

## INSTALLATION AND OPERATION MANUAL

*Thank you for purchasing this product from a fine line of heating equipment.  
We wish you many years of safe heating pleasure.*

Visit our web page at [www.englishstoveworks.com](http://www.englishstoveworks.com) for helpful information,  
frequently asked questions, parts & accessory orders and more.

**NOTE: IF YOU HAVE A PROBLEM WITH THIS UNIT DO NOT RETURN IT TO  
THE DEALER. CONTACT CUSTOMER SERVICE @ 1-800-245-6489.**

### CAUTIONS AND WARNINGS:

#### READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

**CAUTION:** This unit 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, property damage, bodily injury or even death.. Keep children, furniture, fixtures and all combustibles away from any heating appliance.

England's Stove Works highly recommends the use of smoke detectors and Carbon Monoxide detectors with any hearth product, including this unit. Follow all manufacturer's instructions when using smoke or Carbon Monoxide detectors.

**DO NOT INSTALL THIS UNIT IN A MOBILE HOME OR DOUBLE WIDE!**

**DO NOT INSTALL THIS UNIT IN A PRE-MANUFACTURED FIREPLACE!  
FOR MASONRY FIREPLACE INSTALLATION ONLY.**

This product contains a catalytic combustor, which needs periodic inspection and replacement for proper operation. It is against the law to operate this wood heater in a manner inconsistent with the instructions in the manual or if the catalytic element is deactivated or removed.

*Our catalytic stoves are designed to burn seasoned, dry wood.*

## **24-JC, 50-SHW20 and 50-TRW20**

### COMPLIANCE STATUS

TYPE OF FUEL	WOOD
EMISSION RATE	2.1 GRAMS PER HOUR
OVERALL EFFICIENCY	83.04%
HEAT OUTPUT TEST RANGE	7,200 TO 28,600 BTU/HR
EPA CERTIFICATE NUMBER	267

**THIS UNIT IS CERTIFIED TO EPA PHASE II STANDARDS**

Rev. 1/06



## **SAFETY NOTICE:**

**IF THIS STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS FOR RESTRICTIONS AND INSPECTIONS IN YOUR AREA.**

## **SECTION I: FLUE SYSTEM**

This stove is designed to install into a masonry fireplace. The minimum opening is 28" wide x 24" high x 16" deep and you must have at least fourteen inches (14") of hearth extending from the fireplace face.

### **Flue Size Needed:**

The proper flue size is normally determined by the inside diameter of the opening on the unit, which in this case is eight inches (8"). Therefore, the connector pipe should be the same size or larger and never less in diameter than the opening on the stove. The area of the chimney liner in square inches must also be equal to or larger than the area of the opening on the stove. If the area of the flue is larger than the area of the opening on the stove, it should never be more than three (3) times larger.

Exception: If you reline the flue and direct connect this unit, a six inch (6") flue liner is acceptable.

## **SECTION II: FLOOR PROTECTION**

### **Hearth Extension**

The firebox on your insert will extend out ten inches (10") from the face of the fireplace, so you will need at least sixteen inches (16") in front of the door. If you do not have this, it will require you to place an approved floor protector in front of the stove (such as a hearth extender shield). These boards can be purchased from your local dealer or from our factory.

