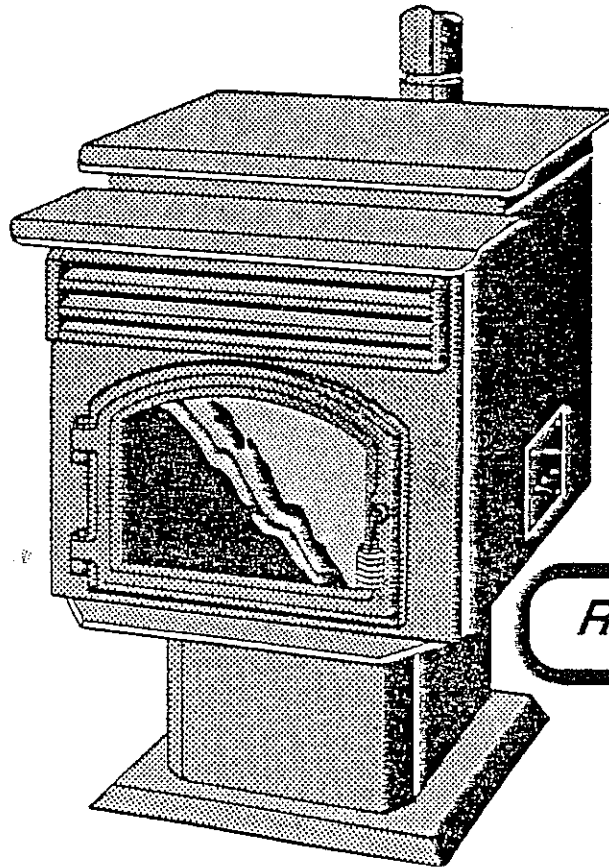




MODEL 5440
OWNERS MANUAL
PELLET HEATER



- ASSEMBLY
- INSTALLATION
- OPERATION
- REPAIR PARTS

READ ME FIRST!!

CAUTION
READ ALL INSTRUCTIONS CAREFULLY
BEFORE STARTING THE INSTALLATION
OR OPERATING THE FURNACE

IMPROPER INSTALLATION
MAY VOID YOUR WARRANTY
SAVE THIS MANUAL FOR
FUTURE REFERENCES



UNITED STATES STOVE COMPANY

111 Industrial Drive • P.O. Box 151
South Pittsburg, TN 37380
(615) 837-2100



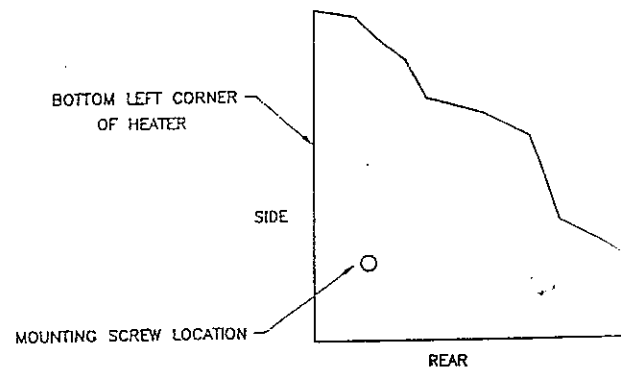
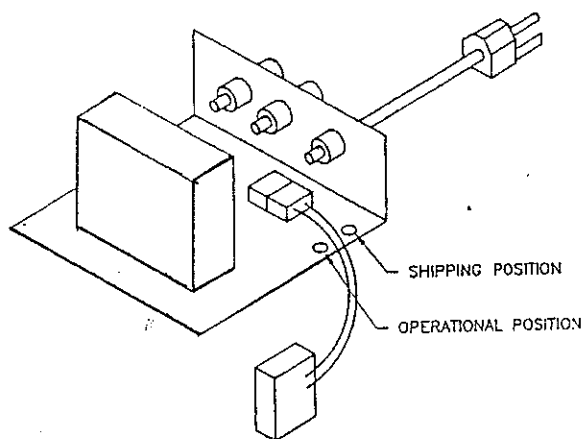
INSTALLATION PREPARATION

1. Remove all packaging materials, being careful to not damage the printed circuit board control panel.
2. Inspect the unit for damage and for any obviously loose or missing parts.
3. Remove the starter pack and other components from either the hopper or from behind the glass door (firebox).
4. In order to adequately protect the 12 volt couplers located in the lower left rear of your 64" PARAGON from damage during shipment and handling, the module has been moved forward from its operational position. In order to relocate, please perform the following operation:

INSURE THIS APPLIANCE IS UNPLUGGED AND OTHERWISE REMOVED FROM ANY POWER SOURCE, EITHER 110 AC OR 12 VOLT DC

- 1) Refer to the below diagrams.
- 2) Locate the mounting screw on the bottom left corner of the heater.
- 3) Remove the screw with either a 1/4" hex head driver or a slotted screw driver. Retain the screw.
- 4) After the mounting screw has been removed, pull the power module to the rear of the stove. To properly locate, it may be necessary to reach in with your hand (**WATCH OUT FOR SHARP OBJECTS**) and position the mounting plate over the mounting screw location and in the operational position as shown.
- 5) Re-attach sheet metal screw and secure. Do not overtighten.

FIG. 1



TOOLS

PENCIL
6 FOOT FOLDING RULE OR TAPE
TIN SNIPS
DRILL, HAND OR ELECTRIC
DRILL BIT (FOR SHEET METAL SCREWS) 1/8" DIA.
SCREW DRIVER (BLADE TYPE)
GLOVES
SABRE SAW
5/16" NUT DRIVER OR
5/16" SOCKET W / RATCHET
SAFETY GLASSES

MATERIALS

3" UL LISTED PELL VENT CHIMNEY
SEE INSTALLATION

RTV 500 SILICONE SEALANT
PROPER SIZE FLOOR / WALL
PROTECTOR

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Congratulations!

A) You have purchased one of America's finest pellet burning heaters, the **PARAGON** from United States Stove Company, North America's oldest manufacturer of solid fuel appliances. **WELCOME** --to the new world of heating with pellets; by doing so, you are helping to conserve America's energy. Pellets are made primarily from sawdust, an all too often wasted by-product from timber operations, sawmills and furniture companies.

Not only are you using a fuel previously going to waste and often occupying space in landfills, you're also helping the environment more directly, as pellets burn clean with very little ash, while producing an incredible amount of heat in BTU's per pound.

Please take the time to thoroughly read this manual and familiarize yourself with the instructions before installing or burning your PELLET heater. Remember, this is not a WOOD STOVE. It is a PELLET STOVE and differs in installation, operation and maintenance.

B. SAFETY WARNINGS

Do not attempt to repair, replace or modify any part of your PARAGON Pellet Heater unless explicit instructions are given in this manual. The circuit board (and/ or control panel) contains no parts serviceable by the consumer.

C. SAFETY NOTICE: If this heater is not properly installed, a house fire may result. For your safety, follow closely the installation directions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.

D. SAFETY / INSTALLATION CAUTIONS:

- 1) The floor upon which your PARAGON Pellet Heater is installed must be non-combustible or otherwise protected by a non-combustible floor protector. Follow the instructions in this manual for size and type of floor protection required.
- 2) If installing this stove in conjunction with a masonry chimney, be sure the chimney is in good condition and meets the minimum standards of the National Fire Protection Association (NFPA) Standard 211. (Read further.)
- 3) Special methods are required when passing a chimney or connector through a wall or ceiling. Follow the chimney manufacturer's instructions and local building codes.
- 4) Stove surfaces become hot during use. Keep children away from stove during operation.
- 5) Repair and replacement of any part of this stove must be done by a trained technician, unless specific instructions are given in this manual.

E. RULES FOR SAFE INSTALLATION AND OPERATION:

Read these rules and the instructions carefully. Failure to follow them will cause a hazard that could result in death, serious bodily injury, and / or property damage:

- 1) Check your local codes. The installation must comply with their rulings.
- 2) DO NOT INSTALL this stove in a mobile home, trailer or manufactured home WITHOUT the optional Mobile Home Kit.
- 3) Connect this stove only to the proper chimney (UL listed PL pell vent), which is stainless on the inside and either galvanized or painted metal on the outside. It is of double-wall construction. You may also connect your stove to an approved UL listed Class A all-fuel chimney or to a recently inspected LINED MASONRY CHIMNEY. If you plan to use a masonry chimney, you should install either an approved stainless steel flexible duct or the above mentioned PL pell vent in the chimney itself extending from the chimney breach (opening) up the full length of the chimney to the chimney top. Connections between the stove and the chimney should also be PL pell vent.
- 4) Do not connect this stove to an aluminum Type B gas vent. This is not safe and is prohibited by the National Fire Protection Association Code.
- 5) If you are using a masonry chimney as described above, make sure it is in good repair and of sound construction and has been inspected by the fire department or a qualified Chimney Sweep.
- 6) Inspect the chimney connector and the chimney before and frequently during the heating season for any deposit of creosote or ash which should be removed.
- 7) Provide air for combustion into the room where the stove is located. If the intake is not in the same room, air must have free access to the room.
- 8) Cast iron parts, including the fire pot and feed door must be "seasoned" to avoid cracking. Do this by building small fires only for the first hour of use.
- 9) To prevent injury, do not allow anyone to use this stove who is not familiar with the correct operation.
- 10) For further information on using your stove safely, obtain a copy of the NFPA publication (NFPA 211). Their address is NFPA, Battery March Park, Quincy, Massachusetts 02269.

UNITED STATES STOVE COMPANY

CONVENTIONAL AND ALCOVE CLEARANCES TO COMBUSTIBLES

PARAGON MODEL 5440

THE FOLLOWING ARE CLEARANCES TO COMBUSTIBLES:

1. CONVENTIONAL CLEARANCE

- (A) LEFTSIDE 3" IN./(75mm)
- (B) RIGHTSIDE 3" IN./(75mm)
- (C) BACKWALL 4" IN./(100mm)
- (D) CORNER WALL 3" IN./(75mm)
- (E) FLUE TO WALL 3" IN./(75)
- (F) FLOOR PROTECTION FRONT 6" IN./(150mm)
- (G) " " SIDES 0" IN./(0mm)

2. ALCOVE CLEARANCE

MINIMUM ALCOVE WIDTH 27.5" IN./(700mm)
MINIMUM ALCOVE HEIGHT 56" IN./(1424mm)
MINIMUM ALCOVE DEPTH 36" IN./(915mm)

