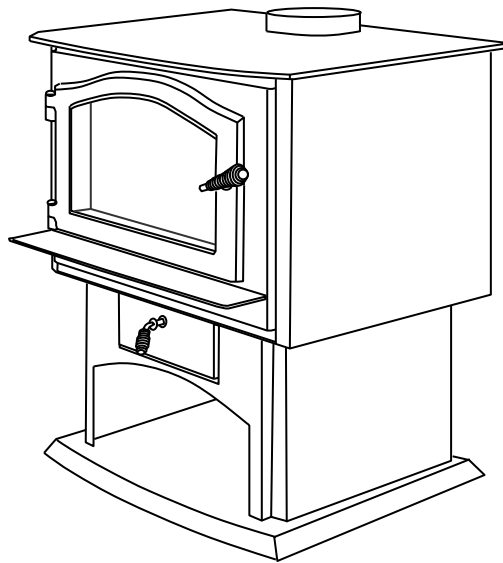




KUMA STOVES

50145 N Old Hwy 95
Rathdrum ID 83858



MODEL# K-ASH: Ashwood

Tested to: UL 1482-1996

Test Report #: 123-S-08-2

Tested and listed by Omni Test Laboratories

INSTALLATION AND OPERATING INSTRUCTIONS

SAVE THESE INSTRUCTIONS

Welcome to the Kuma family.

Kuma is a modified version of the Greek word Kauma which means “a great heat”.

We would like to take the time to say thank you for purchasing a Kuma stove. If this is your first Kuma stove, you have joined a long list of family members, some since 1981. We are a family business that still desires to maintain a good relationship with each and every one of our customers. Our mission is to provide you with a quality product that will last a lifetime. If you ever have a problem with your stove, we will do what is needed to get it resolved and keep you warm.

You may have noticed a portion of the Bible enclosed in your owner’s packet. It is a small gift for you. Our faith in Jesus Christ is very important to us and we have that faith because salvation and hope are found through Him. Hope comes from the message of Truth that is found in this New Testament.

Thank you for allowing us the opportunity to warm your home. May God bless you, and we anticipate that you will enjoy the use of your new Kuma wood stove.

Sincerely,

The Freeman Family



This manual describes the installation and operation of the Kuma Model **Ashwood** Non-catalytic wood heater. This heater meets the 2015 U.S. Environmental Protection Agency's crib wood emission limits for wood heaters sold after May 15, 2015. Under specific test conditions (Canadian Method B-415) this heater has been shown to deliver heat at rates ranging from 11,400 to 28,100 Btu/hr. and an efficiency of 73.1% (High Heating Value).


Please read the safety precautions and the entire installation and operation instructions carefully. Failure to properly install and maintain your wood stove can result in an unsafe condition. Consult your local building department for permit and installation requirements.

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Section 1.....	Safety Precautions
Section 2.....	Free-standing Installation Instructions
Section 3.1	Masonry Fireplace Installation Instructions
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Section 4.....	Wood Burning Operation Instructions
Section 5.....	Maintenance
Section 6.....	Installation Clearances and Diagrams
Section 7.....	Troubleshooting
Section 8.....	Replacement Parts List
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Sample listing tag (Attached to stove back plate)

 Tested & Listed By OMNI-Test Laboratories, Inc.	Portland Oregon USA	MANUFACTURED BY: KUMA STOVES INC 50145 N OLD HWY 95 RATHDRUM ID 83858		MODEL NAME: ASHWOOD	Serial Number
Standards Tested To: UL 1482-1996, Test Report #: 123-S-08-2					



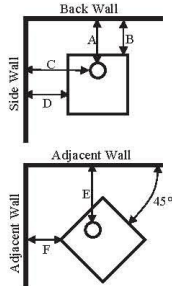
CAUTION: HOT WHILE IN OPERATION - DO NOT TOUCH - KEEP CHILDREN AND CLOTHING AWAY - CONTACT MAY CAUSE SKIN BURNS. SEE NAMEPLATE AND INSTRUCTIONS. KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIALS A CONSIDERABLE DISTANCE FROM THE APPLIANCE. DO NOT OVERFIRE - IF HEATER OR CHIMNEY CONNECTOR GLOWS, YOU ARE OVERFIRING. INSPECT AND CLEAN CHIMNEY FREQUENTLY - UNDER CERTAIN CONDITIONS OF USE, CREOSOTE BUILDUP MAY OCCUR RAPIDLY. DO NOT PASS CONNECTOR PIPE THROUGH COMBUSTIBLE WALLS OR CEILINGS. DO NOT OBSTRUCT BENEATH THE HEATER.

INSTALL AND USE ONLY IN ACCORDANCE WITH KUMA STOVES' INSTALLATION AND OPERATION INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA. REFER TO INSTALLATION INSTRUCTIONS FOR PRECAUTIONS REQUIRED FOR PASSING A CHIMNEY THROUGH A COMBUSTIBLE WALL OR CEILING.

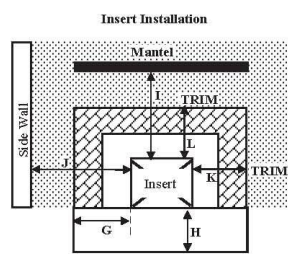
ROOM HEATER, SOLID FUEL TYPE, ALSO FOR USE IN MOBILE HOMES. FOR USE WITH SOLID FUEL ONLY. USE ONLY SEASONED CORDWOOD. DO NOT CONNECT THIS UNIT TO A FLUE SERVICING ANOTHER APPLIANCE. DO NOT USE GRATE OR ELEVATE FIRE - BUILD WOOD FIRE DIRECTLY ON FIREBRICK. REPLACE GLASS ONLY WITH 5mm CERAMIC. ATTACH LEGS OR PEDESTAL USING INSTALLATION INSTRUCTIONS. BLOWER ELECTRICAL RATING: 115 VOLT, 18 WATT, 60 HERTZ. DO NOT ROUTE POWER CORD BENEATH HEATER.

USE ONLY LISTED CHIMNEY SYSTEMS THAT ARE 6" DIAMETER U.L. 103 TYPE HT, ALL FUEL, OR SOLID FUEL. MASONRY CHIMNEY SHOULD BE LISTED TO UL 1777. ONLY INSTALL INSERT INTO MASONRY OR UL127 FACTORY BUILT FIREPLACE. INSERT INSTALLATION MUST USE LISTED STAINLESS STEEL LINER. USE ONLY 24 MSG BLACK OR 25 MSG BLUED STEEL SINGLE WALL CONNECTOR FOR STANDARD CLEARANCE. USE ONLY LISTED DOUBLE WALL CONNECTOR FOR REDUCED CLEARANCE AND MOBILE HOMES. SEE DIAGRAMS FOR STANDARD AND REDUCED CLEARANCE DIMENSIONS. USE ONLY U.L. 1618 TYPE 1 (EMBER PROTECTION) OR TYPE 2 (R-VALUE 1.0) HEARTH PAD OR EQUIVALENT. SEE DIAGRAM FOR HEARTH DIMENSIONS.

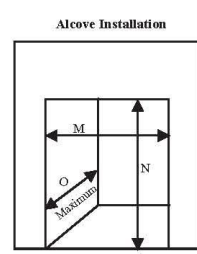
Installation	Clearance	Connector	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Residential	Standard	Single Wall	19"	17"	23.5"	13"	19"	9"	6"	16"	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Residential or Mobile home	Reduced	Double Wall	12"	10"	20.5"	10"	13"	3"	6"	16"	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Insert	Standard	UL 1777 Liner	N/A	N/A	N/A	N/A	N/A	N/A	6"	16"	19.5"	10"	10"	19.5"	N/A	N/A	N/A
Alcove	Reduced	Double Wall	12"	10"	20.5"	10"	N/A	N/A	6"	16"	N/A	N/A	N/A	N/A	47"	84"	36" MAX



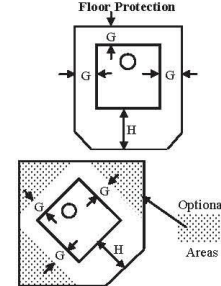
Back Wall
Side Wall
Adjacent Wall
Adjacent Wall
45°



Insert Installation
Mantel
TRIM
Insert
TRIM



Alcove Installation
Maximum



Floor Protection
Optional Areas

☐ JAN ☐ FEB ☐ MAR ☐ APR ☐ MAY ☐ JUN ☐ JUL ☐ AUG ☐ SEP ☐ OCT ☐ NOV ☐ DEC

2015 2016 2017 2018

U.S. ENVIRONMENTAL PROTECTION AGENCY: Certified to comply with 2015 particulate emission standards. Not approved for sale after May 15, 2020. 3.3 Grams per hour. Tested to EPA method 5G-1 and EPA method 28. Complies with May 15, 2015 crib wood standards.

This wood heater needs periodic inspection and repair for proper operation. Consult the owner's manual for further information. It is against federal regulations to operate this wood heater in a manner inconsistent with the operating instructions in the owner's manual.

DO NOT REMOVE THIS LABEL

KUMA STOVES
15-24215

Section **1** – Safety Precautions

Install and use in accordance with the manufacturers installation and operation instructions contained in this manual only.

1. If this stove is not properly installed, a house fire can occur. For your protection, follow the installation instructions provided. We recommend contacting local building or fire officials regarding restrictions and installation inspection requirements in your area. **We also recommend that your Kuma stove be installed by a properly trained and licensed installer, preferably an NFI (National Fireplace Institute) expert.**
2. **DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE.**
3. **Do not burn garbage or flammable fluids such as gasoline, naphtha or engine oil.** Do not use charcoal lighter fluid or similar liquids to start or “freshen up” a fire in this heater. Keep all such fluids well away from the heater while in use. Storing these fluids near a stove could cause a fire.
4. **DO NOT CONNECT TO ANY AIR DISTRIBUTION OR DUCT SYSTEM.**
5. **DO NOT OVERFIRE.** If any part of the stove or chimney glows, the stove is in an over fire condition. If this happens, shut the air control off immediately. Over firing can cause damage.
6. **WARNING: DO NOT INSTALL IN A SLEEPING ROOM.**
7. **An improperly drafting stove can cause smoke and carbon monoxide to enter the home. Smoke detectors and carbon monoxide monitors are recommended to be installed in the same room as this heater.**
8. **CAUTION:** THE STRUCTURAL INTEGRITY OF THE FLOOR, WALLS, AND ROOF/CEILING MUST BE MAINTAINED.
9. **DO NOT USE SINGLE WALL PIPE FOR ANY CHIMNEY APPLICATION, EXTERIOR OR THROUGH THE WALL OR CEILING.** Single wall pipe may only be used as a connection between the stove and an approved masonry or stainless steel chimney. **Single wall pipe may not be used as a connector in mobile homes.**
10. When installing into an existing masonry or metal chimney, examine the chimney system carefully. If you have any questions, seek professional advice. We recommend having existing chimneys cleaned and inspected by a qualified professional prior to the installation of your new stove.
11. **NOTE ALL MINIMUM CLEARANCE REQUIREMENTS TO COMBUSTIBLES.** Installation must comply with minimum clearances as listed in this manual. (see section 6) **Clearances may only be reduces by means approved by the regulatory authority.**
12. Do not operate this stove with the door in an open position, except for cracking open during start-up. Continued operation with the door open can cause overheating of the unit, and expose embers to nearby combustibles.
13. **Do not operate this stove with the ash pan open. Regularly check seal and replace as needed**
14. **Do not operate with broken glass. Do not abuse glass such as striking or slamming the door.**
15. This stove must be connected to a minimum 6” diameter listed chimney that complies with U.L. type 103HT factory built chimney or a code approved masonry chimney. If the masonry chimney does not meet code, a U.L. 1777 approved liner must be installed.
16. When connecting single wall or double wall connector pipe to the stove and chimney, use 3 screws per pipe joint including 3 screws securing the pipe to the stove. Depending on the type of double wall pipe you are using, it may also be necessary to fasten it at the chimney. Simpson Duravent’s DVL double wall uses a snap lock connector and does not need screws.
17. Use only approved components for Chimney and Connector. Field fabricated or “makeshift” components are not allowed and can cause a fire.
18. **DO NOT USE THIS STOVE WITHOUT INSTALLING THE BAFFLE BOARDS AND CERAMIC INSULATION PACKAGED WITH YOUR STOVE.**
19. When connecting this stove to a masonry chimney, make sure you observe all applicable clearances including walls, ceilings and other combustible material. A masonry chimney must be minimum 6” diameter and constructed with a liner according to NFPA code 211. If you have any questions about the condition or the code compliance of your masonry chimney, please speak with a qualified professional.

