower tray.

On the BBF-6, B-6 and S-6 the 3 speed switch must be in the on position (high, medium, or low) and the inside of the chamber must reach 110°F before the fan will come on. The blower on the E1-6, E2-6, O2-I, and the optional rear mounted blower on the R-6 are manually operated.

### Slide Controls

All new models have slides beneath the single piece door which control the rate of combustion and make it easier to start your fires. When the slide is completely open (Photo A. below) the divider can be seen behind the grill work. Air coming through the inside portion of the slide (the first side to be covered as the slide is closed) is channeled directly into the firebox. This direct feed of air accelerates the combustion when you are starting a new fire or adding wood to an established fire and is called the Quick Start.

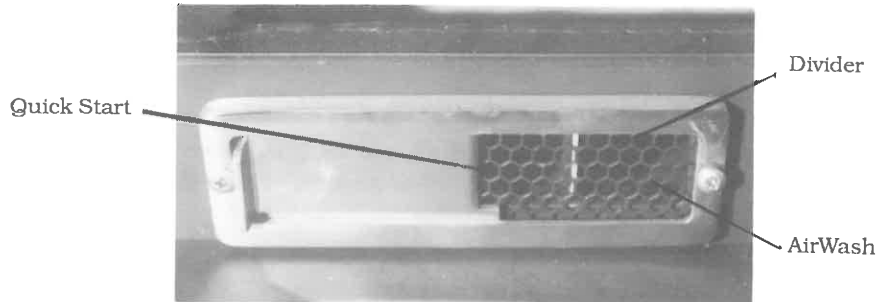


Photo A

The outside portion of the slide (the last section to be covered as the slide closes) is called the AirWash. The AirWash channels preheated combustion air into the firebox through long slots just inside the door opening (photo B) on the top and sides.

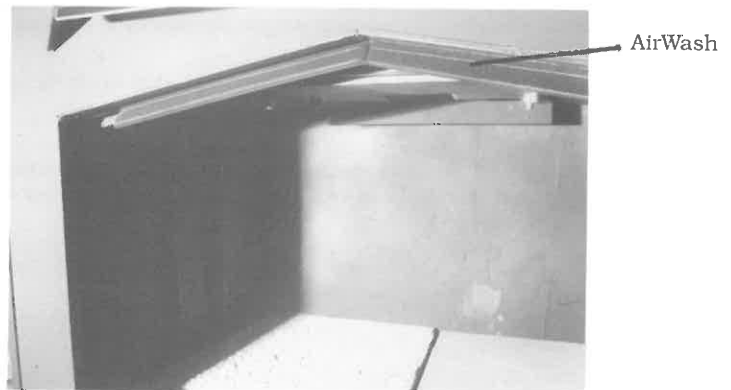


Photo B

This hot air sweeps over the glass and helps prevent the buildup of creosote. Remember, however, that long slow burns will generate some creosote formation. A hot fire will burn off a good deal of this accumulation but sometimes a chemical preparation, or a razor blade is necessary to remove the creosote from the glass. Your glass will remain cleaner if you allow your fire to become hot before reducing your air intake slides.

## Damper Rod

After your fire has started you will want to push in the damper rod. This allows temperatures in the firebox to intensify and slows combustion. When your fire is well established you can begin to close the air slides. Continue to close the air slides until you reach your desired setting for heat and duration of burn.

## 7" Probe Thermometer

The best way to monitor the condition of your fire is with a 7" probe thermometer, available from your dealer. The 7" probe thermometer is included with the catalytic combustor kit. This thermometer can be installed into the plug hole located directly above and slightly to the left of the smoke shelf as in photo C below.



Photo C

This thermometer displays the temperature measured above the front exhaust (and over the catalyst if so equipped). The thermometer reading will be affected when the blower is engaged (except the R6 Model) as air blows over it. The firebox and catalyst temperatures are not influenced when the blower comes on.

## Starting Your Fire

Immediately after your Country Flame heater has been properly installed it should be tested for draft. This draft test is a simple test in which one sheet of wadded newspaper is set afire in the middle of the firebox, the door closed, and the flue damper pulled fully open. Open the draft controls by pushing the sliding controls completely open. If your chimney is drawing properly, the smoke from this burning newspaper and the flames themselves will be drawn into the direction of the open flue in your Country Flame heater. If, on the other hand, the smoke blows into your room or burns very slowly, this

is an indication that your existing chimney system is not operating properly with your Country Flame heater.

Things to check if draft is poor:

Make sure the chimney flue damper inside the fireplace has been removed or securely tied open.

See that the flue and raincap are clear of obstructions such as creosote, nests, etc.

Your flue may not extend high enough above your roof or be obstructed.

Your chimney system may have leaks substantial enough to reduce the draw.

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

**Step 1** During the first firing of your Country Flame heater, and anytime it is refired in the future, the flue damper handle should be all the way out in the fully open position. This allows for maximum draft. Open fully the pipe damper if you have one.

**Step 2** Place several pieces of wadded up newspaper between two well-seasoned\*, average size logs.

**Step 3** Directly on top of the newspaper, place a good sized bundle of light wood, small dry kindling, or rolled up newspaper.

**Step 4** Light the wadded newspapers, leave the damper open, and close the door completely. Open the slide controls and allow the kindling to catch.

