



York Insert Operation & Maintenance Manual

Table of Contents

ST. CROIX FEATURES	2
INSTALLATION	3
PREVENTING CHIMNEY FIRES	3
SATISFACTORY PERFORMANCE.....	3
Pellet Fuel	3
Add Corn to the Mix.....	3
OPERATING INSTRUCTIONS.....	3
Control Board Features.....	4
Thermostat Function – How does it work?	5
Pre-Lighting Instructions.....	6
Lighting Your Stove	6
Shutting the Stove off	6
Diagnostic Features.....	6
Safety Features.....	7
Combustion Air Damper	7-8
Flame Pattern Characteristics.....	8
MAINTAINING THE STOVE	9
Daily Maintenance	10-11
Periodic Maintenance	11-13
Yearly Maintenance	13-14
SAFE OPERATION.....	14
TROUBLESHOOTING AND FAQ.....	15-19
PARTS LAYOUT	20-22
WARRANTY.....	23

vertical runs might need the damper to be closed a little. To adjust the damper, use the Damper knob on the right side of the insert, just above the control board (See Figure 3 and 4). To make an adjustment, turn the knob clockwise to close the damper and counter clockwise to open the damper. The knob only turns 90 degrees. **Do not move the indicator more than 1/16" at a time.** After making an adjustment wait at least 15 minutes to see how the burn pot reacts to the change. Additional Draft Adjustments can be made for Heat Level 1 by using the "Draft Trim" button on the control board (See point 4 on page 4). **Adjusting the damper during the break in period is very important (See "Preventing Chimney Fires" on page 3).** Break-in requires the burning of 15 bags of pellets or continuous burn for two weeks. If during the initial break-in period you experience difficulty keeping the stove burning or there appears to be an excessive amount of burning pellets being evacuated from the burn grate, it may be necessary to close the damper some more. Once the damper is adjusted, the stove will run fine without having to make a change to the damper setting, unless the stove is run on 5 for extended periods of time (See **"Flame Pattern Characteristics" in the column to the right**). It is normal for ash and some sparks to be continually evacuated from the burn grate. This is how the grate continuously cleans itself.

The equivalent of a teacup of unburned pellets a day in the ash pan is considered normal.

Flame Pattern Characteristics

Correct Flame Pattern - Bright yellowish-white flame with a brisk movement, having sharp pointed end tips extending up towards the Heat Exchange Tubes while forming a fan-like shape. Small amounts of ash and some live sparks being blown out from the Burn Pot area is considered normal operation.

Incorrect Flame Pattern - Dark orangish-brown flame with a lazy movement, having black smoky end tips curling up and over the Heat Exchange Tubes while forming a fireball-like shape. Some Ash or Live Sparks not being blown out from the Burn Pot area is considered abnormal operation. Extremely black soot forming on the ceramic glass surface is a sign of very poor combustion (not enough combustion air) and should not be overlooked. At the other end of the spectrum; an extremely brisk flame which blows large pieces of live coal out from the Burn Pot area and causes stubborn shiny black build-up on the glass (too much combustion air) is also considered undesirable.

If you experience problems adjusting the stove during the Break-In Period, contact your dealer.

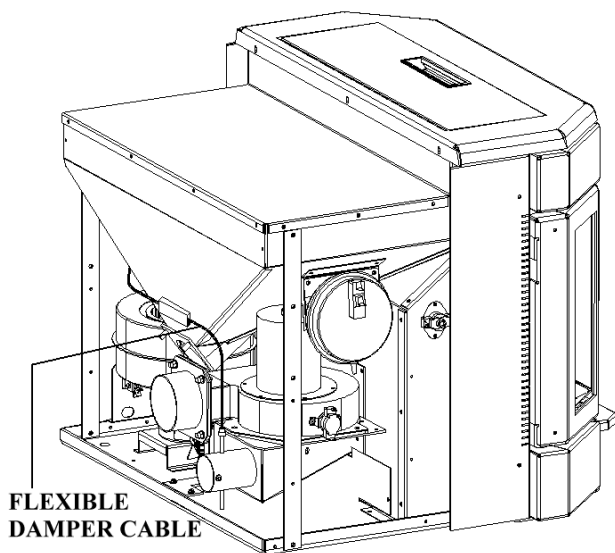


Figure 3

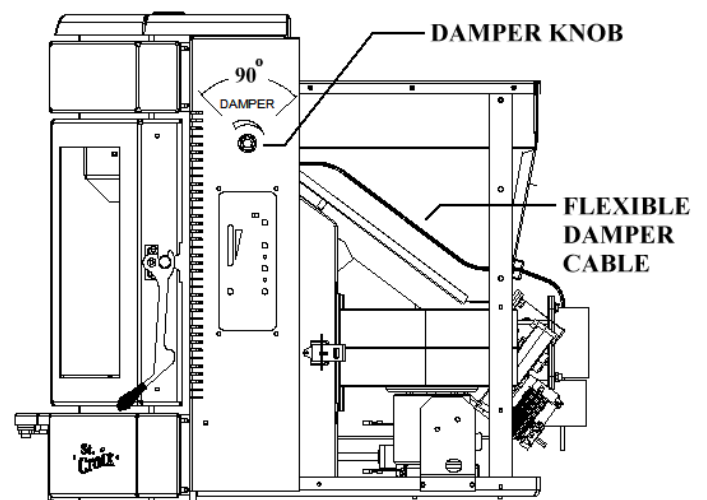


Figure 4

MAINTAINING THE STOVE

The stove requires a minimum amount of daily maintenance. Required maintenance depends largely upon the quality of pellet fuel burned and the rate of burn. The amount of daily maintenance will increase if fuel quality decreases and/or the burning rate of pellets increases.

NOTE: FAILURE TO KEEP YOUR STOVE CLEAN, AS DESCRIBED IN THIS MANUAL, COULD RESULT IN POOR OPERATION, INEFFICIENT FUEL USAGE AND A POSSIBLE SAFETY HAZARD! IT IS YOUR RESPONSIBILITY TO DETERMINE NEEDED MAINTENANCE FREQUENCY.

All models are equipped with the Versa Grate System (see Figure 5 below). The benefit of this feature is that the stove can operate for longer periods of time, with most fuels, without the grate requiring cleaning. If the flame becomes dark orange, is accompanied by black smoke or burns with a lazy motion - it's time to clean the grate.

Remember, cleaning frequency may change dramatically from one fuel to another. Pellets with high ash content or that have increased amounts of impurities or high moisture content will require more frequent cleaning.

When you first operate your stove or whenever you change fuels check to determine needed cleaning frequency.

The Versa Grate System – First, let's become familiar with the burn system in a St. Croix Pellet stove. The system in the York Insert is a little different than in the Freestanding models (See Fig 5 below). There is a 2-piece burnpot. The top Part is called the **"Grate Weldment"**. This sits on top of the **"Shaker Plate"**. This in turn sits on top of the **"Shaft/Cage Weldment"** and is held in place with the **"Spacer"** & **"Self Locking Twist pin"**. The Shaft/Cage weldment is moved towards the front of the stove and then towards the back of the stove by the **"Cam"** that is connected to the **"Versa Grate Motor"**. This motion is constant while the stove is in operation. The only parts that may need to be removed for cleaning purposes during the Daily or Periodic Maintenance are the **"Grate weldment"** and the **"Shaker Plate"**. The holes in the burnpot will get plugged with use and should be checked regularly.

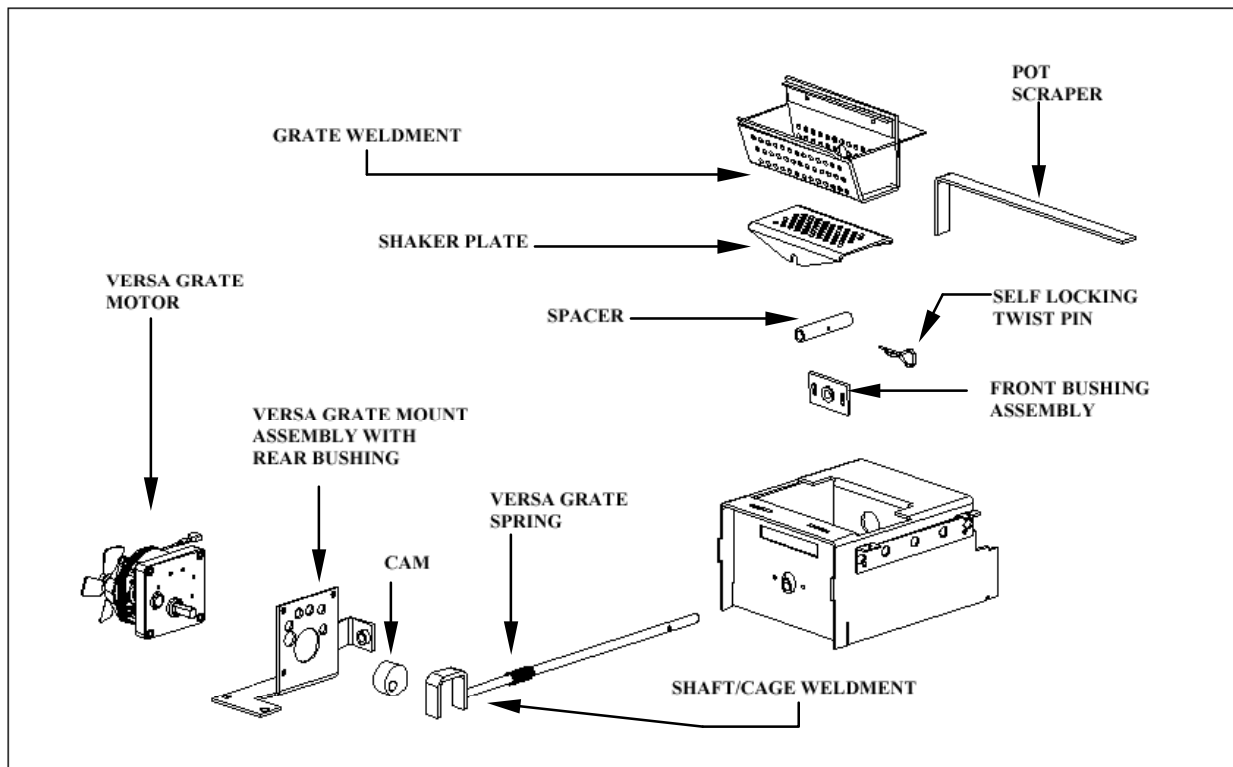


Figure 5

Daily Maintenance

1. Check Grate Weldment and Shaker Plate (See figure 5) to determine if holes are plugged. Clean as needed. With proper precautions the grate may be partially cleaned while the stove is hot. Follow these steps:

CAUTION: THE DOOR AND FRONT PART OF THE STOVE WILL BE HOT. DO NOT TOUCH ANY PART OF THE STOVE THAT IS HOT!

- a. Wear a leather glove that covers the lower arm.
- b. Turn the Stove to Heat Level 1 and allow the flame to burn down to a low burn.
- c. Open the firebox door slowly to prevent drawing ash or odors into the room.
- d. Use the “scraper” provided to move the burning pellets to one side of the grate, leaving the ash in the bottom of the grate. (See Fig 5 & 6)
- e. Rake the ash & clinkers out over the grate into the ash pan.
- f. Rake the burning pellets across the bottom of the grate.
- g. Close the door.
- h. Re-select the desired heat setting.

CAUTION: NEVER ADD FIRE STARTER TO A HOT STOVE.

2. There are 3 separate ash pans (See figure 7) in the York insert. Be sure to empty the center ash pan before it is allowed to plug the burn grate. **If stove is burning with a lazy flame be sure to check the center ash pan. Check Ash Pans frequently to determine how often they need to be emptied.** NOTE: Do not use a vacuum cleaner for this purpose. Hot coals may cause your vacuum filter to catch fire. Place ashes in 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 for at least two days until all cinders have thoroughly cooled. To access the ash pans rotate the “Quick Release” ash pan handle 90 degrees away from the stove (See Figure 6) and tip the ash pan door out 45 degrees. This allows the ash pan door to lift away from the stove and be set aside. Empty Ash pans one at a time into a small container. When replacing the ash pan door remember to tip the door at a 45-degree angle as shown in figure 7 before placing the Ash Door Hinge Points, *small half moon notch in lower corners of the ash pan door*, on the hinge pins (see figure 7). Press the door into the pins and rotate up at the same time. Rotate the handle 90 degrees to latch ash door.

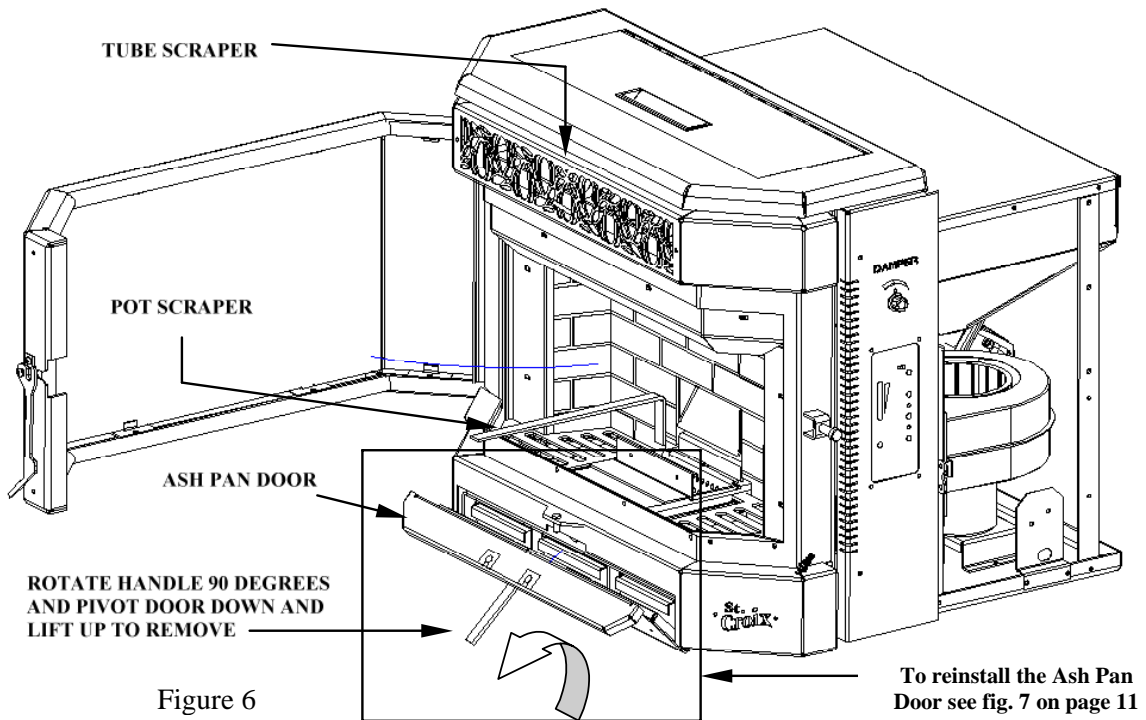
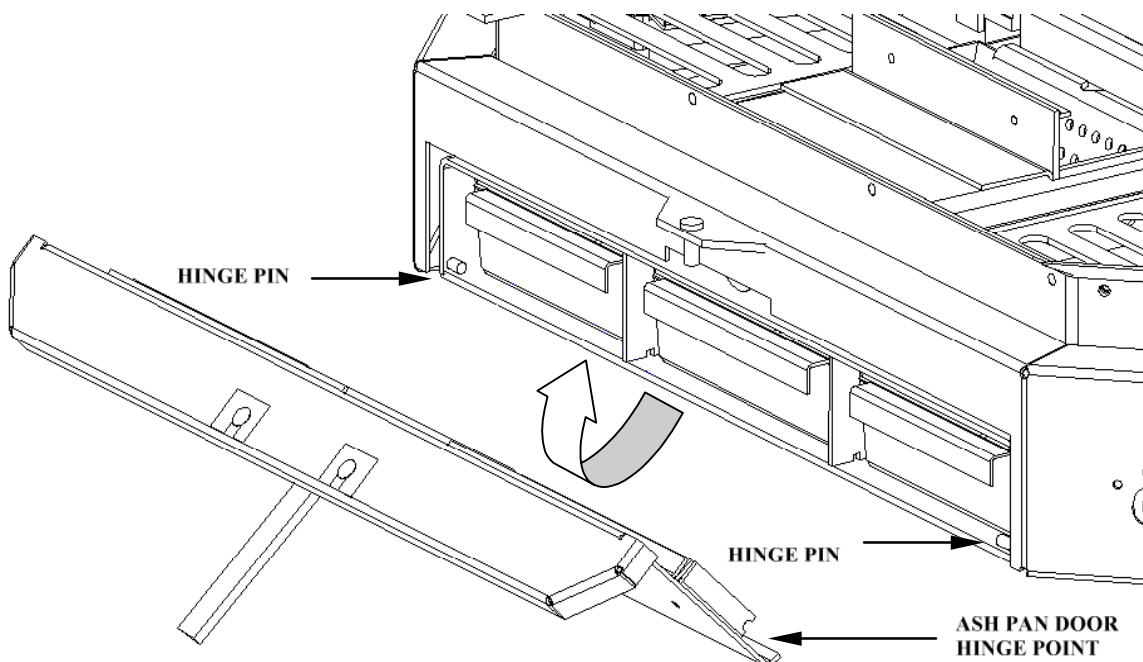


Figure 6



Press the door into the pins and rotate up at the same time. Rotate the handle 90 degrees to latch ash door

Figure 7

3. Once or twice daily pull the Heat Exchange Tube Scraper (See figure 6) out and back to clean heat exchange tubes. Failure to operate the tube scraper daily may result in poor combustion and loss of heat output. This should be done when the stove is cool or operating on the low temperature setting.

4. Clean the Glass. The rate of burn and the quality of fuel will determine how often the window needs cleaning. Prolonged burning at a slow burn rate will result in the need for more frequent window cleaning. Burning poor fuel also increases the need to clean the window. Cooling the stove and wiping the window daily with a cloth or paper towel will normally keep the window from accumulating difficult to clean residue. Use of a glass cleaner ONLY permitted when the stove is cold. *Tip: Dip the damp towel in the ashes to remove stubborn buildup on the glass.*

CAUTION: Do not slam the door. Do not operate the stove with a broken or cracked glass. Replace only with heat resistant ceramic glass supplied by the manufacturer.

5. Burn the stove at the HI fuel setting for at least 20 to 30 minutes each day. This helps keep the glass, brick panels and firebox area clean. A daily high burn also aids in maintaining the overall efficiency and performance of the stove.

Periodic Maintenance

CAUTION: Periodic maintenance should only be done while the stove is shut off and cold.

1. Empty the ash pans (see figure 6). The frequency of cleaning the ash pans will depend on the quality and amount of pellets being used. Carefully check to make sure the bottom hinge pins are engaged after closing the ash pan door.

2. Clean the Ash Traps. The York Insert has 2 exhaust cleanout covers (see figure 8) located below the rear brick panel. **IT IS CRITICAL THAT YOU KEEP ASH CLEAN OUTS CLEAN FOR SATISFACTORY PERFORMANCE.** Remove covers and clean regularly. To access the Ash traps for the first time remove the shipping screws that attach the Decorative Grates on both sides and discard them. Remove both side grates and pull

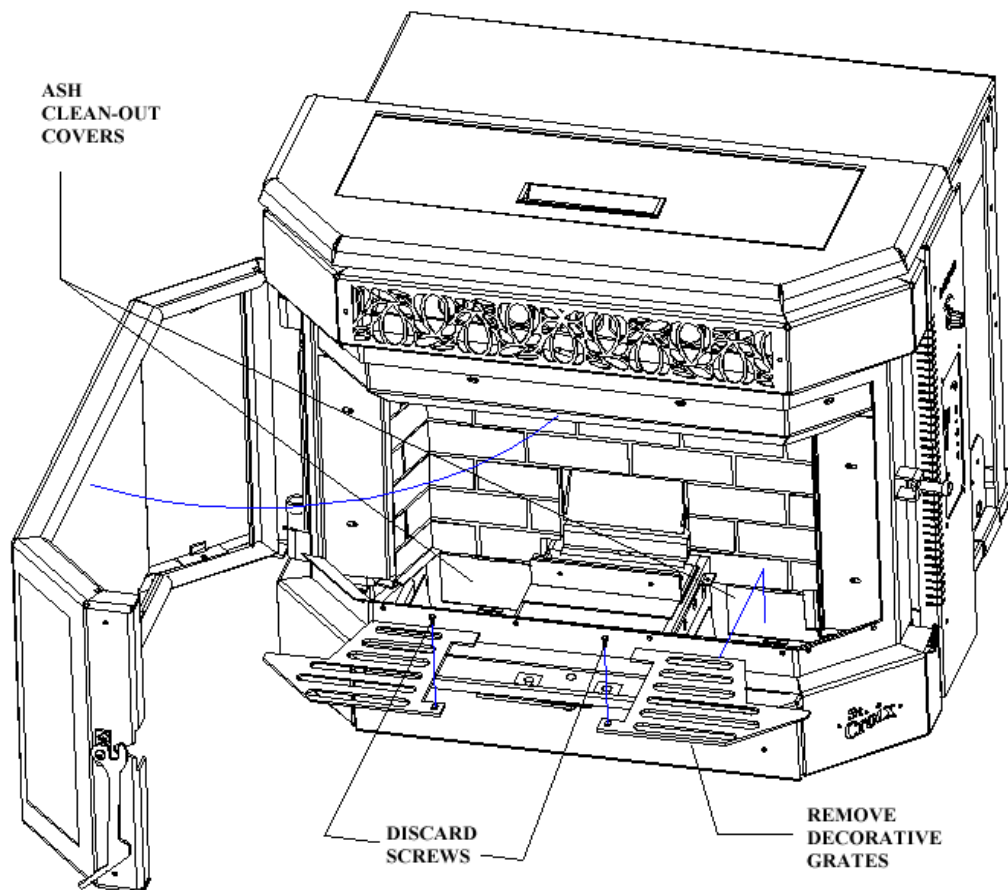


Figure 8

the bottom of the ash trap covers towards the front of the stove. This will allow the covers to slide out of the slot that holds them in place. Vacuum area behind the covers regularly and do not allow area to become plugged. **If stove is burning with a lazy flame be sure to check the ash traps.**

Frequency of cleaning Ash Traps depends on the amount of fuel being burnt and the quality of the pellets. Fuel with low ash content is recommended. **Failure to clean the ash traps can cause the stove to become plugged with fly ash and could result in a Safety Hazard.**

3. Clean holes in the Grate Weldment and Shaker Plate at least weekly. Remove the burn grate and use a small metal object to clean out plugged holes (*See figure 5*).

4. Remove the baffle and clean the ashes that accumulate on a regular basis. Once a month or sooner, depending on the quality of fuel being used.

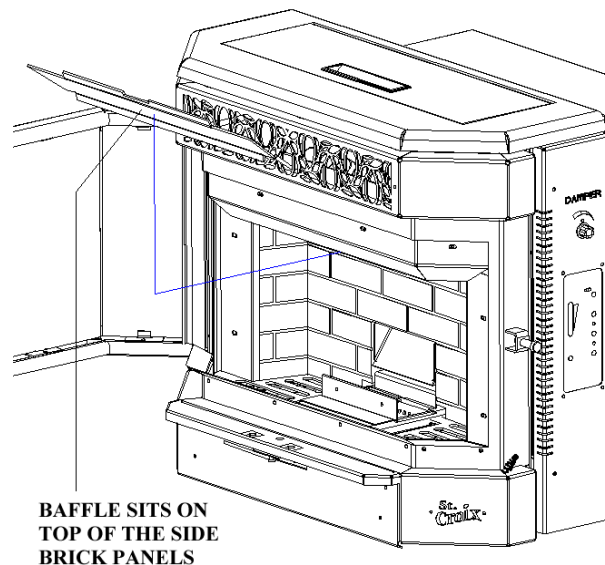


Figure 9

To remove the baffle (See Figure 9), lift the baffle and move it towards the front of the stove. The baffle rests on the side brick in the stove and is not attached with any fasteners. Clean the baffle on a regular basis. Frequency of cleaning depends on amount of fuel being burnt and the quality of the pellets. Fuel with low ash content is recommended.

