

COMBO COAL & WOOD STOVE

OWNER'S MANUAL

FOR BURNING BITUMINOUS / ANTHRACITE COAL OR
HARD, SEASONED NATURAL WOOD



SAFETY NOTICE

IF THIS HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS. THE AUTHORITY HAVING JURISDICTION (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ect.) SHOULD BE CONSULTED BEFORE INSTALLATION TO DETERMINE THE NEED TO OBTAIN A PERMIT. KEEP THESE INSTRUCTIONS FOR FUTURE USE.

TESTED AND LISTED TO UL 1482 BY:



ITS/WARNOCK HERSEY, MIDDLETON, WI

MANUFACTURED BY
NEW BUCK CORPORATION -
SPRUCE PINE, NC 28777

Nov 2009

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INSTALLATION, OPERATION, AND MAINTENANCE INSTRUCTIONS COMBO COAL & WOOD STOVE

READ THIS FIRST

IMPORTANT INSTRUCTIONS

WARNING

THESE UNITS GENERATE A LOT OF HEAT, SO TREAT THEM WITH CARE. **HOT WHILE IN OPERATION!** KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS. READ ALL INSTRUCTIONS BEFORE INSTALLING AND USING THE APPLIANCE. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCES.

- The Combo Coal & Wood Stove has been tested by ITS, Warnock Hersey to ANSI/UL Standards 1482.
- Install and operate your units according to instructions provided in this manual. Local building codes may apply; therefore, contact your local building inspector or fire marshal for necessary installation requirements and permits which may go beyond these instructions.
- **THIS UNIT IS NOT APPROVED FOR MOBILE HOME USE.**
- **“DO NOT INSTALL IN SLEEPING ROOMS.”**
- **NOTE: When burning any unit or appliance that combust fuel for heat, such as coal, oil, wood or natural and (L.P.) liquid petroleum gas. We highly recommend the use of smoke and carbon monoxide detectors in your home.**
- Examine the masonry fireplace and chimney prior to installation of the fireplace accessory to determine that the construction meets the minimum fireplace construction requirements illustrated in the instructions, that it is free from cracks, loose mortar, creosote deposits and other blockage, or other signs of deterioration.
- **“THE FUELING AND ASH REMOVAL DOORS MUST REMAIN CLOSED WHEN IN OPERATION.”**

CAUTION

“DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.” DO NOT USE A FLUE INTENDED FOR A GAS APPLIANCE.”DO NOT CONNECT TO ANY DISTRIBUTION DUCT OR SYSTEM.”

CAUTION

YOUR CHIMNEY OR FLUE MUST BE CORRECTLY SIZED. A CHIMNEY OR FLUE THAT IS TOO SMALL OR LARGE IN DIAMETER, OR TOO SHORT, CAN CAUSE YOUR STOVE TO SPILL SMOKE WHEN THE DOOR IS OPENED.

INTRODUCTION

The Combo Coal & Wood Stove is a highly efficient heating unit. Proper installation will ensure years of heating satisfaction. Read the manual carefully. For more information, contact a local dealer.

Safety is a vital factor in installing your stove. Without correct installation and operation, a house fire may result. Check local codes.

“DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.”

“DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS.”

Read the complete manual before installing and operating.
Failure to follow instructions may result in property damage,
Bodily injury or death.

NOTE: When burning any unit or appliance that combust fuel for heat, such as coal, oil, wood or natural and (L.P.) liquid petroleum gas. We highly recommend the use of smoke and carbon monoxide detectors in your home.

You should not burn trash or garbage, artificial or paper logs, gift wrapping, treated or painted wood.

Under specific test conditions this heater has been shown to deliver heat at rates ranging from approximately 45,000 to 50,000 BTU/HR.

This unit may also be used with optional room air blower. To order optional motor assembly you must specify the stove model name and give the following part number:

*Model Combo Coal & Wood Stove Motor Assembly — MACCOAL714

For operation and use of this electrical assembly, see instructions provided with the motor assembly kit.

INSTALLATION

MINIMUM CLEARANCES TO FLOOR AND COMBUSTIBLES

See minimum floor protector measurements ,and also for minimum clearances to combustibles, See Pages, and Figures below

A-1. Rear Exit into Flue 6" Single Wall Pipe(Page 11)

A-2. Rear Exit into Flue 6" DVL (Page 12)

B-1. Rear Exit to Vertical to Horizontal into Flue 6" Single Wall Pipe(Page 14)

B-2. Rear Exit to Vertical to Horizontal into Flue 6" DVL Pipe(Page 15)

C. Rear Exit to Fire Place 6" Single Wall Pipe(Page 17)

D. Rear Exit to Vertical Ceiling 6" Single Wall Pipe or 6" DVL Pipe (Page 19)

E. Rear Exit Thru Wall, Exterior Chimney outside Residence (6" Single Wall Pipe or 6" DVL Pipe to (Listed 2100°UL 103 HT TYPE Chimney T-Box Assembly and Listed 2100°UL 103 HT TYPE Chimney) (Page 21)

Floor Protection:

When installing freestanding heater ,a floor protector must be used. Must have minimum R-value of 1.8.

How to use alternate materials and how to calculate equivalent thickness.

An easy means of determining if a proposed alternate floor protector meets requirements listed in the appliance manual is to follow this procedure:

1. Convert specification to R-value:

R-value is given—no conversion is needed.

K– factor is given with a required thickness (T) in inches:

C-factor is given: $R=1/C$

2. Determine the R-value of the proposed alternate floor protector.

Use the formula in step (1) to convert values not expressed as “R”

For multiple layers, add R-values of each layer to determine the overall R-value.

If the overall R-value of the system is greater than the R-value of the specified floor protector, the alternate is acceptable.

Example:

The specified floor protector should be 3/4" thick material with a K-factor of 0.84.

The proposed alternate is 4" brick with a C-factor of 1.25 over 1/8" mineral board with a K-factor of 0.29.

Step (a): Use formula above to convert specification to R-value. $R= 1/K \times T = 1/0.84 \times .75 = 0.893$

Step (b): Calculate R of proposed system. 4" brick of $C=1.25$, therefore $R_{brick} = 1/C = 1/1.25 = 0.80$
1/8" mineral board of $K = 0.29$, therefore $R_{min.bd.} = 1/0.29 \times 0.125 = 0.431$

Step (c): Compare proposed system R of 1.231 to specified R of 0.893. Since proposed system R is greater than required , the system is acceptable.

Definitions:

$$\text{Thermal conductance} = C = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(^\circ\text{F})} = \frac{\text{W}}{(\text{m}^2)(^\circ\text{K})}$$

$$\text{Thermal conductance} = K = \frac{(\text{Btu})(\text{inch})}{(\text{hr})(\text{ft}^2)(^\circ\text{f})} = \frac{\text{W}}{(\text{m})(^\circ\text{K})} = \frac{(\text{Btu})}{(\text{hr})(\text{tf})(^\circ\text{F})}$$

$$\text{Thermal conductance} = R = \frac{(\text{ft}^2)(\text{hr})(^\circ\text{F})}{\text{Btu}} = \frac{(\text{m}^2)(^\circ\text{K})}{\text{W}}$$

CHIMNEY CONNECTOR

The chimney size should not be less than or more than three times greater than the cross-sectional area of the flue collar.

1. Chimney connector must be 6" diameter 24 gauge minimum steel.
2. Do not use aluminum or galvanized steel.
3. Do not use chimney connector pipe as a chimney.
4. Connect stove to either a Factory-Built or Masonry Factory-Built chimney that complies with UL 103 HT Standard.
5. Chimney connector sections must be attached to stove and to each other with the crimped end towards the stove. (See Page 9 Figure 40. This allows creosote to run into the stove and not onto the outside of the pipe.
6. Secure all joints with three sheet metal screws and use furnace cement on all joints. Without proper security, in the event of a creosote fire, the connector may vibrate apart.
7. For maximum operation, the chimney connector should be as short as possible.
8. Horizontal lengths of chimney connector should have an upward slop of 1/4" per foot.
9. Maintain an 18" clearance between the chimney connector and ceiling.

CHIMNEY

This room heater must be connected to:

- (1) A chimney complying with the requirements for Type HT Chimneys, Factory-Built Residential Type and Building Heating Appliance; UL 103.
- (2) A code-approved masonry chimney with a flue liner.

Your stove will operate satisfactorily with any listed factory-built chimney or any masonry flue or chimney meeting the NFPA-211 Codes. A round chimney is preferable to a square or rectangular chimney. The ideal chimney will have a cross-sectional area of the flue collar opening of your stove.

Maximum flue collar draft = .025 w.c.

MASONRY CHIMNEY

If stove is connected to a masonry chimney, it should be examined for cracks. Loose mortar, blockage or other signs of deterioration. Do not install the stove until the chimney is determined safe for use. An oversized flue contributes to the accumulation of creosote. Check the flue size to determine it is not too large for stove. The flue should be no larger than 8" square or 9" in diameter.

Chimney must be the required height above roof for proper draft operation.

Chimney height requirement: At least 3' above the roof
 At least 2' above highest point on roof
 At least 10' away from the highest point
 (See Page 6 Figure 3)

CHIMNEY CONNECTION

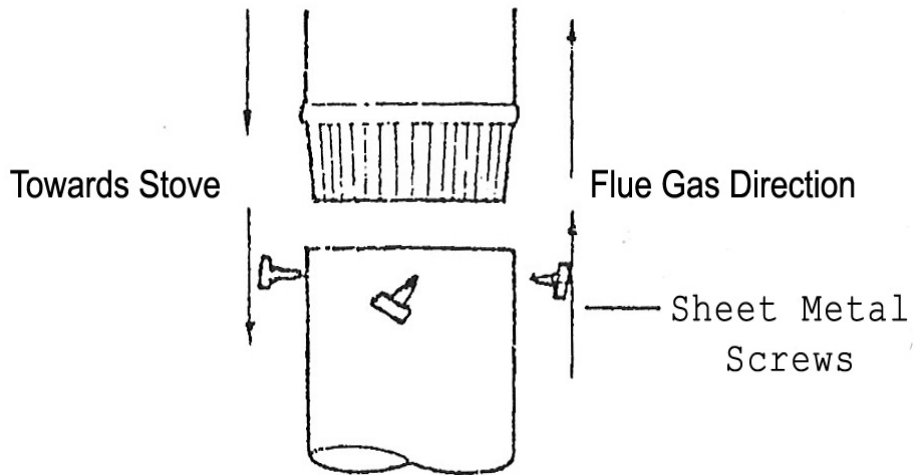


Figure 1

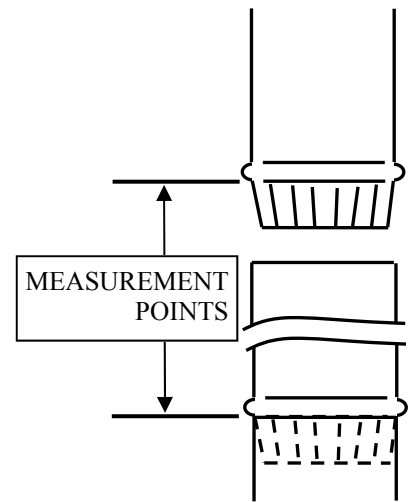


Figure 2

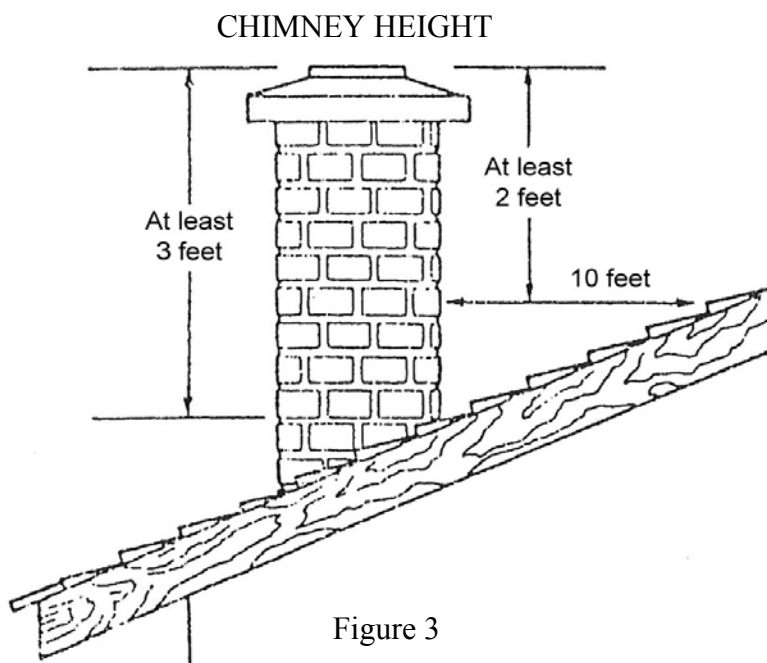


Figure 3

THIMBLE

Prefabricated “Listed 2100° UL 103 HT Type Chimney” metal thimbles can be purchased for use (See Page 19 and 21). Installation instructions from the manufacturer must be strictly followed to ensure the safety of the system. Clearances to combustible materials must be maintained. Confirm local building codes for restrictions when connecting stove to masonry thimble through a combustible wall.

