## **OWNER'S OPERATION AND INSTRUCTION MANUAL**

# **BRECKWELL** Exceptional Heat, Outstanding Value

## **MODEL: SW740**

#### 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 Could Void** 

Your Warranty!

#### **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.



Approved for installation in the USA and Canada SAFETY TESTED TO UL 1482-2011, UM-84, ULC-S627-2000, and ULC-S628 US ENVIRONMENTAL PROTECTION AGENCY PHASE II CERTIFIED WOODSTOVE WASHINGTON STATE APPROVED MOBILE HOME APPROVED (U.S. ONLY) SAVE THESE INSTRUCTIONS.

THIS MANUAL WILL HELP YOU TO OBTAIN EFFICIENT, DEPENDABLE SERVICE FROM THE HEATER, AND ENABLE YOU TO ORDER REPAIR PARTS CORRECTLY. KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

French version is available for download from the Breckwell website: http://www.breckwell.com/ La version française est disponible pour téléchargement à partir du site Breckwell: http://www.breckwell.com/

#### Breckwell

P.O. Box 750 Bridgeport, AL 35740 Phone: (866) 606-8444 www.BRECKWELL.com



## **CONGRATULATIONS!**

You've purchased a heater from North America's oldest manufacturer of wood burning products.

By heating with wood you're helping to CONSERVE ENERGY!

Wood is our only Renewable Energy Resource. Please do your part to preserve our wood supply. Plant at least one tree each year. Future generations will thank you.

The instructions pertaining to the installation of your wood stove comply with UL-1482, UM-84, ULC-S627, and ULC-S628 standards.

Combustible :	Wood		
Colors :	Metallic Black		
Flue Pipe Diameter :	6" (15.3cm)		
Flue Pipe Type: (Standard Single Wall or Double Wall):	Black or Blued Steel 2100°F (650°C)		
Minimum Chimney Height :	12' (3.7m)		
Maximum Log Length :	18" (457mm)		
Electrical	115V, 60Hz, 0.55A		
Dimensions			
Overall : (without Pedestal, Legs or Facade)	28" x 28" x 23" (711mm x 711mm x 578mm)		
Depth x Width x Height :			
Combustion Chamber :	23" x 18" (584mm x 457mm)		
Width x Depth :			
Volume :	2.6 cubic feet		
Cubic Feet:			
Door Opening : Width x Height:	17.5" x 10.5" (444mm x 266mm)		
Pyroceramic Glass Door : (Viewing) Width x Height:	16.25" x 10" (412mm x 254mm)		
Weight (lbs):	358 lbs		

#### CAUTIONS:

- HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.
- DO NOT USE CHEMICALS OR FLUIDS TO IGNITE THE FIRE.
- DO NOT LEAVE THE STOVE UNATTENDED WHEN THE DOOR IS SLIGHTLY OPENED.
- DO NOT BURN GARBAGE, FLAMMABLE FLUID SUCH AS GASOLINE, NAPHTHA OR MOTOR OIL.
- DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.
- ALWAYS CLOSE THE DOOR AFTER THE IGNITION.

## WARRANTY INFORMATION CARD

			_ Telephone	#:()
City			State	Zip
Email Address				
Model # of Unit		S	erial #	
Fuel Type: 🛛 Wood	Coal Pellet	Gas	Other _	
Place of Purchase (Retai	ler)			
City			State	Zip
If internet purchase, ple	ase list website addres	SS		
Date of Purchase				
Reason for Purchase:	□Alternative Heat	□Ma	ain Heat Sour	rce
Decoration	Cost	Other		
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PLACE

STAMP HERE Fold Here

Breckwell P.O. Box 750 Bridgeport, AL 35740



## **Unpack and Inspect**

Remove the packing from the appliance and inspect for any damage. Your appliance is packed with the door handle in a non-operational position for shipping purposes.

#### The correct operating position is with the handle rod pointed towards the floor, at an approximate angle as illustrated below.

Ensure that the bricks are positioned correctly and not broken (see illustration for proper brick arrangement). Make sure that the baffle board, above the air tubes, is in place and undamaged. (DO NOT REMOVE)



**Brick Configuration** 

#### **Tools and Materials Needed For Installation**

- 1. You must choose one of the three offered kits:
  - A) Pedestal Kit (SA740P)
  - B) Leg Kit (SA740L)
  - C) Fireplace Insert (SA740i)

Refer to the instructions found inside each kit for proper assembly.

- 2. A 7/16" socket wrench
- 3. Ruler / Measuring Tape
- 4. Furnace Cement
- 5. A 5/16" socket (Best if using a power drill and a socket bit)
- 6. A pair of pliers or channel-locks
- 7. A power drill with an 1/8" drill bit to install sheet metal screws into connector pipe.
- 8. Sheet metal screws
- 9. A non-combustible floor protector as specified in this manual.
- 10. All chimney and chimney connector components required for your particular venting installation.
- 11. For mobile or manufactured home installations, see the MOBILE HOME section in this manual.

### **ASSEMBLY INSTRUCTIONS**

This appliance is offered in three different configurations of which you get to choose. You have the option to install your new heater as a freestanding heater on a pedestal, on legs or as a fireplace insert. You must purchase the desired kit separately from your appliance dealer. Read and follow the directions in this manual and inside the chosen kit to ensure proper assembly, installation and operation of your new wood heater.