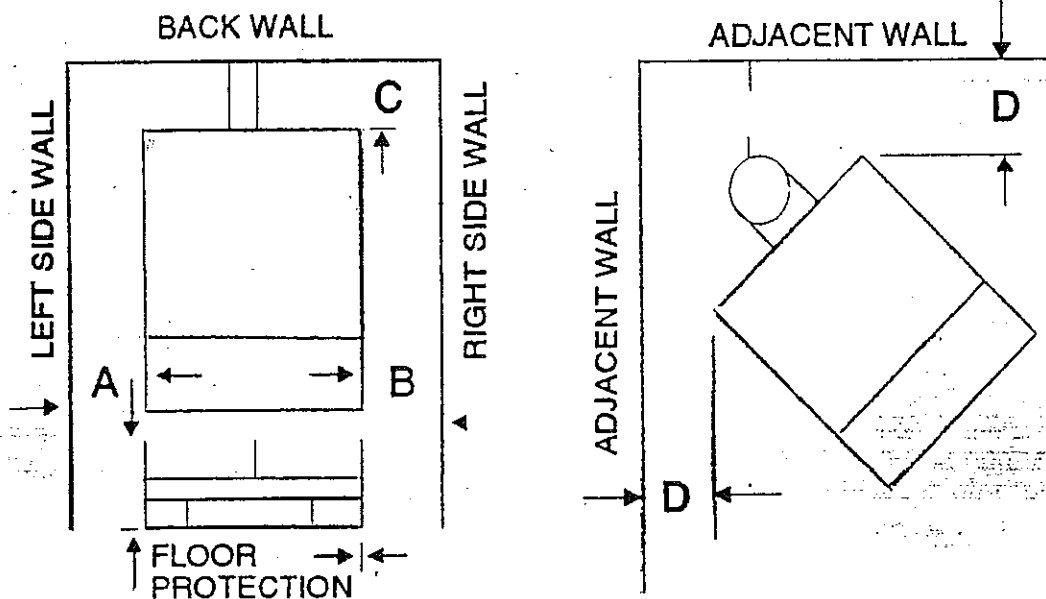


FIG. 1-B

UNITED STATES STOVE COMPANY

CONVENTIONAL AND ALCOVE CLEARANCES TO COMBUSTIBLES

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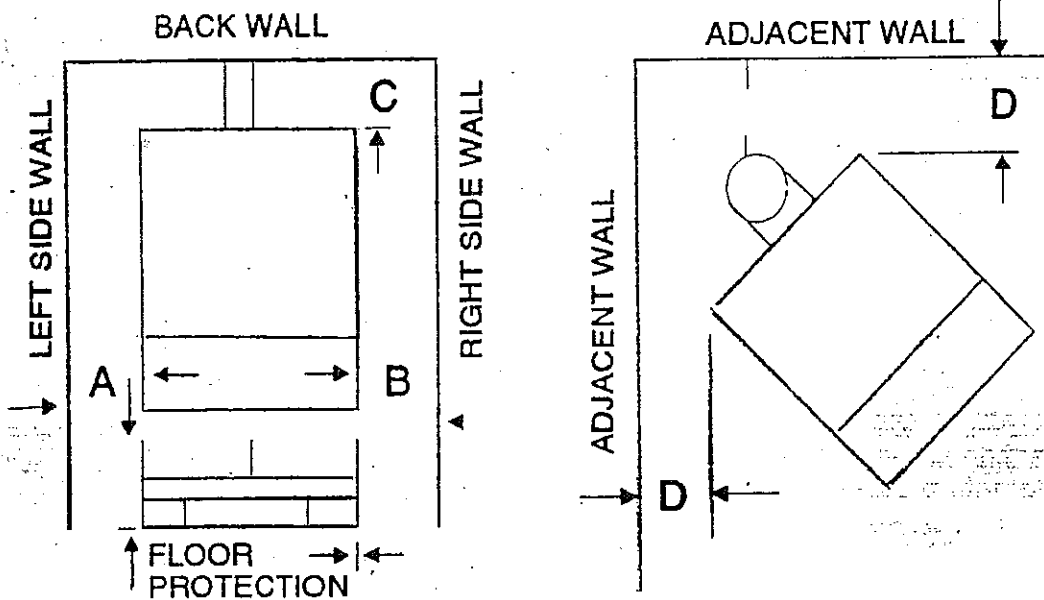


FIG. 1-B

UNITED STATES STOVE COMPANY

CLEARANCE TO COMBUSTIBLES:

PARAGON

THE FOLLOWING ARE CLEARANCES TO COMBUSTIBLES:

1. MASONRY FIREPLACE BUILT TO UBC CHAPTER 37
OR ZERO CLEARANCE FIREPLACE BUILT TO UL127.

(A) 6" IN.

(B) 3" IN.

(C) 3" IN.

(D) 3" IN.

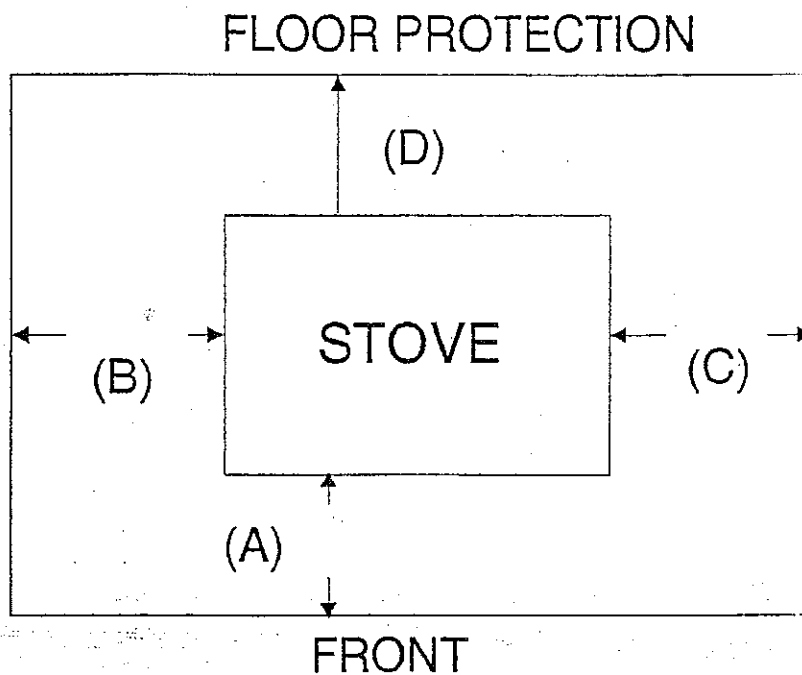


FIG. 1-C

11) Keep your ash pit section free of excess ashes.

12) Disposal of ashes - - Place ashes in a metal container with a tight fitting lid. Keep the closed container on a non-combustible floor or on the ground, well away from all combustible materials. Keep the ashes in the closed container until all cinders have thoroughly cooled. The ashes may be buried in the ground, or, if you're into organic gardening, they do make an excellent fertilizer (potash).

13) The special paints used on your stove may give off some smoke while they're curing during the first few fires.

This heater should be burn-tested outside in a well ventilated area for at least one hour, as per the operating instructions. Build small fires at first. The metal used in the construction of the interior of the stove has a light coating of oil. This could give off smoke and / or odors from the stove when it is burned for the first time. Once this burn-off has occurred, it should not reoccur.

14) Caring for painted parts - - This stove has an enamel painted outside jacket. This paint is durable, but will not stand rough handling or abuse. When installing the stove, use care in handling. Clean with soap and warm water only, and then only when the stove is cool to the touch. Do not use any acids or scouring soap, as these wear and dull the finish. DISCOLORATION WILL OCCUR IF THE STOVE IS OVERFIRED. FOLLOW THE OPERATING INSTRUCTIONS CAREFULLY.

15) DURING OPERATION THE CAST IRON FRAMED CERAMIC GLASS DOOR AND PELLET HOPPER LID MUST BE CLOSED, NOT ONLY FOR SAFETY REASONS, BUT ALSO FOR PERFORMANCE.

16) Glass Care and Maintenance - - During normal operation, soot and / or creosote will accumulate on the glass and will need to be removed for full viewing pleasure. Clean the glass when the stove is cold with a non-abrasive cleaner. Take care to not scratch the ceramic glass, as scratches not only cloud the surface, they also weaken the glass. (See instructions under MAINTENANCE.)

GLASS BREAKAGE: Should the glass break during operation, turn the switch to the OFF position. This will enable the stove to cool more rapidly. After the stove and glass are cool, the glass may be removed, following the directions below. In the meantime, do not leave the stove unattended, as there will be a spark hazard until the fire is completely out. Never operate the PARAGON Pellet Heater with a broken ceramic glass.

GLASS REPLACEMENT: (See maintenance instructions in rear, on Page 23.)

INSTALLATION PRECAUTIONS: Your unit should be installed by a qualified installer. Improper installation could void your warranty.

Your PARAGON Pellet Heater works with a positive pressure. Therefore, it is imperative that installation of the exhaust system be correctly done. United States Stove Company has no control over the installation of your stove, and thereby grants no warranty, implied or stated, for the installation or maintenance of your stove, and assumes no responsibility for any consequential damages.

Stainless steel chimney liners are required for listed factory-built fireplace installations.

FURTHER INSTALLATION PRECAUTIONS: Do not use single-wall pipe to vent exhaust from this heater, or as a connector to a chimney. The only authorized exhaust vent pipe designed for use with this appliance is 3" UL Listed, Type PL pellet vent pipe specifically designed for use with pellet burning appliances.

Do not connect this appliance to a chimney flue serving another appliance.

DETAILED SAFETY PRECAUTIONS: Fuel - - The PARAGON Pellet Heater is designed and approved to burn rated APFI (American Pellet Fuel Industry) Standard 1/4" pelletized wood fuel performance will suffer if non-standard pellets are used. Burning solid fuel, other than in pellet form, is not permitted and will void all warranties and the safety listing of the stove.

The PARAGON'S exhaust system works with a positive combustion chamber and a somewhat lower position chimney pressure. Therefore, it is imperative that the exhaust systems be completed airtight, sealed and properly installed. All chimney joints should be sealed with RTV silicone sealant (RTV 500).

Do not obstruct the free flow of air through the open vents of this heater.

Do not allow children to play around the heater without adult supervision. Do not touch the heater while it is in operation, as serious burns may result. Do not allow anyone to operate the heater who is not familiar with the operating instructions.

The PARAGON must be connected to a grounded standard 120 volt, 60 hz electrical outlet (or a SEALED battery backup system). Insure that the power cord remains behind the unit and is not pinched by the base of the heater. Before attempting any maintenance procedures, insure the PARAGON has cooled for several hours.

Your power supply cord must be routed to avoid contact with any hot or sharp surfaces of the heater. The power supply cord should be connected to a grounded standard 120 volt, 60 hz electrical outlet (or a SEALED battery back up system). If the receptacle you plan to use has no provisions for the ground prong, that circuit should be rewired with proper grounding. Do not remove the grounding prong from the power cord, and never use a grounding adaptor plug. It is quite possible the receptacle to which that adaptor plus is screwed is itself not grounded. If this appliance is not properly grounded, a serious electrical hazard will result.

Before attempting any cleaning operations or before removing any of the access panels, insure the power cord is disconnected from its electrical source.

NOTE: Switching the control to OFF does not disable all electrical components and circuitry.

Keep fuel and other combustible materials such as furniture, clothing, curtains, doors, louvers, etc. away from the heater.

Combustible materials must not be stored or placed within the clearances to combustibles as illustrated in the Installation Instructions following.

CAUTION: Do not use flammable liquids to start or freshen up a fire in this stove.

KEEP FOREIGN OBJECTS OUT OF THE HOPPER. It is very important to keep children away from the hopper, as they may accidentally drop in their toys. A child could be seriously injured in reaching for a toy if his or her hand became caught by the auger. Serious damage to the auger could result from foreign objects such as a toy, etc.

Only approved fire starters may be used to start the fire. Never attempt to start your PARAGON with gasoline, kerosene or other flammable liquids. Do not store or use gasoline or other flammable vapors, including paint or aerosols or flammable liquids in the immediate vicinity of this heater.

Before installation can be made in a mobile home or modular manufactured home, the PARAGON must be grounded either to the steel chassis of the home or to any other suitable ground (see National Electrical Code) that is of good integrity. Further, the unit must be bolted to the floor of a mobile home or manufactured modular home.

Do not install in a bedroom or sleeping quarters.

Wait several hours for the PARAGON Pellet Heater to cool before carrying out any of the prescribed maintenance procedures.

Never place (or allow to be placed) paper, wood, furniture, drapes or other combustibles near the PARAGON.

Exceptional care must be taken to maintain the minimum clearances to combustibles as specified herein, or, as per your local building codes or fire codes, and following the safety listing label on the back of this heater,

CAUTION: When installing this heater in a mobile home, care must be taken not to interfere with the structural integrity of the mobile home. The floor, wall and ceiling and / or roof must be maintained.

WARNING: Never use an unsealed type of battery nor operate the appliance on a battery without a 12 volt 4 amp in-line fuse on the positive lead (optional accessory).

CONTROL PANEL/ THERMOSTAT HOOK-UP

WARNING! DO NOT CONNECT POWER DURING ELECTRICAL HOOK-UP.

1. CONNECT THE ONE MOLEX PLUG TO THE CONTROL PANEL. DO NOT PULL ON THE WIRE HARNESS INSIDE THE STOVE.

2. CONNECT THE .250 TERMINAL TO .250 TERMINAL SPADE ON THE CONTROL PANEL. DO NOT PULL ON THE TERMINAL WIRE INSIDE THE STOVE.

NOTE: IF YOU ARE NOT GOING TO USE THE THERMOSTAT FUNCTION THEN SKIP STEP #3 THROUGH #7 AND GO TO STEP #8.

