PLEASE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

HP-24 7KW HP-24G 9KW

PELLET STOVE

OWNER'S MANUAL

Contact your building or fire officials about restrictions and installation inspection requirements in your area.

PLEASE READ THIS ENTIRE MANUAL BEFORE INSTALLATION AND USE OF THIS PELLET BURNING ROOM HEATER. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.

THIS MANUAL IS PRINTED ON RECYCLED PAPER.

PRODUCT SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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Technical Specification

Stove Mass 98 kg

Nominal output (Maximum setting)

Total Efficiency	92.3 %
Nominal Heat Output	9.4 kW
Mean CO Emission (at 13% O_2)	0.016%
Mean Flue Gas Temperature	146 °C
Flue Gas Mass Flow	5.2 g/s

Reduced output (Minimum setting)

Total Efficiency	90.0 %
Nominal Heat Output	6.7 kW
Mean CO Emission (at 13% O_2)	0.016 %

Mean Flue Gas Temperature	139 °C
Flue Gas Mass Flow	5.6 g/s

Introduction

PELLET QUALITY:

Pellet quality is important, please read the following:

Your pellet stove has been designed to burn wood pellets only. Do not use any other type of fuel, as this will void any warranties stated in this manual.

The performance of your pellet stove is greatly affected by the type and quality of wood pellets being burned. As the heat output of various quality wood pellets differs, so will the performance and heat output of the pellet stove.

CAUTION: It is important to select and use only pellets that are dry and free of dirt or any impurities such as high salt content. Dirty fuel will adversely affect the operation and performance of the unit and will void the warranty. The Pellet Fuel Industries (P.F.I.) has established standards for wood pellet manufacturers. We recommend the use of pellets that meet or exceed these standards. Please use a recommended pellet type.

P.F.I. PELLET STANDARDS:

Fines (fine particles).....1% maximum through a 3 mm(1/8") screen
Bulk Density.....650 kg//m^3 minimum
Size.....6 mm to 8 mm diameter, 12mm to 35 mm long
Ash Content.....1% maximum (Premium grade)
.....3% maximum (Standard grade)
Moisture Content.....8% maximum
Heat Content.....approximately 17500 KJ/kg minimum (net calorific value)

ASH: The ash content of the fuel and operation of your stove will directly determine the frequency of cleaning. The use of high ash fuels may result in the stove needing to be cleaned daily. A low ash fuel may allow longer intervals between cleaning.

CLINKERING: [clinkers are silica (sand) or other impurities in the fuel that will form a hard mass during the burning process]. This hard mass will block the airflow through the Burn Pot Liner and affect the performance of the stove. Any fuel, even approved types, may tend to clinker. Check the Burn-Pot Liner daily to ensure that the holes are not blocked with clinkers. If they become blocked, remove the liner (when the unit is cold) and clean/scrape the clinkers out. Clean the holes with a small pointed object if required. Refer to the section Routine Cleaning and Maintenance.

PELLET FEED RATES: Due to different fuel densities and sizes, pellet feed rates may vary. This may require an adjustment to the slider damper setting or to the auger feed trim setting on low. These modifications should be carried out during commissioning by a qualified installer.

Since the stove supplier has no control over the quality of pellets that you use, we assume no liability for your choice in wood pellets.

Store pellets at least 36" (1 m) away from the pellet stove.

IMPORTANT SAFETY DATA:

Please read this Owner's Manual before installing or operating your Pellet Stove. Failure to follow these instructions may result in property damage, bodily injury or even death. Contact your local building or fire official to obtain a permit and any information on installation restrictions and inspection requirements for your area.

It is imperative that all national and local regulations and European Standards are complied with when installing the appliance.

To prevent the possibility of a fire, ensure that the appliance is properly installed by adhering to the installation instructions. The dealer will be happy to assist you in obtaining information with regard to your local building codes and installation restrictions.
Be sure to maintain the structural integrity of the home when passing a vent through walls, ceilings, or roofs.
The stove's exhaust system works with negative combustion chamber pressure and a slightly positive chimney pressure. A chimney draught of 12 Pa can be regarded as typical when operating at maximum output. It is very important to ensure that the exhaust system be sealed and airtight. The ash pan and viewing door must be locked securely for proper and safe operation of the pellet stove.
In a small number of installations, occasional local weather conditions (e.g. wind from a particular direction) may cause downdraught in the flue and cause the stove to emit fumes. In these circumstances, the stove should not be used. A professional flue installer will be able to advise on solutions to this problem
Do not burn with insufficient combustion air. A periodic check is recommended to ensure proper combustion air is admitted to the combustion chamber. Setting the proper combustion air is achieved by adjusting the slider damper located on the left side of the stove.