#### **Caution!** The appliance is very heavy.

The assistance from a second person is strongly suggested. Please use proper lifting technic when positioning the appliance for assembly and installation. Several methods may be used to attach the legs and pedestal to the appliance. The safest method is to roll the appliance on its side, then attach the chosen assembly. When using this method, you should first remove the firebrick from the unit so as to reduce weight and possible breakage. It will be required to raise the bottom of the unit up to attach two of the legs or the pedestal. It is recommended that you use cardboard or other means of padding to protect the finish on your new stove.

### **Free Standing Leg Assembly**

Unpack the kit and ensure all components are present: Four(4) Cast Iron Legs (40566), Eight(8) 1/4-20 UNC Bolts (83339), Eight(8) Flat Washers (83045A), One(1) Outside Air Assembly (69848), and Eight (8) #10 Sheetmetal Screws (83343).

- 1. Position the unit for assembly.
- 2. Using the Eight(8) 1/4-20 bolts and (OA Inlet Assembly (69848) washers provided, attach the legs.
- 3. Using a pair of pliers or other means, remove the metal plate from the bottom of the appliance.
- 4. Attach the Outside Air Assembly to the bottom of the appliance, making sure the pipe is toward the rear of the unit. Use the Eight(8) sheetmetal screws provided.
- 5. Rotate the appliance onto the legs, being careful not to damage the legs while doing so.
- 6. Make sure that the baffle board, above the air tubes, is in place and undamaged. DO NOT remove the baffle board.

#### Free Standing Pedestal Assembly

Unpack the Pedestal Assembly and ensure all components are present: One(1) Pedestal Assembly, Six(6) 1/4-20x1/2 Hex Head Bolts, and Four(4) #10x1/2 Hex Head Self-tapping Screws. The pedestal should come assembled to the base, ready to install on your appliance. You can either roll the appliance onto its side as above or locate the pedestal assembly in the approximate final location, then set the appliance atop the pedestal. Please heed the caution above!

- 1. Position the appliance for assembly.
- 2. Using a pair of pliers or other means, remove the metal plate from the bottom of the appliance and the pedestal.
- 3. Attach the pedestal to the bottom of the unit using three(3) bolts and washers provided.
- 4. Attach the pedestal back to the pedestal using four(4) sheetmetal screws provided.
- 5. Make sure that the baffle board, above the air tubes, is in place and undamaged. DO NOT remove the baffle board.





### **FIREPLACE INSERT ASSEMBLY**

### Air Dam Removal

For fireplace insert models, an air dam must be removed from the front of the stove.

- 1. On the front of the stove remove the two (2) screws holding the front plate(26302) in place.
- 2. Next make two cuts in the insulation(88190) measuring 2.5"(63mm) and 1.5"(38mm) as shown.

## CAUTION: The insulation is held in place with sharp retaining studs. Use caution when removing the insulation to avoid injury.

- 3. Pull back the insulation from the cuts and remove the damper plate(26304), air dam(26346), and the two retaining screws(83343) located behind the insulation.
- 4. Reinstall the damper plate(26304) and retaining screws(83343).
- 5. Finally reinstall the front plate and the two retaining screws.



## **INSERT STOVE FACADE ASSEMBLY**

Breckwell Room Heaters are available as an insert into existing masonry or factory-built fireplaces.

## Do not alter the existing fireplace in any way either by removing bricks or mortar which could weaken the structural integrity of the fireplace.

#### Note: The facade must be installed before unit is set into its final position.

- 1) Position stove in fireplace. Align facade panels with fireplace and top of stove. The panels should be flat against the fireplace and standing vertical.
  - Notes: The side facade pieces go behind the top piece.

The facade must be installed before unit is set into its final position.

- 2) Mark the location of the facade panels along the top of the stove with a pencil. The mark will be used to realign the panels later.
- 3) Slide stove out of fireplace far enough to be able to work behind facade panels.
- 4) Realign the first side panel with the mark made previously.
- 5) Using the predrilled holes in the facade panel as a guide; mark and drill holes for the self tapping screws used to mount the facade panel. See illustration on right below.

Note: Align the mounting screws with the center of the predrilled holes to allow for adjustment.

- 6) Repeat steps 4 and 5 for the other side panel.
- 7) Attach side panel trim as shown. See illustration on left below.
- 8) Attach top panel retainer with two self tapping screws.
- 9) Ensure venting is attached properly.
- 10) Align the top panel with the retainer and side panels

11) Attach top panel trim.

Note: Stove and facade panels should realign with fireplace to allow the panels to be flat against fireplace and standing vertically

12) Attach self adhesive insulation to back of facade and realign stove in fireplace.



