



Hand Fired Cook Stove

Operating instructions and maintenance enclosed
Thoroughly read and understand instructions
Always leave this manual with stove owner

Follow the instructions within this manual. If instructions are not followed, a fire may result causing property damage, personal injury, or even death.

A carbon monoxide detector has been supplied with your stove. You must plug it in.

Danger risk of fire or explosion. Do not burn garbage, gasoline, drain oil, or other flammable liquids. Do not use chemicals or fluids to start fire.

Burn Nut and Pea anthracite coal only

Stoves surfaces may be hot while in operation. Keep children away. Do not touch during operation

Do not connect this unit to a chimney flue serving another appliance.

Follow all local building and Zoning ordinances

OPERATION OF KEYSTOKER HAND-FIRED ANTHRACITE COAL COOK STOVES

Your Keystoker hand fired cook stove is designed safe, efficient, and economical operation. It has been safety tested by Arnold Greene Testing Laboratory to ANSI UL 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. Clearance from stove side to combustible is 24". Clearance from stove to rear is 24". Clearance refers to the distance of empty space between stove and any material that would burn.

An approved protector or non-combustible pad must be placed under the stove; if stove is installed on a combustible surface the 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 all other combustibles a safe distance from stove.

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

The stove may be placed closer to a wall if it is non combustible or if the wall is protected by a U.L. approved wall shield.

For your safety and protection all clearances as stamped on stove 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. If stove is to be connected to a chimney serving another appliance, check building codes.

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

Stove outlet and stove pipe is 5". Use 24 gauge black or blue steel pipe. Install stove pipe at least 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. This will adversely

OPERATION OF KEYSTOKER HAND-FIRED ANTHRACITE COAL COOK STOVES

affect draft. A manual had damper may be installed in stove pipe if home has a high draft.

The manual air control slide knob is located on ash door. Sliding knob to the left will increase opening in ash door, allowing more flow of combustion air through fire. This will increase burn rate of coal and produce higher heat output. Sliding knob right will close combustion air and reduce stove output.

NOTE: Hot coals may not be allowed to burn above fire brick in stove. Fire brick is designed to contain fire. Hot coals above fire brick may cause permanent damage to stove. When fire bed becomes too high, it is time to shake down ashes into ash pan. The fire may be raked until hot coals begin falling through grate. Stop asking when hot coals fall into ash pan, hot coals burning on the grate will cause overheating of grate and reduce life of grate. Leaving a thin layer of ash on the grate will protect and extend life of grate.

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 combustible container. Burning coals may stay hot for hours. Always wear gloves when removing ash pan. Ashes should always be removed before shaking grate.

**OPENING ASH DOOR TO BURN FIRE FASTER CAN CAUSE
OVERHEATING OF STOVE AND VOID WARRANTY.** If stove or stove pipe glows red, stove is over fired. Close off all combustible air intakes in ash door and allow stove to cool. Over firing stove voids all warranties. FIVE YEARS PRO-RATED WARRANTY OF STOVE. ONE YEAR ON GRATES. NO WARRANTY ON PAINT.

TO LOAD COAL OR TO CHECK ON FIRE:

1. Lifting lid of stove too quickly may momentarily cause coal fumes to exit Stove and produce a sulfur smell in the home.
2. To prevent coal fumes from entering into home when adding coal:
 - a. Insert lid lifter into slot in lid...crack open lid...pause briefly...then lid may be completely removed.
 - b. Add coal as necessary.

TO DAMPEN FIRE OFF To reduce heat output or to extend burn time of fire...Dampen fire off. To dampen fire off (this may vary from day to day depending on outside temperature and wind conditions)

OPERATION OF KEYSTOKER HAND-FIRED ANTHRACITE COAL COOK STOVES

Close slide on ash door gradually, this will reduce combustion air intake and slow down burn process. If stove still continues to burn too fast or is still too hot, gradually open slide on back of stove (located near stove pipe) until fire cools.

Take about eight sheets of newspaper crumble into a ball and place on top of grates. Next, lay fine kindling on top of the newspaper. This kindling must be dry and no larger than ¾" in diameter. Layer the kindling in a criss-cross fashion to allow good air flow. Open the draft control fully and light the newspaper just inside the door. Next, close the loading door and allow the kindling to catch fire. After a few minutes, open the loading door an inch or two for a few seconds before opening completely. This method will allow smoke to clear away from the door opening before the loading door is completely opened.

