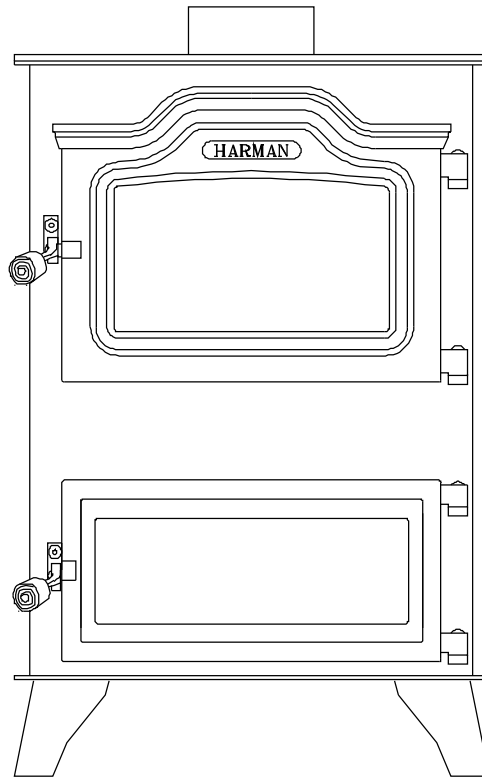


# Installation & Operating Manual

## The Harman Magnum Stoker



Tested by:



**DO NOT BURN WET COAL.**

**R15**

### **SAFETY NOTICE**

**PLEASE READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW ROOM HEATER. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.**

**FOR USE IN THE U.S. AND CANADA.**

**IF THIS HARMAN STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW INSTALLATION DIRECTIONS.**

**CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.**

**CONTACT YOUR LOCAL AUTHORITY (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ETC.) TO DETERMINE THE NEED FOR A PERMIT.**

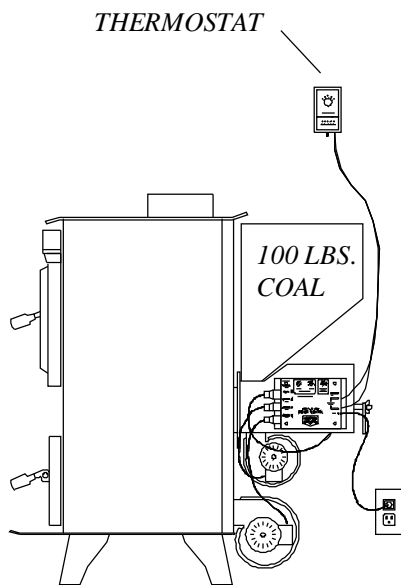
**CETTE GUIDE D'UTILISATION EST DISPONIBLE EN FRANCAIS. CHEZ VOTRE CONCESSIONNAIRE DE HARMAN STOVE COMPANY.**

**SAVE THESE INSTRUCTIONS.**

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# INTRODUCTION



This all new design by Harman features the Verti-Flow Stoker System. This unique system provides a very wide range of heat output. The Verti-Flow Stoker can operate from 5000 to over 85,000btu's automatically.

This unit has a 100 pound coal capacity and can provide 85,000btu's for 17 hours or stretch out to over 100 hours when less heat is required.

A thermostat is used to regulate the heat output of the stove. When no heat is needed, the stoker stops and only runs to maintain the fire. If heat is needed, the thermostat can turn on the stoker at any time. After the thermostat is satisfied, the stoker will turn off for twelve minutes and then run for four minutes.

The four minutes "on" and twelve minutes "off" is a setting that will perform well under most conditions. This "on" and "off" time can be changed to provide more or less heat during the maintenance cycle.

## WARNINGS

**Never sleep in the same room with any coal burning stove.**

This unit must be connected to a chimney capable of providing a .04 minimum draft reading. **WARNING!!** If the chimney has no draft, coal gases may escape from the unit and stovepipe. **These gases are toxic and can be fatal.** It is recommended that a gas detector be installed to warn of this condition. Check with your local stove dealer for purchasing a gas detector.

## TESTING INFORMATION

This unit has been tested and approved by OMNI-TEST Laboratories in accordance to the listed codes.

Listed By Reaction Oregon USA  
OMNI-Test Laboratories, Inc. Report #135-S-09-4  
Tested To: UL 1482, September 1987

MODEL: MAGNUM STOKER  
 Serial Number   
 LISTED SOLID FUEL (COAL) ROOM HEATER

**CONTACT YOUR LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA.**

**PREVENT HOUSE FIRES:**  
 Install and use only in accordance with manufacturer's installation and operation instructions and local codes. In absence of any local codes, installation must meet minimum requirements of NFPA 211 in USA. Refer to manufacturer's instructions and local codes for precautions required for passing chimney through a combustible wall or ceiling. Inspect and clean chimney system frequently in accordance with manufacturer's instructions.

**FOR USE WITH COAL ONLY.**  
 Don't connect this stove to a chimney serving another appliance.  
 Flue connector pipe must be 6" diameter, minimum 24 MSG black or 25 MSG blue steel.  
 6" barometric damper required for installation. Do not operate if draft exceeds 0.10.  
 Chimney must be factory built 12SHT or masonry.  
 NOTE: Replace glass only with 5mm ceramic glass available from your dealer.  
 Inspect and clean chimney frequently. Under certain conditions of use, creosote buildup may occur rapidly.  
**DO NOT OVERFIRE - IF HEATER OR CHIMNEY CONNECTOR GLOWS, YOU ARE OVERFIRING.**

**CLEARANCE TO COMBUSTIBLE SURFACES**

A - Unit to Sidewall	24"
B - Stove to Backwall	24"
C - Chimney Connector to Sidewall	34"
D - Chimney Connector to Backwall	18"
E - Hopper to Backwall	3"
F - Floor Protector, Side and Rear	8"
G - Floor Protector, Front	16"
H - Pipe Connector to Ceiling	18"

BACKWALL  
SIDEWALL

FLOOR PROTECTOR  
16" FRONT

Floor protector must be a 3/8" min. thickness, non-combustible material or equivalent, extending beneath heater and to front/sides/rear as indicated on the diagram.

\* Not Tested - NFPA Guidelines

ELECTRICAL RATING: 115VAC, 60 HZ, 2.1 AMPS  
 DANGER: Risk of electrical shock. Disconnect power supply before servicing. Route power cord away from unit. Do not route power cord under or in front of appliance.

**CAUTION: RISK OF EXCESSIVE TEMPERATURES AND DAMAGE TO UNIT. PROPER OPERATION REQUIRES THE USE OF ONLY RICE SIZE ANTHRACITE COAL.**

**CAUTION:** HOT WHILE IN OPERATION. DO NOT TOUCH. KEEP CHILDREN AND CLOTHING AWAY. CONTACT MAY CAUSE SKIN BURNS. SEE NAMEPLATE AND INSTRUCTIONS. KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIALS A CONSIDERABLE DISTANCE AWAY FROM THIS APPLIANCE.

Manufactured by: Harman Stove Co.  
 352 Mountain House Rd. • Halifax, PA 17032

Exempt From EPA Certification under 40 CFR 60.531

Date of Manufacture

2004 2005 2006 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

# READ THIS

**Always empty hopper when not burning for more than a week. When left standing for long periods with wet coal, the pusher block will rust and corrode, causing it to seize. If the stoker is then turned "on", damage to the pusher assembly and feed motor will result. This will be considered neglect and will void the warranty on those parts. Always check to see if moving parts are free before using if the unit has not been burned for a period of time. This can best be determined by shaking the adjuster rod.**

## Wet Coal

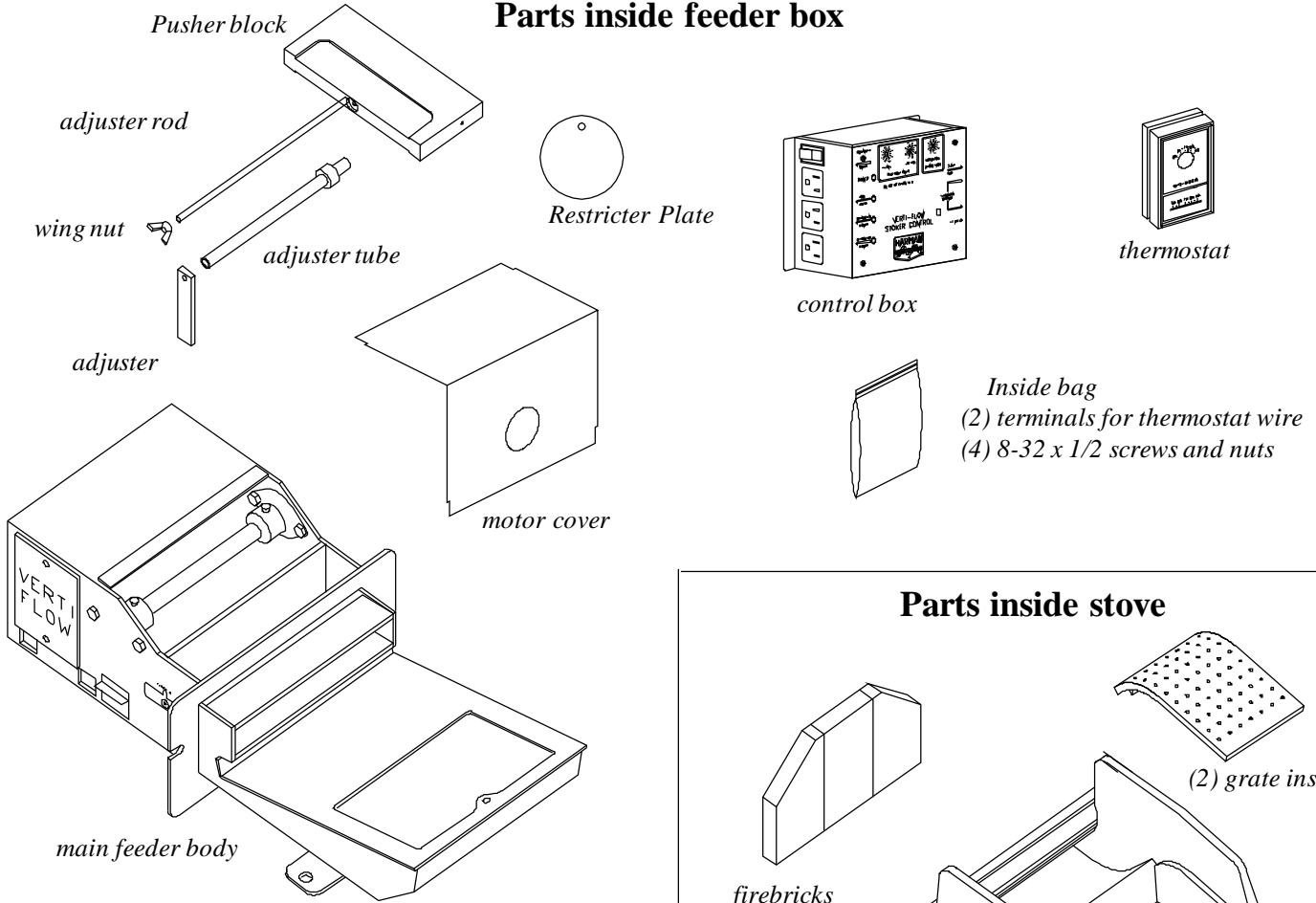
Freshly delivered coal is watered down to eliminate dust when loading and unloading. Wet rice coal does not flow as well as damp or dry coal. We do not recommend burning wet coal, however, we realize if it's the only coal you have it is better to burn it than freeze. If you must burn wet coal, the feed rate must be increased in order to get the same size fire. As the wet coal in the hopper dries out, the feed rate must be decreased. If you don't, the feeder will over-fire the stove and waste coal. Doing this once or twice a year will not damage your stove as long as it is hot and burning. The damage is caused when the hopper has wet coal in it when the stove is cold. This will cause rust and corrosion and it is totally the operator's fault.

