

THE LEHIGH
ANTHRACITE COAL
STOKER STOVE RS-96C



OWNERS MANUAL

Reading Stove Company
P.O. Box 1200
200 Mahantongo Street
Pottsville, PA 17901
(570) 366-7788
www.readingstove.com



THE LEHIGH BY READING
STOVE COMPANY

Thank you for purchasing this product from a fine line of heating equipment. The "Lehigh" is a classic fully automatic and variable control stoker stove. The high quality cast stove provides warm radiant heat. The patented "Lehigh" efficiency stoker system is easy to use, reliable and constructed to exacting standards. Enjoy the cozy comfort of quality cast coal heat. This stove is ideal for heating a country cottage, your home or condominium. Wake each morning to the pleasing warmth of the "Lehigh".

Please read this manual before attempting to install or move your unit. We wish you many years of safe heating pleasure with your new Reading Stove Company automatic stoker stove. If you need any assistance regarding the installation or maintenance of your stove, contact your local dealer or our main sales office as noted on the cover.

NOTES

Stove Information:

Dealer: _____

Address: _____

Phone: _____

Date Purchased: _____

Stove Model: RS-96C Lehigh

Serial #: _____

PLEASE READ THE LITERATURE BY THE MANUFACTURER FOR THE VARIOUS ACCESSORY DEVICES. THESE DEVICES ARE **WARRANTED BY THE MANUFACTURER** NOT BY READING STOVE COMPANY. FURTHERMORE, THESE ACCESSORY DEVICES MUST BE INSTALLED AND USED ACCORDING TO THE RECOMMENDATIONS OF THE MANUFACTURER.

REMEDIES: The remedies set forth herein are exclusive, and the liability of seller with respect to any contract or sale or anything done in connection therewith, whether in contract, in tort, under warranty, or otherwise, shall not, except as herein expressly provided, exceed the price of the equipment of part of which such liability is based.

CLARIFY: The above represents the complete warranty which is given in connection with stoves manufactured by Reading Stove Company. No other commitments, verbal or otherwise, shall apply except by a written addendum to this warranty.

All liability for any consequential damages for breach of any written or implied warranty is disclaimed and excluded here from. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply. This warranty gives the consumer specific legal rights, there may be other rights that vary from state to state. This warranty is void if the attached card is not returned within thirty (30) days from date of purchase.

TABLE OF CONTENTS

<u>Section 1:</u> Caution and Safety Notice	4
<u>Section 2:</u> Clearance and Dimensions	5
<u>Section 3:</u> Flue System	6
<u>Section 4:</u> Floor and Wall Protection	8
<u>Section 5:</u> Installation and Placement	9
<u>Section 6:</u> Operating Instructions	10
<u>Section 7:</u> Proper Draft	13
<u>Section 8:</u> Maintenance and Care	15
<u>Section 9:</u> Parts Guide	18
<u>Section 10:</u> Warranty Information	20

Section 1: Caution and Safety Notice

This stove must be installed in accordance with these instructions and must comply with local building and fire codes. Failure to do so could result in a chimney or house fire. Keep children, furniture, fixtures, and all combustible materials away from any heating appliance. Your dealer will be able to install your stove or recommend an installation contractor. The dealer can help you locate the stove in the most appropriate manner for your home.

Reading Stove Company stoves have NOT been approved for use in mobile homes.

Prior to installation, owners and installers should contact local building and fire officials about restrictions, installation requirements, and inspection in your area.

Stoves must be installed on an approved non-combustible floor.

Each stove is supplied with a safety diagram listing approved installation clearances. Install to these guidelines only. If the diagram is unreadable or missing, contact the manufacturer for proper specifications.

A barometric damper must always be installed properly in conjunction with a stoker stove. A damper is available from your dealer.

In buildings of unusually tight construction, provide a fresh air vent to ensure sufficient combustion air is available.

Read these instructions completely before installing your stove and save this manual for future reference.