- ## Excerpt from NFPA 211

Clearance
(in.)/(mm)

12/305

System

A Minimum 3.5 in. (90 mm) thick brick masonry wall framed into combustible wall with a minimum of 12-in. (305-mm) brick separation from clay liner to combustibles. Fireclay liner (ASTM C 315, *Standard Specification for Clay Fire Linings*, or equivalent), minimum 5/8-in. (16-mm) wall thickness, shall run from outer surface of brick wall to, but not beyond, the inner surface of chimney flue liner and shall be firmly cemented in place.

9/229

B Solid-insulated, listed factory-built chimney length of the same inside diameter as the chimney connector and having 1 in. (25.4 mm) or more of insulation with a minimum 9-in. (229-mm) air space between the outer wall of the chimney length and combustibles.

The inner end of the chimney length shall be flush with the inside of the masonry chimney flue and shall be sealed to the flue and to the brick masonry penetration with non-water-soluble refractory cement. Supports shall be securely fastened to wall surfaces on all sides.

Fasteners between supports and the chimney length shall not penetrate the chimney liner.

C Sheet steel chimney connector, minimum 24 gauge [0.024 in. (0.61 mm)] in thickness, with a ventilated thimble, minimum 24 gauge [0.024 in. (0.61 mm)] in thickness, having two 1-in. (25.4-mm) air channels, separated from combustibles by a minimum of 6 in. (152 mm) of glass fiber insulation. Opening shall be covered, and thimble supported with a sheet steel support, minimum 24 gauge [0.024 in. (0.61 mm)] in thickness.

Supports shall be securely fastened to wall surfaces on all sides and shall be sized to fit and hold chimney section. Fasteners used to secure chimney section shall not penetrate chimney flue liner.

2/51

D Solid-insulated, listed factory-built chimney length with an inside diameter 2 in. (51 mm) larger than the chimney connector and having 1 in. (25 mm) or more of insulation, serving as a pass-through for a single wall sheet steel chimney connector of minimum 24 gauge [0.024 in. (0.61 mm)] thickness, with a minimum 2-in. (51-mm) air space between the outer wall of chimney section and combustibles.

Minimum length of chimney section shall be 12 in. (305 mm). Chimney section concentric with and spaced 1 in. (25.4 mm) away from connector by means of sheet steel support plates on both ends of chimney section. Opening shall be covered, and chimney section supported on both sides with sheet steel supports of minimum 24 gauge [0.024 in. (0.61 mm)] thickness.

Supports shall be securely fastened to wall surfaces on all sides and shall be sized to fit and hold chimney section. Fasteners used to secure chimney section shall not penetrate chimney flue liner.

Minimum chimney clearance to brick and combustibles 2 in. (51 mm)

Masonry chimney constructed to NFPA 211

Minimum chimney clearance from masonry to sheet steel supports and combustibles 2 in. (51 mm)

Minimum chimney clearance to sheet steel supports and combustibles 2 in. (51 mm)

Two ventilated air channels, each 1 in. (25.4 mm). Construction of sheet steel.

Masonry chimney constructed to NFPA 211

Minimum chimney clearance to sheet steel supports and combustibles 2 in. (51 mm)

Masonry chimney constructed to NFPA 211

1. Insulation material used as part of wall pass-through system shall be of noncombustible material and shall have a thermal conductivity of 1.0 Btu-in./hr-ft²-°F (4.88 kg-cal/hr-m²-°C) or less.
2. All clearances and thicknesses are minimums; larger clearances and thicknesses shall be permitted.
3. Any material used to close up an opening for the connector shall be of noncombustible material.
4. A connector to a masonry chimney, except for System B, shall extend in one continuous piece through the wall pass-through system and the chimney wall to the inner face of the flue liner, but not beyond.

Section 2 –Free Standing Installation Instructions

INSTALL AND USE IN ACCORDANCE WITH THE MANUFACTURER’S INSTALLATION AND OPERATING INSTRUCTIONS ONLY. WHILE MOST ANYONE WITH BASIC CARPENTRY SKILLS CAN SUCCESSFULLY AND SAFELY INSTALL THEIR KUMA WOOD STOVE, IT IS HIGHLY RECOMMENDED THAT IT IS INSTALLED BY A QUALIFIED PROFESSIONAL WHO IS PROPERLY TRAINED AND LICENSED—PREFERABLY AN NFI CERTIFIED (NATIONAL FIREPLACE INSTITUTE) EXPERT.

CAUTION: The structural integrity of the floor, walls and ceiling/roof must be maintained. Use additional bracing if required. Never cut a load bearing wall or engineered truss. Use elbows if necessary to offset the pipe.

CAUTION: NEVER INSTALL A STOVE IN A SLEEPING ROOM.

Stove Components: (each component has installation instructions included. See sec. 8 for a complete list of accessories)

1. Stove body (K ASH)
2. Pedestal or leg kit (KA PK 1, KA LG SB, etc.)
3. Door Kit (KA DR 2B, KA DR 2G, etc.)
4. Ashpan Assembly (KA AP 1)
5. Outside air kit (KA OA 1)
6. Optional Blower (KA BL 2)
7. Fireplace surround kit (KA FS 1P)

STEP 1: DETERMINING THE STOVE LOCATION:

When choosing a stove location there are a few things that should be considered.

1. Try to choose a location that is centrally located in the house.
2. Try to choose a location that will be easy to access from your wood storage area.
3. Survey the roof area above and around the location of the chimney exit. Be sure there are no dormers, roof valleys or any other roof irregularities that could cause difficulty when trying to set and seal the roof flashing.
4. If possible, survey the attic area above and around the location of the chimney. Be sure there are no major obstructions such as plumbing, heating ducts, electrical wires, phone cables, etc. Also check the crawl space below and around the stove location for the same obstructions.

STEP 2: INSTALLING THE CHIMNEY.

Use only 6” Class A solid fuel chimney that has been U.L. Safety tested for wood stoves (type 103 HT)

IMPORTANT: These instructions are a very basic guideline for the steps to installing your chimney. For complete, step by step instructions, refer to the installation manual that came with your chimney. Chimney installation instructions are usually located in the box with the chimney cap or chimney support components. If you have any questions about the installation of your chimney, please contact the dealer where you purchased your stove.

CAUTION: Use only pre-fabricated, listed chimney and connector components. Field fabricated components and/or “makeshift” compromises could result in a chimney or house fire.

CAUTION: Inspect all chimney components for damage. Do not use any damaged chimney components.

1. Familiarize yourself with the clearances of the stove for the configuration in which you have chosen to install, i.e. corner installation or straight wall installation (see section 6). Notice the clearances listed for the chimney, this will help you determine the location of the hole in the ceiling. Note: On metal roofs in snow regions, consideration must be given to snow loads above the chimney that can slide in to chimney and severely damage it. Please consider snow breaks or snow dividers to prevent damage.
2. Once you've determined the stove location based on the applicable clearances and connector type (see section 6), be sure to check attic and roof for any obstructions. Install the chimney system according to the step by step illustrated instructions that came with your chimney.
3. Special care needs to be exercised when passing the chimney through an attic space. An attic insulation shield must be used in all chimney installations to ensure that no insulation can contact the chimney pipe. If there is little or no attic space, or if you have a vaulted ceiling, use a tall square cathedral ceiling support box to pass all the way through to the roof line to provide the shielding.
4. Stability: If necessary, install a roof brace kit on the chimney to stabilize the chimney against wind, etc. Generally, roof bracing is required if the chimney extends more than five feet above the chimney exit point.
5. See illustrations in section 6, page 18, for all components required for factory-built chimneys, as well as parts required to connect to an approved masonry chimney.
6. Chimney Height. Page 18 shows the minimum chimney height in relation to the roof. With low pitch roofs or little attic space, the chimney can be too short. For proper draft and best performance, a minimum overall height of connector pipe plus chimney combined should be at least 12 feet tall, measured from the stove top to the chimney cap. If necessary, add chimney.

STEP 3: OUTSIDE AIR

Outside Air – Outside air is required in all manufactured home installations.

1. **Kuma Stoves does not particularly require that outside air be directly connected to this stove** however, some state or local building codes may mandate outside air. If your state or local building code requires an outside air supply use part# KA OA 1. If you are unable to supply a direct connection to the stove, we suggest the following:
 - a. Provide a passive air supply to the home. The air vent should be a minimum of 4" in diameter.
 - b. The air supply must be provided to the same room that the stove is installed in.
 - c. The air supply should utilize a barometric damper so that air is only supplied to the room if the house pressure becomes negative.

Visit www.woodheat.org for more information on the use of outside air.

2. **When building a hearth pad on site, be sure to leave an area open for the installation of the outside air vent.** Once the hearth is positioned according to the minimum clearances, locate and mark out the hole for the 4" outside air vent. On a pedestal model stove, this hole may be anywhere under the stove base. On a leg model stove, try and locate the hole to line up with the hole in the bottom of the stove. On a pre-manufactured hearth, use a hole saw or circular saw to cut through just the backing board then use a hammer and firmly hit the tile or stone on the top side. If the backing board was cut to the correct depth, the tile or stone will break out very clean. Also using a hole saw or circular saw cut the hole through the home floor into the crawl space. Be sure to line this hole up with the one in the hearth.
3. If you are installing your outside air vent through the wall, use a 4" hole saw or reciprocating saw to cut the hole through the wall. **BE SURE TO CHECK FOR OBSTRUCTIONS IN THE WALL.**

STEP 4: INSTALLING THE HEARTH

CAUTION: The Kuma Ashwood Stove can be configured as a Freestanding Stove or as a Fireplace Insert. Freestanding Stoves can be supported by either Legs or a Pedestal Base. Each configuration has different floor protection requirements. See the section below that pertains to your particular installation.

Minimum Requirements:

The minimum floor protection requirements for the Kuma Ashwood model are as follows:

Floor protection must consist of a continuous non-combustible material and extend a minimum of 16" in front of the loading door and 6" to both sides and the rear of the stove body.

Additional requirements for material thickness and thermal resistance are described below.

1. **Ashwood with Pedestal Base:** Installed as a freestanding stove on a pedestal base the Kuma Ashwood requires Ember Protection only. Ember Protection can take the recommended form of a manufactured Type-1 floor protector listed to UL-1618, or a non-combustible continuous material with a **MINIMUM** thickness of 3/8".
2. **Ashwood with Legs:** Installed as a freestanding stove on legs the Kuma Ashwood requires both continuous ember protection and Thermal Protection with a minimum R-Value of 0.60. Thermal Protection can take the recommended form of a manufactured Type-2 floor protector listed to UL-1618 with a tested R-Value higher than R = 0.60. Alternately a site built or existing hearth can be used provided they meet the minimum size and thermal resistance requirements. Never install this stove with legs on an existing hearth unless you can determine it provides a minimum thermal resistance of R = 0.60.
3. **Ashwood Insert:** The Ashwood can be installed as a fireplace insert in either a masonry fireplace in good condition or a factory-built fireplace which is approved for the installation of a fireplace insert. Minimum floor protection requirements are as follows:
 - a. Minimum 1" continuous non-combustible material under the insert and extending at least 17" in front of the insert face, and 8" to either side of the insert (that is 17" is measured from the face of the insert and not the ash lip). **This 1" thick material must have an R-Value of R = 1.2 or greater.**
 - b. An Ashwood insert which, when installed, extends out from the fireplace face, but does not rest on the hearth in front, **and** has at least 2" of airspace between the hearth and the bottom of the insert bottom, requires ember protection only (Type-1 UL Listed Hearth Protector or continuous non-combustible material.) This type of installation is more common in factory-built fireplaces.

MINIMUM Floor Protection size Requirements.

For Free Standing Stove.

