

KEYSTOKER INSTALLATION INSTRUCTIONS 70,000 – 90,000 HFH HOPPER STOVE

Your Keystoker Hand Fired Stove is designed for safe, efficient and economical operation. It has been safety tested by Arnold Greene Testing Laboratory to ANSI 1482 standards. With proper use and maintenance, you will enjoy many years of low cost heating comfort.

Proper installation with clearances from combustibles to stove and stove pipe is critical for safety. Clearances from stove pipe in rear is 12" and clearances to side walls of stove is 12" Clearance refers to the distance of empty space between stove and any material that will burn.

An approved protector or non-combustible pad must be placed under the stove if stove is installed on a combustible surface. Floor protector must extend 16" beyond front of stove, and 8" beyond both sides and rear of stove. A carpet may NOT be left under floor protector.

Keep furniture, curtains, drapes, papers and other combustibles a safe distance from stove.

Contact your local building code officer about chimney inspection or any other ordinance restrictions.

The stove may be placed closer to a wall, if the wall is non-combustible, or if wall is protected by a UL approved wall shield.

For your safety and protection, all clearances as stamped on stove label must be strictly adhered to.

Your stove has been carefully designed to burn coal. DO NOT BURN OTHER FUELS OR TRASH.

Stove must be connected to a masonry chimney or an approved prefabricated metal chimney. Check local building codes.

Stove should be placed as close to your chimney as possible using as little pipe and elbows as is practical.

After selecting a safe location for stove, if you have purchased the optional variable speed blower, connect blower to back of stove with screws provided. Be sure power supply cord does not touch any hot surfaces which could cause electrical fire. If your blower has a rheostat, it can be adjusted to increase or decrease fan speed, depending on amount of heat desired.

STOVE PIPE INSTALATION Stove outlet and stove pipe is 6". Use 24 gauge black or blue steel pipe. Install stove pipe at least 12" from side wall, and 18" from ceiling. Special methods are required when passing through a wall or ceiling. Check local building codes. All connections and joints should be secured using 3 screws in each joint. Horizontal runs of stove pipe should be on a slight upward grade from stove to chimney thimble. Stove pipe may not enter into chimney beyond inside wall of chimney. This will adversely affect draft. Either a barometric damper or a manual damper may be installed in stove pipe.

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MANUAL BI-METAL THERMOSTAT Your stove is equipped with a bi-metal manual thermostat, which will act as your automatic heat regulator. This thermostatic dial is located on back side of stove. To attain desired heat output of stove, place selector dial to a number from 1 to 5. This will open combustion shutter flap on bottom of stove, and allow more air to flow through fire bed. This will burn coal hotter, and increase heat output of stove. As stove temperature increases, the bi-metal thermostat will begin to close the combustion shutter flap on lower part of stove. When stove begins to cool, combustion shutter flap will begin to reopen. This will assure a steady even heat from stove at all times. To increase heat output, turn selector dial to a higher number. On days when only a small amount of heat is required, turn dial to a lower number.

ASH DOOR DIAL On the ash door of your stove is a dial that will turn clockwise or counter-clockwise. The purpose of this dial is twofold. 1. Your new stove is quality built as an air tight stove. On mild days when bi-metal thermostat flap is completely closed, chimneys with low drafts may have a tendency to cause fire to go out, because of lack of oxygen going through fire bed. By turning ash door dial in a counter-clockwise direction, there will be a steady flow of oxygen to keep fire burning. Exactly how much to turn dial for more oxygen is a matter of trial and error, depending upon your chimney draft.

2. The Ash Door Dial may be used as the primary heat output adjustment. You may choose not to use the bi-metal thermostat, and use only the Ash Door Dial. Simply turn the Dial Counter-clockwise for more heat, (allowing more oxygen for combustion) or turn Dial Clockwise for less heat.(allowing less oxygen for combustion).

STARTING FIRE There are several ways to start a fire:

1. Cover grate with charcoal briquets that have lighter fluid included, (i.e. matchlite charcoal) Light charcoal briquets with matches or newspaper. Open ash door for combustion air. When charcoal is burning well, sprinkle coal onto fire, but do not smother fire. When coal begins to burn, **CLOSE ASH DOOR.** Fill hopper with coal
2. Take about eight sheets of newspaper, crumble into balls and place on top of grates. Next lay fine Kindling on top of paper in a criss-cross fashion to allow good air flow. Light the newspaper and open ash door. When a bed of wood coals is burning well, start adding coal in amounts at a time. Continue adding small amounts of coal until there is a solid bed of coal burning. Do not add too much coal at one time, or you may smother fire. When coal is burning well, **CLOSE ASH DOOR.** Fill hopper with coal.

LOADING COAL Coal loading door on top of stove should be cracked open slightly to allow oxygen to enter and burn any combustion gases that are present in stove **BEFORE** fully opening loading door. It is recommended that coal should be added before hopper is allowed to go completely empty. Before shaking the grate, load coal into hopper, the weight of coal will assist in ash falling into ash pan. Also, adding coal before hopper is empty will prevent any sparks from coming up through hopper.