3. LOCATE THE THERMOSTAT ON THE WALL TEN (10") TO TWENTY (20') FEET AWAY.

4. ROUTE THE WIRES INTO THE STOVE WHERE THE AC POWER CORD ENTERS.

5. PULL THE THERMOSTAT WIRES THROUGH TO THE CONTROL PANEL CUT-OUT.

6. REMOVE THE FACTORY INSTALLED JUMPER ON THE THERMOSTAT TERMINALS.

7. CONNECT THE THERMOSTAT WIRE TO THE TWO TERMINALS.

NOTE: USE ONLY A LOW VOLTAGE MERCURY SWITCH THERMOSTAT.

8. LOCATE THE CONTROL PANEL IN THE SIDE PANEL CUT-OUT AND SECURE WITH FOUR (4) #6X1/4 PHILLIPS SCREWS (SUPPLIED). DO NOT TIGHTEN.

9. THE STOVE IS READY FOR OPERATION. REFER TO THE OPERATING INSTRUCTIONS.

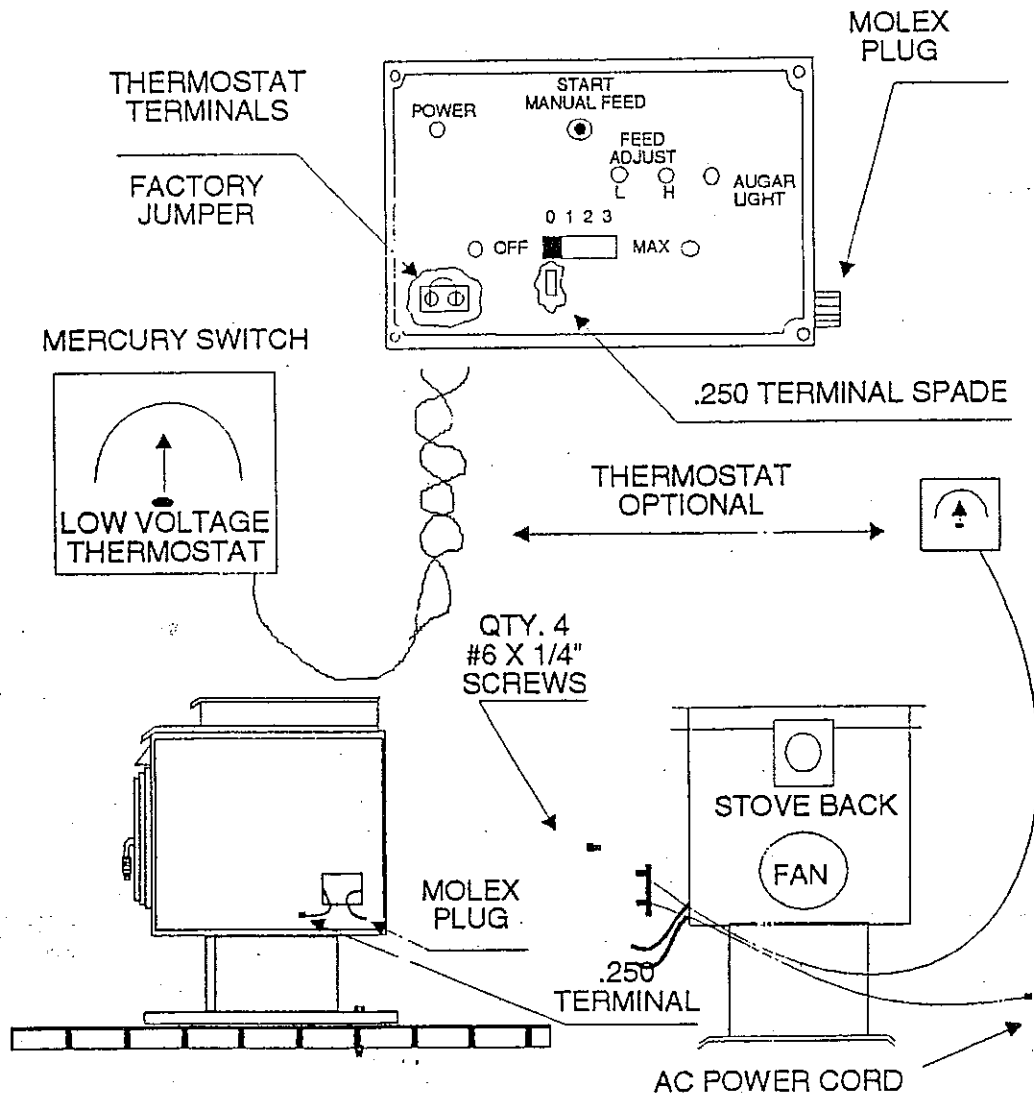


FIG. 2

When the heater is not used for an extended period, such as during the summer months, the 120 volt AC and / or 12 volt DC battery SHOULD be disconnected to extend the life of all electrical components.

When venting into the chimney of a listed factory built fireplace (zero clearance fireplace), it is necessary to use a stainless steel chimney liner, either flexible or rigid; or UL listed PL pell vent.

II. POWER AND CONTROL PANEL HOOK-UP:

(REFER TO FIG. 2 AND FIG. 3.)

WARNING! Do not connect power during electrical hook-up.

1) Observe the diagram below which pictures the control panel. The control panel must be mounted to the stove, carefully following the further instructions. The control panel and mounting hardware will be found enclosed in a bubble-wrap pack. Which will be taped to the inside of the hopper on the pellet heater.

2) Connect the one-way molex plug to the control panel. Do not pull on the wire harness inside the stove.

3) Connect the .250 female terminal to the .250 terminal spade on the control panel. Do not pull on the terminal wire inside the stove. **NOTE:** If you're not going to use the optional thermostat, then skip Steps 4-7 and go directly to Step 8.

4) Locate the thermostat on a wall 10-20 feet away from the stove.

5) Route the wires into the stove where the AC power cord enters.

6) Pull the thermostat wires through to the control panel cut-out.

7) Remove the factory-installed jumper on the thermostat terminals.

8) Connect the thermostat wires to the two terminals.

NOTE: Use only the low voltage, mercury switch thermostat provided in the optional kit, or its equivalent.

9) Locate the control panel into the side panel cut-out and secure with four No. 6 x 1/4 Phillips screws (provided). Do not over-tighten.

10) Your pellet heater is now ready for operation. Refer to the Operating Instructions.

III. OPERATING INSTRUCTIONS:

1. PELLET FUEL

IMPORTANT. PLEASE READ: The PARAGON Pellet Stove has been designed to burn wood pellets only. Unfortunately, there are a lot of pellets on the market which are substandard. United States Stove Company recommends low ash pellets (Grade A) manufactured to the APFI (Association of Pellet Fuel Industries) Standard for residential pellet fuels.

DIAGRAM AND FEED ADJUSTMENTS

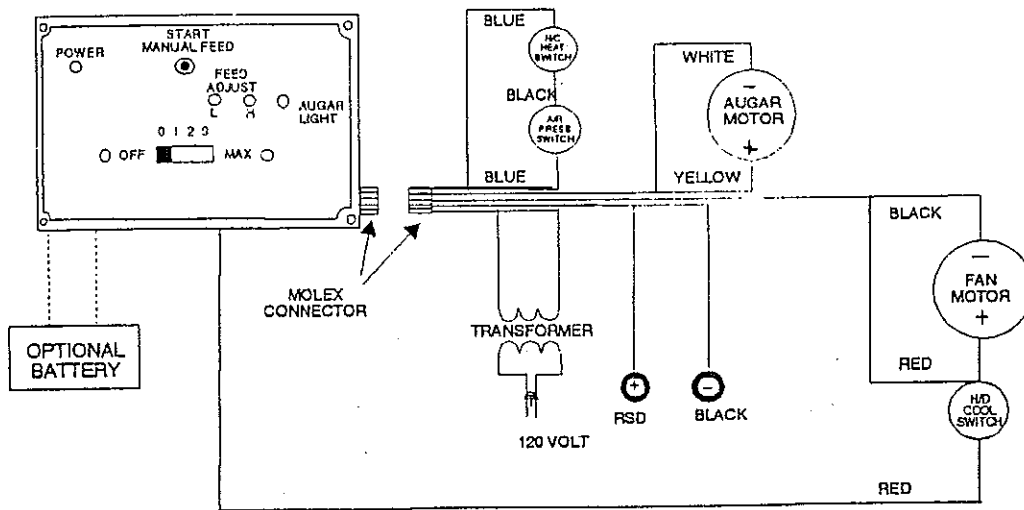
NEVER ADJUST ANY STOVE UNLESS IT HAS BEEN THOROUGHLY CLEANED AND THE FLUE IS CHECKED

1. TO ADJUST LOW BURN RATE, SELECT THE "1" POSITIVE AND OBSERVE THE AUGER LIGHT. THIS WILL INDICATE WHEN THE AUGER IS RUNNING.
2. TURN THE ADJUSTABLE RESISTOR "L" CLOCKWISE TO INCREASE THE BURN RATE AND COUNTER-CLOCKWISE TO DECREASE.
3. TO ADJUST THE HIGH BURN RATE, SELECT THE "3" POSITIVE AND TURN THE ADJUSTABLE RESISTOR "H" CLOCKWISE OR COUNTER-CLOCKWISE AS NEEDED.

NOTE: FAN VOLTAGE ARE FIXED AND MAY NOT BE ADJUSTED.
THE MEDIUM FUEL RATE IS FIXED AND MAY NOT BE ADJUSTED.

RECOMMENDED TIMING: LOW 1.5 SECONDS ON APPROX.
7.5 SECONDS OFF APPROX.

HIGH 4.0 SECONDS ON APPROX.
5.0 SECONDS OFF APPROX.



WARNING: USE A 3 AMP, 50 VOLT DIODE ON THE "+" POSITIVE LEAD BETWEEN THE SOLAR PANEL AND BATTERY AS SHOWN BELOW.

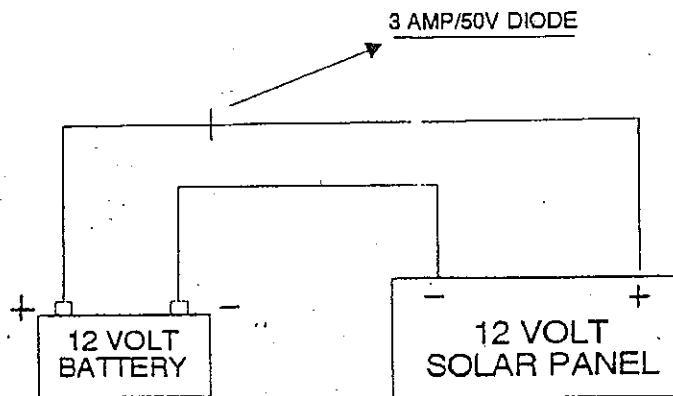


FIG. 3

Be sure and look for the APFI registration number on the bag to insure the manufacturer's compliance with that standard.

2. **NOTE - CAUTION - WARNING:** STORE FUEL IN A CLEAN DRY PLACE.

3. **PRIMING THE AUGER:**

Never leave the stove unattended during priming or start up. Priming the auger is only required when the unit is new or when the hopper has completely run out of fuel.

To prime the auger:

a) Load the hopper with pellets

b) Set the control switch from the OFF / O position to the No. 1 position. **NOTE:** This is the low-fan and / or burn-speed when the stove is operating.

c) Press the "Start and / or Manual Feed" button, and hold the button down for approximately two minutes or until the pellets begin to feed into the burn pot. The auger light will come on, indicating that the auger motor is running. **NOTE:** When the pellets begin to drop regularly, the auger is primed. Allow the pellets to accumulate in the fire pot to approximately 1/2" depth. The start button may now be released.

d) Set the selectable control switch to the OFF / O position.

4. **STARTING YOUR STOVE:** **NOTE:** Each time the stove is started, the fire pot should be checked for debris, and all air-holes should be cleaned. Do not allow ash to build up underneath the fire pot. Inspect and clean before each start-up.

a) Open the door and add approved fire-starter to 1 / 2 " of pellets in the fire pot and light the fire-starter. Once the fire-starter is burning freely, close the door and securely latch it.

b) Pull the air damper control rod located on the side of the unit OUT to the FULL OPEN position.

c) When the pellets are burning well, move the selectable control switch to the No. 1 position. Let the fire continue to build for approximately one minute. Then press the Start / Manual Feed Button momentarily and release. **NOTE:** The green power light will come on, indicating that the auger timer is energized.