	USA	
a	6"	
b	16"	

For Fireplace insert

	USA	
a	8"	
b	17"	

STEP 5: SETTING THE STOVE AND CONNECTING TO THE CHIMNEY

1. Assemble the stove (legs, pedestal, ash pan, and blower). **Follow the installation instructions that are included in each accessory box.** Once the stove is assembled set the stove gently on the hearth using cardboard to protect the hearth.
2. Position the stove on the hearth according to the clearances shown on the diagrams in section 6. Be sure that the stove is at least minimum clearance from all combustible walls and materials. If possible it is advisable to set the stove 1-2 inches further away from the combustibles than required.
3. Using approved single (min. 24 MSG Black or 26 MSG Blued)- or double-wall pipe, (single wall is not approved for a mobile home) connect the stove to the chimney. If necessary, use elbows to offset the pipe so that the stove can remain at the correct clearance and still connect to the chimney. Secure each pipe joint with three screws, using the screws provided with the pipe. Secure the pipe to stove flue collar with 3 screws.
4. If installing in a mobile home, drill a small hole through the hearth and route the 8 gauge copper wire into the crawl space. Use a grounding “connector” or “lug” to attach the ground wire to the stove and to the frame of the mobile home.
5. When required by local code, you will need to fasten the stove to the floor of the mobile home. (This applies to mobile homes only). To fasten a leg model, simply mark the location of the hole in the bottom of the legs, drill holes and bolt into the bottom of the leg from the crawl space. To fasten a pedestal model, holes will need to be drilled in the pedestal base. Once the holes are drilled in the base, mark the location on the floor and use bolts and nuts or lag screws to fasten.

Your stove is now ready for use. If your stove installation required a permit and requires inspection by the local building department please do not forget to call for an inspection. It is important that your permit and inspection be finalized, as some insurance companies will require the stove to be inspected. It is also a great idea to give your insurance a call and let them know that you have installed a wood stove.

PLEASE REFER TO SECTION 4-“*Wood Burning Operation Instructions*” as well as “*Before Operating*” checklist before lighting your first fire.

Section **3.1** –Masonry Fireplace installation

The Kuma model Ashwood is certified for installation into a fireplace with a masonry chimney that is manufactured in accordance with NFPA 211. A Safety listed 6" fireplace liner must be installed and directly connected to the appliance. The single-wall liner must extend 6.5' above the stovetop. For optimum performance and ease of cleaning, it is recommended that an approved chimney liner be installed all the way to the chimney top.

Check to make sure that the fireplace flue is in good usable condition. This is best determined by a licensed professional (certified chimney sweep or NFI certified technician).

Prior to installation:

1. Check for cracks, loose or damaged mortar joints, blockages, or extraordinary deterioration.
2. The chimney must have at least a 2" clearance to combustible inside and outside the house.
3. The chimney must have a 5/8" thick fireclay liner. If you have an older, unlined masonry chimney, then you must install an approved chimney liner system including a thermal wrap that will bring your existing chimney up to the requirements of U.L. 1777. Contact your dealer or a licensed chimney professional if you have any questions.
4. Check for any gap existing between the masonry fireplace construction and the fascia masonry. If there is a gap, seal with a high temperature masonry mortar.
5. If outside air is required by local building code then it should be connected to the back of the fireplace prior to installation.
 - a. The outside air vent cannot exceed in length, the vertical height of the exhaust flue
 - b. The outside air vent must be installed where it will remain free of snow, ice, or debris.
 - c. The outside air vent must not terminate close to exhaust vents.

Guidelines for installation:

1. Remove the 3 screws that affix the listing tag to the back of the stove. **Important: Leave the tag attached to the stove via the extendable lanyard.** Place the tag in a location that will be easily accessible by removing the surround panel (Suggested Locations: on the face of the fireplace behind the surround panel or on top of the stove behind the surround panel).
2. Secure the damper in the open position.
3. Install a 6" diameter listed stainless steel flue liner according to the manufacturer's instructions. The flue collar on the stove must be attached to the end of the liner for quick installation and removal:
 - a. Loosen the flue collar bolts and remove the collar from the stove.
 - b. Install the flue collar to the liner using 3 stainless steel sheet metal screws.
 - c. Slide the stove into place. (leveling bolts are supplied with the surround kit)
 - d. From inside the stove, reach through the flue collar, grab the flue collar and pull down to the stove, lining up the holes in the collar with the bolt holes in the stove.
 - e. Tighten the bolts securing the flue collar to the stove
 - f. Install the baffle board and ceramic blanket into the stove using the directions supplied with the baffle set.
4. Install the fireplace surround (KA FS 1P) using the instructions supplied with the kit.
SEE SECTION 6 FOR INSERT INSTALLATION CLEARANCES AND DIAGRAMS.

NOTE: *Consideration must be given to ensure an adequate supply of combustion air for your insert.*

**Make sure the convertible rear/bottom air cover is configured to expose the 4" hole at the stove back rather than the stove bottom.*

**If your fireplace is equipped with an outside air source, then simply make sure that vent is open. As with any vent open to the outside, make sure there is a rodent screen installed to prevent any unwanted intrusion.*

**If an outside air direct connection is desired, the parts included in the Kuma outside air kit (part # KA OA 1) will make this connection possible.*

**If room air is used, the small gaps that naturally occur between the surround kit and the face of the fireplace should be adequate for combustion air. Do not insulate behind the surround panel. If combustion appears lazy, try installing some small spacers at the surround panel*

edge so that it will stand off from the fireplace face ¼". It is up to you to make sure there is an adequate free air supply for optimum performance from your insert.

Section 3.2 – Factory Built Fireplace installation

The fireplace must not be altered, except for the exceptions listed below. A permanent metal warning label must be attached to the back of the fireplace, stating that the fireplace may have been altered to accommodate the insert, and must be returned to original condition for use as a conventional fireplace. The following modifications are permissible: removal of damper, removal of smoke shelf or baffle, removal of ember catches, removal of fire grates, removal of viewing screen/curtain, and removal of doors.

The factory built chimney must be listed per UL 127 (US), and meet type HT requirements of UL 103 (US). Factory built fireplace chimneys tested to UL 127-1998, may be at the fireplace manufacturer's option, tested to the same criteria as UL 103 HT requirements. If the chimney is not listed as meeting HT requirements, or if the factory built fireplace was tested prior to 1998, a full height listed chimney liner must be installed from the appliance flue collar to the chimney top. The liner must meet type HT requirements (2100 F) per UL 1777 (US). The liner must be securely attached to the insert flue collar and the chimney top. To prevent room air passage to the chimney cavity of the fireplace, seal the damper area with high temperature sealant.

The Kuma model Ashwood is certified to UL 127 for installation into a properly installed factory built fireplace in the U.S. Only. A Safety listed 6" fireplace liner must be installed and directly connected to the appliance. The liner must be at least 6.5' above the insert. For optimum performance and ease of cleaning, it is recommended that an approved liner be installed all the way to the chimney top.

Prior to installation:

1. The following items may be removed in order to facilitate the liner installation: Smoke Shelf/Baffle, Wood Grate, Viewing Screen, Damper, and ember catches.
2. The Fireplace itself must not be altered (with the exception of damper removal). Any non-functioning trims that are removed must be kept so that the fireplace can be restored to full working order if the insert is ever removed.
3. The local building department has the final authority to approve, with a permit, the installation of this appliance into a factory built fireplace. **DO NOT INSTALL WITHOUT A PERMIT.**
4. Check for any gap existing between the masonry fireplace construction and the fascia masonry. If there is a gap, seal with a high temperature masonry mortar.
5. The installation of the fireplace liner must in no way limit the airflow of the factory built chimney.
6. The original factory built chimney cap must be reinstalled after the installation of the liner.

Notes on manufactured homes and fireplaces:

1. If you are installing the Ashwood into a manufactured home, the fireplace must be manufactured home approved and have an outside air source.
2. The outside combustion air that is fueling the fireplace must be supplied to the air intake on the back of the Ashwood. Where the outside combustion air enters the fireplace will most likely vary depending on the particular fireplace. You will just need to make sure that the air entering the fireplace will not be blocked by setting the unit into place.
3. All other guidelines in this section must be followed.

GUIDELINES FOR INSTALLATION: Use only pre-fabricated, listed components. Use of field fabricated components and/or using “makeshift” compromises could result in a house fire.

1. Remove the 3 screws that affix the listing tag to the back of the stove. **Important: Leave the tag attached to the stove via the extendable lanyard.** Place the tag in a location that will be easily accessible by removing the surround panel (Suggested Locations: on the face of the fireplace behind the surround panel or on top of the stove behind the surround panel).
2. Secure the damper in the open position.
3. Install a 6” diameter listed stainless steel flue liner according to the manufacturer’s instructions. The flue collar on the stove must be attached to the end of the liner for quick installation and removal:
 - a. Remove the bolts in the flue collar and remove the collar.
 - b. Install the flue collar to the liner using 3 stainless steel sheet metal screws.
 - c. Slide the stove into place. (leveling bolts are supplied with the surround kit)
 - d. From inside the stove, reach through the flue collar, grab the flue collar and pull down to the stove, lining up the holes in the collar with the bolt holes in the stove. Re-attach the flue collar with the bolts that came out.
 - e. Install the baffle board and ceramic blanket into the stove using the directions supplied with the baffle set.
4. Install the fireplace surround (KA FS 1P) using the instructions supplied with the kit.

SEE SECTION 6 FOR INSERT INSTALLATION CLEARANCES AND DIAGRAMS.

NOTE: *Consideration must be given to ensure an adequate supply of combustion air for your insert.*

*Make sure the convertible rear/bottom air cover is configured to expose the 4” hole at the stove back rather than the stove bottom.

*If your fireplace is equipped with an outside air source, then simply make sure that vent is open. As with any vent open to the outside, make sure there is a rodent screen installed to prevent any unwanted intrusion.

*If an outside air direct connection is desired, the parts included in the Kuma outside air kit (part # KA OA 1) will make this connection possible.

*If room air is used, the small gaps that naturally occur between the surround kit and the face of the fireplace should be adequate for combustion air. Do not insulate behind the surround panel. If combustion appears lazy, try installing some small spacers at the surround panel edge so that it will stand off from the fireplace face ¼”. It is up to you to make sure there is an adequate free air supply for optimum performance from your insert.

Section 4 – Wood burning operation instructions

IMPORTANT:

Your new KUMA wood stove is shipped with the baffle packaged in a bag with the stove to eliminate damage in shipping. Please follow the detailed installation instructions included with the baffle materials. It is important that the baffle is correctly installed, if you have any questions, please contact the dealer where you purchased your stove, or call us directly at 888-714-5294

CAUTION: HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.

IN THE EVENT OF A CHIMNEY FIRE, CLOSE AIR DAMPER COMPLETELY

CAUTION:

When building the first couple of fires, be careful to build the fire small and increase the heat slowly over a 4-5 hour period. The paint on the stove “cures” with heat and needs to be done slowly. As the paint “cures” it gives off a smell and even sometimes a visible “smoky” haze into the room. Make sure the area is well ventilated during the curing operation. The smell will disappear after a few hours of operation.

A word about draft.

Draft is the force which moves air from the appliance up through the chimney. The amount of draft in your chimney depends on the length of the chimney, local geography, nearby obstructions and other factors. Too much draft may cause excessive temperatures in the appliance and may damage the internal components of the stove. Inadequate draft may cause back puffing into the room and ‘plugging’ of the chimney. Inadequate draft will cause the appliance to leak smoke into the room through appliance and chimney connector joints. An uncontrollable burn or excessive temperature indicates excessive draft.

Recommendations on building and maintaining a fire.

Start by opening the air control on the stove to fully open. Fully open will be pulled all the way out to the left.

NEVER USE FLAMMABLE LIQUIDS TO START OR FRESHEN UP A FIRE. Using flammable liquids can be explosive and cause personal injury or even death.

Using a good fire starter can make lighting a fire much easier. There are several different types of fire starter available in “chips” “nuggets” and gels. Newspaper also makes a good fire starter if it is torn into strips.