When installing the stove in a mobile home, it must be electrically grounded to the steel chassis of the home and bolted to the floor. Make sure that the structural integrity of the home is maintained and all construction meets local building codes.

Minor soot or creosote may accumulate when the stove is operated under incorrect conditions such as an extremely rich burn (black tipped, lazy orange flames).

If you have any questions with regard to your stove or the above-mentioned information, please feel free to contact your local dealer for further clarification and comments.

SAFETY WARNINGS AND RECOMMENDATIONS:

Caution: Do not connect to any air distribution duct or system.

Do not burn garbage or flammable fluids such as gasoline, naptha or engine oil. Unit is hot while in operation. Keep children, clothing and furniture away. Contact may cause skin burns.

FUEL: This pellet stove is designed and approved to only burn wood pellet fuel with up to 3% ash content. Dirty fuel will adversely affect the operation and performance of the unit and may void the warranty. Check with your dealer for fuel recommendations.

SOOT: Operation of the stove with insufficient combustion air will result in the formation of soot which will collect on the glass, the heat exchanger, the exhaust vent system, and may stain the outside of the house. This is a dangerous situation and is inefficient. Frequently check your stove and adjust the slider/ damper as needed to ensure proper combustion. **See: "SLIDER/DAMPER SETTING".**

CLEANING: There will be some build up of fly ash and small amounts of creosote in the exhaust. This will vary due to the ash content of the fuel used and the operation of the stove. It is advisable to inspect and clean the exhaust vent semi-annually or every two tons of pellets.

ASHES: Disposed ashes should be placed in a metal container. The closed container of ashes should be on a non-combustible floor on the ground, well away from all combustible materials pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispensed, they should be retained in the closed container until all cinders have been thoroughly cooled.

ELECTRICAL: The use of a surge protected power bar is recommended. The unit must be grounded (earthed). The grounded electrical cord should be connected to a standard 230 volts (4.5 Amps), 50 hertz electrical outlet. Be careful that the electrical cord is not trapped under the appliance and that it is clear of any hot surfaces or sharp edges and also must be accessible. If this power cord should become damaged, a replacement power cord must be purchased from a reputable dealer. The stove's maximum power requirement is 375 watts.

GLASS: Do not abuse the glass by striking or slamming the door. Do not attempt to operate the stove with broken glass. The stove uses ceramic glass. Replacement glass must be purchased from a qualified dealer. Do not attempt to open the door and clean the glass while the unit is in operation or if glass is hot. To clean the glass, use a soft cotton cloth and mild window cleaner, gas or wood stove glass cleaner, or take a damp paper towel and dip into the fly ash. This is a very mild abrasive and will not damage the glass.

FLAMMABLE LIQUIDS: Never use Flammable Liquid such as gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in the heater. Keep all such liquids well away from the heater while it is in use.

SMOKE DETECTOR: Smoke detectors should be installed and maintained in the structure when installing and operating a pellet burning appliance.

OPERATION: The ash pan and door must be closed securely for proper and safe operation of the pellet stove. Also ensure all gaskets on the door are checked and replaced when necessary.

KEEP ASH PAN FREE OF RAW FUEL.
To avoid a fire in the ash pan, DO NOT PLACE UNBURNED OR NEW PELLET FUEL IN ASH PAN.

INSTALLATION: Be sure to maintain the structural integrity of your home when passing a vent through walls, ceilings, or roofs. It is recommended that the unit be secured into its position in order to avoid any displacement.
DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.
DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

FRESH AIR: Outside Fresh Air connection is optional. It must be connected to all units installed in Mobile and "Air Tight Homes" (R2000) or where required by local codes. Consider the total ventilation requirements for simultaneous operating with other heating appliances. For this appliance only, the room or space containing this appliance needs a permanent, unobstructed air opening of at least 825 mm^2 to satisfy UK Building Regulations. Limited air for combustion may result in poor performance, smoking and other side effects of poor combustion.

All air inlet grilles should be positioned so that they are not liable to blockage.

If you have any questions with regards to your stove or the above-mentioned information, please feel free to contact your local dealer for further clarification and comments.