CAUTION: Before lighting your stove, be sure to install a carbon monoxide detector. One is provided with your stove and must be installed and maintained according to the manufacturer's recommendations.

FUEL: Premium Anthracite Rice or Buckwheat Coal

SERVICE LABOR RESPONSIBILITY: In furnishing replacement parts, Reading Stove Company assumes no responsibility for any labor expenses, for service removal or reinstallation.

If defective in material or workmanship, and if removed by the owner within the warranty period, Reading Stove Company will, at its opinion, repair or replace the product as described below,

HOW TO MAKE A CLAIM: Any claim under this warranty should be made to the dealer from whom this appliance was purchased. The dealer will require the model and serial numbers, the date of purchase, plus a simple explanation of the nature of the defect. The dealer will then contact the manufacturer.

SHIPPING COSTS: The transportation charges are as follows:

1. Customer prepays freight back to factory.
2. Reading Stove Company prepays the repaired or replaced stove freight charges.

NOTE: Prior approval by phone or in writing shall be made before shipping entire unit to manufacturer.

THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS—REPAIR AND/OR REPLACEMENT AT OUR OPTION AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

WARRANTY EXCLUSIONS: (1) Labor (2) Battery Back-Up (3) Door Packing (Gasket) (4) Paint (5) Glass (6) Hopper (coal) (7) Ash Pan (8) Damage Due to Natural Disasters, War, or Terrorism (9) Rust (10) Nickel Finish

Section 10: Warranty Information

The manufacturer extends the following warranties to the original owner from the date of purchase. This warranty is non-enforceable if the enclosed warranty page is not returned within 30 days from the date of purchase.

The Lehigh Anthracite Coal Stoker Stove RS-96C

Reading Stove Company warrants its products to be free from defects in material or workmanship, in normal use and service, for **4** years from date of sales invoice for residential use, **1** year for commercial use. There is a **1** year warranty on electrical components.

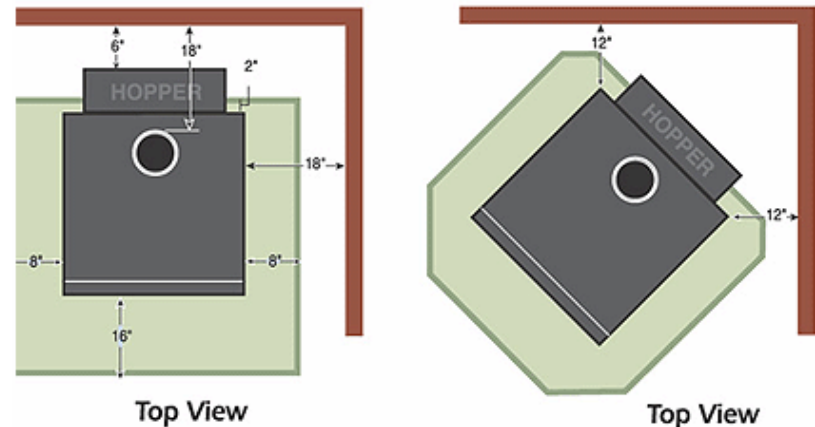
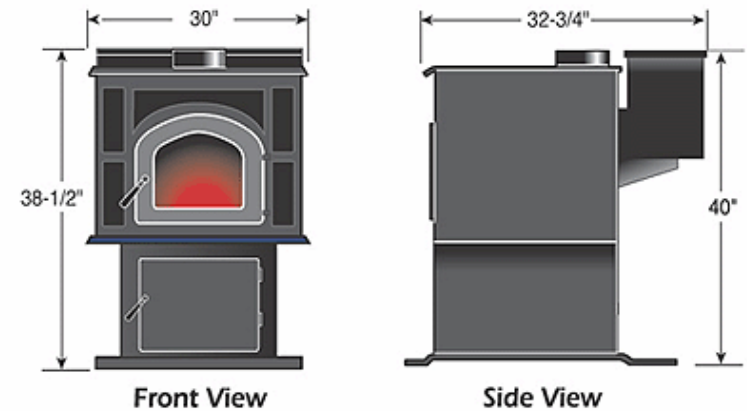
The warranty above constitutes the entire warranty with respect to Reading Stove Company products. **READING STOVE COMPANY MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING "ANY" WARRANTY OR MERCHANTABILITY, OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** No employees, agent, dealer, or other person is authorized to give any warranty on behalf of Reading Stove Company. This warranty does not apply if the product has been altered in any way after leaving the factory. Reading Stove Company assumes no liability for **resultant damages of any kind** arising from the use of its products. In addition, the manufacturer shall be held free and harmless from liability from damage to property related to the operation, proper or improper, of the equipment. **THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.**

