Owner's Instruction and Operation Manual



Model Number: 1869 COAL ONLY STOVE

THIS STOVE IS NOT A LISTED STOVE. DO NOT USE THIS HEATER IN A MOBILE HOME OR TRAILER. The use of wood in this stove, other than for coal

ignition purposes, is prohibited by law.



* All Pictures In This Manual Are For Illustrative Purposes Only. Actual Product May Vary.

851499H-4603K

Save These Instructions In A Safe Place For Future Reference.

SAFETY NOTICE: If this heater is not properly installed, a house fire may result. For your safety, follow the installation instructions. Never use make-shift compromises during the installation of this heater. Contact local building or fire officials about permits, restrictions and installation requirements in your area. NEVER OPERATE THIS PRODUCT WHILE UNATTENDED.

CAUTION! Please read this entire manual before you install or use your new room heater. Failure to follow instructions may result in property damage, bodily injury, or even death. Improper Installation Will Void Your Warranty!

▲ CALIFORNIA PROPOSITION 65 WARNING:

This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause cancer, birth defects, and/or other reproductive harm. For more information, go to www.P65warnings.ca.gov

THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE.

INTRODUCTION

You have purchased a heater from North America's oldest manufacturer of coal burning products. Our Caboose Potbelly Stove is reminiscent of the potbelly stoves seen in the train stations and cabooses of yesteryear. This high performance potbelly stove is constructed of all cast iron and is designed to burn coal. Its generous firepot capacity with shaker grate allows 40 lbs of coal to burn for eight hours before requiring refueling. Separate ash door with slide draft control at bottom creates a "forge effect" that ensures proper combustion.

Specifications		
Height (Overall)	36"	
Width	21.6"	
Depth	19.5"	
Firebox Capacity	40 lbs	
Firebox Depth	10"	
Flue Size	6"	
Door Opening	8" x 10"	
Material	100% Cast Iron	
Fuel	Coal	
NOTE: Bituminous, large nut to small egg or Anthracite, large egg to small broken.		
BTU Rating	80,000	
Weight	168 lbs.	



SAFETY NOTICE:

IF THIS HEATER IS NOT PROPERLY INSTALLED 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.



Note: Register your product online at www.usstove.com or download the free app today. This app is available only on the App Store for iPhone and iPad. Search US Stove. Save your receipt with your records for any claims.

For Customer Service, please call: 1-800-750-2723 Ext 5050 or; Text to 423-301-5624 or; Email us at: customerservice@usstove.com



Your stove should be installed by a qualified installer only. An NFI qualified Installer can be found at <u>www.nficertified.</u> org/public/find-an-nfi-pro/

CUSTOMER SERVICE

1-800-750-2723 ext 5050 Text to 423-301-5624 Email to: Customerservice@usstove.com

COMMISSIONING CHECKLIST

This checklist is to be completed in full by the qualified person who installs this unit. Keep this page for future reference.

Failure to install and commission according to the manufacturer's instructions and complete this checklist will invalidate the warranty.

Ple	ise Print			
Customer Name:	Telephone Number:			
Address:				
Model:				
Serial Number:				
Installation Company Name:	Phone Number:			
Installation Technician's Name:	License Number:			
DESCRIPTION OF WORK Location of installed appliance: Chimney System: New Chimney SystemYesN	lo If yes, Brand			
If no, Date of inspection of the existing chimney system:				
COMMISSIONING Confirm hearth pad installation as per installation instruc	tions			
Confirm proper placement of internal parts				
Check soundness of door gasket and door seals				
Confirm clearances to combustibles as per installation instructions in this manual				
Check the operations of the air controls				
Confirm all flue pipe and chimney system are secure and sealed				
Confirm the stove properly drafts when fired				
Check to ensure a CO alarm is installed as per local building codes and is functional				
Explain the safe operation, proper fuel usage, cleaning and routine maintenance requirements				
Declaration of Completion: As the qualified person responsible for the work described above, I confirm that the appliance as associated work has been installed as per manufacturer's instructions and following any applicable building and installation codes.				