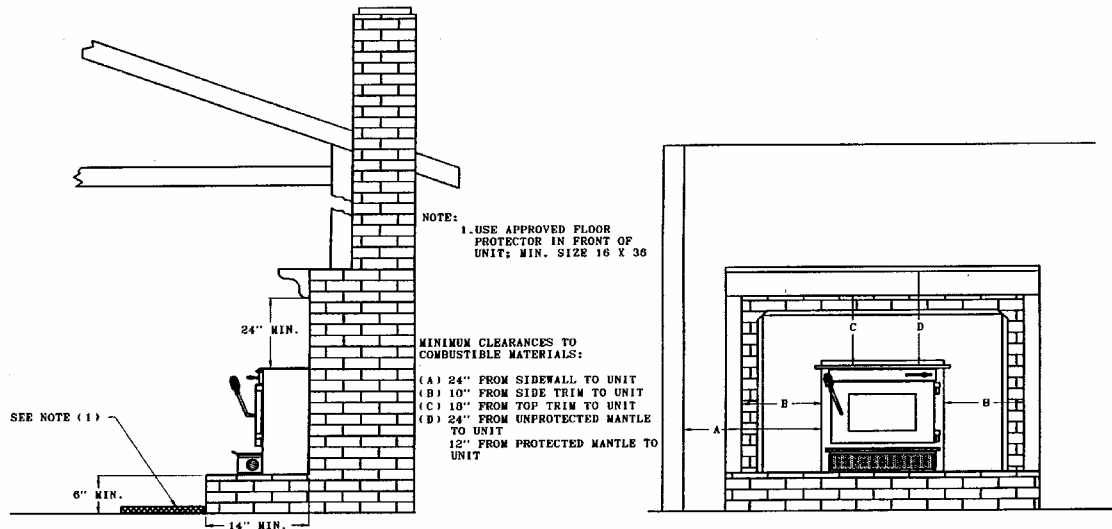
## **SECTION III: INSTALLATION INTO A MASONRY FIREPLACE**

### **A. Preparation**

1. Measure your hearth to ensure it is large enough to accept the unit. Your hearth should be at least thirty-six inches (36") wide and fourteen inches (14") from the face of the fireplace to the edge of the hearth.
2. Inspect your hearth to be sure it is constructed of a noncombustible material such as brick or stone. Do not install this stove on a hearth that is constructed of wood framework that is covered by brick or stone and do not install this unit in a zero (0) clearance fireplace. The manufacturer will not be held responsible for an accident resulting from this stove being installed on a hearth constructed of a combustible material.
3. Inspect your fireplace to ensure it is in proper working order and free of any obstructions.
4. Prior to installation, remove the existing damper or wire it to fasten it open.
5. Place the insert on the hearth and slide about one-third (1/3) of it into the opening.

**\*IMPROPER INSTALLATION:** The manufacturer will not be held responsible for damage caused by the malfunction of a stove due to improper venting or installation. Call (800-245-6489) and/or consult a professional installer if you have any questions.

INSTALLATION OF 24-JC & 50-SHW2C (50-TRW20)



## **B. There Are Two Methods of Venting Your Insert**

### **1. Direct Connect**

When this unit is direct connected it will require eight inch (8") diameter 24 gauge pipe from the stove through the damper opening. This will make it necessary to block off the open area on both sides of the pipe that passes through the damper opening, which can be done with sheet metal or by packing flame retardant fiberglass insulation in the open areas. You must be sure the draft from the chimney is being pulled through the stove, and not around the connector pipe. If you do direct connect, we highly recommend you have it done by a professional. You should contact your local authorities, as some areas require this unit to be installed by the direct connect method.

### **2. Direct Dump**

The cover plate (STB-J) and its gasket (AC-PGK) are supplied with the unit and are designed to cover the fireplace opening. The cover plate is 32" x 46" and should overlap your fireplace by at least two inches (2") on the top and sides.

Place the gasket on the outer perimeter of the rear of the cover plate before mounting the plate over the stove. The four welded metal clips on the rear of the cover plate will secure the plate to the unit by hooking over the flange on the stove; the clips can be sprung out with a flat head screwdriver as the plate is dropped down over the stove. After the cover plate is in place the entire unit can be pushed into the fireplace opening. You can now add the spring handles and place the blower under the ash lip.

**Note: The entire chimney system should be inspected monthly for creosote.**

You may order parts and options on our web site: [www.englishstoveworks.com](http://www.englishstoveworks.com),  
or by calling (800) 516-3636

## **SECTION IV: ACCESSORY ITEMS**

### **AC-104 (SH-104) Brass Trim**

The AC-104 trim kit covers the two front edges of the stove and the three edges of the cover plate. The stove lip trim simply snaps over the edges of the stove. There are two angle clips that hold the three pieces of cover plate trim together – connect the three edges together and slide from the top down over the cover plate edges. The top piece of trim must be forced out slightly so it will connect with the top edge of the plate.

