WARNING

If the information in these instructions is not followed exactly, a fire may result causing property damage, personal injury, or death.

• Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
• Do not overfire - If heater or chimney connector glows, you are overfiring. Overfiring will void your warranty.
• Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.

WARNING

Hot glass will cause burns.
• Do not touch glass until it is cooled
• NEVER allow children to touch glass
• Keep children away
• CAREFULLY SUPERVISE children in same room as fireplace.
• Alert children and adults to hazards of high temperatures.
High temperatures may ignite clothing or other flammable materials.
• Keep clothing, furniture, draperies and other flammable materials away.

CAUTION

Check building codes prior to installation.
• Installation MUST comply with local, regional, state and national codes and regulations.
• Consult local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.
A. Proper Shutdown Procedure

**CAUTION**

**Shock and Smoke Hazard**
- Turn down thermostat, let appliance completely cool and exhaust blower must be off. Now you can unplug appliance before servicing.
- Smoke spillage into room can occur if appliance is not cool before unplugging.
- Risk of shock if appliance not unplugged before servicing appliance.

Follow the detailed instructions found in this section for each step listed as referenced in the chart below.

B. Quick Reference Maintenance Chart

<table>
<thead>
<tr>
<th>Cleaning or Inspection</th>
<th>Frequency Description</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ash Drawer</td>
<td>Every 5 bags of fuel</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ash Removal from Firebox</td>
<td>Every 5 bags of fuel or more frequently depending on ash build-up</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Blower, Exhaust</td>
<td>More frequently depending on the fuel type</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Blower, Convection</td>
<td>Every 25 bags or more frequently depending on operating environment.</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Door Handle &amp; Gasket Inspection</td>
<td>Prior to heating season</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Exhaust Path, Drop Tube and Behind Baffles</td>
<td>Every 25 bags or more frequently depending on ash build-up</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Firepot Cleaning Rod</td>
<td>Every 1 bag of fuel</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Firepot with Clean-out Tool</td>
<td>Every 5 bags of fuel</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Firebox - Prepare for Non-Burn Season</td>
<td>At end of heating season</td>
<td>OR</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Glass</td>
<td>When clear view of firepot becomes obscure</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Hopper</td>
<td>Every 50 bags of fuel</td>
<td>OR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Top Vent Adapter</td>
<td>More frequently depending on ash build-up</td>
<td>OR</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Venting System</td>
<td>Every 3 tons or more frequently depending on the fuel type</td>
<td>OR</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**NOTICE:** These are recommendations. Clean more frequently if you encounter heavy build-up of ash at the recommended interval or you see soot coming from the vent. **Not properly cleaning your appliance on a regular basis will void your warranty.**

C. General Maintenance

1. **Types of Fuel**

Depending on the type of fuel you are burning will dictate how often you have to clean your firepot.

If the fuel you are burning has a high dirt or ash content, it may be necessary to clean the firepot more than once a day.

Dirty fuel will cause clinkers to form in the firepot. A clinker is formed when dirt, ash or a non-burnable substance is heated to 2000°F (1093°C) and becomes glass-like. See "D" page 16 in this section for more details on fuels with high ash content.
2. **Cleaning Firepot with Cleaning Rod & Firepot Clean-Out Tool:**
   - **Frequency:** Daily or more often as needed
   - **By:** Homeowner

a. The appliance must be in complete shutdown and cool and the exhaust blower off. If you are just cleaning the firepot, there is no need to unplug the appliance.

b. Locate the firepot cleaning rod on the right side of the appliance. **Figure 13.1.** When you pull the cleaning rod straight out it will slide open the firepot floor to allow the ashes to be deposited in the ash drawer. You will see the light color painted area on the cleaning rod to let you know the rod is in OPEN position. **Figure 13.2.**

c. Pull the firepot cleaning rod OUT and IN a couple of times to help shake debris loose. If the rod is hard to pull, it may be necessary to use your firepot clean-out tool to chip away material that has built up on the bottom plate of the firepot and to push out any clinkers, while in the open position. Larger clinkers may have to be removed from the top of the firepot.

d. To close the firepot floor slightly raise the cleaning rod and then push it back into place. If you have closed the cleaning rod properly (pushed all the way in) you will not see any of the light color painted area. **Figure 13.2.**

e. Always have the ash drawer in place before pulling the firepot cleaning rod, otherwise the ashes will fall down and fill the outside air opening and the appliance will produce soot out of the exhaust and will affect efficiency.

3. **Ash Removal from Firebox**
   - **Frequency:** Weekly or more frequently depending on ash build-up.
   - **By:** Homeowner

a. There must not be any hot ashes in the firebox during cleaning so allow the appliance to completely cool. The firebox ash should be removed every time the exhaust path is cleaned. Frequent cleaning of the ash in the firebox will help slow down the build-up of ash in the exhaust blower and vent system.

b. Vacuum out the firebox thoroughly on both sides of the firebox and the floor and ceiling. The ash drawer should be emptied every time you clean the firebox. Remember to place the ash and debris into a metal or non-combustible container. **See Disposal of Ashes.**

c. Always have the ash drawer in place before pulling the firepot cleaning rod, otherwise the ashes will fall down and fill the outside air opening and the appliance will produce soot out of the exhaust and will affect efficiency.

4. **Cleaning Ash Drawer**
   - **Frequency:** Weekly or every 5 bags of fuel
   - **By:** Homeowner

a. There must not be any hot ashes in the ash drawer when you empty it, so allow the appliance to completely cool.

b. Locate the ash drawer underneath the firepot. Slide the ash drawer straight out. Empty into a non-combustible container and re-install the ash drawer. **See Disposal of Ashes.**

b. Always have the ash drawer in place before pulling the firepot cleaning rod, otherwise the ashes will fall down and fill the outside air opening and the appliance will produce soot out of the exhaust and will affect efficiency.
5. **Disposal of Ashes**
   - **Frequency:** As needed
   - **By:** Homeowner
   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 closed container until all cinders have been thoroughly cooled.

   ![Warning: Disposal of Ashes](image)

   **WARNING**
   - Ashes should be placed in metal container with tight-fitting lid.
   - Ashes should be retained in closed container until all cinders have thoroughly cooled.

6. **Cleaning the Exhaust Path, Baffles & Drop Tube**
   - **Frequency:** Monthly or every 25 bags or more frequently depending on ash build-up.
   - **By:** Homeowner
   a. Appliance must be completely cool.
   b. Open the door and remove the center baffle first and then the right and left baffles. See Baffle Removal Instructions on page 21. Thoroughly vacuum the exhaust path and drop tube and continue throughout the rest of the firebox. Also vacuum the front and back of the baffles.
   c. Also vacuum the convection blower impellers or use a soft brush to remove any ash build-up.
   c. Replace the right and left baffles and then the center baffle and close and latch the door.

7. **Cleaning the Hopper**
   - **Frequency:** Monthly or after burning 50 bags of fuel
   - **By:** Homeowner
   After burning approximately 50 bags of fuel you will need to clean the hopper to prevent sawdust build-up.

   A combination of sawdust and pellets on the bottom end of the auger reduces the amount of fuel supply to the firepot. This can result in nuisance shutdowns and mis-starts.

   a. The appliance must be in complete shutdown. Allow the appliance to completely run out of pellets and cool down.
   b. Empty the hopper of any remaining pellets.
   c. Vacuum the hopper and feed tube.

   **NOTE:** Hearth & Home Technologies recommends to use a heavy duty vacuum cleaners specifically designed for solid fuel appliance cleaning.

8. **Soot and Fly Ash: Formation & Need for Removal in Exhaust Venting System.**
   - **Frequency:** Yearly or more frequently depending on ash build-up.
   - **By:** Qualified Service Technician/Homeowner

   Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

   The products of combustion will contain small particles of fly ash. The fly ash will collect in the exhaust venting system and restrict the flow of the flue gases.

   At start-up if there is incomplete combustion, or if there is a shutdown or incorrect operation of the appliance it will lead to some soot formation. This will collect in the exhaust venting system.

   The venting (chimney) system may need to be cleaned at least once a year or more often depending upon the quality of your fuel or if there are any horizontal pipe sections. Ash will build up more quickly in the horizontal sections and elbows.

9. **Door Handle Inspection**
   - **Frequency:** Monthly or prior to heating season
   - **By:** Homeowner

   The gasketing between the glass and firebox should be inspected periodically to make sure there is a good seal. Check door handle for smooth cam operation.

![Figure 14.1](image)

Figure 14.1

![Figure 14.2](image)

Figure 14.2
10. Cleaning the Glass
   • Frequency: When clear view of the firepot becomes obscure
   • By: Homeowner
     a. Appliance must be completely cool before cleaning glass.
     b. Vacuum fly ash from glass and door rope.
     c. Use a damp paper towel or any non-abrasive glass cleaner. Wipe off with dry towel.

11. Cleaning Exhaust Blower - Requires No Lubrication
    • Frequency: Yearly or more frequently depending on ash build-up
    • By: Homeowner or Qualified Service Technician
      a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.
      b. Follow the directions for cleaning the exhaust path found on page 14.
      c. If unable to thoroughly clean the blower through this access, then follow the directions on page 19 for direct access to the exhaust blower.
      d. Vacuum the blower’s impellers. Use care not to bend or damage the blower fins.

NOTE: Hearth & Home Technologies recommends to use a heavy duty vacuum cleaners specifically designed for solid fuel appliance cleaning.

12. Cleaning Convection Blower - Requires No Lubrication
    • Frequency: Yearly or more frequently depending on ash build-up
    • By: Homeowner or Qualified Service Technician
      a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.
      b. Follow the directions on page 19 for direct access to the convection blower.
      d. Vacuum the blower’s impellers.

13. Cleaning the Top Vent Adapter
    • Frequency: Yearly or more frequently depending on ash build-up
    • By: Homeowner
      a. The appliance must be in complete shutdown and the exhaust blower should be off. Allow the appliance to completely cool down.
      b. Open the clean-out cover. Figure 15.1.
      c. Sweep out any ash build-up.

14. Preparing Firebox for Non-Burn Season
    • Frequency: Yearly
    • By: Homeowner
      a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.
      b. Remove all ash from the firebox and vacuum thoroughly.
      c. Paint all exposed steel, including cast-iron.
         • Purchase paint from your local dealer.
         • Must use a high-temperature paint made specifically for heating appliances.
D. High Ash Fuel Content Maintenance

- **Frequency:** As needed
- **By:** Homeowner

Poor quality pellet fuel, or lack of maintenance, can create conditions that make the firepot fill quickly with ashes and clinkers.

This condition makes the appliance susceptible to overfilling the firepot with pellets which may result in smoking, sooting and possible hopper fires. **Figure 16.1** shows an example where the firepot overfills, pellets back up into the feed tube and ash has accumulated in the firebox.

An inefficient and non-economical method of burning of fuel caused by poor quality pellet fuel is shown in **Figure 16.2**.

The correct flame size when good quality, premium pellet fuel is burned is shown in **Figure 16.3**.

If the ash buildup exceeds the half way point in the firepot **IMMEDIATE ATTENTION AND CLEANING IS REQUIRED.**

**WARNING**

**Fire Risk.**
- High ash fuels, or lack of maintenance, can cause the firepot to overfill. Follow proper shutdown procedure if ash buildup exceeds half way point in firepot.
- Failure to do so could result in smoking, sooting and possible hopper fires.

**Figure 16.1**

**Figure 16.2**

**Figure 16.3**
## E. Frequently Asked Questions

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Metallic noise.</td>
<td>1. Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of your appliance.</td>
</tr>
<tr>
<td>2. White ash buildup on glass.</td>
<td>2. This is normal. Clean the glass.</td>
</tr>
<tr>
<td>3. Glass has build-up of black soot.</td>
<td>3. Excessive build up of ash. See solution #4. The lower burn settings will produce more ash, the higher burn settings produce less. The more it burns on low the more frequent cleaning of the glass is required.</td>
</tr>
<tr>
<td>4. Fire has tall flames with black tails and is lazy.</td>
<td>4. The feed rate needs to be reduced or the firepot, exhaust blower, exhaust path or baffles needs cleaning.</td>
</tr>
<tr>
<td>5. Smokey start-up or puffs of smoke from the airwash.</td>
<td>5. Either the firepot is dirty or there is too much fuel at start-up and not enough air. Close down feed rate 1/4 inch (6.35mm) at a time until this no longer happens.</td>
</tr>
<tr>
<td>6. Large flame at start-up.</td>
<td>6. This is normal. Flame will settle down once the fire is established.</td>
</tr>
<tr>
<td>7. Rumbling sound.</td>
<td>7. Make sure the ash drawer is completely closed. The feed rate needs to be reduced or close the combustion air damper 1/4 inch (6.35mm) at a time until the sound stops.</td>
</tr>
</tbody>
</table>

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**CAUTION**

Odors and vapors released during initial operation.
- Curing of high temperature paint.
- Open windows for air circulation.

Odors may be irritating to sensitive individuals.