5. **RUNNING YOUR STOVE:** **IMPORTANT:** Selecting the proper combustion air is done by moving the air damper control rod in or out to decrease or increase the air flow. (IN is closed; OUT is open.) High altitude or high ash fuel may require more air for efficient fuel combustion. The stove should be started with the damper control rod OUT in the full open position; then, slowly, push the damper control rod IN until a stable, brightly burning flame is achieved. The half-open position is typical for most fuels and installations, once the stove is heated to normal operating temperature.

a) After starting the stove, leave it burning on the LOW setting for at least five minutes to allow the stove to heat to operating temperatures. You

may then set the desired burn rate by moving the control switch to the desired operating position.

b) Select the most efficient burn by adjusting the air damper control rod in or out. Again, altitude and fuel types greatly affect the amount of air required. Half-damper is typical for most installations and fuels. **NOTE:** The operating temperatures of this unit may vary with the different types or grades of fuel used.

6. TURNING THE STOVE OFF: Move the selectable control switch to the OFF / O position. The fan will continue to run for approximately 10 minutes to let the stove cool down, and then automatically shut itself off.

7. SAFETY FEATURES:

a) **Stove Pressure Sensor:** A blocked flue, a down-draft or failure to clean the 3" exhaust in the stove will cause the pressure switch to shut off the fuel feed. To resume operation, it is necessary to locate the cause and correct it. Restart the stove, using the Starting Instructions above.

b) **Overheat Sensor:** If the stove overheats, it will shut itself down safely. The stove will not restart until it has cooled. **WARNING:** Auger jams are leading cause of stove malfunctions. Jams occur due to foreign objects in the fuel, or more commonly, failure to follow the Operating Instructions. Most auger jams are preventable by properly priming the auger as required before starting the stove. Keeping the auger full of fuel will help prevent auger jams, and inspection of the fuel for any foreign objects prior to use will also help. In addition, excessive sawdust can be a problem if it builds up in the hopper and impedes the smooth flow of pellets.

8. PROPER BURN CHARACTERISTICS: Your PARAGON Heater should produce a bright yellow or whitish flame under normal operation. If the flame becomes reddish and / or smoky, your stove probably needs routine maintenance. (See Maintenance Instructions for cleaning information.)

IV. INSTALLATION INSTRUCTIONS: CONVENTIONAL AND MOBILE HOME- NOTE A:

The following are general instructions for installing this stove. The vent pipe manufacturer's instructions should be followed for the vent pipe being used.

NOTE B: Vertical Venting Pipe Sizing - 3", 4", 6", 8". All pipe-sizes work equally well in a vertical installation; but 6" or 8" vent pipe connected directly to the stove will release more back pressure, thereby reducing the efficiency of the stove. It is ideal to start with a standard 3" pellet vent and increase the diameter AFTER a vertical rise of approximately 3 feet. For vertical runs in excess of 18 vertical feet, you should convert your system to a 4" PL UL Listed pell vent.

The most common problem associated with vertical venting is the spark-arrestor screens used in some venting caps. Condensation on the screen will collect ash and cause a blockage of the flue gases, creating a poor burn. Overall, however, vertical venting is the most efficient and trouble-free method. (See Fig. 4 below)

NOTE C: Horizontal Venting - - The cleaning of horizontal runs is necessary twice as often as vertical runs due to the suspension "drop-out" from the flue gases. Clean-out tees are therefore recommended where 90° elbows would normally be used. A vertical rise should be used

STANDARD VERTICAL INSTALLATION

PARAGON MODEL 5440

THE EXHAUST VENT TERMINATION ON EITHER VERTICAL OR HORIZONTAL INSTALLATION SHALL BE AS FOLLOWS:

- A MINIMUM OF 4 FEET (1220mm) BELOW OR BESIDE AND 1 FOOT (302mm) ABOVE ANY DOOR OR WINDOW THAT OPEN, OR ANY OPENING INTO A BUILDING.
- A MINIMUM OF 2 FEET (610mm) FROM ANY ADJACENT BUILDING OR OVERHANG.
- A MINIMUM OF 7 FEET (2130mm) ABOVE GRADE WHEN LOCATED ADJACENT TO PUBLIC WALKWAY.
- A MINIMUM OF 2 FEET (610mm) ABOVE GRASS, PLANTS OR OTHER COMBUSTIBLES.

PARAGON MODEL 5440 EXHAUST VENT TERMINATION SHALL BE LOCATED AS FOLLOWS:

- A MINIMUM OF 4 FEET (1220mm) BELOW, BESIDE AND 1 FOOT ABOVE ANT DOOR, OR WINDOW THAT OPENS, OR ANY OPENING INTO A BUILDING.
- A MINIMUM OF 2 FEET (610mm) FROM ANY ADJACENT BUILDING OR OVERHANG.
- A MINIMUM OF 7 FEET (2130mm) ABOVE GRADE, WHEN LOCATED ADJACENT TO PUBLIC

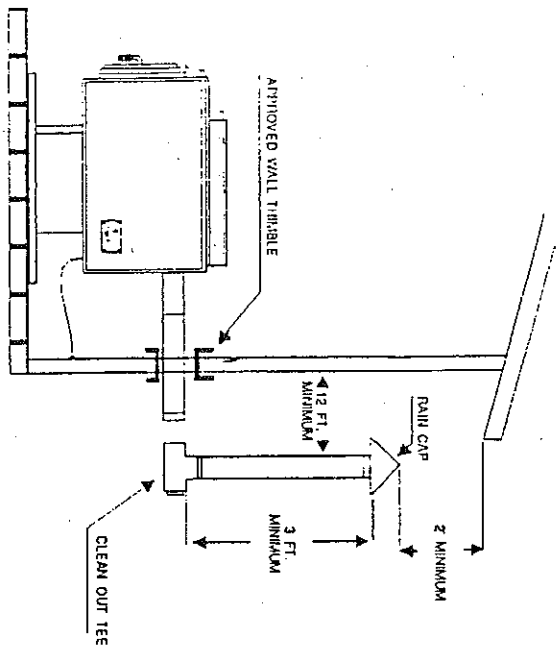
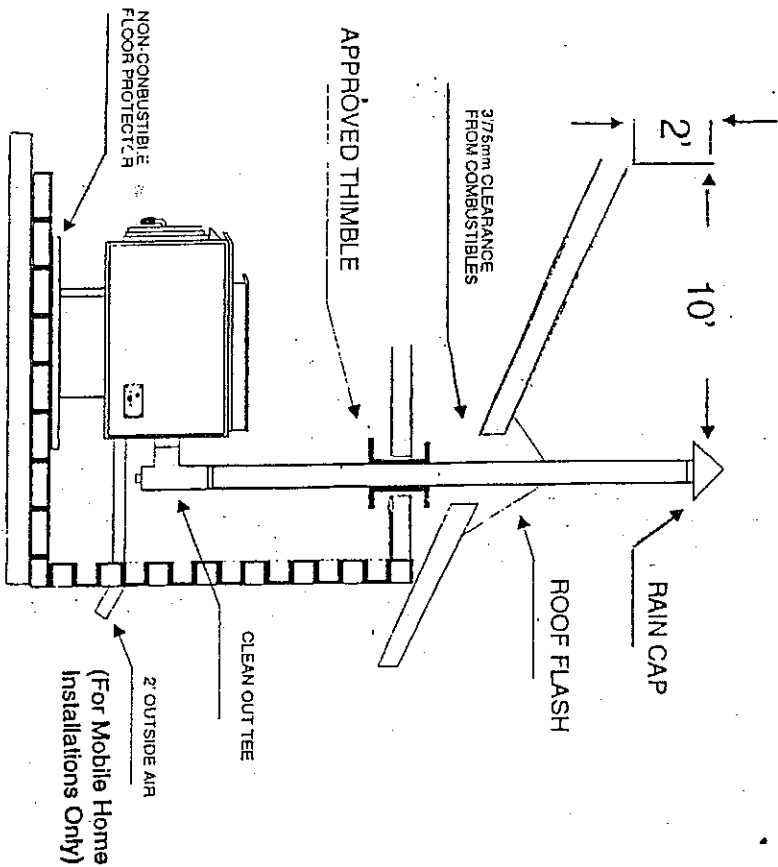
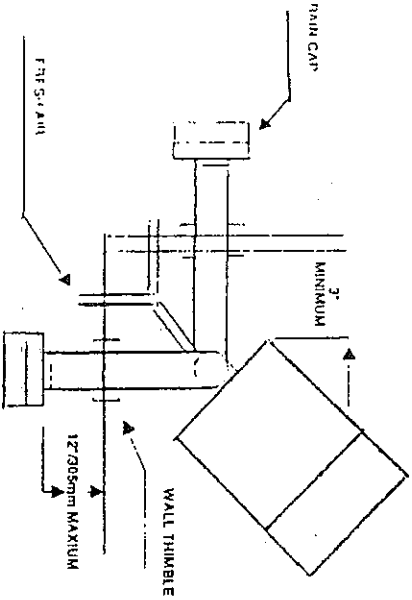


FIG. 4



APPROVED FOR USE WITH 3" LISTED PELLET VENT PIPE. ADAPTERS TO 4", 6", AND 8" DIAMETER APPROVED LISTED VENTING SYSTEMS MAY BE USED PROVIDED A MINIMUM OF EIGHTEEN INCHES OF 3" DIAMETER PELLET VENT IS USED AS A STARTER SECTION BEFORE MAKING THE CONNECTION.

CLEAN OUT REQUIRED WHEN MAXIMUM OF TWO 90 DEGREE BENDS ARE USED
HORIZONTAL RUN SHALL BE MAXIMUM OF 3' FEET
OPTIONAL DIRECTIONS SHOWN



millimeters minimum. This includes adjacent buildings, fences, protruding parts of the structure, roof overhang, plants, etc.

when direct venting horizontally, either before or after exiting the exterior wall to avoid back-draft into the stove. Back pressure, due to multiple turns in the flue pipe, or as a result of atmospheric pressure, may cause the pressure switch to activate, shutting down the fuel feed. This can also happen when the stove is not cleaned regularly. Any combination of these factors can cause operational shut-down due to excessive back pressure. When venting horizontally, simple standard installation methods should be used. Non-typical, overly complex installation will result in complex problems and should be avoided.

NOTE D: Heating Capacity - The square-foot heating capacity is subject to the R-factor of the home and the layout. Single story dwellings are typically easier to heat than multiple story. All pellet stoves operate at approximately one pound of fuel per hour on LOW. The LOW setting is used as a pilot and will sustain a room's temperature for an extended period. However, the BTU's produced are not sufficient to generally heat a home. The MEDIUM and / or HIGH settings are required to raise the temperature of the space being heated. Pellet stoves operate primarily as convection heaters and consumers who are used to radiant type wood heater may feel colder at the same room temperature. Your PARAGON is capable of heating a well-insulated, single story home of up to 1800 square feet.

NOTE E: BATTERY BACK-UP:

1. Battery Type:

a. Sealed gel cell batteries are the ONLY type battery approved for INDOOR use by Underwriters Laboratories and are specifically recommended.

b. Automotive or marine type sealed batteries may be used when located outside the structure being heated.

2. Battery Hook-up:

a. We strongly recommend the use of our 54DCK for this purpose. Otherwise, you must have an 18-gauge stranded wire or larger (and polarized) for connecting the stove to the back-up battery. Also, a 4 amp in-line fast-blow fuse should be used on the positive lead connecting the battery to the stove.

3. Battery Charger:

The charging system on a control board works on a continuous 120-milli-amp trickle charge, and is used to maintain the battery at full capacity, or to return the battery to full capacity after usage. The charger will continue charging when the stove is in use, or when NOT in use as long as AC power is available.

1. Before drilling or cutting holes, select the location of the stove.

2. Determine where the ceiling rafters, wall studs or floor joists are located before making any large holes, as the stove may have to be moved.

3. Be careful not to drill or cut into any water lines or electrical wiring as water damage or electrical fire may result.

