

# Maintenance

The Invincible Insert is designed to need little maintenance mechanically. However, **The stove must be cleaned when needed to maintain top performance.**

## AS NEEDED

- \* Fill hopper with pellets and remove ashes.
- \* Clean burn pot (scrape carbon loose with scraper), fig. 14. If the fire is pushing out more in the middle of the burnpot than before or pushing partially burned pellets off the edge, these are indications that the burnpot needs cleaned.
- \* Remove, clean, and inspect flame guide for warpage and replace as needed, fig. 15. The flame guide is an expendable part and may need to be replaced in a few years.
- \* Open burn pot clean-out slide plate by loosening the two thumb screws and rotating the slide plate clockwise, fig. 15. Remove fly ash and replace slide plate.
- \* Clean glass. A dry paper towel will do the job in most cases. If a cleaning fluid is used, do not allow fluid to run down into the slot at the bottom of the corner glass. Always keep these slots clean. (Always wear gloves).

## ANNUALLY (or as needed)

- \* Remove vertical baffles from firebox by first removing the thumb screws. Next rotate the baffles around to the front and remove through the door opening, fig. 16. This exposes the divider baffles which can be removed by first removing the thumb screws, fig. 18.

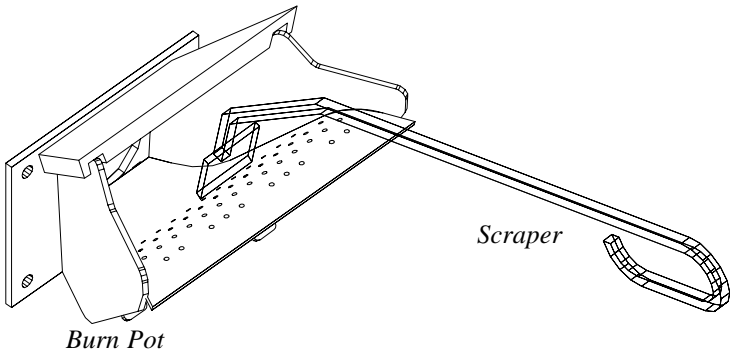


Fig. 14

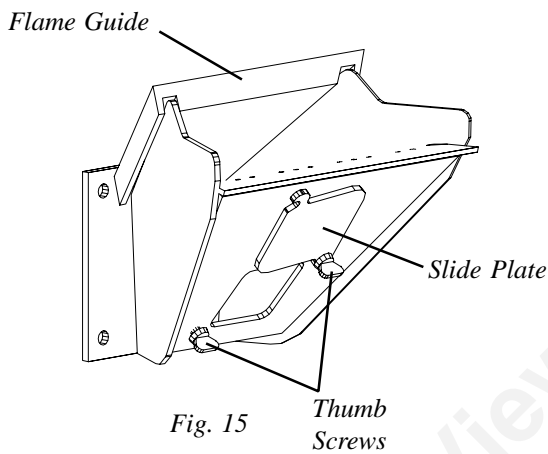


Fig. 15

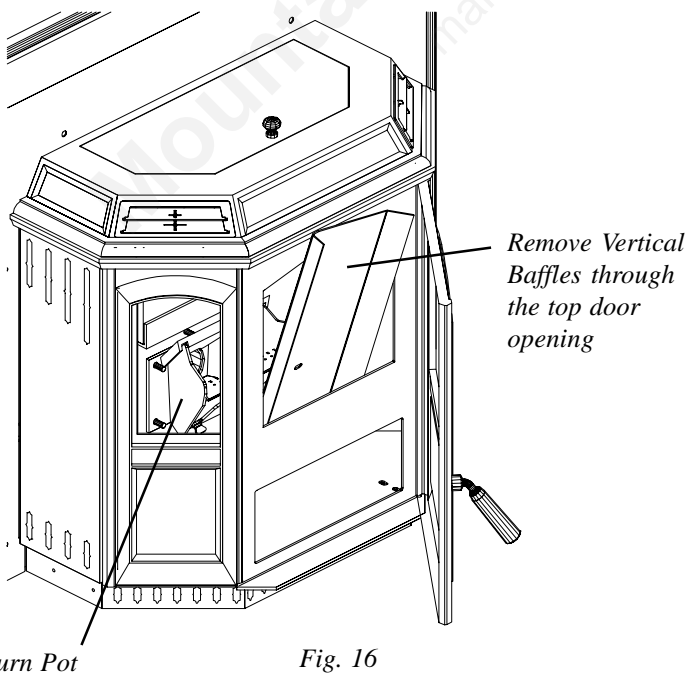


Fig. 16

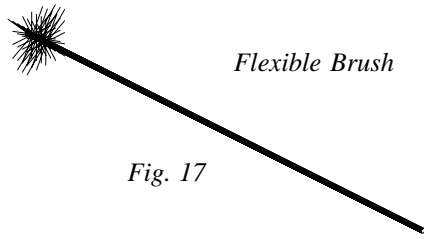


Fig. 17

\*Clean fly ash from heat exchanger tubes with flexible brush (Fig 17). There are two vertical tubes on each side and a horizontal side tube which runs front to back. There is also a horizontal tube across the back which can be cleaned through the rear access port (Fig, 18). After the fly ash is brushed loose, use a vacuum cleaner to extract to extract the residue.

\* Clean combustion blower through access port in rear of unit. In extreme cases the motor assembly can be removed for better access to the blades. Be careful not to tear the gasket. The blower is sealed to the mounting plate with silicone and will need to be pried loose if the blower housing ever needs to be replaced.

\* Clean ESP probe. This can be done by removing the probe or by reaching through the access port (Fig. 19). Inspection can be improved by removing the probe.

\* Check the docking gasket to make sure it is in good condition (Fig 19).

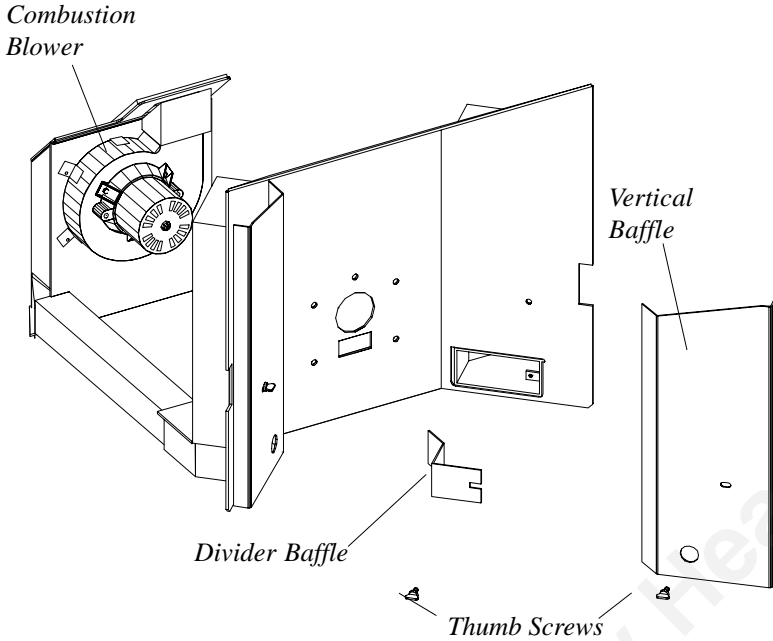


Fig. 18

*Note: Fig. 18 & 19 show heat exchanger and rear firebox only. This is done to better illustrate cleaning.*