CONNECTION TO A METAL PREFABRICATED CHIMNEY

When a metal prefabricated chimney is used, follow the pipe manufacturer's installation instruction exactly. Do not mix different pipe. Purchase (from the same manufacturer) and install:

1. ceiling support package
2. wall pass through
3. "T" section package
4. firestops (when needed)
5. insulation shield
6. roof flashing
7. chimney cap

These parts must be listed to 2100 degree UL 103 HT.

Two methods of chimney installation:

1. Rear exit through wall, exterior chimney outside residence. (See figure 4, Page 8).
2. Rear exit to vertical ceiling exit. (See figure 5, Page 8).

Components illustrated may not look like system you choose, but this demonstrates basic components needed for a proper and safe installation.

See figure 3 (Page 6) for chimney height. Refer to page 5, "Masonry Chimney" for dimensions.

NOTE: Follow the manufacturer's installation instructions and maintain specified clearance requirements.

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

METHODS OF INSTALLATION

Using Listed 2100° UL 103 HT TYPE Chimney Systems

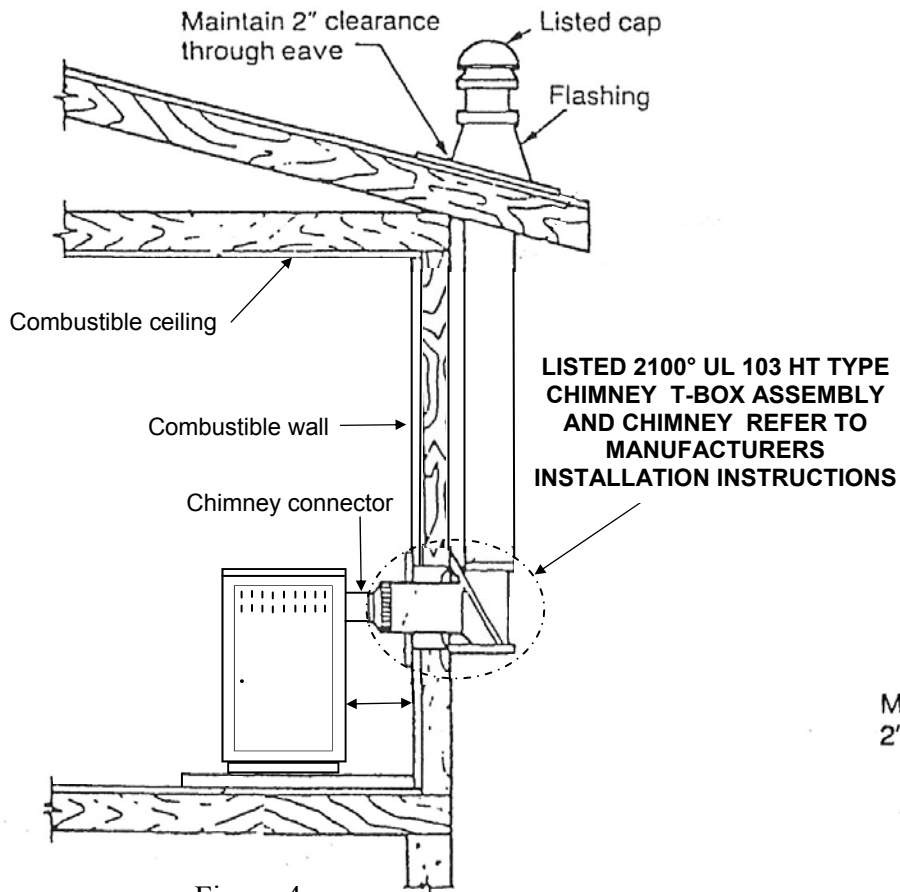


Figure 4

LISTED 2100° UL 103 HT TYPE CHIMNEY ASSEMBLY REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS

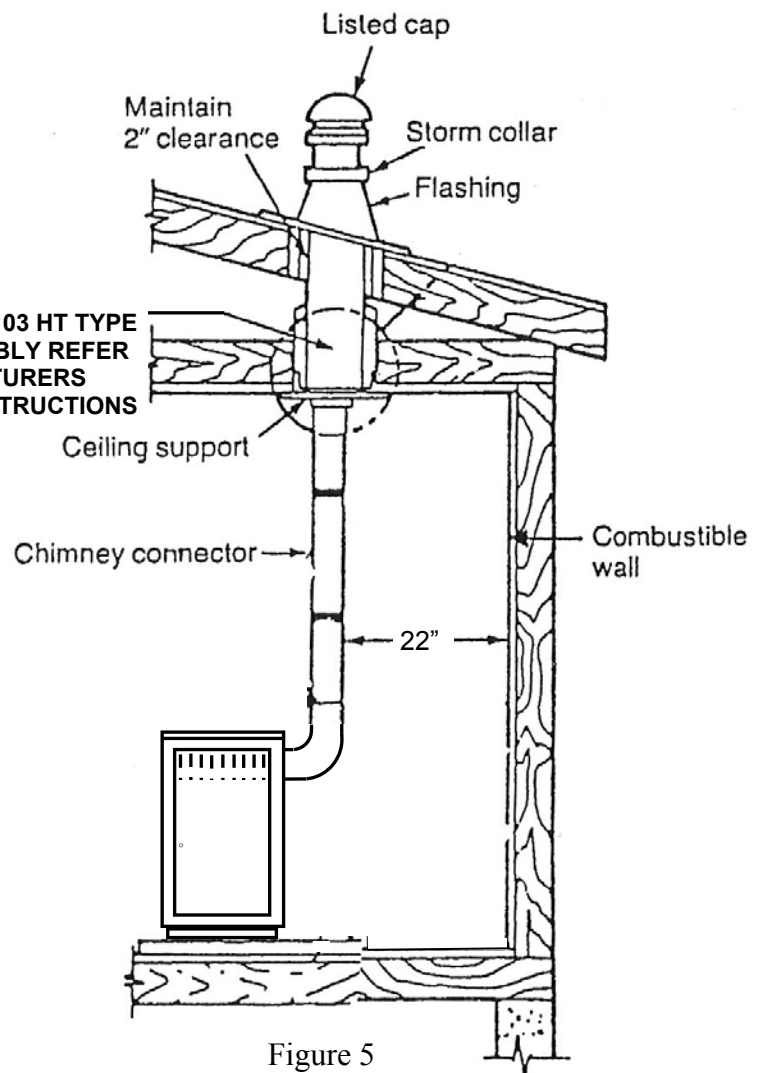


Figure 5

PREPARING THE ROOM HEATER LOCATION

1. Select an installation location that will give the best airflow from the front of the heater to the remainder of the home.
2. Place the protective floor pad in position.
3. Place the unit on the pad making sure the minimum clearance specifications are met.
4. If connecting to an existing masonry flue, first ensure that the flue conforms to the **NFPA-211** Code and/or consult your local code for proper procedures.

This model is designed for connection to: any Listed 2100° UL 103 HT. TYPE chimney also any Listed UL DVL Close Clearance Pipe. Follow pipe manufactures instructions carefully.

CHIMNEY

This room heater must be converted to (1) a chimney complying with the requirements for Type HT chimneys in the Standard for Chimneys, Factory-Built, Residential, Type and Building Heating Appliance, UL 103, or (2) a code approved masonry chimney with a flue liner.



CAUTION: Certain installation types require the use of certain chimney types. Please follow these instructions exactly.

A. Rear Exit Into Flue using (6" Single Wall Pipe minimum 24 ga. blue or black pipe) or (6" DVL Close Clearance Pipe)

HOW TO LOCATE CHIMNEY EXIT, AND INSTALL

NOTE: For minimum clearances:

A-1. 6" Single Wall pipe (See Page 10, Figure 6, and Figure 7)

A-2. 6" DVL Close Clearance pipe (See Page 11, Figure 8, and Figure 9)

1. Before connecting these units to a masonry chimney, determine that the masonry flue pass-through connector thimble meets the NFPA-211 Code and local building codes. If the connector thimble does not meet these codes, the pass-through connector must be modified.

Connectors may pass through walls or partitions constructed of combustible material if the connector is:

- (a) Either listed for wall pass-through or is routed through a device listed for wall pass-through and is installed in accordance with the conditions of the listing.
- (b) Selected or fabricated in accordance with the conditions and clearances as stated in the **NFPA-211** Code. Any unexposed metal that is used as part of a wall pass-through system and is exposed to flue gases shall be constructed of stainless steel or other equivalent material that will resist corrosion, softening, or cracking from flue gases at temperatures up to 1800° F.

In addition, a connector to a masonry chimney shall extend through the wall to the inner face or liner but not beyond, and shall be firmly cemented to masonry.

EXCEPTION: A thimble may be used to facilitate removal of the chimney connector for cleaning, in which case the thimble shall be permanently cemented in place with high-temperature cement.

2. Once the through-the-wall thimble codes are met, simply connect the (Single Wall Pipe minimum 24 ga. blue or black pipe or DVL Close Clearance pipe) to the wall pass-through connector per chimney manufacturer's instruction.

(See Page 10) A -1. 6" Single Wall pipe.

(See Page 11) A -2. 6" DVL Close Clearance pipe.

- (a) Maintain 1/4" rise per foot (horizontal length) from the appliance to the chimney.
- (b) Connect each section so the crimped end faces towards stove.
- (c) Secure each section to each other using at least three (3) sheet metal screws or rivets, using furnace cement to seal joints.
- (d) Use three (3) sheet metal screws to fasten pipe to collar on rear of heater.

A-1. REAR EXIT INTO FLUE USING **(6" Single Wall pipe minimum 24 ga. blued or black pipe)** **Minimum Clearance to Combustibles and Non-Combustibles.**

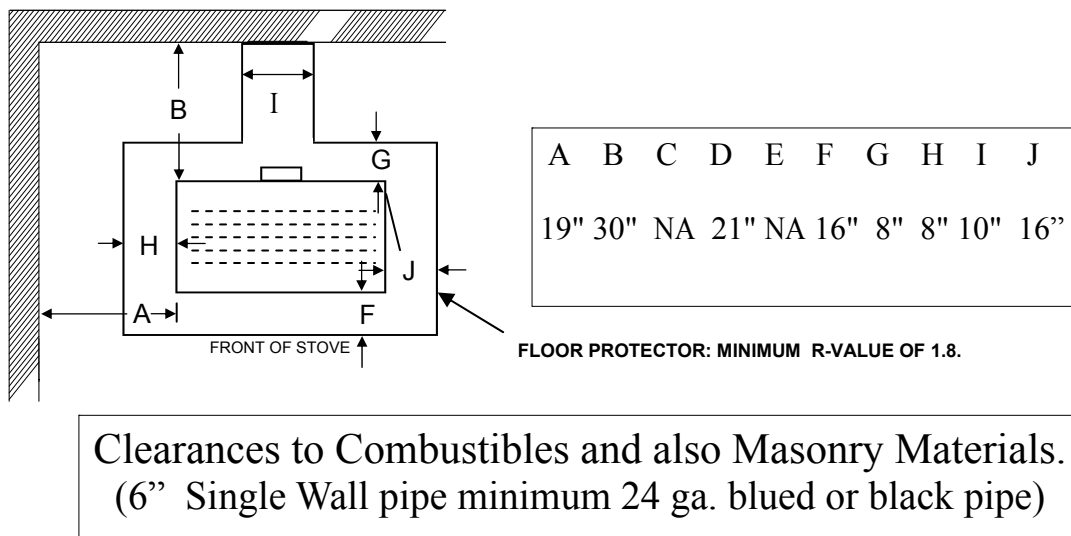


Figure 6

NOTE: All clearances are to combustibles with minimum floor protector. **NOTE:** Floor protector must extend length of horizontal flue pipe to wall.