## Damp Coal

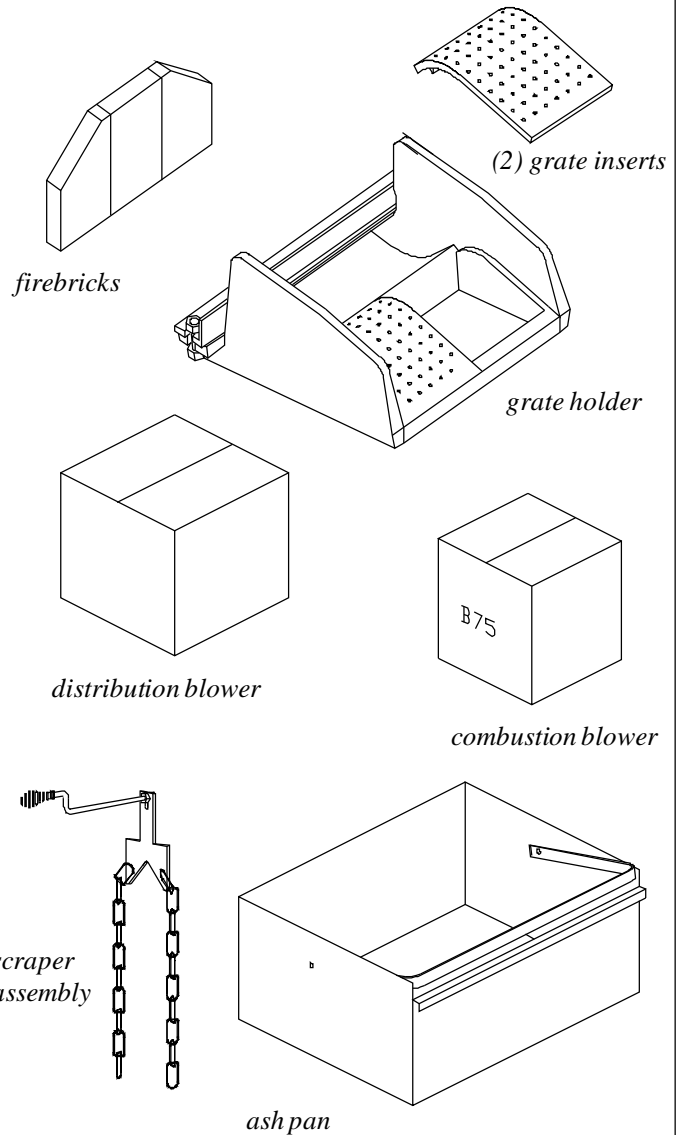
Usually after the coal dries for three or four days, depending on conditions, it will flow very well and feed properly. Feed rate will be the same as dry coal.

**Damp coal also should not be left in the hopper of a cold stove.**

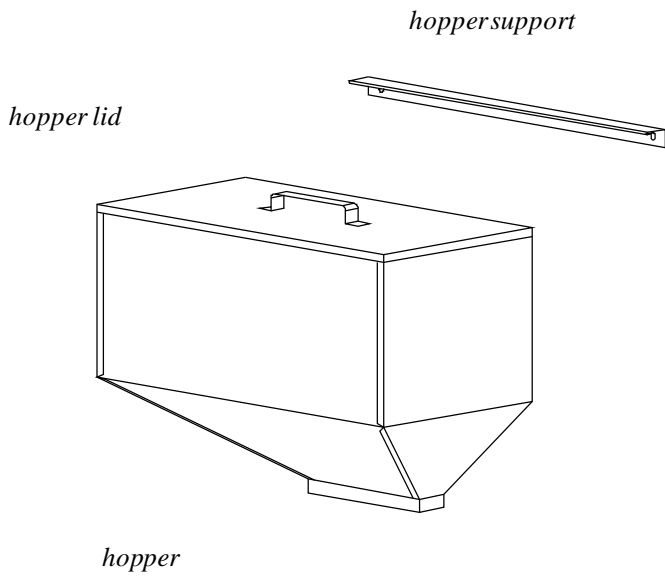
## Parts inside feeder box



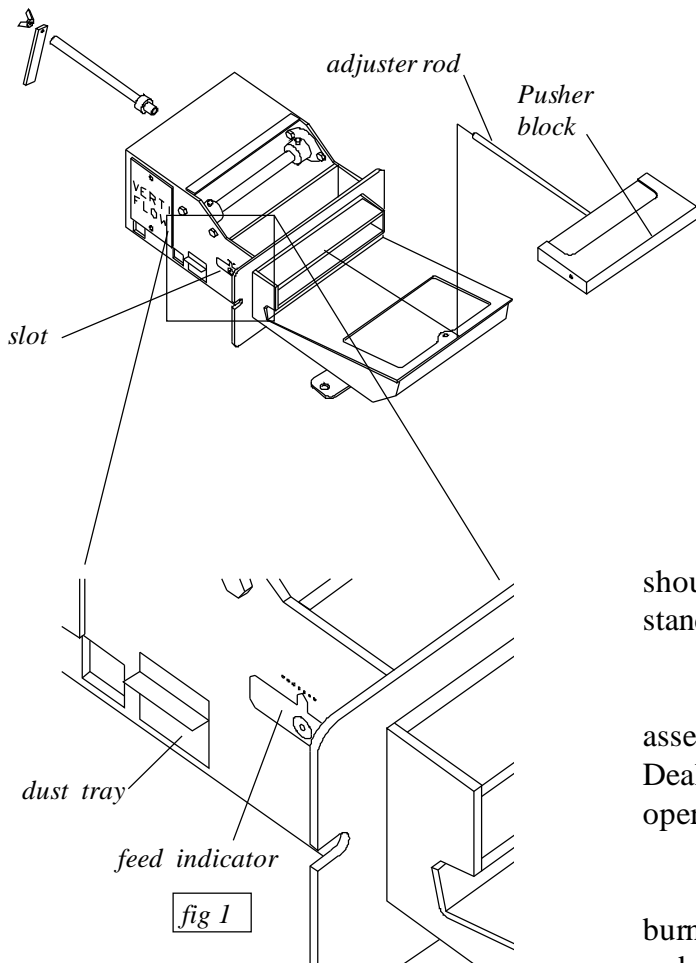
## Parts inside stove



## Parts inside hopper box



# ASSEMBLY



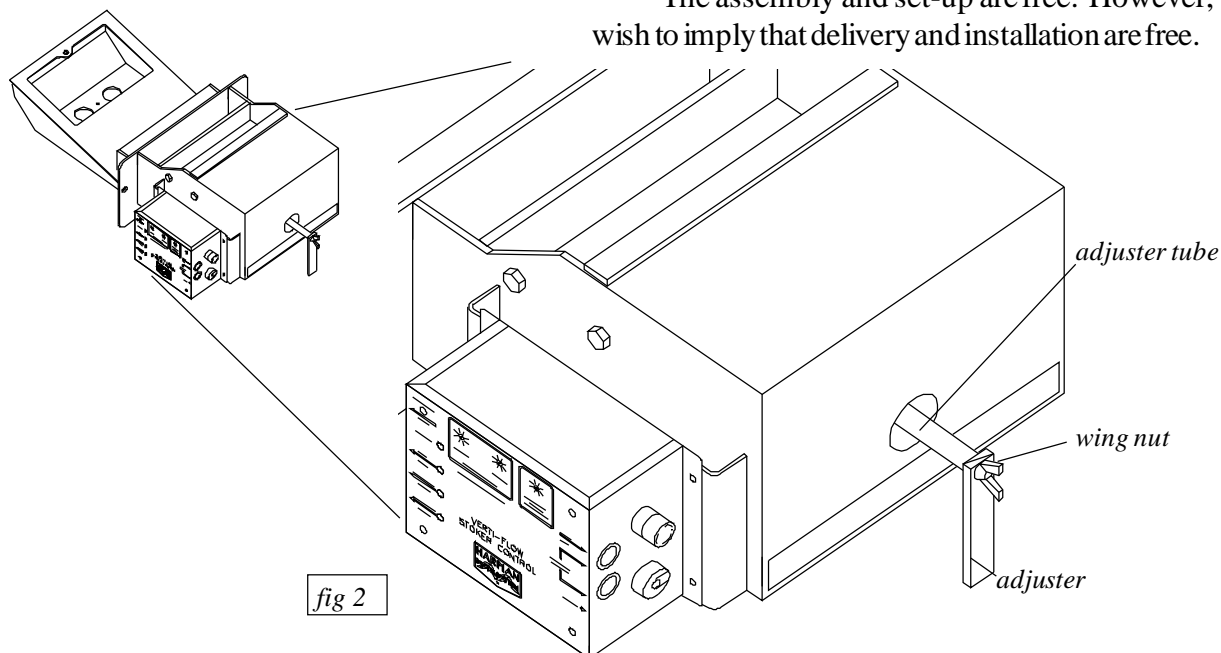
First, a note to you, the customer.