Key	Part No.	Description	Qty.
1	26278	Left Panel, Facade	1
2	26279	Central Panel, Facade	1
3	26277	Right Panel, Facade	1
4	892295-3	Trim, Facade Side-Left	1
5	892295-1	Trim, Facade Top	1
6	892295-2	Trim, Facade Right	1
7	88055	Gasket, Trim	10ft
8	83386	#10 X 3/4 Hex Head Screw	6
9	26414	Clamp, Top Trim	1



## **INSTALLATION**

#### **SAFETY NOTICE**

- IF THIS STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS.
- CONSULT YOUR MUNICIPAL BUILDING DEPARTMENT OR FIRE OFFICIALS ABOUT PERMITS, RESTRICTIONS AND INSTALLATIONS REQUIREMENTS IN YOUR AREA.
- USE SMOKE DETECTORS IN THE ROOM WHERE YOUR STOVE IS INSTALLED.
- KEEP FURNITURE AND DRAPES WELL AWAY FROM THE STOVE.
- NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE.
- IN THE EVENT OF A CHIMNEY FIRE, PUSH THE AIR CONTROL FULL CLOSED TO DEPRIVE THE FIRE OF OXYGEN. CALL THE FIRE DEPARTMENT.
- DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.
- A SOURCE OF FRESH AIR INTO THE ROOM OR SPACE HEATED SHALL BE PROVIDED WHEN REQUIRED.

### **POSITIONING THE STOVE**

It is very important to position the wood stove as close as possible to the chimney, and in an area that will favor the most efficient heat distribution possible throughout the house. The stove must, therefore, be installed in the room where the most time is spent and in the most spacious room possible. Recall that wood stoves produce radiating heat, the heat we feel when we are close to a wood stove. A wood stove also functions by convection, that is through the displacement of hot air accelerated upwards and its replacement with cooler air. Route power cord away from unit. Do not route power cord under or in front of appliance.

The wood stove must not be hooked up to a hot air distribution system since an excessive accumulation of heat may occur.

## **Floor Protector**

This heater must have a noncombustible floor protector (ember protection) installed beneath it if the floor is of combustible material. If a floor pad is used, it should be UL listed or equal. The floor pad or non-combustible surface should be large enough to extend a minimum of 8-inches [152mm] in front and 2-inches [51mm] on each side of the heater.

Canadian Installations require a minimum of 450 mm [18"] beyond the front of the unit and 200mm [8"] beyond each side of the unit.

R L FLOOR PROTECTOR DIMENSIONS

Din	nension	Inch	mm
J	Stove Width	28	711
K	Stove Depth	28	711
L*	Front	16	406
М	Back	2	51
N**	Left	8	203
P**	Right	8	203
Q	Total Width	44	1117
R	Total Length	46	1168

\*Canadian installations require 18" (457mm) \*Canadian installations require 8" (203mm)

A Floor Protector of 1/2 inch thick is recommended for this installation.

## **Free Standing Stove Clearances**

A wood stove must never be installed in a hallway or near a staircase, since it may block the way in case of fire or fail to respect required clearances. It is of utmost importance that the clearances to combustible materials be strictly adhered to during installation of the stove. Refer to the tables below :



Dimension		Inch	mm
А	Backwall to Stove	9	228
В	Sidewall to Stove	27	685
С	Wall to corner (Angled Installation)	15	381
D	Ceiling Height	84	2134
Е	Backwall to Flue	14	350
F	Sidewall to Flue	38	957
G	Wall to Flue (Angled Installation)	27	686

- Floor to ceiling height must be at least 7' (2.13m) in all cases.
- Do not place any combustible material within 4' (1.2m) of the front of the unit.
- The clearance between the flue pipe and a wall are valid only for vertical walls and for vertical flue pipe.
- The chimney connector must not pass through an attic or roof space, closet or similar concealed space, a floor, or a ceiling.
- For Canadian installations, where passage through a wall, or partition of combustible construction is desired, the installation must conform to CAN/CSA-B365.
- A flue pipe crossing a combustible wall must have a minimum clearance of 18" (457.2mm).
- To reduce flue clearances from combustible materials, contact your local safety department.

#### **Insert Stove Clearances**



A: Side wall: 18" to side of appliance

**B:** Top Trim: 18" above top of appliance

C: Side trim: 18" to side of appliance

D: Mantle: 24" above top of appliance

E: Side Floor Protector: 8" to side of appliance

F: Front Floor Protector: 16" in front of appliance (Canadian installations require 18" (457mm)

## **Floor Protection**

When in MASONRY fireplaces, use a floor protector listed to standard UL 1618.

When in Factory-built fireplaces, use a floor protector listed to standard UL 1618.

See ALTERNATE FLOOR PROTECTOR CALCULATIONS section in this manual for instructions on how to calculate acceptability of alternate materials.

### **MOBILE HOME INSTALLATION**

#### **Special Mobile Home Requirements**

- △ CONSULT YOUR MUNICIPAL BUILDING DEPARTMENT OR FIRE OFFICIALS ABOUT PERMITS, RESTRICTIONS AND INSTALLATIONS REQUIREMENTS IN YOUR AREA.
- △ WARNING! DO NOT INSTALL IN A SLEEPING ROOM.
- △ CAUTION! THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.

In addition to the previously detailed installation requirements, mobile home installations must meet the following requirements:

- The heater must be permanently attached to the floor.
  - 1. There are two holes in the pedestal base, use 3/8" bolts through the floor.
  - 2. To attach the leg model use two 3/8-16 UNC bolts through the floor into the two rear legs.
- The heater must be electrically grounded to the steel chassis of the mobile home with 8 GA copper wire using a serrated or star washer to penetrate paint or protective coating to ensure grounding.
- When moving your mobile home, all exterior venting must be removed while the mobile home is being relocated. After relocation, all venting must be reinstalled and securely fastened.
- Outside Air is mandatory for mobile home installation. See your dealer for purchasing. (see Ventilation Section for details)
- Check with your local building officials as other codes may apply.



