OPERATION

Seasoning Your Stove

Both soapstone and cast iron need to be seasoned. The seasoning can be accomplished through a series of small to moderate fires. Your Woodstock Soapstone Stove is an easy stove to season, because even a small fire will provide hours of radiant heat once the stove is warm. **There are two things you will notice during the first fire**:

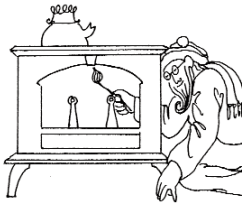
First, there will be a hot, acrid smell as the stove heats up. This smell is a result of the paint on the cast iron curing. You will want to have your first fire on a day when you can open the windows in the house to provide adequate ventilation. The odor is non-toxic and will only be present for the first few fires.

Second, there will be some condensation on the glass. This condensation is a result of moisture being driven out of the furnace cement in the stove and condensing on the inner surface of the glass. It takes a couple of small fires to season the stove and remove this excess moisture.

After the first few fires, the texture and grain of the stone may become slightly more pronounced, and the color may deepen a shade.

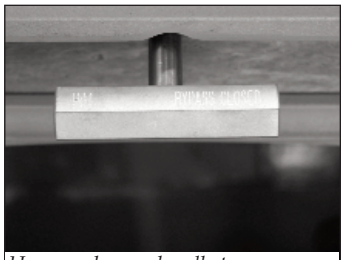
Starting a Fire And Establishing Proper Draft

1. Open the catalytic bypass. Turn the bypass handle clockwise to open the bypass door. It will stop when the bypass is fully open. (Fig. 1)



2. Open the combustion air damper by lowering the damper lever all the way down to the full open position. With the lever in the down position, maximum air is allowed into the firebox. (Fig. 2)

3. Always confirm there is adequate draft before lighting the fire. Hold a lit match or light a small piece of newspaper in the top of the firebox, where smoke exits. If the flame is drawn out of the firebox, toward the flue, proceed with lighting the fire. If the flame stands still or is pushed away from the flue exit, you must establish a good draft before lighting a fire. A hair dryer or heat gun pointed at the flue exit is a good way to establish draft without creating a lot of smoke. After you think you have draft, re-test with a match.



Use your bypass handle to engage or disengage your catalytic combustor. (Fig 1)

4. Once good draft has been established, build a fire on the floor of the firebox. Do not use additional grates, andirons or any other methods to support the fuel in the firebox. Start with crumpled newspaper and dry kindling.

5. Add small splits of firewood once the kindling has ignited. This will establish a bed of hot coals.

6. Add small to medium splits onto the hot coals. Assuming the wood is dry, the fire should spread through the wood. After about 10 minutes, close the air damper about half way between fully open (all the way down) and fully closed (all the way up).

7. After the stove top temperature reaches 250°F or your single wall pipe temperature reaches 300-350°F, close the bypass by turning the handle counter clockwise into the closed position. It will stop when the bypass is fully closed. All of the smoke from the firebox will now pass through the catalytic combustor. The combustor will generate a substantial amount of heat as it "burns" the smoke passing through it.

The amount of combustion air available in the firebox is controlled by the damper lever. (Fig 2)

8. Adjust the air control damper to a lower setting by lifting the lever up. The lower the burn rate, as less air is entering the firebox. The final damper setting will be determined by the desired heat output from the stove, the condition of the wood being burned, and the draft through the chimney system.

CAUTION

NEVER USE GASOLINE, GASOLINE TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS STOVE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE STOVE WHILE IT IS IN USE.

Engaging the Catalytic Combustor

The catalytic combustor will start to burn the gases and particles in the smoke when the temperature of the smoke reaches approximately 500ºF, or after about 10-15 minutes of establishing a strong fire. Each stove comes with a surface thermometer and a probe thermometer. Use the surface thermometer to monitor stove surface temperatures. The temperature on top of the stove is approximately 1/2 the temperature inside the stove, so when the thermometer on the stove top reads 250ºF, it is 500ºF inside. You will find that after the combustor is engaged, surface temperatures will often rise considerably- evidence that the combustor is producing lots of heat! The probe thermometer reads the temperature just one inch downstream from the exit face of the catalyst.

Engage the combustor by turning the bypass handle (front of the stove) counter clockwise until it clicks into its position. Then reduce the air damper to achieve the desired burn rate. Make fine adjustments to your air control damper by moving it slightly up or down. You may find that you can achieve the longest burn when the damper is only slightly open. In the Progress Hybrid, allowance is made for a small amount of primary and secondary air to enter the stove even when the damper is fully closed, and the stainless steel catalyst will work efficiently at low to moderate firing rates, thus preventing creosote formation or excessive smoke from your chimney.