These warranties apply only if the device is installed and operated as recommended in this Owner's Manual.

These warranties will not apply if damage is caused by abuse, accident, improper installation, negligence, or use beyond rated capacity.

Section 2: Clearance and Dimensions

CLEARANCE TO COMBUSTIBLES	
Rear to Hopper	6"
Side	18"
Front	16"
Pipe to Wall	18"



Section 3: Flue System (Class A)

This stove is designed to connect to a flue system such as masonry or a pre-manufactured lined pipe system that meets local code requirements. If you plan to use an existing masonry chimney, the inside should be checked for cracks in the liner. If there is no liner in the chimney we recommend installing a stainless steel liner. If you already have a steel liner, it should be carefully checked for buckling, warping, or cracks prior to installation. With either type system, it is absolutely necessary to clean it prior to installation of this stove. A qualified chimney sweep can clean and inspect your system, and in a lot of cases find problems the homeowner might overlook. The sweep can normally do chimney repairs or recommend a qualified person to do so.

WARNING: Do not connect this stove to a flue system serving another heating appliance. Also, stoker stoves must always be installed with a barometric damper. A damper is available from your dealer.

A: REQUIRED FLUE SIZE

NOTE: If power vented, refer to Power Vent section (Section 3C).

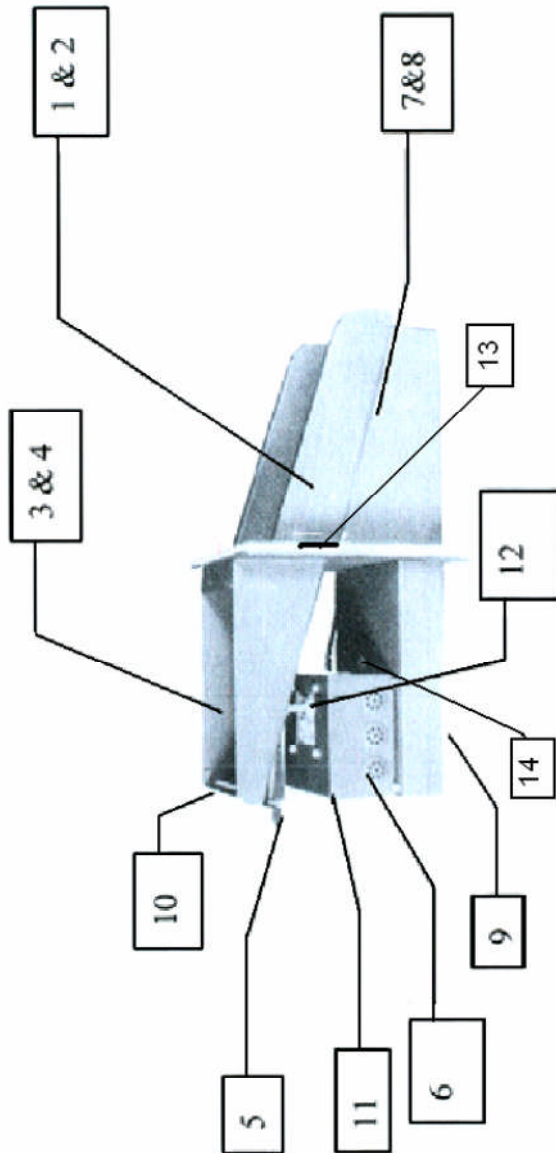
The proper flue size is determined by the inside diameter of the flue collar on the unit. This stove is equipped with a six-inch (6") flue collar. This stove would require a six-inch (6") pipe, smaller diameter pipe should never be used. The area of the chimney liner should be greater than the area of the flue collar on the stove, but never more than three times greater. Example: The area of a six-inch (6") flue collar is 28.27 square inches; therefore, the area of the flue liner should not be more than 84.2 square inches.