**Step 5** When the kindling has caught, add another small well-seasoned log over the kindling to catch.

**Step 6** Allow the stove to warm thoroughly and all logs to begin burning well before either adding additional wood or closing your draft controls. This will normally require fifteen minutes or longer. The paint on your Country Flame heater will smoke slightly when it is initially fired and you may wish to ventilate the room by opening doors or windows.

\*Our particular definition of well-seasoned wood is wood that has been cut and split in the late winter and left to dry out during the summer months. This well-seasoned wood will provide the best burn with the least creosote build-up.

## **ELECTRICAL SYSTEM CHECK LIST**

**Step 1** Check the automatic fan switch (internal thermostat) which is located behind the top right grille in the B-I, B-6, S-I, and S-6 and in the fan tray on the BBF-I and BBF-6. The R-6, E1-I, E1-6, E2-6 and O2-I are manually controlled and have no automatic features. Make sure the switch has not shorted out during shipment. Check wiring diagram and wires for loose connections or shorts.

Step 2 Heat automatic fan switch to 110°F using match or lighter held to back side of automatic fan switch.

Step 3 If the fan fails to run, turn off the power and bypass the automatic fan switch by disconnecting the black and common (may be black or white) wires from the automatic fan switch and join these two wires together. Make sure that the fan switch is not in the off position. If the fan runs when power is restored replace the defective automatic fan switch and wire it correctly.

Step 4 If the fan still does not run, unplug the power cord and bypass the 3 speed switch by wiring the high speed black wire and common (may be black or white) wires together at the 3 speed switch and set the 3 speed switch on high. If the fan runs when power is restored replace the 3 speed switch and restore the connection to the automatic fan switch described in Step 3.

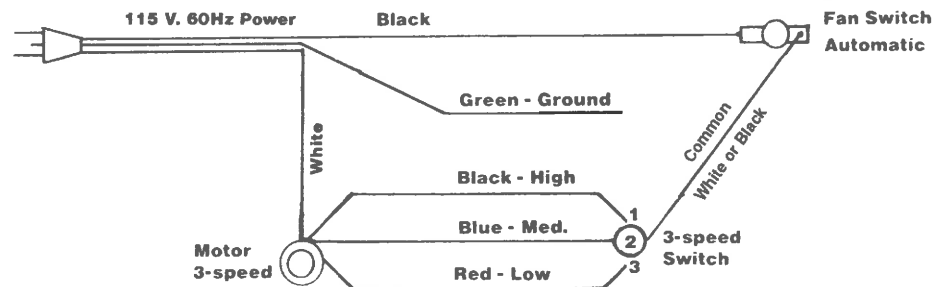
Step 5 If fan still does not work, contact your Country Flame Dealer.

During a power failure you will still have a source of heat because room air flows through the air intake and out the discharges as it is warmed and expands. This is called gravity flow. You can enhance this flow during a power outage by performing the following:

1. Unplug supply cord from wall receptacle.
2. Pull the motor drawer assembly out by loosening the two screws beneath the ash fender.
3. When power is restored, slide in the motor drawer assembly to the original position and replace the cord into the wall receptacle for normal fan operation.

NOTE: If you have a power failure, we recommend that you slide the blower drawer part way out to enhance the gravity flow. If you choose to leave the blower drawer in place, it will not harm the blower.

Important: the fan and motor assembly shall be cleaned and motor oiled every 6 months, use several drops of SAE#20 motor oil in each oil hole (2). Follow steps 1-4 in section below to remove motor drawer.



## FAN MALFUNCTION

In the event of any malfunction in the electrical system of your insert/stove, please follow the following simple procedures: Refer to previous section, electrical system check list.

1. Unplug the fan from your 110v. wall socket.
2. Loosen the two screws holding the fan drawer to the body of the insert/stove.
3. Disconnect the two wires from the automatic fan switch, if so equipped.
4. The fan drawer can now be removed and taken to your nearest Country Flame dealer.

## HELPFUL HINTS

**CURING THE PAINT ON YOUR STOVE:** During the first several firings, burn small fires to cure the paint and to prevent damage to the finish. It is a good idea to run your blower during these first firings. This will allow the paint to cure at a slower rate and creates a better overall finish.

**ASH BED:** For maximum efficiency from your Country Flame allow an ash bed to build up in the stove.

**CAUTION:** Never remove ashes from your Country Flame with the blower running. Blown air could scatter the ashes and hot embers across your room.

**CARE OF GLASS DOOR:** The glass door on your Country Flame permits you to enjoy the beauty of the fire while retaining the efficiency of your stove. Although the brand of glass used in the Country Flame door has well established and recognized heat resistant and strength characteristics, it can be broken through improper use. To achieve the maximum utility and safety of your glass door, we advise that you observe the following use and safety tips:

1. Inspect the glass regularly for cracks or breaks. If you detect a crack or break, extinguish the fire immediately and return the glass to your stove dealer for glass replacement before further use.
2. Do not slam stove door or otherwise impact the glass. When closing door, make sure that no logs or other objects protrude to impact against the glass.
3. The glass will normally require occasional cleaning but several techniques are advised to reduce creosote buildup. Pull your fire forward to intensify the heat near the glass. Open the air slides slightly to insure that enough air is entering the AirWash to be effective. Very long, low fires starve the AirWash System for air and hasten creosote buildup. Trim the gasket around the glass if it has curled and is interfering with the flow of air over the inside of the glass. During the first hot fire the adhesive from the gasketing will run down the inside of the glass. Remove it with a razor blade or a rag when the heater has cooled.
4. Do not clean the glass with materials which may scratch it (such as steel wool) or otherwise damage the glass.