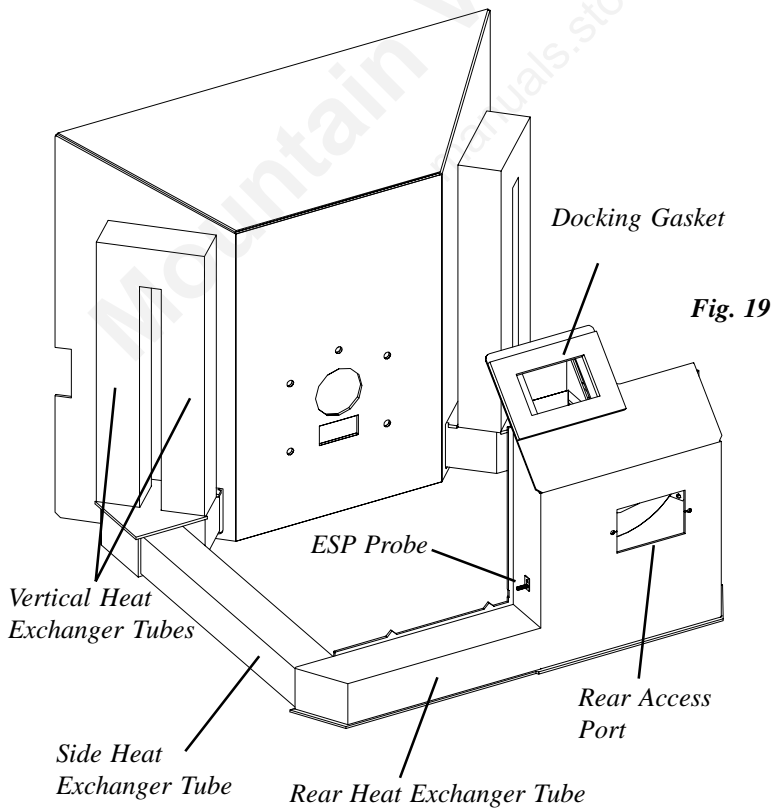


Fig. 19

**This unit has been designed and tested to be operated with the door closed. The door should only be opened to remove ashes. Normally the door open time to remove the ashes is less than 10 seconds and does not pose a problem. Keep hopper lid closed except when loading.**

# Trouble Shooting

## FEEDER DOES NOT FEED

1. No pellets in hopper.
2. Feed motor will not run until ESP senses 165 deg. F. Maybe you did not put enough pellets in the burn pot before lighting the fire.
3. Feed motor has failed.
4. Something is restricting flow in the hopper or causing the slide plate to stick.

## PARTIALLY BURNED PELLETS

1. Feed rate too high.
2. Draft too low. (check burn pot clean- out slide and door gasket).
3. Burn pot or heat exchanger tubes may need cleaned.
4. Combination of all.

## SMOKE SMELL

Seal the vent pipe joints and connection to stove with silicone.

## FIRE HAS GONE OUT

1. No pellets in hopper.
2. Feed rate too low.
3. Something is restricting fuel flow.
4. Feed motor or draft motor has failed.
5. Power failure.

## SMOKE IS VISIBLE COMING OUT OF VENT

1. Air-fuel ratio is too rich.
  - A. Feed rate too high.
  - B. Draft too low caused by a gasket leak.

## LOW HEAT OUTPUT

1. Feed rate too low
2. Draft too low because of gasket leak.
3. Poor quality or damp pellets
4. Combination of 1. and 2.

## STATUS LIGHT ERROR MESSAGES

Refer to page 10.

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## Helpful Hints

### Cleaning Burn Pot

Whenever your stove is not burning, take the opportunity to scrape the burn pot to remove carbon buildup. A vacuum cleaner is handy to remove the residue. Be sure the stove is cold if you use a vacuum.

Carbon buildup can be scraped loose with the fire burning using the special tool provided with your stove. Scrape the floor and sides of the burn pot. The carbon will be pushed out by the incoming fuel. Always wear gloves to do this.

proximately 30 minutes before removing ashes. This will result in a cooler stove and ash pan.

Maximum settings are not needed in most cases. Always remember the maximum feed rate and do not exceed. Too high a feed rate will push partially burned fuel off the end of the burn pot, wasting fuel and causing the glass to get dirty. Using a lower feed rate than maximum is recommended when maximum heat output is not required.