Home Owner: RETAIN THIS INFORMATION FOR FUTURE REFERENCE

Signed: __

Date:

____ Print Name: ____

Read these rules and the instructions carefully.

UNITED STATES Stove Co

- 1. The installation of this stove must comply with your local building code rulings. Please observe the clearances to combustibles. Stove must be 36" from a combustible wall (wood or plaster board) at rear or sides.
- 2. DO NOT install this stove in a mobile home or trailer.
- 3. Always connect the stove to a chimney and vent to the outside. Never vent to another room or inside a building.
- DO NOT connect a solid fuel burning appliance to an aluminum Type B gas vent. This is not safe and prohibited by the NFPA (National Fire Protection Agency). This stove requires approved masonry or UL 103 HT factory built chimney.
- 5. Be sure that your chimney is safely constructed and in good repair. Have the chimney inspected by the fire department or a qualified inspector. Your insurance company may be able to recommend a qualified inspector.
- Creosote or soot may build up in the chimney connector and chimney and can cause a house/ building fire. Inspect the chimney connector and chimney twice monthly during the heating season and clean as necessary (see Chimney Maintenance).
- 7. Provide air for proper combustion from outside the house into the room where the stove is located. If the intake is not in the same room, air must have free access to the room.

- 8. To prevent injury, do not allow anyone to use this stove who is unfamiliar with the correct operation of the stove.
- 9. Dispose of the ashes in a metal container with a tight fitting lid. Keep the closed container on a non-combustible floor or on the ground, well away from all combustible materials. Keep the ashes in the closed container until all cinders have thoroughly cooled. The ashes may be buried in the ground or picked up by a refuse collector.
- 10. The special paints used on this stove may give off some smoke and an odor while they are curing during the first few fires. Paint discoloration will occur if the stove is overfired.
- 11. This stove has a painted surface which is durable but it will not stand rough handling or abuse. When installing your stove, please handle with care. Clean with soap and warm water when stove is not hot. Do not use any acids or scouring soap, as the will wear and dull the finish.
- 12. While the stove is in operation, all persons, young children especially, should be alerted to the hazards from high surface temperatures and should keep away to avoid burns or clothing ignition. Small children should be carefully supervised when they are in the same room with the stove.
- 13. Keep stove area clear and free of all combustible materials such as gasoline and/or other flammable vapors and liquids.

ASSEMBLY & INSTALLATION

- 1. Uncrate and/or unpack the heater, removing all packing material, being careful not to dispose of the parts bag.
- Remove the following contents: (4) Legs with nut and bolt package, (1) Lid, (1) Lid Lifter, (1) Shaker Grate, (1) Ash Door, (1) Slide Draft, and (1) Feed Door.
- 3. Carefully lay the stove on its side, preferably on a soft surface. Note: Cardboard shipping carton placed flat works well for this application.
- 4. Securely attach all four (4) legs to the lower chamber using nut and bolt package.
- 5. Carefully return the stove to the upright position and place it in the desired location.
- 6. Place the lid in position on top of the plate.
- 7. Position ash door with slide draft on the front of the lower chamber.
- 8. Place shaker grate in the lower chamber.
- 9. Place the heater on solid masonry, or solid concrete. When the heater is used on a combustible floor, use a listed floor protector. The floor protector must comply with UL Standards. The base should extend at least 18" beyond the door side of the heater and should extend under the flue pipe (if it is elbowed towards a wall). After observing the clearances to combustibles, locate your floor protector accordingly, and carefully place the stove in your selected location. Install stovepipe, elbows, and thimble as necessary, utilizing either a recently cleaned and inspected masonry chimney or UL 103 HT Factory Built Chimney, utilizing manufactures instructions.





- 10. The flue pipe draft damper must be installed into the top end of the first straight section of stove pipe exiting the stove before the stove is used.
 - a. Drill two 1/4" holes centered on either side of the pipe section 6" from the top end of the pipe Remove the handle from the damper then slide the damper into the pipe.
 - b. Align the damper with the holes drilled in step 8a and insert the handle through the holes and the damper.