SINCE THE STOVE SUPPLIER HAS NO CONTROL OVER THE INSTALLATION OF YOUR STOVE, THE STOVE SUPPLIER GRANTS NO WARRANTY IMPLIED OR STATED FOR THE INSTALLATION OR MAINTENANCE OF YOUR STOVE. THEREFORE, THE STOVE SUPPLIER ASSUMES NO RESPONSIBILITY FOR ANY CONSEQUENTIAL DAMAGE(S).

SAVE THIS INSTRUCTION MANUAL FOR FUTURE REFERENCE!

Caution: Keep the fire box clean, before you start the stove.

AUTOMATIC SAFETY FEATURES:

Your pellet Stove has the following safety features:

A. The stove will shut off when the fire goes out and the exhaust temperature drops below 120°F(52°C).

B. The stove has a high temperature safety switch. If the temperature on the hopper reaches 200°F
(93°C), the auger will automatically stop and the stove will shut down when the exhaust temperature cools. If this happens, call your local dealer to reset the 200°F (93°C) high limit switch.
ALSO FIND THE REASONS WHY THE UNIT OVERHEATED.

C. If the power goes out, the unit will stop running. When the power comes back on, the stove will not restart unless the exhaust temperature is still above 120°F (52 °C).

Product performance

The pellet stove has an advanced designed and has individual fresh air input and venting system. Negative pressure burning technology causes high efficiency and little ash outlet during burning. It will be shut off automatically by wrong burning or if out of fuel. Large heat output, quick heating and low fuel cost are its advantages.

1. Main performance

Model		HP24
Rating input	BTU/h	30000BTU/H(9.4KW/HOUR)
Rating fuel consumption	kg/h	1.6 +_5%
Heating area	m^2	~120
Rating voltage	V	230
Rating frequency	Hz	50
Maximum power requirement	W	375
Hopper	kg	20
Venting pipe diameter	mm	80
Air input pipe diameter	mm	50
Unit size (wide* depth*high)	mm	650*600*1000

2. Wood pellet

This stove uses wood pellet fuel. It is small column pellet with cleaning surface. The diameter is ¢6-8mm, the length is no more than 35mm, and its humidity is no more than 10%. Ash is no more than 1%.

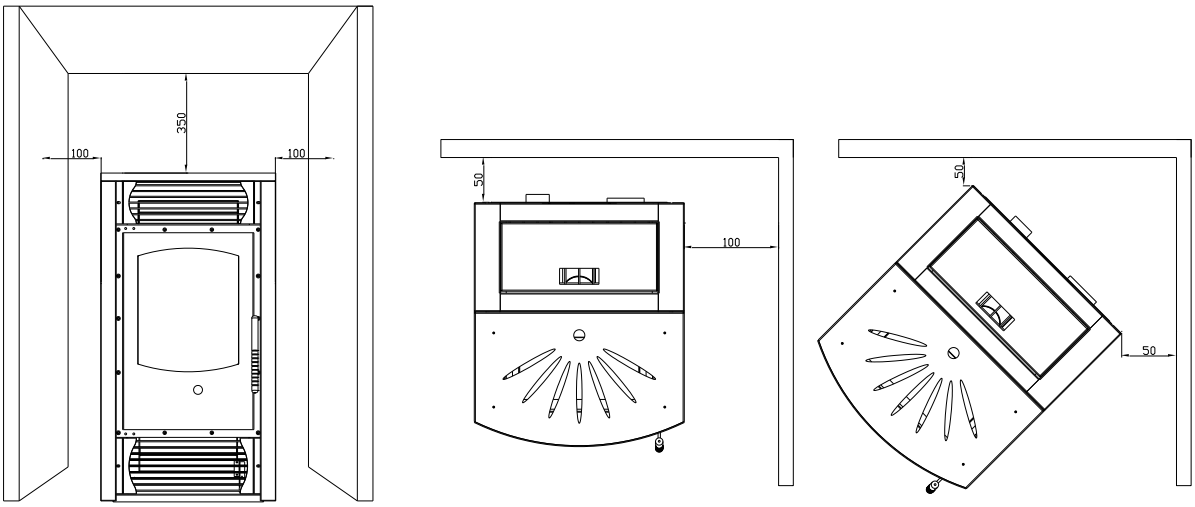
Take care of the pellet. Do not damp or crush it or it will affect the efficiency and the dust will be collected on the door glass.