Low & Overnight Burning

These instructions are intended as a guide to operating your wood stove. Your timing and final damper settings will vary depending on chimney draft, type of wood, moisture content of the wood and size of the splits. The Progress Hybrid is simply designed and intended to be user friendly, but it will take some practice to get used to it.

1. Before you open the loading door, you must fully open the catalytic bypass and the air damper. Wait a minute or so for a strong draft to be established to prevent smoke from spilling back into the room.

2. Stir up the hot coals. If necessary, excess ash should be removed before reloading the firebox. If your stove has the optional ash pan, simply rake the hot coals back and forth in the firebox to allow the loose ash to fall through the grate into the ash pan. If your stove does not have an ash pan, push the hot coals to one side and shovel the loose ash into a non-combustible ash container with a tight fitting lid. Dispose of the ash properly.

Never put an ash container on a combustible surface, like a wood floor.

3. Place several small splits on top of the hot coals and allow them to ignite.

4. Load the firebox to capacity leaving space for secondary combustion, with a mix of larger and smaller splits. Close the loading door.

5. Adjust the air damper to its the low burn setting by raising the lever up to reduce the air flow, generally around the last big notch.(fig 3).

6. Close the catalytic bypass, by turning the handle counter-clockwise until it stops.

7. Initially the fire may appear to die out. This may cause a small amount of soot to collect on the glass. Any buildup on the glass should go away with higher temperature burns.

Lower Air Damper Setting (fig 3)

Never burn the stove with the air damper fully open except when kindling a fire or reloading the firebox.

Never build a roaring fire in a cold stove. It takes at least 30 minutes to heat the soapstone panels of the Progress.

Attempts to reach high temperatures very quickly could result in damage to the cast iron or soapstone parts.

Burning for Higher Heat Output

These instructions are intended as a guide to operating your wood stove. Your timing and final damper settings will vary. The Progress Hybrid is simply designed and intended to be user friendly, but it will take some practice to get used to it.

1. Before you open the loading door, you must fully open the catalytic bypass and the air damper. Wait a minute or so to establish a strong draft. This will help to keep smoke from spilling into the room.

2. Stir up the coals and remove excess ash as needed.

3. Place several small splits on top of the hot coals and allow them to ignite.

4. Load the firebox to capacity leaving space for secondary combustion, with a mix of larger and smaller splits. Close the loading door.

5. Allow the fresh wood to become involved in the fire. With dry wood this may take 5-10 minutes. Lift the air damper up to the close approximately half way.

6. Close the catalytic bypass by turning the bypass handle counterclockwise until it stops.

7. You should see the flames from secondary combustion at the top rear of the firebox becoming more active. Adjust the air damper to approximately one quarter open.

Ash Removal

NEVER BURN THE STOVE WITH THE ASH DOOR OPEN!

Without an ash pan:

If your Progress Hybrid does not have an ash pan you will have to remove ash through the side door, approximately every 5-7 days if the stove is in continuous operation. You do not have to let the fire die out completely to remove the ashes, but the fire must be reduced to hot coals. First make sure that both the catalytic bypass damper and the air control damper are open. This will increase the draft and prevent smoke from entering the room.

Open the side door and move the hot coals to one side of the firebox. Scoop out the ashes that were underneath the coals, and then reverse the procedure. Leave some ash and hot coals in the bottom of the stove to help rekindle a fire.

With an ash pan:

If your Progress Hybrid is in continuous operation, you will probably need to empty the ash pan every 7-10 days. You do not have to let the fire die out completely, but make sure that it is reduced to hot coals. Open the catalytic bypass damper, and open the air control damper. Remember to wear stove gloves - the ash pan will be hot! Open the ash pan door located below the loading door. Carefully slide the lid into place on the top of the ash pan and remove the ash pan from the base of the stove. The lid slides over the long top edges of the ash pan. Close the ash pan door before emptying the ashes into an appropriate container.

Do not open the ash removal door while the stove is in the middle of a long burn, because the additional draft created under the fire could cause the stove to burn excessively hot and the ash pan itself will be very hot, and full of live coals. If you are burning your stove 24 hours/day, it is often easiest to empty the ashes first thing in the morning, after an overnight burn.

Ashes should be emptied into a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible 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 closed container until all cinders have thoroughly cooled. Live cinders can

take up to 36 hours to cool. Woodstock Soapstone Company offers a black metal ash holder with a hinged lid that closes tightly. Four sturdy legs keep it off the floor, and the wooden handle is not only decorative, it will also protect your hands.

