

# BLAZE KING OWNERS MANUAL

MODELS

KING KT1102  
PRINCESS PT1003

NON CATALYTIC  
SOLID FUEL WOOD HEATERS

SAVE THESE INSTRUCTIONS

Valley Comfort Systems Inc.  
1290 Comercial Way  
Penticton B.C.  
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### SAFETY NOTICE

IF THE BLAZE KING STOVE IS NOT PROPERLY INSTALLED AND OPERATED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

THIS STOVE MUST BE CONNECTED TO A LISTED HIGH TEMPERATURE PREFABRICATED METAL CHIMNEY LABELLED FOR USE WITH SOLID FUELS OR AN APPROVED MASONRY CHIMNEY WITH A FLUE LINER.

### SAVE THESE INSTRUCTIONS

Blaze King  
 1290 Commercial Way  
 Penticton, B.C.  
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PT/KT man

Dear Customer:

Thank you for purchasing a Blaze King wood burning stove. The Blaze King stoves contemporary elegance makes it the first choice for enhancing the decor of your home.

This owner's manual explains the steps required to safely assemble, install, operate, and maintain your new stove. Please be a responsible stove owner; carefully read these requirements for safe installation and proper operation BEFORE installing and using your stove. We want your Blaze King to give you a lifetime of trouble-free operation.

While we have made every effort to make these instructions as complete as possible, some installation or operating conditions may not be covered. If you have any questions that are not answered here, contact your BLAZE KING dealer, Local Building Inspector, Fire Department, or our customer service department at Blaze King/Valley Comfort Systems Inc. 604-493-7444. We do not accept collect phone calls at the factory.

The Management and Employees of  
BLAZE KING

KEEP THIS MANUAL FOR FUTURE REFERENCE.

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## Section 2 WARRANTY

Blaze King offers a five-year limited stove warranty. A copy of this warranty is packaged with the stove.

To register your warranty, fill out and return the warranty registration card included with this stove. You will find the model number and serial number on the label on the back of the stove. If the warranty card is missing, you may obtain one from your local dealer.

### Options all models

Fan- twin fans variable speed to 210 cfm.  
Side shield kits for closer side clearance  
Rear shield kits for closer rear clearance  
Glass doors standard, solid door option  
Gold plated glass door

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## SECTION 5 SAFETY

### CHIMNEY FIRE

In the event of a fire in the chimney;

- 1) Adjust the thermostat to its lowest setting.
- 2) Check the loading door to be sure it is tightly closed.
- 3) Get everyone out of the house.
- 4) Call the Fire Department immediately.

After the fire is out, have your chimney inspected by a Building Inspector or certified chimney sweep. Any damaged chimney components should be replaced before the stove is used again. A masonry chimney that is damaged should be repaired or rebuilt. Contact your Fire Department for further advice. Your family should have a prearranged plan so that each person will know what to do and will act immediately if such an emergency arises.

### BUILDING AND FIRE CODES, PERMITS, AND INSPECTIONS.

The installation of this woodstove must comply with your local building and fire codes. Always contact your local Building Inspector and/or Fire Department before beginning the installation process. If required, obtain a permit before installation and have the completed installation inspected.

### CHILDREN

Do not allow children to play near the stove or with the operating knobs. Severe burns may be inflicted by touching some of the parts of the stove and by opening the loading door. Train children to stay away from the stove and never leave children unattended in the room when the stove is in operation.

### CLEARANCES TO COMBUSTIBLE MATERIALS

For a safe installation, proper clearances to combustible materials must be observed (FIGURE 3). Failure to follow these guidelines voids the certification and warranty, is illegal, and can result in a fire causing property damage, injury, or death.

Keep combustible (burnable) materials at least as far away from the woodstove as indicated in Figure 3.

Combustible materials include items such as plasterboard or wood-paneled walls, furniture, wooden mantels, bookshelves, carpets and drapes. Firewood should not be stored within the specified clearances.

Inspect the chimney and chimney connector at least twice each month during the heating season. Any leak must be repaired. A chimney fire or deterioration can enlarge the hole. This will admit more air and cause exhaust gasses to condense and form creosote. Patches of creosote in your chimney indicate that such leaks are present.

#### CREOSOTE and SOOT

When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire.

