



**Crighton**  
engineering  
creativity



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## Installation & Operation Manual Fascia / Firebox / Build-In Cabinet



**ARDOS**



**FURNO**

MANUFACTURED BY  
**CRIGHTON engineering creativity**  
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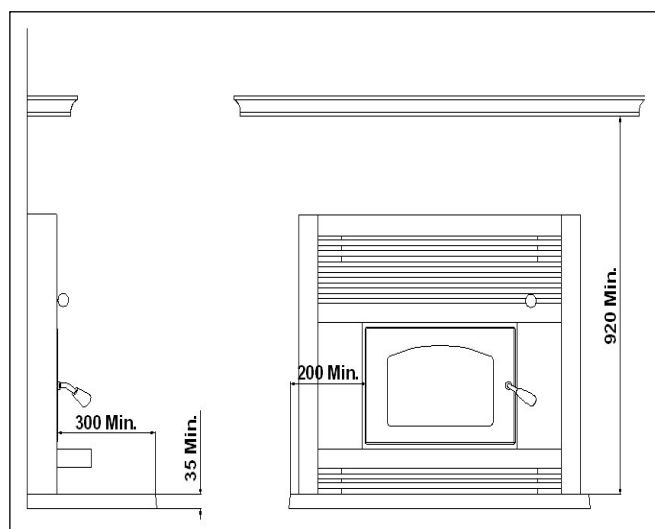
# INSTALLATION INSTRUCTIONS

Tested and Complies with AS/NZS 2918:2001 and AS/NZS 2918:2001, App E  
Complies AS/NZS 4013:1999 Emissions Rate : 0.6g/kg  
Complies AS/NZS 4013:1999 Thermal Efficiency : 69% / 70%  
ECAN Authorisation Numbers : 102990, 102992

The installation must comply with local council regulations. It is recommended that the Woodfire and flue system be installed by an approved installer; ideally registered with the New Zealand Home Heating Association.

## PRIOR TO INSTALLATION

1. The masonry fireplace and chimney should be thoroughly checked for cracks, loose mortar, creosote, blockages or signs of deterioration.
2. The area around the facebrick and the firechamber should be checked for any opening as these will need to be sealed.
3. NOTE: The existing chimney should be thoroughly swept.
4. Measure the fireplace opening size to check that the Woodfire will fit into the opening. The opening size required is 710mm Wide, 630mm High, 540mm deep.
5. Check that a suitable insulated hearth is of a minimum of 35mm thick and that it extends not less than 300mm in front of the Woodfire door and be of non combustible material e.g. concrete brick. This hearth should extend 200mm either side of the Woodfire 'loading' opening.
6. Check that any mantel above the Woodfire is a minimum of 920mm above the hearth surface. If less, it should be made of non combustible material, or if made of combustible material, this will need to be shielded with a heat resistant deflector.
7. There must be a clearance of at least one metre between the front of the Woodfire and any building structure or any other substantial immovable object.
8. The Magnum Ardos/Furno requires up to 40 cu.m/h of fresh air for correct combustion. Most houses will allow sufficient air in through normal openings, however an air source located close to the Woodfire will give better performance. This can be a slightly opened window left open when the Woodfire is in use. Some new houses today are very airtight and this lack of air can mean that the Woodfire is hard to light or get going and can create smoke spillage back into the room; this could lead to excessive carbon monoxide levels because of incomplete combustion.