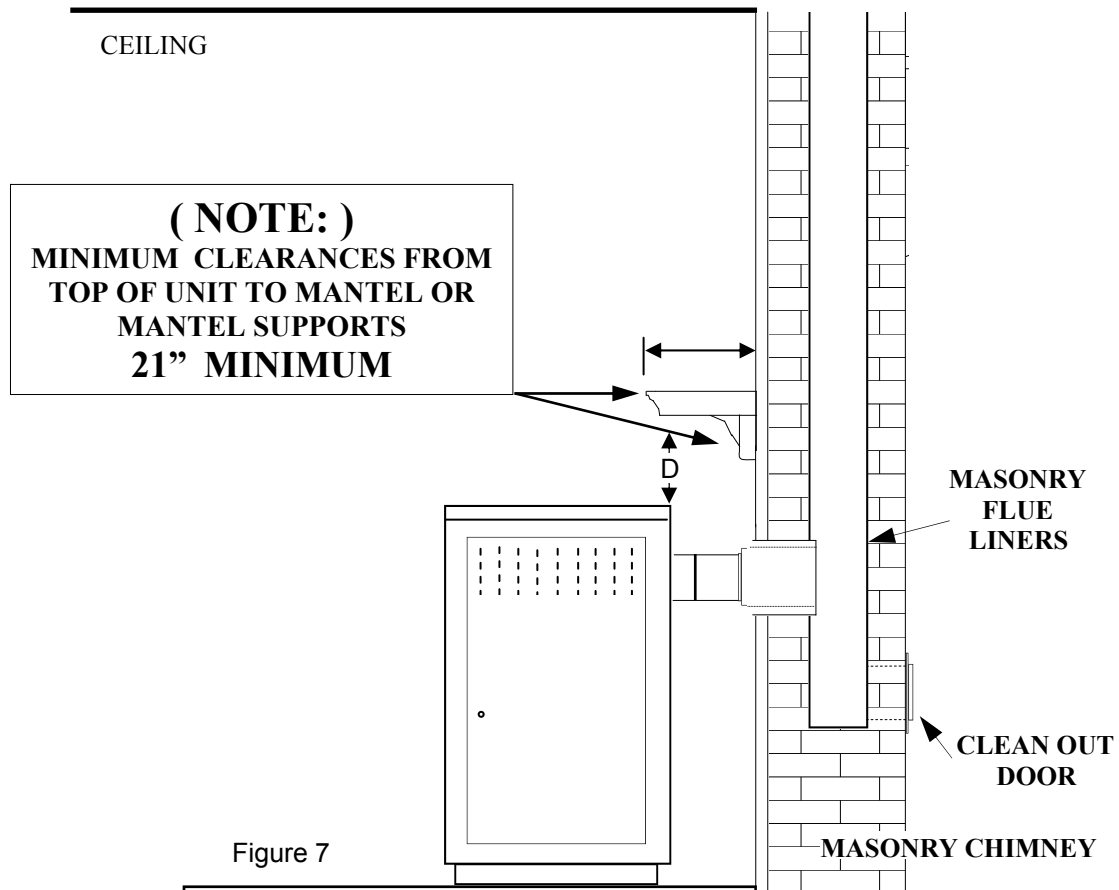


Figure 7

A-2. REAR EXIT INTO FLUE USING (6" DVL Close Clearance pipe) Minimum Clearance to Combustibles and Non-Combustibles.

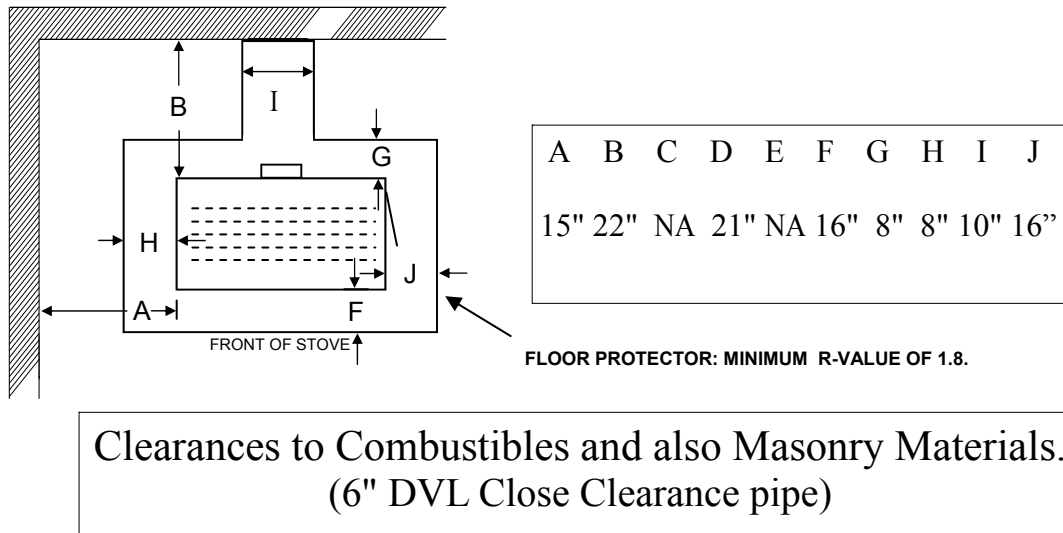
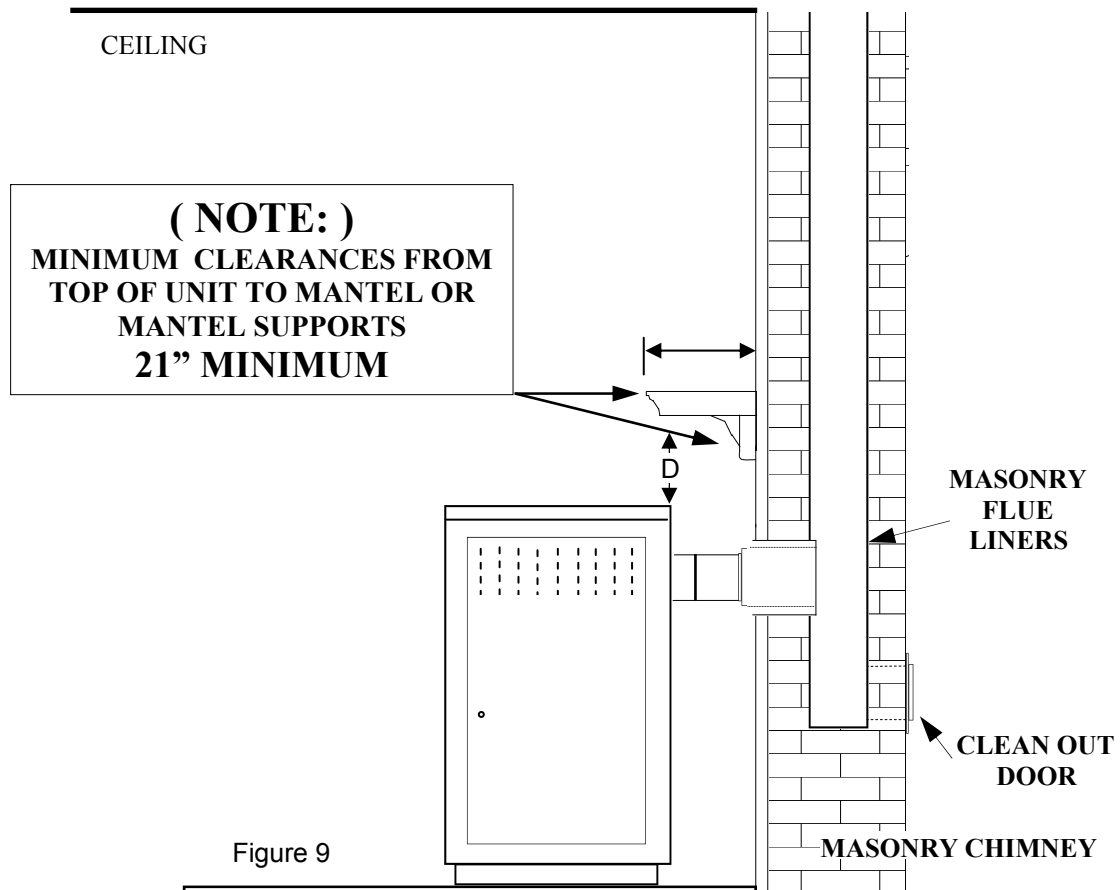


Figure 8

NOTE: All clearances are to combustibles with minimum floor protector. **NOTE:** Floor protector must extend length of horizontal flue pipe to wall.



**B. Rear Exit to Vertical then to Horizontal into Flue using
(6" Single Wall Pipe minimum 24 ga. blued or black pipe with Elbows) or
(6" DVL Close Clearance Pipe with Elbows)**

HOW TO LOCATE CHIMNEY EXIT, AND INSTALL

NOTE: For minimum clearances:

B-1. 6" Single Wall Pipe with Elbows (See Page 14, Figure 10 and Figure 11 ,)

B-2. 6" DVL Close Clearance Pipe with Elbows (See Page 15, Figure 12 and Figure 13)

Before connecting these units to a masonry chimney, determine that the masonry flue pass-through connector thimble meets the NFPA-211 Code, and local building codes, when using DVL Close Clearance Pipe **“maintain manufacturer’s minimum clearances”** from the ceiling. If the connector thimble does not meet these codes, the pass-through connector must be modified.

Connectors may pass through walls or partitions constructed of combustible material if the connector is:

- (a) Either listed for wall pass-through or is routed through a device listed for wall pass-through and is installed in accordance with the conditions of the listing.
- (b) Selected or fabricated in accordance with the conditions and clearances as stated in the **NFPA-211** Code. Any unexposed metal that is used as part of a wall pass-through system and is exposed to flue gases shall be constructed of stainless steel or other equivalent material that will resist corrosion, softening, or cracking from flue gases at temperatures up to 1800° F.

In addition, a connector to a masonry chimney shall extend through the wall to the inner face or liner but not beyond, and shall be firmly cemented to masonry.

EXCEPTION: A thimble may be used to facilitate removal of the chimney connector for cleaning, in which case the thimble shall be permanently cemented in place with high-temperature cement. Once the through-the-wall thimble codes are met.

(See Page 14), 6" Single Wall Pipe minimum 24 ga. blued or black pipe with elbows)

(See Page 15), 6" Using DVL Close Clearance pipe with Elbows).

NOTE: When using DVL Close Clearance Pipe , **“maintain manufacturer’s minimum clearances”** between pipe and ceiling.

1. Once the through-the-wall thimble codes and floor protection are met move heater into place.
2. Now place one elbow, crimped end into the Collar at rear of heater and fasten with three self tapping screws, place 2nd elbow, blunt end into flue.
Note, a piece of pipe may have to be used between flue and upper elbow too meet combustible clearance code.
(See Page 17) .
3. Maintain 1/4" rise per foot (horizontal length) from the appliance too the chimney.
4. Now measure from upper elbow’s crimped end to blunt end of lower elbow. Cut and place pipe between elbows. Connect each section so the crimped end faces downward. (See Page 9, Figure 5).
5. Secure each section to each other using at least three (3) sheet metal screws or rivets, using furnace cement to seal joints..

B-1. REAR EXIT VERTICAL THEN TO HORIZONTAL INTO FLUE USING

(6" Single Wall pipe minimum 24 ga. blued or black pipe with Elbows)
Minimum Clearance to Combustibles and Non-Combustibles.

