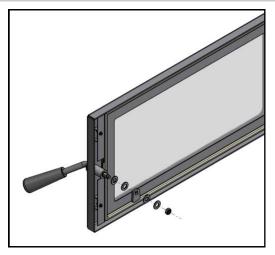
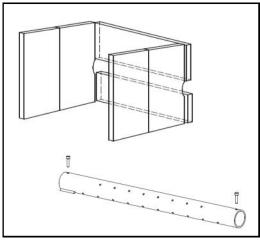
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## **Woodsman Care Guide**

# Operating Instructions and Maintenance Guide for Woodsman Solid Fuel Burners









## PLEASE READ & KEEP FOR FUTURE REFERENCE

## Before you use your appliance for the first time, please read the following guide

Proudly Manufactured By:



Harris Home Fires 41 Braddon St Addington Christchurch 8024 New Zealand Email sales@hhf.co.nz P O Box 4043 Christchurch 8140 New Zealand

Phone 03 366 1796 Freephone 0800 3661796 Fax 03 366 1795

## **Before You Install**

The installation of any Woodsman solid fuel burner requires a Building Consent prior to installation commencing. We recommend the installation of a Woodsman solid fuel burner or flue system be undertaken by the holder of a current SFAIT (Solid Fuel Appliance Installation Technician) qualification issued by the NZHHA (NZ Home Heating Association Inc.). www.nzhha.co.nz

## Before Your First Light Up

- Ensure that your appliance has received a Code of Compliance from your local council building inspector.
- Ensure that your installer has sealed all the flue joints as per the installation instructions.
- Check to make sure that all the internal parts (bricks, baffles and air tubes) are properly in place and have not been moved during transit or installation.
- Beware that when you first light the fire, there will be visible smoke that will come off the paint for approximately 30 minutes. This is quite normal and is the paint going through the final baking on process. The fire should be fully loaded with wood and run at the high setting for this time. We recommend that you light your fire at a suitable time of day where the area can be ventilated by opening doors and windows.
- Read the lighting instructions in this document.

## **Before You Use**

It's important to note that modern clean air wood burners are different from older, non clean air approved burners. They operate differently and have different levels of maintenance. It is important to understand these differences to ensure that your fire operates efficiently, hassle free and you are doing your part to keep the air clean.

- Lighting your fire properly is important to ensure that the rest of the burn is clean and efficient. (see page 3)
- Your clean air approved burner has some consumable parts that your old fire probably didn't have. (see page 10)
- What type of wood you burn, its quality and how you burn it has a big impact on burn efficiency, air quality and the life of the consumable parts. (see pages 6 & 10)

Please have a careful read of the rest of this manual to familiarise yourself with the best practises for using, maintaining and enjoying your Woodsman fire.

It's also important to be aware that a wood stove is a hands on and practical appliance. It requires user maintenance on a regular basis and you need to be prepared to perform the tasks listed in the guide. If you are not able or confident in performing these tasks, please contact a service agent.

## **Lighting Procedure**

Lighting your fire is an extremely important part of the process. A good start up will ensure the flue draws well and is hot and clean. A poor start up can cause issues for the entire burn, it can be dirty and not put out heat. While many people have their own way of lighting a fire, some ways are better than others. Please read the procedure below for best practise.

#### What you will need:

- 1 or 2 fire lighter cubes
- A long handle BBQ lighter
- 20 to 25 pieces of small dry kindling, no more than 2cm x 2cm in thickness
- 2 to 3 pieces of small dry fire wood, no more than 8cm x 8cm in thickness



### Step 1. Stack the kindling

Stack the kindling in the bottom of the fire in a 'cross stack' style. Placing the kindling in layers of 3 or 4 pieces



## Lighting Procedure

## Step 2. Place the fire lighter cubes

The fire lighter cubes should be placed at either side of the stack in between the layers and towards the bottom. You can place the cubes while you are making the stack as well.



## Step 3. Light the fire lighter cubes

Light the cubes using the BBQ lighter and leave the door ajar. Turn the air control to the high setting.