The glass can be cleaned with a chemical preparation available from your dealer. You may want to dip a wet rag in ashes and rub the glass until it is clean.

## IF YOUR STOVE SMOKES...

High tech stoves of all types are more sensitive to drafting problems. Their higher efficiency means that more heat is going into your home - and less heat up the chimney. A chimney that is cold will not draw well until it is warmed. Follow these guidelines to remedy drafting problems.

1. Be sure to open the damper before opening the door (and the damper in the fireplace in the case of an insert).
2. Open the damper and air slides completely 30 seconds - 1 minute before opening the door. This will allow the flue to more completely warm.
3. After lighting, leave the door open 1/2" until the fire has started well, then close the door. (Note: never leave the fire unattended).
4. Turn off vent or exhaust fans, close off open fireplace doors or openings, and check for the presence of other draft-robbing appliances. Slightly crack a door or window near your stove/insert to promote a good draft.
5. In severe cases with inserts a positive connection to the fireplace damper or to the top of the chimney may be necessary to correct leaks caused by broken or cracked tiles.

## "BOTTLENECK" DESIGN

When your damper rod is pushed in and is completely closed all the smoke and gases must exit through a small opening in the top front of the firebox. This small opening creates a "bottleneck" that increases firebox temperatures and gives longer fires. Always remember to open the damper handle when starting a fire or adding wood in order to prevent smoke from entering your home.

## WOOD

(See also the section on seasoned wood on page 19).

You may purchase wood by the stack, rick, pickup load, and by the cord. Buying wood can be frustrating if you don't know what to expect and how to avoid problems.

A cord is 128 cubic feet of wood. It can be of various widths and lengths but the cubic measurement is always the same. You should measure the loads that you purchase and asking your woodcutter to stack the wood makes this job considerably easier.

The ideal moisture content of wood is 12-20%, but this is seldom available for purchase- it is normally the product of careful cutting, splitting, stacking, and seasoning. The moisture content of green wood, full of sap, is approximately 80%. This green wood has so much moisture that it is hard to establish a fire with it, and half of its energy content is expended just to boil out its water content. This results in much less heat output for your home. A moisture meter, available from most woodstove dealers, is an invaluable aid in evaluating your wood purchases and your choice of wood cutters. When ordering your wood it is advisable to request wood 2-6" shorter than your firebox to assure a fit.

Ordering your wood split will certainly be a convenience. But if you decide to split wood yourself it is best to have the proper equipment. Do not attempt to split logs with an axe- use a 7-9 pound maul. Protect your feet and legs with a log placed between your body and the maul.

## HEATING WITH WOOD

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

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

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

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



# SECTION IV - COUNTRY FLAME CATALYST

## INSTALLATION OF THE COUNTRY FLAME CATALYST

### A. Parts list (See photo 1)

- |                         |                                 |
|-------------------------|---------------------------------|
| 1 Catalyst              | 8 Nuts                          |
| 1 Catalyst holder       | 4 Sleeves                       |
| 1 Stainless steel plate | 4 Flat square nuts              |
| 1 Tube stove cement     | 1 Probe thermometer (not shown) |
| 4 Carriage bolts        |                                 |

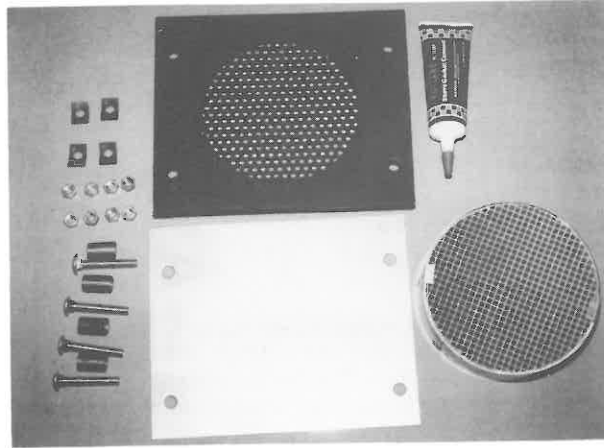


Photo 1

### B. Installation of the catalyst

1. Be certain that there is no fire in your Country Flame stove and that the unit has had sufficient time to cool.
2. Remove the four nuts holding the base plate located in the top of unit. (See photo 2) If your Country Flame has had frequent use it may be necessary to twist the bolts until they break because of the creosote buildup. Four new bolts have been included in your kit.