The chimney and chimney connector should be inspected at least twice each month during the heating season to determine if a creosote or soot build-up has occurred. If creosote has accumulated it should be removed to reduce the risk of a chimney fire.

Building a small intense fire in your stove is preferable to having a large smoldering one as creosote vapors condense in the relatively cool chimney flue of a slow-burning fire.

Never intentionally start a chimney fire to clean the flue.

#### DOOR GASKET & GLASS

Check the loading door gasket for deterioration at least twice each heating season. Inspect the gasket for physical deterioration missing sections or obvious leakage. To check the gasket further, insert a piece of paper into the door opening and close and latch the door. Obvious resistance should be felt when pulling the paper out. Repeat this check several times around the perimeter of the door. Do not operate this stove if the door glass is cracked or broken. To replace glass, see page.

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### SECTION 6 OPERATION

Your stove's performance (including its efficiency, pollutant emission level and service lifetime) depends largely on how it is operated. You, then, are the most important factor affecting performance. Please read these operation instructions carefully.

#### WARNING - PROVIDE ADEQUATE AIR CIRCULATION

It is essential that a source of fresh air for combustion be provided at all times when this woodstove is in operation. In extremely tight houses, partially open a window near the woodstove or install an Outside Air Kit.

#### STARTING A FIRE

1. Use only dry, well seasoned fuel, which has been cut, split and stacked for a minimum of six months.

For a medium burn (16,000 to 22,000 btu/hour) leave the air control set at high for 15 minutes, or until the fire is well established. Then move the air control to the medium setting. Watch for a flame pattern in the top of the stove. When that flame is out the stove is less efficient and burns dirtier. When starting a medium fire, turn the fans on low to medium, depending on the heat needs of the home.

For a high fire (23,000 to 45,000 btu/hour) the air control setting may be left on high at all times. The fans may be turned on medium to high at any time during the burn cycle.

2 Tampering. The internal mechanism of the combustion air thermostat system is adjusted at the factory and **MUST NEVER** be tampered with.

## RELOADING THE FIREBOX

### 1) Maintaining an efficient fire.

A bed of hot coals is the most important requirement for keeping an efficient fire. A bed of hot coals will help the stove maintain a more even temperature as well as getting the new load of wood started easily. Let each full load burn down to a coal bed before reloading. The combustion air control set at the lowest air control setting, permits a low fire even with the firebox full but maintaining a clean burning low fire is easier with a partial load of wood. For medium and high burn rates, a full load of wood may be used. Four 6" diameter logs may burn up to 8 hours. This will vary considerably for many reasons, including type of wood, how well the wood is "seasoned", the air control setting, the position of the stove in the house, and how well the house is insulated.

2) Set the combustion air control knob to the warmest setting for a few seconds before opening the loading door.

### WARNING

ALWAYS OPEN THE DOOR LATCH AND ALLOW THE FIRE TO BUILD UP SLIGHTLY BEFORE FULLY OPENING THE LOADING DOOR. IF THE LOADING DOOR IS OPENED TOO FAST, THE SUDDEN INTRODUCTION OF AIR CAN CAUSE THE FIRE TO FLARE AND DISCHARGE SMOKE AND FLAME INTO THE ROOM. SUCH A DISCHARGE CAN BURN PERSONS WHO ARE NEAR THE WOODSTOVE.

3) Rake the bed of hot coals to the front of the firebox before putting the new fuel load in the stove. Allow combustion air to flow under and around the fuel. Load the firebox to the desired level.

4) Close the Loading Door and latch it. Do not abuse the glass door by slamming it or striking it. Do not force the door closed if there is wood in the firebox that is obstructing it.

5) Set the Combustion Air Control as instructed in section titled "COMBUSTION AIR CONTROL".

## LOADING DOOR GASKET MAINTENANCE

Safe and efficient operation of any airtight woodstove depends greatly on the integrity of the gaskets. Check the loading door gasket at the beginning of the heating season and at least twice during the heating season. When the gasket is frayed or no longer seals, it must be replaced (see your dealer). Inspect the gasket for physical deterioration, missing sections or obvious leakage. To check the gasket further, insert a piece of paper into the door opening and close and latch the door. Obvious resistance should be felt when pulling the paper out. Repeat this check several times around the perimeter of the door.