#### Step 3. Close the door

After approximately 5 minutes or when the kindling is alight on it own, close the door.



## **Lighting Procedure**

Continued

## Step 4. Place the small firewood

After approximately 10 more minutes, or when the kindling has begun to collapse on itself, add the pieces of small dry firewood, placing them towards the back of the firebox. Close the door.



### **Step 5. Place the firewood**

After approximately 15 more minutes, or when the small firewood has begun to break down into large embers, place you normal firewood towards the back of the firebox. After 5 minutes, you can turn the air setting to the desired setting.



## **Reloading Procedure**

It is important to note that when and how you reload your fire is important. Please follow these steps when reloading.

The door should not be opened until the wood inside has burned down to red embers and large yellow flames are minimal. The goal is to burn your wood in cycles for the cleanest and most efficient burn.

- If the fire has been on low, turn the fire onto the high setting for 5 minutes before reloading.
- Depending on the firebox, place the wood in the appropriate orientation, either front to back or side to side and ensure that the size of wood is appropriate for your firebox.
- Do not overfill you fire box with wood. You should fill your firebox only to about 2/3 capacity.
- Once you have loaded your wood, close the door and turn to high for approximately 5 minutes to allow for the wood to fully ignite. Then you can turn to a lower setting if desired.
- Allow the wood to burn right down to large red embers with minimal yellow flame before repeating the process.

## **Appropriate Firewood**

Your Woodsman wood fire is designed to burn logs from trees which would typically be sourced from a reputable wood merchant as firewood. The most common species is radiata pine, which is a soft wood. Other common species of wood like macrocarpa are also appropriate to use and some hard woods like eucalyptus (bluegum) can also be used in conjunction with softwood.

The size of the wood will vary, but the typical length should be from 200mm to 350mm and the diameter around 150mm.

The wood should be appropriately seasoned, which will depend on how it is stored, but the moisture content should be below 25% before use.

Your Woodsman wood fire is NOT designed to burn anything other than typical firewood as stated above, at the risk of damaging your firebox and voiding the warranty.

Do not burn, treated wood, building off cuts, drift wood, rubbish, garden waste, coal, old man pine (or other very resinous woods) or anything other than typical fire wood. If you need further clarification on a fuel, please contact Woodsman or your retailer before using it.

## Operating Instructions Wood Burners

**Important:** ensure installation instructions have been adhered to before lighting the appliance.

**Important:** firewood should be loaded in a front to back direction when operating this appliance.

The optimal length of wood for the ECR NoVo with wetback is 160mm - 200mm.

**Warning:** any modification of the appliance that has not been approved in writing by the testing authority is considered as breaching AS/NZS 4013.

**Warning:** do not use flammable liquids or aerosols to start or rekindle the fire.

**Warning:** do not use flammable liquids or aerosols in the vicinity of this appliance when it is operating.

**Warning:** do not store fuel within heater installation clearances.

**Important:** If the firebox or the flue becomes visible red-hot, adjust the heat control to a lower heat position to avoid being unnecessarily harsh on the unit as well as wasting excessive heat up the flue.

**Warning:** always open the heat control before opening the fire door.

For long holding operation in a Clean Air Zone, level the ashes and load with the fire-wood lying front to back, or left to right in a Matai ECR MkIII, MkIV. After loading new wood, operate the fire with the heat control fully open for 20 minutes before closing the heat control to the lower burning position. By following this simple method of low burn firing, you will achieve very low emission rates and obtain the high efficiency burn that is associated with the Woodsman product.

The fuel approved for use in Clean Air Zones in this appliance is wood with a moisture content of less than 25% of dry weight. This usually means green timber left for at least three months to air dry.

**Caution:** the use of some types of preservative-treated wood as a fuel can be hazardous.

Caution: this appliance should not be operated with cracked glass.

**Caution:** this appliance should be maintained and operated at all times in accordance with these instructions.

The door must be closed at all times during the operation, except during refuelling and occasional poking of the fire when necessary. Ensure door seals are maintained in good condition.

Your appliance and flue system should not be modified in any way without the approval of the manufacturer.