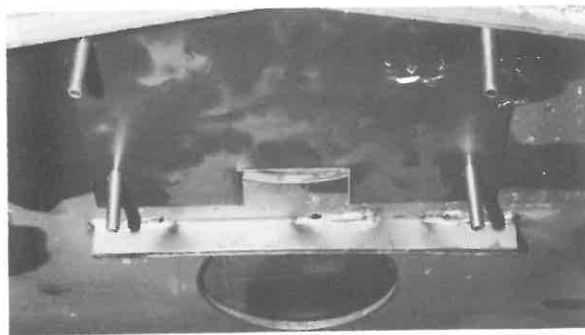


Photo 2

3. Lower the base plate out of the unit.

4. Reach inside the exposed cavity and replace the four short bolts with the 4 long bolts provided. Make sure that the square shoulders align with the square holes in the top of the unit. Secure each of the 4 bolts with a flat square nut, curved side toward top of unit. Tighten lightly with pliers to secure bolts making sure that the square shoulders have seated themselves into the square holes. The purpose of this step is to prevent the bolts from moving when you mount the catalyst holder in the next step. (See photo 3).

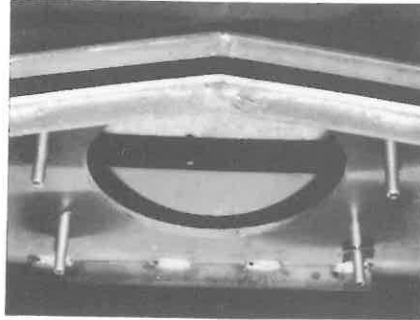


Photo 3

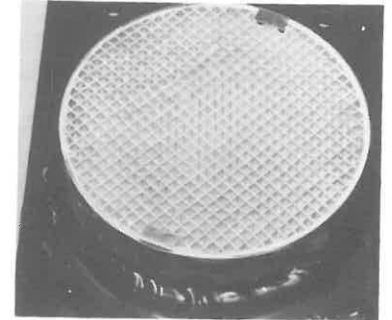


Photo 4

5. Center the catalyst over the hole in the catalyst holder and apply a heavy bead of stove cement around the edge of the catalyst and a lighter bead around the outside edge of the catalyst holder. (See photo 4). Note: The O2-I catalyst fits into the hole in the holder. Allow to dry slightly (10-15 min.) to prevent the catalyst from sliding while installing in unit.

6. Slide catalyst holder over the 4 bolts, (which have already been installed) pushing

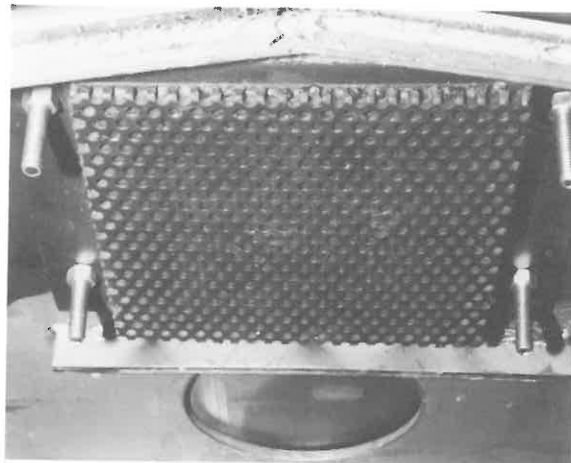


Photo 5

holder secure against top. Place 1 nut on each bolt. Apply enough pressure while

tightening nut to flatten the square nuts against top of unit assuring that the cement has made an air tight seal. (See photo 5)

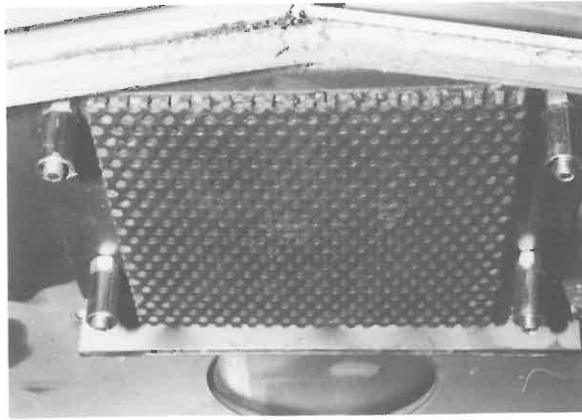


Photo 6

7. Place the 4 spacers over the ends of the bolts (See photo 6) It may be necessary to tape the spacer to the nut to hold in place while installing the stainless plate.

8. Place the stainless steel plate on the 4 bolts and secure with the 4 remaining nuts. (See photo 7)

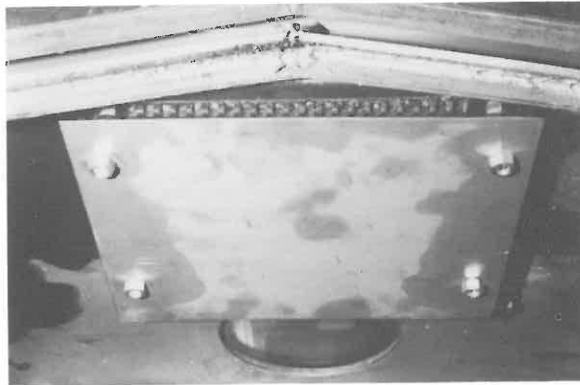


Photo 7

9. Remove the probe plug with a screw driver and insert the 7" probe thermometer.

10. Now you are ready to fire your unit.

## SECTION V. Catalytic Combustor

### A. BEFORE YOU START

It is important to burn only NATURAL UNTREATED WOOD. Coal, synthetic logs, plywood, paint, particle board, chemical lighters, or chemically treated fuel may poison your Country Flame catalyst. The catalyst will work best with dry seasoned wood. When provided with enough fuel the catalyst will develop temperatures within its core of 1600°F and may glow red hot. As temperatures drop the catalyst will continue to function long after the red glow is gone.