This section on Assembly is in the manual for your information should you ever need to move your unit and to help you understand how each part is installed.

It is not intended by Harman Stove Company that you assemble this unit. This job is to be performed by your Harman Dealer who has been taught how to assemble and explain the operation of your new stoker to you.

Your dealer will also take a draft reading with the stoker burning. This reading must be recorded on the warranty coupon in order to activate your warranty.

The assembly and set-up are free. However, we do not wish to imply that delivery and installation are free.



## Feeder

Begin assembly by sliding the pusher block with the adjuster rod from the front through the slot shown in fig. 1. Be sure the pusher block is turned with the bolt hole to feed indicator side.

## Blowers

Next, hold pusher block in the most rearward position and slide the adjuster tube over the adjuster rod until it bottoms out on the pusher block. Thread the adjuster over the adjuster rod. Thread wing nut on the end of the adjuster rod.

Make sure the gasket is in place on the feeder opening on the rear of the unit, as shown in fig 3. Insert the stoker into the opening in the rear of the unit. Bolt fast and tighten with (2) 5/16 X 1 1/4 bolts.

## Control Box

Install the smaller of the two blowers on the bottom of the feeder by sliding it into the bracket as far as it will go. Install restricter plate on blower as shown below in Fig. 4.

Slide the larger blower into place on the bottom rear

## Cleanout Scraper

Install scraper as shown below with locking nut on each side of the scraper. Tighten nuts when in the rear most position to assure alignment. Cycle rod in and out to clean unit.

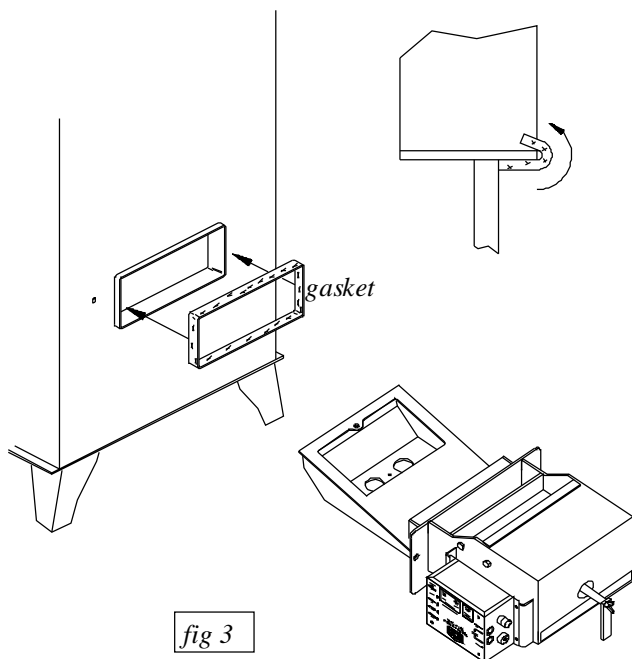
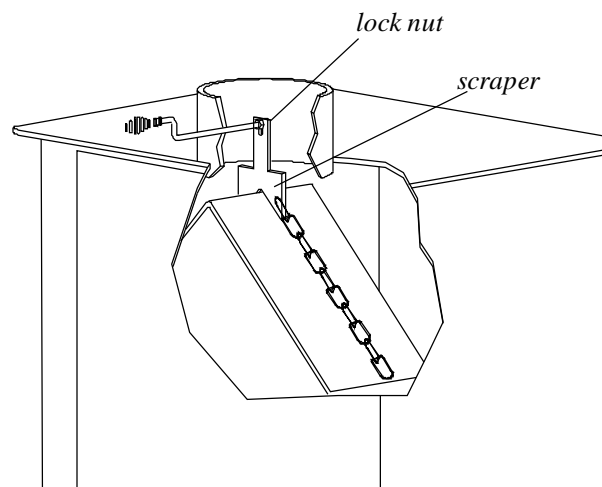


fig 3

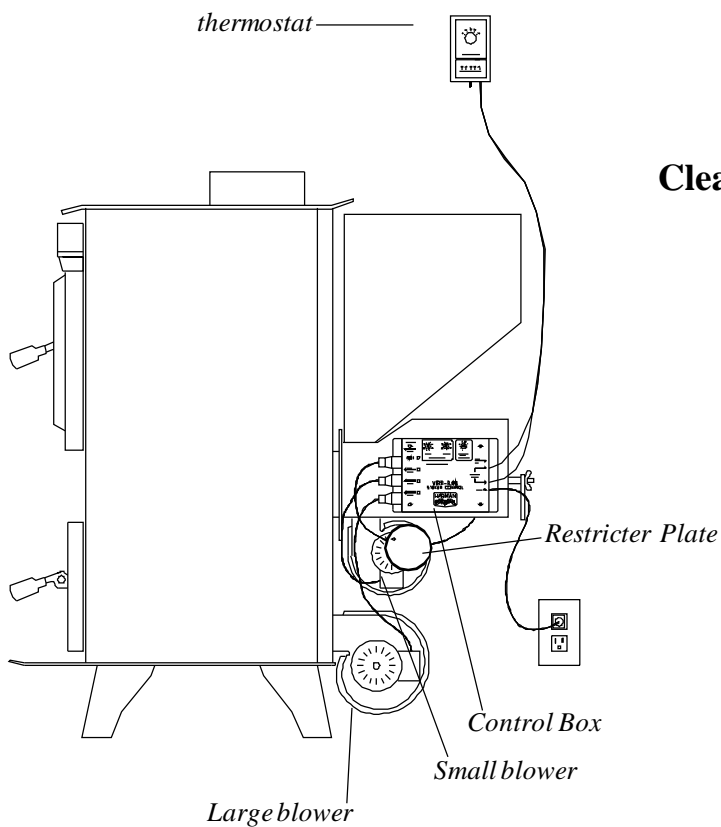
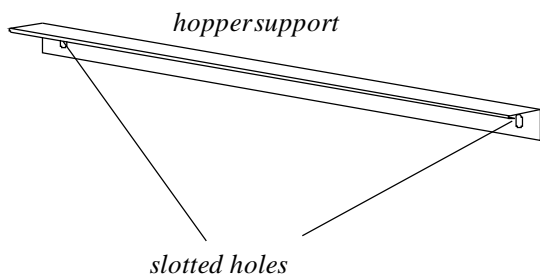


fig 4

## Hopper

Install hopper support on top rear of stoker.

Note that bolt holes in hopper support are slotted for adjustment. Insert small end of hopper into the hopper slot on the feeder as shown. Push top of hopper under the hopper support, causing the slot on the bottom side of the support to hook onto the hopper. The hopper support will spring up slightly for the hopper to go under. If you have difficulty getting the hopper under, adjustment may be necessary. Use slotted holes shown at left. Now the feed motor cover can be installed.



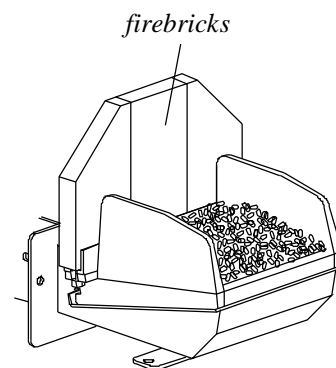
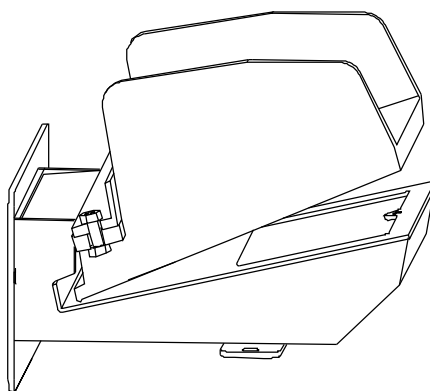
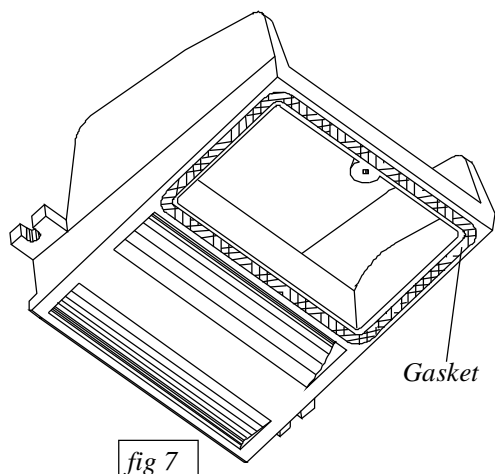
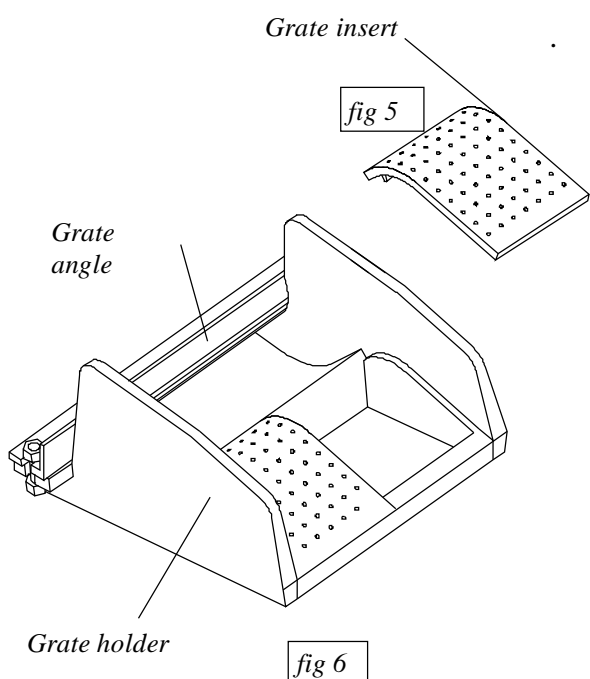
## Grate

The grate is composed of four pieces: the grate holder, (2) grate inserts, and grate angle. The grate angle is bolted to the grate holder with (2) 3/8 X 1 1/4 bolts. Before installing the grate holder, 3/8" round gasket must be checked in the groove on the bottom side of the grate holder, as shown in fig. 7. Check to be sure the gasket has not been damaged.