## Operating Instructions Multi-Fuels

Your Woodsman Multi-fuel will operate perfectly well burning coal, wood, briquettes or a mixture of any of these. Often the hottest temperatures are achieved by burning a mix-ture of wood with coal laid over the top.

The appliance has two heat controls. The High - Low control to the left of the ash pan door is for use when burning coal, briquettes, or a mixture of wood and coal. The High - Low control above the fire door is for use when burning wood only.

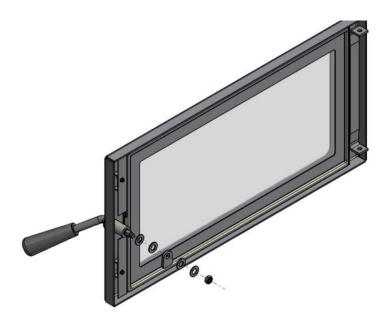
Set the fire using kindling wood and paper (or a solid fuel lighter), light and close the door; set the lower High - Low control on High and the upper High - Low control on Low. Once the fire is burning brightly, decide if wood or coal is to be used. If coal is to be burned, lay the coal over the burning fire and adjust to suit. If wood is to be burned, place dry logs on the fire and set the lower control to Low and the upper control to suit the required burning rate.

**Important:** Ensure the ash pan door is closed firmly before lighting, and remains so during use. **Do not** have both controls fully open at the same time. If burning wood, the lower control should be fully closed; if burning coal, the upper control should be set to Low.

If the ash pan door knob is removable, it should be removed while the stove is in use. This is a safety feature designed to avoid the ash pan door being opened by children in particular, and risking any overheating of nearby combustibles by the increased com-bustion rate.

## **Door Catch Adjustment**

From time to time, your door catch may need to be adjusted to ensure a tight seal. The seal in the door is a fibreglass door rope and will compress over time. To adjust the door catch, undo the nut on the door assembly and redistribute the 4 washers to either tighten or loosen the catch. The door rope will need to be replaced during the life of the fire and you may need to loosen the catch at that time.



## **Creosote Formation**

A small intense fire is preferable to a large smouldering one, to reduce the amount of creosote. When wood is burned slowly it produces tar and other organic vapours, which combine with expelled vapour to form creosote. These creosote vapours condense in the relatively cool flue of a slow burning fire. As a result, creosote residue accumulates on the flue. When ignited, this creosote makes an extremely hot fire.

The flue should be checked at least every 2 months, during the burning season, to determine if a creosote build up has occurred. If this is the case, it should be removed by a chimney sweep to reduce the risk of an unexpected flue fire.

Your appliance has been designed to produce low levels of creosote at high and low settings.

In the event of a chimney fire, close the firebox door, fully close the heat control, vacate the premises and call the fire service.

## Storage of Fuel

Do not store fuel within installation clearances or within the space required for refuelling or ash removal.

Wood should always be stored in a dry place out of the rain. We recommend your wood be seasoned for at least 6 months before use. Dry wood also burns hotter and more efficient than wet wood.

## Caring for your Fire & Maintenance

#### **Door Glass**

- Ensure logs are not too long for the depth of the firebox. Do not attempt to close the door if a log is protruding from the front of the firebox opening.
- A broken glass is caused by the door being closed onto a full firebox or logs not correctly placed into the fire.
- Wiping your glass regularly with a damp cloth when cold will keep the glass clean. If a thick build up of creosote builds up, oven cleaner works well to remove it.

#### **Door Rope**

• The door rope will need to be replaced from time to time. When replacing the rope or if the door rope becomes loose, press the door rope firmly back into the retainer. Flue cement or maniseal may be needed to help keep it in place.

#### **Cleaning the Outside of the Fire**

 Woodsman fires are finished in a high temperature paint. Only use a damp cloth (no chemicals) when cleaning the outside of the fire. If any scratches occur, you can easily touch up the fire with an aerosol can of matching paint. This is available from your retailer or Harris Home Fires.

