How to Clean the Harman Accentra Pellet Insert

Here are step-by-step instructions for cleaning your Harman Accentra Pellet Insert. **Please read through this guide before starting**. These instructions are to be used in conjunction with the **owner's manual** that came with your insert. If you have any questions about the procedure please don't hesitate to call your local dealer.

In order to maintain top efficiency it is important to clean and vacuum the inside of the stove 3 or 4 times per burn season or once per ton of pellets burned (you will know you have burned a ton of pellets when the ash pan is full). The insert is designed to be very easy to clean, it should take about an hour to an hour and a half to do a good job.

A *thorough* cleaning is required at the end of each heating season. Keep in mind that cleaning both your insert and venting system is essential. Cleaning boosts heat output and keeps the stove running at maximum efficiency. Many Harman dealers offer annual cleaning services for their customers.

TOOLS YOU WILL NEED:

Dust Mask & Safety Goggles
Shop vacuum w/fine dust (HEPA) filter
Standard socket set or nut driver set
Tooth brush
Flexible brush that came with your insert
4 in. flexible brush (for vent pipe)
Burn pot scraper (included w/stove)
Paper towels
Rubber gloves (soot really gets into pores)
Drop cloth
Flashlight or drop light
3" to 4" paintbrush for cleaning
Small putty knife
Hearth glass cleaner

TIPS BEFORE YOU START:

Be sure the stove is completely out and cool (and unplugged from electrical power!).

The stove must be completely out before cleaning. Every part must be cool to the touch, including the pellets that are left in the burn pot. **Live pellets are a fire hazard – especially if they get sucked into a vacuum cleaner.** Every year there are stories of house vacuums catching fire by inadvertently sucking up hot ashes. **Worse still this can be the source of a house fire!**

Hot ashes should be stored in a metal container with a tight fitting lid. When the ashes are completely out they can be used as a soil conditioner for your lawn or garden.

Wear a dust mask! This is important! Don't be foolhardy when it comes to protecting your lungs. Wear a mask and protective goggles. Professional chimney sweeps wear both while performing cleaning tasks.

STEP #1: PREPARE THE WORK AREA

Start by placing a drop cloth on the floor in front of your stove. Alternatively you can use newspaper. Keep your tools on the drop cloth so you can wrap them in it and take them outside for cleaning when you are done.

Fig. 1

Remove the ash lip from under the front of the stove (Fig. 1). This is a slide/clip item that is not fastened in place with screws or other fasteners. Pull it straight out from the stove.

The Harman Stove Company has a service rail kit available through your local authorized Harman Dealer, (Fig. 2), for easy removal of an insert from a raised fireplace hearth (Harman Part # 1-00-08007). The height of the service rail is easily adjustable to accommodate various height hearths.

Fig. 2

STEP #2: RELEASE THE INSERT LATCHS

Open the latch located on each side of the stove in the position shown (Fig. 3).

Fig. 3

You can now slide the stove forward on the rails. Please note that there are wires pulling out at the same time that will need to be disconnected (Fig. 4 & 5). Do not pull the stove out too far or the wires may be damaged. After the stove is pulled out far enough (Fig. 6) you can start working in the "engine housing".

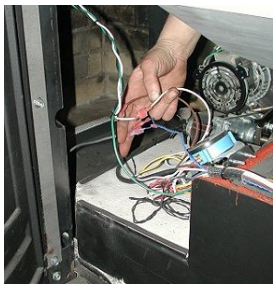

Fig. 4

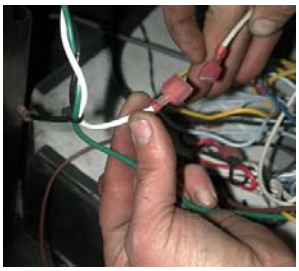

Fig. 5

Fig. 6

STEP #2: REMOVE AND CLEAN THE COMBUSTION MOTOR

The combustion blower is held in place by three thumb screws. Loosen them by about 5 turns and grab the entire motor assembly, turning it counter-clockwise and pull it gently straight out of the housing (Fig. 7). You can now lay it onto it's end on the plastic cover.

Fig. 7

The fins of the combustion blower should be brushed clean of soot (Fig. 8). Take care not to be overly aggressive with the brush as the fins may bend which would cause an out-of-balance condition. A shot of silicone spray on the blades (Fig. 9) promotes easier blade movement.