The grate holder must be installed through the top door opening after the feeder has been installed.

Locate the flange at the rear of the grate holder into the slot on the feeder as shown below. Bolt the front end down with the 1/4 x 20 Allen bolt and nut provided. The rear end will be locked in place by the flange. Before tightening the bolt be sure the grate holder is back as far as possible and centered side to side on the feeder opening.

Install grate inserts as shown at left. Divide the spaces between the inserts equally and be sure they are not tight. The spaces are needed for expansion.

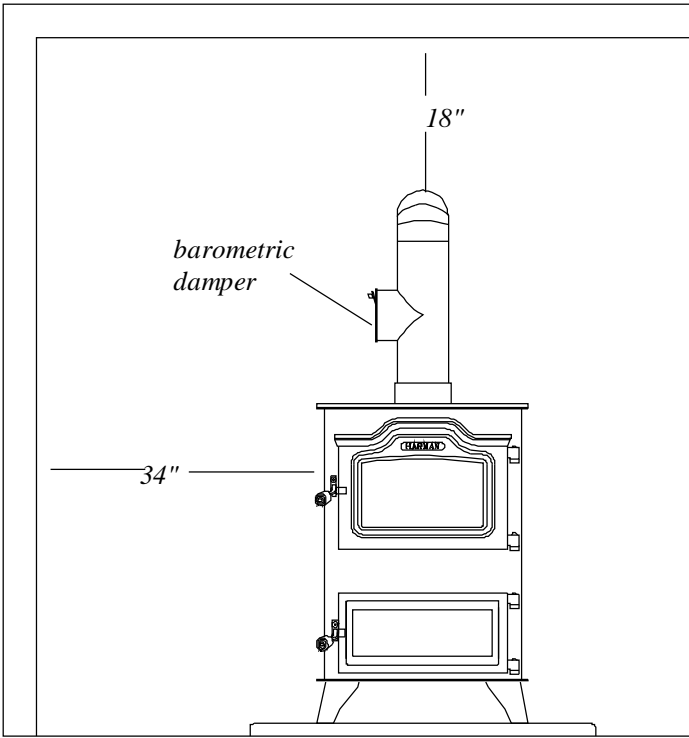


### IMPORTANT

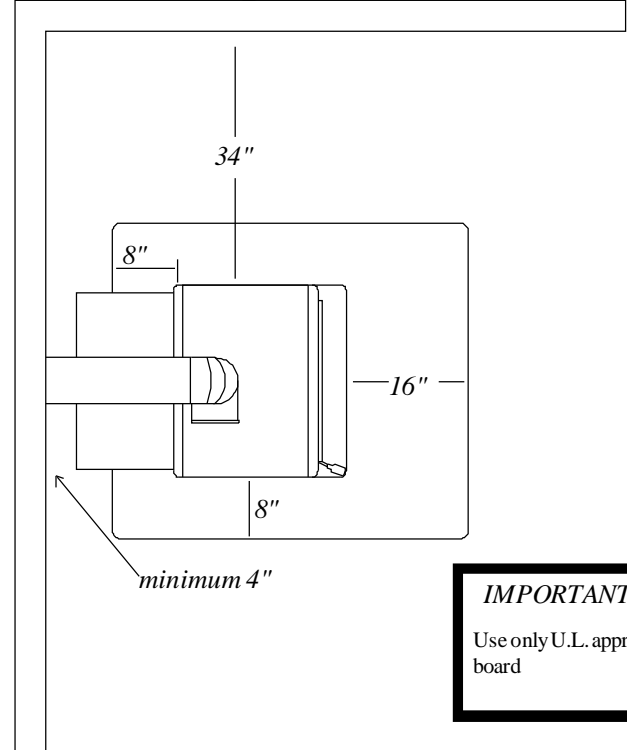
Be sure the grate holder is centered and back as far as possible.



### Front

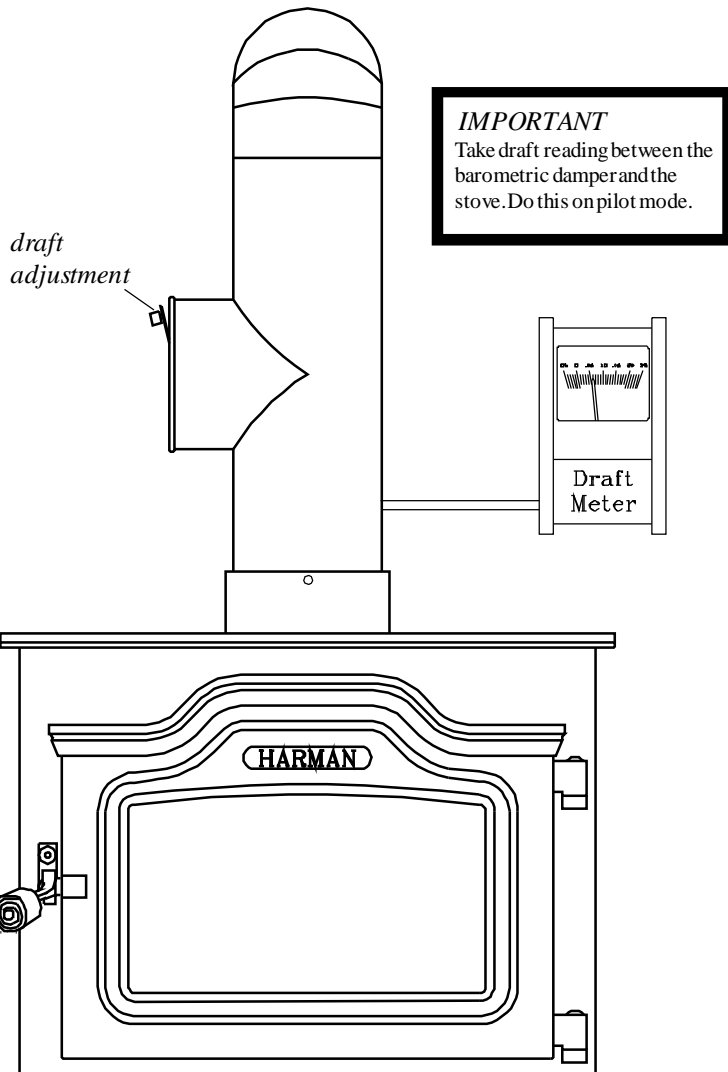


### Top View



**IMPORTANT**  
Use only U.L. approved floor board

### Clearance to Combustibles



## INSTALLATION

Place the stoker a minimum of 4" to a combustible wall from the rear of the hopper and a minimum of 34" from the sides. The stove should be placed on a noncombustible floor. Install a 6" stove pipe from flue opening to chimney with a barometric damper. Secure all pipe joints with sheet metal screws. Plug power cord into a 120 volt receptacle.

Refer to the section on operation to light a fire. With the stove burning and stabilized set barometric damper at .04 to .06 on the draft meter. We do not expect you to own a draft meter. Therefore, have your dealer do set-up and fine tuning.

If your chimney will not produce .04 on the draft meter, a draft inducer should be installed by your dealer. The draft inducer will provide the additional draft needed for proper operation.

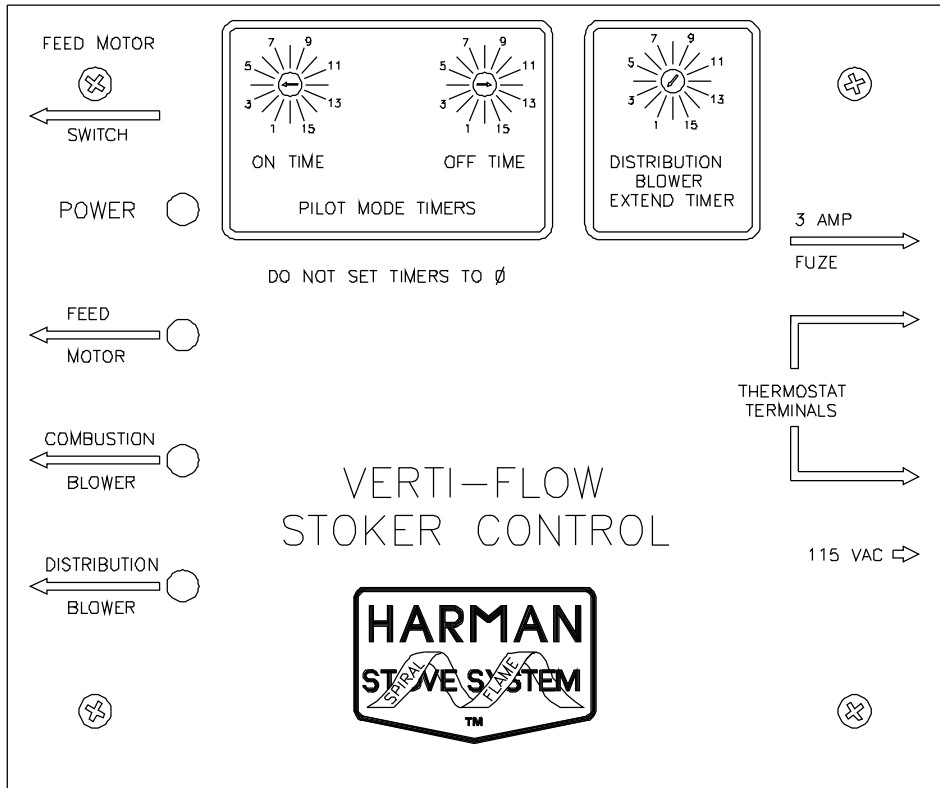
### Fine Tuning Draft

With fire burning and stablized take draft reading in flue pipe and note the reading. Next take a reading in the fire box by removing the bolt in the front center of the unit.