Add small, compact pieces of hardwood when the kindling is burning hot. Keep the draft controls fully open to establish a hot fire quickly. The ash door also may be opened during start-up to accelerate the initial burn.

When a substantial bed of red wood coals is built up, start adding coal (Pea or Nut coal is preferred when starting) small amounts at a time. Keep the draft control open.

Continue adding small amounts of coal until there is a solid bed of burning coal. DO NOT add too much at one time. Allow sufficient time between each small loading (at least 5-10 minutes), so that each loading has time to ignite thoroughly before the next load is put in. When a substantial bed of burning coals has been established, fill the stove to the top of the firebrick. A deep bed of coal always will burn more satisfactory than a shallow bed.

When most of the wood is burned and coal is completely ignited (usually 5-10 minutes or less after filling stove), the draft controls should be turned down to the proper operating level. (If the ash door has been opened, it must be closed to prevent over firing, which can cause dangerously high temperatures).

LOADING

Coal should never be added unless there is a reasonable, hot fire. The coal bed should be bright and vigorous.

If the fire is burning hot and there is a deep bed of coals, full loads of coal can be added at any time. However; if there is not a deep bed of coals, it is best to add small amounts of coal at first.

INCREASING HEAT FROM A LOW FIRE Every effort should be made not to let a coal fire burn too long so that the fire has started to die. This will cause the

OPERATION OF KEYSTOKER HAND-FIRED ANTHRACITE COAL COOK STOVES

reloading process to be much longer and there is a good possibility of losing the fire. Do not shake or stir a low fire.

Open the draft control wide or open the ash cleanout door to get the maximum draft. Run the stove with the draft control or ash door fully open until the fire is reasonably hot. Start adding small amounts of coal. When the new coal is thoroughly ignited or there is a substantial bed of hot coals. The stove may be shaken thoroughly. Be sure to shake down all ashes, but do not over shake.

INCREASING HEAT FROM A LOW FIRE

After shaking, keep the bottom draft control open until you are sure that the fire is continuing to burn hot, then turn draft control down to the proper operating level.

**IF THE ASH DOOR HAS BEEN OPENED, BE SURE TO SHUT IT.
SERIOUS DAMAGE CAN RESULT IF THE STOVE IS RUN FOR
EXTENDED PERIODS WITH ASH DOOR OPEN.**

For stoves with the screw type draft controls, count the exact number of turns from full shut to the normal operating position so that you can adjust the stove to the exact level of heat output and length of burn you desire.

SHAKING

Shaking should only be done when there is a hot fire.

The frequency of shaking will depend on the type of stove and the degree of burning. Shaking should only be done at least once a day and preferably twice a day.

Best results from shaking with most grates will occur if short, “choppy” strokes are used rather than long, even strokes.

The amount of shaking is critical. Too little or too much, can result in the extinguishing of the fire due to air flow. The proper amount normally occurs when red coals first start to drop through onto the bed of ashes.

DRAFT CONTROL

The heat output of the coal is controlled by the primary draft control, usually found on the bottom door. Experience will dictate the proper settings for heat requirements.

Coal responds very slowly to changes in draft settings. Because of this slow response time, over-correcting is common problem. When changes in heat output are needed, make only small changes in the draft setting and wait for the temperature to stabilize.

ASHES

Ashes should never be allowed to accumulate in ash pit, so that they in any way impede the flow of combustion air to the fire. Excessive ash accumulation can

OPERATION OF KEYSTOKER HAND-FIRED ANTHRACITE COAL COOK STOVES

cause the fire to go out and also can cause severe damage to the grates because of the absence of a cooling flow of air beneath them. Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should remain in the closed container until all cinders have thoroughly cooled outside the dwelling.

ASHES

CAUTION: Ashes should never be allowed to accumulate above the top of the ash pan. Ashes in contact with the bottom of the grate can act as an insulator, intensifying the heat on the grates, and could cause warping. With an excessive ash buildup, primary combustion air is restricted, thus, the unit's output could be reduced.

**GRATES WARPED IN THIS WAY ARE EASILY RECOGNIZED BY THE
EXTREME DAMAGE CAUSED TO THE GRATES.**

SAFETY

Whenever a loading door is open, it always should be cracked slightly to allow oxygen to enter and burn any combustion gasses that are present before fully opening. Failure to do this could result in sudden ignition of the unburned gases when the door is opened.