#### Cleaning the Flue

- Keeping your flue clean is important. We recommend that you have your chimney swept at least once a year. A blocked flue not only effects the performance of the fire, but can also be a hazard as you are susceptible to chimney fires.
- Poor quality and wet wood will increase the number of times you will need to clean the flue. Good quality wood is important.

#### **Cowl Maintenance**

- Your Columbia Cowl is fitted with a Teflon Sleeve to reduce noise and wear. The Teflon Sleeve may need to be replaced over the life of the fire and should be checked during an annual service or when the flue is cleaned. If the shaft is dry and dirty, it should be cleaned back to a bare metal finish and a thin layer of graphite or high temperature grease applied before replacing the Teflon Sleeve.
- Older versions of the Columbia Cowl do not have a Teflon Sleeve and require regreasing one to two times a year

#### Ash Level

• It is important to maintain a 2 - 3cm level of ash in the bottom of the fire for insulation purposes. But do not let the level get too high as you run the risk of logs and coals falling out of the fire. You also get less wood in the firebox.

#### **Disposal of Ashes**

 Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground well away from all combustible materials, pending final disposal once cooled.

## **Consumables**

Some parts of your Woodsman fire are considered consumable. They are designed to be replaced as they will degrade over time. The life of the consumables will vary depending on;

- Frequency of use
- Rate of burn
- Type of fuel
- Level of ash

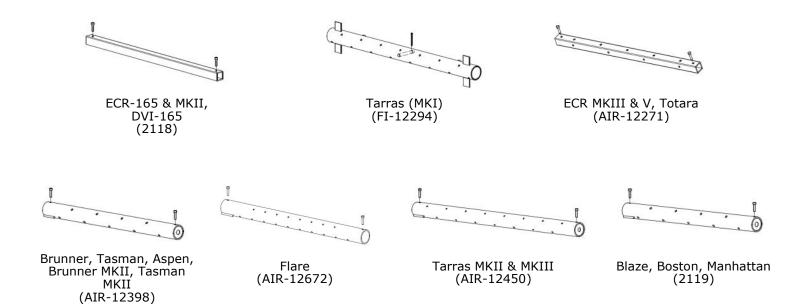
General items that are considered consumables:

- Air tubes (see page 11)
- Baffles (see page 12)
- Fire bricks (see page 14)
- Glass and door ropes

It is very important that you replace these parts when they show signs of wear. They effect how the fire runs and you may increase your fuel consumption or lower your efficiency if not replaced, and can in some cases, damage the firebox. It is generally obvious once a part is in need of replacement. Steel components may split or large holes may appear and fire bricks may disintegrate. Fire bricks that are cracked but still remain in place are completely safe to use and only need to be replaced when they no longer remain in place. A cracked fire brick may still last years of use.

We recommend you check your fire visually several times a year for damaged components.

## **Air Tubes**



The air tube in your Woodsman fire is an integral part of the appliance and helps ensure a clean, efficient and controllable burn. However, air tubes are a consumable item and are designed to be replaced as they are likely to degrade with use due to the exposure to the extreme heat of the fire.

The life of the air tube will depend on what is burnt in the fire, how hot the fire usually burns and also the ash level. If the ash level is allowed to build up, this can push ashes up and into the holes stopping the air cooling effect. It also means hot embers are in closer proximity to the tube, increasing the temperature exposure. Keep ash levels to the recommended height of no more than 2 - 3cm.

At the risk of damaging the fire box, the air tube should be replaced as soon as it shows signs of damage and cannot perform its intended function.

## Replacing Air Tubes

Replacing air tubes is a simple task and can be carried out by the user.