When building a fire, use plenty of fire starter on the bottom and use small kindling directly on top of that. Use progressively larger pieces as you stack wood all the way to the top of the firebox. **Do not build the fire too close to the glass. Leave at least one inch between the glass and the fuel.** When starting a fire, avoid using unsplit pieces of wood unless they are small such as twigs and branches, as split wood lights easier. Once the wood is stacked in the firebox, light the fire starter and leave the door slightly cracked open for up to 10 minutes to aid in the startup of your stove. Once the fire is well lit, shut the door, but leave the air control in the open position for about 20-30 minutes. After burning for about a half an hour in the open position, you can start to regulate the heat output and burn rate by shutting the air control down. When operating you stove, periodically check for visible emissions coming from the chimney and adjust the burn rate and fuel load to reduce emissions. Note that burning enough wood to establish a good, thick coal bed is essential to a successful long burn. Remember to let your stove burn open for 20-30 minutes each time you reload it with wood. Shutting the air control prematurely can cause excessive creosote in the chimney. **This wood heater has a manufacturer-set minimum low burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual.** Use the following as a general guideline for desired burn rates.

Low burn	Draft handle pushed all the way in
Med-Low burn	Draft handle pulled out approximately 1/8" – 1/4"
Medium burn	Draft handle pulled out approximately 1/4" – 1/2"
Med-High burn	Draft handle pulled out approximately 1/2" – 1"
High burn	Draft handle pulled out all the way

Additional instructions and information.

1. Build your fires directly on the firebrick. Using a grate will allow too much air to the coal bed and will result in incomplete combustion of the wood. Using a grate can also leave charred pieces of wood after the fire has gone out.
2. Use only the best grade of dry wood available. Wood should be seasoned for 1 full year prior to being used. Split wood will season much faster and better than wood left in the rounds. Burning green or wet wood greatly increases the chance of creosote buildup and produces significantly less heat. **The number 1 cause for creosote buildup is moisture in the wood.** Store your wood in a dry location. Any wood stored near the stove needs to maintain proper listed clearance from the stove. Keep wood away from the loading door or ash pan if equipped.
3. Small hot fires produce less creosote than long, low smoldering fires. When you start your stove or are re-kindling (reloading) your wood stove with a full or sizeable load of wood, open the draft fully and burn the stove at full burn for 20-30 minutes to heat up the chimney and secondary burn system. This ensures that when the draft control is pushed in for a lower, longer burn, the stove will burn cleaner. You should notice more upper firebox flame activity. This is smoke from the wood mixing with pre-heated air and burning. This is called secondary burn and results in higher stove temperature at lower burn rates and less soot and creosote build-up. Just after starting the fire, some smoke may occur until the chimney warms up to produce some draft. During normal operation, adjust the draft to the position required. If properly set, it will assure longest burn times and the most even heat cycle. Larger loads of wood will create the longest burn times. Your Ashwood "washes" the primary air down over the glass, helping to keep the glass cleaner. If your stove glass has a smoky build-up, adding dry, split pieces of wood and burning a full-open hot fire will begin to burn the glass clean. Doing this in the morning will not only clean the glass, but rebuilds the heat level for an efficient burn, warming the chimney system as well as the secondary burn system.
4. Break in period. In addition to the paint curing, several other things may occur as the stove breaks in.
 - a. Popping and creaking: As the metal heats up and cools down, it moves. This movement can cause a normal popping or creaking sound that will likely decrease over the first several fires.
 - b. Performance: It is normal for the first few fires to seem a bit lazy. As moisture evaporates from the brick, the fire will become more active. A layer of ash in the bottom of the stove will also help to keep your coal bed hot and active. A good thick coal bed and full load of wood are key to optimum performance.
 - c. Smoking: As the stove heats up for the first time, a small amount of haze or smoke will bake off of the stove, mostly due to the paint curing process. Oils on the metal will also cause a slight haze, but will subside within 2-3 hours.
5. This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods. **DO NOT BURN:**
 - a. Garbage;
 - b. Lawn clippings or yard waste;
 - c. Materials containing rubber, including tires;
 - d. Materials containing plastic;
 - e. Waste petroleum products, paints or paint thinners, or asphalt products;
 - f. Materials containing asbestos;

- g. Construction or demolition debris;
- h. Railroad ties or pressure-treated wood;
- i. Manure or animal remains;
- j. Salt water driftwood or other previously salt water saturated materials;
- k. Unseasoned wood; or
- l. Paper products, cardboard, plywood, or particleboard.

The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, saw dust, wax and similar substances for the purpose of starting a fire in an affected wood heater. Burning these materials may result in release of toxic fumes or render the heater ineffective and cause smoke.

***Densified fuel-** It is ok to burn densified fuel (i.e. fuel that has been compressed from wood waste such as sawdust into a densified form such as a log or brick). These are sometimes called energy logs, energy bricks, or bio-bricks. These fuels must be from natural wood products or plant based only. Do not burn logs that have glues, waxes, or other binders in them. Care needs to be given when burning these densified fuels in order to prevent overheating the stove. If any part of your stove glows, you are over firing. Because of their density, these fuels contain high BTU content. Do not burn too many at once at a high burn rate.

Optional blower operation instructions

To install the blower, follow the instructions packaged with the blower. Plug the blower into the nearest 115V grounded circuit. Turn the variable speed knob to 'click' onto high speed. As the knob is turned clock-wise, the blower speed decreases to your desired speed. The blower speed should match the desired burn rate on your stove: i.e. low-burn rate...low blower speed; high-burn rate... high blower speed and so forth. When routing the blower power cord, take care to keep it away from hot surfaces or surfaces that could cause abrasion.

Section **5** – Maintenance

Use the table below as a general maintenance schedule for your stove. See below the table for detailed information on performing the maintenance. **CAUTION:** When replacing parts, do not substitute any part or material other than factory parts or a factory authorized substitution. If you have questions about substitute parts, contact your dealer.

Ash disposal	Every 1-2 weeks
Chimney inspection and cleaning	Every 2-3 months
Gasket replacement	Every year or as needed
Glass cleaning and replacement	As needed
Brick replacement	Replace broken bricks as needed
Clean and inspect stove	Every 2-3 months or as needed.
Replace ceramic insulation	Every year or as needed

Ash disposal – Every 1-2 weeks

1. Empty the ash pan when the fire is out. Never try to empty the ash pan when the stove has an active or full fire, doing so will over heat the stove.
2. Using gloves, remove the ash pan by turning the handle to one side or the other and pulling straight out.
3. Dump the ashes into a metal container with a tight fitting lid away from the house. **NEVER EMPTY ASHES INTO A COMBUSTIBLE CONTAINER SUCH AS A PLASTIC BUCKET OR PAPER BAG. NEVER LEAVE ASHES IN THE HOUSE OR GARAGE.** Ashes should remain in the closed container until the embers have completely cooled. Do not place other waste into the same container with the ashes.
4. Before replacing the ash pan, check to see if any ashes need to be removed from the ash pan plenum. If any ashes remain in the ash plenum it will prevent the ash pan from sliding all the way in and it may not seal, resulting in air entering the ash grate which will produce a runaway fire.
5. Replace the ash pan by inserting it back into the stove, pushing in on the handle while in a horizontal position, and turning the handle vertically (spring towards the bottom).

Chimney inspection and cleaning – Every 2-3 months

1. Refer to the chimney manufacturers installation instructions for additional information on cleaning the chimney. We recommend having the chimney cleaned by a licensed professional chimney sweep.
2. When wood is burned, it releases tar and other organic vapors. When these vapors combine with moisture, creosote is formed and enters the chimney. When the stove is burning on a low setting, the exhaust can be moving slow and the chimney can be relatively cool. This combination of slow exhaust and a cool chimney causes creosote to stick to the walls of the chimney. When creosote accumulates, it causes the draft to slow and the problem of creosote accumulation will compound. If the creosote is not removed on a regular basis, a chimney fire can occur which can damage the chimney and/or stove. Therefore, the importance of regular chimney maintenance cannot be emphasized enough.
3. Every few months inspect the chimney for build-up of creosote or soot. Clean as necessary. Generally, a ¼” build-up or more should be cleaned.

Gasket Replacement – Every year or as needed

1. Gaskets need to be checked at least once a year. The gaskets on your stove are designed to keep unwanted air out of the firebox. Neglecting these gaskets can cause a decrease in burn times, more wood consumption and possible over heating of the stove. When checking the gaskets, look for wear areas that show fraying or cutting. Check the gasket for softness by pressing them with your finger and give a slight tug on one area to see if the glue is still holding. Gaskets that are cut or fraying can cause small air leaks in that spot. Gaskets that are hard will not conform to the stove and may leak air. Gaskets that are not held in with glue could come out at an inconvenient time. The gaskets that need to be checked are: Door gasket, ash pan gasket, and glass gasket.

Refer to section 8 for part numbers for the correct gasket for your stove and check with your dealer for parts availability.

Glass cleaning and replacement – as needed

1. Never clean the glass when it is hot.
2. Clean the glass with an approved stove glass cleaner, never use an abrasive material like sandpaper or steel wool
3. Your stove is equipped with an air wash system that will self-clean the glass. If the glass is black or covered with soot from slow burning, simply load the stove with good, dry, split wood and burn at high burn for about 20- 30 minutes and the glass should burn clean.
4. Never build a fire against the glass.
5. When closing the door be sure that no pieces of wood are protruding from the door opening that could touch the glass. Excessive stress like closing the door on a piece of wood will break the glass. If the glass ever breaks in your stove, don't panic, simply shut the air off and let the fire burn out. Do not continue to operate a stove with broken glass. Do not leave the stove unattended with broken glass.
6. To replace the glass it may be helpful to remove the door from the stove and place on a clean soft work area. Remove the retaining ring screws and retaining ring, remove the glass and dispose of properly, CAUTION: BROKEN GLASS WILL BE SHARP. Clean the door thoroughly where the new piece of glass will install. Set the new piece of glass into the door and replace the retaining ring and screws. Glass replacement must be 5mm thickness, approved clear ceramic glass such as Neoceram, Robax, Pyro-ceram, or other glass approved for high temperature applications. Do not use tempered glass or Borosilicate. See section 8 for replacement glass part number and size. Be careful to tighten the screws evenly, uneven pressure can break the glass. Tighten the screws just enough to hold the glass firmly, overtightening can cause uneven pressure and can break the glass.

Brick replacement – As needed

1. Bricks should be inspected and replaced if necessary at least once a year. Cracked bricks are fine as long as they remain in place.

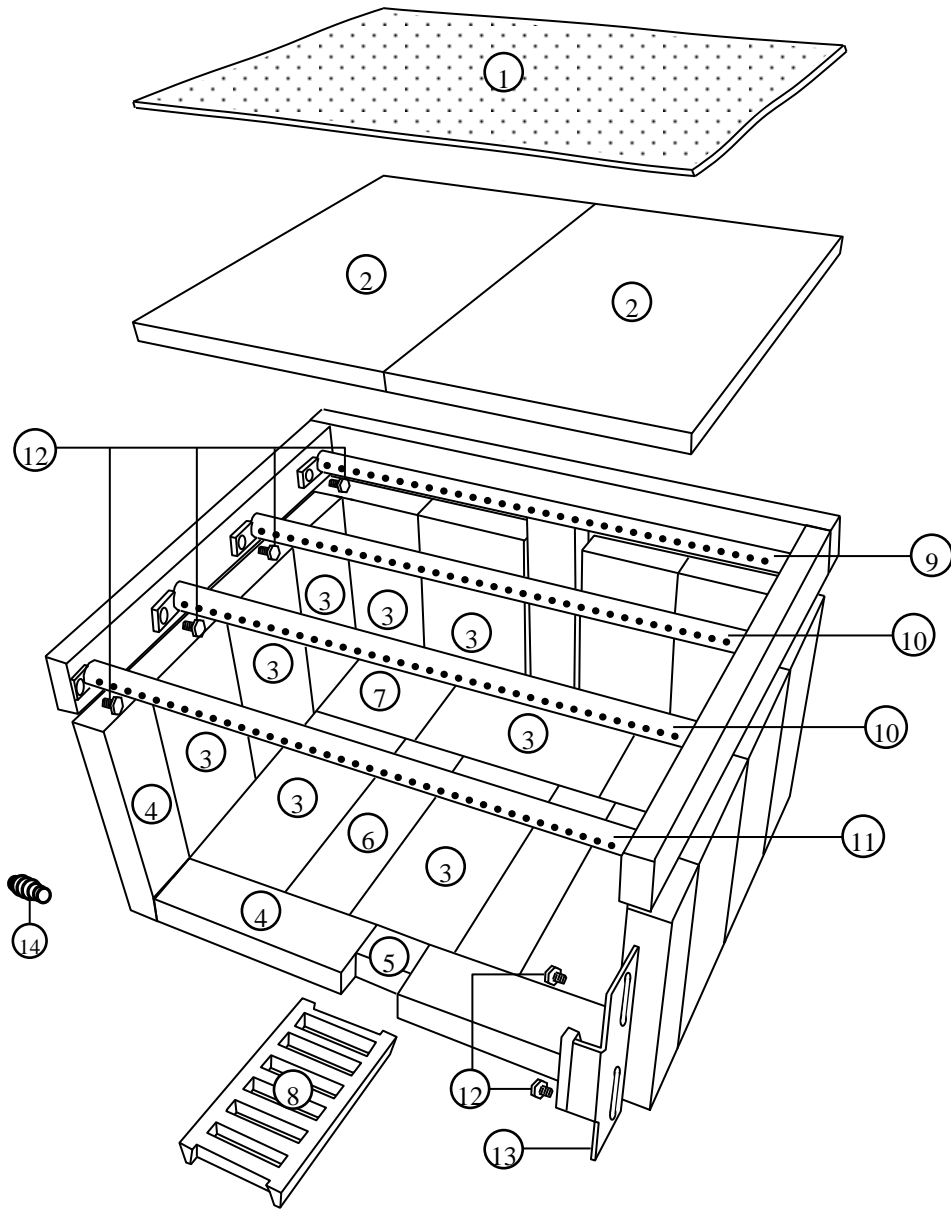
Clean and inspect stove – Every 2-3 months or as needed