#### 7" Probe Thermometer

The best way to monitor the condition of your fire is with a 7" probe thermometer. This thermometer can be inserted into the plug hole located directly above and slightly to the left of the smoke shelf as in photo C below.



Photo C

This thermometer displays the temperature measured above the front exhaust (and over the catalyst if so equipped). The thermometer reading will be affected when the blower is engaged (except the R6 Model) as air blows over it. The firebox temperatures are not influenced when the blower comes on.

### B. OPERATION

CAUTION; THE CATALYTIC BYPASS HANDLE WILL BE VERY HOT. WE RECOMMEND THE USE OF A PROTECTIVE GLOVE WHEN DISENGAGING OR ENGAGING THE CATALYST.

1. Before starting the fire be sure the damper is in full open position (pull the bypass handle all the way forward away from the heater).
2. Air slides should be in the full open position when starting your fire. With the air slides in the full open position, air is going directly into the fire for a quicker start as well as the airwash. Allow a minimum of 20 minutes to establish a good fire. If you have a slow drawing or lazy flue, you may require a considerably longer burn time to acquire a well established fire.

3. When you feel that you have a well-established fire (900°F or better on the probe thermometer without the blower running), engage the catalyst by pushing the bypass handle all the way in. At this point the fire will diminish slightly, which is normal. If the fire diminishes to the point of going out, pull the bypass handle out until the fire is better established. At this point the air drafts are still in the full open position and the catalyst is disengaged. You will need to continue burning for a short period of time (15-20 minutes) to re-establish your fire. When your fire is re-established, engage the catalyst and begin to close the air slides. If you are still experiencing problems at this point consult the trouble shooting guide.

NOTE: The catalyst begins to work when temperatures in the catalyst area reaches 700°F. When the probe is inserted through the hole on the front of the unit you will be able to monitor the temperature in the catalyst area.

Temperatures may reach 2000° or better when the fuel mixture is rich but a more normal operating range is 900° - 1400°.

The reading will not be correct if the blower is in operation because the probe is cooled by the air movement of the blower (except on the Model R6). The catalyst is unaffected by the blower. Surface thermometers only measure temperatures on the surface of the heater and are not reliable for monitoring interior temperatures. The use of the probe is a more accurate way to monitor the interior temperature and will eliminate guess work.

4. When opening the door to tend an established fire, you must disengage the catalyst to prevent smoke from spilling into your room. After tending your fire you can engage the catalyst immediately. There is no need to wait to engage the catalyst at this point because the temperature in the catalyst area will be in excess of 700°F.

A TIP

The performance of your catalyst will vary according to your flue draft. You will want to experiment with your controls to determine your best setting and performance. We especially recommend that you experiment with engaging the catalyst at different temperatures. You may find that you prefer leaving the air slides open until temperatures climb above 1000° F. before reducing the air setting.

**C. TROUBLE SHOOTING GUIDE**

**PROBLEM**

**SOLUTION**

Fire goes out before the catalyst is engaged.

Open the slide adjustments and the bypass entirely to maximize the draft. Use plenty of kindling and paper to start the fire. Check the entire flue system for closed damper, obstruction, clogged flue cap, insufficient flue height, too many elbows or long horizontal runs, or a leaky chimney. Do not connect an 8" flue opening to a 6" chimney system.

PROBLEM

SOLUTION

Fire goes out after the catalyst is engaged.

The fire will normally diminish somewhat when the catalyst is engaged because of draft reduction. If the fire appears in danger of dying out open the air slides entirely and slightly disengage the catalyst until the fire is better established. You can also increase draft by lowering the stainless steel impingement shield with extra long bolts available from your dealer. Stubborn lazy flues may require a liner.

Some additional problems that can occur with their probable cause and solution are outlined below:

Creosote accumulation or dirty smoke from the chimney

1. You are not getting "light-off" in the combustor.
2. You are burning wet wood or improper fuels.
3. Your by-pass mechanism is not fully closing: allowing smoke to go around the combustor rather than through the combustor.
4. Your combustor is not functioning and needs to be replaced.

1. Make sure you have achieved 700° (necessary for "light off") before engaging the combustor.
2. Burn only dry seasoned wood.
3. When the stove is not burning, make sure mechanism is closing fully and that there are no obstructions.
4. Replace your catalytic combustor.

Plugged combustor

1. You did not achieve "light-off" temperature prior to closing your by-pass mechanism and engaging your combustor.
2. You are burning materials which are coating the catalyst, such as heavy papers, wet wood, garbage, etc.
3. Your catalytic combustor is no longer functioning and needs to be replaced.

1. Make sure you have at least 700° (necessary for "light off") before you engage the combustor.
2. Burn only dry seasoned wood.
3. Lightly brush the face of the combustor with a soft bristle brush such as a paint brush to remove the accumulation.
4. Build a hot fire in your

PROBLEM

SOLUTION

How do I know if my catalytic combustor is working?

stove, engage the combustor half-way, then two-thirds, then fully to "burn" the accumulation of materials off the combustor.  
5. Replace your catalytic combustor.