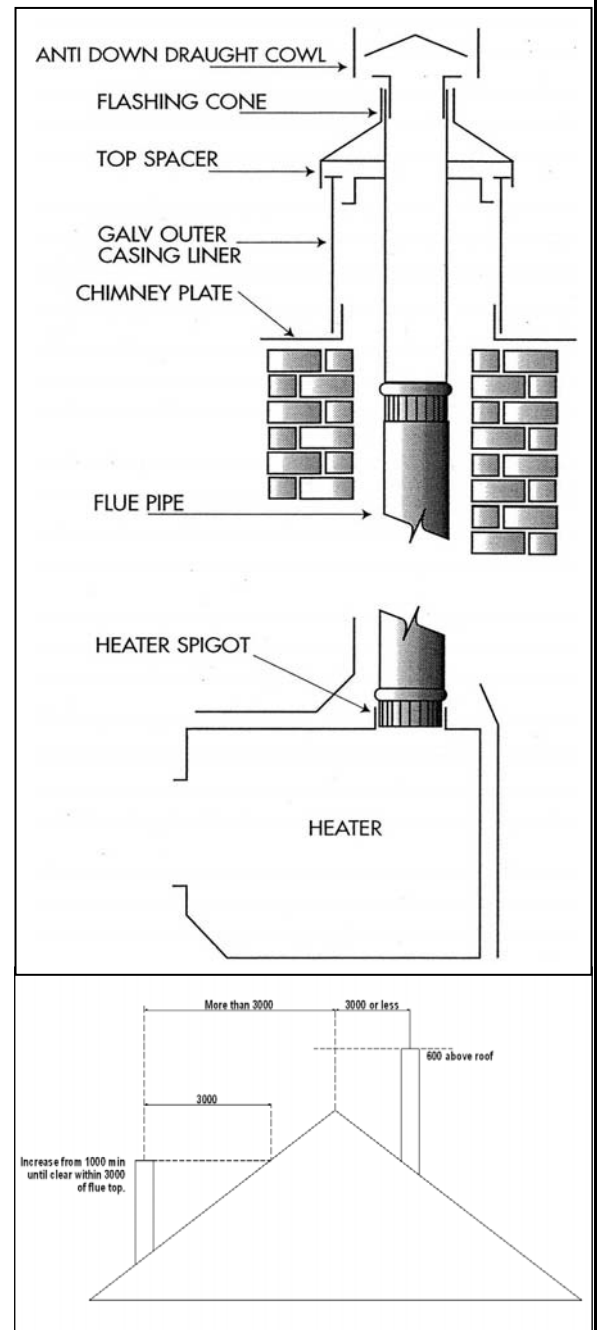


# WOODFIRE AND FLUE INSTALLATION

**ALWAYS INSTALL OUR MANUFACTURERS FLUE KIT WITH THE MAGNUM  
ARDOS/FURNO OR A FLUE KIT WHICH COMPLIES WITH AS/NZS 2918 : 2001**

Once you have checked that the Woodfire will fit the fireplace and that all necessary repairs have been made you can proceed with the installation.

1. Clean out the fireplace and make sure the base of the fireplace is level. This should be 5mm above the hearth to make the fascia easier to fit.
2. After the fireplace floor is ready, place level across face of fireplace front and mark line 320mm back; this is the centre point of the spigot on the Woodfire.
3. From the centre of chimney top opening, drop plumb line down to spigot line on to the fireplace floor, if this does not line up an offset bend will be required.
4. Assemble the flue pipes ensuring that all the seams are in line and assembly is straight and tight with the crimped ends pointing down using at least 3 stainless steel rivets or self tapping screws. Fix the offset bend and fit to lower section of the flue pipes.
5. Unpack the Woodfire from its packaging, apply flue sealant to inside of the spigot ready for the flue, slide into the fireplace opening and push back so the front flange on the outer box is flush with the fireplace face.
6. Drop flue sections down the chimney, locate flue into the Woodfire spigot. Fix chimney top plate and fit 600mm liner. Ensure flue pipe is extending 180mm above the top of the liner and fit top spacer.
7. Slide flashing cone over flue until it rests firmly over top spacer and fit anti-down draught cowl. Do not secure it, it must be removed for cleaning.
8. The Woodfire must be seismically restrained (bolted down). Fix the unit securely to fireplace floor using two 8mm dynabolts, one either side at the base of the unit.
9. Pack the gap between the Woodfire outer box and the fireplace opening with high temperature insulation, leaving gaps either side at the bottom. Fix the fascia back to the heater body with self tapping screws. Check door closing and adjust if required.
10. Test fire the Woodfire to check the draft and operation.



