



THE JUNIATA ANTHRACITE COAL STOKER STOVE RSFD-10

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.

FAILURE TO FILE WARRANTY REGISTRATION FORM WITHIN (30) DAYS FROM THE DATE OF PURCHASE WILL VOID THE WARRANTY.

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



OWNERS MANUAL

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



Thank you for purchasing this product from a fine line of heating equipment. The RSFD-10 Utility Stove is ideal for garages, workshops, cabins and basements. The large Hopper and Ash Pan will allow you to set the unit to burn for up to 2 days or more, without the worry of refueling. The patented TRI-BURNER efficiency stoker system is easy to use, reliable, and constructed to exacting standards and is fully automatic.

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.

Stove Information:

Dealer: _____

Address: _____

Phone: _____

Date Purchased: _____

Stove Model: RSFD-10 Utility

Serial #: _____

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: All **WARRANTY CLAIMS** should be made through the **DEALER** where the appliance was originally purchased. The dealer will require the model, serial number (which is located on the back of the stove), the date of purchase or original copy of the sales receipt, plus a simple explanation of the nature of the defect.

The **DEALER** will contact RSC for an approved RA# (**RETURN AUTHORIZATION**). See dealer for additional details. RSC encourages consumers to contact the dealer for all warranty claims.

If a consumer chooses to make a **WARRANTY CLAIM** directly through RSC, they can contact RSC directly. **Please note:** No warranty parts will be shipped until an RA# is generated by RSC. Proof of purchase and a warranty card will need to be on file. RSC requires the consumer provide a credit card, which will be charged, for the full retail price for the product plus shipping and handling. If RSC determines the nature of the defect is in fact a warranty claim once we receive the defective part, the consumers credit card will be credited back all cost. *Call RSC for additional details.*

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 Utility Anthracite Coal Stoker Stove RSFD-10

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 **4**-year warranty on the body of the stove and a **1**-year warranty on all 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.

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/Powervent	6
<u>Section 4:</u> Floor and Wall Protection	9
<u>Section 5:</u> Installation and Placement	10
<u>Section 6:</u> Operating Instructions	11
<u>Section 7:</u> Proper Draft	15
<u>Section 8:</u> Maintenance and Care	17
<u>Section 9:</u> Parts Guide	20
<u>Section 10:</u> Warranty Information	22

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. Dampers are available through dealers or plumbing/heating distributors. **NO COAL STOVE SHOULD BE OPERATED WITHOUT A BAROMETRIC DAMPER.**

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.

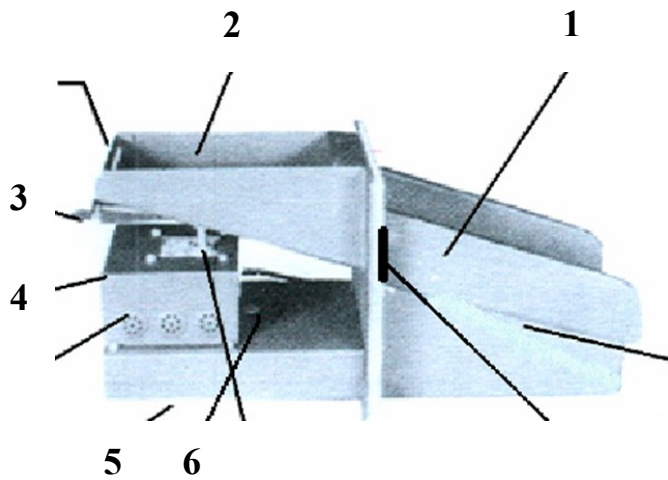
CAUTION: Before lighting your stove, be sure to install a carbon monoxide detector. One is provided with your stove and must be installed and maintained according to the manufacturer's recommendations.

FUEL: Premium Anthracite Rice or Buckwheat Coal

O.E.M. Number	SYM*	Item Name
297		Mid - Stoker
135	1	Mid-Cast Stoker Grate
136	2	Mid-Stoker Carpet
124	3	Crank Arm/Metal Tabs
300	3	Cap Nut
300	3	Feed Adjustment Tab
114	4	AC Motor Pack/Stoker
123	5	Blower Wheel-Plastic
806	5	Blower Wheel Metal
	6	Cartridge Bold-Wing Nut