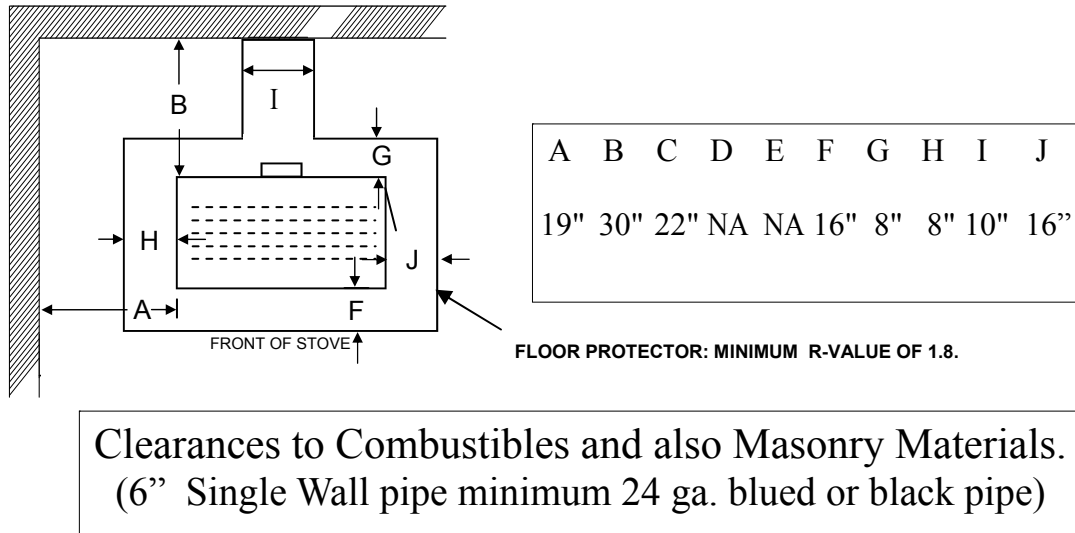
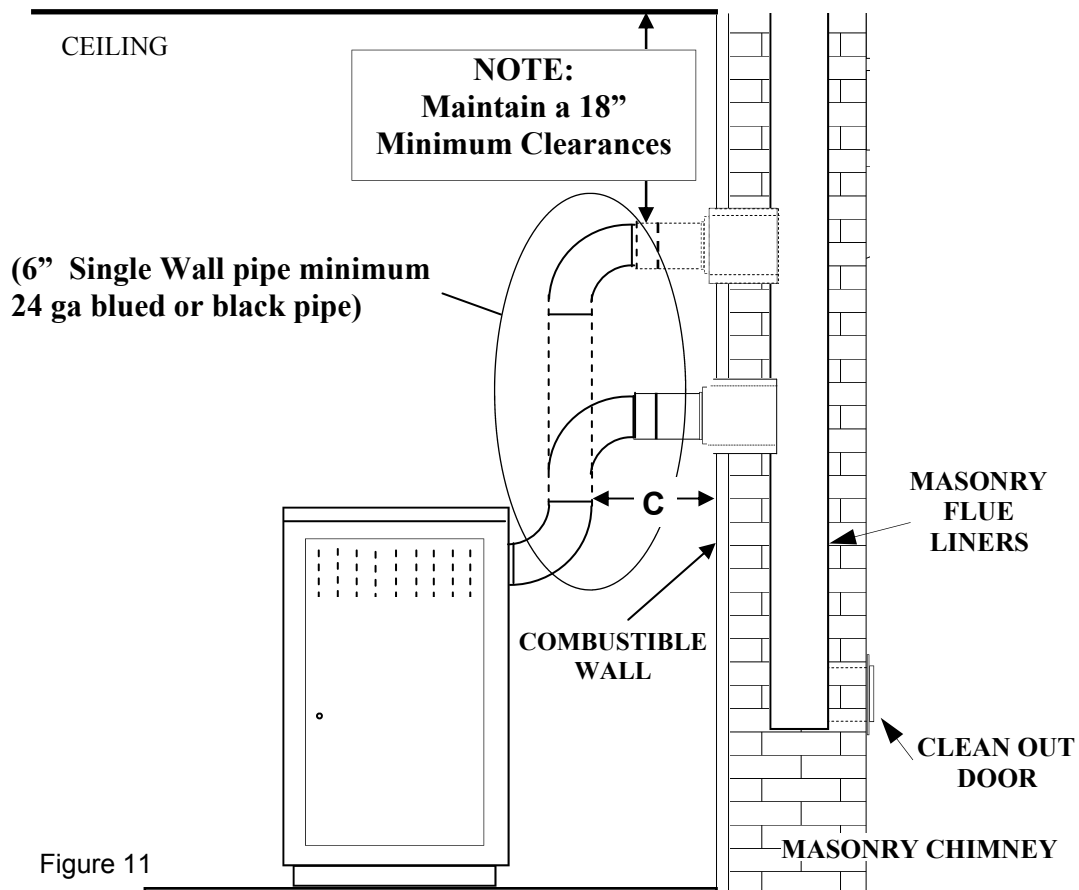
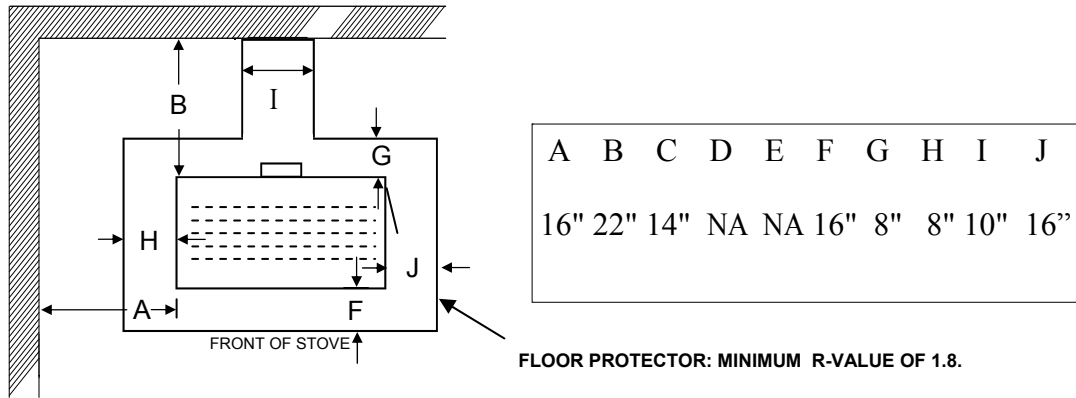


Figure 10

NOTE: All clearances are to combustibles with minimum floor protector. **NOTE:** Floor protector must extend length of horizontal flue pipe to wall.



B-2. REAR EXIT VERTICAL THEN TO HORIZONTAL INTO MASONRY FLUE USING (6" DVL Close Clearance pipe with Elbows) Minimum Clearance to Combustibles and Non-Combustibles.



Clearances to Combustibles and also Masonry Materials.
(6" DVL Close Clearance pipe)

Figure 12

NOTE: All clearances are to combustibles with minimum floor protector. **NOTE:** Floor protector must extend length of horizontal flue pipe to wall.

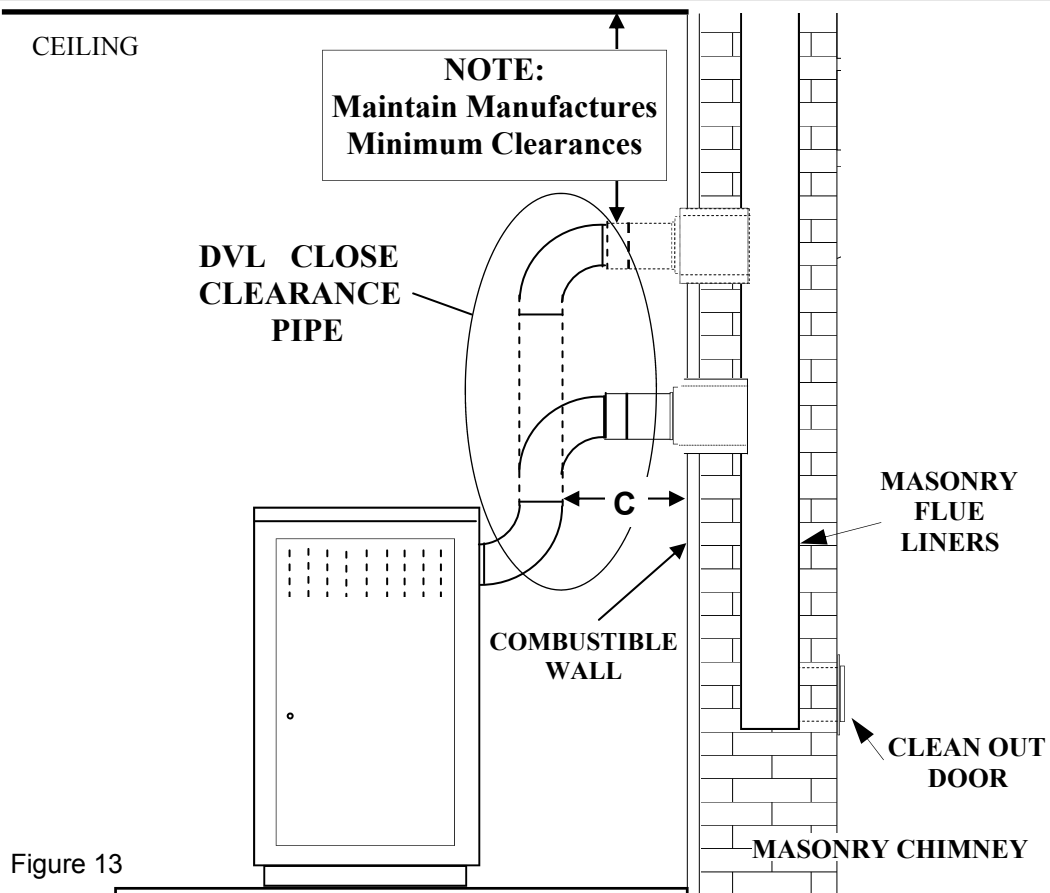


Figure 13

C. Rear exit into Masonry Fireplace using (6" Single Wall pipe, minimum 24 ga. blued or black pipe)

HOW TO LOCATE CHIMNEY EXIT, AND INSTALL

NOTE: For minimum clearances (See Page 17, Figure 14 and Figure 15) .

INSTALLATION PREPARATION

1. Locate furniture and other materials away from the front of the fireplace to allow free access to the fireplace.
2. Thoroughly clean the fireplace or flue of ashes and soot.
3. Check the chimney and smoke chamber for excessive buildup of creosote or soot. Also, check for obstructions, such as bird's nests. If the chimney is excessively dirty, clean it, or have someone clean it professionally BEFORE installing or using the room Heater
4. If the fireplace has an ash dump or outside air provision, these must be sealed off with metal or tightly packed non-combustible insulation to prevent cold air from entering the fireplace chamber.
5. Remove or wire open the fire place damper. **(See Page 17)**
6. A noncombustible sealing plate must be installed to close and seal the opening of the fireplace. A hole diameter of the pipe used must be cut into the sealing plate to facilitate a place for the stove pipe to go through into the fireplace flue.
Note, the pipe must go above the damper 2" to have proper flow. **(See Page 17, Figure 15)**
7. Once all codes are met and stove is in proper location, measure from back of stove to where the center of the flue is and cut pipe accordingly. Simply connect the Single Wall Pipe minimum 24 ga. blued or black pipe, per chimney manufacturer's instructions.
 - (a) Maintain 1/4" rise per foot (horizontal length) from the appliance to the chimney.
 - (b) Connect each section so the crimped end faces towards stove.
 - (c) Secure each section to each other using at least three (3) sheet metal screws or rivets, using furnace cement to seal joints..
 - (d) Use three (3) sheet metal screws to fasten pipe to collar on rear of heater.

C. REAR EXIT INTO MASONRY FIREPLACE USING (6" Single Wall pipe minimum 24 ga. blued or black pipe) Minimum Clearance to Combustibles.

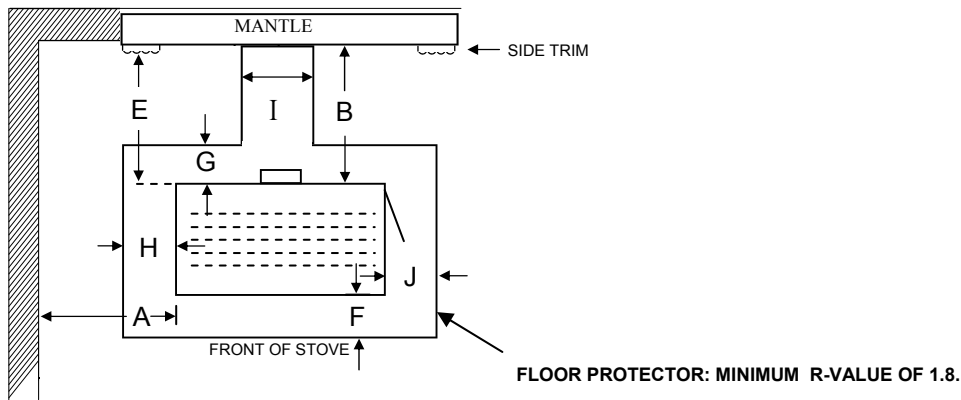


Figure 14

NOTE: All clearances are to combustibles with minimum floor protector. **NOTE:** Floor protector must extend length of horizontal flue pipe to wall.