CAUTION: The connector pipe should be a 24-gauge steel pipe and must be eighteen inches (18") away from a combustible wall or ceiling. If you are using double wall or shielded pipe the clearance can be reduced to six inches (6"). Please follow the pipe manufacturer's instructions for passing through combustible walls and ceilings. Check your local codes prior to installation.

O.E.M. Number	SYM*	Item Name
101		Mini - Stoker (Complete)
201		Mid - Stoker (Complete)
102	1	Mini - Grate (5 1/2")
202	2	Mid - Grate (7 3/4")
103	3	Mini - Carpet
203	4	Mid - Carpet
301	5	Crank Arm, Cap Nut, Feed Adjustment Tab
302	6	AC Motor Pack Complete
104	7	Mini - Grate Seal
204	8	Mid - Grate Seal
303	9	Blower Wheel
304	10	Carpet Wiper
305	11	Motor Box
306	12	AC Motor
307		Speed Control
308		Stove Operators Manual
309	13	1/2" Mounting Gasket Material / per FT.
310	14	Carriage Bolt and Wing Nut

*Please refer to diagram on Page 18.

Section 9: Parts Guide



B: TOP OR REAR EXHAUST

The RS-96C stove comes with an adaptable top or rear exhaust. The stove is shipped ready for the top mounted flue collar. To change the vent to a rearward position first remove the rear cover plate. Then, remove the top flue collar and replace it with the flue cover plate shipped with your model RS-96C stove. When mounting the flue collar or the cover plate, it is very important that all the bolts are in tight and the gasket makes an airtight seal.

C: POWER VENT

(for those equipped with Power Vent option only.)

The Power Vent head must be installed on an outside wall away from doors and windows (check with local code enforcement). The Power Vent takes the place of a chimney. The safety switch must be located on the stove prior to connecting the pipe to the stove. The safety switch should be connected by authorized personnel only. This switch causes a power interruption to the feeder in case of Power Vent failure. Use six-inch to four-inch 24-gauge black pipe reducer to connect Power Vent to stove.

Section 4: Floor and Wall Protection

Position your stove on an approved non-combustible floor protector. If the base floor is constructed of combustible material such as hardwood, carpet, or linoleum, floor protection **MUST** be placed between the unit and the combustible material. Consult your dealer and/or local building inspector.

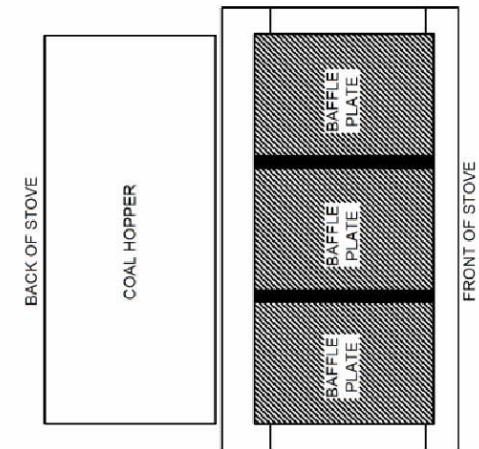
Minimum clearance to walls **MUST** be maintained. (See Section 2: Clearance and Dimensions also shown on the safety plate affixed to the stove) Approved fire resistant wallboard is highly recommended.

CAUTION:

- Do not install this stove in closets or alcoves.
- Keep combustibles at least three feet from the stove. This includes furniture, magazines, rugs, clothing, etc.
- Do not dry clothes on, or within, three feet of the stove.
- Do not store flammable liquids in the same room as the stove

E: BAFFLE PLATE PLACEMENT

Note: The three baffle plates should be centered with no gaps between them.