4. Upon determining the best location for your new stove, maintaining at least the minimum

allowable clearances, place the stove on the non-combustible floor protector and line up the plumb bob with the hole in the ceiling or wall.

5. Enlarge the holes as required for installation of the listed PL pellet vent pipe and components per pipe manufacturer's instructions.
6. Combustion air may be required. The duct may pass through the wall or floor to obtain fresh air from outdoors or from a vented crawl space.
7. It is recommended that all joints in the PL pellet vent pipe are sealed to insure that joints are airtight.
8. Secure the vent pipe to the flue collar with screws or steel pop rivets.
9. It is recommended that the horizontal installation of the PL pellet vent pipe downslope 1/4" in a 12" run with a maximum run of 3'.

**HORIZONTAL EXHAUST VENTING
SHORT EXHAUST SYSTEM
VENT TERMINATION REQUIREMENTS FOR FORCED DRAFT PELLET
BURNING STOVES**

1. Do not terminate the vent in any enclosed or semi-enclosed area, such as a carport, garage, attic, crawl space, under a sun deck or porch, in a narrow walkway or closely fenced area, stairway, covered breezeway, or any other location which can build up a concentration of flue gases.
2. Vent surfaces can become hot enough to cause burns if touched. Non-combustible shielding or guards may be required.
3. Vent exhaust must terminate above the air inlet. It is recommended that vertical pipe be installed to a height of at least five feet above the air inlet when the stove is vented directly through a wall. The safest and preferred venting method is to extend the vent through the roof.
4. The distance requirements from doors and windows, or ventilation air inlets into buildings are as follows:
Not less than 4 feet / 1.2 meters below
Not less than 4 feet / 1.2 meters horizontally from
Not less than 1 foot / 305 millimeters above
5. The distance from the bottom of the vent termination and grade must be 12 inches / 305 millimeters minimum. The distance from the bottom of the vent termination and a public way must be 7 feet / 2.1 meters minimum.
6. The distance to combustible materials must be 2 feet / 610 millimeters minimum. This includes adjacent buildings, fences, protruding parts of the structure, plants, etc.

MOBILE HOME INSTALLATION OUTSIDE AIR INTAKE

- A. See section on venting installation in this manual. **WARNING:** Do not install this appliance in a sleeping room. Do not alter the structural integrity of the mobile home floor, wall, ceiling or roof.
- B. When installed in a mobile home, this appliance must be grounded to the steel chassis of the frame and bolted to the floor in compliance with and according to H.J.D. requirements. Unless not required by local authority.
- C. Outside air must be provided.
- D. It is recommended that a flexible hose or tubing is used in a 2" diameter.
- E. Bolt the stove to the floor through the hole provided in the pedestal base using 7 / 16" bolt or lag screw.
- F. Ground the stove to the steel frame of the mobile home using a 12-gauge or larger diameter wire.

PARAGON PELLET HEATER MODEL 5440 THROUGH WALL--THROUGH FLOOR OPTIONAL DIRECTIONS SHOWN

HORIZONTAL RUN'S SHALL BE MAXIMUM OF 3' FEET

OPTIONAL DIRECTIONS SHOWN

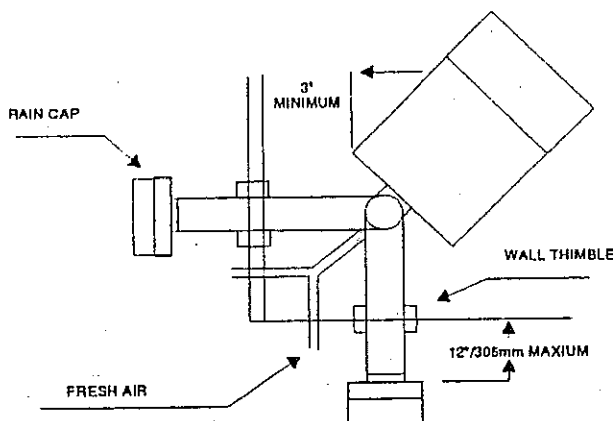
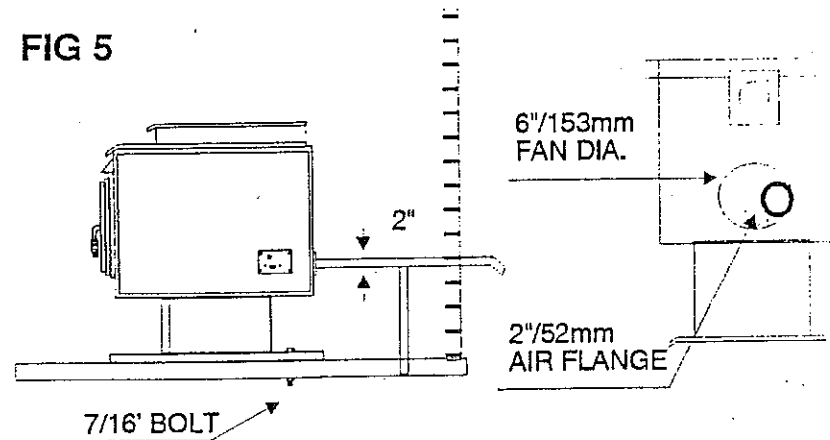


FIG 5



1. Outside air must be directly connected to the appliance as shown.
2. Outside air may be taken from a vented crawl space.
3. Outside air may not be taken from an attic, garage or other enclosed space within the building.

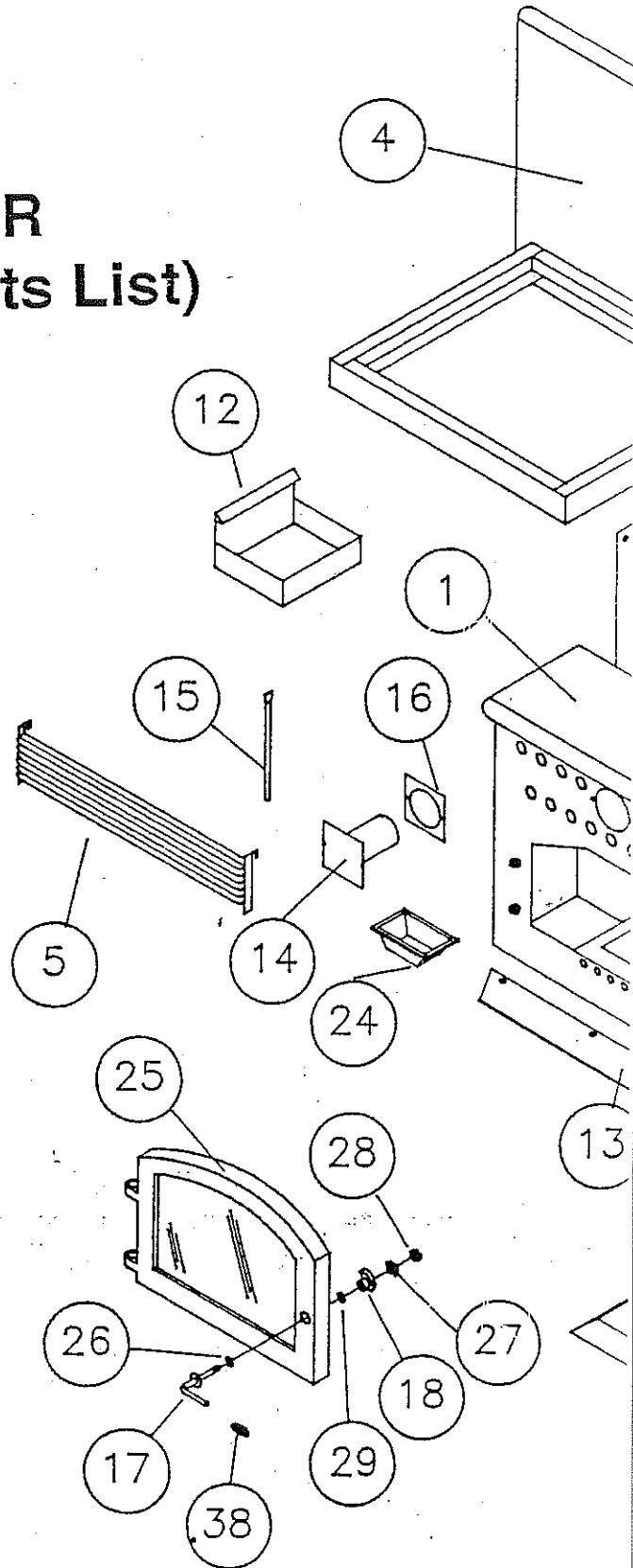
12-VOLT D.C. WIRING INSTALLATION

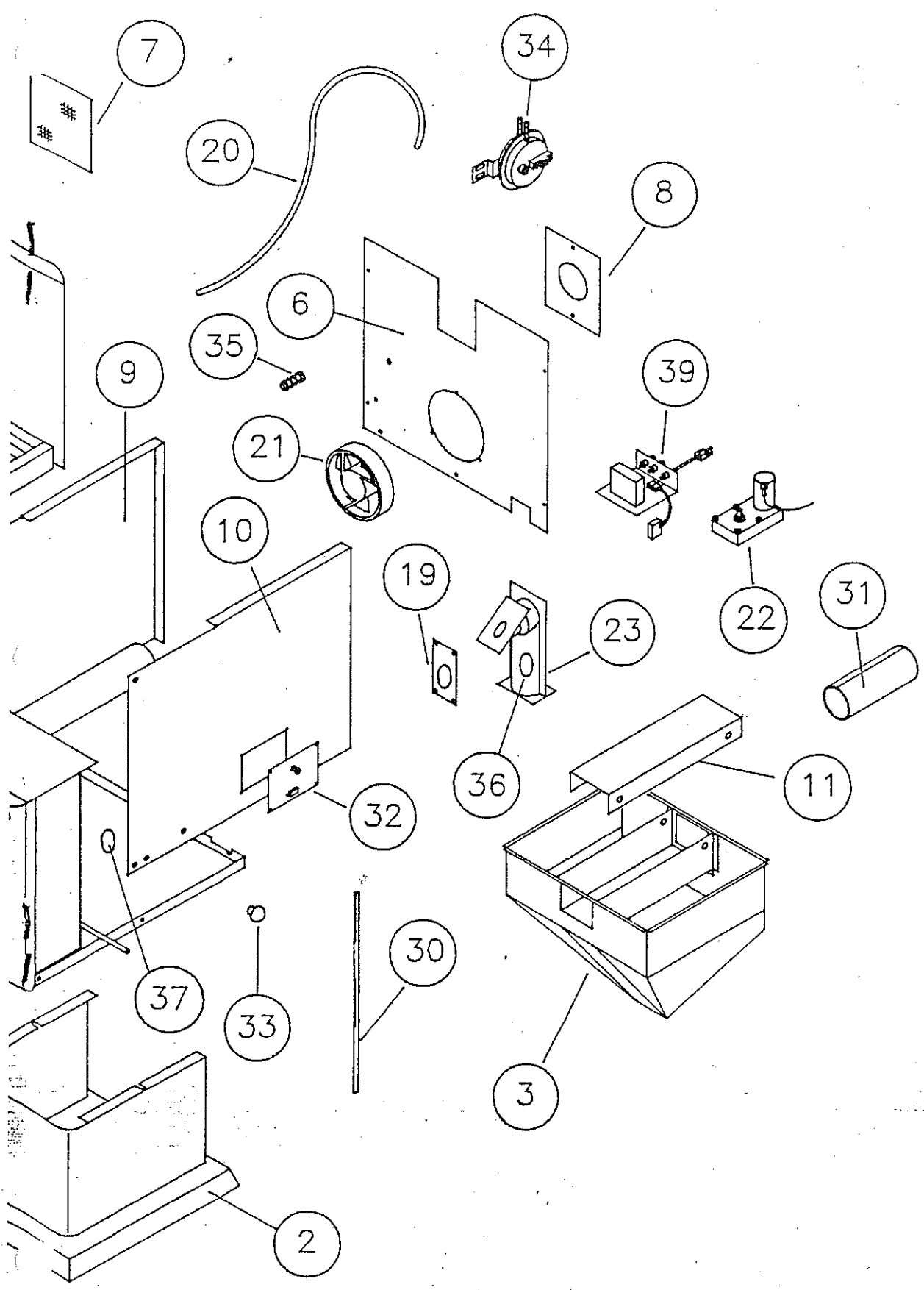
PARAGON Pellet Heaters are designed to operate on a 12-volt D.C. battery for extended back-up periods. This systems may also be used in conjunction with 12-volt solar systems. When using with a solar panel, refer to the wiring diagram in this manual.

