Caring for your Wood Pellet Fire

- A pellet fire needs to be cleaned regularly to ensure it is running efficiently
- A complete service is recommended every year. Contact your local agent for a service, or look on the Pellet Fire Solutions website (www.pelletfiresolutions.co.nz) for service agent contact details.
- Your burn pot liner must be clean with all the holes visible prior to starting your fire every day.
- When inserting the burn pot liner into the fire, the low side of the burn pot liner must face the back of the firebox, so the holes are correctly aligned with the electric igniter (if installed). This alignment will ensure that the fire can start.
- Clean the heat exchanger by pulling the knob /leaver (top middle of the fire) in and out several times prior to starting the fire.
- The blower fan will automatically turn on when the fire box gets up to temperature. If the fire box gets too hot, the fan will increase in speed. This is a feature designed for your safety, to ensure your pellet fire remains at a safe temperature. The fan will only revert to the set speed once the firebox temperature has lowered, even if the pellet fire has been switched off.
- **Never** unplug the fire, or turn the power off, until the fire has cooled down properly and shut off. Loss of power before the fire has cooled sufficiently, could cause safety switches to trip out and require a service agent to reset them.
- Pellet quality can vary between different brands, and even within different batches from the same supplier. Pellet quality affects the performance, heat output and cleaning requirements of a fire.
- The modern atomically controlled fires have 5 heat settings. The fan speeds and pellet feed rates are automatically adjusted for each setting.
- A correctly burning fire should have an active, bright, yellow/orange flame with no smoke. If the flame is lazy, deep orange, with smokey black tips it is burning incorrectly. This will mean the fire requires more frequent cleaning and may result in decreased service intervals. The first thing to try, is turn the fire off and clean it thoroughly. If symptoms persist contact your local service agent.

Wood Pellet Fires, Power Cuts & Back-Up Systems

Pellet Fire Solutions

Understandably, since the recent earthquakes in September 2010 and Feb 2011, people are more concerned with power cuts and how this will affect their daily lives. Until the recent damage caused by the earthquake, power supply within Christchurch urban areas has been very reliable - in 2010 the average power interruption for urban Christchurch was 30mins per annum.

Power cut stats for Christchurch http://www.oriongroup.co.nz/downloads/Orion_NQR10.pdf

Things to note -

1) Heat pumps also don't work in a power cut, and are more difficult to run on backup power due to the higher power consumption. 5kW heat pump 260% efficient = 1.9kW input with start loads potentially 3 times this.

2) For prolonged power interruptions, other house hold appliances may require backups such as fridge's and freezers.

3) For a short power cut, and if the fire is already running a computer UPS system (1500VA min), this should keep the fire running for a short period (~30mins) and allow it to shut down properly. These generally beep while off the mains power. Cost $250-400.

4) For longer power cuts, or to start the fire during a power cut, you will require an inverter / battery (and charger to re-charge the battery) Inverters come it 2 types, pure sine wave and modified sine wave. Things with electronics tend not to like modified Sine wave.

http://www.powerinverter.co.nz/power-inverter/10-12v-to-220v-power-inverter-1000-watts.html is suitable to run Enviro pellet fires

Pellet fires use about 150 Watts during normal running and ~550 Watts on start up.

Batteries will require maintenance charging i.e. once a month, will require charging for several hours so they are ready for use should a power cut occur. Or leaving on a suitable quality charger with a maintenance charge function.

The larger the battery, the longer the run time. minimum 75Ah (amp hours) typically 3 hours run time to 50% charge.

In general, lead acid Batteries should not be taken below 50% of their charge capacity. 50Ah for a 100Ah battery, or this reduces the capacity and lifespan of the battery.

Once used (to 50%), the battery will need recharging. Batteries can only be charges at ~25% of their capacity, and the last 20% will take about as long as the first 80%to recharge.

Generators

During prolonged power outages, these can be used to provide power to a number of essential household appliances. It is always better to buy bigger, and if possible, 4 stroke over 2 stroke, 1500rpm over 3000rpm

Best: 4-6kW diesel 1500RP - less noise, better power, can handle loads, good power quality, and longer life.

Worst: 750-1000Watt petrol 2 stroke - noisy, short life span, poor power quality, often can't handle loads anywhere near rating.

Reasonable compromise 2.5kW petrol 4 stroke

Difficult to run at night due to noise

Prolonged periods of low load will shorten the life span.

Ideal generator use is several hours a day, on high load, to charge battery's (inverter), heat water (if generator size can do this), keep fridge and freezer cold.

This is just some general information, and Pellet Fire Solutions take no responsibly for the accuracy of this information. If you are looking at backup power supplies, please discuss your needs with a suitably qualified person in this field.