## **VENTILATION**

## **Combustion Air Assembly Instructions**

## This appliance requires a source of combustion air. If your home is of tight construction or has negative pressure problems, you will need an outside source of air.

Outside combustion air may be required if :

- 1. Your stove does not draw steadily, smoke rollout occurs, wood burns poorly, or back-drafts occur whether or not there is combustion present.
- 2. Existing fuel-fired equipment in the house, such as fireplaces or other heating appliances, smell, do not operate properly, suffer smoke roll-out when opened, or back-drafts occur whether or not there is combustion present.
- 3. Opening a window slightly on a calm (windless) day alleviates any of the above symptoms.
- 4. The house is equipped with a well-sealed vapor barrier and tight fitting windows and/or has any powered devices that exhaust house air.
- 5. There is excessive condensation on windows in the winter.
- 6. A ventilation system is installed in the house.
- 7. Mobile home installations.



"Combustion Air thru Unit Base" Installation

"Dryer Venting Kit" Installation

If an outside air intake is required, you have two options. You may cut a rectangular hole in the floor of your home and the floor protector, or purchase a standard 4" Dryer Vent kit from your local hardware supply store and install it on the rear of the appliance.

If your choice is to cut a rectangular hole in the floor and flooring protector, refer to the above illustrations for assistance. You must place a rodent screen between the floor protector and the floor to prevent passage of any unwanted vermin into your home.

If using a Dryer venting kit, the outlet cover must be of a design that DOES NOT close by means of a flap or trap door. You must purchase a style that allows a continuous in-flow of air and that has a rodent screen. This adapter can be purchased from your dealer.

If your home is not of tight construction, you can just simply remove the 4" round knockout in the rear of the pedestal.

## • "Combustion Air thru Unit Base" installation:

First, decide the location of the appliance. Then, cut a 2" x 7" rectangular opening in the floor protector within the appliance base's perimeter. Using the flooring protector as a template, position it in place and mark onto the floor of your home where to make your next cut. Make the cut in your home's floor slightly larger than the 2" x 7" to accommodate any misalignment. Attach a piece of screen over the hole to prevent any unwanted vermin entering your home. Remove the knock-out from the bottom of the pedestal. Complete your appliance installation.

## "Dryer Venting Kit" installation:

First using a pair of pliers or other means, remove the metal plate from the bottom of the appliance. Next, install the Outside air Adapter. Follow the manufacturer's installation instructions for attaching the dryer vent kit to the home. Then, attach it to the adapter on the appliance. The dryer vent kit can be installed on either the back of the pedestal or on the Outside Air Assembly on the free standing leg option.

## **Chimney Connector (Stove Pipe)**

Your chimney connector and chimney must have the same diameter as the stove outlet (6"). If this is not the case, we recommend you contact your dealer in order to insure there will be no problem with the draft.

The stove pipe must be made of aluminized or cold roll steel with a minimum thickness of 0.021" or 0.53 mm. It is strictly forbidden to use galvanized steel.

Your smoke pipe should be assembled in such a way that the male section (crimped end) of the pipe faces down. Attach each of the sections to one another with three equidistant metal screws. Seal with furnace cement.

The pipe must be short and straight. All sections installed horizontally must slope at least 1/4 inch per foot, with the upper end of the section toward the chimney. Any installation with a horizontal run of chimney pipe must conform to NFPA 211. You may contact NFPA (National Fire Protection Association) and request the latest edition of the NFPA Standard 211.

To insure a good draft, the total length of the coupling pipe should never exceed 8' to 10' (2.4m to 3.04 m). (Except for cases of vertical installation, cathedral-roof style where the smoke exhaust system can be much longer and connected without problem to the chimney at the ceiling of the room).

There should never be more than two 90 degrees elbows in the smoke exhaust system.

Installation of a "barometric draft stabilizer" (fireplace register) on a smoke exhaust system is prohibited.

Furthermore, installation of a draft damper is not recommended. Indeed, with a controlled combustion wood stove, the draft is regulated upon intake of the combustion air in the stove and not at the exhaust.



## Chimney

Your wood stove may be hooked up with a 6" factory built or masonry chimney. If you are using a factory built chimney, it must comply with UL 103 or CSA-B365 standard; therefore it must be a Type HT (2100°F). It is extremely important that it be installed according to the manufacturer's specifications.

If you are using a masonry chimney, it is important that it be built in compliance with the specifications of the National Building Code. It must be lined with fire clay bricks, metal or clay tiles sealed together with fire cement. (Round flues are the most efficient).

The interior diameter of the chimney flue must be identical to the stove smoke exhaust. A flue which is too small may cause draft problems, while a large flue favours rapid cooling of the gas, and hence the build-up of creosote and the risk of chimney fires. Note that it is the chimney and not the stove which creates the draft effect; your stove's performance is directly dependent on an adequate draft from your chimney.