A stove should never be filled with excessive coal, so that the flue gas exit is blocked or impeded in any way. Burning coal generates Carbon Monoxide. If the flue gas exit is blocked, the Carbon Monoxide can be forced out of the stove and into the room, with possible fatal consequences.

SAFETY

**WITH THE EXCEPTION OF THE START-UP PERIOD, THE ASH
PIT DOOR SHOULD NEVER BE LEFT OPEN. NOTE: A STOVE
SHOULD NEVER BE LEFT UNATTENDED WITH THE ASH PIT DOOR
OPEN.**

**SERIOUS DAMAGE TO THE STOVE CAN OCCUR FROM
OVERHEATING. COAL STOVES SHOULD NOT BE INSTALLED IN
ANY CHIMNEY THAT HAS HAD A HISTORY OF BACK-DRAFTING OR
FLOW REVERSAL. THESE CONDITIONS CAN CAUSE IMPROPER
DRAFT; RESULTING IN CARBON MONOXIDE ENTERING THE HOME
RATHER THAN BEING DRAWN UP THE CHIMNEY.
REMEMBER! COAL, LIKE ALL OTHER FOSSIL FUELS, CONTAINS
GASES THAT ARE TOXIC!**

OPERATION OF KEYSTOKER HAND-FIRED ANTHRACITE COAL COOK STOVES

THE BURNING OF ALL FOSSIL FUELS GENERATES CARBON MONOXIDE GASES. CARBON MONOXIDE GASES ARE TOXIC, CAN CAUSE SICKNESS OR BE FATAL.

Whenever a loading door is opened, it should always be cracked slightly to allow oxygen to enter and burn any combustion gases that are present, before fully opening. Failure to do this could result in sudden ignition of the unburned gases when the door is opened.

A stove should never be filled with excessive coal, so that the flue gas exit is blocked or impeded in any way. Burning coal generates Carbon Monoxide. If the flue gas exit is blocked, the Carbon Monoxide can be forced out of the stove into the room, with possible fatal consequence.

With the exception of the start-up period, the ash pit door should never be left open. Also **NOTE** that a stove should never be left unattended with the ash pit door open.

SERIOUS DAMAGE TO THE STOVE CAN OCCUR FROM OVERHEATING.

Coal stoves should not be installed in any chimney that had a history of back-drafting or flow reversal. These conditions can cause improper draft, resulting in Carbon Monoxide entering the dwelling rather than being drawn up the chimney.