1. Your stove should be fully cleaned and inspected once a year. Every 2-3 months, visually check the stove interior, especially for ash build up on top of the ceramic insulation. This is a great time to inspect the bricks, gaskets, ceramic blanket and the rest of the stove for signs of abnormal wear. Start by shoveling all the ashes out of the stove and emptying the ash pan. Use a shop vac to clean the hard to reach places. Look at the inside of the stove for signs of wear, paying close attention to the burn tubes. Discoloration of the stainless steel is normal.
2. FOR INSERT.
 - a. Remove the surround panel by unscrewing the two adjustable retaining screws on the front of the top panel.
 - b. Remove the front two burn tubes.
 - c. Remove the ceramic insulation and the two baffle boards.
 - d. Use a 7/16 wrench or socket wrench to remove the two flue collar retaining bolts and push the liner up out of the stove, or if there is room, reach in above the stove and pull the liner out.
 - e. Pull the insert forward to inspect or clean. NOTE: it is not necessary to remove the insert if a full height liner has been installed to the chimney top. Only the baffle tubes, insulation and boards should be removed for cleaning. Partial liners can build up soot in the fireplace cavity and will require insert removal for proper cleaning.

Replace ceramic insulation – Every year or as needed

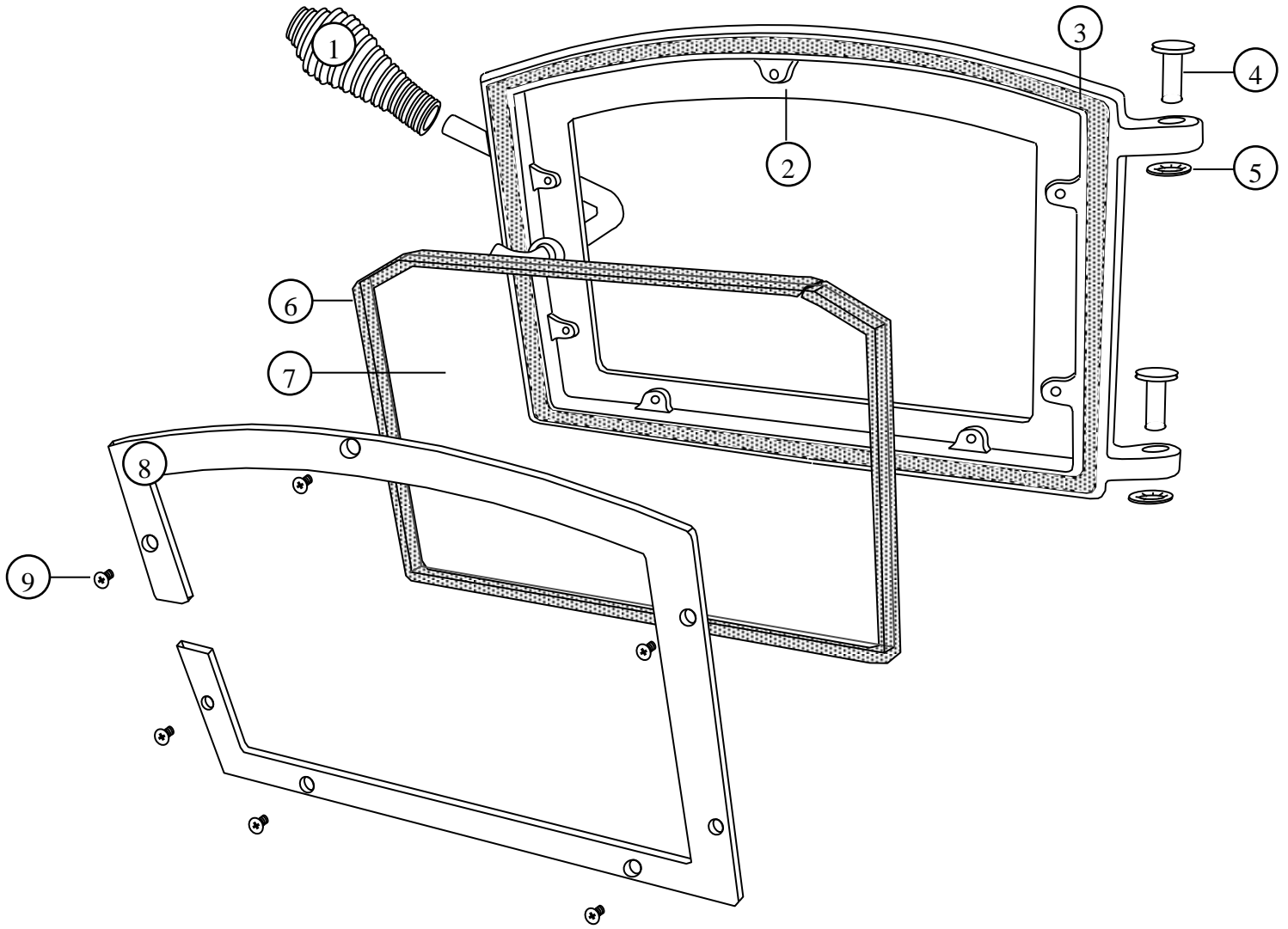
1. At least once a year, check the ceramic insulation on top of the baffle in your stove. The ceramic insulation is designed to keep heat in the stove and increase efficiency. As long as the insulation is in place it can be left alone. If the insulation becomes torn during cleaning, simply lay it back together tightly in that area. If the insulation tears to multiple pieces, it should be replaced, smaller pieces can become caught in the draft and cause a restriction.

Firebox Maintenance Diagram



ID #	Description	Part #	ID #	Description	Part #
1	Ceramic blanket 1/2" x 22" x 17".	KR IN AW	8	Ash grate	KR AG
2	Baffle Kit – 2 boards, 1 insulation.	KR BF AW	9	Baffle tube: Rear.	KR BT AW3
3	Brick: Standard size. 9"x 4-1/2"	KR-BR	10	Baffle tube: Middle front or middle rear	KR BT AW2
4	Brick: Cut size. 8-7/8" x 2-3/8".	KR BR AW2	11	Baffle tube: Front.	KR BT AW3
5	Brick: Cut size: 2" x 1-5/8".	KR BR AW4	12	Hardware: 1/4-20 x 1/2" bolt. Pack of 6.	KR HW 1
6	Brick: Cut size: 9" x 3-1/8".	KR BR AW3	13	Door wedge assembly.	KR DW AW
7	Brick: Cut size: 5-3/8" x 4-1/2".	KR BR AW1	14	Control handle 3/8" pewter.	KR SP 1P
			14	Control handle. 3/8" gold.	KR SP 1G

Door Assembly Maintenance Diagram



ID #	Description	Part #	ID #	Description	Part #
1	Door control handle: 1/2" pewter	KR SP 2P	5	Door pin retainer. (set of 2)	KR DP 3RT
1	Door control handle: 1/2" gold	KR SP 2G	6	Gasket: 3/4" x 5/8" tape.	KR GK 34
2	Door casting: Black w/ handle assembly	KR DR 2B	7	Glass: Includes gasket.	KR GL 2
2	Door casting: Pewter w/ handle assembly	KR DR 2P	8	Glass Retainer: Includes screws	KR GL 2RT
2	Door casting: Gold w/ handle assembly	KR DR 2G	9	Hardware: #10 screw. Pack of 7	KR HW 4
3	Gasket: 5/8" fiberglass rope w/ cement	KR GK 58			
4	1/2" Door pin. (set of 2) w/retainers	KR DP 3			

Section **6** – Clearances and diagrams

Figure #1 Double Wall Pipe

Use this diagram for the following installations:

1. Mobile Home installation with the stove in a corner using double wall pipe.
2. Residential installation with the stove in a corner using double wall pipe. For single wall pipe, refer to figure 2.

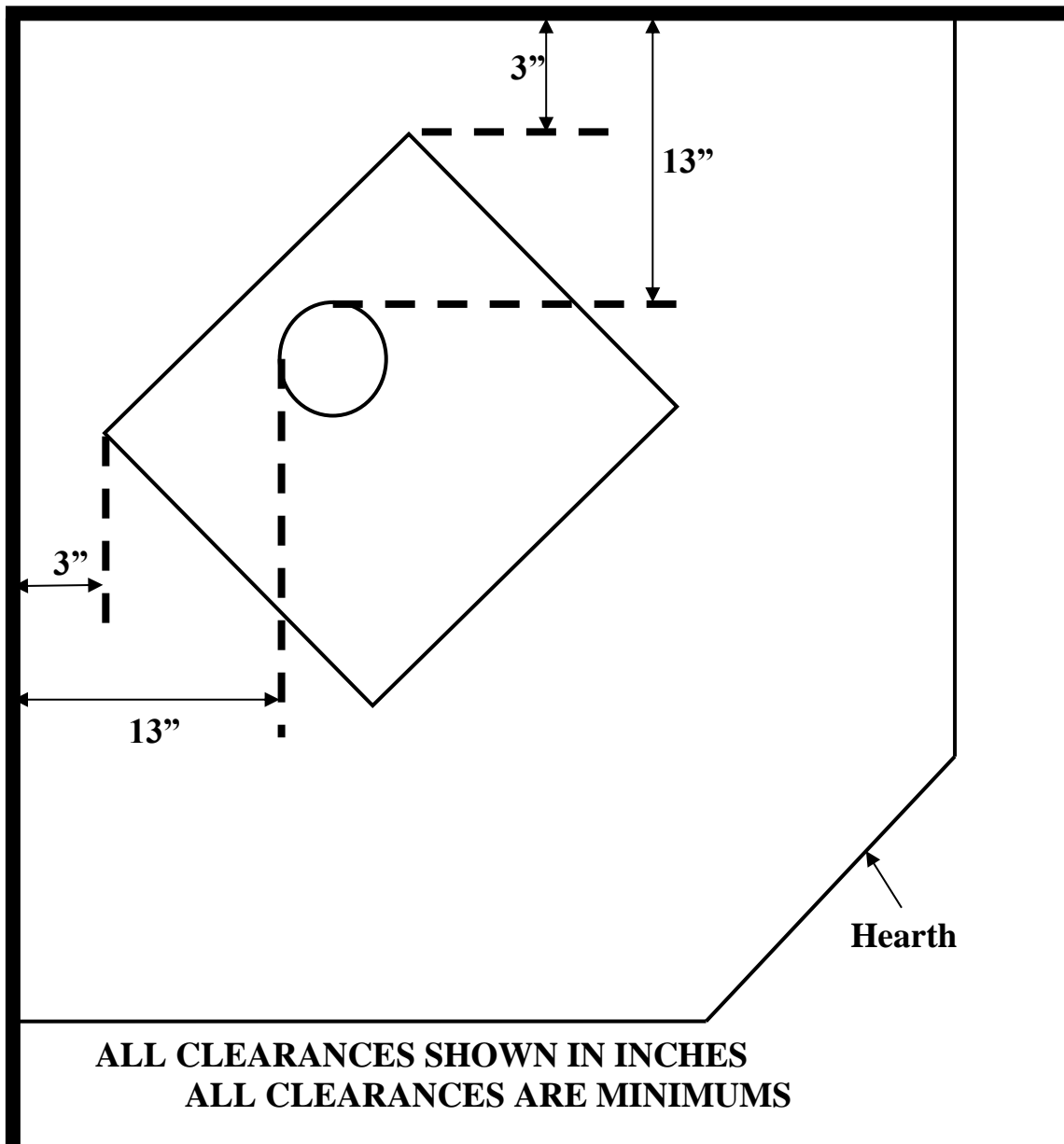


Figure #2 Single Wall Pipe

Use this diagram for the following installation:

1. Residential installation with the stove in a corner using single wall pipe. For double wall pipe, refer to figure 1. For mobile home installation in a corner, refer to figure 1

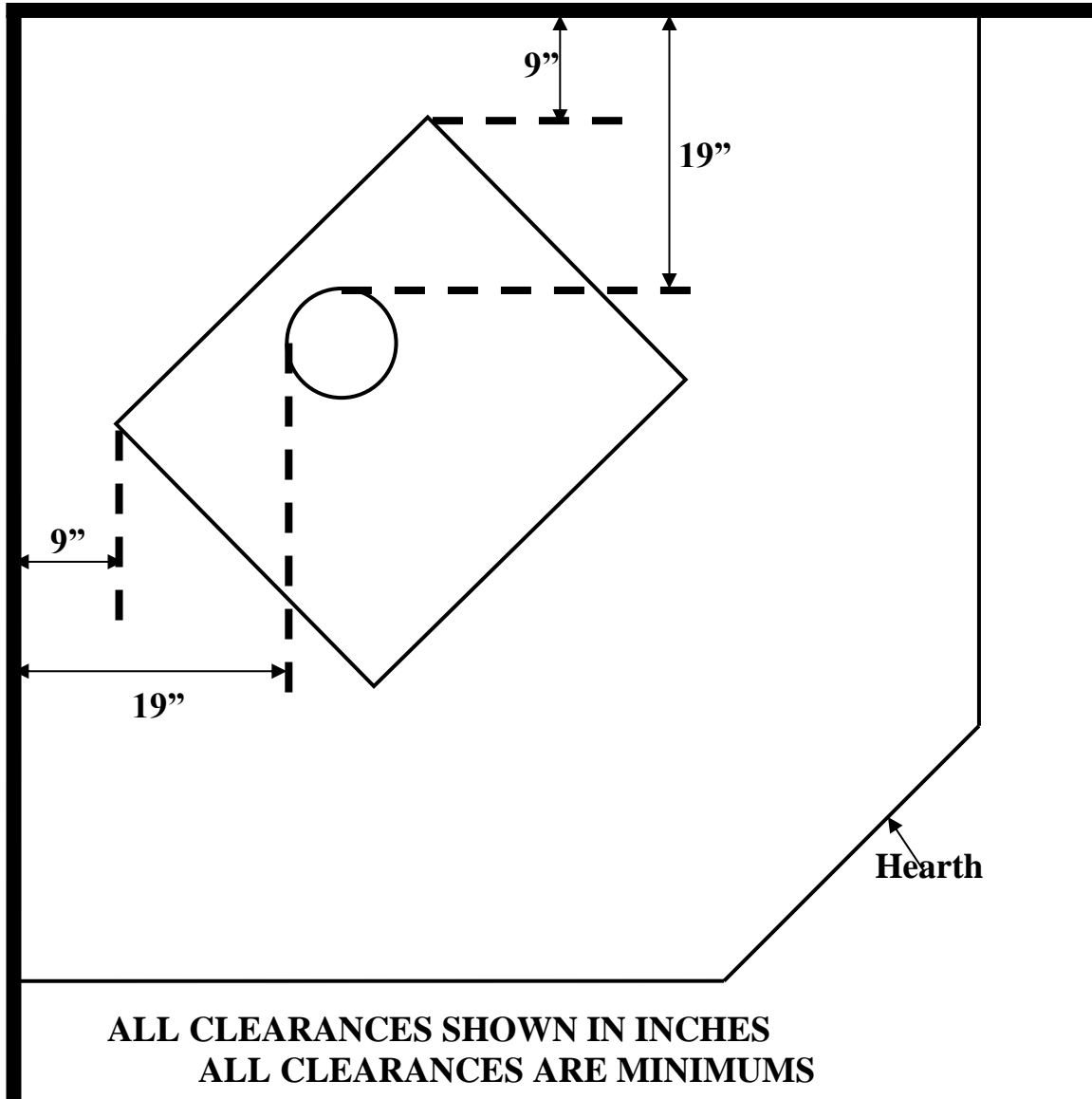


Figure #3 Double Wall Pipe

Use this diagram for the following installations:

1. Mobile home installation with the stove on a straight wall using double wall pipe.
2. Residential installation with the stove on a straight wall using double wall pipe. For single wall pipe, refer to figure 4.

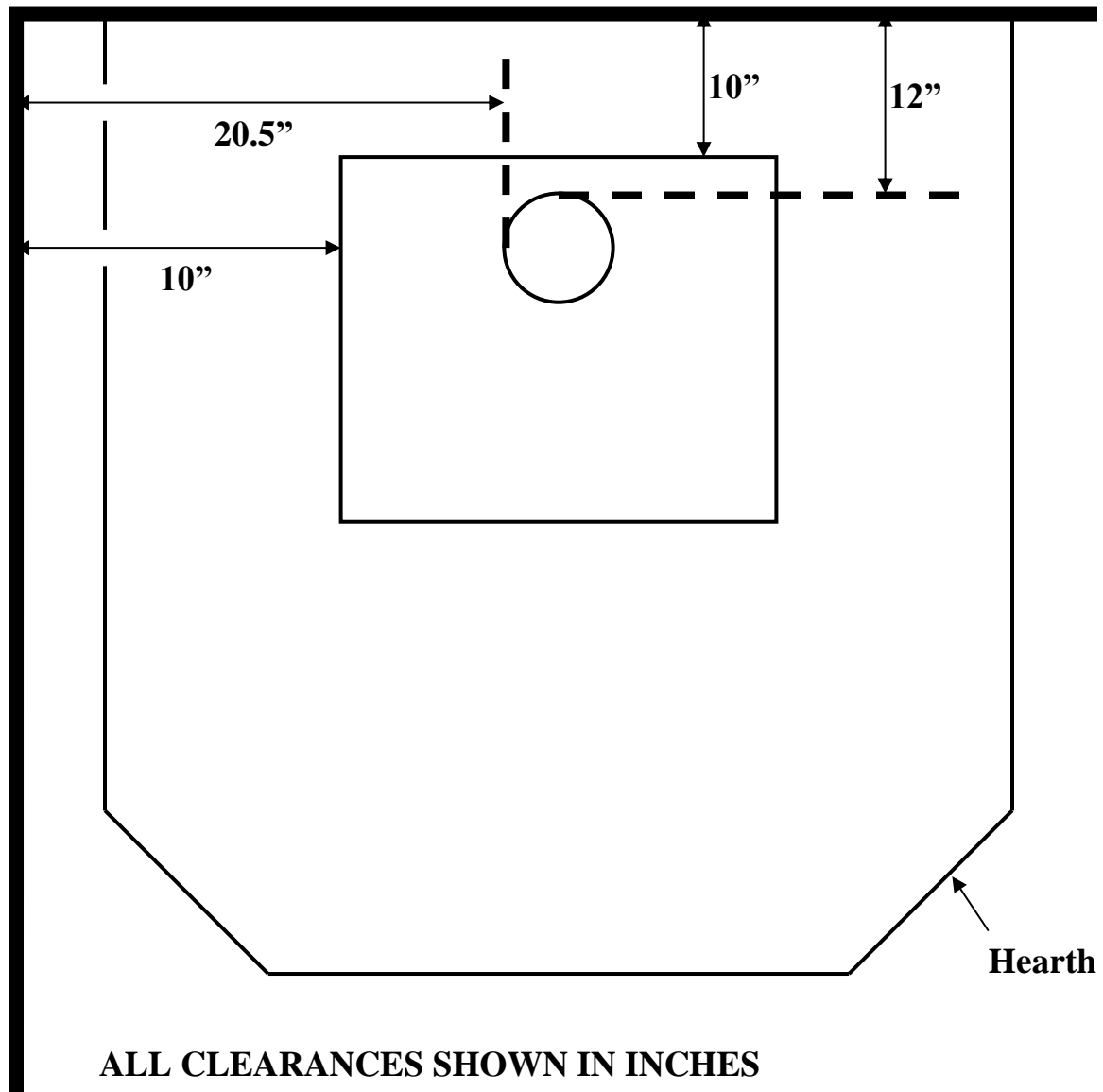
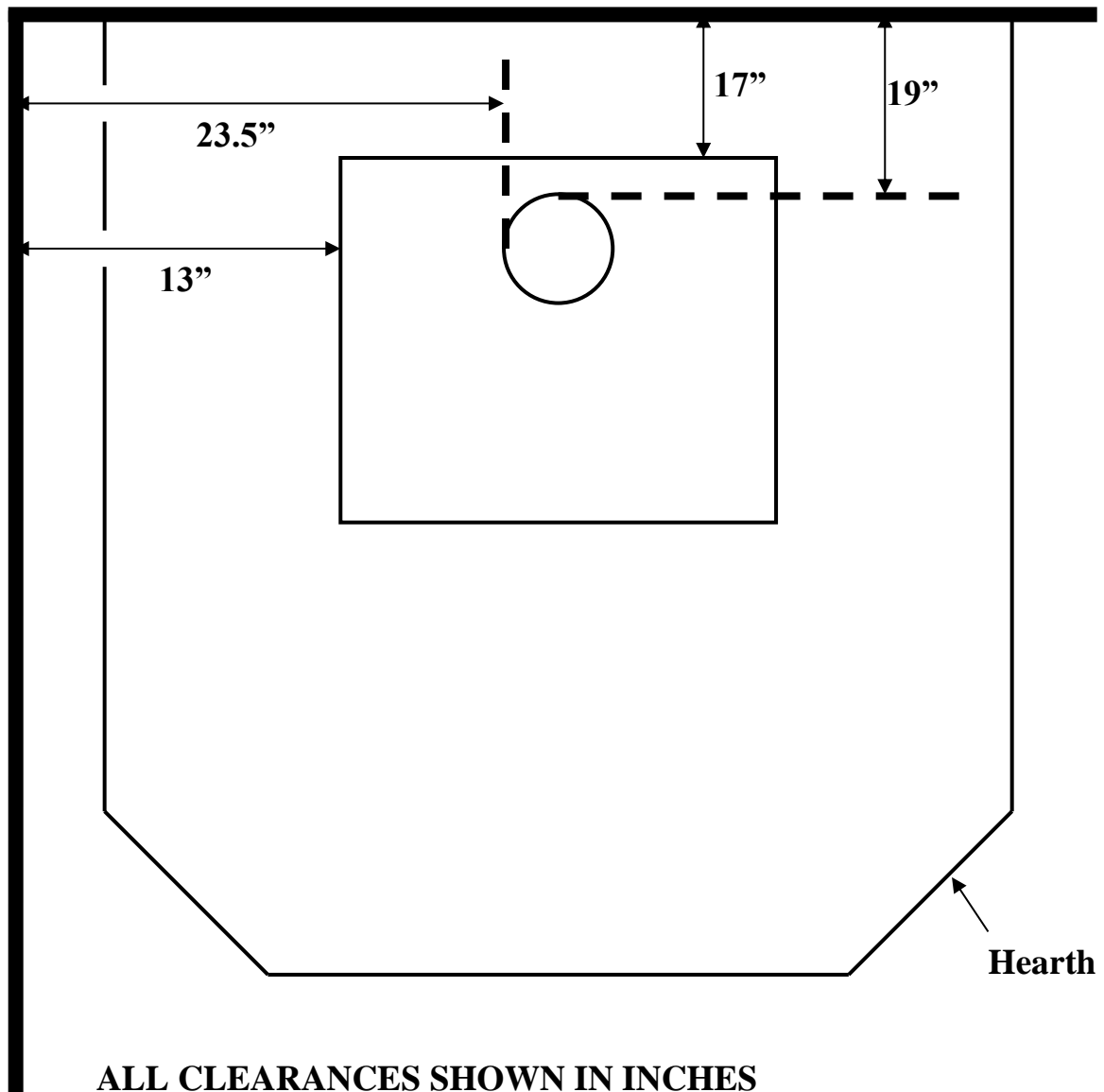