Installation

1. Deciding where to Locate your Pellet Appliance:

When installing this unit on a combustible floor (for example linoleum, hardwood flooring) a non-combustible hearth pad **(15mm thickness)** must be under the unit suitable to withstand the weight of the appliance. The pad must extend at least the width of the appliance [22" (558 mm)] and at least the depth of the appliance plus 6" (153 mm) in front of the appliance [29 3⁄4" (756 mm)].

The clearance between the walls or to the top should be no less than the size in the figure.



Min. installation clearance (mm)

2 Electrical:

The unit must be grounded (earthed). The grounded electrical cord should be connected to a standard 230V, 50Hz electrical outlet. Be careful that the electrical cord is not trapped under the appliance and that it is clear of any hot surfaces or sharp edges and also must be accessible. If this power cord should become damaged, a replacement power cord must be purchased from a reputable dealer.

3 Air input and venting pipe Installation

Before setting out to installing the appliance, it is imperative that all national and local regulations and European Standards are complied with Please consult with local government and authorities as necessary.

The information given below is for guidance only and it cannot be assumed that it complies with national and local regulations.

Consider the total ventilation requirements for simultaneous operating with other heating appliances. For this appliance only, the room or space containing this appliance needs a permanent, unobstructed air opening of at least 825 mm^2 to satisfy UK Building Regulations. Limited air for combustion may result in poor performance, smoking and other side effects of poor combustion.

Every effort must be made to ensure that air vents installed for this appliance are kept clear of debris and in full working order at all times. Preferably the grilles should be positioned as close to the appliance as practicable where air supply to the appliance will be unimpeded.

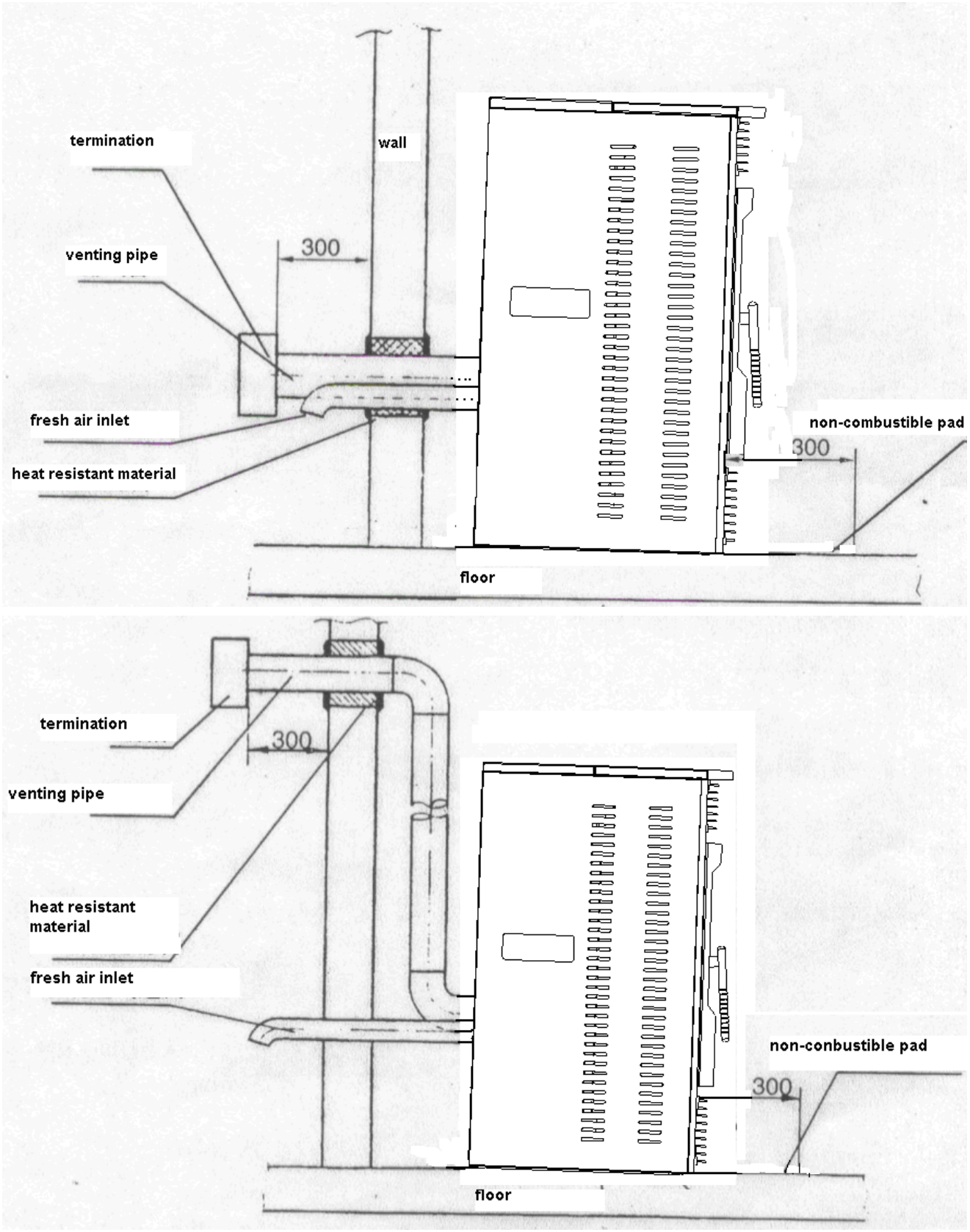
There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room