Never shovel ashes into a combustible container like a cardboard box or a plastic bucket. Do not use a vacuum cleaner to remove ashes unless it is specifically designed for woodstove ash removal. Do not ever leave a container of hot ashes on a wood floor or porch.

The Surface Thermometer and Probe Thermometer

We recommend placing the thermometer 8"-10"above the flue collar on **single wall** stove pipe if the stove is vented out the top. If the stove is rear vented, the surface thermometer should be placed on the cast iron cover plate toward the back of the stove. If you are reading the single wall stove pipe temperature, the interior flue exhaust temperature is about twice as hot. Since the 22 gauge sheet metal pipe is more reactive (faster heat transfer) than the stove top, you will find you can engage the combustor sooner. We recommend engaging your catalytic combustor once the pipe thermometer reaches 300°-350° F. Stove top temperatures should reach approximately 250°F.

Place the surface thermometer 8" above the stove top for top vent, or on the cover plate for rear vent

Once the combustor is engaged, you should see the stove surface temperature rise and the pipe temperature drop, indicating catalytic combustor activity. From a cold start it may take 30-45 minutes to get to the stove up to temperature. If you are reloading a hot stove, wait approximately 10-15 minutes before engaging the combustor.

The thermometer is not a precise instrument – it will not tell you the exact temperature inside the firebox or in the flue. If reading the surface temperature the thermometer will not register changes in temperature quickly due to the thickness and heat retention of soapstone. We supply the thermometer to give you some idea of what is going on inside the stove, and to provide a guide for operation.

STOVE TOP READING	OPERATION
over 300º	OK to engage the combustor
400-600º	Normal operating temperature
600-700º	High burn range
over 700º	DO NOT burn in this range

The probe thermometer can be inserted into the port beside the flue collar in the rear of the stove. The probe thermometer wll measure the temperature immediately downstream of the catalytic combustor. The sensing end of the probe extends to within 1 inch of the face of the catalyst. The probe is calibrated from room temperature to 1700 degrees F. The catalyst can be engaged as soon as the temperature on this probe exceeds 500 degrees F, or as soon as the temperature on the pipe thermometer exceeds 250 degrees (see above). The best operating range for the catalyst is from 500 - 1400 degrees F. When the temperature on the probe thermometer exceeds 1400ºF, we recommend closing the damper to prevent excessive heat from occuring

Overfiring

The cast iron parts in your Woodstock Soapstone Stove are of the finest quality. Our cast iron parts have been made in the same foundry since the mid 1980's, and the foundry itself has been in business for over one hundred years. Each cast iron part is inspected by our stove builders before it becomes part of a stove. However, cast iron is not indestructible. Experts have shown that cast iron begins to oxidize (reddish or whitish discoloration) at 1400º F. Burning a stove frequently at excessive temperatures is known as overfiring. When the surface temperature is consistently over 700º F, the stove has reached 1400º F inside. Operation with temperatures in this range can lead to cast iron warping, becoming brittle, and eventually deteriorating completely. It can shorten the useful

DO NOT OVERFIRE!
ATTEMPTS TO ACHIEVE HEAT OUTPUT RATES THAT EXCEED STOVE DESIGN SPECIFICATIONS CAN RESULT IN PERMA-NENT DAMAGE TO THE STOVE AND TO THE CATALYTIC COMBUSTOR.

life of the catalytic combustor.

Avoid overfiring by letting the combustor and secondaries do most of the work in the stove. Your stove is operating at peak efficiency when the combustor is "engaged"and the secondaries are ignited, with the damper lever set to a low to moderate setting, and the logs are glowing with secondary flames apparent. You will get the greatest amount of heat per pound of wood when the stove is operated in this manner.

Daily Use

Your Progress stove is well-suited for continuous firing on a 24 hour-a-day basis. It will burn for hours on one load of wood, and will provide steady, even heat for hours after the fire dies down. One of the qualities of soapstone most enjoyed by wood burners is its ability to absorb heat and then to release the heat evenly. When the temperature on top of the stove drops below 250ºF during an all-night burn, it is not necessary to disengage the combustor. You need only disengage the catalytic combustor when you kindle a fire, or reload the stove. Once the catalyst is ignited, it will continue to function as long as there is smoke to burn. This is true even if the surface temperature on top of the stove drops below 250ºF at the end of a long burn.