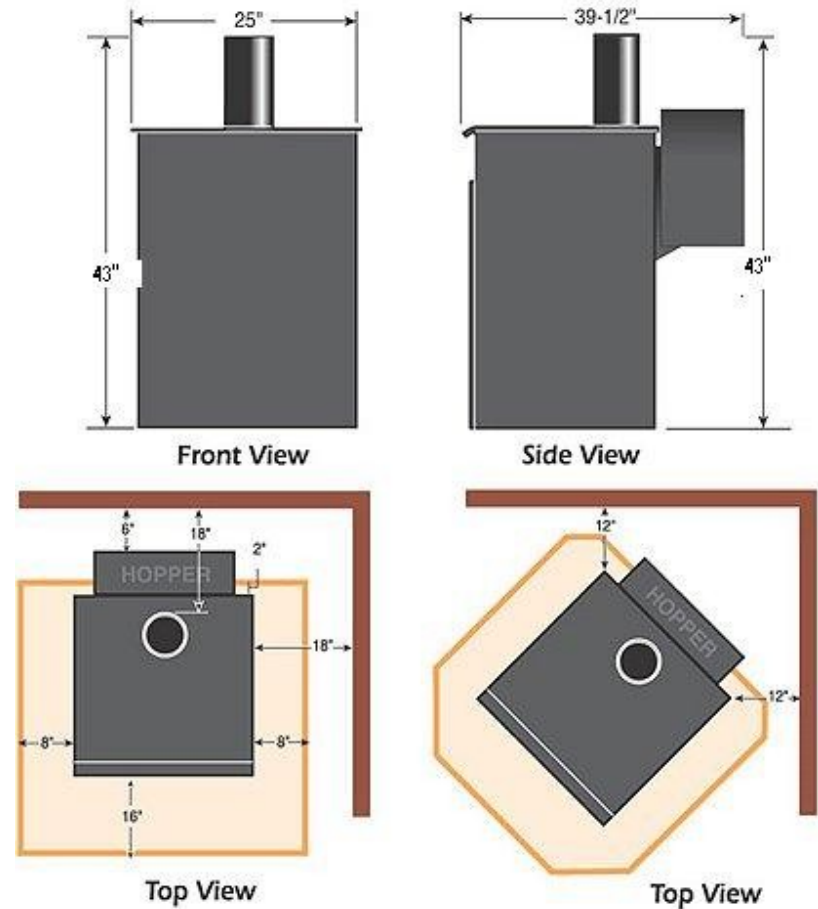
*Please refer to diagram on Page 20.

Section 9: Parts Guide



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 3B).

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.

E: FIRE BRICK PLACEMENT

Insert the 6 Fire Bricks that are included with your stove into the retaining clips as shown in this illustration.



D: STOKER MAINTENANCE

During the heating season RSC recommends the Air Chamber under the stoker grate be cleaned at least once every 6-8 weeks and at the end of the heating season.

There are two ways to clean fly ASH from under the grate:

1. Lift grate off of stoker frame when stove is cold.
2. Vacuum/remove fly ash from air chamber under grate.
3. Inspect air holes in grate. If blocked, clear with no larger than 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.

When the stove is operating, it is possible to clean fly ASH from under the grate but the consumer must use caution due to the fact that some FLY ASH may be hot. Refer to page 20 for more details

1. Remove Cap Nut from the Crank Arm and pull the Carpet Back.
2. Remove Carriage Bolt and Wing Nut.
3. Unplug the AC Power Pack and remove
4. Use a shop vacuum at the entrance of the draft tunnel and remove FLY ASH. Run some water through the shop vacuum.
5. Re-assemble and turn stove back on.

Blower Assembly: Convection blowers require yearly maintenance. Refer to the Manufacturers Owner's Manual for proper maintenance and the use of proper lubricating oil. **FAILURE TO MAINTAIN CONVECTION BLOWERS WILL CAUSE MOTORS TO FAIL**

Important Notice: This registration information must be on file with RSC for this warranty to be valid. **Failure to file a Warranty Registration Form** within thirty (30) days from the date of purchase will void the warranty.

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

B: POWER VENT

(for stoves equipped with Power Vent option only)

FIELDCONTROL POWERVENT WILL BE REFERRED TO AS (PV)

Refer to the *Fieldcontrols Powervent Owners Manual* for proper installation. Installation instructions can also be reviewed at www.fieldcontrols.com. RSC recommends that consumers check local building codes before purchasing and installing any PV. An approved Safety Switch must be installed on the stove before operating the stove.

List of parts and accessories included in PV supplied from RSC.