### **AC-01 Brass Knobs**

These decorative knobs have a wide base and rest on the top of the stove.

### **AC-02 Brass Rail**

This decorative accessory rests on top of the stove.

## **SECTION V: OPERATING INSTRUCTIONS**

### **A. Building a Fire**

Your stove is equipped with a catalytic combustor, which requires a specific start up procedure. Inspect your unit to be sure the combustor is seated properly in the combustor collar.

**CAUTION: ALWAYS OPEN (PULL OUT) THE BY-PASS DAMPER BEFORE STARTING A FIRE OR RELOADING YOUR STOVE. NEVER USE KEROSENE, GASOLINE, DIESEL FUEL OR CHARCOAL LIGHTER FLUID TO START OR RE-KINDLE A FIRE.**

Notice: Your new unit and the connector pipe will smoke with the initial fire. This is called “cooking out” and is no cause for alarm, but it is a good idea to open windows and doors in your dwelling during the first two hours of operating a new stove.

1. Be sure there are no combustibles in the immediate area of the stove.
2. Open the slide damper above the door (slide to left) and pull the by-pass damper all the way out.
3. Place several pieces of crushed newspaper evenly over the bottom of the stove.
4. Place small dry sticks of kindling on top of the paper.
5. After igniting the paper, leave the door cracked slightly.
6. Once the kindling is burning freely, you can add several pieces of dry split wood to the fire. Continue to leave the door cracked slightly.
7. When the split wood starts to turn to charcoal, the firebox can be filled with seasoned wood. Allow this wood to burn (with the door cracked) for another ten to fifteen (10 to 15) minutes.
8. Close the door completely, leaving the draft controls in the open position. Push in the by-pass damper handle after about five (5) minutes.

Note: You will notice the flame die down; however, this does not mean the fire has gone out. This unit is designed to burn wood more efficiently and slower-burning wood does not generate much flame.

9. Once you are sure the combustor is operating properly, the slide damper on the front of the stove can be adjusted to the desired burn rate.

Note: It is important the above procedures be followed to ensure the catalytic combustor reaches the proper temperature. It is recommended the combustor be operated at 770 to 1400 degrees Fahrenheit; the combustor must be above 500 degrees Fahrenheit before it will accept the smoke. Operating the combustor above 1800 degrees will damage the combustor, although temperatures between 1400 and 1600 degrees are common. If minor build-up is evident on the combustor, run the stove at a high rate for two to three hours with the by-pass damper partially open. This will help the combustor clean itself of minor contamination. (*Call 800-516-3636 to order Part # AC-14 – Catalytic Thermometer for fireplace inserts.*)

## **B. Draft Control**

The unit has a slide damper located above the door that allows combustion air to enter the stove, and controls the amount of air and the total heat output of the unit. In the right position the damper is completely closed, and sliding it to the left allows air to enter the firebox. You will need to experiment with your stove to find the best position for your combustion air, as no two flues are alike. The long burn cycle can usually be accomplished with an opening of one-half to one inch (1/2" to 1"). Remember that all flue systems draw differently.

## **C. Do Not Over-Fire Your Stove**

Burning flammable liquids, large amounts of wood or trash in your stove may result in over-firing the unit. If the chimney connector pipe turns red or white, the unit is over-fired; this condition may ignite creosote in the chimney and possibly cause a house fire. If this happens, immediately close the combustion air draft control and the by-pass damper. A chimney fire may cause structural damage to the flue system, which should not be used again until it is thoroughly inspected. A chimney sweep can perform this inspection and make repairs if necessary.

## **D. Everyday Fueling**

This unit is designed to burn eight to ten hours on one filling of seasoned wood. At the end of the long burn cycle you should follow the listed procedure for the next long burn cycle.