Section 5: Installation and Placement

D: STOKER MAINTENANCE

Air Chamber: At the end of the season, clean fly-ash out of the air chamber located under the grate. Empty coal from the hopper and check the grate surface for any roughness or blocked holes. Surface should be smooth. If it is not smooth, rub the grate with an ordinary brick. If the surface irregularities cannot be cleaned off in this manner, replace the grate.

To clean fly ash from under the grate:

- 1) Lift grate off of stoker frame.
- 2) Vacuum/remove fly ash from air chamber under grate.
- 3) Inspect air holes in grate. If blocked, clear with no larger than a 1/8" drill bit or equivalent.
- 4) Reseat the grate onto the stoker frame, making sure that the grooves on the underside of the grate match with the lip of the stoker frame. **NOTE:** Prior to reseating the grate, a new grate gasket **MUST** be installed.

Blower Assembly: There are no user serviceable components in the blower assembly. Contact your dealer for repairs.

PLEASE NOTE: Reading Stove Company's stoves are sold only through certified dealers. Please consult your local dealer for all service or maintenance questions.

A: PRIOR TO INSTALLATION

READ THIS OWNER'S MANUAL IN ITS ENTIRETY.

B: CHOOSING A LOCATION

A central location is most desirable, however, the minimum run of pipe to the chimney should be the deciding factor. Never attempt to handle the unit alone. We recommend using a handcart to position the heater.

C: CHIMNEY CONNECTOR

The connector pipe connects the heater to the chimney. The pipe must be a 6" diameter 24-gauge steel pipe. Connect your stove to an approved flue system serving only one appliance (please refer to local building code.)

CAUTION: All pipe joints and the connection to the heater collar must be firmly secured.

Section 6: Operating Instructions

A: TYPE OF FUEL

CAUTION: Use only premium anthracite rice or buckwheat coal. Contact your dealer or coal supplier for proper selection.

B: STARTING A COAL FIRE

WARNING: DO NOT use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid or similar fluids to start or “freshen up” a fire in this stove. Keep all such liquids well away from the stove. DO NOT burn garbage, gasoline, naphtha, engine oil or any other flammable liquids or chemicals. Use an approved starter package (available through your local dealer.)

1. Fill the hopper with premium anthracite coal.
2. Open the door of the stove.
3. Looking at the grate, you will notice that some of the coal has been deposited on the grate. Place fire starter on the grate and surround with coal.
4. Light the fire starter to ignite. **CAUTION:** Do not hold fire starter in hand when lighting!
5. Start the unit by putting the plug into a wall socket. Turn the control knob towards HIGH until air is forced into the grate. This will accelerate the burning of the coal. **CAUTION:** Make sure the electric cord is kept away from heated surfaces.
6. If needed, turn the stove off and add more coal.
7. Continue to add a small amount of coal by hand until a good fire patch is established.
8. When your stove has been lit for about an hour, check the position of the hot coal on the grate. Because the burning characteristics of coal vary, the feed must be fine tuned for efficient operation.
9. Allow 1 inch of dead ash on the end of the grate for a high fire.
10. Light the stove for the first time and bring the heat up slowly.

Section 8: Maintenance and Care

A: CHIMNEY INSPECTION AND CLEANING

The chimney and stove should be inspected for fly-ash buildup bi-monthly during the heating season. Pay special attention to the elbows in the stovepipe, since this is where fly-ash tends to accumulate. Remove all fly-ash from the stove, stovepipe, and chimney for maximum efficiency and safety.

CAUTION: Failure to follow this step could cause coal gas to enter the home.

B: SUMMER STORAGE

Store the stove in a dry place to prevent rust. Remove the ashes, clean, and touch-up the paint where needed. High temperature paint is available from your dealer. Disconnect the stove pipe from the flue (prevents damp or humid air to enter when stove is not in use).