Fig. 8

Fig. 9

After cleaning the combustion fan you need to clean the soot from inside the motor mount housing (Fig. 10). This should be done with a vacuum.

Fig. 10

When you replace the combustion blower (Fig. 11) be very sure to clean the face of the blower assembly and the housing opening where they meet. This gasketless seal relies on very close tolerances of mating surfaces. Anything less than a clean joint may cause exhaust gases and/or fly ash to escape. Tighten the thumbscrews by hand only.

Fig. 11

STEP #3: CLEAN THE FEEDER CHAMBER

Remove the wing nut holding the cover on the Feeder Chamber (Fig. 12). You then have access into the chamber where "fines" or pellet dust can collect and must be cleaned (Fig. 13).

Fig. 12

Fig. 13

Replace the auger housing cover and the wing nut. The wing nut needs to only be hand tight, do not use pliers or other tool to tighten as you will run the risk of damaging the mounting bolt.

STEP #4: CLEAN THE ESP PROBE

Using a 5/16" socket or nut driver remove the tek screw holding the ESP probe (Fig. 14).

Fig. 14

Gently remove the probe by pulling it straight out of the housing; be careful not to bend the probe. The probe can be cleaned by *very gently* rubbing off the soot with a green scrub (Fig. 15), do not use emery cloth or sandpaper. If you don't have a scrub use no more than a cloth or paper towel. Do not replace the sensor until after you have brushed the combustion blower air passage.

Fig. 15

STEP #5: CLEAN THE EXHAUST AREA NEAR THE ESP PROBE

While you are in this area, remove wing screws and remove the black cover near the ESP probe (Fig. 16). This is the opposite side of where the combustion blower is located. Open the white refractory cover panel (Fig. 17) to gain access for cleaning when you are brushing soot from the front. Be careful while handling this white cover as it is fragile material.

Fig. 16

Fig. 17

STEP #6: CLEAN THE COMPASS PANEL & HEAT EXCHANGE AREA

Slide the compass panel up a bit and remove the flame guide from the top of the burn pot (Figures 18 & 18a). You can now remove the compass panel (Fig. 19) and clean the entire panel (Fig. 20). A brush attachment for your vacuum or a simple inexpensive paint brush works well for cleaning the compass panel, heat exchanger and the walls of the firebox.

Fig. 18

Fig. 18a

Fig. 19

Fig. 20

Remove the cast iron heat exchange panels located on either side of the burn pot. You will start by lifting on the tab shown in the picture below right (Fig. 21). After lifting just 1/8" to 1/4" you will spin the panel a bit toward the center of the stove where you can drop it down and lift it out through the front (Fig. 22).

Fig. 21

Fig. 22

Clean the front and back of the cast iron heat exchanger panels (Fig. 23). Once these cast iron panels are removed, the v-shaped interior accordion heat exchange walls can be cleaned (Fig. 24 & 25).

Fig. 23

Fig. 24

Fig. 25

Fig. 26

On both the bottom right and left corners of the firebox you will find a 2" square opening. These are the exhaust tubes and they can only be seen when the cast iron heat exchanger covers are removed. Using the cleaning brush provided, clean these tubes by running the brush in and out a few times to loosen the debris build-up in the tubes (Fig. 26 & 27).

Fig. 27

These tubes are an important part of the heat exchanger, efficiency will be lost if they are not properly maintained and if this step is not performed over a long enough period of time the exhaust tubes will become clogged causing the stove to operate sluggishly or not at all.

Note: Be sure to brush any soot from side interior panels especially the interior side of the insert's front panel where a cast iron ridge may hold soot.

After completing this step, reassemble the cast iron heat exchanger panels into the stove along with the flame guide and "compass panel." Reinstall the Thermister (ESP) probe, being careful not to damage it, using a 5/16" socket or nut driver (same procedure as Fig. 14). Be careful not to bend or damage the probe in any way.

STEP #7: CLEAN THE BURN POT

The burn pot (Fig. 28) must be thoroughly cleaned. Begin by scraping the burn pot using the provided tool from Harman. A screwdriver and hammer may be needed to chip carbon away which may form a hard "ridge" part way down from the front edge. Vacuum or pull out dust/debris from the entire burn pot, especially the air holes above the igniter and lower front portion that's accessed by a removable panel (Fig. 29). Two wing nuts hold this access panel in place.