- Power Vent—Model SWG—4HDS
- Six inch to a four inch pipe reducer
- Safety Switch with plugs
- 3 prong AC plug
- Speed Control

IMPORTANT POWERVENT INFORMATION AND GENERAL INSTRUCTIONS:

- PV speed controls should always be run at 1/3 to full speed depending on the length of time and distance the stove has been running between maintenance cleanings. New or recently cleaned stoves, the speed control can be set at a slower speed. Continual operation of the stove will cause a build up of fly ASH in the internal flue, stovepipe and the PV blower wheel. Increase the PV speed control as needed from 1/3 to full speed. Make sure the Barometric Damper is slightly open at all times with or without a speed control. **Maintenance is critical.**
- **BAROMETRIC DAMPERS** must be installed. The internal damper located inside the PV should be wide open or removed completely. The long silver tube attached to the PV should be removed and is not needed for using a PV in an Anthracite Stoker Coal Stove application. Failure to use a **BAROMETRIC DAMPER** will cause the coal fire to burn into the feeder hopper resulting in damage and or personal injury.
- 6" extensions are available to extend the venting tube through the wall if it is thicker than normal construction.

- How to reset a Safety Switch? Unplug the COAL-TROL AC Plug from electrical outlets. Clean the stove completely. *See below for details.* More than likely the Safety Switch cut power because of build up of gases and heat. The Safety Switch is located on the right side of the stove. Use a very small screwdriver and insert in the Safety Switch to reset the circuit button. If the switch will not reset remove the cover and do manually.
- Almost all the calls questioning why a Safety Switch tripped is a result of stove needing to be cleaned.
- **LACK OF MAINTENANCE WILL CAUSE THE POWERVENT TO SHUT DOWN, DAMAGE MOTORS AND VOID THE WARRANTY.**

C. POWERVENT MAINTENANCE

RSC recommends the use of an approved Fieldcontrols POWERVENT w/Safety Switch for stoker stoves when an exhaust chimney or insulated pipe is not a viable option. Proper **4-6 WEEKS maintenance** during the heating season is required in order to keep the stove operational. Disassembly and maintenance must be performed throughout the general heating season. Failure to properly clean and maintain a PV will cause the stove to shut down and continue to shut down until properly cleaned. If your carbon monoxide detector is going off or you smell sulfur or other gases more than likely the stove is dirty and needs to be cleaned. The top of stove exhaust and internal flues need to be cleaned.

1. Between every **4-6 weeks** the stove needs to be shut down and properly cleaned. Remove the outside cover of the PV. Remove screws holding in the motor and pull it out of the PV. The stainless steel blower wheel needs to be cleaned with a wire brush. The easiest way to clean is to remove the blower wheel from the motor (1/8 Allen Wrench required) completely and soak the blower wheel in hot water and baking soda. Wash and scrub as needed. This method will remove all fly ash. Clean inside the POWERVENT.
2. See Fieldcontrols Operational Manuel for proper lubrication of the PV Fasco Motor
3. When shutting the stove down for POWERVENT Maintenance, you must clean the internal flues and all connections.

Section 8: Maintenance and Care

A: CHIMNEY INSPECTION AND CLEANING

The chimney and stove should be inspected for fly-ash buildup monthly during the heating season. There are two areas that need special attention. The top or bottom of the stove where the internal exhaust flue exits the stove is a common area where fly ash can accumulate during the heating season. RSC recommends that you purchase a stove brush to clean the exhaust flues and a shop vacuum. If your stove is installed with a 90-degree elbow the exhaust pipe running horizontal can become a chock point for fly ASH to accumulate. This is another area that will need to be cleaned. Remove all fly ash from the stove, stovepipe and chimney for maximum efficiency and safety. Fly ash can also build up under the stoker grate causing an uneven burn or unburned coal to be dropped in the ash bucket. **4-6 weeks maintenance is recommended.**

B: SUMMER STORAGE

Store the stove in a dry place to prevent rust if possible. If the area where the stove is installed tends to be damp during the summer its best to remove the doors and all stovepipe in order for the stove to have some airflow. Remove all ashes, loose FLY ASH and clean the inside of the stove walls with a wire brush and a vacuum. Coating the inside of the stove with backing soda will help in absorbing moisture and neutralizing acidic reaction to dampness. All coal needs to be removed from the hopper at the end of the heating season. Stovepipe can be simply washed with hot soapy water and a rag, rinsed with cold water and left outside in the sun to dry. If the pipe is burned or rotted through disregard pipe and purchase new pipe from your dealer. Not disconnecting the stovepipe can result in stovepipe becoming corrosive and rusting through prematurely. High temp flat black paint can be used to touch up the stove or stovepipe. RSC recommends stoves to be cleaned and maintained at the end of season making sure the stove is ready for the next heating. **MOISTURE CAN ROT A COAL STOVE SEVERLY IN JUST ONE SUMMER OFF-SEASON. IT'S IMPORTANT TO CLEAN AND KEEP THE STOVE DRY AND OUT OF DAMPNESS AS MUCH AS POSSIBLE DURING THE SUMMER OFF-SEASON. CORROSIVE DAMAGE TO THE STOVE IS NOT COVERED UNDER WARRANTY.**

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 DAMPER MUST BE PROPERLY INSTALLED.