### Removing Ashes

Turn the Stove Temp Dial to number 1 ap-

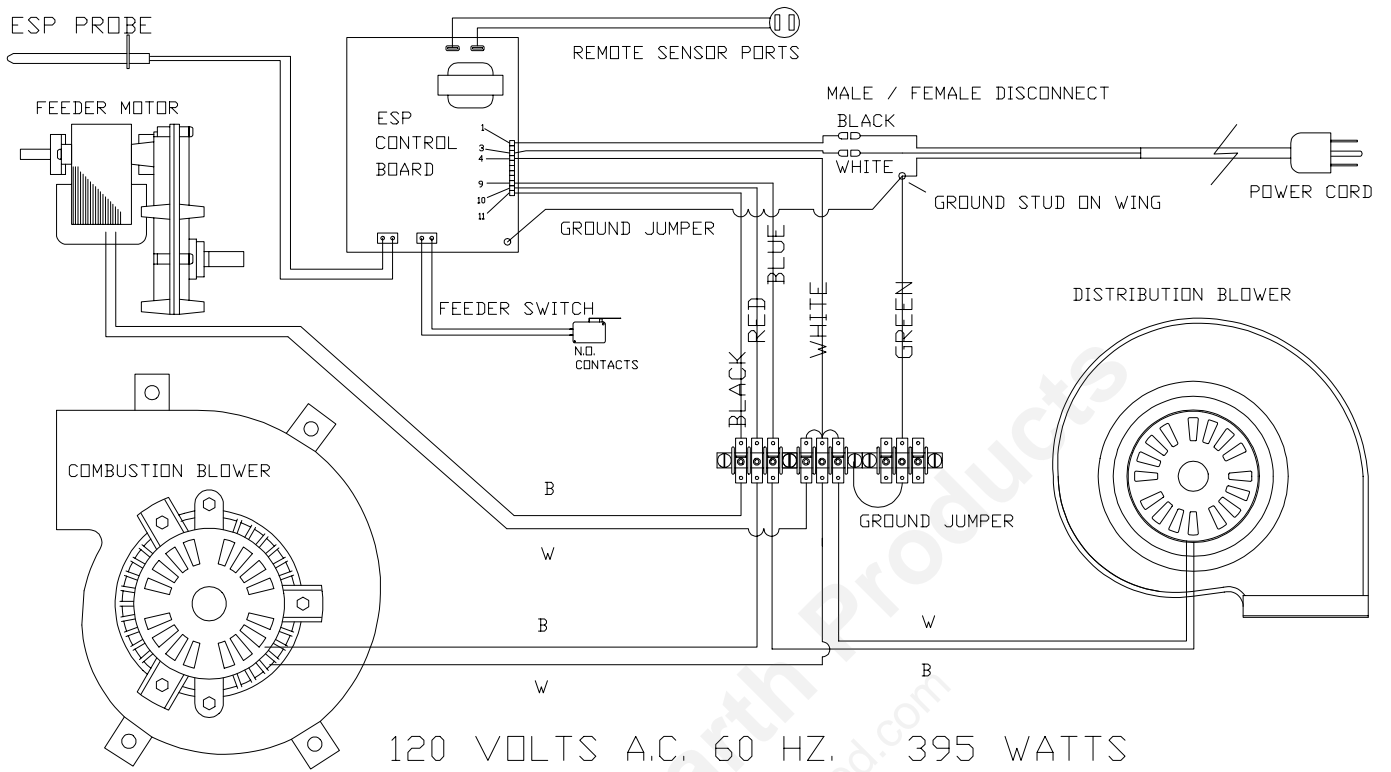
Keep the stove free of dust and dirt.

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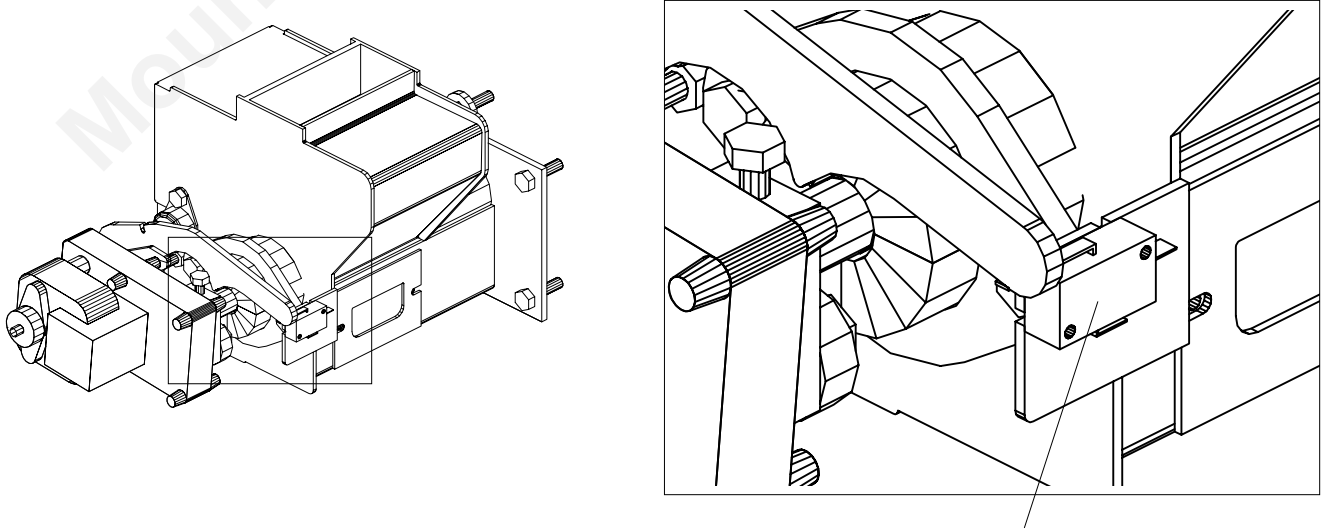
## Fuels