C: FLUE INSPECTION

Each year before putting the stove into service, the chimney flue should be cleaned of soot and other residue and inspected for needed repairs. This inspection is in addition to the bi-monthly inspections during the heating season. Consult a qualified dealer or chimney sweep. Reconnect all piping prior to startup. Inspect pipe for failures.

B: EXCESSIVE DRAFT

CAUTION: Use only a barometric draft regulator, not a manually operated damper. Excessive draft can cause the fire to burn back into the hopper. To prevent excessive draft, a BAROMETRIC DRAFT REGULATOR MUST BE PROPERLY INSTALLED.

CAUTION: Over-firing the heater may cause a house fire. If the stove or chimney connector glows, you are over-firing!

C: TEMPERATURE CONTROL AND FIRE ADJUSTING

Reading Stove Company's stove heat output is regulated by the black knob control, which adjusts the stove's temperature by increasing or decreasing the feed of the stoker motor. Turn the black knob control knob counter clockwise towards HIGH to increase temperature or clockwise towards LOW to decrease temperature.

1. If the fire patch is small and to the rear of the grate, turn stop nut one turn away from the stove. (Wait 15 minutes and notice that the fire has become larger and advanced more to the front of the grate.) Additional turns of the red nut away from the stove will continue to advance the fire. Too many turns will cause the coal to fall off the end of the grate before it is consumed.
2. If the hot coal falls off the grate before being completely consumed, turn the red stop nut toward the stove to reduce the rate of feed. The stove will operate most efficiently with one inch of dead ash on the end of the grate.
3. After several hours of run time, you will achieve the correct feed rate and the stove will no longer require any adjustment. As the burning coal moves down the grate and burns, it will be replaced by coal from the hopper, thus maintaining an endless fire.
4. The stove will operate most efficiently with one inch of dead ash on the end of the grate (high fire).

NOTE: Various qualities of coal have different burn characteristics. Therefore, you may have to change the adjustment to suit the coal purchased.

D: BURN TIME

Depending on the temperature control setting, the stove will burn unattended for 24 to 72 hours on a full hopper and with an empty ash pan.

E: ASH CONTROL AND REMOVAL

Check the ash pan daily and empty as needed. Do not allow ashes to pile up in the base of the heater or overflow the ash pan.

CAUTION: ALWAYS USE INSULATED GLOVES TO REMOVE THE ASH PAN. If too many ashes are allowed to accumulate, the vent to the chimney may become blocked and allow coal gas to enter the home. A spare ash pan is recommended to facilitate ease of ash removal. See your dealer regarding this option.

Section 7: Draft for Chimney and Power Vent

A: PROPER DRAFT

A draft of $-.04$ to $-.06$ inches of water column is essential for safe and efficient operation of your stove. (See your dealer for proper draft)

Draft is created in a chimney by warm air exiting the stove and rising in the cooler air of the chimney. (Suction up the chimney) Maintain adequate draft of warm air exiting the stove at all times.

Chimney draft will increase or decrease depending upon wind speed and air temperatures along with other factors such as:

1. Air leak in stove or chimney. (Cleanout doors commonly used at the bottom of chimneys must not leak.)
2. Stove door gaskets are faulty or doors are not closed tightly.
3. Stovepipe, stovepipe outlet, or chimney partially or fully blocked.
4. Chimney temperature is not hot enough.
5. Chimney is not high enough.
6. Trees, buildings, or other obstructions too close to the top of the chimney.
7. Chimney flue is too large.
8. Vented exhaust fans as found in kitchens, bathrooms, and cloths dryers when running in a tight building can cause low draft and in some severe cases downdraft. This will cause air to pull down the chimney instead of allowing it to go up.

Max BTU Output: 85,000 BTU/HR

CAUTION: Some of the above conditions can also cause downdrafts. An indication that a downdraft is occurring will be the smell of sulfur (rotten eggs). This may also cause the blower wheel on the stoker unit to melt. If any one of these conditions occurs, DO NOT OPERATE THE STOVE until the problem has been corrected.