Figure #4 Single Wall Pipe

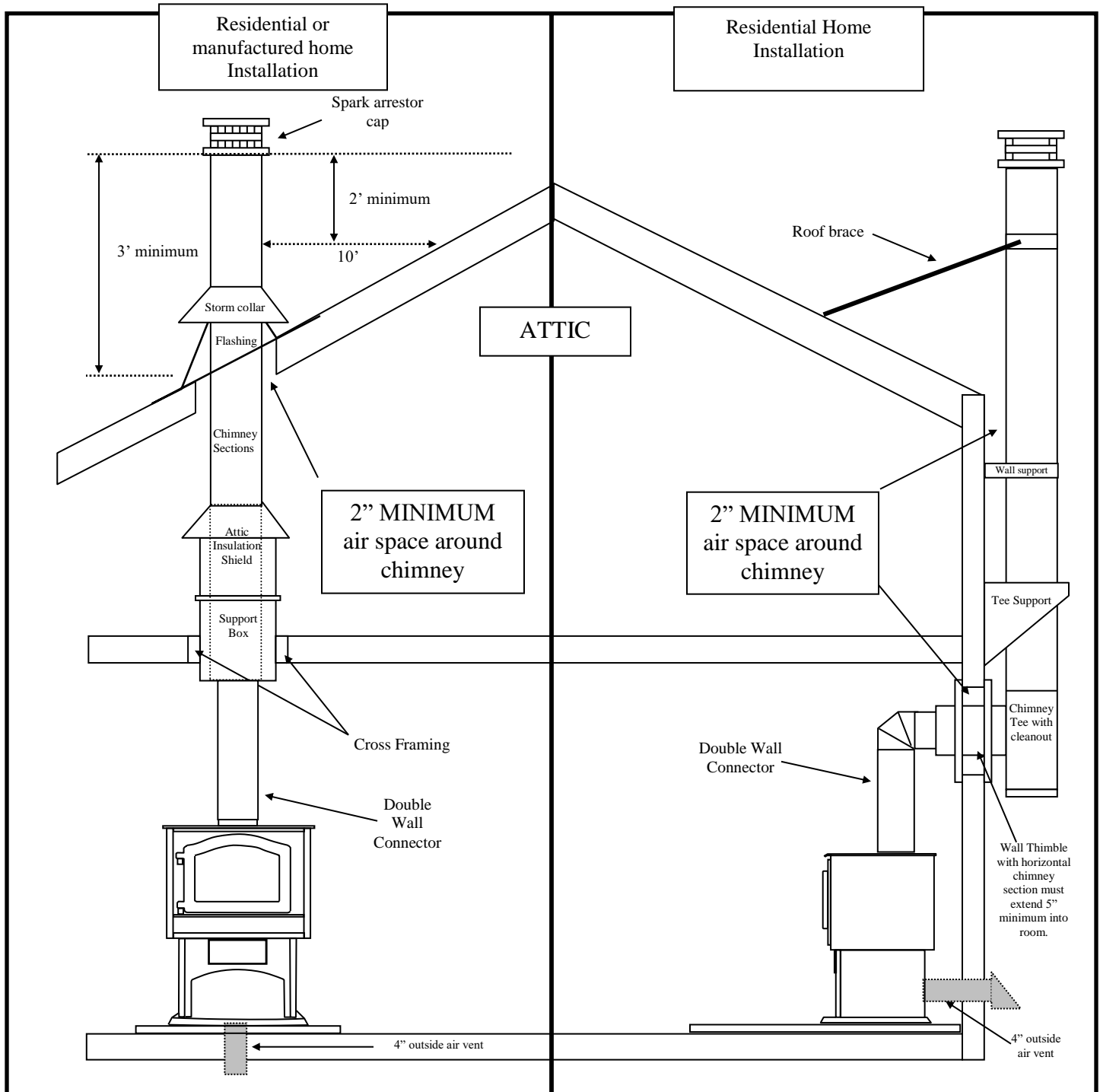
Use this diagram for the following installations:

1. Residential installation with the stove on a straight wall using single wall pipe. For double wall pipe, refer to figure 3. For mobile home installation on a straight wall refer to figure 3.



**ALL CLEARANCES SHOWN IN INCHES
ALL CLEARANCES ARE MINIMUMS**

Ashwood Installation diagram for manufactured chimneys
NEVER INSTALL A WOOD STOVE IN A SLEEPING ROOM



These diagrams are for manufactured chimneys. For Brick Chimneys a safety listed thimble must be used when a connection is made through a combustible wall to a lined masonry chimney. This stove must be connected to a lined masonry chimney or a listed factory built chimney designed for use with solid fuels and conforming to USA UL-103HT. Clearances to combustibles must be maintained per manufacturer's instructions on chimney pipe and stove pipe connectors. Use only double-wall connector in mobile homes.

Dimensional Drawings for the Ashwood

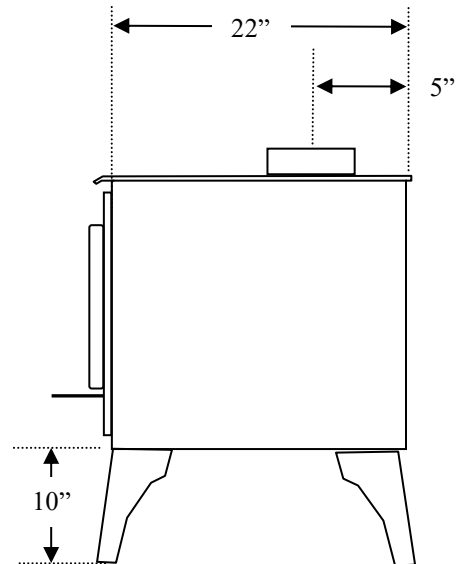
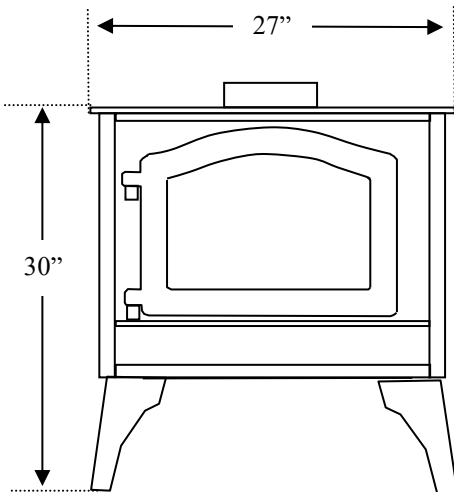
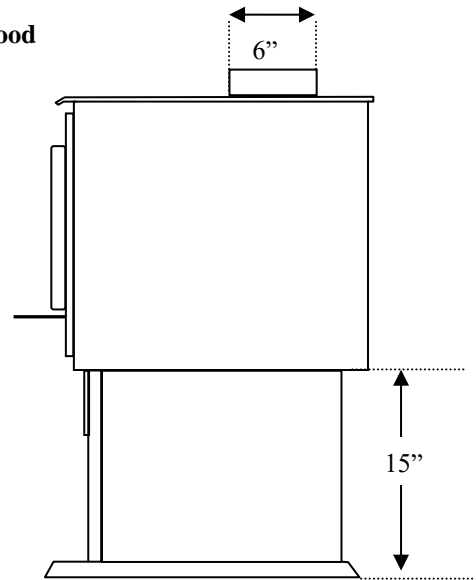
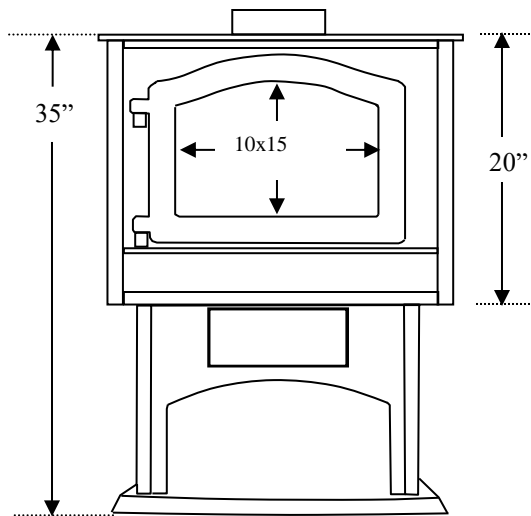
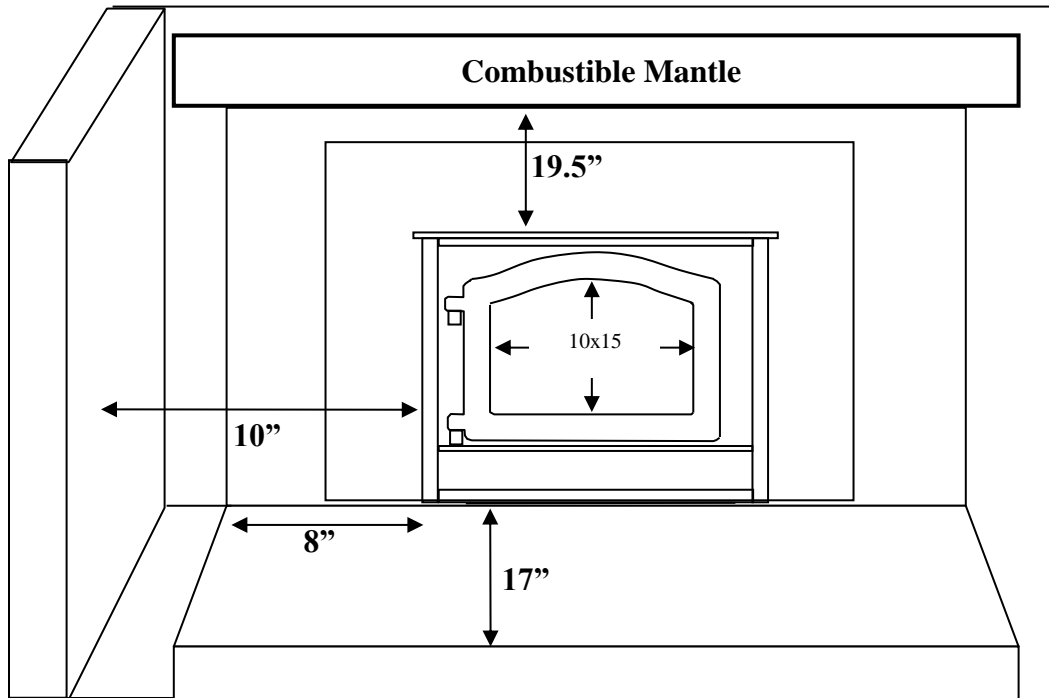


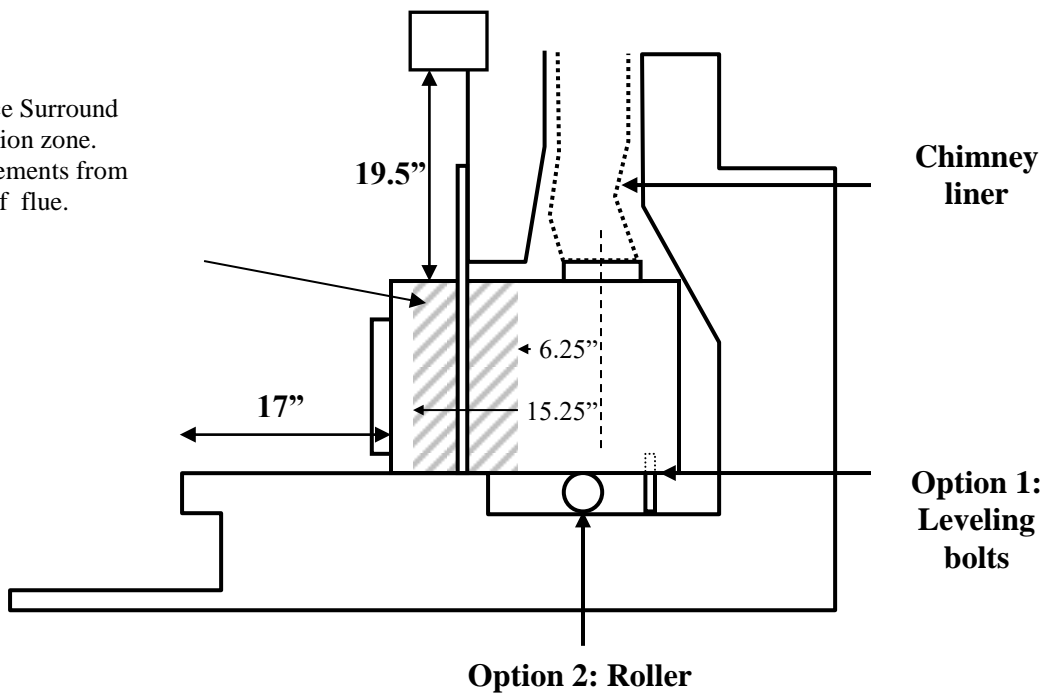
Figure #5 Insert

Use this diagram for the following installations:

1. Installation into a masonry fireplace
2. Installation into factory built fireplace



Fireplace Surround
Installation zone.
Measurements from
center of flue.