Ask yourself the following questions. if your answers are YES, your catalytic combustor is working properly.

1. Am I burning less wood to get the same amount of heat?
2. Does my combustor glow red for a short amount of time during my wood load? The combustor can be seen by looking inside the stove directly over the damper rod (except Model R6).
3. Is there substantially less creosote in my chimney?
4. Is the smoke exiting my chimney white in color and usually odorless?
5. Does a visual inspection of the combustor show it to be clean of any fly ash, creosote or soot?

If the answer to any of the above questions is NO the solutions outlined previously may help you to activate your combustor again.

## WARRANTY STATEMENT

Technical Glass Products warrants to the consumer to replace at NO CHARGE any Technical Glass Products catalytic HONEYCOMB which ceases to maintain 70% of its particulate emission reduction activity (as measured by an approved testing procedure) within two years from the date of purchase by said consumer provided the following conditions are met:

1. The consumer calls Technical Glass Products at 1-800-426-0279 or 1-206-624-3890 to obtain a replacement authorization number.
2. The consumer must provide the brand name and model name/number of the wood burning device along with date and place of purchase.
3. The catalytic HONEYCOMB was not abused in any mechanical way.
4. The consumer burned only wood in the device as per the manufacturer's operation manual.
5. The original Technical Glass Products catalytic HONEYCOMB along with Item #2 and this warranty card are returned to Technical Glass Products, 5525 Lake View Drive, Kirkland, WA 98033. If after two years the Technical Glass Products catalytic HONEYCOMB ceases to function, an additional pro-rated warranty will apply, enabling the consumer to replace their HONEYCOMB at a special price.

This pro-rated warranty is available thru Technical Glass Products only and the conditions as outlined in items #1-5 apply.

Technical Glass Products obligation under this warranty is limited to providing one free or pro-rated catalytic HONEYCOMB for each defective Honeycomb returned by the consumer; and under no circumstances will Technical Glass Products be responsible for servicing, removal, installation, or any other such costs. This warranty is Technical Glass Products' exclusive warranty and Technical Glass Products disclaims any other express or implied warranty for the catalytic HONEYCOMB including any warranty of merchantability or fitness for a particular purpose.



## **SECTION V - SAFETY**

**SAFETY NOTICE: If this unit is not properly installed, a house fire may result. For your safety, follow the installation directions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.**

### **DISPOSAL OF ASHES**

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. They should be retained in the closed container until all cinders have thoroughly cooled.

### **USE OF LIQUID FUELS**

Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen-up" a fire in the COUNTRY FLAME stove/insert. Keep all such liquids well away from the heater while it is in use.

### **CREOSOTE-FORMATION AND NEED FOR REMOVAL**

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. Chimney must be thoroughly cleaned before installing a COUNTRY FLAME heater. In addition, it is the responsibility of the owner to periodically clean the chimney as regular maintenance. Local chimney sweeps can provide such a service. In any event, owners of wood burning stoves should become aware of care and maintenance required to prevent fires and creosote formation.

### **CLEARANCES**

The minimum clearances for the Country Flame Stoves are listed on their respective nameplate labels on the rear of the stoves.

## **SAFETY PRECAUTIONS**

1. Do not install this stove/insert in a mobile home.
2. **FAULTY CHIMNEY:** An older masonry chimney should be thoroughly checked to be sure there are no holes or weak spots which could allow sparks or hot gasses to escape.
3. Use a spark arresting shield (3/8" mesh) on top of the chimney. Check monthly as this is a code requirement in some areas.
4. Use smoke detectors around the stove as well as in sleeping areas.
5. Keep a fire extinguisher rated for Class "A" fires near the stove.
6. Check with your insurance company to be sure your policy covers the installation and use of a wood stove.
7. The connector and/or chimney should be inspected at least twice monthly during the heating season to determine if a creosote buildup has occurred.
8. If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.
9. Locate furniture and any other combustibles away from the stove.
10. Store firewood at a safe distance from the stove.
11. If a creosote fire should develop, the fire department should be called immediately and attempts should then be made to control the fire until assistance arrives. The fire can often be controlled and even extinguished by closing the air draft control and door tightly. After a severe chimney fire, the complete chimney system and connecting pieces should be checked before using further.

## **OVERFIRING**

Do not fire the insert/stove or the flue pipe to a "red hot" or "glowing" condition. For further information on using your heater safely, obtain a copy of the National Fire Protection Association publication "Using Coal and Wood Stoves Safely", NFPA No. HA-10-1978. The address of the NFPA is 470 Atlantic Avenue, Boston, Massachusetts 02210.

## **SECTION VI - PREVENTIVE MAINTENANCE**

### **CHIMNEY**

- A. The chimney should be cleaned as necessary to remove creosote, soot, leaves, birds nests, etc.
- B. A neglected chimney can eventually cause a draw restriction or can ignite and burn hot enough to cause damage to the chimney.
- C. For proper inspection the chimney should be cleaned.
- D. A topper or cover should be installed to prevent moisture from entering chimney, to prevent sparks and burning materials from escaping chimney, and to keep birds and foreign materials from entering.

NOTE: Some areas may require an approved spark arrestor.