NOTE:

THIS DAMPER IS NECESSARY FOR THE PROPER OPERATION OF THE STOVE. IT MUST BE INSTALLED BEFORE USE (NO EXCEPTIONS)





- 11. Attach stove piping (see instructions).
- 12. The stove must have its own flue. Do not connect this unit to a chimney flue serving other appliances. This stove has a circular flue outlet and uses a standard 6" stovepipe. To attach pipe, simply slide the end of the stove pipe into the flue outlet and secure with metal screw.



CAUTION:

KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIALS AWAY FROM THE HEATER.

- 13. If your chimney continues to draft excessively, then use a barometric draft regulator.
- 14. Use three (3) sheet metal screws in each stove pipe and/or elbow joint to firmly hold the stove pipe together. Use 6" round black/blue stove pipe, not galvanized stove pipe.
- 15. Double check instructions 2 through 7 to be sure you have the proper clearances shown from the stove and the connector pipe to combustible surfaces. NOTE: If a wall is only faced with brick or stone, consider it as a combustible wall.
- 16. DO NOT install this stove in a mobile home or trailer.
- 17. If you have too much draft, then install a 6" cast iron stove pipe damper in the first joint of the stove pipe.

MASONRY CHIMNEY

The masonry chimney must comply with UL codes. Before using an existing masonry chimney, clean the chimney and inspect the flue liner to be sure it is safe to use. Make repairs before attaching the heater. The connector pipe and fittings you will need to connect directly to a masonry chimney are shown. If the connector pipe must go through a combustible wall before entering the masonry chimney, consult a qualified mason or chimney dealer. The installation must conform to local fire codes, and NFPA 211. Do not connect this heater into the same chimney flue as the fireplace or flue from another heater. The chimney used for a heater must not be used to ventilate the cellar or basement. If there is a cleanout opening at the base of the chimney, close it tightly.

LISTED CHIMNEY

Carefully follow chimney manufacturer's instructions. Use only 6" black or blued chimney connector, minimum 24 gauge steel and UL 103 HT factory built chimney, utilizing manufacturers instructions. If your chimney starts at the ceiling, you will need enough 6" pipe to reach the ceiling. The top of the chimney must be at least 3 feet above the roof and be at least 2 feet higher than any point of the roof within 10 feet.





RULES FOR CONNECTOR PIPE INSTALLATION

- 1. The pipe should be firmly attached to the collar top with 3 screws and sealed with stove cement.
- 2. Slope any horizontal pipe upward toward the chimney at least 1/4" for each foot of horizontal run.
- 3. You must have at least 18" clearance between any horizontal piping and the ceiling.
- 4. The pipe cannot extend into the chimney flue.
- 5. Seal each connector pipe joint with stove cement. Also seal the pipe at the chimney.
- 6. Use 3 sheet metal screws at each joint to make the piping rigid.
- 7. It is recommended that no more than two (2) 90 degree bends be used in the stove pipe installation as more than two (2) may decrease the amount of draw and possibly cause smoke spillage.

NOTE: The chimney connector shall not pass through an attic, roof space, floor, ceiling, or similar concealed space. Where passage through a wall or partition of combustible construction is desired, the installation must conform with NFPA 211.

OPERATION OF THE STOVE

- 1. Fully open slide draft on ash door and keep spin damper on feed door closed.
- Burn coal only. Use wood for coal ignition purposes only. Build six (6) small fires upon initial firing. Light wood using paper, twigs, etc.
- 3. After the fire has been started and is burning satisfactorily, close slide draft almost all the way.
- 4. Open/adjust spin draft on feed door to allow additional air into the stove (on top of the fire). This will allow a more efficient burn cycle.
- 5. Never build extremely large fires in this type stove as damage to the stove or smoking may result.
- 6. DO NOT touch the stove after firing
- 7. Never over fire this stove by building excessively hot fires as a house/building fire may result.
- 8. Inspect stove pipe every 90 days. Replace immediately if stove pipe is rusting or leaking smoke into the room.
- 9. This is a cast iron stove. It does not have welded seams. From time to time you may have to "tune-up" the stove by refilling and/or replacing the stove cement or mortar along the seams.
- 10. If stove begins to glow or turn red, you are over firing.