1. Always open (pull out) the by-pass damper before opening the front door of the stove. Then, open the combustion air damper by sliding it completely to the left.
2. Crack the door about one inch (1") for three to five minutes. This will allow the draft to increase and clear the smoke that is in the stove.
3. Open the door slowly and you should see a bed of hot ashes. Smooth out the ashes and fill the unit with dry seasoned wood (split wood burns considerably better than logs). Please refer to Building A Fire (earlier in the manual) if your fire has gone out.

4. Allow the stove to burn for about 15 to 20 minutes with the door cracked one-half inch ( $\frac{1}{2}$ " ).
5. You can close the door completely, but leave the draft controls open. Allow the stove to burn 10 to 15 minutes in this mode.
6. Close the by-pass damper and burn the unit for another 5 minutes.
7. Once the combustor is accepting the fumes, the slide damper can be adjusted to your preferred setting.

## E. Ash Removal and Disposal

Regularly inspect the ash build-up in your stove and remove as necessary. Ashes should be placed in a metal container with an airtight lid. Pending final disposal, the ashes should be placed on a non-combustible surface or on the ground, completely away from all combustible materials. The ashes should be retained in the closed container until all cinders have thoroughly cooled. If you have a masonry or pre-manufactured system, it is essential that your flue be checked for creosote at least once per month.

## SECTION VI: CARE AND MAINTENANCE

### A. Catalytic Maintenance and Replacement

**Note** – Your unit will have a 3" thick, 25-cell combustor (manufactured by Applied Ceramics), or it will have a 1" thick, "ceramic foam" type combustor (manufactured by Clear Skies). The following instructions apply to both types, unless otherwise specified.

1. To reach the catalytic combustor, first take out the flame impingement plate by removing the four (4)  $\frac{3}{8}$ " brass nuts (they take a  $\frac{9}{16}$ " wrench). Once the nuts are removed the plate should drop from the bolts and allow you to see the bottom of your combustor.
2. *For 25-cell Applied Ceramics combustor:* If the combustor is plugged up you will see black soot within the cells on the bottom side of the ceramic piece. This can usually be removed by brushing the combustor with a soft bristled brush. You can also run a pipe stem cleaner through each cell for removal of any internal build-up. This type cleaning can be done without removing the combustor from the stove.  
**For 1" thick Clear Skies combustor: Follow the instructions provided by Clear Skies pertaining to the cleaning of their combustor.**
3. The flame impingement plate (Part #IP-24JC) is located inside the stove and is removed as described earlier. (Note that it should be replaced if it becomes distorted.)
4. The catalytic combustor (Part #AC-6C3) is guaranteed by Applied Ceramics or Clear Skies, the manufacturers. A separate warranty card will be in the manual for this part and should be mailed back to the combustor manufacturer. Both combustors are equivalent, and in the event there is a problem with this item, the manufacturer should be contacted as listed below.

Applied Ceramics  
Customer Service Dept.  
P.O. Box 29664  
Atlanta, GA 30359  
(1-770-448-6888)

Clear Skies Unlimited, Inc.  
11208 Cochiti SE  
Albuquerque, NM 87123  
(1-505-237-9519)

5. The combustor can be removed by dropping the flame impingement plate as described and then the four (4) 3/8" brass nuts (they take a 9/16" wrench) that hold in the combustor collar (Part #CA-1710). This will give you full access to the catalytic combustor. At this point the manufacturer's cleaning instructions should be followed.
6. This procedure can be reversed to reassemble the combustor in the stove.

### **B. Gaskets**

Each unit has a gasket (Part #AC-DGKC) around the door, which should be replaced every two years. Prior to replacing this gasket the old material must be removed completely – this may require you to scrape the old gasket and adhesive from the channel. After this surface is clean the new adhesive and gasket can be installed. The door should be latched closed for approx. 24 hours to allow the adhesive to harden.

If you are replacing the window gasket (Part #AC-GGK), the gasket already has adhesive on one side. Remove the window first by taking out the two screws that hold the glass in the opening. Then remove the paper backing in the new kit and, while forming a "U" with your fingers, run the new gasket completely around the outer perimeter of the glass. The glass can be put back in the window opening and tightened in place. Both gasket kits can be ordered from your local dealer or from the factory.