### **STOVE**

- A. The stove should be pulled from the masonry fireplace as necessary to remove soot and ashes from around the stove.
- B. The seal of the shroud to the stove and the shroud to the masonry should be checked and also resealed if there is any evidence of soot, ash, or smoke leakage.
- C. Check gasketing around doors for any signs of excessive wear.
- D. Lubricate the blower with SAE-20 motor oil every 6 months.

### **CLEANING THE STOVE**

- A. The stove should not be cleaned with any type of detergent as most detergents have an oil base and cannot be painted over.
- B. The stove should be lightly sanded with fine sandpaper or steel wool, then repainted or touched-up with high temperature stove paint.
- C. If the stove is located in a moist or damp location, check thoroughly for signs of condensation during times when the stove is not in use.
- D. When the heating season is over, the stove can be cleaned out completely with a wire brush or cloth to eliminate ash and burned wood smell.

## GLASS DOOR

A. Glass door should be handled as any other breakable glass. Heat or flames from the fire will not break the glass. However, rough handling when the glass is hot or forcing the door closed against the wood can cause breakage.

B. Soot and smoke may cloud the glass pane when using soft wood such as pine on a low setting. However, in time, this will burn off or may be cleaned with a chemical preparation.

C. Check gasketing around glass for signs of deterioration.

## SECTION VII - TROUBLE SHOOTING GUIDE

PROBLEM	SOLUTION	
Stove smokes	Chimney cap restricted	Clean the chimney cap and remove any debris that may have accumulated in the screen.
	Damper not adjusted	Secure the damper into the open position.
	Flue too short	Add a section to increase the chimney height.
	Downdraft	Add a chimney cap designed to prevent downdrafts.
	Obstruction	Remove tree limbs or obstruction at least 10' from top of chimney or increase chimney height.
	Atmospheric conditions	Occasional atmospheric conditions will cause a smoking condition if the stove pipe is not straight up or the stove being burned is a rear vent. It is best to wait for conditions to change before burning with the doors open.
	6" pipe fitted to 8" stove flue	Suggest adding a chimney cap designed to correct draft problems or adding a chimney section.
	Chimney obstruction	Check the flue system for obstructions and clean.
	Stove pipe interferes with flue opening.	Be sure that the stovepipe has not been installed so far into the flue that the draft is restricted.
	Too many elbows or long runs.	An installation with few elbows and runs both prevents smoking and excessive creosote.
Too many flues to a chimney	Only one flue should be in operation to assure best results.	
House too tight	Open windows at first floor and close upper floor windows.	

PROBLEM	SOLUTION	
	<p>Paint curing</p> <p>Leaky chimney</p>	<p>New heaters always smoke on start up as the paint is heated. Open windows and doors for ventilation.</p> <p>Joint leaks or mortar leaks will cause the draft to be weak. Use cement or mortar to correct these leaks.</p>
Glass gets dirty	<p>Wet wood</p> <p>Normal buildup</p> <p>Wood Blocking AirWash</p> <p>Gaskets block AirWash</p>	<p>Dry wood produces much less creosote buildup than wet wood and less glass staining.</p> <p>A damp cloth dipped in wood ashes removes creosote well. Good chemical preparations are available from your dealer.</p> <p>Wood placed too close to the glass may interfere with the AirWash. Cut wood shorter or rearrange the fire.</p> <p>Use a razor blade to trim any window gasketing that interferes with the AirWash.</p>
Not enough heat	<p>Wet wood</p> <p>Air deflector plugged</p> <p>Wood not loaded properly</p> <p>Too small a fire</p>	<p>Dry wood produces almost twice the BTUs and burns at the same rate as wet wood. Wood cut in January and allowed to dry will give excellent results for the fall season.</p> <p>Ashes may restrict the flow of air on units equipped with sliding draft controls. Push the ash away when you clean the heater.</p> <p>Wood loaded front to back may give better performance than wood loaded sideways.</p> <p>When starting a fire allow it to burn rapidly for several minutes to warm the entire heater and burn off excess creosote. A well built fire is much more efficient and heats better than a few sticks.</p>

PROBLEM	SOLUTION	
Too high a speed on blower	Always adjust the speed of the blower to the size of the fire. Too high a fan speed produces a cooling effect.	
Severely cold weather	Naturally you will require more fuel in the middle of winter than in the fall.	
Overdraft	If the existing flue is substantially larger than the heater's exhaust flue we suggest reducing the exhaust flue opening or having a chimney cap installed to restrict the draft.	
Draft controls not adjusted	Combustion is restricted when the air is restricted. Be certain that the air intake is properly adjusted and open enough.	
Bad wood	Hard wood gives more heat than soft wood. Rotten wood of any type gives very poor heat, burns quickly and produces excessive ash.	
Cold insert	It may be necessary to wrap the rear sides and back of your insert with a fiberglass blanket to insulate it from an exceptionally cold and large fireplace.	
Blower will not work	Controls	Check to be certain that the blower system is plugged into the proper receptacle and the fuse box is working. The fan speed should be set to the appropriate speed, not to "off".
	Sensor switch	Fan only comes on when the heated air reaches 110° and the 3 speed switch is set for low, medium, or high. You may test the sensor on your unit by carefully heating the sensor switch with a match. The fan should begin to operate.