## ADJUSTING THE DOOR CATCH TENSION

The door catch on the front of the stove is adjustable. If you need to adjust the door to ensure a gasket air seal around the door, loosen the lock nut. Rotate the catch clockwise to tighten the gasket. Make this adjustment one turn at a time and be careful not to over tighten, that could place excess strain on the door and glass.

## REPLACING THE DOOR GASKET

- 1) If the door gasket is to be replaced, be sure you have a replacement part ready to re-install. See your Blaze King dealer.
- 2) Be sure the fire is out and the stove has cooled down. The door does not have to be removed from the stove. With a pair of pliers, pull the old door gasket out of the channel and dispose of it.
- 3) Clean out the channel so the new gasket can fit smoothly.
- 4) Run a small bead of a door gasket adhesive (see your Blaze King dealer) or high temperature silicone adhesive along the center of the channel. Start the new gasket in the lower right corner. Do not stretch or cut the gasket. Distribute the gasket evenly around the frame.
- 5) Adjust the door catch on the stove front to ensure a proper seal, do not over tighten the door catch as it could place too much pressure on the door frame and glass. See "Adjusting the door catch tension" above.
- 6) Close the Loading Door and allow the adhesive to dry.
- 7) Check the fit of the door gasket. Insert a piece of paper into the door opening and close and latch the door. Obvious resistance should be felt when pulling the paper out. Repeat this check several times around the perimeter of the door. See "Adjusting the door catch tension" above.

## GOLD DOOR MAINTENANCE

The gold plating on the door is 24k gold and hence very soft. Do not use any abrasive cleaners on the gold, just a damp cloth. Use of abrasive cleaners will void the warranty.

## OPTIONAL FAN ASSEMBLY

Routine maintenance of the optional fan assembly on the back of the stove is not required. However, should it become necessary to replace the fan assembly, order an exact replacement from your local dealer. Contact a qualified electrical contractor for repair of electrical systems.

## SECTION 8 TROUBLESHOOTING

Your Blaze King is designed to allow a wide selection of heat output levels. If you begin to lose control of the amount of heat the stove is emitting, determine the problem early so that major problems can be avoided.

The four major needs of a well-controlled fire are:

- 1) Knowledgeable operator.
- 2) Adequate air supply.
- 3) Firewood of good quality and proper size.
- 4) Clean chimney, properly sized and installed.

Considering all of the above, number one is the most important for the safe and efficient operation of any woodstove. Please study the operation instructions carefully (Section 6). Consult your BLAZE KING dealer or call the Customer Service Department at Valley Comfort (604-493-7444) if you have any questions not answered in this manual.

All of the four above-mentioned needs are interrelated. A deficiency in any one will effect all of the others. If you encounter a problem, determine the source of the problem and then follow-up by checking the other needs for possible problems.

### **PROBLEM: Chimney fire.**

Act immediately regardless of cause. Adjust combustion air Control to lowest setting, check loading door to be sure it is tightly closed. Make sure all persons are alerted and out of the house. Call Fire Department.

After the fire is out, have your chimney and flue connector inspected by a certified chimney sweep. A masonry chimney that is damaged should be repaired or rebuilt. A prefabricated chimney (factory built) that is damaged should be replaced. Any damage to the flue connector should be corrected before the system is used again.

Possible causes for a chimney fire, and remedies for those causes, can be found further in this section: "Excessive Creosote Formation", and "Spots of Creosote Accumulation in Chimney or Flue Connector".



**PROBLEM:** Excessive creosote formation.

Improper operation

Check combustion air control setting operating procedures.

Wood too green or wet

Use seasoned wood.

Poor draft caused by an  
oversize flue, etc

Measure draft with Manometer. See DRAFTS, Section 7. See CHECK YOUR CHIMNEY, section 9. Consult your Blaze King dealer or a chimney sweep.

Chimney too cold or poorly  
insulated.

Upgrade chimney system. Consult your Blaze King Dealer or a chimney sweep

**PROBLEM:** Spots of creosote  
accumulation in chimney or flue  
connector.

Air leaks in chimney or flue  
connector

Inspect chimney and/or flue connector. Repair or replace as necessary.

Check to be sure that the flue connector is installed correctly.