### **C. Firebrick (Part #AC-SB)**

This stove is equipped with high density, high temperature firebrick. If the brick becomes chipped or cracked, especially on the sides of the firebox, it should be replaced. The brick can be ordered from your local dealer or from the factory.

### **D. Finish (Part #AC-MCSP; 12oz. Spray Can)**

Your stove has been painted with 1200 degree Metallic Charcoal paint that will retain its original appearance for years. However, if your stove should get wet, some rust spots might appear. These can be removed with plain steel wool and touched up with new paint. If you need to do any painting of the unit we highly recommend using our paint, as others might not adhere to the surface. This paint can be ordered from your local dealer or from the factory.

### **E. Blower System (Part #AC-17)**

The blower system for this unit is placed under the ash lip and moves air under, around and finally exits over the top front of the stove. This blower should be removed and cleaned at least once a year; you can use a vacuum cleaner to remove any loose dust build-up, but do not disassemble the blower. This part has sealed bearings and does not require any oil.

### **F. Glass Cleaning**

Even though this stove is equipped with an air wash system, it will be necessary to clean the window regularly. The type wood and the mode in which you operate the unit can contribute to a dirty viewing glass. The glass can be cleaned with a stove glass cleaner or a solution of ammonia and water.

## **SECTION VII: CHIMNEY MAINTENANCE**

Cleaning your chimney system is not a difficult task, and many homeowners choose to do this job, but we highly recommend the use of a chimney sweep to clean and inspect the entire system. Remember, a professional can spot problems the homeowner may overlook. **NOTE: It is a good idea to thoroughly clean your stove and chimney in the spring to eliminate any lingering odor through the summer months.**

## SECTION VIII: THINGS THAT CAUSE THE UNIT TO SMOKE

It is very important that installations are made airtight – this is best accomplished by making any clean-out doors airtight and being sure there is no gap between the backplate and the brick fireplace face. All combustion air entering the system should be drawn through the slide draft opening which is located above the door. The objective is to keep your chimney system as hot as possible and prevent “back puffing” through the unit – this is primarily caused by air entering the system and cooling your chimney.

There are two reasons for chimney downdrafts that cause smoke to enter the house. One is an air current being deflected down the chimney by nearby objects such as trees, a building or a hill. The other is the flue gas chilling too quickly and backing up in the system. When this happens, a gust of wind can force these gases back into the house. Always have the entire chimney system checked for loose bricks and cement. If you have any of these problems contact your local dealer or call the factory.

## SECTION IX: WHAT CAUSES CREOSOTE?

Creosote is caused by the condensation of the vapor that exists in the escaping smoke – the moisture level of your fuel will determine the density of this vapor. A severe downdraft as discussed earlier will also cause creosote. Moisture will form at the coolest point in your chimney system and at this point will tend to form creosote. The ash is picked up by the moisture in the system and will build up or run back down the inside of your flue. A chimney cap will sometimes help if you have this problem; this will allow the chimney system to maintain more heat, create a better draw and keep some of the wind currents from entering the flue system. The cap will not correct a poorly constructed chimney or one in bad need of repair, however – some chimneys will require relining or, in some cases, rebuilding.

## REPLACEMENT PARTS LIST

AC-11	Rheostat (Fan Speed Control)
AC-17	Blower (Complete)
AC-110	Brass Window Trim
AC-111	Brass Door Trim
BM-1288	Blower Motor
AC-DGKC	Door Gasket Kit
AC-G8	8 ½” x 13 ¾” Door Glass With Gasket
AC-PGK	Cover Plate Gasket Kit
AC-SD	Slide Damper Assembly
AC-SB	9” x 4” x 1 ¼” Firebrick
AC-SH	Spring Handle – Door
AC-SHM	Spring Handle – By-pass Damper
AC-SH4	Spring Handle – Front Slide Damper
AC-6C3	Catalytic Combustor
AC-MCSP	Hi-Temperature Charcoal Paint
CA-1710	Combustor Housing
IP- 24JC	Flame Impingement Plate

*Don't forget your accessories—*  
Optional Part:  
AC-104 Brass Lip & Backplate Trim

(Orders: Phone 1-800-516-3636, or visit our website [www.englishstoveworks.com](http://www.englishstoveworks.com) ).