While watching the draft meter, close the restricter plate on the combustion blower slowly, until the needle reads about the same as it did on the flue. An example would be a flue reading of .05 and a firebox reading of .02. Close the restricter plate until the firebox reading is .04 to .05. Closing the restricter plate will reduce the positive pressure from the blower and increase the negative pressure in the firebox.

### WARNING!

If draft is at .00, carbon monoxide will escape into the room. Too much carbon monoxide can kill you.



Timer settings shown above will perform well in most cases.

### Verti-Flow Stoker Control

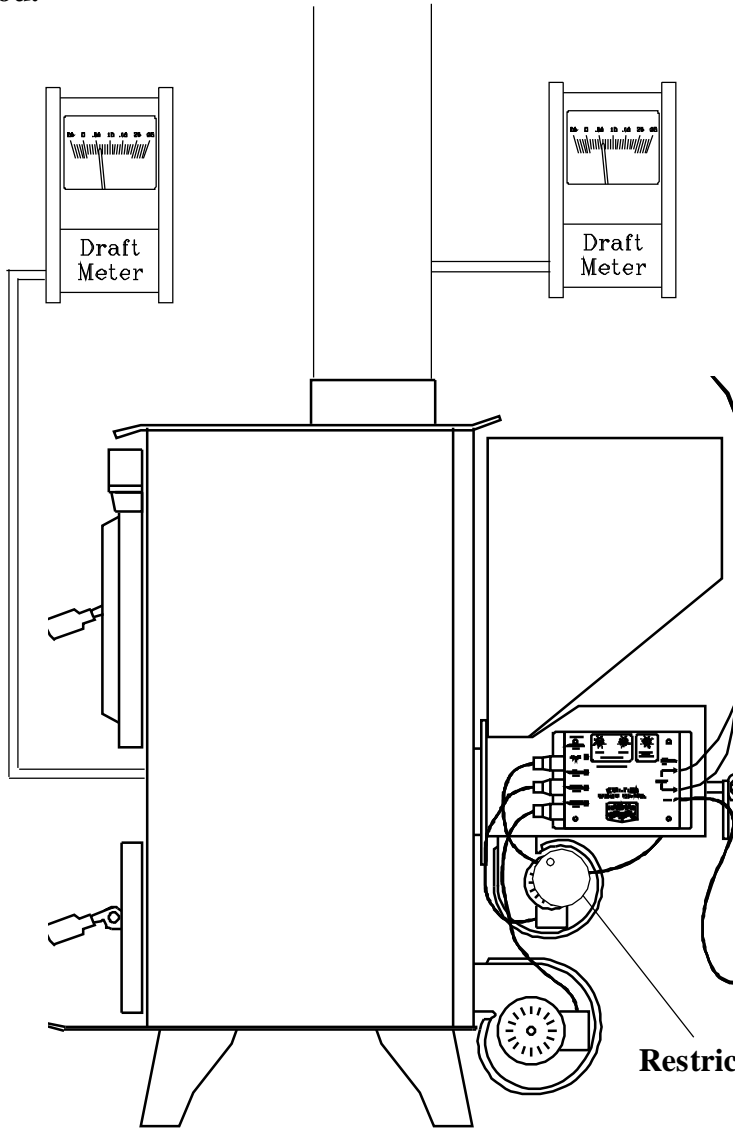
This section describes the features and operations of The Harman Verti-Flow Stoker Control. The timers are adjustable from 0 minutes to 15 minutes in 1 minute steps. There are red lights on the front panel to show proper operation of the timer. One indicator shows power is applied to the unit. The other 3 indicators show when power is available at the adjacent receptacle.

The stoker control will be mounted on the side panel of the feeder directly below the coal hopper. The three receptacles and switch will be facing forward. The power cord, 3 AMP fuse access port and the thermostat connections to the rear.

The top receptacle provides power to the coal feeder motor. Thus, the plug from the coal feeder motor should be inserted into this receptacle.

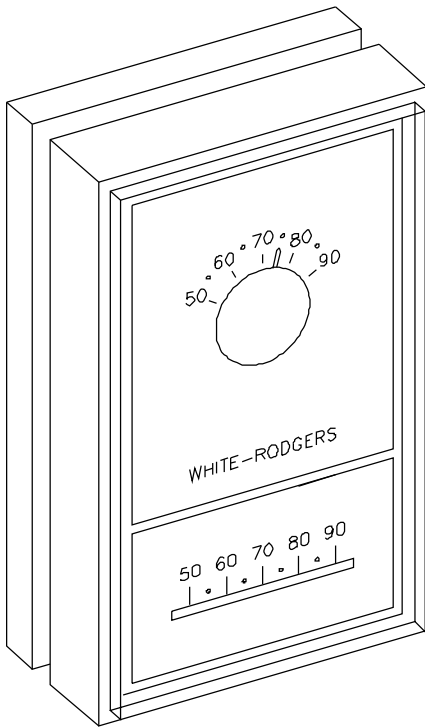
The center receptacle provides power for the combustion blower motor. Thus, the plug from the combustion blower should be inserted into this receptacle.

The bottom receptacle provides power for the distribution blower motor. Thus, this final receptacle should be connected to the plug from the distribution blower motor.



Restrictor Plate

DO NOT BURN WET COAL



*Place thermostat in a central location.  
Do not place it in an isolated room with  
poor air circulation*

of the stove. NOTE: The bolt holes on the blowers are not used.

Install the control box on mounting pad provided on the side of the stoker with (4) #8-32 bolts. NOTE: The receptacles go toward the front.

Plug the gear motor into the top, the small combustion blower into the middle, and the large distribution blower into the bottom receptacle on the control box as shown. More on the control later.

The thermostat connections on the back panel of the Stoker Control are .25 inch male quick connect terminals. The mating connectors (supplied) should be .25 inch female quick connector terminals. The wire should be no smaller than 22 gauge.

The thermostat connections should only be connected across the thermostat switch inside the thermostat unit. This switch is the type which opens (turns off) when the set point temperature is reached, and closes (turns on) when the room temperature falls below the temperature. (This is the type supplied with the unit.)

The AC power cord should be the last connection made. The power cord should be plugged into a 115 AC volt 60 hertz wall outlet, which has proper grounding available. This 115 AC volt wall outlet should also be capable of handling 3 amps of current because this is the maximum amperage this unit will draw.

### **Basic Theory of Operation**

After the stoker control is properly installed, operation of the stove may begin. The stove operation is controlled from the thermostat. This means if the room temperature is cooler than the temperature set on the thermostat, the stove will begin operation with the stoker control in the inactive state. Once the room temperature reaches the thermostat set point temperature, the combustion blower and coal feeder will turn off, but the distribution blower will still operate. At this point, the stoker control has taken control of the stove's

operation. The timer will continue to control the stove until the room temperature drops below the thermostat set point temperature. At this time, the stove will operate constantly until the room temperature reaches the thermostat set point again and the cycle repeats.

It should be noted that the timer adjustments do have a 0 minute position. The default conditions for these adjustments set for 0 minutes are as follows: "on time" 0, "off time" 0 unit will run constantly; "on time" greater than 0, "off time" 0, unit will run constantly; "on time" 0, "off time" greater than 0, unit will cycle on and off with the "off" time being the controlling timer. It is not recommended that the 0 minute time be used on any of the adjustments. The 0 minute time is an invalid condition on the stoker control.

When the stoker control first takes control in the maintenance cycle, two timers are activated, the "distribution blower" timer and the unit "off" timer.

The "distribution blower" timer is an off delay timer. This means after the combustion blower and coal feeder turn off the distribution blower will operate for a programmed period of time before turning off. The stoker control timing range for this function is 0 minutes to 15 minutes.

The purpose of having the off delay timer on to distribution blower is to exhaust the excess heat in the stove that is inherent after the combustion blower and coal feeder turn off. For this reason, it is not recommended that a 0 time setting be used. This will minimize any possibility of overheating the stove.

The other timer, which begins when the stoker control first takes control, is the "off" timer. This function of the stoker control is adjustable from 0 minutes to 15 minutes. Programming this timer with a valve lets the stoker timer know how long to keep the combustion blower and the coal feeder turned off between maintenance cycles.

Once the off timer has finished timing and the room temperature has not fallen below the thermostat set point, the "on" timer function will begin. The programmable range for this function is also 0 minutes to 15 minutes. Once the "on" timer has started, all output (combustion blower, distribution

blower, coal feeder) receptacles will become active for the programmed amount of time. When "on" timer has finished timing, the stoker control will recycle and the "distribution blower" timer along with the "off" timer will once again become active.

The final operator interface is the switch on the front panel adjacent to the receptacles. This switch in the "on" position allows power to the coal feeder motor receptacle. In the "off" position, power will be removed only from the coal feeder motor receptacle. This switch in the "off" position, will stop the coal from moving across the grates and allow for easy lighting of the fire. Once the fire has been established move the switch to the "on" position.

### How to Operate the Stoker Control

There are four operator interfaces on the stoker control. The operator interfaces are one rocker switch and three, 16-position rotary switches.

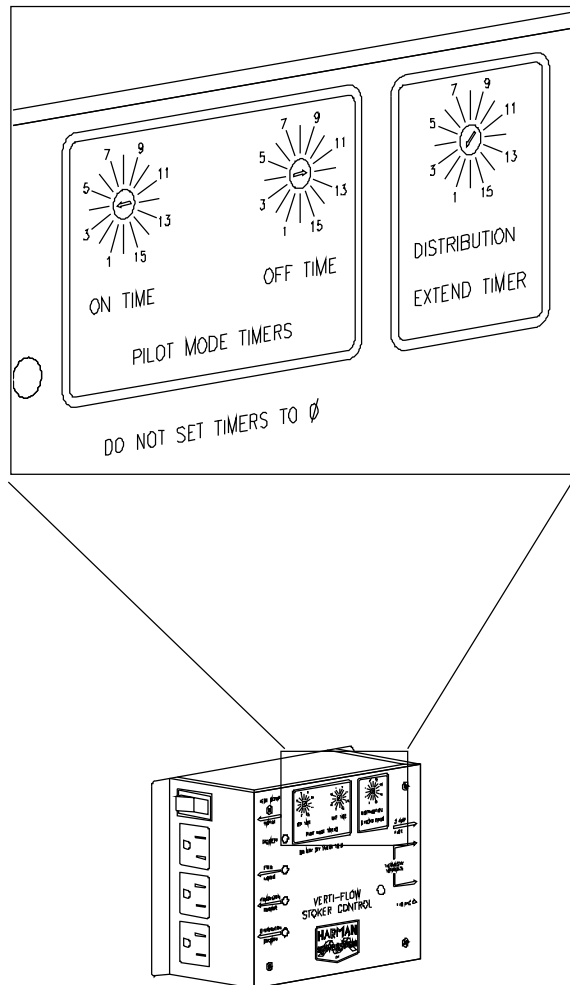
The rocker switch is a power switch that controls only the coal feeder motor. For normal operation, this switch should be placed in the "on" position. This switch's operation can be verified by a small red light above the coal feeder receptacle being on when the switch is on.