WARNING: THE STRUCTURAL INTEGRITY OF THE HOME MUST BE MAINTAINED.

We recommend purchasing the optional 54DCK 12-volt conversion kit. It contains all materials to properly convert to 12-volt backup power.

MODEL 5440 PELLET HEATER (See Repair Parts List)



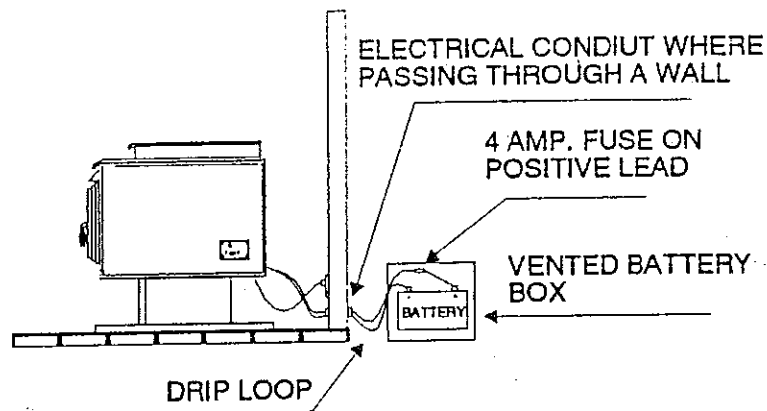


12 VOLT D.C. WIRING INSTALLATION

1. Disconnect the 110 volt AC power before connecting the 12v battery.
2. Determine location for 12v battery and obtain the proper length and type wire. (Use 18-gauge stranded wire.)
3. Drill and install 1/2" conduit where passing through a wall or floor.
4. A. Connect red 18-gauge wire to red + positive battery jack on the stove.
B. Connect black 18-gauge wire to black - negative battery jack on the stove.
C. Pass wires through conduit where used to battery location. Allow enough wire length between battery box and exterior wall and / or stove for a drip loop to prevent moisture from contacting terminals.
D. Install a 4-amp inline fuse on the red + positive lead near the battery.
E. Connect red + positive lead to the positive terminal on the battery.
F. Connect the black - negative lead to the - negative terminal on the batter.
G. Reconnect 110v AC power. The stove is now ready for 12v back-up and will switch automatically to 12v operation when AC power is lost and back to AC power when restored and recharge the battery.

"+" RED DENOTES POSITIVE
"-" BLACK DENOTES NEGATIVE
WARNING! NEVER USE AN UNSEALED BATTERY

FIG. 6



OUTSIDE BATTERY LOCATION SHOWN

V. CLEANING INSTRUCTIONS - -

A. LEVEL ONE (WEEKLY / BI-WEEKLY):

CAUTION: The stove will need to be shut off and thoroughly cooled before any maintenance is performed. Remember to always disconnect the stove from the power source before doing any cleaning or maintenance. Once a week, inspect the following and clean as necessary:

- 1) The ash pans. (See "NOTICES" for proper disposal.)
- 2) The protective screen over the fan in the rear. Remove any lint.
- 3) The heat exchanger tubes. (If cleaning is necessary, see Level Two.)
- 4) Burn pot. Empty and clean as necessary. While the pot is removed, it's a good time to vacuum below it. **NOTE:** Flash build-up will be in direct proportion to the ash content of the fuel you use. (Refer again to Recommended Fuel Types.)
- 5) After you've thoroughly cleaned the ash pans and the burn pot (including removal of

any build up in the air holes), replace the pans and the fire pot.

B. MAINTENANCE - - LEVEL TWO - - (AFTER EACH HALF TON OF PELLETS HAVE BEEN CONSUMED) (1000 LBS):

CAUTION: The stove will need to be shut off and thoroughly cooled before any maintenance is performed. Remember to always disconnect the stove from the power source before doing any cleaning or maintenance.

1) Repeat the LEVEL ONE MAINTENANCE.

2) Remove all pellets and particles and sawdust from the hopper and vacuum the hopper and exposed portions of the auger. Note that most home vacuum cleaners will permit fine ash to escape. A Shop Vac™ or wet-dry is recommended. Be sure to discard the vacuum bag after each application to your pellet stove. Refer to "NOTICES" for proper disposal.

3) Inspect and clean as necessary the 3" exhaust and heat exchange tubes in the stove. (See below.)

4) Inspect and clean the chimney pipe and cap for soot and ash build up. It is important to keep your vent system as clean as possible to prevent the pipe from becoming restricted or plugged after prolonged burning. If you're using a clean-out tee as recommended, this is a simple process, as shown in the figure below. FIG 7

5) Check the ceramic gaskets on the door for wear and replace as necessary (usually on an annual basis).

6) **PROCEDURE FOR CLEANING 3" EXHAUST AND HEAT EXCHANGER:**

a) Close the door and remove the grill.

b) Remove the two 1 / 4 X 20 X 5 / 8" bolts from the face of the stove and pull off the face-cap. (Refer to the below drawing.) The ash rake is now accessible through the cut-out in the front of the stove.

c) Insert the rake handle into the hole on the lower front of the ash rake and pull the handle back and forth several times in a brisk fashion to remove any ash buildup.

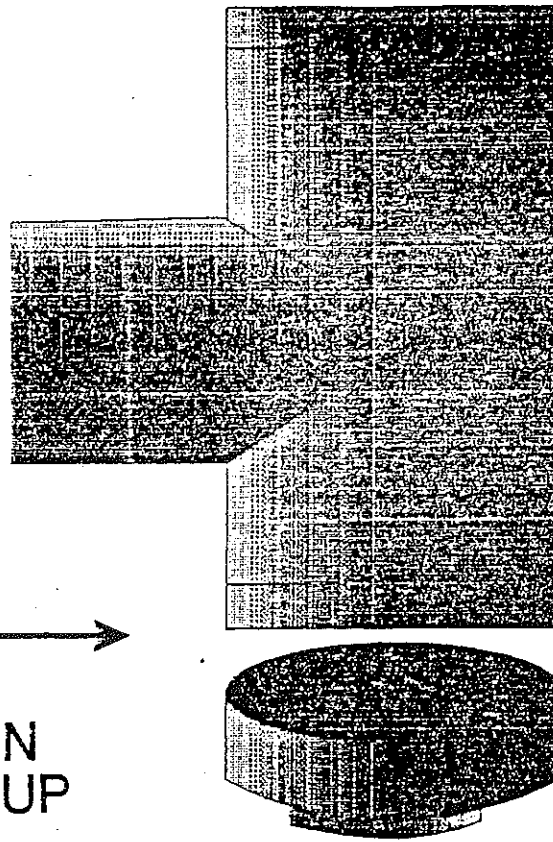
d) This is a good time to inspect the 3" exhaust and the heat exchange area for any ash buildup. Remove as required with a brush or vacuum. FIG 8

C. LEVEL THREE - ANNUALLY OR AFTER 2-3 TONS (4,000 -6,000 PELLETS HAVE BEEN CONSUMED).

CAUTION. The stove will need to be shut off and thoroughly cooled before any maintenance is performed. Remember to always disconnect the stove from the power source before doing any cleaning or maintenance.

1. Repeat LEVEL ONE maintenance.

FIG. 7



REMOVE CAP, THEN
CLEAN ASH BUILD UP

NOTE: THE ASH RAKE IS SHOWN OUTSIDE THE STOVE FOR CLAIRITY. IT IS ACCESSIBLE BY REMOVING THE GRILL AND FACE C. THE ASH RAKE IS ACTIVATED BY INSERTING THE ASH RAKE HANDLE INTO THE RAKE THROUGH THE HOLE PROVIDED. MOVE THE RAKE BACK AND FORTH TO CLEAN THE HEAT EXCHANGE TUBES USING A FLASHLIGHT. INSPECT THE EXHAU TUBE THROUGH THE HOLE IN THE ASH RAKE. VACUUM OR SWEEP AS REQUIRED TO REMOVE EXCESSIVE ASH BUILD-UP

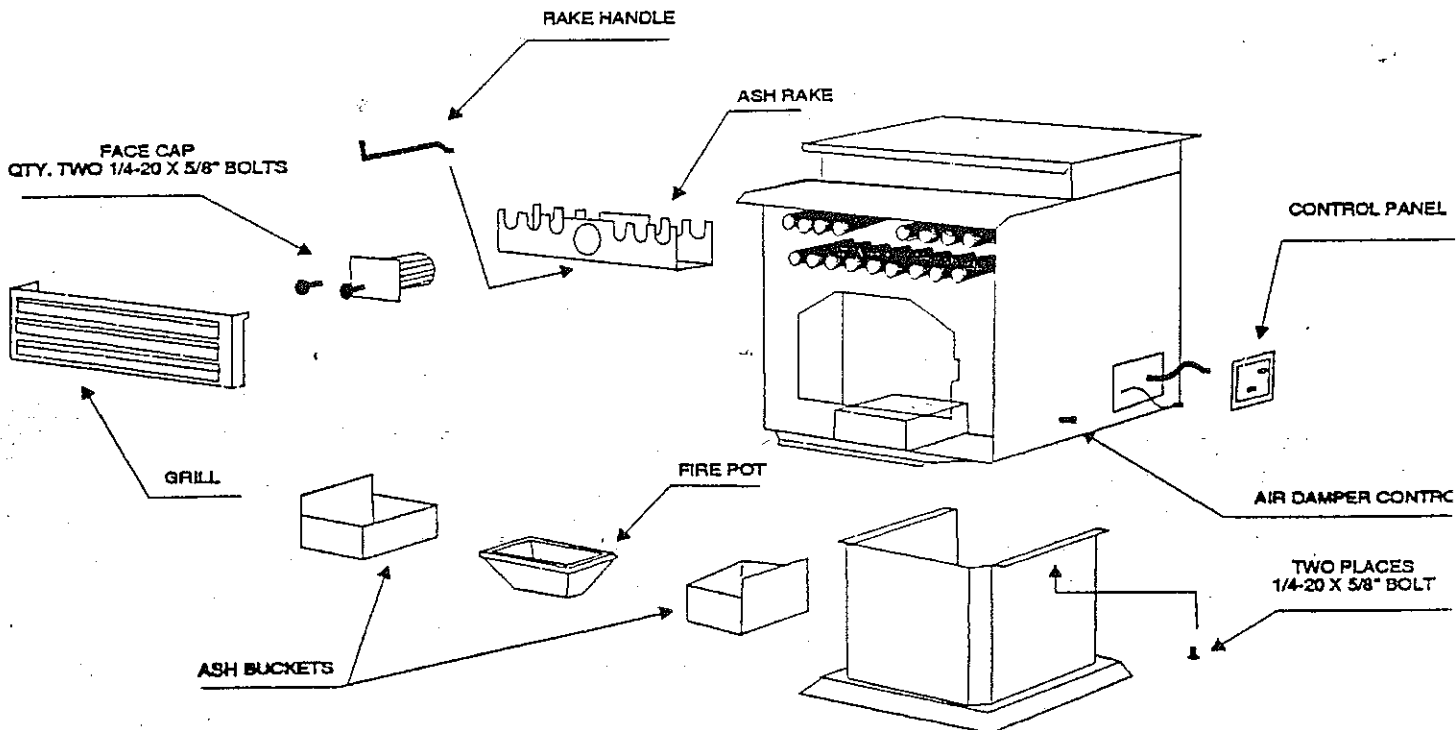


FIG. 8

2. Remove all pellets, particles and sawdust from the hopper and vacuum the hopper and exposed portions of the auger. Your job will be made simpler if you permit the unit to run completely out of pellets with the fire off. Note that most home vacuum cleaners will permit fine ash escape into the home. A shop vac or wet / dry vac is recommended. Be sure to discard the vacuum bag after each application. Refer to "NOTICES" section for proper disposal. Perform all steps listed in LEVEL TWO, including the very necessary cleaning of the 3" heat exhaust pipe and heat exchangers.