If you have any questions or problems contact our Customer Service Department.

**CUSTOMER SERVICE DEPARTMENT**  
P.O. BOX 206  
MONROE, VA 24574

[service@englanderstoves.com](mailto:service@englanderstoves.com)  
Questions/Problems: (800) 245-6489

Have this information on hand if you phone the factory or your dealer regarding this product.  
**Retain for your files:**

Model Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Date of Manufacture \_\_\_\_\_ Serial # \_\_\_\_\_

## **LIMITED 5 YEAR WARRANTY** **FROM THE DATE OF PURCHASE TO THE ORIGINAL OWNER**

The manufacturer extends the following warranties:

**Five Year Period:**

1. Carbon steel and welded seams in the firebox are covered for 5 years against splitting.
2. The cast iron door, hasp and hinges are covered for 5 years against cracking.

**One Year Period:**

3. Component parts such as combustor housing, flue collar, flame impingement plate, baffle plate, brick retainers, combustor plate and fasteners are covered for 1 year against cracking, breakage and welded seams from separating.
4. Electrical components, accessory items, firebrick, glass and the painted surface are covered for 1 year from the date of purchase.

**Conditions and Exclusions:**

Damage from over-firing will void your warranty.

This warranty does not apply if damage occurs because of an accident, improper handling, improper operation, improper installation, abuse, or unauthorized repair made or attempted to be made.

The manufacturer is not liable for indirect, incidental, or consequential damages in connection with the product including any cost or expense providing substitute equipment or service during periods of malfunction or nonuse.

All liability for any consequential damage for breach of any written or implied warranty is disclaimed and excluded. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above may not apply to you.

**Procedure:**

Purchaser must give notice of claim of defect within the warranty period and pay transportation to and from a service center designated by the factory. The dealer from which the unit was purchased or the factory, at our option, will perform the warranty service.

**Other Rights:**

This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state.

**NOTE: THIS WARRANTY IS NULL AND VOID IF YOU DO NOT RETURN  
THE ATTACHED WARRANTY REGISTRATION WITH A COPY OF THE  
SALES RECEIPT WITHIN 30 DAYS FROM THE DATE OF PURCHASE.  
WARRANTY IS NOT TRANSFERABLE.**



## WARRANTY REGISTRATION for England's Stove Works

Purchased by (Name) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_

Email Address \_\_\_\_\_

### **DEALER INFORMATION**

Purchased From (Dealer) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

### **UNIT INFORMATION**

**(Please be sure to refer to sticker on back of manual or box to complete this section)**

Model Number \_\_\_\_\_ Purchase Date \_\_\_\_\_

Purchase Price \_\_\_\_\_

Serial Number \_\_\_\_\_ Mfg. Date \_\_\_\_\_

*How did you first hear about our product? (please check one)*

Word of Mouth       Burn Trailer Demonstration       Internet

Other: \_\_\_\_\_

*Where did you receive information about our product? (please check one)*

Rec'd. info. via phone       Dealer (Name of dealer): \_\_\_\_\_

Internet      Other: \_\_\_\_\_

### **IMPORTANT NOTICE**

**THIS REGISTRATION INFORMATION MUST BE ON FILE FOR THIS WARRANTY TO BE VALID. PLEASE MAIL THIS INFORMATION WITHIN THIRTY (30) DAYS FROM THE DATE OF PURCHASE.**

#### Mail To:

England's Stove Works, Inc.  
Customer Service Department  
P.O. Box 206  
Monroe, VA 24574

#### Or, Fax To:

(434) 929-4810 – 24 hours a day

Or, now available – Go online to complete your Warranty Registration!

Visit [www.englishstoveworks.com](http://www.englishstoveworks.com) if you prefer to register online.