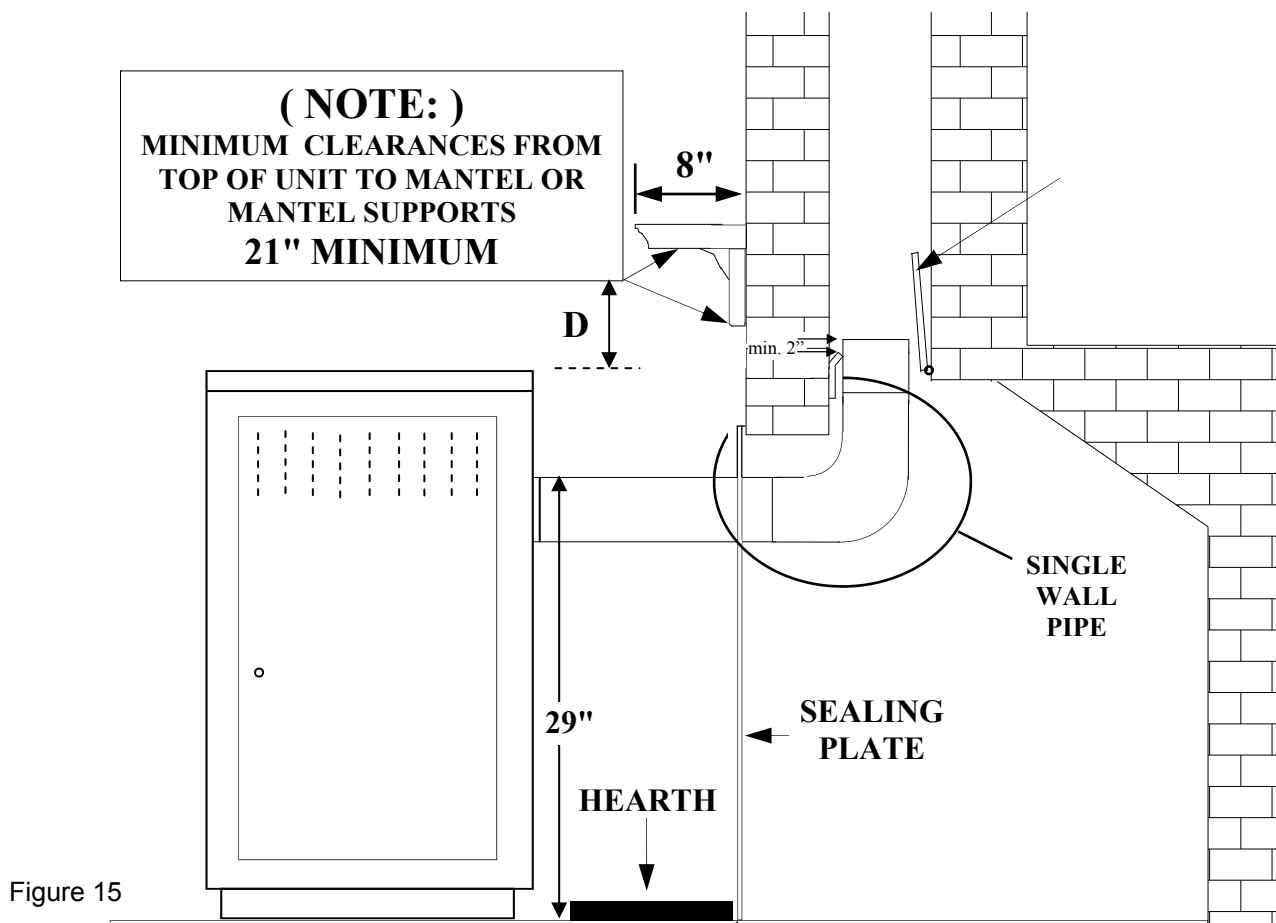


Figure 15

**D. Rear Exit to Vertical Ceiling Exit using
(6" Single Wall minimum 24 ga. blued or black pipe with Elbow) or
(6" DVL Close Clearance Pipe with Elbow) and any
(Listed 2100° UL 103 HT Chimney)**

PREPARING THE ROOM HEATER LOCATION

1. Select an installation location that will give the best airflow from the front of the heater to the remainder of the home.
2. Place the protective floor pad in position.
3. Place the unit on the pad making sure the minimum clearance specifications are met.

NOTE: This model is designed for connection to: any Listed 2100° UL 103 HT. TYPE chimney also any Listed UL DVL Close Clearance Pipe or Shielded Single wall Pipe. Follow pipe manufacture's instructions carefully.

CHIMNEY

This room heater must be converted to (1) a chimney complying with the requirements for Type HT chimneys in the Standard for Chimneys, Factory-Built, Residential, Type and Building Heating Appliance, UL 103, or (2) a code approved masonry chimney with flue liner.



CAUTION: Certain installation types require the use of certain chimney types. Please follow these instructions exactly.

HOW TO LOCATE CHIMNEY EXIT, AND INSTALL

NOTE: For minimum clearances (See Page 19, Figure 16 and Figure 17) .

1. Suspend a plumb bob from the ceiling above the unit so that the weight is hanging in the center of the flue exit. (A small weight on a string will serve as a plumb bob.) Mark the ceiling where the string is suspended to locate the center of the chimney hole.
2. After locating the center of the hole, install the ceiling support box, chimney or chimney connector, flashing, and rain cap per the chimney manufacturer's instructions, and local building codes for installation through combustible walls or ceilings.
3. Now connect the stove and ceiling support box using minimum #24 ga. blued or black steel connector pipe (DO NOT USE GALVANIZED PIPE) or DVL Close Clearance pipe. Connect each section so the crimped end faces downward, and secure each section to each other using at least three (3) sheet metal screws or rivets, using furnace cement to seal joints. Single wall pipe is to be connected with (3) sheet metal screws or rivets to collar on rear of heater. (See Page 19)

D. REAR EXIT TO VERTICAL CEILING EXIT USING (6" Single Wall pipe minimum 24 ga. blued or black pipe with Elbow) or (6" DVL Close Clearance pipe with Elbow) **Minimum Clearance to Combustibles.**

FLOOR PROTECTOR: MINIMUM R-VALUE OF 1.8.

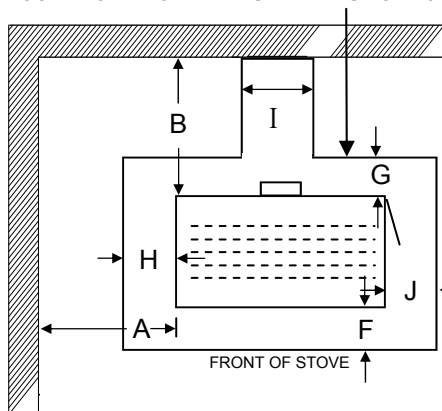


Figure 16

A	B	C	D	E	F	G	H	I	J
19"	30"	22"	NA	NA	16"	8"	8"	10"	16"
Clearances to Combustibles and also Masonry Materials. (6" Single Wall pipe minimum 24 ga. blued or black pipe)									
A	B	C	D	E	F	G	H	I	J
16"	22"	14"	NA	NA	16"	8"	8"	10"	16"
Clearances to Combustibles and also Masonry Materials. (6" DVL Close Clearance pipe)									

NOTE: All clearances are to combustibles with minimum floor protector.

NOTE: Floor protector must extend length of horizontal flue pipe to wall.

LISTED 2100° UL 103 HT TYPE
CHIMNEY ASSEMBLY REFER
TO MANUFACTURERS
INSTALLATION INSTRUCTIONS

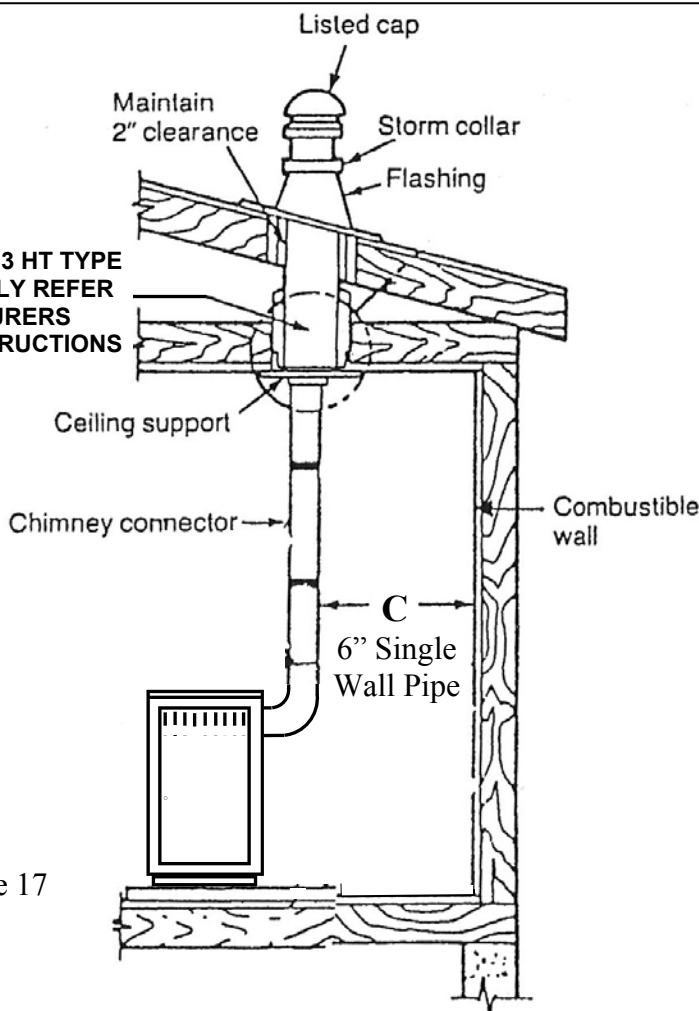


Figure 17

E. Rear Exit Through Wall, Exterior Chimney Outside Residence using (6" Single Wall pipe minimum 24 ga. blued or Black pipe) or (6" DVL Close Clearance Pipe) and any (Listed 2100° UL. HT chimney and Listed 2100° UL HT T-Box assembly)

PREPARING THE ROOM HEATER LOCATION

1. Select an installation location that will give the best airflow from the front of the heater to the remainder of the home.
2. Place the protective floor pad in position.
3. Place the unit on the pad making sure the minimum clearance specifications are met.

NOTE: This model is designed for connection to: any Listed 2100° UL 103 HT. TYPE chimney also any Listed UL DVL Close Clearance Pipe or Shielded Single wall Pipe. Follow pipe manufacture's instructions carefully.

CHIMNEY

This room heater must be converted to (1) a chimney complying with the requirements for Type HT chimneys in the Standard for Chimneys, Factory-Built, Residential, Type and Building Heating Appliance, UL 103, or (2) a code approved masonry chimney with flue liner.



CAUTION: Certain installation types require the use of certain chimney types. Please follow these instructions exactly.

HOW TO LOCATE CHIMNEY EXIT, AND INSTALL

NOTE: For minimum clearances (See Page 21, Figure 18 and Figure 19).

1. Mark the plumb line on the wall directly behind the center of the heater. **(See Page 21)**
2. Place the horizontal portion of the heater pipe in position and project a point onto the plumb line level with the center of the plumb line .
3. Measure up so there will be at least 1/4" rise per foot of horizontal connector pipe. This will give you the center of the hole for the chimney penetration.
4. After locating the center of the penetration, install the tee-box and chimney as per the chimney manufacturer's specifications.
5. Connect the chimney collar to the tee-box using #24 ga. minimum blued or black steel connector pipe or DVL. Close Clearance pipe. **DO NOT** use galvanized pipe. Connect each section so the crimped end faces downward, and secure each section to each other using three (3) sheet metal screws or Rivets, using furnace cement to seal joints.
Single wall pipe is to be connected with (3) sheet metal screws or rivets to collar on rear of heater .
(See Page 21)

**E. REAR EXIT THROUGH WALL, EXTERIOR
CHIMNEY OUTSIDE RESIDENCE USING**
(6" Single Wall pipe minimum 24 ga. blued or black pipe) or
(6" DVL Close Clearance pipe) and any
(Listed 2100 UL HT Chimney and. Listed 2100 UL HT T-Box assembly)
Minimum Clearance to Combustibles.

FLOOR PROTECTOR: MINIMUM R-VALUE OF 1.8.