REMEMBER! Coal, like all fossil fuel, contains gases that are toxic

CAUTION: ASH PAN IS HOT-Always Use Gloves to Remove Ash Pan

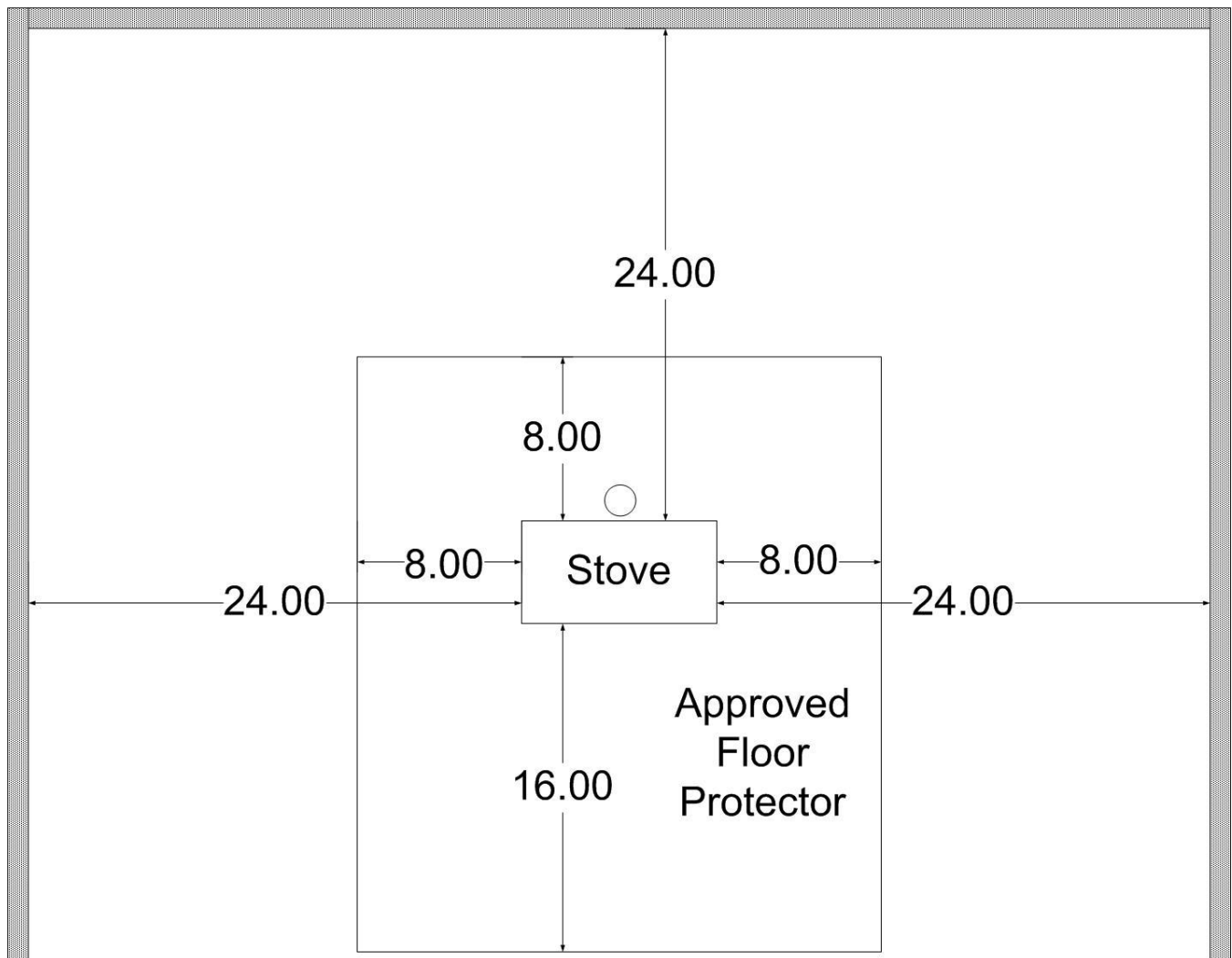
Open ash door. Use a good pair of gloves, to remove ash pan. Place filled ash pan on a non-combustible surface. Slide an empty ash pan into stove. Close ash door.

U.S. ENVIRONMENTAL PROTECTION AGENCY COAL-ONLY HEATER

This heater is only for burning coal. Use of any other solid fuel except coal ignition purposes is a violation of Federal law.

THIS HEATER COMPLIES WITH FEDERAL REGULATION 40 CFR 60.
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OPERATION OF KEYSTOKER HAND-FIRED
ANTHRACITE COAL COOK STOVES



Chimney Type: Minimum 5 inch diameter approved low heat residential type all fuel Chimney Connector: 5 inch diameter 24 gauge blue or black steel. Install at least 18 inches from wall and ceiling. Special methods are required when passing through a wall or ceiling.

OPERATION OF KEYSTOKER HAND-FIRED ANTHRACITE COAL COOK STOVES

Keystone Manufacturing company extends the following warranties to the original owner from the date of purchase.

Five Years Workmanship on stove body

Two years on grates and side rails

One year all electric controls and motors.

Warranty does not apply if damage occurs because of improper handling, operation, abuse, rust, corrosion, misuse or use beyond rated capacity.

This warranty does not apply if the product has been altered in any way after leaving the factory.

All warranty claims should be made through dealer where the appliance was originally purchased. Model, and original copy of the sales receipt need be presented to dealer.

If a consumer chooses to make a warranty claim directly through Keystone Manufacturing Company model, and copy of the original sales receipt are required. Customer must provide a credit card which will be charged for the full retail price for the product plus shipping and handling. When defective part is returned to the company and found to be a defect within warranty period the consumer's credit card will be credited back the cost of part.

Keystone Manufacturing Company assumes no responsibility for any labor expenses, for service, product removal, reinstallation or any freight charges for parts returned to the company.

If defective in material or workmanship and if removed by the owner with in warranty period Keystone manufacturing will at their opinion repair or replace the product.

This warranty is limited to defective parts, repair, or replacement at our opinion and excludes any incidental and consequential damages connected there with.

Warranty exclusions, labor, door gasket, ash tub, and paint

Stove Information

Dealer_____

Date of purchase_____

Stove Model_____