## PROBLEM

## SOLUTION

Excessive creosote	<p>Poor quality wood</p> <p>Stove shut down too tight</p> <p>Flue too large or on north side</p> <p>Humidifier</p>	<p>Unseasoned wood will produce more creosote than dry, seasoned wood. Buying your wood early will avoid these problems.</p> <p>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.</p> <p>Large flues and those on the north side tend to be cold and generate creosote condensation. We suggest insulating the chimney with a liner or restricting the draft with an approved chimney cap.</p> <p>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.</p>
Brass tarnishes	Normal	Flitz and other commercial preparations work very well for a bright, clear shine. Avoid placing fingers on brass to preserve the appearance.
Walls get too hot	Clearances	Double check the clearances on the back of your heater and in this manual. You may want to create a wall shield to protect your finish.



## **COUNTRY FLAME WOOD STOVE AND INSERT Limited Lifetime Warranty**

**1. To Whom Extended.** Country Flame, Inc., hereafter known as Country Flame, warrants its products to the original consumer purchaser only.

**2. Products/Components Warranted.** Country Flame makes the following warranties regarding its Country Flame Wood Stoves and Inserts:

(a) **Heating Units.** Except as set forth below, Country Flame warrants its Country Flame Wood Stoves and Inserts to be free from defects in materials and workmanship for the lifetime of the original consumer purchaser, so long as the unit is owned by the original consumer purchaser, subject to the terms, conditions and restrictions set forth below:

(b) **Blowers, Fan Speed Controls and Electrical Components.** Country Flame warrants the blowers, fan speed controls and electrical components of its Country Flame Wood Stoves and Inserts to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase, subject to the terms, conditions and restrictions set forth below.

### **3. Terms, Conditions and Restrictions.**

(a) **Products Not Covered.** The above warranties do not apply to glass, refractory materials such as refractory cement or fire brick, gaskets, and irons, paint, coalgrates, firedogs, and/or other devices designed to hold and support fuel, optional and standard accessories, and all parts not permanently attached to the heating unit. Parts not permanently attached to the heating unit are those items designed to be removed from the unit, including those removable with common hand tools.

(b) **Exclusions.** The above warranties do not apply to the following conditions or circumstances:

(1) To conditions resulting from Country Flame Wood Stoves and Inserts which are installed other than in accordance with Country Flame specifications.

(2) To conditions resulting from failure to provide reasonable and necessary maintenance for the Country Flame Wood Stoves and Inserts in accordance with Country Flame operating and maintenance instructions.

(3) To conditions resulting from the alteration or modification of any Country Flame Wood Stoves and Inserts unit 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 Wood Stoves and Inserts in accordance with Country Flame 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 the improper firing or burning of materials in any Country Flame Wood Stove or Insert.

(c) **Warranty Registration Card.** The above warranties are void and will not apply unless the attached Warranty Registration Card is filled out by the original consumer purchaser and returned to Country Flame within thirty (30) days subsequent to the date of purchase.

**4. Remedies in the Event of Failure.** In the event a Country Flame Wood Stove or Insert fails to perform as warranted, the following terms and conditions will apply:

(a) **Heating Unit.** Country Flame will repair, or at its option, replace any warranted part of the heating unit which fails to perform as warranted for the lifetime of the original consumer purchaser, subject to the terms, conditions and restrictions set forth herein.

**(b) Blowers, Fan Speed Controls and Electrical Components.** If the blowers, fan speed controls or components of the Country Flame Wood Stove or Insert fail to perform as warranted for one (1) year subsequent to the date of purchase, Country Flame will repair, or at its option, replace the defective product or component.

**(c) Warranty Service and Freight Costs.** Service on Country Flame Wood Stoves and Inserts units will be provided by any Country Flame authorized dealer or distributor. If there is no authorized dealer or distributor in the original consumer purchaser's area, the original consumer purchaser may notify Country Flame at P.O. Box 151, Mt. Vernon, Missouri, 65712 of any defect by providing the following information:

- (1) The Model Number of the Country Flame Wood Stove and Insert;
- (2) The date of original purchase;
- (3) The date of installation; and
- (4) A description of the nature of the defect or problem.

If service is required, the original consumer purchaser must send the product or component, **freight or postage prepaid**, to an authorized dealer or distributor or to Country Flame. Country Flame **will not** pay freight or postage costs relating to products or components returned for warranty service.

**(d) Repairs.** All repairs made by Country Flame or its authorized dealers or distributors will be to the original manufacturing specifications.

**(e) Cost of Repair or Replacement.** Country Flame will repair, or at its option, replace the defective products or component pursuant to the conditions set forth above. The original consumer purchaser is responsible for the payment of any costs and expenses of disassembly, removal and reinstallation of any defective product or component and any other services involved. None of such costs or expenses are covered by this warranty and Country Flame is not liable for any of them.

**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 Wood Stove and Insert or any breach of the above express warranties. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

**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 PURCHASE. Some states do not allow limitations of how long an implied warranty lasts, so the above limitation may not apply to you.

**7. Legal Rights.** This warranty gives you specific legal rights, and you 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 connection with this Country Flame Wood Stove and Insert product.

**9. Additional Information.** If you wish to obtain additional information or resolve questions concerning the interpretation of any warranties of Country Flame, please write:

**COUNTRY FLAME, INC.**  
**P.O. Box 151**  
**Mt. Vernon, Missouri 65712**