- All Wood pellets
- Cardboard pellets
- Walnut shell pellets
- 75% Corn, 25% Wood pellets

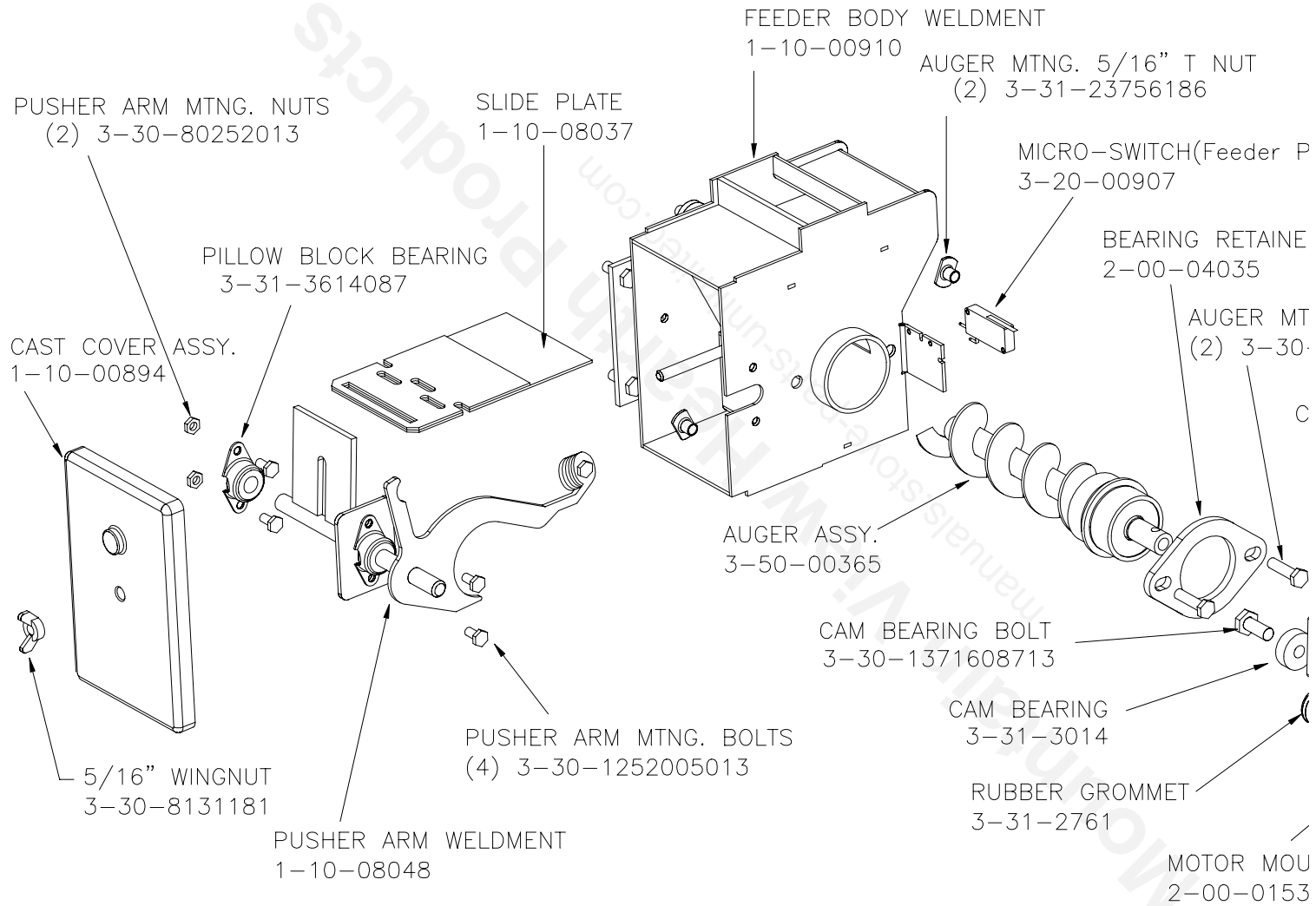
# HARMAN PELLET INSERT WIRING DIAGRAM

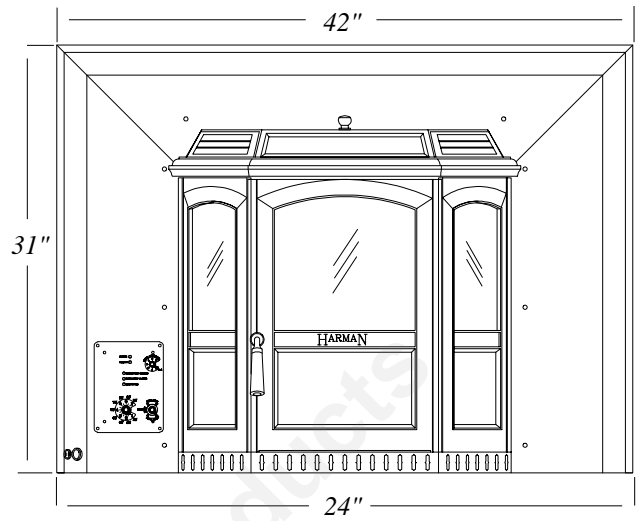
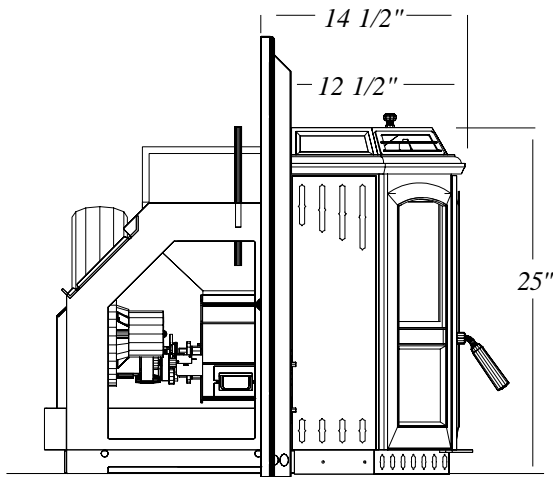