CAUTION:

OVER FIRING THE APPLIANCE MAY CAUSE A HOUSE FIRE. IF A UNIT OR CHIMNEY CONNECTOR GLOWS, YOU ARE OVER FIRING.

CAUTION:

NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR FLAMMABLE LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THE HEATER.

CAUTION:

USE COAL ONLY. DO NOT USE DRIED LUMBER, TREATED WOOD ARTIFICIAL OR PRESSED LOGS.

WARNING:

NEVER STORE FLAMMABLE LIQUIDS, ESPECIALLY GASOLINE. IN THE VICINITY OF THE HEATER.

WARNING:

NEVER OPERATE THIS HEATER WITH THE FUEL DOOR OPEN.

WARNING:

DO NOT OBSTRUCT THE SPACE BENEATH THE HEATER

SERVICE HINTS

Do not expect a heater to draw. It is the chimney that creates the draft. Smoke spillage into the house or excessive buildup of water or creosote in the chimney are warnings that the chimney is not functioning properly. Correct problem before using heater. Possible causes are:

- 1. The connector pipe may push into the chimney too far, stopping the draft.
- 2. Do not connect two heaters into the same chimney flue.
- 3. The chimney used for a heater must not be used to ventilate the cellar or basement. If there is a cleanout opening at the base of the chimney, It must be closed tightly.
- 4. If the chimney is operating too cool, water will condense in the chimney and run back into the stove. Soot formation will be rapid and may block the chimney. Operate the heater at a high enough fire to keep the chimney warm preventing this condensation.

If the fire burns well but sometimes smokes or burns slowly, it may be caused by the chimney top being lower than another part of the house or a nearby tree. The wind blowing over a house or tree, falls on top of the chimney like water over a dam, beating down the smoke. The top of the chimney should be at least 3 feet above the roof and be at least to 2 feet higher than any point of the roof within 10 feet.

CREOSOTE - FORMATION & NEED FOR REMOVAL

When solid fuel is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. The chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote or soot buildup has occurred. If there is any accumulation, it should be removed. Failure to remove creosote may cause a house fire. Soot may be removed by using a chimney brush or other commonly available materials. Chimney fires burn very hot. If the chimney connector should glow red, immediately call the fire department, then reduce the fire by closing the inlet air control and pour a large quantity of coarse salt, baking soda or cool ashes on top of the fire in the firebox.

CAUTION:

A CHIMNEY FIRE MAY CAUSE IGNITION OF WALL STUDS OR RAFTERS WHICH YOU THOUGHT WERE A SAFE DISTANCE FROM THE CHIMNEY. IF YOU HAVE A CHIMNEY FIRE, HAVE YOUR CHIMNEY INSPECTED BY A QUALIFIED PERSON BEFORE USING AGAIN.

CAUTION:

DO NOT TOUCH THE HEATER UNTIL IT HAS COOLED.

NOTE:

FOR YOUR SAFETY, WE RECOMMEND INSTALLING SMOKE DETECTORS IN YOUR HOME IF NOT ALREADY INSTALLED. Stoves that are capable of burning coal usually will burn both Bituminous and Anthracite coal. Anthracite is perhaps the best coal fuel because of its long even burn time, high heat output, and cleanliness which make it a good choice for the home. However, keep in mind it is a much more difficult fuel to use, requires more care and patience, is not so widely available, and is usually much more expensive than Bituminous.

SIZE OF COAL

Most sizes of Bituminous Coal will work in a coal stove; for best results we recommend large "nut" coal to small "egg" coal (1-3/4" diameter to 4" diameter). When burning Anthracite, use "egg" or "broken" with sizes between 2-5/16" thru 4-3/8". Note that it is important to the long life of your stove to buy coal which has been sized and cleaned. Cleaning ensures removal of rocks and other minerals. Never use coal smaller than 1" or larger than 5" in diameter. Small sized coal will smother the fire. Too large a size of coal will not burn well.