CAUTION: a leaking flue connector is a fire hazard and demands immediate attention.

**PROBLEM:** Door glass quickly becomes coated with creosote.

Low thermostat setting

Turn the thermostat to the warmest setting during the first 20-30 minutes or until the fire is well established after each reloading.

Lowering the thermostat setting  
too far, too quickly

Turn the thermostat to the warmest setting during the first 20-30 minutes or until the fire is well established after each reloading.

Obstruction in chimney or cap  
screen

Remove obstruction. Clean chimney and/or cap screen.

Heat exchanger chamber filled  
with ash

Clean heat exchanger chamber. (See section 7).

Poor draft caused by oversize  
flue, etc.

Measure draft with a Manometer. Some chimneys may need to be relined. Consult your Blaze King dealer or a chimney sweep.

Strong, gusting winds causing downdraft in chimney

Install wind-resistant chimney cap.

than that of the flue collar. Since an oversized flue contributes to the accumulation of creosote, the size of the flue should be checked to determine that it is not too large for the stove. Relining or rebuilding may be necessary to make the chimney safe, efficient, and in conformity with local codes. A proper chimney is crucial for safe, satisfactory operation of any wood heating system.

Be sure the Ash Clean Out Door for the masonry chimney is closed tightly. This door may be in the wall below the chimney in the room below the chimney or outside near the ground level of the chimney. This is frequently overlooked, and can cause severe drafting problems in masonry chimney installations.

Chimney tops should NEVER be near trees or other tall objects that might cause downdrafts. The chimney MUST extend above the roof at least three feet or two feet above any area of the roof within ten feet of the termination of the chimney.

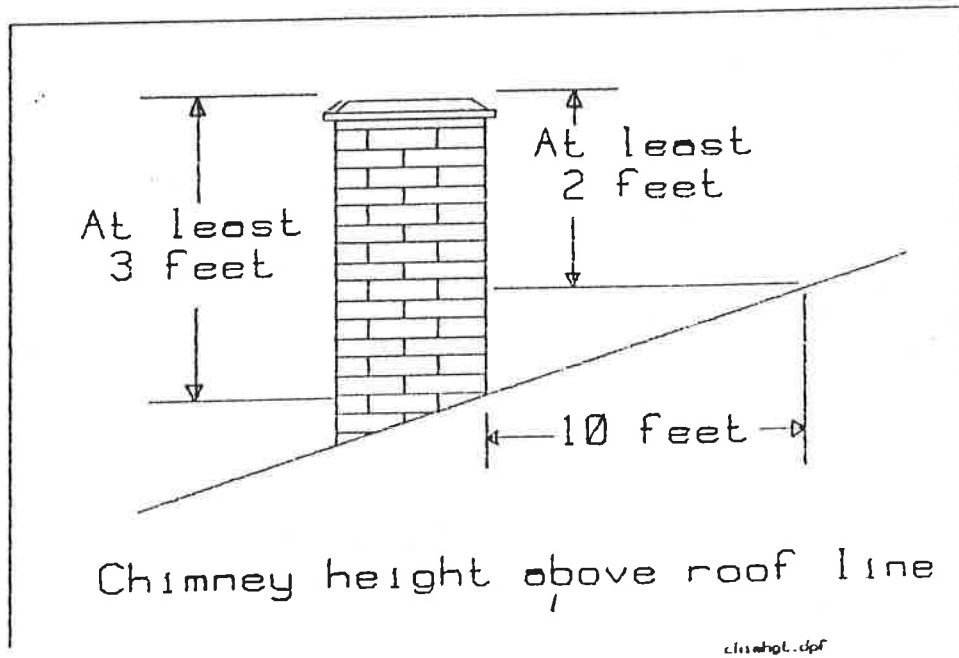


FIGURE 1

#### COMBUSTION AIR REQUIRED

You must provide adequate outside air for proper combustion. Particularly in new homes or homes which have been weatherized and are very air tight. Exhaust fans, such as those installed in kitchen and bathrooms, can create a negative pressure in the room. This is a very serious situation as smoke and dangerous carbon monoxide gases could be drawn back into your home. You can obtain an outside air kit from your Blaze King dealer, which when properly installed will ensure adequate combustion air. In mobile home installations (only the Baby model non catalytic is mobile home approved), you must use the outside air kit.