**NEVER PULL THE PLUG  
TO KILL THE FIRE**

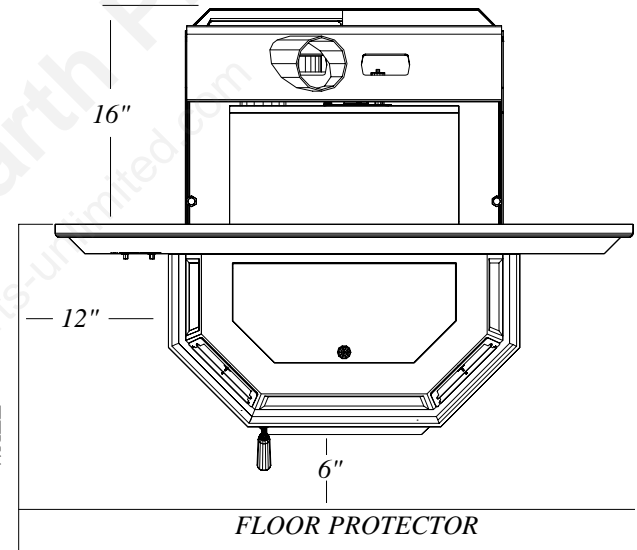


# Invincible Insert Feeder





The INVINCIBLE INSERT operates at varying sound levels and types of sounds depending on the mode of operation. This is normal and is not a problem.