STOVE OPERATION

All coal fires should be started with wood which will allow the fire to get hot enough to ignite the coal. The best ignition fires utilize dry pine or other resinous soft woods as kindling, with hard wood (oak, hickory, ash) added to increase the heat prior to addition of the coal.

Before starting the fire, open the stove pipe damper (if equipped), turn the thermostat to high, open the ash pit door and feed door, place newspaper and finely split kindling on the grate, light the paper, add larger hard wood after the kindling is burning brightly. CAUTION: Never use gasoline, lantern fuel, kerosene, charcoal lighter fluid, or other flammable liquids to start or freshen up a fire in any heater. Place the larger pieces of wood on the fire so that they are slightly separated and form a level for the addition of coal. It will take 10 to 20 minutes before this wood is thoroughly ignited. Adding coal too soon will cut the air supply and smother the fire.

BURNING BITUMINOUS

Once your kindling and wood fire has produced a bed of well-established coals, start adding coal in layers allowing each to ignite before adding more. Bituminous has a high volatile content and, as a result, should be fired with the "conical method" - with the highest portion of your fire bed in the center of the firebox. The first flames will be long and generally orange or yellow and produce quite a bit of smoke. As the gases burn off the flames become shorter, change color and produce less smoke.

Once the fire is WELL ESTABLISHED add coal to the

center of the firebox forming the cone. Burning in this fashion allows heat to drive off the volatile gases, and turbulence created increases the burn efficiency. There will have to be some experimenting with the individual setup as no two chimney's or installations are going to be the same. Just remember to allow enough air to enter the firebox and keep the stove pipe damper open so that volatiles are properly burned. Before refueling, take the time to break up the cone a little with a poker, especially if it has caked over or formed a crust. But, be careful not to mix the coal as this increases the chances of forming clinkers. When shaking the grate(s) be gentle. Just a few short movements - a couple of "cranks" - is better than a lot of agitation. The objective is to remove a small amount of the ashes without disturbing the fire. Stop when you see a glow in the ashes or the first red coals fall into the ash pan. Excessive shaking wastes fuel and can expose the grate(s) to very high temperatures which can cause warpage or burnout.

For overnight operation (long duration burn time) shake the fire and add coal, retaining the center cone. Once the volatiles are burned off, close the feed door and adjust the stove pipe damper, if equipped. Then adjust the thermostat to the desired heat level.

More maintenance will be needed with bituminous coal than with anthracite coal as more soot will collect on heating surfaces and in pipes, requiring more frequent cleaning.

ANTHRACITE

Add a thin layer of coal (preferably smaller chunks) to the wood fire, being careful not to disturb it too much or cut off the draft. Then, add a second heavier layer after the coal is ignited and burning well. If necessary, add a third layer to bring the coal up to the top of the front liner (not above!). Be sure to close the ash door.

Before adding further fuel, be sure to leave a red spot of glowing coals in the center of the firebox to ensure that the fire has not been smothered and to help ignite the gases given off by the new charge. A deep charge will give a more even heat and a longer fire, but it may take one to two hours before the whole bed is fully ignited.

When the fire is well established and the room is becoming warm, partially close the dampers. Some experimenting will have to take place with each particular setting of all dampers and controls as the chimney provides the draft necessary to not only exhaust the smoke, but to pull combustion air into the heater as well - and no two chimney's perform the same. Under ideal draft conditions, one should be able to turn the secondary air supply below the feed door (some models) to a near closed position - but leave the ash pit damper at least partially open to prevent the fire from going out. Adjust the stove pipe damper to reduce the draft on the fire. With anthracite there will be short blue flames above the coal, except when the fire is started or a new charge is added. If, however, there is no flame then the fire needs more air from the bottom (unless it is near the end of its burn cycle and needs to be recharged).