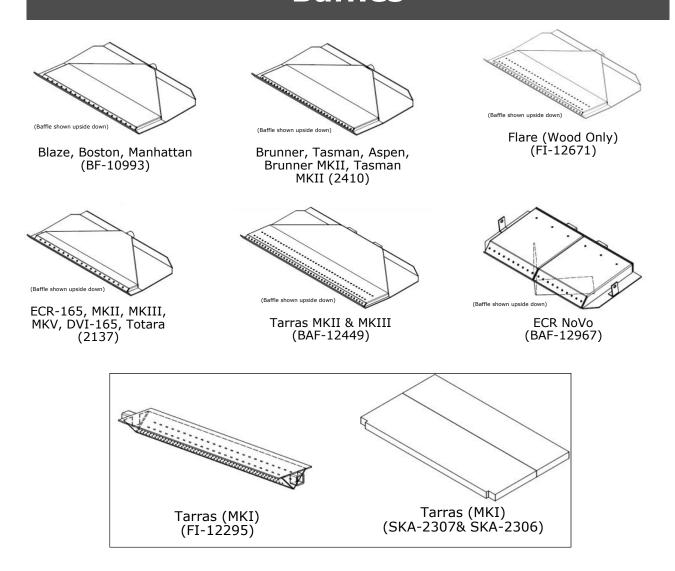
#### Replacing all air tubes, except Tarras (MKI)

- Remove bricks from both sides
- Remove the pins from each end of the old tube
- Slide tube to one side, this will release the opposite end
- Pull released end up and towards the door and remove
- Reverse process for new tube

#### Replacing the Tarras (MKI) air tube

- Remove outer rear panels of the fire by removing the 4 nuts
- Remove the air tube pin from behind the panels
- Pull air tube towards you to release from the two holes
- The top rear brick will be loose
- Position the top rear brick and then place the new tube in the locating holes
- Replace rear pin and panels

## **Baffles**



The baffle in your Woodsman fire is an integral part of the appliance and helps ensure a clean, efficient and controllable burn. However, baffles are a consumable item and are designed to be replaced as they are likely to degrade with use due to the exposure to the extreme heat of the fire. The life of the baffle will depend on what is burnt in the fire and how hot the fire usually burns.

At the risk of damaging the fire box, the baffle should be replaced as soon as it shows signs of damage and cannot perform its intended function.

## **Replacing Baffles**

Replacing baffles is a simple task and can be carried out by the user.

### Replacing all baffles, except Tarras (MKI) and ECR NoVo

- Remove side bricks from the fire
- Pull the old baffle out of the locater hole in the rear of the fire
- Allow the front of the baffle to drop forward and down to the bottom of the fire
- Rotate and remove through the door
- Reverse process to install new baffle
- Note; Air holes should be facing down

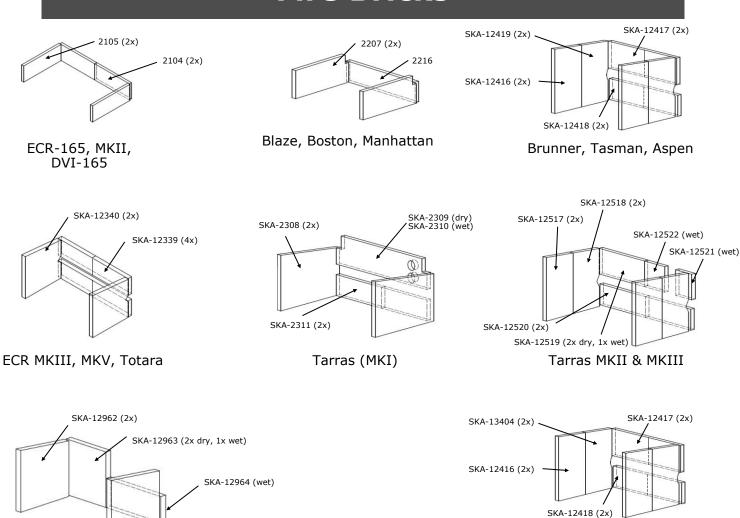
### Replacing the Tarras (MKI) baffle

- Raise the front brick and position on top of the rear
- Lift the left hand side of the s/s triangular tube and pull the right hand side out of the hole, this will release it, lower one side and remove
- The bricks are now able to be removed
- Place new bricks back in place on the ledge with the front brick on top of the rear
- Drop in new air tube
- Reposition the front brick in place on top of the new air tube

### Replacing the ECR NoVo baffle

- Remove both side panels using an allen key
- Remove nut from behind the panels to release the baffle and brick bracket
- Remove the bracket and remove side fire bricks followed by the rear
- Drop the baffle into the lower firebox, rotate and remove
- Insert new baffle
- Reverse process to complete the process

## **Fire Bricks**



The fire bricks in your Woodsman fire are an integral part of the appliance and helps ensure a clean and efficient burn. However, fire bricks are a consumable item and are designed to be replaced as they are likely to degrade with use due to the exposure to the extreme heat of the fire.