IT IS MOST IMPORTANT After hopper is filled, be sure there are no small pieces of coal under loading door which may prevent loading door from closing to an airtight position. **FAILURE** to properly close and seal loading door could cause fire to burn into coal hopper.

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BEFORE SHAKING GRATES Before shaking of grate, it is recommended to close the combustion air shutter on back of stove by turning manual thermostat to its lowest number, also, close Ash Door Dial. Failure to close both shutters while shaking grate, will allow dust from ash chamber to flow through the glass air wash duct and settle onto the fire door glass. However, should this occur, glass can be wiped clean.

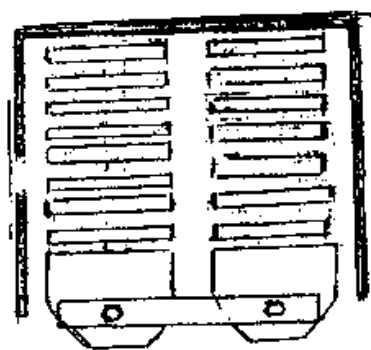
SHAKING GRATE The shaker grate is designed to dump the entire fire by pulling shaker handle toward the front of stove to its maximum forward position. Therefore, it is best during normal shaking of grate, TO SHAKE GRATE WITH A SHORT "CHOPPY" MOTION. Fire may be raked until raw or unburned coal is visible on both sides and front of hopper. Or, shaking grates should be stopped when hot coals begin to fall into ash pan. Hot coals burning on grates will cause overheating of grates and reduce life of grate. Leaving a thin layer of ash on grates will protect, and extend life of grate.

ASH PAN Do not allow ash pan to become overfull. This will reduce air flow through fire and cause poor burning of coal. Do not allow ash accumulation closer than 2" below shaker grates. After raking fire, NEVER discard ashes into a combustible container. Burning coal may stay hot for hours. Always wear gloves when removing ash pan. Ashes should always be removed before shaking grates.

ASH DOOR Opening Ash Door to Burn Fire Faster Can Cause Overheating of Stove and VOID WARRANTY. Ash door may be opened briefly, to start a fire, but must immediately be closed when fire is established. If STOVE OR STOVE PIPE GLOWS RED, STOVE IS OVERFIRED. Close off all combustion air intakes immediately. NEVER LEAVE STOVE UNATTENDED WITH ASH DOOR OPEN. Serious damage to the stove or property may occur from overheating.

GRATE LINKAGE grate linkage is located inside ash chamber on left side. To change heat output from 90,000 BTU's to 70,000 BTU's. Disconnect linkage rod from both front and rear grates by removing 2 hex tap bolts, one bolt from front grate, and one bolt from rear grate. Ash will build up on rear grate, because it will not shake, this will reduce the amount of coal being burned and lower BTU output. Linkage may be reinstalled if necessary.

Grate rack



Grate linkage

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GLASS CLEANING The following instructions are meant to serve as a guideline for proper cleaning and care of ROBAX glass-ceramic windows.

Cleaning Techniques:

All cleaning procedures should be done at room temperature, cleaning of hot surfaces should be avoided. The main reason is that cleaning solutions may dry rapidly enough before thorough removal of cleansing solution, which may result in creating a film or deposit that can react with combustion by-products.

If white deposits are found to be on surface of glass, these should be scraped off using a sharp bladed scraper, and wiped away with a dry cloth prior to any wet cleaning. Scraper blade should be held at an angle of 30 degrees or less.

Although glass is extremely hard and is very scratch resistant, it is not scratch-proof. The use of abrasive cleaners (i.e. any cleaners containing grit) and scouring pads (i.e. steel wool, plastic with embedded grit) should be strictly avoided.

Soft cloths should be used for all cleaning steps. The cloths should be free of any abrasive agents. The use of sponges should be avoided since they have a tendency to retain abrasive agents from previous uses.

When cleaning, it is not advisable to allow cleaners to dry on glass surface. Dried cleaning solutions may react with surface causing discoloration or a permanent film.

SAFETY PRECUATIONS DURING NORMAL OPERATION, FIRE DOOR AND ASH DOOR MUST REMAIN CLOSED.

Annual cleaning and maintenance should be done at end of each heating season. Brush interior sides and top of stove. Remove stove pipe and vacuum. Clean base of chimney and inspect chimney. Examine stove pipe. If your stove is equipped with a blower, oil motor as indicated on motor with a light non-detergent motor oil. Clean fan blades and screen.

When allowing fire to go out at the end of heating season, place a few drops of oil on door hinges and threads on door latches to prevent rust from building up and causing failure of free movement of door hinges and door latches next fall.

WARRANTY

Five Year pro-rated warranty on stove. One Year warranty on blower
One year warranty on grates. NO warranty on glass. NO warranty on paint