Fig. 28

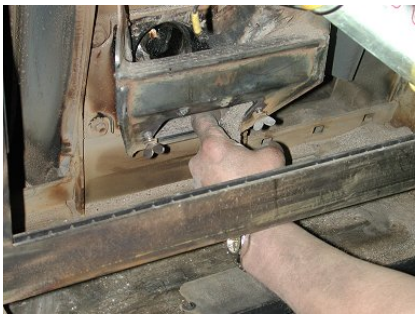

Fig. 29

STEP #7: CLEAN THE DISTRIBUTION BLOWER

Beneath the stove you will find the distribution blower/motor (Fig. 30). Unless this is particularly dirty you will not need to remove the blower for cleaning as you will be mostly cleaning the fins of the blower (Fig. 30). Use a brush for cleaning the fins (Fig. 31). Holding the vacuum nozzle near the working area will greatly reduce any mess.

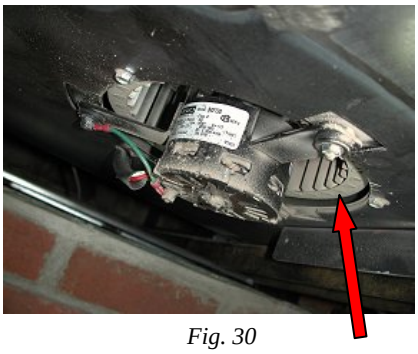

Fig. 30

Fig. 31

STEP #8: CLEAN THE VENTING SYSTEM

It is very important that your entire flue system is inspected and cleaned **once per year** using flexible rods and the appropriately sized brush (Fig. 32). First clean the bright orange docking gasket. Next clean the mounting frame with a brush and vacuum, be sure to clean the mounting surface where the orange docking gasket mates to the frame (Fig. 33). Sweep the vent beginning from where the insert first attaches to the vent to the top of the venting system. As you do this soot will fall into the mounting frame so having a vacuum running and the suction nozzle near the flue exhaust port will be a big help during the cleaning process (Fig. 34).

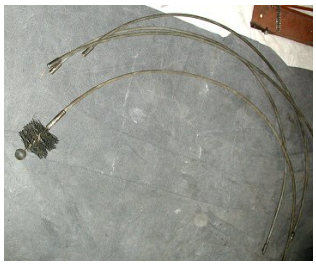

Fig. 32

If your insert has a flex pipe which extends only to the first tile liner of the chimney you will need to remove the seal around this pipe and clean the masonry chimney above it.

Fig. 33

Next, vacuum or sweep any debris around the fireplace and insert docking area (Fig. 35). At this time you should vacuum loose dust, pet hair etc. from the engine housing and start re-assembly.

Fig. 34

Fig. 35

STEP #9: RECONNECT THE INSERT

Reconnect any wires you have disconnected during the disassembly process (Fig. 36) and carefully slide the insert back into position being careful not to pinch, stretch or otherwise damage the wires (Fig. 37). Also make sure the orange docking gasket on the insert is tightly seated against the docking frame.

Do any final cleaning inside the stove and ash pan. The stove should now easily lock into place using the spring latches on either side of the stove (Fig. 38).

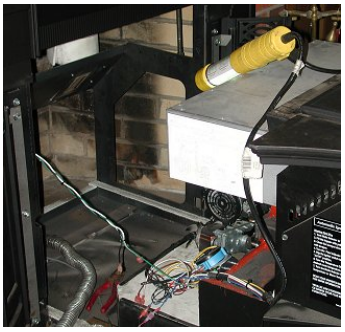

Fig. 36

Fig. 37

Fig. 38

STEP #10: FINAL TOUCHES

Clean the glass and carefully touch up any exterior areas with Stove Bright Paint (Fig. 39). If the ash lip casting requires any paint it is easier to do it while it is separate from the insert. Slide the ash lip casting into the frame making certain the ash lip is sitting on the slide rails on either side (Fig. 40).

Fig. 39

Fig. 40

Congratulations! You've completed your task and are now ready to resume enjoying your Harman Accentra Insert.