The stove air input pipe diameter is ¢50 mm, venting pipe diameter is ¢80 mm. The total length of pipes is not longer than 3m. Indoor venting pipe joint should be sealed by silicone sealant to prevent exhaust leaking into the room. Venting pipe and termination should be waterproof and avoid being blocked. Or, the stove cannot work properly.

When the installation is limited by space or the owner's special requirements and the pipes' length should be longer than 3m and need elbows, the diameters of the air input pipe and venting pipe must be increased properly for smooth convection. If not, it will influence the burning and the stove cannot work properly. The owner should connect with the local seller for the right installation.

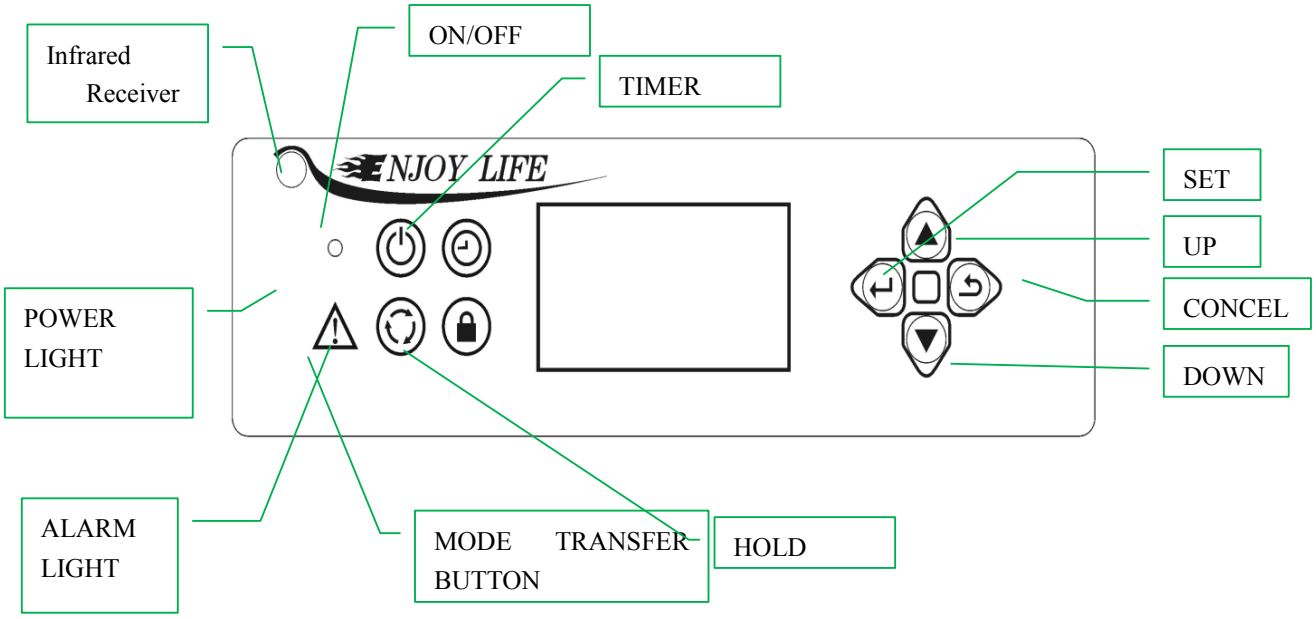
When the pellet stove is working normally, the temperature on venting pipe surface can reach 200˚C, so combustible materials, clothes and furniture should be away from the venting pipe. To prevent burns, do not touch the heating surface!