**CLEARANCES TO COMBUSTIBLE MATERIALS**

If closer clearances are required a listed wall or pipe shield may be used to reduce the clearances shown in the following chart.

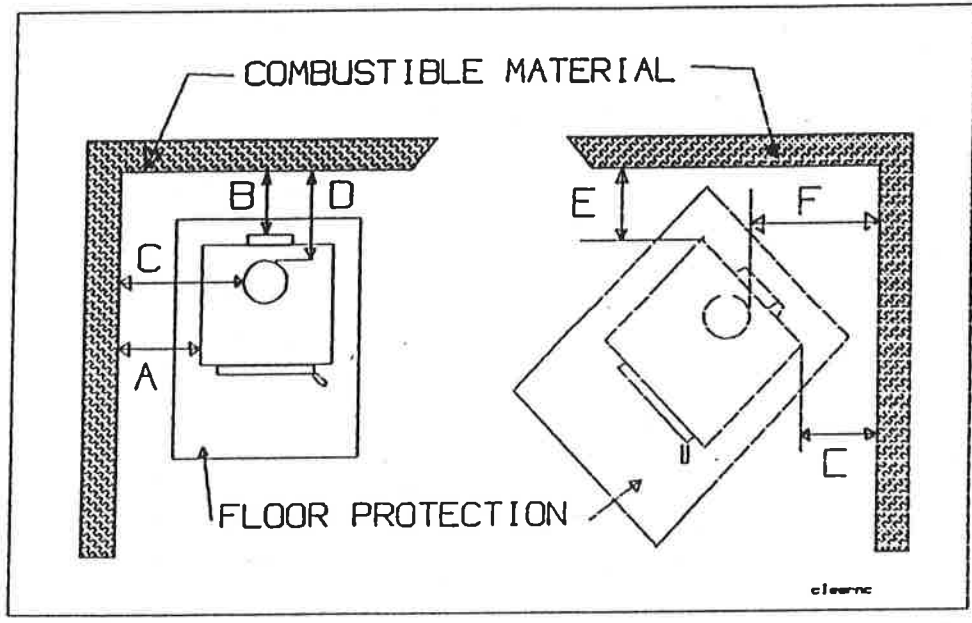


FIGURE 3

**MODEL KING KT 1102 (non catalytic)**

ROOF OR WALL EXIT CLEARANCES ARE THE SAME  
 FOR WALL EXIT CLEARANCE ABOVE HORIZONTAL CONNECTOR 18"

	A	B	C	D	E	F
Parallel & corner	14"	7"	25"	14.5"	12"	23.5"
Parallel reduced side use side shields	8"	7"	18"	14.5"	n/a	n/a
Parallel & corner close clearance, use side shields & rear shield or fan	8"	6"	18"	13.5"	6"	17.5"
Alcove	8"	6"	n/a	n/a	n/a	n/a

Alcove minimum size 47" wide, 76" high, maximum 48" depth  
 Alcove installation requires side shields & rear shield or fan.

## INSTALLATION USING MASONRY CHIMNEY

The masonry chimney must meet local building codes covering solid fuel appliance. The chimney must be the required height above the roof and other obstructions, see figure 1.

1) Position your stove in the desired location and ensure that a proper chimney connector installation is possible. Horizontal runs should be as short as possible and slope up 1/4" per foot run.

2) The chimney connector must not penetrate a combustible wall without using an acceptable thimble system. Check with your Blaze King dealer, your building inspector or a fire protection officer for local requirements

3) Mark the exact location for the floor protection. It must extend 16" in front and 6" on each side and 6" to the rear of the stove. If you are using a wall exit the protector must extend to the wall below the pipe and 6" on either side. Mark the location for combustion air supply.

4) Set the stove aside and install the combustion air supply if applicable.

5) Install the floor protection.

6) Position the stove in its final location and connect the chimney connector pipe (see figure 2) and the combustion air supply. **Note:** the chimney connector pipe is installed with the crimped end down toward the stove and each joint must be secured with 3 sheet metal screws.

7) Contact the local authority having jurisdiction for a final inspection.

Carefully read the operating instruction in the front section of this manual.

Thank you! Have a cozy safe winter.