**ECR NoVo** 

The life of the fire bricks will depend on what is burnt in the fire and how hot the fire usually burns and also any damage sustained from wood not being positioned carefully.

At the risk of damaging the fire box, fire bricks should be replaced when they are damaged enough that they no longer remain in place and cannot perform their intended function. Fire bricks which are only cracked but still remain in place do not need to be replaced and are safe to use.

Flare (woodfire only)

## **Replacing Fire Bricks**

Replacing fire bricks is a simple task and can be carried out by the user.

The configuration of the fire bricks in your Woodsman fire will vary depending on the model, but removing and replacing them is very similar:

- Remove side bricks first, you may need to bend the metal tab at the top to release the bricks\*
- Once removed, the rear bricks are released and will come out
- Some models may have a second upper brick in the rear, this should be released once side bricks are removed, but in some models, removing the rear air tube may be required (see air tube section)
- Reverse process to fit new bricks

<sup>\*</sup>To replace the bricks for the ECR NoVo, the brick bracket must be released by removing both side panels using an allen key and removing the nut behind the panels.

## **Useful Tips**

## Get the most out of your Woodsman

#### Tips for lighting the fire

- Use finely cut, dry kindling wood.
- Firelighter cubes or gel work best when ensuring ignition of the kindling.
- Cross stack kindling over and around fire lighter like a small tower.
- Use ample kindling wood to ensure a good fire, you want to get the fire hot as fast as you can.

#### Tips to help get the highest heat output:

- Open the air slide to increase the amount of combustion air to the combustion zone.
- Use smaller pieces of wood and lots of it. Small pieces of wood have a larger surface area compared the same volume of wood but in larger pieces.
- Feed the fire regularly. Keep the fire topped up with fresh wood to keep the temperature up in the combustion zone.
- Use dry wood. Wood with a moisture content of less than 16% will burn much hotter than damp wood. Use a moisture meter to determine the moisture content of the wood.
- Use a soft wood. Soft woods like Radiata Pine burn fast and hot.
- Warning, extended periods of running your fire extremely hot will damage the consumable components at a faster rate and can risk damage to the firebox.

#### <u>Tips for increasing the burn time</u>:

- Shut down the air slide to decrease the amount of combustion air to the combustion zone.
- Use large pieces of wood. Large pieces have a smaller surface area compared to small pieces of the same volume and will burn slower.
- Use a hard wood like Blue Gum (where permitted). Hard woods are denser and take longer to burn.
- Completely fill the fire box with large pieces of wood. The more wood in the fire, the longer it takes to burn.
- Load the wood at the right time. If you load the fire when there is a large amount of red embers, the wood will all combust at the same time. A good idea is to let the fire burn down quite considerably and push the embers off to one side. Stack the wood in the firebox and the wood will ignite on one side only and slowly burn from one side to the other.

#### Tips for using the wet-back:

- The hotter the fire burns, the more hot water the wetback will produce.
- If you require some hot water but not too much heat into the room, try burning a small fire at the back of the firebox below the wetback.

#### Tips for using the cook top:

- The cook top is hotter in the middle than at the sides and hotter at the front than at the back.
- Like the wetback, the cook top's temperature is linked to the output of the fire.
- Any stains from pots or mugs can easily be touched up with matching high temperature paint.

## **Trouble Shooting**

#### My fire won't turn down

The first thing to be aware of is that some new clean air fires do not shut down like old fires. Old fires used to shut all the way off and the wood would just smolder. Other reasons for this problem may be:

- Rear air tube has burned out and needs replacing, visually check.
- Door seal is not sealing properly and may need replacing. Take a thin strip of news pa per, close the door on it at various spots, if the paper can be easily pulled out, then either a new door rope is needed or door latch needs adjusting by redistributing the washers on the door latch.