Section 7 – Trouble Shooting

1. Stove burns lazy at start up.
2. Stove back-puffs or smokes into the room at start up.
3. Stove smokes out the door when it is open.
4. Stove won't shut down.
5. Stove won't burn hot enough. Lazy burn.
6. Burn time too short.

Stove burns lazy at start up.

1. The chimney is still cool, allow more time to warm up. Burn longer with door slightly cracked.
2. Wood is not seasoned (still green). Wood should sit for about 1 year, split and loosely stacked if it was cut green.
3. Wood is well seasoned but has a lot of surface moisture. Your wood supply must be covered. Check your tarps or other covering to see that no rain or snow is getting to your wood. Wood should be covered on top, but open on the sides to allow air movement to aid in drying.
4. Check the air supply to the stove. If you have installed outside air, check the ducts for blockage.

Stove back-puffs or smokes into the room at start up.

1. Chimney is cold. Cold chimneys can produce a "reverse draft" where cold air is rushing down the chimney into the stove. Open a door or a window for about 5 minutes to equalize pressure in the house then try restarting with small strips of newspaper. Using small strips of newspaper or an approved fast burning fire starter and small pieces of kindling will create heat faster to help reverse the cold air.
2. Chimney and/or the chimney cap needs to be cleaned. Your chimney should be checked and cleaned if necessary every few months. Even a small amount of buildup can cause a draft restriction, for example: ¼ inch of buildup on the side wall of a 6" chimney reduces the effective area of the chimney by about 20%. Pay close attention to the chimney cap, especially if it has a screen. Screened chimney caps can become blocked enough to restrict flow in just a few weeks. Screened caps are required by H.U. D. code on mobile homes only. Non-mobile residential installations may remove the screen part of the cap. Check local codes.

Stove smokes out the door when it is open.

1. The door was opened too quickly. Crack the door open just a small amount and let the stove "breathe" a few seconds before opening all the way.
2. Chimney and/or the chimney cap needs to be cleaned. Your chimney should be checked and cleaned if necessary every few months. Even a small amount of buildup can cause a draft restriction, for example: ¼ inch of buildup on the side wall of a 6" chimney reduces the effective area of the chimney by about 20%. Pay close attention to the chimney cap, especially if it has a screen. Screened chimney caps can become blocked enough to restrict flow in just a few weeks.
3. Chimney is too short or other conditions exist such as a hillside home location, high winds, trees, etc.

Stove won't shut down.

1. The ash pan may not be sealing correctly (pedestal model). Check the ash pan gasket for tearing or fraying. See the ash pan instructions in section 5. Even a small amount of undesired air can keep the stove from shutting down.
2. Check the main door gasket and glass gasket for proper seal. See section 5 for instructions on checking your gaskets.

Stove won't burn hot enough. Lazy burn.

1. Wood is not seasoned (still green). Wood should sit for about 1 year, split and loosely stacked if it was cut green.
2. Wood is well seasoned but has a lot of surface moisture. Your wood supply must be covered. Check your tarps or other covering to see that no rain or snow is getting to your wood. Wood should be covered on top, but open on the sides to allow air movement to aid in drying.
3. Chimney and/or the chimney cap needs to be cleaned. Your chimney should be checked and cleaned if necessary every few months. Even a small amount of buildup can cause a draft restriction, for example: ¼ inch of buildup on the side wall of a 6" chimney reduces the effective area of the chimney by about 20%. Pay close attention to the chimney cap, especially if it has a screen. Screened chimney caps can become blocked enough to restrict flow in just a few weeks.
4. Check the air supply to the stove. If you have installed outside air, check the ducts for blockage. If you are not using outside air, be sure you have removed the cover plate on the back of the pedestal. (pedestal models only)
5. Atmospheric conditions. Occasionally, barometric episodes occur that affect draft, thereby affecting stove performance. If your stove has been working fine and performance drops suddenly, this is most likely the cause, and will usually go away within a few days.
6. Your fuel load may be too small or the wood size too large for the coal bed. A small bed of coals requires re-kindling to build up the heat, only put large chunks of wood on a very hot and active bed of coals.

Burn time too short.

1. Your fuel load may be too small or the wood size too large for the coal bed. A small bed of coals requires re-kindling to build up the heat, only put large chunks of wood on a very hot and active bed of coals. If there are large chunks of charred wood left after the fire has gone out, the coal bed was not hot enough.
2. Fuel quality. Harder, denser woods produce longer burn times. Likewise, softer woods produce shorter burn times.
3. The ash pan may not be sealing correctly. Check the ash pan gasket for tearing or fraying. See the ash pan instructions in section 5. Even a small amount of undesired air can keep the stove from shutting down.
4. Check the main door gasket and glass gasket for proper seal. See section 5 for instructions on checking your gaskets.

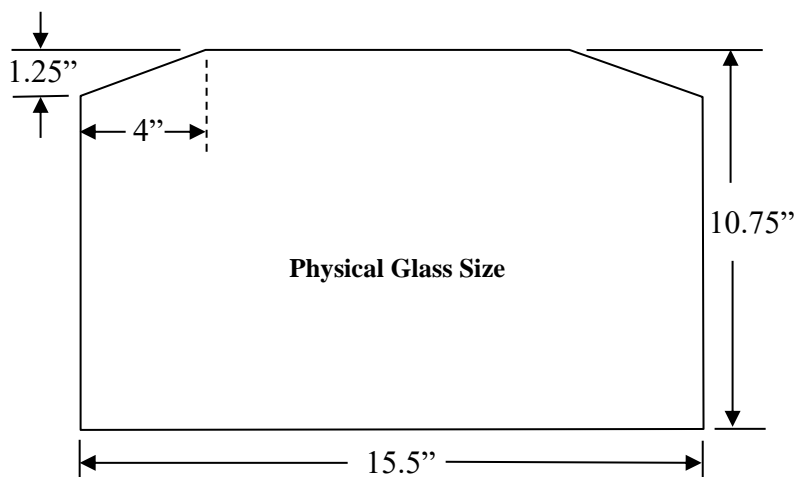
Section 8 – Accessories and Parts

Stove Body

Item #	Description
KR IN AW	Ceramic baffle insulation. Ashwood.
KR BF AW	Baffle set. Boards and Insulation. Ashwood.
KR BT AW1	Baffle burn tube, Ashwood, front.
KR BT AW2	Baffle burn tube, Ashwood, middle front or middle rear.
KR BT AW3	Baffle burn tube, Ashwood, Rear.
KR DW AW	Door wedge assembly. Ashwood.
KR AG	Ash grate. ASH / TAM / WCL.
KR SP 1P	Control handle, pewter.
KR SP 1G	Control handle, gold.
KR BR	Brick, standard size. 9" x 4-1/2".
KR BR AW1	Brick, cut size. 5-3/8 x 4-1/2. Ashwood.
KR BR AW2	Brick, cut size. 8-7/8 x 2-3/8. Ashwood.
KR BR AW3	Brick, cut size. 9 x 3-1/8. Ashwood.
KR BR AW4	Brick, cut size. 2 x 1-5/8. Ashwood.
KR HW 1	Hardware pack. 1/4"-20 x 1/2" bolt. Pack of 6.

Door Assembly

Item #	Description
KR GL 2	Door glass, includes gasket. ASH / SEQ.
KR GK 58	5/8" Rope gasket. Price per foot.
KR GK 34	3/4" flat adhesive backed gasket. Price per foot
KR DP 3	Door hinge pin set, includes pin retainers. ASH / SEQ.
KR DP 3RT	Door pin retainer. ASH / SEQ.
KR SP 2P	Door handle, pewter.
KR SP 2G	Door handle, gold.
KR GL 2RT	Glass retainer. ASH / SEQ.
KR DR 2B	Door casting, black. ASH / SEQ.
KR DR 2P	Door casting, pewter. ASH / SEQ.
KR DR 2G	Door casting, gold. ASH / SEQ.
KR HW 4	Hardware pack. #10 screws. Pack of 7.



Section 9 – The Kuma “It’s Covered” Limited Warranty

Our Promise:

If anything goes wrong with your stove in the first three years, we will supply you with the parts to fix it. For as long as you own your stove, if you ever have a defect in the material or workmanship of your stove’s firebox, we will repair or replace it for you. See full details below:

Items Covered	Parts Coverage Period	Labor Coverage Period
Maintenance Items: Bricks, gasket, ceramic insulation, baffle boards and paint.	3 Years	No Labor Coverage
Glass (thermal breakage), blowers, ash grate, brick supports, all hardware and trim.	5 Years	3 Years
Stove firebox, ash pan, pedestal, legs, burn tubes and door casting.	Forever	3 Years

Warranty Coverage:

To ensure warranty coverage, it is very important that you register your Kuma Stove warranty within 30 days of purchase at kumastoves.com or fill out and return the warranty registration in your owner’s packet. Operation of this stove in a manner inconsistent with the owner’s manual, especially the burning of materials for which this unit is not certified by the EPA, will void the warranty. This warranty covers your new Kuma Stove from defects in material and workmanship for the period outlined in this warranty. Kuma Stoves reserves the right to replace, repair or authorize repair of any defective part at its sole discretion. This warranty is not transferrable and covers the original owner of the product from the time of purchase. All parts that have been replaced under this warranty will have a 90 day warranty coverage. The maximum value of this warranty is the original purchase price of the product. This warranty is subject to the conditions and limitations outlined below. This warranty covers stoves purchased from an authorized Kuma Stoves dealer.

Warranty Instructions:

For your “It’s Covered” warranty claim, please contact the dealer where you purchased your stove. You may also contact Kuma stoves directly at 50145 N. Old Highway 95, Rathdrum ID 83858 or by phone at 1-888-714-5294 or contact us online at kumastoves.com. When calling, you will need to have your proof of purchase, the model name, and the serial number of your stove. When calling please remember that shipping and handling costs are not covered under this warranty.

Warranty Exclusions:

This Warranty does not cover: 1. Changes in the color of the surface of the stove as this naturally happens during the firing of the stove and is considered normal. 2. Damage to plating due to chemical cleaners, fingerprints, or scratching. 3. Shattered glass caused from wood impact. 4. Discoloration of plating or glass. 5. Expansion and contraction of the firebox causing noise. 6. Damage caused from: power surges, unauthorized modifications, using incorrect fuel and/or accelerants, shipping/handling, failure to follow the manufacturer’s installation instructions, failure to follow any local building codes. 7. Damages to any product not manufactured by Kuma Stoves. 8. Any stoves ability to heat a specific area. Heating capacity is given as a guideline and is not guaranteed. 9. Shipping costs or travel time. Please talk with an authorized dealer or Kuma representative about the potential charges for travel or shipping. 10. This warranty is void in the case of abuse, over firing, unauthorized repair, alterations, improper installation and/or service.

Effective 3/1/2012