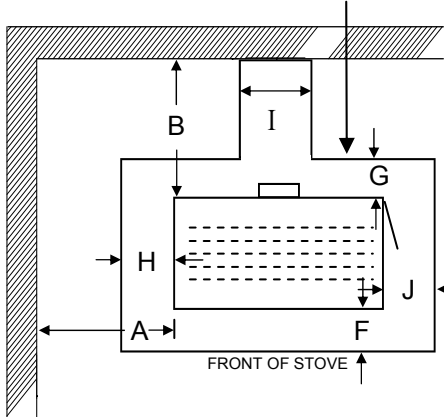


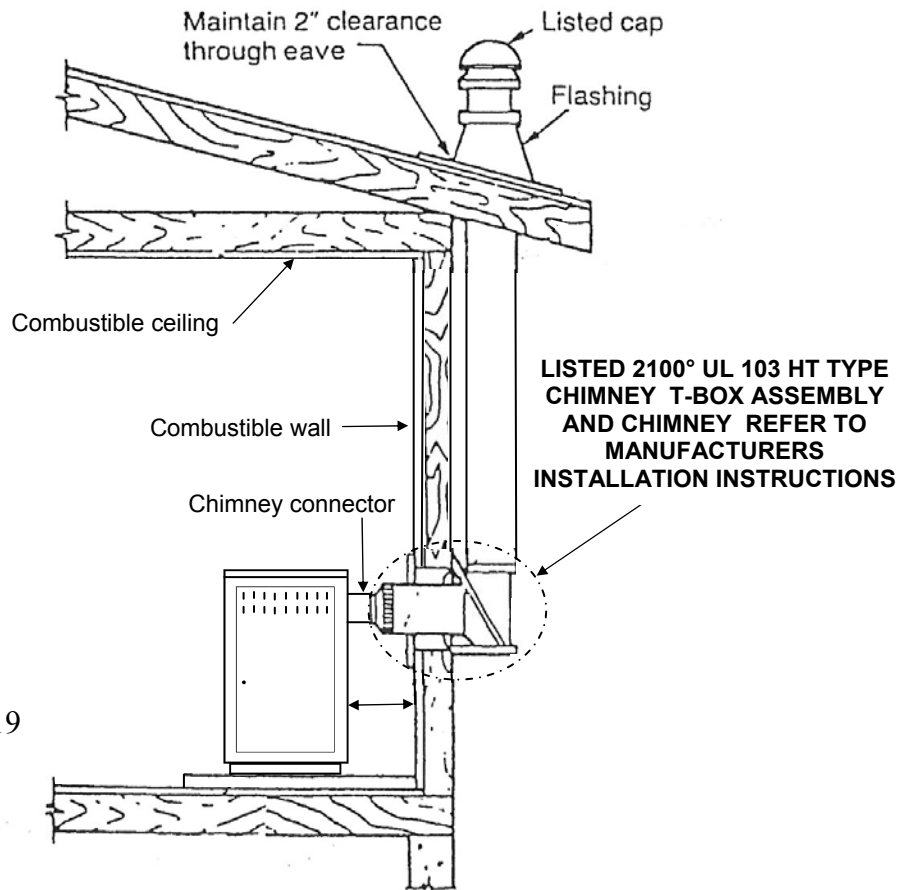
Figure 18

A	B	C	D	E	F	G	H	I	J
19"	30"	NA	NA	NA	16"	8"	8"	10"	16"
Clearances to Combustibles and also Masonry Materials. (6" Single Wall pipe minimum 24 ga. blued or black pipe)									
A	B	C	D	E	F	G	H	I	J
16"	22"	NA	NA	NA	16"	8"	8"	10"	16"
Clearances to Combustibles and also Masonry Materials. (6" DVL Close Clearance pipe)									

NOTE: All clearances are to combustibles with minimum floor protector.

NOTE: Floor protector must extend length of horizontal flue pipe to wall.

Figure 19



WARNING: Never install the stove in locations where gasoline, kerosene, charcoal lighter or any other flammable liquids are used or stored.

NOTE: THIS UNIT IS NOT APPROVED FOR MOBILE HOME USE.

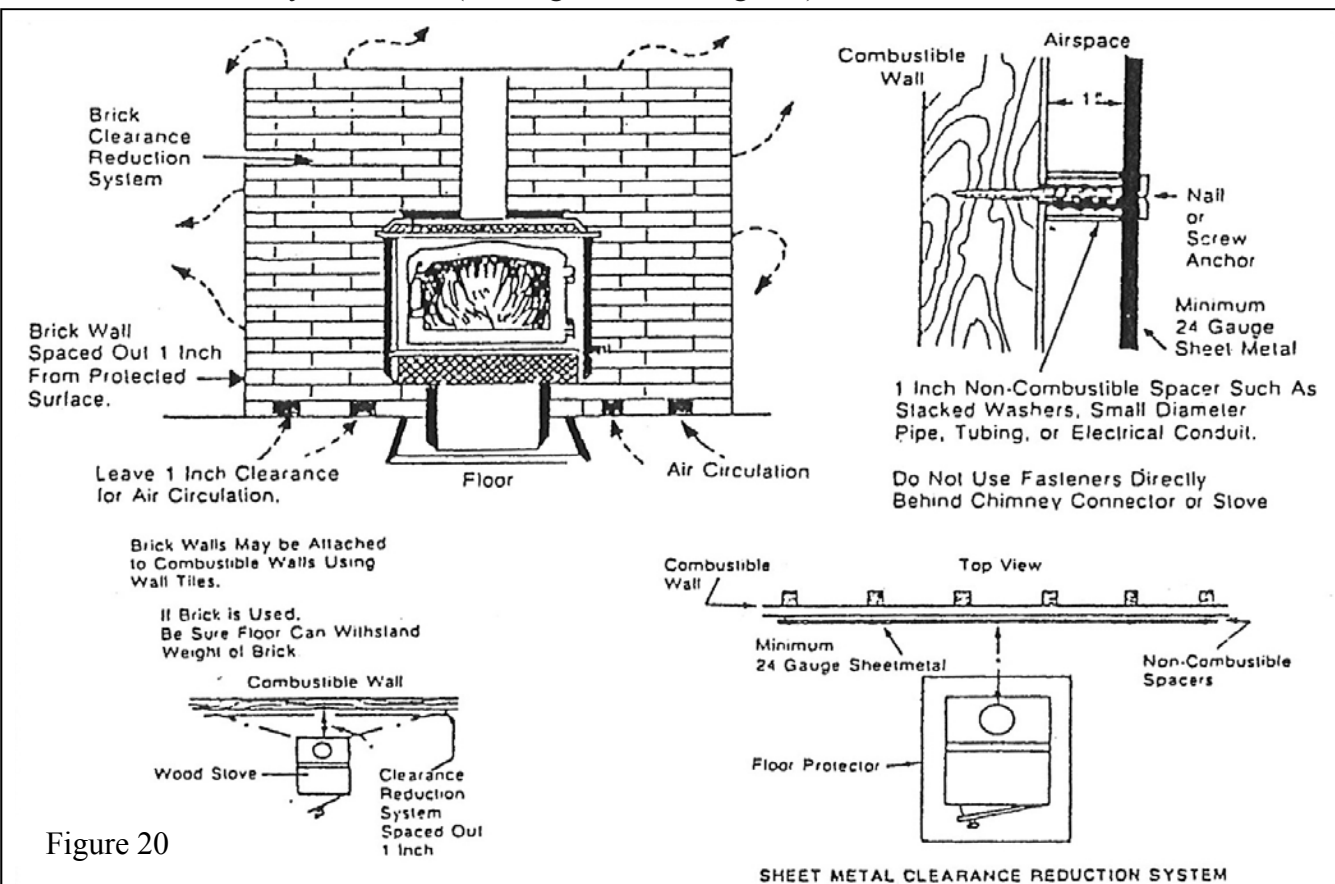
REDUCED WALL CLEARANCES

The National Fire Protection Association (NFPA) Standard 211 recognizes eight (8) Wall Protection Systems. The following are two samples we suggest:

- A. Galvanized steel sheet metal with minimum thickness of 24 gauge.
- B. 4" nominal thickness brick.

Either of these materials must be spaced 1" from the wall surface. With sheet metal, non-combustibles are used to maintain the 1" air space. With a brick wall, metal ties are used to anchor the brick to the wall and maintain the 1" 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" 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 the 1" air space. The clearance reduction system should extend 13" beyond the heater in height and width. If must 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 (See Figure 17 on Page 19).



ALTERNATIVES FOR WALL PROTECTION

* Note: The above diagram illustrates dimensions for clearances. The stove you are installing may or may not match the stove shown in the illustration.

CAUTION

THE UNIT IS PAINTED WITH A SPECIALLY FORMULATED HIGH TEMPERATURE PAINT THAT CURES DURING THE FIRST TWO OR THREE FIRINGS. YOU MAY NOTICE A SLIGHT SMOKING EFFECT AND AN ODOR OF BURNING PAINT WHEN YOU BUILD THE FIRST FIRES. THIS IS NORMAL AND IS NOT A CAUSE FOR ALARM. IN SOME CASES, THESE FUMES WILL ACTIVATE A SMOKE ALARM. OPENING A WINDOW NEAR THE UNIT WILL ALLOW THESE FUMES TO ESCAPE. DO NOT BUILD A LARGE, ROARING FIRE UNTIL THIS CURING IS COMPLETE OR THE HEATER FINISH MAY BE DAMAGED.

The connector and/or chimney should be inspected at least once a month during the heating season to determine if a creosote buildup has occurred.

CAUTION

NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THE HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE STOVE WHEN IT IS IN USE. ALL FLUIDS OF THIS TYPE GIVE OFF VOLATILE FUMES AND CAN AND WILL EXPLODE!! DON'T TAKE A CHANCE WITH THE SAFETY OF YOUR HOME AND FAMILY.

CAUTION

CREOSOTE AND SOOT

The Combo Coal & Wood Stove has been designed to burn coal. This conforms to United States Government Protection Agency regulations for coal stoves.

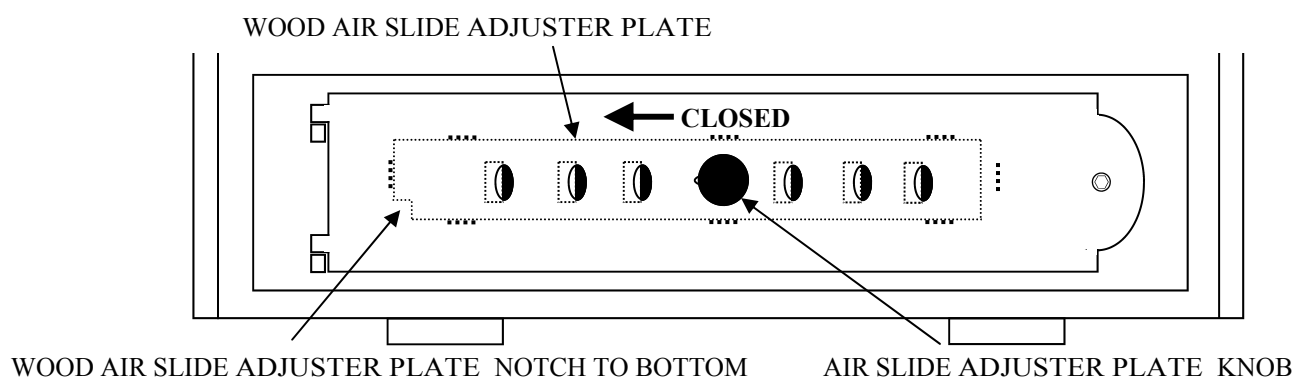
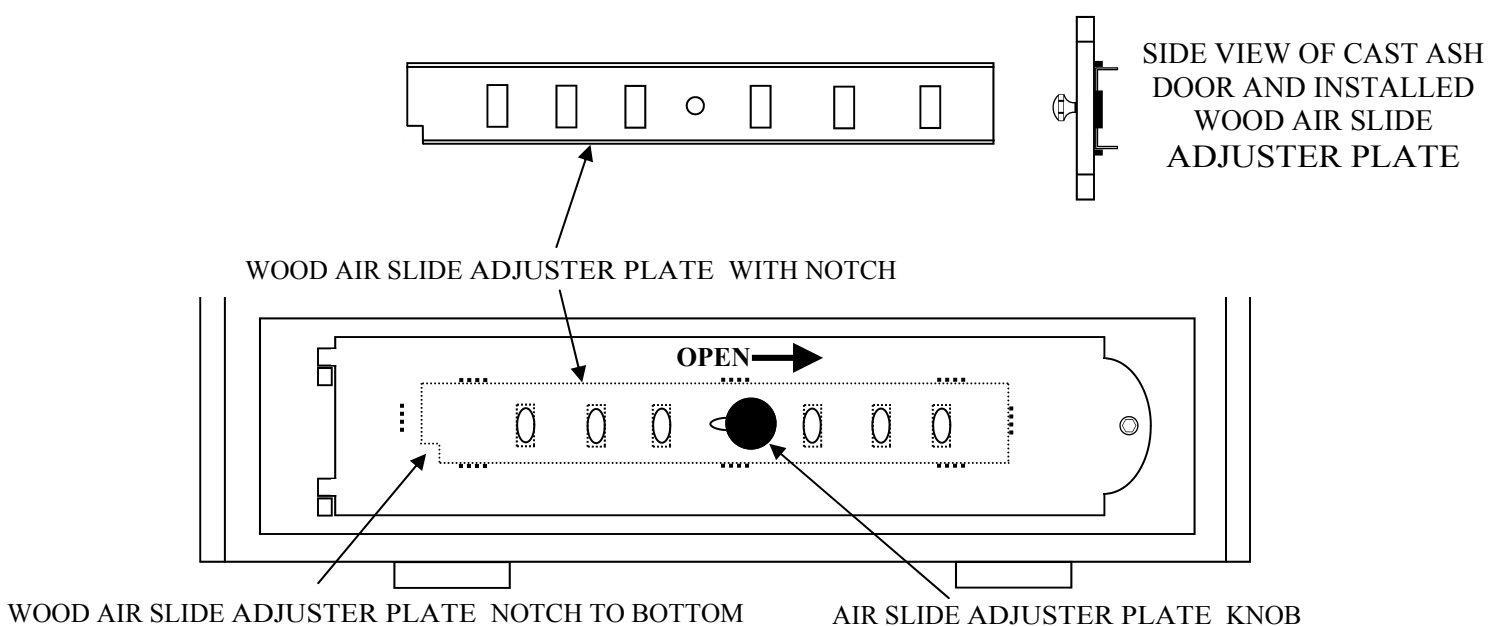
NOTE: A draft reading of .025 W.C. is suggested for proper burning of this unit when using bituminous coal as fuel. When using anthracite coal, this draft reading is a minimum reading.