#### There is rust on my fire

Rust appearing on your fire can only occur when moisture or water is present and has began to oxidize the steel.

- Identify where the water or moisture has come from and fix the problem.
- Lightly sand the effected area and use matching Woodsman aerosol high temperature paint to touch up.

#### My glass is dirty

Your glass can get dirty easily if you use poor quality or wet wood or spend a lot of time with the fire on the low setting.

- Give the fire a good hot run on the high setting to burn off the residue on the door
- If that fails, there are special cleaners especially for this purpose or oven cleaner works well. Do not get chemicals on the paint work.

#### My fire smokes when I open the door

There are many reasons which may cause this symptom and it is often a process of elimination to remedy the problem.

- Your flue length may be too short. Even though it may be of legal length, every installation is different and you may require an additional length of flue.
- Your flue may be blocked, have the flue looked at.
- The baffle may not be in place correctly, visually check to see if it has moved.
- You may need a cowl like the Woodsman Columbia cowl to help encourage draw, especially where there are environmental problems like high winds.
- Your flue may be getting too cold. If the flue gases get too cold, they can struggle to be
  exhausted and when the door is opened, they find it easier to exit via the door than the
  flue. If you suspect your flue is getting cool, turn the fire up onto high for a few minutes
  before reloading, this will increase the temperature of the flue and increase the flue
  draught. Additional insulation may be required.
- Check that the installer has sealed ALL the flue joints and there are no gaps which will leak air into the flue, reducing the draw.

#### The paint has been damaged

Paint finishes are not as durable as enameled finishes, but they are extremely quick and easy to touch up and the fire can look new in minutes.

• If damage has occurred to the paint, lightly sand the effected area and touch up using Woodsman High Temperature Paint.

#### My fire seems to be performing poorly, not burning well on high

If your fire doesn't seem to burn well at the high level, check the following:

- Negative pressure, make sure there are no extraction devices like fans creating a negative pressure in the home.
- The flue length is long enough.
- The wood is dry and of good quality.
- The flue is clean.



## 15 Year Firebox Warranty - Wood fires 10 Year Firebox Warranty - Multi-Fuels 1 Year Parts Warranty - All Fires

Your WOODSMAN fire is warranted for a period of 1 year to the original purchaser, from the date of purchase, against defective materials and workmanship which includes the firebox and all parts.

If a part defect occurs, return the part to the retailer or directly to Harris Home Fires along with a copy of the retailers receipt and the part will be replaced at no cost.

If a firebox defect occurs, either contact the retailer or Harris Home Fires and it will be repaired or replaced at our discretion with all costs covered.

This warranty does not cover damage caused by mishandling, misuse, failure to follow the manufacturer's installation and operating instructions, or work done by others, such as installers, or plumbers etc. The manufacturer shall not be responsible for site conditions such as insufficient draught, downdraughts, or routine servicing and adjustments.

Damage caused by the failure to replace consumables like air tubes, baffles and fire bricks or not burning the recommended fuel, may void the warranty.

Your WOODSMAN firebox is then covered by a further 9 year warranty against defective materials and workmanship during normal domestic use.

In the case of a claim after the first year, this warranty covers the cost of replacement or repair at the manufacturer's discretion and includes freight, painting and all required refurbishment.

Your WOODSMAN **WOODFIRE ONLY** is then covered by a further 5 year warranty on the fire box against defective materials and workmanship during normal domestic use. In the case of a claim after the first 10 years, It shall be the owner's responsibility and expense to have the fire disconnected and ready for pickup from onsite or another suitable location or deliver the WOODSMAN fire to either the dealer from whom it was purchased or directly to Harris Home Fires. Harris Home Fires will pick-up, repair and refurbish the fire, including painting as necessary and deliver the fire back to the customer.



Harris Home Fires 41 Braddon St Addington Christchurch 8024 New Zealand Email sales@hhf.co.nz

P O Box 4043 Christchurch 8140 New Zealand

Phone 03 366 1796 Freephone 0800 3661796 Fax 03 366 1795