Only when the coal is burned down to half its original depth it is time to add fresh coal. When doing so, open the stove pipe damper and turn the thermostat damper to high, which will allow the fire to burn off any accumulated gases. Open the feed door, and with a small rake, hoe, or hooked poker pull the glowing coals to the front of the firebox. Try not to disturb the fire too much. Next, add a fresh charge to the back being careful not to seal off the top. Close the feed door, but leave the spin damper (or thermostat) open for a few minutes until the volatile gases have burned off. It is not necessary to shake down the ashes each time you refuel the stove. Experience will be your best teacher.

BANKING THE FIRE

For extended operation, such as overnight, the fire will need to be banked. To do so heap coal up along the sides and back of the firebox so that the fire gradually burns it over a longer period of time. The intensity of the fire will also be reduced without letting it go out. Follow the same procedure as for refueling. If possible, avoid shaking, as a heavier layer of ash will help reduce the intensity of the fire during this time. After loading, let the fire establish itself for about 30 minutes. Then close your damper and automatic control to the point where the house does not become too cold. It is important that you begin banking early enough before retiring or leaving that you can make necessary adjustments after the fire is well established.

To revive a coal fire that is almost out,

(1) open the ash door and stove pipe damper and close the spin damper under the door to get a good draft through the grate.

(2) place a thin layer of dry coal over the entire top of the fire. **DO NOT POKE OR SHAKE THE FIRE AT THIS TIME!**

(3) after the fresh coal has become well ignited shake the grate (just a little), refuel.

DO NOT burn coke, charcoal, high volatile bituminous coal, sub bituminous, lignite or cannel coal (sometimes called channel coal or candle coal).

NEVER burn wax or chemically impregnated sawdust logs - their intended use is for fireplaces only.

NEVER fill the stove above the firebrick or cast iron liner.

HOW TO ORDER REPAIR PARTS

For Parts Assistance Call: 800-750-2723 Ext 5051 or Email: parts@usstove.com

The information in this owner's manual is specific to your unit. When ordering replacement parts the information in this manual will help to ensure the correct items are ordered. Before contacting customer service write down the model number and the serial number of this unit. That information can be found on the certification label attached to the back of the unit. Other information that may be needed would be the part number and part description of the item(s) in question. Part numbers and descriptions can be found in the "Repair Parts" section of this manual. Once this information has been gathered you can contact customer service by phone 1-800-750-2723 Ext 5051 or Email parts@usstove.com.

Model Information		
Model Number		
Serial Number		



Key	Part #	Description	Qty
1	89979	Top Plate	1
2	89980	Upper Chamber	1
3	89981	Feed Chamber	1
4	89982	Burn Chamber	1
5	89983	Lower Chamber	1
6	89984	Base	1
7	89985	Legs	4
8	89987	Slide Draft	1
9	89988	Slide Draft Knob	1
10	89986	Ash Door	1

11	89992	Spin Draft	1
12	89991	Feed Door	1
13	89994	Cook Lid	1
14	89993	Collar Top	1
*	89989	Shaker Grate	1
*	89990	Spring Handle	1
* NOT SHOWN			

To order parts:

Call 1-800-750-2723 Ext 5051 or

Email to: parts@usstove.com

IN ORDER TO MAINTAIN WARRANTY, COMPONENTS MUST BE REPLACED USING ORIGINAL MANUFACTURERS PARTS PURCHASED THROUGH YOUR DEALER OR DIRECTLY FROM THE APPLIANCE MANUFACTURER. USE OF THIRD PARTY COMPONENTS WILL VOID THE WARRANTY.



It is recommended that your heating system is serviced regularly and that the appropriate Service Interval Record is completed.

SERVICE PROVIDER

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions. Always use the manufacturer's specified spare part when replacement is necessary.

Service 01 Date:	Service 02 Date:
Service 03 Date:	Service 04 Date: Engineer Name:
Service 05 Date: Engineer Name:	Service 06 Date: Engineer Name:
Service 07 Date:	Service 08 Date: