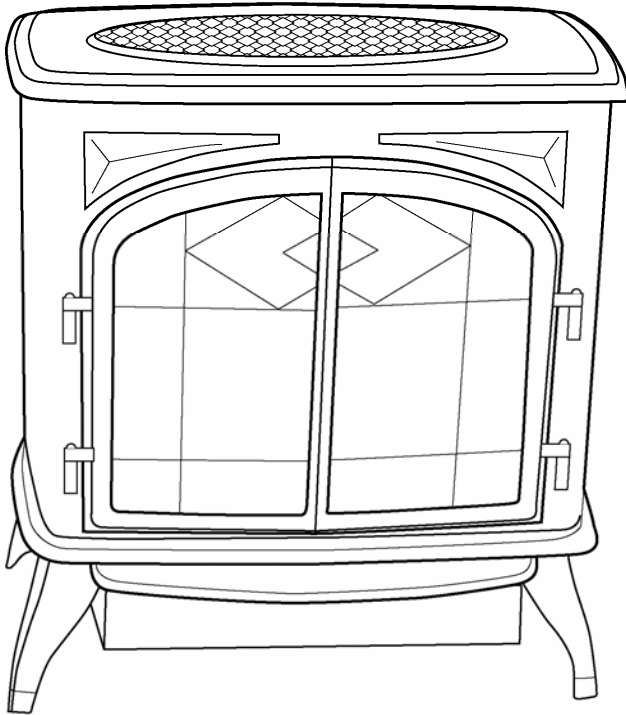

ECHO PELLETT E.I.

Pellet Heater Owner's Manual Installation and Operating Instructions



Made in the USA by:

THELIN
CO.
INC.

12400 Loma Rica Drive, #5
Grass Valley, CA 95945
530-273-1976



Please read this entire manual before installation and use of the pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death.

SAFETY NOTICE

- HEATER MUST BE PROPERLY INSTALLED AND MAINTAINED OR A HOUSE FIRE MAY RESULT.
- FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS.
- CONTACT LOCAL BUILDING OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION AND PERMIT.
- FAILURE TO COMPLY WITH OWNER'S MANUAL INSTRUCTIONS WILL VOID WARRANTY.

PLEASE LEAVE THIS MANUAL WITH THE OWNER!!

Warnock Hersey Test Labs, Middleton, WI

MAINTENANCE PROCEDURES

CAUTION: Moving parts may cause injury. DO NOT operate with rear cover removed.

WARNING: Risk of electrical shock. Disconnect all power before servicing.

Always turn your heater off and let it cool before cleaning.

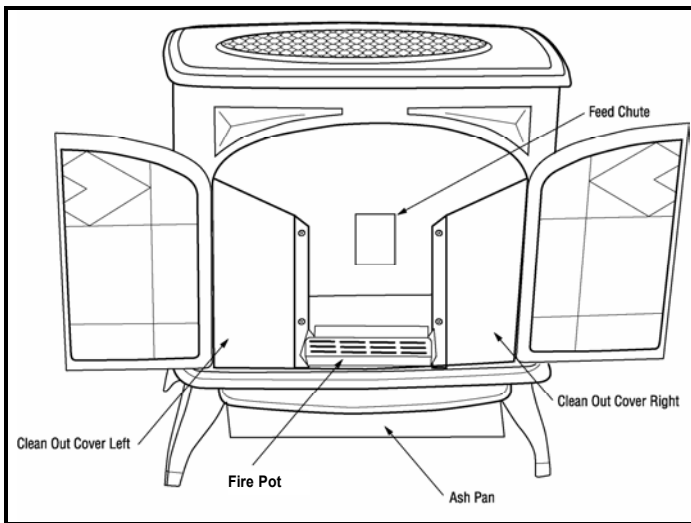


FIGURE 12

Your Echo Pellet Heater requires routine maintenance for maximum performance, and it is mandatory for the warranty to remain in effect.

The following procedures should be studied carefully and performed regularly as indicated.

- a. **Soot and Fly Ash: Formation and Need for Removal** 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. Incomplete combustion, such that occurs during start-up, shutdown, or incorrect operation of the room heater, will lead to some soot formation which will collect in the exhaust venting system. The exhaust venting system should be inspected

at least once every year to determine if cleaning is necessary.

Here are some other maintenance procedures that should be performed on a regular basis.

- b. Open door and remove clean out cover screws. To remove, simply unscrew and lift out from each side (see Figure 12). Clean one side at a time. With covers removed, leave the door open and push the “Clean” button. Let heater run 30 seconds, push to “Off,” and replace cover. Remove the remaining clean out cover and repeat procedure for other side.
- c. Vacuum inside stove ash pockets on both sides of fire pot and heat exchange tubes.
- d. Remove fire pot by lifting up and out. It may be brushed out or vacuumed. Fire pot should be cleaned regularly. Make sure slots in pot are not plugged. The area around and below the pot should be checked every five or six days depending on how many hours a day you are burning your heater and the quality of the pellets being burned. After a few days you will be able to determine the frequency required for cleaning.
- e. Scrape pellet feed chute with putty knife to remove hardened material on which sawdust can accumulate.
- f. The tee connector on the vent pipe must have a clean out cap and this must be checked every four to six weeks or whenever you utilize the “Clean” mode on the control dial.
- g. Fly ash can also accumulate in the vent pipe. Inspect the exhaust system frequently to maintain free flow of exhaust fumes. This depends entirely on the quality of the pellets, so you will initially monitor the buildup in the vent pipe. Those installations going into an existing flue must be installed with a tee connector to allow access to clean the ash from the pellet vent pipe.

1. **Hopper Clean Out:** Vacuum the accumulated saw dust in the hopper weekly. Keep free of debris and foreign material. An accumulation of saw dust can cause irregular pellet feed. For best results this should be done on a regular basis depending on how often the heater is used. If you burn the heater all of the time, you should do this every eight to ten days.
2. **Cleaning the Exhaust Fan Blade & Heat Exchanger:** The exhaust blower should be checked for excessive fly ash buildup. Regular and routine maintenance utilizing the clean out feature will keep the exhaust blower housing and fan blades clean. This cleaning can only be done when the heater is not burning. For best results, run the fan in the "Clean" position with the door open for approximately 45 seconds or until ash is no longer being picked up by the fan. Remember, you must always check the clean out cap on the tee after utilizing the clean feature (see Figure 12). **(See Figure 16 for routine stove clean out and maintenance.)**
3. **Cleaning the Fan Guard:** The plastic fan guard on the rear of the stove must be kept free of lint and dust. Check weekly for lint build-up and vacuum as necessary. (See Figure 2)
4. **Keeping the Glass Clean:** If soot deposits accumulate on the glass, clean with window glass cleaner and a paper towel when glass is cold.

This Echo Pellet Heater has been tested and approved by Warnock Hersey Test Labs in Middleton, Wisconsin.

TROUBLESHOOTING

The following scenarios are provided in order to help you locate a difficulty if the heater performs in a manner which would seem to indicate a malfunction:

1. **Problem:** I loaded the heater for start-up, lit the fire starter and pellets, but the fire did not light.

Solution: Check power cord to see that it is plugged in tightly to the bottom of the stove. Is the LED light blinking when you push the Low, Medium, or High button? If not, check the fuse for the igniter located on the bottom of the stove in the red fuse holder. Remember that the timer on start-up runs about six minutes and if the pellets have not lit, then you may have to repeat the start-up sequence. Also, the stove only runs on one speed until a temperature is reached that activates the run mode. This usually takes 15 to 20 minutes, and in extremely cold climates, you might have to repeat the start-up procedure for the stove to reach this temperature.

2. **Problem:** The heater was lit and burning properly, then suddenly it stopped feeding pellets.

Solution: Check pellet supply in hopper. If empty, fill and follow start-up procedure. Occasionally, a foreign object, debris, or an excessive amount of sawdust can enter the feed mechanism and jam the feed chute. If this happens, you must empty the hopper and check the feed chute to see what is causing the jam. Remove any foreign material or object and restart the heater. **CAUTION:** Keep fingers and hands clear of the feed mechanism when heater is on.

3. **Problem:** The fire was burning well and then it began to overfeed pellets and started backing up into the pellet feed chute, smothering the fire.

Solution: When the pellets are overfeeding, it usually means that the air flow has been reduced. Check the fire pot air intake holes to be sure they are clear. Check to see if fire pot was properly seated in the pot tray. If you use a low-grade pellet and clinkers (fused ash and dirt) form in the bottom of the fire pot and chock the air intake, you might consider changing the brand of pellets to one that burns cleaner. You must let the fire go out before removing and cleaning the fire pot. Never vacuum out the heater when the heater is in operation! The hot ashes can lodge in your vacuum cleaner and

cause a fire! You must clean the heat exchanger tubes (see Figure 12) regularly to ensure a good air to fuel ration, thus allowing the heater to "breathe" properly. You must also check the tee and vent pipe to see that they are not clogged and full of ash.

4. **Problem:** The heater was burning well and then soot began forming on the door glass.

Solution: Black soot forming on the door glass means that the combustion is not right and the heater needs a good clean out. Some brands of pellets burn much richer than others and you might have to change brands of pellets and/or have the air/fuel settings readjusted by your dealer. It is normal to have the glass cloud up after several hours of burning, but it should wipe off with a good window cleaner. If the glass turns black quickly, then the heater needs a good clean out.

5. **Problem:** We had a power failure and the heater emitted smoke for about five minutes.

Solution: If the heater emits smoke during a power failure and you have frequent power failures, then we suggest you purchase the battery back-up system. If the vent pipe is installed according to these instructions, the smoke will siphon out of the pipe in most instances.

6. **Problem:** After several weeks of outstanding performance, the heater suddenly stopped and the red light under the control panel came on. This light is the High Temp/Flue indicator light.

Solution: The High Temp/Flue indicator light indicates that fly ash has built up in the exhaust system and/or there is a restriction in the exhaust/flue system or a high-wind condition. Check the pipe system for excessive ash and clogging, particularly the vent cap. Remove the clean out cap on the tee and make sure that ash has not blocked the exhaust air flow. This automatic shut down in case of flue clogging is

a safety feature, and if the shut down occurs it means you have a problem and should consult a service technician and/or clean your pipe and heater thoroughly. If you feel the fly ash build-up is excessive, we suggest you try another pellet brand. In most climates the pellets and fly ash can absorb moisture from the air and create creosote and a severe clogging problem. Keep this in mind when you store and handle your pellets. The heater warranty does not cover the quality of the fuels used or the way they may be handled, either before or after you've purchased them. High-wind condition may require a high-wind cap. See Appendix A.

7. **Problem:** I turned off the switch and the heater continued running.

Solution: This is normal. The exhaust blower will keep running until it cools down and then it will automatically turn off. This can vary by the temperature the exhaust has reached and the temperature of the cooling air.

8. **Problem:** Fan motor speed varies, sometimes running low and sometimes surging. Will run on "High" or "Clean" but not on "Low."

Solution: Fan motor brushes are wearing out. Brushes in fan motor need to be replaced. Contact your dealer or call factory for replacement brushes.

9. **Problem:** Stove shuts off at night when running on low.

Solution: Feed is too low. Adjust feed trim button (turn clockwise) until feed can maintain fire.

10. **Problem:** I see a flashing green light behind the outer shield. What does this mean?

Solution: The flashing green light behind the outer shield means the circuit board is energized. This is okay. "Green means go." All systems are ready and operational.