The following recommendations may be useful for the installation of your chimney:

- 1. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.
- 2. It must rise above the roof at least 3' (0.9m) from the uppermost point of contact.
- 3. The chimney must exceed any part of the building or other obstruction within a 10' (3.04m) distance by a height of 2' (0.6m).
- 4. Installation of an interior chimney is always preferable to an exterior chimney. Indeed, the interior chimney will, by definition, be hotter than an exterior chimney, being heated up by the ambient air in the house. Therefore, the gas which circulates will cool more slowly, thus reducing the build-up of creosote and the risk of chimney fires.
- 5. The draft caused by the tendency for hot air to rise will be increased with an interior chimney.
- 6. Using a fire screen at the extremity of the chimney requires regular inspection in order to insure that it is not obstructed, thus blocking the draft; and it should be cleaned when used regularly.
- 7. Exterior chimney should be double or triple wall.



## **Installation into a Masonry Fireplace:**

Multiple installation methods may be available in your 4. area. Check with local building officials for any permits required for installation of this unit and notify your 5. insurance company before proceeding with installation.

Breckwell recommends the use of a full liner where a stainless steel rigid or flexible liner pipe is routed from the insert outlet collar to the top of the chimney.

- 1. Clean the fireplace opening properly disposing of any ashes in 6. a closed metal container. See Safety Instructions.
- 2. Install a 6" (152mm) minimum diameter, continuous stainless steel chimney liner into the existing chimney. The liner must extend to the top of the existing chimney. Use only listed chimney liners that meet UL1777 standards. Follow liner manufacturer installation instructions.
- 3. Remove or lock the fireplace damper in the open position. Note: Masonry or damper plate may be removed to accommodate the chimney liner provided this does not weaken any structural components of the existing fireplace or chimney nor reduces protection of combustible materials required by national building codes. Consult with your local building or fire authority before doing this.

- Uncrate the appliance. Remove all packing materials, and any items stored in the firebox.
- WARNING: Any fireplace which has had parts removed or modified to accommodate the installation of this appliance MUST have a warning plate permanently installed in a visible location stating that the fireplace is unfit for use with solid fuel. Permanently attach the warning plate to a visible location in the fireplace.
- . Position the appliance into the fireplace opening.
- 7. If necessary, 1/4-20 leveling bolts can be inserted into the base and used as levelers for uneven fireplaces.
- 8. Connect the chimney liner to the appliance using a stainless steel adapter and securing with a minimum of three (3) sheet metal screws. The liner MUST be attached with the male (or crimped) end of the adapter inside the flue collar of the appliance to allow condensation and/or creosote to drain back into the firebox.
- 9. Assemble the Surround. Lay pieces face down on carpet or other soft surface to protect finish during assembly. The Surround consists of two side panels, a top panel, and a decorative trim frame.



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MASONRY FIREPLACE

### **Masonry Chimney :**

Ensure that a masonry chimney meets the minimum standards of the National Fire Protection Association (NFPA) by having it inspected by a professional. Make sure there are no cracks, loose mortar, or other signs of deterioration and blockage. Have the chimney cleaned before the stove is installed and operated. When connecting the stove through a combustible wall to a masonry chimney, special methods are needed.



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## **Factory Built Chimney :**

When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed. You must also purchase (from the same manufacturer) and install the ceiling support package or wall pass-through and "T" section package, firestops (where needed), insulation shield, roof flashing, chimney cap, etc. Maintain proper clearance to the structure as recommended by the manufacturer. The chimney must be the required height above the roof or other obstructions for safety and proper draft operation. See Chimney section for details. Ensure chimney is a minimum of 12' tall.



## **Combustible Wall Chimney Connector Pass-Throughs**



Method A. 12" (304.8 mm) Clearance to Combustible Wall Member: Using a minimum thickness 3.5" (89 mm) brick and a 5/8" (15.9 mm) minimum wall thickness clay liner, construct a wall pass-through. The clay liner must conform to ASTM C315 (Standard Specification for Clay Fire Linings) or its equivalent. Keep a minimum of 12" (304.8 mm) of brick masonry between the clay liner and wall combustibles. The clay liner shall run from the brick masonry outer surface to the inner surface of the chimney flue liner but not past the inner surface. Firmly grout or cement the clay liner in place to the chimney flue liner.

Method B. 9" (228.6 mm) Clearance to Combustible Wall Member: Using a 6" (152.4 mm) inside diameter, listed, factory-built Solid-Pak chimney section with insulation of 1" (25.4 mm) or more, build a wall pass-through with a minimum 9" (228.6 mm) air space between the outer wall of the chimney length and wall combustibles. Use sheet metal supports fastened securely to wall surfaces on all sides, to maintain the 9" (228.6 mm) air space. When fastening supports to chimney length, do not penetrate the chimney liner (the inside wall of the Solid-Pak chimney). The inner end of the Solid-Pak chimney section shall be flush with the inside of the masonry chimney flue, and sealed with a non-water soluble refractory cement. Use this cement to also seal to the brick masonry penetration.