As a wood burning unit, the Combo Coal & Wood Stove is EPA Exempt. per Method 28.

When the unit is burned, the products of combustion combined with moisture to form soot residue. This residue accumulates on the flue lining. When ignited, this soot creates an extremely hot fire. Your chimney and chimney connector should be inspected once every two months. Any build-up of soot should be removed to prevent the risk of a chimney fire.

OPERATION FOR BURNING WOOD FUEL

CAUTION: For safe and proper operation according to the United States Environmental Protection Agency regulations for wood stoves, you must use the proper air slide adjuster plate with the proper fuel you intend to burn.



TO START A FIRE USING WOOD FUEL.

NOTE: The manufacturer recommends that for maximum performance, burn natural seasoned hard wood.

1. Open air draft by loosening the AIR SLIDE ADJUSTER PLATE KNOB on ash door to the “Open” position. (SEE PAGE 24)
2. Open feed door and place up to six (6) sheets of crumpled newspaper on top of shaker grates.
3. Place a layer of kindling wood or charcoal on top of newspaper. Allow air space between the pieces of wood or charcoal.

NOTE: Never use gasoline, gasoline type lantern fuel, kerosene, charcoal lighter fluid, or any similar flammable liquid in your stove to start or “freshen up the fire.” Keep all such materials away from the stove during use.

4. Light paper and close fuel door.
5. **Wood:** After Lighting kindling and embers and a coal bed have been established, load the heater with wood.
6. Repeat this process until the firebox is filled. NEVER fill box over top of fire brick .
7. Reduce the air control on ash door to your desired comfort zone.

Never leave the feed door of the stove open longer than necessary when refueling. This will prevent noxious gases escaping from the stove.

AIR INTAKE SETTING

Draft controls on ash door should be open less than halfway for most efficient operation of the stove. The fully “OPEN” position should only be used when starting a fire or short periods of time after adding more fuel.

Never leave the ash door open for longer than necessary to remove the ash pan or to replace it.

NOTE: “THE FUELING AND ASH REMOVAL DOORS MUST REMAIN CLOSED WHEN IN OPERATION.”

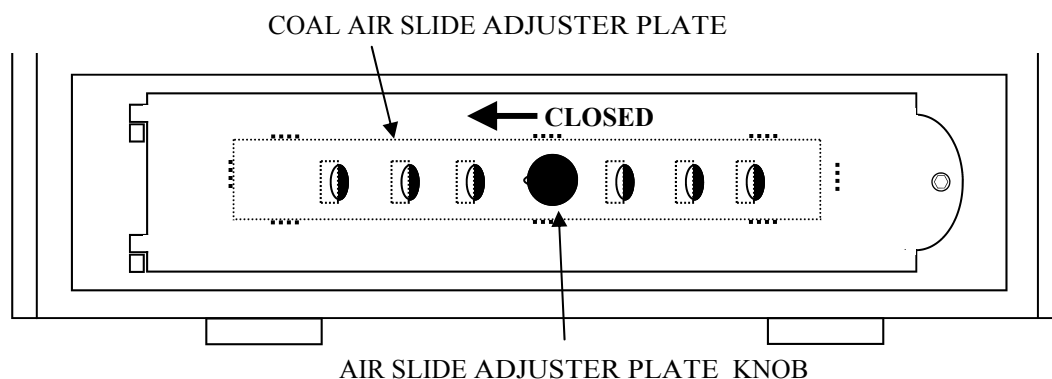
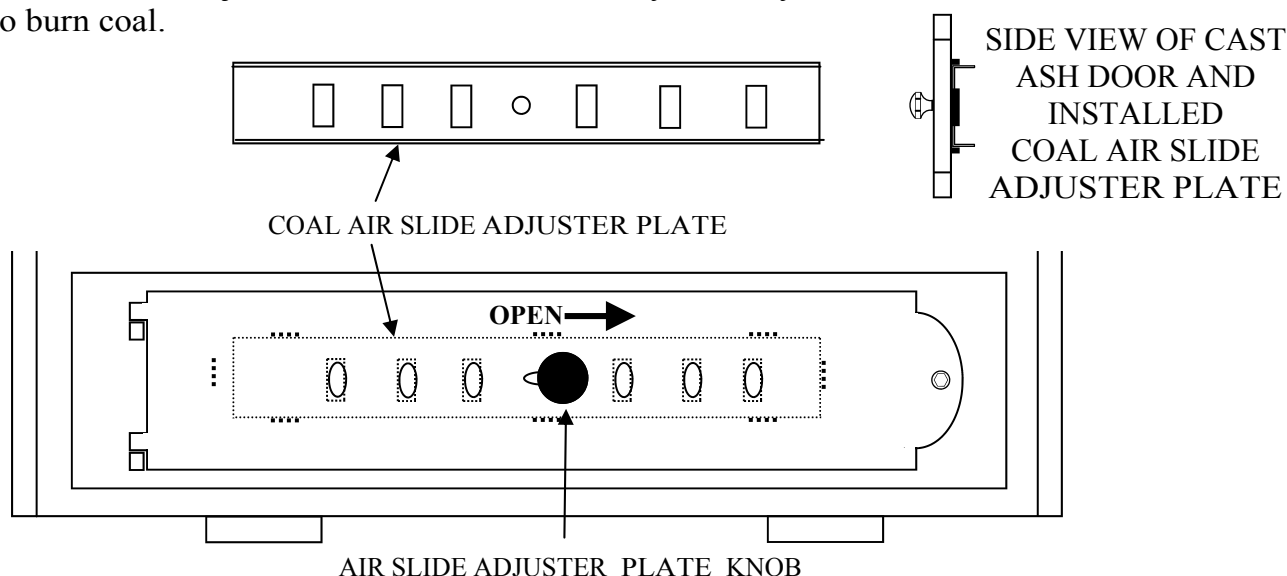
OPERATION FOR BURNING COAL FUEL

CAUTION: For safe and proper operation according to the United States Government Protection Agency regulations for coal stoves, you must use the proper air slide adjuster plate with the proper fuel you intend to burn.

The Combo Coal & Wood Stove Comes with WOOD AIR SLIDE ADJUSTER PLATE installed. You must change the WOOD AIR SLIDE ADJUSTER PLATE inside of the front cast ash door to use the Combo Coal & Wood Stove unit for burning coal.

CHANGING WOOD AIR SLIDE ADJUSTER PLATE TO COAL AIR SLIDE ADJUSTER PLATE

1. Find the coal air slide adjuster plate package inside the fire box and remove. Open contents. (SEE BELOW)
2. Open the front cast ash door and remove the wood air slider adjuster plate from inside of door, by unscrewing the air slide adjuster knob. (SEE BELOW). Note there is NO NOTCH in the coal air slide adjuster plate. Place the coal air slide adjuster plate in place of the wood slide adjuster plate and replace air slide adjuster knob. You are now ready to safely use the Combo Coal & Wood Stove to burn coal.



TO START A FIRE USING COAL FUEL

The Combo Coal & Wood Stove is designed to burn a variety of coals. Because of its high carbon content and smokeless combustion, Bituminous or Anthracite (hard) coal is the preferred fuel. The best size coal for this unit is chestnut size. We recommend storage of coal in a dry cool place away from flames.

1. Open air draft by loosening the AIR SLIDE ADJUSTER PLATE KNOB on ash door to the “Open” position. (SEE PAGE 26)
2. Open feed door and place up to six (6) sheets of crumbled newspaper on top of shaker grates.
3. Place a layer of kindling wood or charcoal on top of newspaper. Allow air space between the pieces of wood or charcoal.

NOTE: Never use gasoline, gasoline type lantern fuel, kerosene, charcoal lighter fluid, or any similar flammable liquid in your stove to start or “freshen up the fire.” Keep all such materials away from the stove during use.

4. Light paper and close fuel door.
5. **Coal:** After Lighting kindling and embers and a coal bed have been established, load the heater with wood.
6. Repeat this process until the firebox is filled. NEVER fill box over top of fire brick.
7. Reduce the air control on ash door to your desired comfort zone.

Never leave the feed door of the stove open longer than necessary when refueling. This will prevent noxious gases escaping from the stove.

AIR INTAKE SETTING

Draft controls on ash door should be open less than halfway for most efficient operation of the stove. The fully “OPEN” position should only be used when starting a fire or short periods of time after adding more fuel.

Never leave the ash door open for longer than necessary to remove the ash pan or to replace it.

NOTE: “THE FUELING AND ASH REMOVAL DOORS MUST REMAIN CLOSED WHEN IN OPERATION.”

2. SHAKER, FEED DOOR AND ASH DUMP DOOR HANDLE.

1. To use for **Shaker Handle**, open cabinet door insert shaker handle into opening of tube at the bottom middle inside of unit, move back and forth. (See Figure 21)
2. To use for **Feed Handle**, open cabinet door insert end of handle into door handle bolt of the feed door, and turn clock wise to open, counter clockwise to close. (See Figure 21)
3. To use for **Ash Dump Handle**, insert end of handle into door handle bolt at front bottom of Unit, right side of ash dump door, and turn counter clockwise to open, clock wise to close. (See Figure 22)