Failure to clean the baffle can cause the stove to become plugged with fly ash and could result in a Safety Hazard.

5. Periodic cleaning of the exhaust system is required. Under certain conditions creosote buildup may occur rapidly. Low quality pellets and poor installations require more frequent chimney cleanings. See Page 3 “Preventing Chimney Fires”. The products of combustion will also contain small particles of fly ash. The fly ash will collect in the exhaust vent and restrict the flow of the flue gases. Determine the frequency of cleaning by checking the amount of ash that accumulates in the elbows or tees of the exhaust system. Ask the dealer for suggested frequency of cleaning, equipment needed and procedures for cleaning.

Check the exhaust system at least once every two months during the first heating season or whenever switching to a new fuel, to determine how often this is needed.

Yearly Maintenance

Many dealers offer a Service Contract that will cover needed Periodic and Yearly maintenance. Contact your St. Croix dealer for assistance in maintaining your stove in top condition.

Yearly maintenance is designed to assure safe operation, prolong the life of the stove and help preserve its aesthetic appeal.

1. **Spring Shutdown.** After the last burn in the spring, cool the stove. Remove all pellets from the hopper and the auger. Thoroughly clean the burn grate, burn grate box, ash pan

and ash traps behind the ash pan. (To locate the ash traps see Figure 8 on page 12)

2. The exhaust system should be thoroughly cleaned at least annually. Call your dealer for this service.

3. Oil the Damper control shaft and the holes in the 2” tube, to make sure the mechanism moves freely (see figure 10).

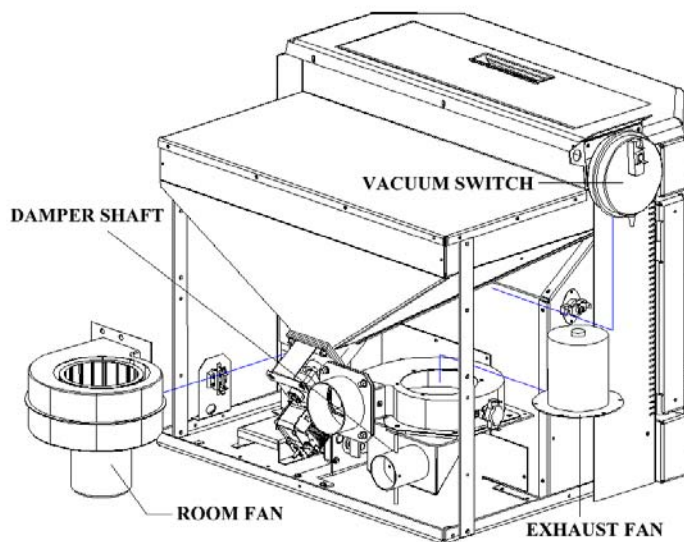


Figure 10

4. The motor/fan area behind the Firebox and under the Hopper should be vacuumed annually (See figure 10). **NOTE: UNPLUG THE INSERT.** Slide the Insert out of the Fireplace and carefully clean or vacuum any sawdust, cobwebs and household dust. Carefully vacuum around the fan motors. Call your dealer for this service.

5. The Exhaust fan should be removed and cleaned annually. Figure 10 shows the Vacuum Switch removed for easier access to the Exhaust fan. Remove the Motor and Impellor from the housing as shown (may require a new gasket) to clean that area of the exhaust system. Clean the Exhaust fan motor with compressed air. Be sure to remove any heavy build-up on the impellor at this time. Call dealer for this service. Annual oiling of the motors is not needed.