When installing the appliance, suitable access should be provided for cleaning the appliance, flue gas connector and chimney flue.



Operating Instructions

Ⅰ：BUTTON AND INDICATOR LIGHT：



1. POWER LIGHT

2. ALARM LIGHT

3. ON/OFF BUTTON

4. MODE TRANSFER BUTTON:

Set the unit's to one of three main modes settings: Manual, Temp, and Weekly.

5. TIMER BUTTON:

Order the start time or shutdown time of the unit: Press Timer, then set the period of time you needed, attention: the maximum is 7 hours. Minimum is 1 hour. After setting 5 seconds later, the stove will be inactive; it will follow your set time.

6. HOLD BUTTON:

In weekly mode, if you want to prolong current running stage, you can simply press the "hold" button and it will hold that state of the stage until the hold button is pressed again.

7. SET BUTTON:

Press set button to adjust some pre-established data, including CURRENT DATE AND TIME, WEEKLY PROGRAMMER, Temperature Units, Blower Voltage and Exhaust Voltage. Restore default setting and use Diagnostic platform are also access.

8. CONCEL BUTTON

9. UP AND DOWN BUTTON

II.Three status's description:

a：Manual:

Under this mode, you can set the heating phase.

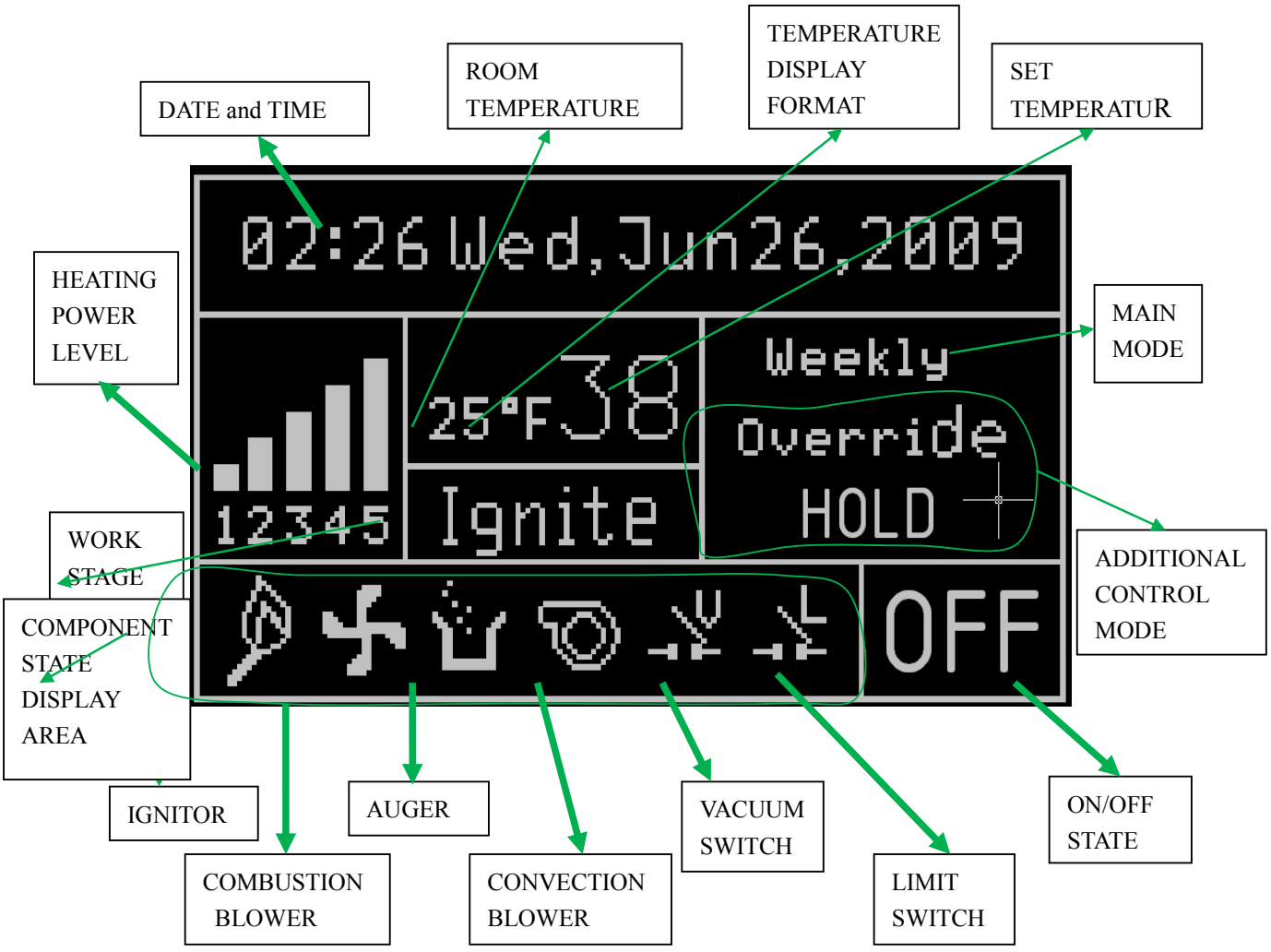
b: Temperature Control:

Under this mode, you can set the room temperature you wanted.

c：Weekly:

Under this mode, the stove will working automatically under your setting. You can have program in 7day a week, and 4 period of time a day.

Ⅲ: DISPLAY



1.DATE and TIME

2. ROOM TEMPERATURE

3. TEMPERATURE DISPLAY FORMAT

4. SET TEMPERATURE

5. MAIN MODE

6. ADDITIONAL CONTROL MODE

7. ON/OFF STATE

8. COMPONENT STATE DISPLAY AREA:

As showed in the photo, there are six components indicator in the component state display area, including IGNITOR, COMBUSTION BLOWER, AUGER, CONVECTION BLOWER, VACUUM SWITCH and LIMIT SWITCH. Once the component starts running or its contact close, the corresponding indicator appears.

9. WORK STAGE:

Ignition , heating , fire off

10. HEATING POWER LEVEL:

From 1 to 5, the heating output goes up.

Safety program

a. The stove will power off and the fire will be put out when the auger motor stops.
b. The stove will power off and the fire will be put out when the convection blower stops.
c. Auger motor stops feeding when thermodisc T3≥93°C. When the T3<93°C, the auger motor feeds again, the stove will keep working.

Caution

1. It is important to select and use only pellets that are dry and free of dirt or any impurities such as high salt content. Dirty fuel will adversely affect the operation and performance of the unit and will void the warranty. The Pellet Fuel Industries (P.F.I.) has established standards for wood pellet manufacturers. We recommend the use of pellets that meet or exceed these

standards. Ask your dealer for a recommended pellet type.
2. Please keep the door closed and sealed at all times during burning. This is for good effect and prevents hot ash flying out. As soon as the door is opened the auger stops feeding pellets and the appliance will go into shut-down mode.
3. The good burning features are a-bright yellow flame of the pellets burning with a little jumping in the gratebar (combustion retort). Pellets should not pile up and there should be no smoke. If the combustion pattern changes to a little dark glow with a lazy flame and smoke appearing from the venting terminal, the convection blower to increase the air input needs speeding up. This should only be carried out by a suitably qualified engineer.
4. For reducing the heat output, it is better to reduce the pellet feed. At the same time the speeds of convection blower and exhaust blower should be turned down until the best effect is attained. This should only be carried out by a suitably qualified engineer.
2. Venting pipe and air input pipe should keep unblocked.

Safety instructions

1. The power jack must be grounded (earthed).
2. No combustion or explosive materials around the stove when it is operating.
3. When installing this unit on a combustible floor (for example linoleum, hardwood flooring) a non-combustible hearth pad (15mm thickness), with sufficient load-bearing capacity must be under the unit.
4. Do not open the stove door when the stove is operating.
5. Do not touch the surface when the stove is operating. The high temperature of the stove glass door and venting pipe will cause burns.
6. Use only the auto-ignition device to light the appliance. For safety, do not use gasoline or other combustion or explosive materials to ignite the appliance
7. After a prolonged shut down period ensure that all passageways for supply air and exhaust gases are free from blockage.
8. In the event of a chimney fire :-
    - Raise the alarm to let others in the house know.
    - Call the Fire Brigade.
    - Reduce the appliance-burning rate by closing all air controls.
    - Move furniture and rugs away from the fireplace and remove any nearby ornaments.
    - Place a fireguard or spark guard in front of the stove.
    - Feel the chimney breast for signs of excessive heat. If the wall is becoming hot, move furniture away.
    - Ensure that the Fire Brigade can gain access to your roof space in order to check for signs of fire spread.