Method C. 6" (152.4 mm) Clearance to Combustible Wall Member: Starting with a minimum 24 gauge (.024" [.61 mm]) 6" (152.4 mm) metal chimney connector, and a minimum 24 gauge ventilated wall thimble which has two air channels of 1" (25.4 mm) each, construct a wall pass-through. There shall be a minimum 6" (152.4) mm separation area containing fiberglass insulation, from the outer surface of the wall thimble to wall combustibles. Support the wall thimble, and cover its opening with a 24-gauge minimum sheet metal support. Maintain the 6" (152.4 mm) space. There should also be a support sized to fit and hold the metal chimney connector. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure the metal chimney connector do not penetrate chimney flue liner.

Method D. 2" (50.8 mm) Clearance to Combustible Wall Member: Start with a solid-pak listed factory built chimney section at least 12" (304 mm) long, with insulation of 1" (25.4 mm) or more, and an inside diameter of 8" (2 inches [51 mm] larger than the 6" [152.4 mm] chimney connector). Use this as a pass-through for a minimum 24-gauge single wall steel chimney connector. Keep solid-pak section concentric with and spaced 1" (25.4 mm) off the chimney section. Cover opening with and support plates at both ends of chimney section. Cover opening with and support chimney section on both sides with 24 gauge minimum sheet metal supports. See that the supports are fastened securely to wall surfaces on all sides.

#### NOTES:

- 1. Connectors to a masonry chimney, excepting method B, shall extend in one continuous section through the wall pass-through system and the chimney wall, to but not past the inner flue liner face.
- 2. A chimney connector shall not pass through an attic or roof space, closet or similar concealed space, a floor, or ceiling.

## **WOODSTOVE UTILIZATION**

Your heating unit was designed to burn wood only; no other materials should be burned. Waste and other flammable materials should not be burned in your stove. Any type of wood may be used in your stove, but specific varieties have better energy yields than others. Please consult the following table in order to make the best possible choice.

TYPE	WEIGHT (LBS. CU. FT., DRY)	PER CORD	EFFICIENCY RANKING	SPLITS	M I L L I O N S BTU's/CORD
Hickory	63	4500	1.0	Well	31.5
White Oak	48	4100	.9	Fair	28.6
Red Oak	46	3900	.8	Fair	27.4
Beech	45	3800	.7	Hard	26.8
Sugar Maple	44	3700	.6	Fair	26.2
Black Oak	43	3700	.6	Fair	25.6
Ash	42	3600	.5	Well	25.0
Yellow Birch	40	3400	.4	Hard	23.8
Red Maple	38	3200	.3	Fair	22.6
Paper Birch	37	3100	.3	Easy	22.1
Elm/Sycamore	34	2900	.2	Very Difficult	20.1
Red Spruce	29	1800	.1	Easy	16.1

It is EXTREMELY IMPORTANT that you use DRY WOOD only in your wood stove. The wood should have dried for 9 to 15 months, such that the humidity content (in weight) is reduced below 20% of the weight of the log. It is very important to keep in mind that even if the wood has been cut for one, two or even more years, it is not necessarily dry if it has been stored in poor conditions. Under extreme conditions it may rot, instead of drying. This point cannot be over stressed; the vast majority of the problems related to the operation of a wood stove is caused by the fact that the wood used was too damp or has dried in poor conditions. These problems can be:

- ignition problems
- creosote build-up causing chimney fires
- low energy yield
- blackened windows
- incomplete log combustion

Smaller pieces of wood will dry faster. All logs exceeding 6" in diameter should be split. The wood should not be stored directly on the ground. Air should circulate through the cord. A 24" to 48" air space should be left between each row of logs, which should be placed in the sunniest location possible. The upper layer of wood should be protected from the elements but not the sides.

## **Testing Your Wood**

When the stove is thoroughly warmed, place one piece of split wood (about five inches in diameter) parallel to the door on the bed of red embers.

Keep the air control full open by pulling on it and close the door. If ignition of the piece is accomplished within 90 seconds from the time it was placed in the stove, your wood is correctly dried. If ignition takes longer, your wood is damp.

If your wood hisses and water or vapor escapes at the ends of the piece, your wood is soaked or freshly cut. Do not use this wood in your stove. Large amounts of creosote could be deposited in your chimney, creating potential conditions for a chimney fire.

## **The First Fires**

The fresh paint on your stove needs to be cured to preserve its quality. Once the fuel charge is properly ignited, only burn small fires in your stove for the first four hours of operation. Never open the air control more than necessary to achieve a medium burn rate.

Make sure that there's enough air circulation while curing the stove. The odors could be smelled during the 3 or 4 first fires. Never start your stove outside. You will not be able to see if you are over heating.

## Ignition

After making sure that the stove air intake controls are fully open (completely push in toward stove), place several rumpled sheets of paper in the center of the combustion chamber. Place 8 to 10 pieces of small dry kindling wood over the paper in the form of a tent. You may also place a few pieces of heating wood but choose the smaller ones. No chemical product should be used to light the fire.

Before igniting the paper and kindling wood, it is recommended that you warm up the chimney. This is done in order to avoid back draft problems often due to negative pressure in the house. If such is the case, open a window slightly near the stove and twist together a few sheets of newspaper into a torch. Light up this paper torch and hold it as close as possible to the mouth of the pipe inside the combustion chamber to warm up the chimney. Once the updraft movement is initiated, you are ready to ignite the stove by lighting the paper and kindling wood inside the combustion chamber.