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

Section 5: Installation and Placement

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.

D: BAROMETRIC DAMPER

A **BAROMETRIC DAMPER** must always be installed properly in conjunction with a stoker stove. Dampers are available through dealers or plumbing/heating distributors.

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.

Section 6: Operating Instructions

D: BURN TIME

How long can a coal stove run on a full hopper of coal? The length of time a coal stove can burn unattended will vary. Burning 60 to 80 pounds per day in the middle of the heating season is quite possible. Early fall or late spring less. A Coal Trol Thermostat will give you the most efficient even heating and give you the longest burn time. Manual Adjustment control of the stove works best when the stove will operate at a high temperature continuously. Basically what RSC calls flat out 80-120 plus pounds in possible. Outside air temperature, the energy rating of the structure, actual square footage are just a few elements that will need to be considered when trying to determine burn time.

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

A: TYPE OF FUEL

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

B: STARTING AN ANTHRACITE COAL FIRE

1. Fill the hopper with premium anthracite coal.
2. Looking at the grate you will notice that some coal has been deposited on the grate. Place an ample amount of additional coal on the grate by hand or by moving the Carpet (page 19) back a forth a few times. Place the fire starter near the very top of the grate where the holes begin, grind the fire starter into the bed of coal as best as possible and surround with additional coal. GELLED FIRESTARTER can also be used on the fire starter bag to help with ignition.
3. Light the fire starter bag. Never hold the bag or any other fire starter in your hand.
4. Thirty seconds after the fire starter is ignited plug in the stoker cord or thermostat control. The AC Power Pack will begin to feed combustible air and coal. If venting with an approved POWERVENT, turn the vent on immediately after lighting the fire starter, wait the 30 seconds and plug in the stoker cord. If stove is connected to a chimney, crack the ash door an inch or two to increase draft. Once the fire starter becomes completely inflamed in 3-5 minutes close ash door tight. **DO NOT OPERATE THE STOVE WITH THE ASH DOOR OPEN AT ANY OTHER TIME.**
5. If the stove fails to light or the fire slides off the grate repeat procedure.
6. 2-3 inches of dead ash on the end of the grate is optimal for stove efficiency. The actual size of the dead ash can vary deepening on how the stove is adjusted. **SEE BELOW FOR ADDITIONAL DETAILS.**
7. 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.

C: TEMPERATURE CONTROL AND FIRE ADJUSTING

Thermostat Controls:

RSC recommends using an approved thermostat to regulate the stoves operation and heat out put. An approved thermostat will provide the most comfortable and efficient way to operate a coal stove. Refer to the individual operational manuals for Coal-Trol or RSC Thermostat for operational instructions.

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

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

Manual Adjustment:

1. Plug the stoker cord from the AC Motor Powerpack directly into the wall socket.
2. Light the stove.
3. If the fire patch is small and to the rear of the grate the stove will operate at a lower temperature which may be fine for some applications and heating needs but too low for others. If more heat is needed turn the RED FEED ADJUSTMENT TAB (see page 19) two turns away from the stove clockwise. Wait 15 minutes and notice that the fire patch has become larger and moved forward towards the end of the grate. Note the increase in the temperature of the stove surface and the temperature of the air blowing out of the stove. An additional adjustment of the RED FEED ADJUSTMENT TAB maybe necessary to increase the size of the fire patch. Turn tab one or two additional times and monitor the position of the fire on the grate.

4. If hot coal falls off the grate before being completely burnt through, turn the RED FEED ADJUSTMENT TAB towards the stove once to reduce the rate of feed. The stove will operate most efficiently with two-three inches of dead ash at the end of the grate. Additional adjustments may be necessary. Actual size of the dead ash can vary depending on the needs of the consumer for heat. **NOTE: THE RED FEED ADJUSTMENT TAB IS A FINE THREAD AND ONE-TWO TURNS IN EITHER DIRECTION CAN CHANGE THE SIZE OF FIRE PATCH.**
5. After several hours of run time 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. Making Manual Adjustments periodically throughout the heating season may be required due to outside temperature. The underlining principal is the larger the fire the more heat. If the area becomes too warm then adjusting the size of the fire patch will reduce the temperature
6. **DO NOT TURN OFF THE CONVECTION FORCED HOT AIR BLOWER WHEN OPERATING A STOVE IN MANUAL MODE. IF THE AREA IS TOO HOT REDUCE THE SIZE OF THE FIRE. TURNING OFF THE CONVECTION BLOWER COULD CAUSE DAMAGE TO THE STOVE AND VOID WARRANTY.**