If the stove needs to be shut down, simply place the rocker switch in the "off" position. The small light above the coal feeder receptacle will turn off.

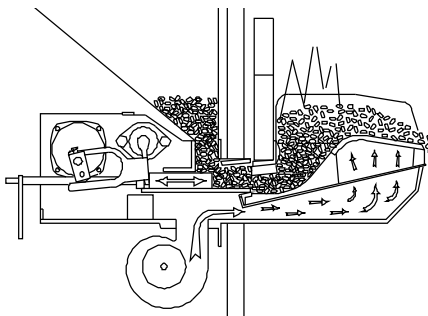
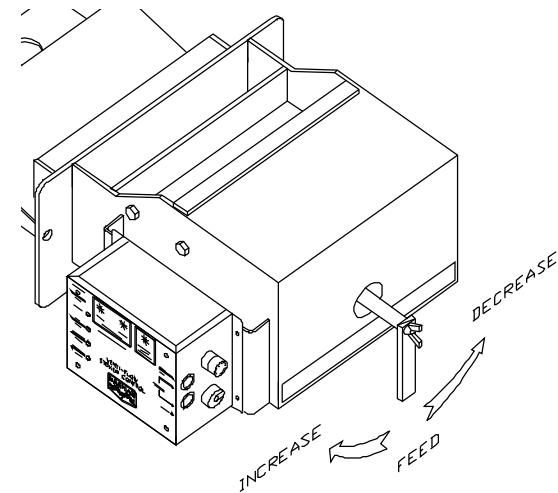
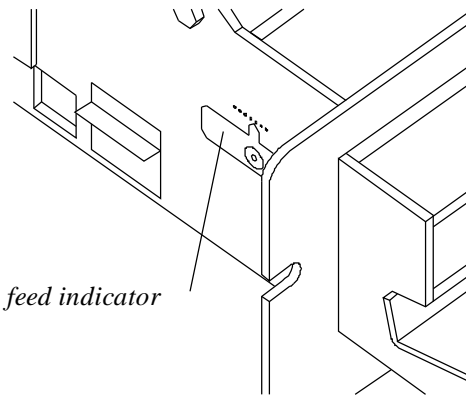
The other three switches are the customer's adjustments for the timers (on time, off time, distribution blower time). These switches can adjust each timer individually from 1 minute to 15 minutes in 1 minute increments. Do not set timers to 0.

The "on" time and the "off" time should be programmed to a minimum time that keeps the coal burning during the maintenance cycling mode. The distribution blower time should be programmed for a time which is long enough to move the excess heat from the stove to the room heated. If this time is programmed for a longer time than the "off" time the distribution blower will operate constantly. This will have no damaging effect on the stoker control.

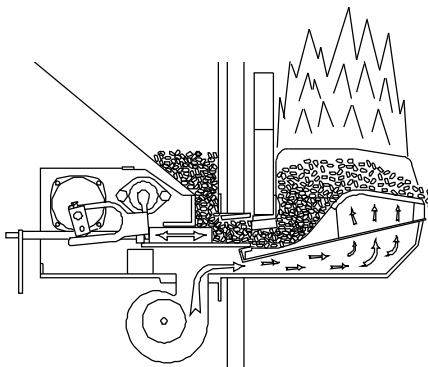
Recommended timer settings to start are, "on" 4 minutes,



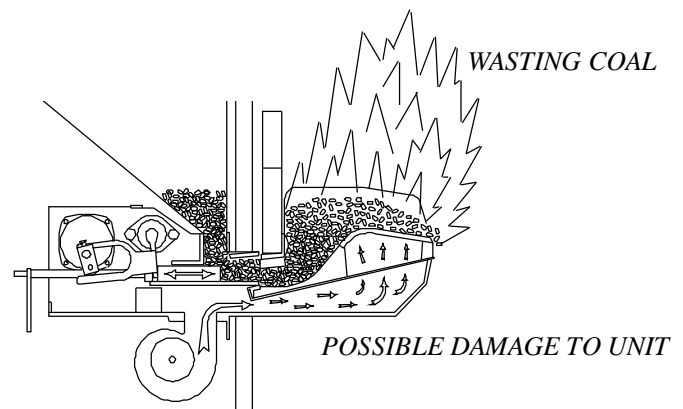
# OPERATION



*Low feed rate*



*Max feed rate*



**Over Fired, No Good**

DO NOT BURN WET COAL

"off" 12 minutes, extend timer 2 minutes. You may find that these settings produce too much heat in pilot mode. If so, you can reduce the "on" time and increase the "off" time. However, be aware that you can go too far and have the fire go out. It is best to adjust one minute at a time.

To start a fire you first pour rice coal into the hopper. With the thermostat turned up and the stoker running, the coal will begin to feed onto the grate inside the stove. This process can be speeded up by adjusting the feed rate to the maximum position. When the coal starts to come up out of the grate and is almost up to the area where the holes start, turn the feed rate back to about 3/8" and turn off the feed motor with the switch on the side of the stoker. Place some crumbled newspaper and fine kindling (6" to 8" long) on the grate and ignite. When kindling is burning good, add some rice coal on top of it. After the coal is burning, the feed motor can be turned on and the coal fire will continue to get larger. Fresh coal will continue to be pushed onto the grate and ashes will be pushed off the grate. The feed rate must be adjusted so the coal is burned up and turned to ashes before the coal gets one inch from the end of the grate. Too high a feed rate will push unburned coal off the coal grate, therefore

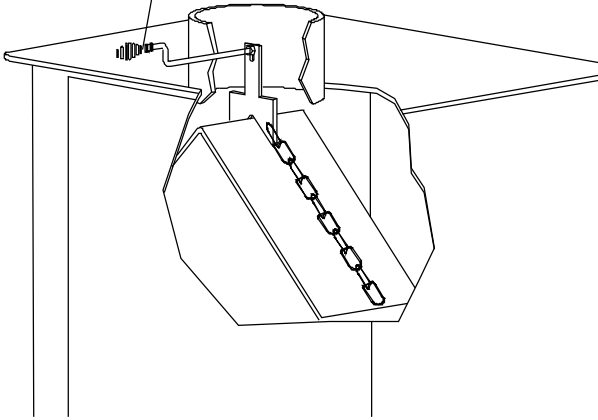
## Feed Adjustment

Adjust feed rate by turning adjuster clockwise to increase and counterclockwise to decrease. Each complete turn will move the fire about 1".

The feed indicator on the side of the feeder shows how far the pusher moves each stroke. There are dots above the indicator spaced 1/8" apart. A movement of one dot would give a low burn, two dots medium and three dots high. Lock adjuster with wing nut after adjusting.

See drawings at left.

*Cycle in and out*



will not burn completely.

After the fire is burning and the feed rate is adjusted, you can now set the thermostat to the desired temperature.

## MAINTENANCE

With each hopper of coal that is burned approximately one ashpan full of ashes must be removed. Failure to remove the ashes will result in a blocked up grate and the fire will not burn properly. Remember, the ashpan will be hot, so always wear protective gloves.

Weekly:

The small tray in the side of the stoker should be removed and emptied.

The spring handle located at the rear of the flue-pipe should be cycled in and out several times. This action cleans the interior of the heat exchanger and causes the dust to fall into the ashpan.

Every 3 Months:

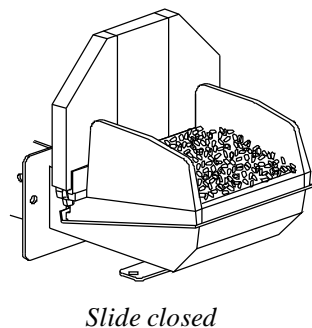
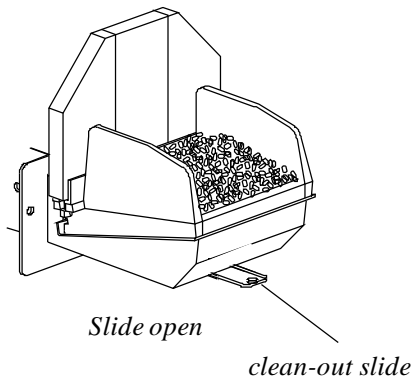
The grate "clean-out" slide should be opened and reclosed as shown in drawings at left.

In the "closed" position, be sure the "grate clean-out" plate slide is straight across as shown.

The easiest way to handle this slide is through the ash door with a poker inserted into the hole at the end.

The purpose of this operation is to let any fly ash build-up under the grate fall into the ashpan.

This operation can be performed while the unit is burning. However, you should first lower the thermostat to lower the stove temperature and be sure you are wearing protective gloves.



This operation can also be performed when the unit is not burning by lifting out the grate inserts and removing fly ash with the vacuum cleaner.

**Annually:**

At the end of the heating season is the best time to perform annual maintenance. The reason is rust and corrosion can form much faster in the high humidity of summer.

Remove all coal from hopper.

Remove all ashes.

Remove and clean flue pipe.

Check chimney and clean if necessary.

**IMPORTANT**

è Remove hopper and check for rust at bottom edges. If rust is found, remove it with a file or sandpaper and paint the area with spray paint available from your dealer.

Check the feeder for rust and corrosion where the hopper fits into it.