Maintenance

NO unauthorised modification of this appliance should be carried out.

This appliance requires regular maintenance by a competent engineer.

Use only parts recommended by the manufacturer

Maintenance must be handled only when the stove is cold and with the power switched off.

1. Using a metal scraper, remove material that has accumulated or is clogging the grate bar's holes (combustion retort). Then dispose of the ashes from the grate bar and from inside the burn box to ensure proper air flow through the grate bar**.**
2. Clean the door glass and door frame with wet soft cloth and cleanser daily. Check the gasket is complete and well in position.
3. Clean the dust in box weekly. Take out the box, put the dust out, and then sweep the dust with brush into the ash drawer.
4. Clean the dust on the heat exchange pipe fortnightly. Close the door first. Heat exchange tube cleaner rob is to be pulled back and forth a few times in order to clean away any fly ash that may have collected on the heat exchanger tubes.
5. Put the ash in the ash drawer out TIMELY.
6. When the appliance is not to be used for a long time, it should be cleaned completely. Especially clean the VENTING CHANNEL, convection blower and venting pipe.

a. Move the clean out board, clean the inner channel with the brush, and then recover it.

b. Screw out the bolts from the connection of input and output on the convection blower, clean the dust deposited inside the blower with the brush.

c. Take off the venting pipe, clean the dust inside the pipes and elbows. Then install them again and ensure the joint is sealed.

Troubleshooting

The control panel of the stove has trouble examine lights kit which are red, green and blue by 230V. Three lights are bright and flash when the stove is on normal work. When the sensor detect the abnormal work temperature (below 50°C or over 93°C), the auto-control temperature switches will shut off the fuel feed system automatically to prevent the pellet pile

or overheat. When temperature is below 50°C, the safety control system will stop the stove automatically.

For general problems, the possible reasons and the solutions are as following After solving problems, start the stove again:

problems	reason	solution
1. The blower doesn't work after pressing the start bottom.	No power in stove or in the control panel.	Check the power and wires.
No feed after igniting. A. Three lights are bright and flash.	Feed unit is blocked. Auger motor doesn't work.	Check the auger is blocked or not. Check auger motor is blocked or not. And the wires break or not. Check the fasten screw between auger and motor loose or not.
B. Three lights are bright but no flash.	No fuel in the hopper. The clock unit breaks.	Fill the fuel into the hopper. Change the clock unit.
C. The red light is bright and flash but other lights aren't bright.	The high temperature switch disconnects. The high temperature switch breaks.	Tight the high temperature switches connection. Change the high temperature switch
D. Three lights aren't bright.	No 220V power. Pellet feeder is power off. The wires of start and clock unit loose or break.	Check the 230V power. Turn on the auger motor switch. Check the wires of start and clock unit or change the unit.
3. After ignition the power is off 15min late.	Pellet feeder unit is off or pellet is too little. 50°C temperature switch breaks or the connection wires of switch loose.	Check the pellet feeder unit and restart. Check the connection wires or change the 50°C temperature switch.
4. orange and lazy fire, piled pellet, carbon on the glass	Lack of air intake for burning.	Clean the block in gate bar. Adjust the knob of convection blower and increase the air intake. Check the door and window glass gasket sealed or not. Check the air intake pipe and venting pipe blocked or not, and clean it. Change to the big diameter pipes if pipes are too long to affect combustion.
5. The fire put out and power is off automatically.	The hopper is empty. No fuel feed. The fuel feed is too little.	Put fuel into the hopper. refer to (2) Increase the fuel feed.

	High temperature switch (93°C) is wrong.	Cool the stove at least 1 hour then operate again or change the high temperature switch (93°C).
6. The blower still works after the stove is cool and fuel feed stops.	The low temperature switch (50°C) is broken.	Change this switch.
7.no enough heat wind	Unqualified fuel Blower speed is too high. Heat exchange tubes are dirty.	Use the standard specially pellet. Turn down the blower. Clean the heat exchange tubes.
8. Ash and smoke fly out.	Leak between the connection of convection motor and venting pipe. The clean method is wrong.	Use silicon rubber to seal. Clean the dust in the stove with brush to ash drawer.

Warranty

The problems caused by the owner's improper operation are not our guarantee. We can supply payment service.

This appliance requires regular maintenance by a competent engineer.

Use only replacement parts recommended by the manufacturer.

NO unauthorized modification of this appliance should be carried out. This would invalidate the warranty

Electricity control