Your connector pipe and chimney or chimney pipe should be inspected at regular intervals (not less than once every two months). Examine the connector pipe for creosote, corrosion, loose seams, or excessive soot. Clean and replace as necessary. The chimney or chimney pipe should be cleaned and checked by a certified specialist once a year. A small mirror held at the cleanout door of a masonry chimney will be helpful. For a class A prefabricated metal pipe, some disassembly is usually required.

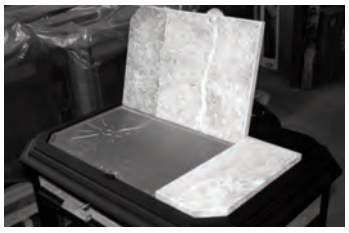
The Fall-Away Handle

The "fall-away" handle, which comes with your stove, can be used to operate the side door latch or the catalytic bypass damper. Simply insert the round knob end of the Fall-Away Handle into the door pull ring to open/close, or latch/unlatch the loading door. The loading door and the pull ring and the catalytic bypass handle are very hot, so use the tool provided. The "fall-away" handle conforms to UL requirements and is made so that if you let go of it, it will "fall-away" from the stove and not become too hot to handle.

The fall-away handle may be used to operate the controls on your stove when they are too hot to handle safely.

The Progress Cook Top

The top lid of the Progress wood stove consists of a three-piece stone set and a cast iron plate below. The lid has been designed to enhance the beauty and versatility of your stove. The soapstone serves to provide long lasting radiant heat as well as the perfect cooking surface for foods to simmer over moderate heat for longer periods. The stone panels can be raised individually or collectively to expose the cast iron cook top underneath. The cook top has three distinct areas that provide high, medium, and low temperature zones for more cooking flexibility. The center "burner" is flush and delivers the highest heat. The left is elevated about 1/16" and provides medium heat. The right is raised 1/8" and has the lowest temperature. In general, if the temperature on the stone is 300°-350° the center of the cast iron cook top is 500°-550°. The temperature drops approximately 50° per 1/16" of height, so the left burner would be 50° cooler than the center and the right burner 100° cooler. The cast iron cook top is not designed as a cooking surface and food should always be placed in a heavy duty



Dutch oven or skillet, not directly onto the cast iron.

The stones can be removed completely from the stove, and the cast iron cook top will stand upright in the rear channel to access the catalytic combustor below. This easy access makes cleaning and replacing

the combustor very user friendly.

Firewood

Your Woodstock Soapstone Stove is designed to burn seasoned, natural cordwood. Higher efficiency and lower emissions generally result when burning air-dried seasoned hard woods, as compared to green, freshly cut hard woods. It is perfectly fine to burn soft woods in your stove as long as they are properly dried. Hard woods are preferable because they are typically denser than soft woods which gives them a higher fuel value.

The moisture content of some trees may range as high as 50% – i.e., there is as much moisture in the tree as there is wood. After wood has been stored for a year, the moisture content will usually range from 15-25%. Splitting wood before it is stored will reduce drying time. Properly dried wood will produce more heat, reduce the likelihood of water vapor condensing in the chimney forming creosote , and result in less pollution entering the air. It is safer and more efficient to burn dry or seasoned hardwood than green or wet wood that smolders.

The advantages of burning dry wood are many. Dry wood is lighter, easier to split and easier to carry. It is easier to light, produces more heat and generates less pollution. If you burn wet wood some of the energy generated by the fire is used to drive moisture out of the wood, rather than producing heat for you. Dry wood will maintain the highest combustor temperatures and burn the most efficiently. Creosote is much less likely to form if you burn dry wood.

DO NOT BURN treated or painted wood, coal, garbage, cardboard, solvents, colored paper, or trash in your Woodstock Soapstone Stove. Coal and artificial logs burn much hotter than wood and could cause damage through overheating to the cast iron or the soapstone panels. Burning treated wood, garbage, solvents, colored paper or trash may result in the release of toxic fumes and may poison or otherwise render the catalytic combustor ineffective.

DO NOT BURN
- Treated Wood
- Coal
- Garbage
- Cardboard
- Solvents
- Colored Paper
- Trash

Burning cardboard, loose paper, and trash will add significantly to ash and soot build-up, and it will not produce much heat. Fly ash from improper fuel can also coat or plug the screens and combustor, causing smoke spillage into the room. Under normal operating conditions, the Woodstock Soapstone Stove is designed to last for generations. It is not, however, designed for continuous over-firing, or firing with coal, artificial logs or trash.

CAUTION

NEVER USE GASOLINE, LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS, TO START OR 'FRESHEN UP' A FIRE IN THIS STOVE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE STOVE WHILE IT IS IN USE.