3. DOOR SEAL AND / OR GASKET: Replacements may be necessary after a year's use. If so, we recommend purchasing the replacement gasket and sealant. (Available from the factory. See Parts Listing.) Remember that leakage around the door seal will cause insufficient combustion air to the burn pot. Over time, the ceramic gasket can shrink, become brittle, and begin to deteriorate. The "dollar bill test" is a simple check to test the integrity of the seal (so long as the unit is cold). Simply take a dollar bill and place it at various points around the door, closing and latching the door on the dollar bill. The dollar bill should either be impossible to pull through, or can be pulled through only with some difficulty. (P.S. - Don't tear your dollar bill.)

The door seal is replaced as follows: Remove the door from the stove by lifting straight upwards off its hinge pins while in the open position. Place the door on a flat surface, being careful not to lean it against the door handle. Remove the old gaskets from the cast door and scrape any remaining adhesive. The cast surface must be clean and free of dirt, scale or adhesive.

4. Lay out the replacement seal in the cast iron groove which you have just cleaned. Trim as necessary and set aside. Apply about a 1 / 4" bead of the gasket cement in the channel in a uniform manner, being careful not to contaminate the adhesive, once in place. Apply the ceramic gasket to the gasket surface, starting at the center (equal distance) between the hinge pads, taking care not to stretch the gasket. If stretched, the gasket tends to shrink after use, and can work loose from the adhesive. Insure there are no gaps and do not overlap the gasket ends. Allow the adhesive to dry thoroughly (8-16 hours), before installing on the stove. After reinstalling the door, check the integrity of the job performed. Allow the adhesive to fully harden for 24 hours with the door closed and latched. Check periodically during your first few fires.

VI. INSTALLATION OF REPLACEMENT GLASS

1. Make certain the fire is out and the stove is cool to the touch.
2. Remove the door from the stove.
3. Lay the door face down on a table or counter with the door handle hanging off the edge of the table or counter, so the door lays flat. Protect the table or counter to avoid scratches.
4. Using a Phillips screwdriver, remove the retaining screws and tabs from the door back and gently remove the glass from the door.
5. Strip the 3 / 4" gasket material from the door frame and clean all debris from the door gasket channel.

6. Using approved High-Tech gasket adhesive, apply a small amount of adhesive throughout the channel cavity. (This will hold the rope gasket in place.)
 7. Replace the old rope gasket with new rope gasket in the door cavity.
 8. Use only 5mm Neoceram Glass.
 9. Position the glass with its edges evenly overlapping the opening in the door.
 10. Replace the screws and tabs being careful not to cross thread them.
 11. Tighten each screw just a few turns until each tab is secured. Then continue to tighten each screw alternately a few turns at a time until snug. Finish by tightening each screw firmly but do not overtighten.
- TROUBLE SHOOTING GUIDE**
12. Replace the door on the stove.

<u>PROBLEM</u>	<u>CAUSE(S)</u>	<u>SOLUTION(S)</u>
PELLETS NOT FEEDING	1. Hopper is empty.	Refill hopper.
	2. Switch is off.	Turn slowly to proper setting.
	3. Appliance is unplugged.	Plug supply cord into a 120-volt grounded outlet.
	4. Power to appliance is off.	Check power supply cords. Check the fuse box or breaker box. If connected to a 12v battery, check the connections.
	5. Defect in the circuit board or auger.	See Test Check List or call certified dealer or the factory.
	6. Pressure switch defective.	See Test Check List or call certified dealer or the factory.
	7. Limit switch or relay defective.	See Test Check List or call certified dealer or the factory.
	8. Auger not primed.	Prime auger, following given instructions.
	9. Exhaust or flue is plugged.	Perform MAINTENANCE (LEVEL TWO.)

START-UP FIRE GOES
OUT

1. Air damper
control rod
incorrectly set.

Open or close to
achieve a stable,
brightly burning
flame (usually Half-
Open position. IN is
closed. OUT is
open).

2. Combustion air
inlets blocked.

Perform MAINTENANCE
(LEVEL TWO). If you
have direct air
access, make sure it
is not blocked.

3. Burn Pot full of
ashes and residue.

Perform MAINTENANCE
(LEVEL ONE). Make
sure all holes are
clean.

4. Hopper feed door
or glass door open.

Make sure each is in
place and securely
latched.

5. Fire Pot
incorrectly
positioned.

Align properly.

6. Insufficient fire
starter used.

Repeat start-up
procedures, using an
adequate amount of
fire starter.

FIRE POT OVERFILLS
ON START-UP

1. Air damper
control rod
incorrectly set.

Open or close to
achieve a stable,
brightly burning
flame (usually Half-
Open position. IN is
closed; OUT is open.

2. Door open.

Make sure it is in
place and securely
latched.

3. Fire Pot out of
place.

Align properly.

4. Inadequate fire
starter used.

Repeat start-up
procedures, using an
adequate amount of
fire starter.

5. Clogged burn pot.

Perform MAINTENANCE
(LEVEL ONE),
insuring all holes
in fire pot are
clear and all ash
and residue are
removed.

6. Insufficient
combustion air.
(Inlet blocked.)

Perform MAINTENANCE
(LEVEL ONE).

LAZY FLAME DULL-TO-
IN COLOR

1. Insufficient
combustion air.

Perform MAINTENANCE-ORANGE (LEVEL ONE), paying close attention to holes in fire pot. Access the 3" exhaust tube. (See MAINTENANCE, LEVEL TWO.) Check for ash formation on heat exchanger tubes. Insure that the clean-out plug is properly seated and sealed. Check door gasket seal. (SEE MAINTENANCE INSTRUCTIONS for replacement.)

2. Pellet feed rate
too high.

If you cannot attain the proper setting, you may have to adjust the feed rate on the control panel. If you do not feel confident to perform this function yourself, call your dealer or the factory.

FIRE GOES OUT OR
STOVE QUILTS
AUTOMATICALLY

1. The hopper is
empty.

Refill hopper.

2. Pellets not
feeding.

Auger may be jammed. Call your certified dealer or factory for proper procedure. Unplug the unit from the power source.

3. Air damper
control rod
incorrectly.

Open or close to achieve a stable, brightly burning flame (usually Half-Open position. IN is closed; OUT is open).

4. High-limit
temperature switch
(thermodisc) has
tripped.

Call certified
dealer or factory.

5. Pellet feed rate
is too low.

If you cannot attain
the proper setting,

SMOKEY EXHAUST

6. Power supply has been disrupted due to a power failure (120v.) or incorrect wiring and / or blown 4-amp fuse (12v. system).

1. Air damper control rod incorrectly set.

2. Combustion in take is restricted.

3. Hopper door or viewing door left ajar.

4. Fire Pot plugged.

5. Exhaust clogged.

6. Restriction in the combustion air supply source.

7. Incorrect control setting.

8. Fuel.

1. One or more of the automatic features has shut the unit down.

you may have to adjust the feed rate on the control panel. If you do not feel confident to perform this function yourself, call your authorized dealer or the factory.

Check power supply cords. Check the fuse box or breaker box. If connected to a 12v. battery, check the connections and the fuse.

Open or close to achieve a stable, brightly burning flame (usually Half-Open position. In is closed; OUT is open.)

Perform MAINTENANCE (LEVEL ONE).

Securely latch door.

Perform MAINTENANCE (LEVEL ONE).

Properly clean the vent pipe. See MAINTENANCE (LEVEL TWO).

If direct air access kit has been installed, make sure the duct is clear.

Turn to next highest setting.

Do not use high-ash or poor quality fuel or fuel that is wet.

See Test Check List or call your authorized dealer or the factory.

STOVE HAS SHUT OFF,
BUT HOPPER IS STILL
FULL

FIRE POT OVERFILLS
AND SPILLS OVER

- | | |
|---|--|
| 1. Air damper control rod incorrectly set. | Open or close to achieve a stable, brightly burning flame (usually Half-Open position. IN is closed; OUT is open). |
| 2. Combustion intake is restricted. | Perform MAINTENANCE (LEVEL ONE). |
| 3. Hopper door or viewing door left ajar. | Securely latch door. |
| 4. Fire Pot plugged. | Perform MAINTENANCE (LEVEL ONE). |
| 5. Exhaust clogged. | Properly clean the vent pipe. See MAINTENANCE (LEVEL TWO). |
| 6. Restriction in the combustion air supply source. | If direct air access kit has been installed, make sure the duct is clear. |
| 7. Incorrect control setting. | Turn to next highest setting. |
| 8. Fuel. | Do not use high-ash or poor quality fuel or fuel that is wet. |

BLOWER NOT OPERATING

- | | |
|-----------------------------------|---|
| 1. No power to the stove. | In sure the stove is plugged into an operable wall outlet. Check to see if your circuit has tripped or if you have a blown fuse. If using a 12v. battery, check the f-amp fuse and insure the battery is charged. |
| 2. No power to the control board. | Check the wire connections between the power cord and terminals. (Refer to Fig 2) |

AUGER NOT OPERATING



WINDOWS GET SOOTED
UP FREQUENTLY

1. Air damper
control rod
incorrectly set.

Open or close to
achieve a stable,
brightly burning
flame (usually Half-
Open position. IN is
closed; OUT is
open).

2. Insufficient
combustion air.

Perform MAINTENANCE
(LEVEL ONE), paying
close attention to
holes in fire pot.
Access the 3"
exhaust tube. (See
MAINTENANCE, LEVEL
TWO.) Check for ash
formation on heat
exchanger tubes.
Insure that the
cleanout plug is
properly seated and
sealed. Check the
door gasket seal.
See MAINTENANCE
INSTRUCTIONS for
replacement.

SMOKE-SMELL IN THE
HOUSE AND UNIT HAS
SHUT DOWN

1. The unit has
shut off due to an
intermittent power
failure.

Check all electrical
power sources,
including the battery
backup if installed.
Wait 1 / 2 hour and re-
light. If unit will not
light and burn
properly, call your
authorized dealer or
factory. REFER TO TEST
CHECK LIST.

SMOLDERING FIRE

1. The Fire Pot
has become
overfilled.

Refer to solution to
correct this condition,
found above.

2. Pellets are wet
and deteriorating.

Use high-quality
pellets shipped in
plastic-lined bags. All
pellets should be kept
dry and stored in a dry
place.

TEST CHECK LIST AND UNUSUAL PROBLEMS

Your PARAGON Pellet Heater, though it may appear complex, is really quite simple. And, if you are a do-it-yourselfer, you'll be able to diagnose the following more unusual problems:

SOOT OR ASH AROUND
STOVE OR IN HOUSE

2. Auger is jammed.

There is a reversal procedure, as your auger motor is 12v. DC. Call your authorized dealer or the factory for the proper and safe procedure.

1. Fire-view door is being left open while the stove is operating.

Do not open the fire-view door during operation of the stove. Do not perform cleaning operations on the glass of LEVEL-ONE MAINTENANCE with the door open. Insure also the gasket is intact.

UNBURNED PELLETS
BUILDING UP

1. Air damper control rod incorrectly set.

Open or close to achieve a stable, brightly burning flame (usually Half-Open position. IN is closed; OUT is open).

2. Insufficient combustion air.

Perform MAINTENANCE (LEVEL ONE), paying close attention to holes in fire pot. Access the 3" exhaust tube. (See MAINTENANCE, LEVEL TWO.) Check for ash formation on heat exchanger tubes. Insure that the cleanout plug is properly seated and sealed. Check the door gasket seal. See MAINTENANCE INSTRUCTIONS for replacement.

3. Pellet feed rate too high.

If you cannot attain the proper setting, you may have to adjust the feed rate on the control panel. If you do not feel confident to perform this function yourself, call your authorized dealer or the factory.

PROBLEM

FAN WON'T RUN

FAN RUNS, AUGER
WON'T RUN

AUGER RUNS
CONTINUOUSLY (ANY
POSITION)

SOLUTION:

Check in this order:

1. AC power supply and / or DC power supply;
2. Incorrect polarity to fan;
3. Loose wire in the stove;
4. Bad thermodisc (continuity check);
5. Direct battery test connecting fan (CAUTION: Watch polarity) directing to a 12v. source.
6. Replace PC Board Assembly.