When you have achieved a good bed of hot embers, we recommend the following burn procedures:

SW740				
Primary Air SettingsElectric Blower Speed Setting (V(Slide Damper is located in center of stove under hearth plate)(Blower is on High when turned "(Damper Adjustment: Pulling out on damper decreases air)clockwise until stop for "LOW".)				
Burn Rate Adjust Damper from fully closed			Burn Time	Blower Speed
Low	0		@ 30 minutes	Low
Medium - Low 0			@ 30 minutes	Low
Medium - High	1/8		@ 30 minutes	Low
High	1 1/2"		all minutes	High

CAUTION: Never alter the damper slide or the adjustment range to increase firing for any reason. Doing so could result in heater damage and will void your warranty.

## Heating

Controlled combustion is the most efficient technique for wood heating because it enables you to select the type of combustion you want for each given situation. The wood will burn slowly if the wood stove air intake control is adjusted to reduce the oxygen supply in the combustion chamber to a minimum. On the other hand, wood will burn quickly if the air control is adjusted to admit a larger quantity of oxygen in the combustion chamber. The air intake control on your stove is very simple. If you pull on it out completely towards you, it is fully closed. If you push on it until it stops the combustion air is fully open. Real operating conditions may give very different results than those obtained during testing according to the species of wood used, its moisture content, the size and density of the pieces, the length of the chimney, altitude, and outside temperature.

#### WARNINGS

- NEVER OVERFIRE YOUR STOVE. IF ANY PART OF THE STOVE STARTS TO GLOW RED, OVER FIRING IS HAPPENING. READJUST THE AIR INTAKE CONTROL AT A LOWER SETTING.
- THE INSTALLATION OF A LOG CRADLE OR GRATES IS NOT RECOMMENDED IN YOUR WOOD STOVE. BUILD FIRE DIRECTLY ON FIREBRICK.
- NEVER PUT WOOD ABOVE THE FIREBRICK LINING OF THE FIREBOX.

## Reloading

Once you have obtained a good bed of embers, you should reload the unit. In order to do so, open the air controls to maximum a few seconds prior to opening the stove's door. Then proceed by opening the door very slowly; open it one or two inches for 5 to 10 seconds, before opening it completely to increase the draft and thus eliminate the smoke which is stagnant in a state of slow combustion in the stove. Then bring the red embers to the front of the stove and reload the unit.

For optimal operation of your wood stove, we recommend you to operate it with a wood load approximately equivalent to the height of fire bricks. Do not stack wood higher than the firebrick. Do not stack wood so that it can roll out of stove or strike glass.

It is important to note that wood combustion consumes ambient oxygen in the room .In the case of negative pressure, it is a good idea to allow fresh air in the room, either by opening a window slightly or by installing a fresh air intake system on an outside wall.

Creosote - Formation and Need for Removal - When wood 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 once every two months during the heating season to determine if a creosote build-up has occurred. If creosote has accumulated (3mm or more), it should be removed to reduce the risk of a chimney fire.

We strongly recommend that you install a magnetic thermometer on your smoke exhaust pipe, approximately 18" above the stove. This thermometer will indicate the temperature of your gas exhaust fumes within the smoke exhaust system. The ideal temperature for these gases is somewhere between 275°F and 500°F. Below these temperatures, the build-up of creosote is promoted. Above 500 degrees, heat is wasted since a too large quantity is lost into the atmosphere.

## **To Prevent Creosote Build Up**

- Always burn dry wood. This allows clean burns and higher chimney temperatures, therefore, less creosote deposit.
- Leave the air control full open for about 5 min. every time you reload the stove to bring it back to proper operating temperatures. The secondary combustion can only take place if the firebox is hot enough.
- Always check for creosote deposit once every two months and have your chimney cleaned at least once a year.

If a chimney or creosote fire occurs, close all dampers immediately. Wait for the fire to go out and the heater to cool, then inspect the chimney for damage. If no damage results, perform a chimney cleaning to ensure there is no more creosote deposits remaining in the chimney.

## Ash Disposal

Ashes should be removed from the stove every few days or when ashes get to 2 to 3 inches deep. Always empty the stove when it is cold, such as in the morning. 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, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the close container until all cinders have thoroughly cooled. Other waste shall not be placed in this container.

It is strongly recommended that ashes in the metal container are taken outside immediately and are not stored within your home.

#### **CAUTIONS:**

#### • ASHES COULD CONTAIN HOT EMBERS EVEN AFTER TWO DAYS WITHOUT OPERATING THE STOVE.

## **MAINTENANCE**

Your wood stove is a high efficiency stove and, therefore requires little maintenance. It is important to perform a visual inspection of the stove every time it is emptied, in order to insure that no parts have been damaged, in which case repairs must be performed immediately. Inspect and clean the chimney and connector pipe periodically for creosote buildup or obstructions.

#### Glass

- Inspect and clean the glass regularly in order to detect any cracks. If you spot one, turn the stove off immediately. Do not abuse the glass door by striking or slamming shut. Do not use the stove if the glass is broken.
- If the glass on your stove breaks, replace only with the glass supplied from your heater dealer. Never substitute other materials for the glass.
- To replace the glass, remove the screws retaining the glass mouldings inside the door. Remove the mouldings and replace the damaged piece with a new one. Perform the procedure backwards after replacing. When replacing the glass, you should change the glass gasket to make sure you keep it sealed. (Glass and gasket sold separately)
- Never wash the glass with a product that may scratch. Use a specialized product, available in the stores where wood stoves are sold. The glass should be washed only when cold.