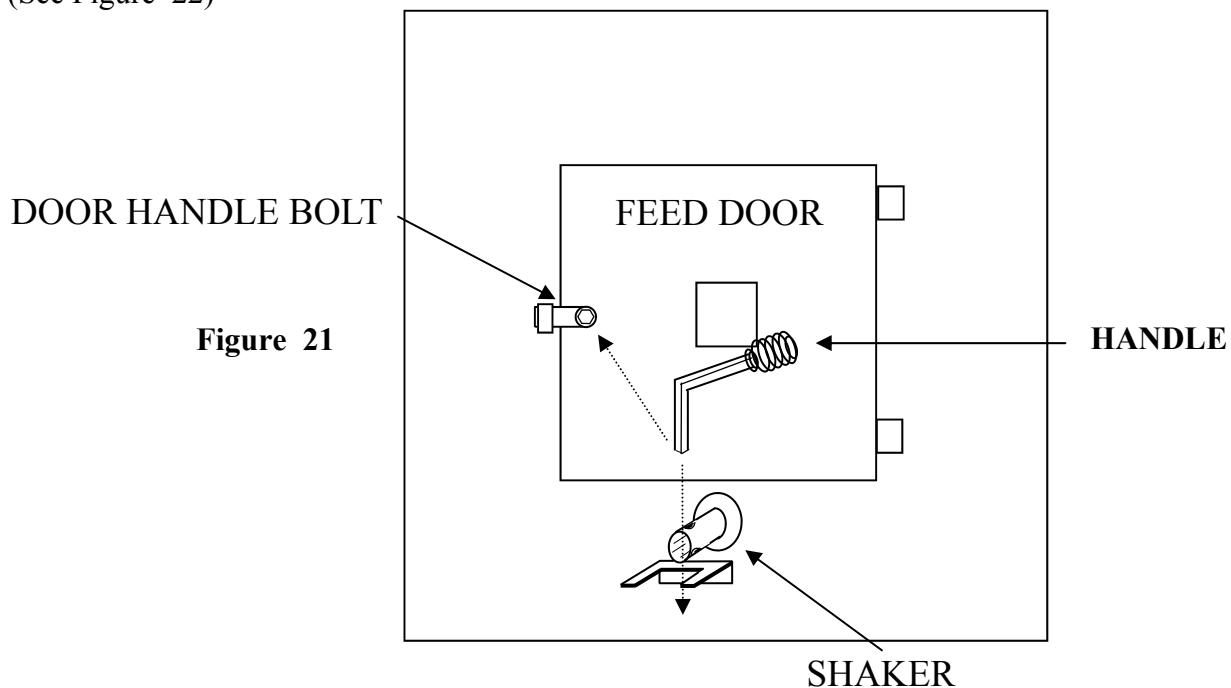
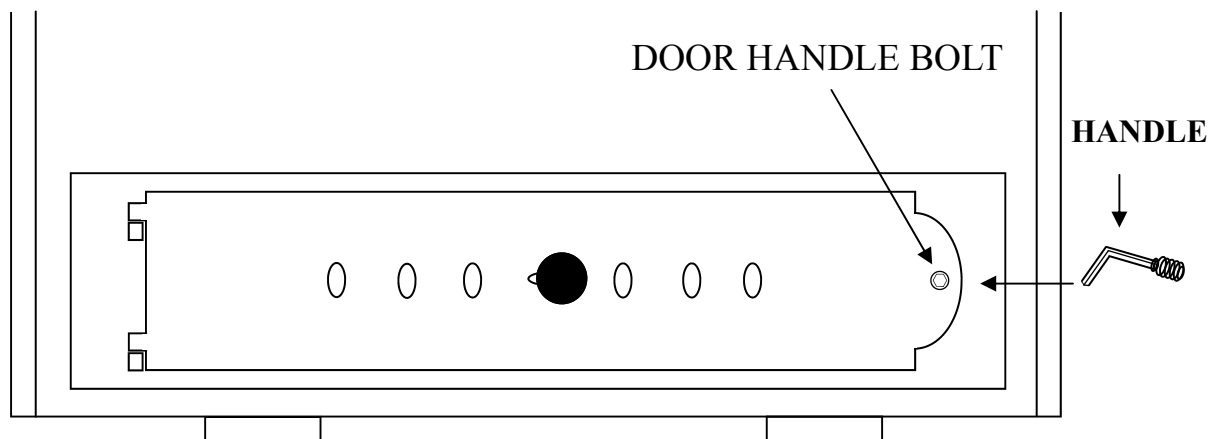


Figure 22



NOTE: Combo Coal Stove is painted with a specially formulated high temperature paint that cures during the first two or three firings. You may notice a slight smoking effect and an odor of burning paint when building the first fires. This is normal . Do not be alarmed. In some cases, these fumes will activate a smoke alarm. Slightly open a window to allow fumes to escape.

**DO NOT BUILD A LARGE FIRE UNTIL THIS CURING IS COMPLETE.
THIS WILL CAUSE HEATER FINISH TO BE DAMAGED.**

MAINTAINING A FIRE

After a fire has been started in your Combo Coal & Wood Stove, it is possible to keep it burning for long periods of time. Simply use a minimum draft setting. Normally, you should remove the ashes and refuel twice a day. As the ash builds up, it is necessary to periodically remove it to make room for more fuel and to allow an unrestricted flow of air through the fuel bed. After removing the ashes, replenish the coal.

ASH REMOVAL (SHAKING)

Insert shaker handle rod through the tube which protrudes from the side of the stove through the restraint channel. Move the handle up and down, keeping the end in the restraint channel to prevent moving the grate system too far and accidentally dumping the fire. Ash will fall into the ash pan underneath the grates. Keep a 1-1/2" layer of ash on top to the grates. It is best to remove and empty the ash pan each time you "shake".

Through extensive ash removal, a piece of unburned coal may lodge between two grates and prevent movement. If this occurs, do not try to force the handle. Damage to the grates may result. Lift the handle clear of the restraint channel and gently jiggle it loose. If this does not work, allow the stove to burn normally for an hour or two and the unburned coal will burn itself out.

If you still have no success, lift the handle clear of the restraint channel and move the handle up and down, dumping a portion of the ash and fire into the ash pan. Use this procedure if you want to empty all of the ash and coal from the unit.

ASH DISPOSAL

1. Place ashes in a metal container with a tight fitting lid.
2. Place the closed container in a non-combustible area.
3. Retain ashes in closed container until all cinders have thoroughly cooled before final disposal.

OVERFIRING

Do not overfire. Flammable liquids, wood or trash in the stove may cause overfiring. If the chimney connector or stove glows red, the stove is overfired. If this occurs, close stove damper and door. This will reduce air supply to the fire.

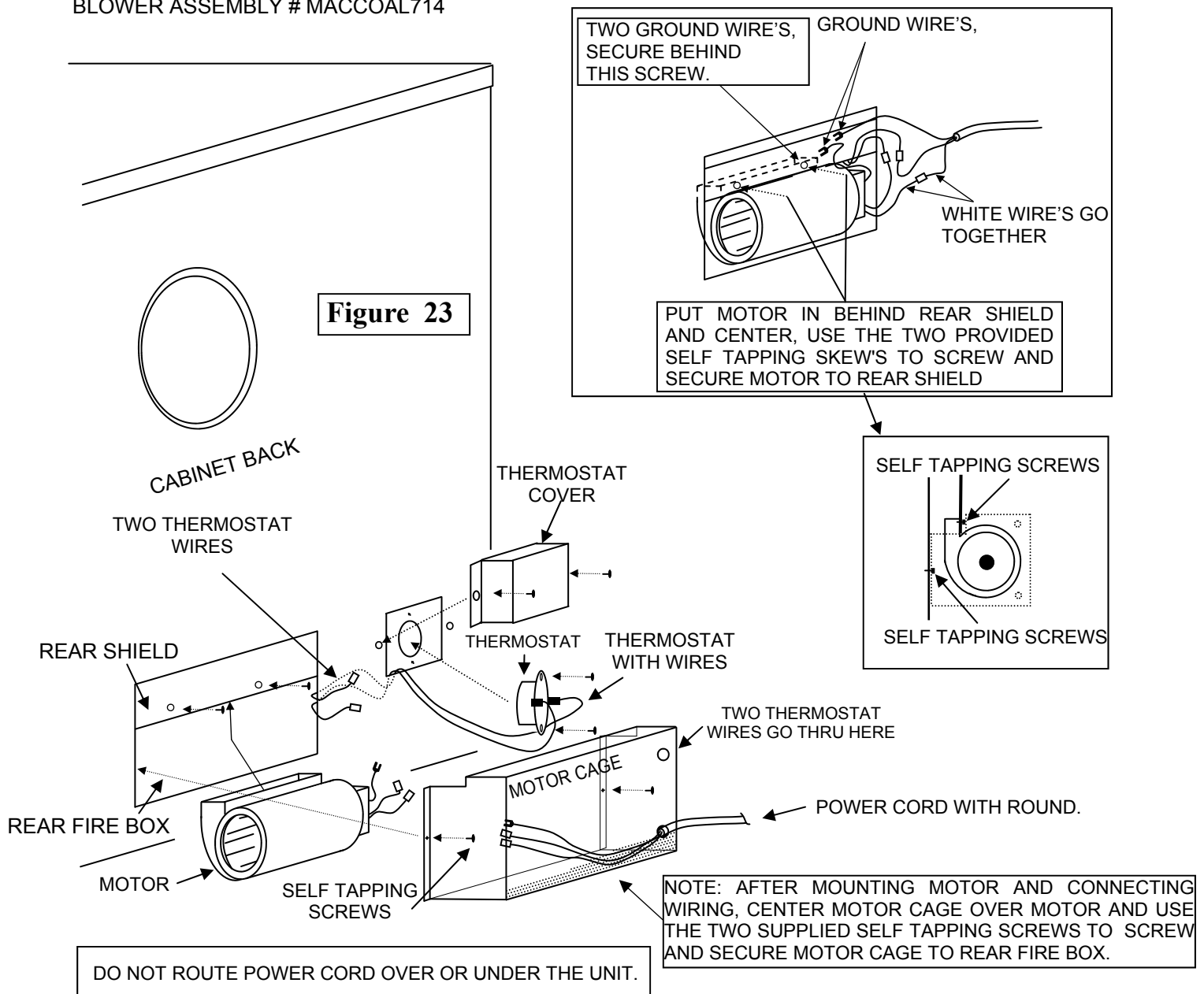
A chimney fire may cause structural damage to the chimney. Do not use the stove until the chimney and chimney connector have been thoroughly inspected and damaged parts have been replaced. A chimney sweep can perform the inspection.

ASSEMBLY BLOWER MOTOR (OPTIONAL)

Blower assembly must be disconnected from the source of electrical supply before attempting the installation, blower assembly is attended for use only with Combo Coal Stove.

- To attach optional blower motor to the rear of the unit ,place motor in blower opening at bottom rear shield, using the two self tapping screw's provided, screw, and secure to rear shield. (See Figure 23)
- Remove thermostat cover. Take thermostat with wires and slide wires down between Cabinet Back and Rear Shield out thru blower opening. Screw thermostat to rear shield with provided screws, and replace thermostat cover. (See Figure 23)
- Take the wires coming out of the blower opening and put them thru the upper hole in the motor cage. Attach the two ground wires underneath right motor screw. Connect the white wire from power cord to the white wire on the motor. Connect black wire from the power cord to a thermostat wire. Connect black motor wire to the other thermostat wire. Do not route power cord over or under the unit. (See Figure 23)
- Center Motor Cage over motor and use the supplied self tapping screws to screw and secure motor to rear shield. (See Figure 23) Do not route power cord over or under the unit.

BLOWER ASSEMBLY # MACCOAL714



NEW BUCK CORPORATION (NBC) LIMITED WARRANTY COMBO COAL & WOOD STOVE

PLEASE READ THIS WARRANTY CAREFULLY

PRODUCTS COVERED

This warranty covers the New Buck Stove heating unit, so long as it is owned by the original purchaser, including optional and standard accessories purchased at the same time, subject to terms, limitations, and conditions herein set out.

PRODUCTS NOT COVERED

Glass, refractory material such as refractory cement or firebrick, and gaskets.

This warranty will also not cover any damage and/or failure caused by abuse or improper installation of the products covered.

WARRANTY TIME PERIODS

(A) Period 1

For one year from the date of purchase, NBC will replace or repair, at its option, any part defective in materials or workmanship. The cost of parts only are included. The customer pays any labor or transportation charges required.

THEREAFTER;

(B) Period 2

For the period after the first year from the date of purchase and extending for 5 years as long as the Combo Coal & Wood Stove is owned by the original purchaser, NBC will repair or replace, at its option, any part defective in materials or workmanship, with the exception of : electrical motors, wiring, switches, and components; optional and standard accessories; and all parts not permanently attached to the heating units. Parts not permanently attached to the heating unit are defined as those items designed to be removed from the stove, including those removable with common hand tools. The costs of parts only are included. This customer pays any labor or transportation charges required.

PROCEDURE

Should you feel that your Combo Coal & Wood Stove is defective, you should contact any Combo Coal & Wood Stove dealer for the name of your nearest authorized Combo Coal & Wood Stove service representative, who will instruct you on the proper procedure, depending on which Warranty Time Period (Period 1 or Period 2) applies. If for any reason you are dissatisfied with the suggested procedures, you may contact us in writing at:

**New Buck Corporation
P. O. Box 69
Spruce Pine, NC 28777**

CONDITIONS AND EXCLUSIONS

- (A) Replacement of parts may be in the form of new or fully reconditioned parts, at NBC's option.
- (B) There is no other express warranty. All implied warranties or merchantability and fitness for use are limited to the duration of the Express Warranty.
- (C) New Buck Corporation is not liable for indirect, incidental, or consequential damages in connection with the use of the product including any cost or expense of providing substitute equipment or service during periods of malfunction or non-use. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.
- (D) All warranty repairs under this warranty must be performed by an authorized Combo Coal & Wood Stove service representative. Repairs or attempted repairs by anyone other than an authorized Combo Coal & Wood Stove service representative are not covered under this warranty. In addition, these unauthorized repairs may result in additional malfunctions, which is not covered by the warranty.

OTHER RIGHTS

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

OWNER REGISTRATION CARD

The attached owner registration card must be completed in its entirety and mailed within 30 days from the date of installation in order for warranty coverage to begin to:

New Buck Corporation
P. O. Box 69
200 Ethan Allen Drive
Spruce Pine, NC 28777

PLEASE NOTE: The Owner Registration Card must contain the Authorized Combo Coal & Wood Stove Dealer Number and the Certified Installer's number (if applicable) for warranty coverage to begin.

Warranty Card Not Available On Replacement Or Online Manuals