Check in this order:

1. What position is the switch? 0-1-2-3-? It will not run on the zero position.
Reset. This may take 30 seconds.

2. Check the trim pot adjustments and observe the green LED light. It will come on each time the auger comes on. Then, switch to a MEDIUM or HIGH position.

3. Auger motor wires are loose or burned: Check and replace as necessary.

4. The stove has become over-heated and needs to cool down in normal cycle. Place switch to the "O" position. Also, check the air pressure switch for proper hose routing and for correct wiring and wiring integrity. If this does not correct the problem, you may check the air-pressure switch by blowing air into the brass aperture located at the rear of the stove. You should hear an audible click. This does not mean, however, that the switch is good. The contacts inside could be burned. The air-pressure switch can be bypassed by connecting the auger directly to a 12v. battery.

5. Replace the PC Board Assembly.

Check the following:

1. For correct wiring.
2. POT adjustments may be turned off.
3. Physical damage to the slide switch and / or the circuit board.
4. Replace PC Board Assembly.

**AUGER RUNS
CONTINUOUS (ONE
POSITION)**

Check the following:

1. Trim pot adjustments. They may be turned off or too low or broken.
2. Physical damage to slide switch or circuit board or reset button.
3. Replace PC Board Assembly.

AIR PRESSURE SWITCH

Check the following:

1. Disable the APS and bypass as outlined above. Replace as necessary for normal operation.
2. Check that the A-wire is connected to Common and the B-wire is connected to the normally closed position.
3. Check the high-low pressure hose hook-up.
4. Check the wiring integrity.
5. The exhaust pipe and / or flue may be excessively dirty and clogged, thus creating a back pressure. (This is why the switch is installed.)
6. Hose disconnected from auger.
7. Improper installation, such as too much vent pipe or of the wrong size.
8. Defective air-pressure switch. (See above Check List.)
9. Extremely windy conditions.

OPERATIONAL NOISE

A. AIR NOISE

- | | |
|---|---------|
| 1. Air being forced through the heat exchanger tubes. | Normal. |
|---|---------|

**B. VARYING HUM OR
LOW-PITCH WHINE**

- | | |
|---|---------|
| 2. Blower sounds as fan speeds are changed. | Normal. |
|---|---------|

**C. INTERMITTENT
MECHANICAL BUZZING**

- | | |
|------------------------------|---------|
| 3. Auger motor in operation. | Normal. |
|------------------------------|---------|

D. CLINKING SOUND

- | | |
|---------------------------------------|---------|
| 4. Pellets feeding into the burn pot. | Normal. |
|---------------------------------------|---------|

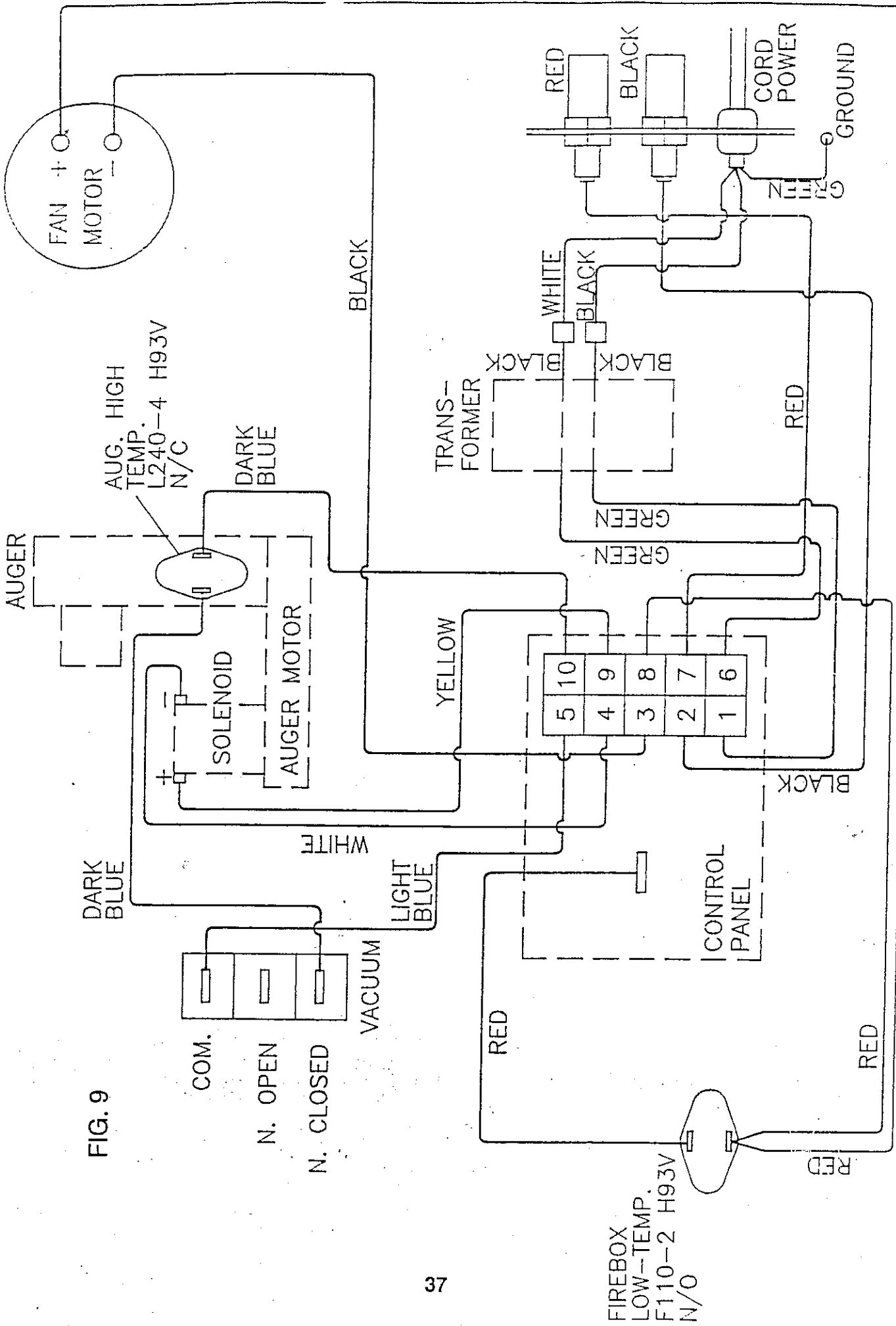


FIG. 9

MODEL 5440 PELLET HEATER REPAIR PARTS LIST

KEY	PART NO.	DESCRIPTION	QTY.
1	88703	FIREBOX WELD. ASSY.	1
2	88710	PEDESTAL WELD. ASSY.	1
3	88704	HOPPER WELD. ASSY.	1
4	88711	HOPPER LD WELD. ASSY.	1
5	88718	LOUVERED GRILLE WELD.	1
6	23888	CABINET BACK	1
7	88487	FILTER SCREEN	1
8	23714	FLUE COLLAR COVER	1
9	23885	CABINET LEFT SIDE	1
10	23884	CABINET RIGHT SIDE	1
11	23701	FLUE HOUSING TOP	1
12	23888	ASH PAN	2
13	23708	HEARTH EXTENSION	1
14	88714	FACE CAP & PLUG	1
15	23718	DOOR HINGE ROD	1
16	88088	FACE CAP GASKET, CLEANOUT	1
17	88882	FEED DOOR HANDLE ASSEMBLY	1
18	40310	CAM	1
19	89588	GASKET, AUGER CASTING	1
20	80312	NORPRENE TUBING (4')	1
21	80310	FAN ASSEMBLY	1
22	80311	AUGER MOTOR	1
23	88712	AUGER ASSEMBLY	1
*	40294	AUGER CASTING	1
*	89588	AUGER SHAFT/FLIGHT WELD.	1
*	83877	BRONZE BUSHING	1
*	89800	FLANGE PLATE	1
*	83878	DELREN BUSHING	1
*	83339	1/4-20x3/4 HK BOLT, BL, OX, NL	6
*	83250	1/4-20 KEP NUT	6
*	83048	5/16 LD, 3/4 O.D., 1/16 THK	4
*	83434	1/4-20x1/2 HEX BOLT	1
*	89888	AUGER NIPPLE	1
*	89803	BRASS NIPPLE	1
24	23889	CAST IRON BURN POT (DRILLED)	1
25	88708	DOOR ASSEMBLY (23888)	1
26	83048	WASHER 5/16 LDx3/4 O.D., 1/16 THK	8
27	83109	SQUARE NUT 1/4-20	1
28	83250	1/4-20 KEP NUT	7
29	83438	5/16 LD, 5/8 O.D. WASHER	2
30	89590	BRASS TRIM	2
31	89595	CERAMIC INSULATION	1
32	80316	CIRCUIT ASSY.	1
33	89597	COMBUSTION AIR CONTROL KNOB	1
34	80315	PRESSURE SWITCH	1
35	89588	SWIVEL-HEAD BRASS TUBING CONNECTOR, AMBIENT	1
36	80313	L240 SWITCH	1
37	88483	F-110 SWITCH	1
38	89801	BRASS SPRING	1
*	83337	3/16-10x1 1/4 HK, G/3, BL, OX, NL	8
*	83172	#10x1/2 HW S.M. SCREW, BL, OX	28
*	83258	1/4-20x3/4 HW TY F BLK OX, NL	2
*	83338	5/16-18 LOCKNUT, BL, OX	8
*	82710	7/8 CAP	1
*	83220	10-32x3/8 HW, W, HD, TS, BLK, NL	5
*	83343	#10x1/2 HW, W, HD, D.P., BL, NL	2
*	83339	1/4-20x3/4 HK BOLT, BL, OX, NL	2
*	88047	GLASS GASKET	3
*	83261	LOCKNUT 1/4-20 JAM TOP Znf	2
*	83433	3 X 14 HW, W, HD, HARD TS	2
*	88028	OWNER'S MANUAL	1
39	80317	WIRING HARNESS	1
*	88583	COVER HINGE GASKET	10'

* NOT SHOWN

VIII. OPTIONS:

- A. Thermostat (54RTO): (Including thermostat and wiring) -
- Allows the PARAGON to be controlled from another room. When using a thermostat, set the stove to the medium or high setting, and it will switch automatically to the low setting after the desired temperature has been reached. The stove will burn at the rate selected on demand by the thermostat (Medium or High).

- B. 54DCK 12-volt Direct Current Hook-Up Kit -- Comes complete with polarized wiring, fuse protection, battery connectors.

- C. 54DAAK DIRECT AIR ACCESS KIT -- Provides outside air for combustion, maintains proper air pressure within the home, and improves draft and performance.

- D. 54MHK MOBILE HOME INSTALLATION KIT -- Including grounding strap, 7/16" bolt, lag screw, air flange, and the piping including with the 54DAAK.

- E. 54 HEK BOLT-ON HOPPER EXTENSION KIT - Increase hopper height for up to 100-lbs. pellet capacity.

owners manual

HOW TO ORDER REPAIR PARTS OR "OPTIONS"

THIS MANUAL WILL HELP YOU TO OBTAIN EFFICIENT, DEPENDABLE SERVICE FROM THE FURNACE, AND ENABLE YOU TO ORDER REPAIR PARTS CORRECTLY.

KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

WHEN WRITING, ALWAYS GIVE THE FULL MODEL NUMBER WHICH IS ON THE NAMEPLATE ATTACHED TO THE BACK OF THE FURNACE.

WHEN ORDERING REPAIR PARTS OR OPTIONS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST:

1. The **PART NUMBER**
2. The **PART DESCRIPTION**
3. The **MODEL NUMBER:** 5440
4. The **SERIAL NUMBER**

BEFORE INSTALLING YOUR HEATER, CHECK THE ABOVE APPROPRIATE BOX AND FILL IN THE SERIAL NUMBER OF YOUR HEATER IN THE SPACES PROVIDED ABOVE.

UNITED STATES STOVE COMPANY

111 Industrial Drive • P.O. Box 151
South Pittsburg, TN 373880
(615) 837-2100