Specifications	
Weight	354 lbs.
Blower Size	190 cfm
Hopper Capacity	40 lbs.
BTU Range	7000 to 53000
Heating Capacity	1700 Square Feet
Fuel	Wood Pellets
Flue Size	4" Round
Fuse Rating	5 AMP

# **HARMAN GOLD WARRANTY**

## **6 YEAR TRANSFERABLE LIMITED WARRANTY (Residential)**

### **1 YEAR LIMITED WARRANTY (Commercial)**



Harman Stove Company warrants its products to be free from defects in material or workmanship, in normal use and service, for a period of 6 years from the date of sales invoice and for mechanical and electrical failures, in normal use and service, for a period of 3 years from the date of sales invoice.

If defective in material or workmanship, during the warranty period, Harman Stove Company will, at its option, repair or replace the product as described below.

The warranty above constitutes the entire warranty with respect to Harman Stove Company products. HARMAN STOVE COMPANY MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING "ANY" WARRANTY OF MERCHANTABILITY, OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No employee, agent, dealer, or other person is authorized to give any warranty on behalf of Harman Stove Company. This warranty does not apply if the product has been altered in any way after leaving the factory. Harman Stove Company and its agents assume no liability for "resultant damages of any kind" arising from the use of its products. In addition, the manufacturer and its warranty administrator shall be held free and harmless from liability from damage to property related to the operation, proper or improper, of the equipment.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

THESE WARRANTIES APPLY only if the device is installed and operated as recommended in the user's manual.

THESE WARRANTIES WILL NOT APPLY if abuse, accident, improper installation, negligence, or use beyond rated capacity causes damage.

HOW TO MAKE A CLAIM - Any claim under this warranty should be made to the dealer from whom this appliance was purchased. Then contact is made with manufacturer, giving the model and serial numbers, the date of purchase, your dealer's name and address, plus a simple explanation of the nature of the defect. Extra costs such as mileage and overtime are not covered. Nuisance calls are not covered by these warranties.

THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS - REPAIR AND/OR REPLACEMENT AT HARMAN STOVE COMPANY'S OPTION AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

WARRANTY EXCLUSIONS: Failure due, but not limited to, fire, lightning, acts of God, power failures and/or surges, rust, corrosion and venting problems are not covered. Damage and/or repairs to cabinets and all exterior components, including but not limited to, remote controls, filters, fuses, knobs, glass, gaskets, door packing, fire brick or tile, ceramic logs sets, paint, batteries or battery back-up and related duct work are not covered. Additional or unusual utility bills incurred due to any malfunction or defect in equipment and the labor cost of gaining access to or removal of a unit that requires special tools or equipment are not covered. Maintenance needed to keep the stove in "good operating condition" is not covered. This includes, but is not limited to, cleaning, adjustment of customer controls and customer education. Labor, materials, expenses and/or equipment needed to comply with law and/or regulations set forth by any governmental agencies are not covered.

This Warranty provides specific legal rights and the consumer may have other rights that vary from state to state.

In the event of change in ownership, the remaining portion of this warranty may be transferred to the new owner by sending the new owner information and a transfer fee of \$25.00 US to the Harman Stove Company.

PLEASE READ THE LITERATURE BY THE MANUFACTURER FOR THE VARIOUS ACCESSORY DEVICES. THE MANUFACTURER WARRANTS THESE ACCESSORY DEVICES, NOT HARMAN STOVE COMPANY OR THEIR WARRANTY ADMINISTRATOR. FURTHERMORE, THESE ACCESSORY DEVICES MUST BE INSTALLED AND USED ACCORDING TO THE RECOMMENDATIONS OF THE MANUFACTURER.

REMEDIES - The remedies set forth herein are exclusive and the liability of seller with respect to any contract or sale or anything done in connection therewith, whether in Contract, in tort, under any warranty, or otherwise, shall not, except as herein expressly provided, exceed the price of the equipment or part of which such liability is based.

CLARIFY - The above represents the complete warranty, which is given in connection with stoves, manufactured by Harman Stove Company. No other commitments, verbal or otherwise, shall apply except by a written addendum to this warranty.