## Gasketing

It is recommended that you change the door gasket (which makes your stove door air tight) once a year, in order to insure good control over the combustion, maximum efficiency, and security. To change the door gasket, simply remove the damaged one. Carefully clean the available gasket groove, apply a high temperature silicone sold for this purpose and install the new gasket. You may light up your stove again approximately 24 hours after having completed this operation.

#### WARNING:

• NEVER OPERATE THE STOVE WITHOUT A GASKET OR WITH A BROKEN ONE. DAMAGE TO THE STOVE OR EVEN HOUSE FIRE MAY RESULT.

#### Paint

Only clean your stove with a dry soft cloth that will not harm the paint finish. If the paint becomes scratched or damaged, it is possible to give your wood stove a brand new look, by repainting it with a 1200° F heat resistant paint. For this purpose, simply scrub the surface to be repainted with fine sand paper, clean it properly, and apply thin coats (2) of paint successively.

#### Blower

The blower needs to be removed and air blown clean. Make sure the blades do not have build up.

## **Secondary Air Tubes**

The secondary air tubes must be cleaned with a wire brush. If debris remains in holes lightly tap with a wooden stick to remove.

## Firebrick

The firebrick should be cleaned and inspected as necessary. Replace any damaged or broken brick.

### **REPAIR PARTS LIST**

#### 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.

Key	Part No.	Description	Qty.
1	852049	Breckwell Logo	1
2	89066	Firebrick (4-1/2 X 9)	18
3	26304	Damper Rod Tensioner	1
4	86643	Tube (Ø5/32), Secondary Air	1
5	86690	Tube (Ø3/16), Secondary Air	2
6	24103	Firebrick, Half (4-1/2 X 4-1/2)	1
7	26302	Access Panel	1
8	80090	Rheostat W/Knob	1
9	80462	Receptacle, 3 Prong	1
10	80461	Power Supply Cord	1
N/S	83005	10-24X1/2 Ms Tr Ph Fl Blk	4
11	26292	Firebox Back	1
12	26285	Rear Brick Retainer	1
13	26286	Brick Baffle	2
N/S	69839	Door Assembly	1
14	891135	Handle, Spring (Lg-Nickel)	1
15	892228	7" Handle	1
16	891085	Handle Bearing	1
17	891086	Handle Clevis Pin	1
18	40585	Large Viewing Glass Door	1
19	891087	Handle Spring Pin	1
20	892204	Glass	1
N/S	83362	10-24 X 1/4 Ms Ph Rd Pln	8
21	26312	Glass Clamp, Side	4
22	26311	Glass Clamp, Bottom	1
23	26310	Glass Clamp, Top	1
24	26314	Gasket Clamp	1
25	88082 (40585)	3/4 Round Rope Gasket-Blk	1
26	88087 (40585)	Glass Gasket (1 X 1/8)	1
27	88186	Board, Ceramic Fiber	2
28	69837	Damper Weldment	1
29	26323	Heat Shield	1
N/S	83257	Pushnut Fastener (3/16")	2
30	26346	Air Dam	1
31	80442	Convection Blower	1
32	88190	Hearth Pad Insulation	1
33	891414	Half Firebrick	1
N/S	26345	Blower Adapter	1
34	88174	Flat, Glass Gasket	6
N/S	83884	Insulation Holder	5

## **REPAIR PARTS DIAGRAMS**





10ft

9

#10 X 3/4 Hex Head Screw

Clamp, Top Trim

Trim, Facade Right

892295-2 892295-1

9

1/2-20X1/4 HEX

83409

N/S

88055 83386 26414

x

4

HEAD SELF TAPPING SCREW

83343

N/S

#10x1/2 HEAD HEAD BOLT

Gasket, Trim

Trim, Facade Top

Trim, Facade Side-Left

892295-3

4

4

PEDESTAL BACK

PEDESTAL

PEDESTAL

CORNER

26317

4

1/4-20 x 3/4 HEX BOLT #10x1/2 HX HD DP OX

BLACK

4

WELDMENT, FRESH LEG, CAST IRON

40566 69848 83339 83343

AIR

2

 $\infty$  $\infty$ 

PEDESTAL BASE

26298

Qty.

26299 26308

Central Panel, Facade Right Panel, Facade

Left Panel, Facade

26278 26279 26277

## HOW TO ORDER REPAIR PARTS

## THIS MANUAL WILL HELP YOU OBTAIN EFFICIENT, DEPENDABLE SERVICE FROM YOUR HEATER, AND ENABLE YOU TO ORDER REPAIR PARTS CORRECTLY.

#### KEEP THIS MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE.

## WHEN WRITING, ALWAYS GIVE THE FULL MODEL NUMBER WHICH IS ON THE NAMEPLATE ATTACHED TO THE HEATER.

## WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST:

1.	THE PART NUMBER	
2.	THE PART DESCRIPTION	
3.	THE MODEL NUMBER:	
4.	THE SERIAL NUMBER:	



#### Breckwell

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