Check the pusher block to see if it moves freely. This can best be done by shaking the adjuster rod. If it does not move freely, it should be removed and cleaned. Also remove any rust or corrosion from the area where the pusher block slides and spray with WD-40 or other rust preventing spray. To remove pusher block -- Remove cover, remove wing nut, adjuster, and adjuster tube. Remove motor mount with motor in place and cord still attached. Swing pusher assembly up as high as it will go. Remove feed indicator from side with Allen wrench. Now the

**IMPORTANT**

è

pusher block can be removed. To reinstall -- just reverse the procedure. If the pusher block cannot be moved, call your dealer.

Always empty hopper when not burning for more than a week. When left standing for long periods with wet coal, the pusher block will rust and corrode, causing it to seize. If the stoker is then turned "on", damage to the pusher assembly and feed motor will result. This will be considered neglect and will



void the warranty on those parts. Always check to see if moving parts are free before using if the unit has not been burned for a period of time. This can best be determined by shaking the adjuster rod.

## **TROUBLE-SHOOTING**

### **FEEDING PROBLEMS**

**Wet Coal** -- Wet coal does not flow the same as dry coal. Therefore, the feed rate will change with wet coal. If it is too wet, it may not feed at all. Wet coal can also cause a sulfur odor.

**Wrong Size Coal** -- The Verti-Flow System is designed to burn rice (or buckwheat coal if rice is not available) If buckwheat coal is burned, raise the draft setting from .04 to .06. Larger coal will not feed or burn properly.

**Hopper Blocked** -- Sometimes wood, paper, or other foreign objects accidentally end up in your coal bin and can slow down or block the flow of coal. You may have to empty the hopper to find the blockage.

**Pusher Out Of Adjustment** -- This can happen when more than one person tends the stoker. One person does not tell others what adjustments were made.

**Gas Alarm Buzzes or Sulfur Odor Exists** -- A sulfur smell may be noticed when the top door is opened during operation with wet or damp coal. This is normal. However, it is not recommended that wet coal be used or the top door be opened for more than a few seconds while burning to inspect the fire.

**Lack of draft or a down draft in the chimney** will cause gases to escape from the unit. No stove will function properly without draft. Any draft problem should be corrected before use.

A draft inducer may be installed to increase draft in marginal situations.

The installation should be performed by your dealer who is factory trained to correct any problem on initial start-up. After proper installation, many years of trouble-free operation can be expected.

### **Stoker Control Trouble-Shooting**

This trouble-shooting guide is designed to help the customer find basic problems external to the stoker timer. If a problem cannot be located by using this guide, servicing of the stoker control or replacement may be required. This should be done by qualified personnel.

**PROBLEM:** No motors or lights will turn on.

Check the AC power cord to the stoker control.

Check the 3 amp fuse on the side panel of the stoker timer. (Replace only with a 3 amp slow blow fuse.)

**PROBLEM:** Lights on the stoker control are on, but motors will not operate.

Check the AC power plugs from the motors (are they securely plugged into the correct outlet.)

**PROBLEM:** One of the motors will not operate.

Check if the light above the receptacle is lit. Check the AC power plug from the motor (is it securely plugged into the correct outlet.)

**PROBLEM:** The motors are cycling on and off, but not in the correct order.

Check the AC power plugs from the motors (are they securely plugged into the correct outlet.)

**PROBLEM:** Coal feeder motor will not turn on.

Check if the red light is lit, if not, check if the feed motor switch is turned on.

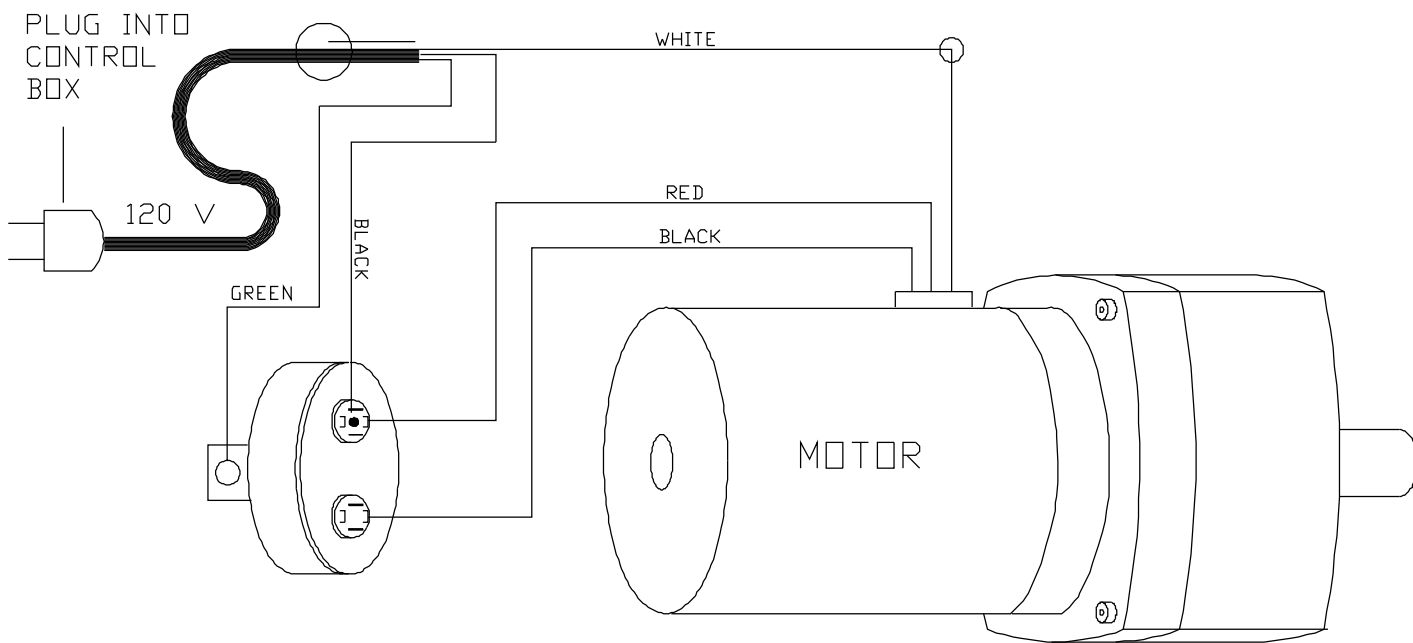
**PROBLEM:** The motors turn on and off as programmed, but the room temperature is below the thermostat setting.

Check the connections from the stoker control to the thermostat.

Check the thermostat for proper operation.

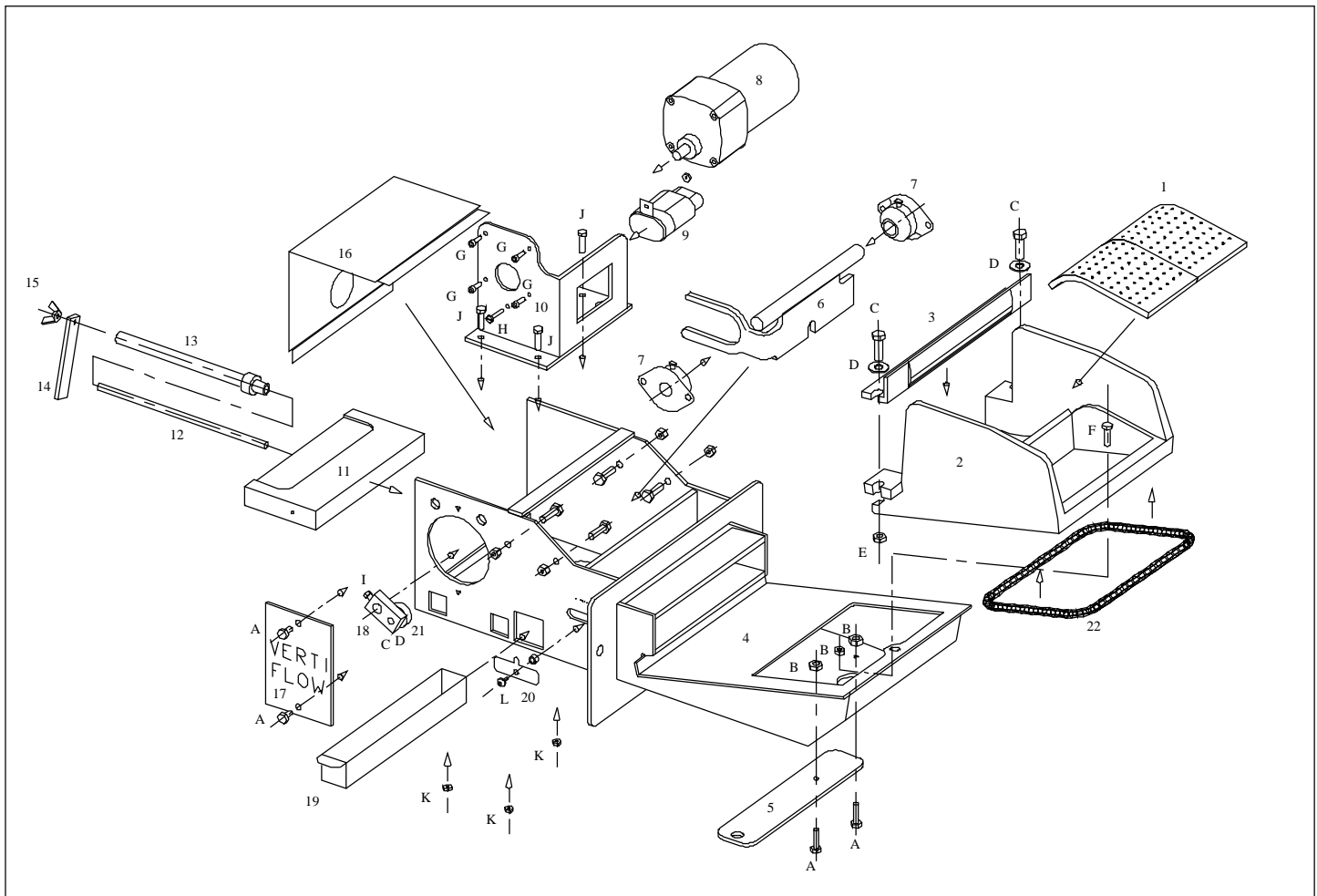
**PROBLEM:** The motors do not turn off even when the room temperature is above the thermostat set point.

Check that the programmed off time is not for 0 minutes.



STOKER MOTOR WIRING DIAGRAM

## Feeder Parts

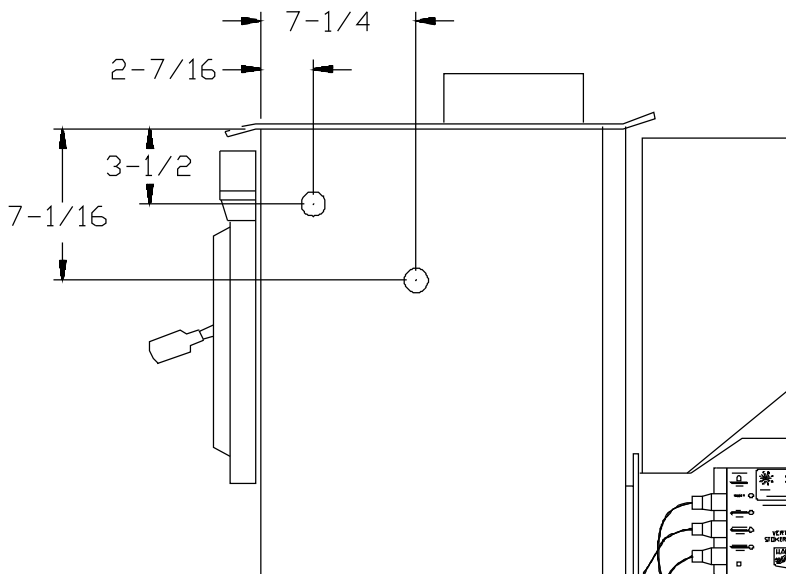
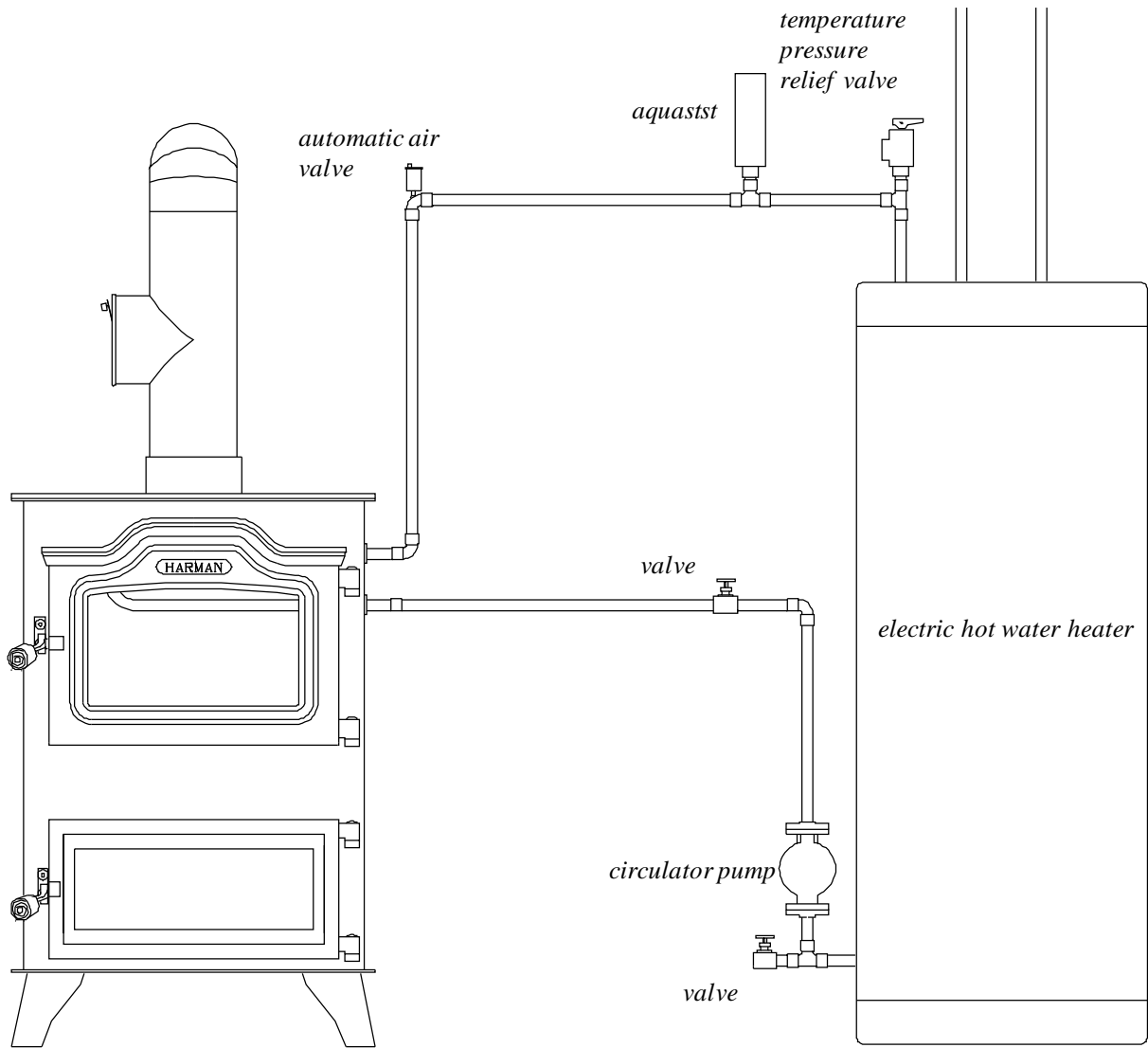


1. (2) grate inserts
2. grate holder
3. grate angle
4. feeder body
5. clean-out slide
6. pusher arm
7. (2) pillow block bearings
8. feed motor
9. capacitor
10. motor mount
11. pusher block
12. adjuster rod
13. adjuster tube
14. adjuster
15. wing nut

16. motor cover
17. cam arm cover
18. cam arm
19. dust tray
20. feed indicator
21. cam bearing
22. gasket

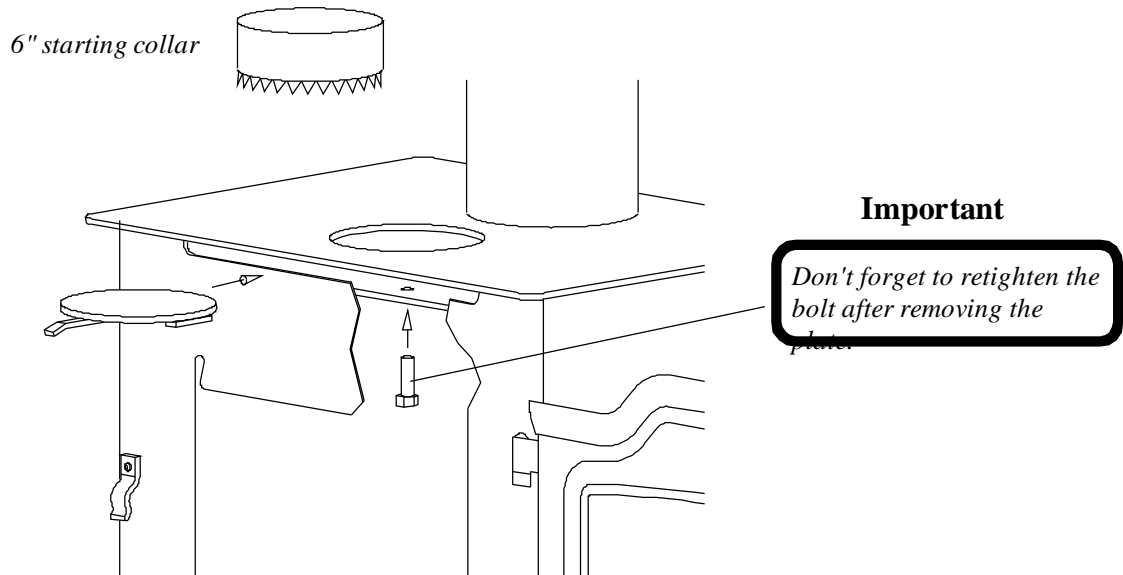
- A (4) 1/4 x 5/8  
 B (3) 1/4 " nut  
 C (3) 3/8 x 1 1/4  
 D (3) 3/8 flat washer  
 E (2) 3/8 nuts  
 F (1) 1/4 x 1 1/4 Allen  
 G (4) 10-32 x 5/8 Allen  
 H (1) 8-32 screw and nut  
 I (1) 1/4 x 1/2 grade 8  
 J (3) 5/16 x 3/4  
 K (3) 5/16 nuts  
 L (1) 1/4 x 5/8 button head

# Domestic hot water coil hookup



Cut holes with 1 1/8" hole saw where shown . Install coil with hardware provided. Hook up as shown above. If distance between unit and tank is less than 10 feet the circulator pump and aquastat are not needed. Aquastat is to turn on pump when water reaches about 140 degrees in systems over 10 feet apart.

# Hot Air Duct Option



Your stoker has a built-in feature that lets you take the air that normally blows out from the front and puts it out the top into a 6" duct.

To do this, remove the 6" round plate from the top of the unit by removing the bolt located in the top of the firebox. A 3/4" wrench will fit the bolt. Remove the plate from the front by using the small handle on the plate. Turn bolt all the way in and tighten.

Next, block off the front blower opening with a piece of heavy fiberglass rope. Insert rope through the 6" duct opening and push front to block off the front air passage.

Now, install a 6" starting collar in the 6" hole and run duct to desired room.

**NOTE: THIS DUCT OPTION IS INTENDED TO SUPPLY ONE REGISTER ONLY, WITH A MAXIMUM DISTANCE OF 20 FEET FROM UNIT.**

**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 including but not limited to; remote controls, filters, fuses, knobs, glass, ceramic brick panels, ceramic fiber afterburners, door packing, tile, ceramic log sets, paint, batteries or battery back-up and related duct work are not covered. Also excluded from this warranty are consumable or normal wear items including but not limited to; flame guides, grates, coal bars, afterburner hoods, fire brick, gaskets. Additional exclusions for corn stoves are burnpot housing weldment, burnpot grate weldment (pellet or corn), burnpot front plate (pellet or corn), burnpot front plate lock, corn auger extension, ceramic insert, and ceramic insert plate. 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.