**NOTE: The flue cowl must be at least 600mm above the highest point of the roof within a 3 metres radius of that point. A minimum of 4200mm of flue height off the top of the Woodfire is recommended for the correct flue draft.**

# INSTALLATION INSTRUCTIONS FOR BUILD-IN CABINET

Keep these instructions for future reference

Tested and Complies with AS/NZS 2918:2001

This Build-In Cabinet is designed and approved for installation of a Magnum Ardos or Furno Fireplace Insert into a house that does not have an existing masonry open fireplace and chimney. The components included in this kit must be used, and no modifications or substitutions are permitted.

## ASSEMBLY

The Build-In Cabinet is fully assembled, with insulation already in place when supplied.

The Installer will need to:

- Turn down the 3 tabs on the bottom edge of the inner wrapper – these will be used for fastening the casing to the concrete floor slab.
- Turn the casing right side up and turn up the 4 tabs in the top surface around the perimeter of the flue hole. These locate and fasten the outer flue casing.

## FLOOR PROTECTOR

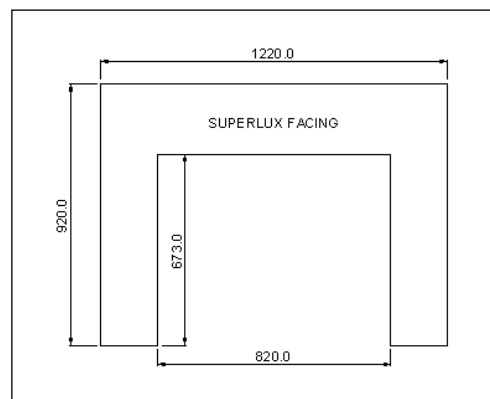
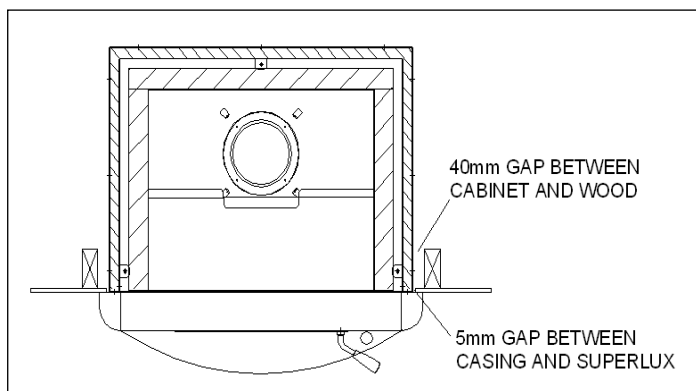
The Magnum Build-In Cabinet must be installed on a 50mm minimum thickness concrete slab, of minimum dimensions 880mm wide and 995mm front to back, extending 595mm behind the face of the wall in which it is sited, and a minimum of 400mm forward of the wall. This shall be fastened to the structure of the house to prevent seismic movement by a minimum of four 8mm bolts or lag screws penetrating at least 50mm into the floor and joists of the building.

## WALL STRUCTURE

The wall opening into which the Build-In Cabinet is to fit must be constructed so that NO timber is within 40mm of the exterior of the casing. The wall must be faced with a sheet of 9mm Cape SuperLux or similar non-combustible material in place of the normal Gib-board. **Note that fire rated Gib-board is NOT acceptable, nor is Hardieflex (fibrolite).** This facing must be at least 5mm away from the casing at top and sides. See the diagram below. The bottom of this must be notched out to suit the width of the concrete floor protector.

## MANTELSHELF

Any mantelshef used must be fitted at a minimum of 920mm from hearth surface to its underside.



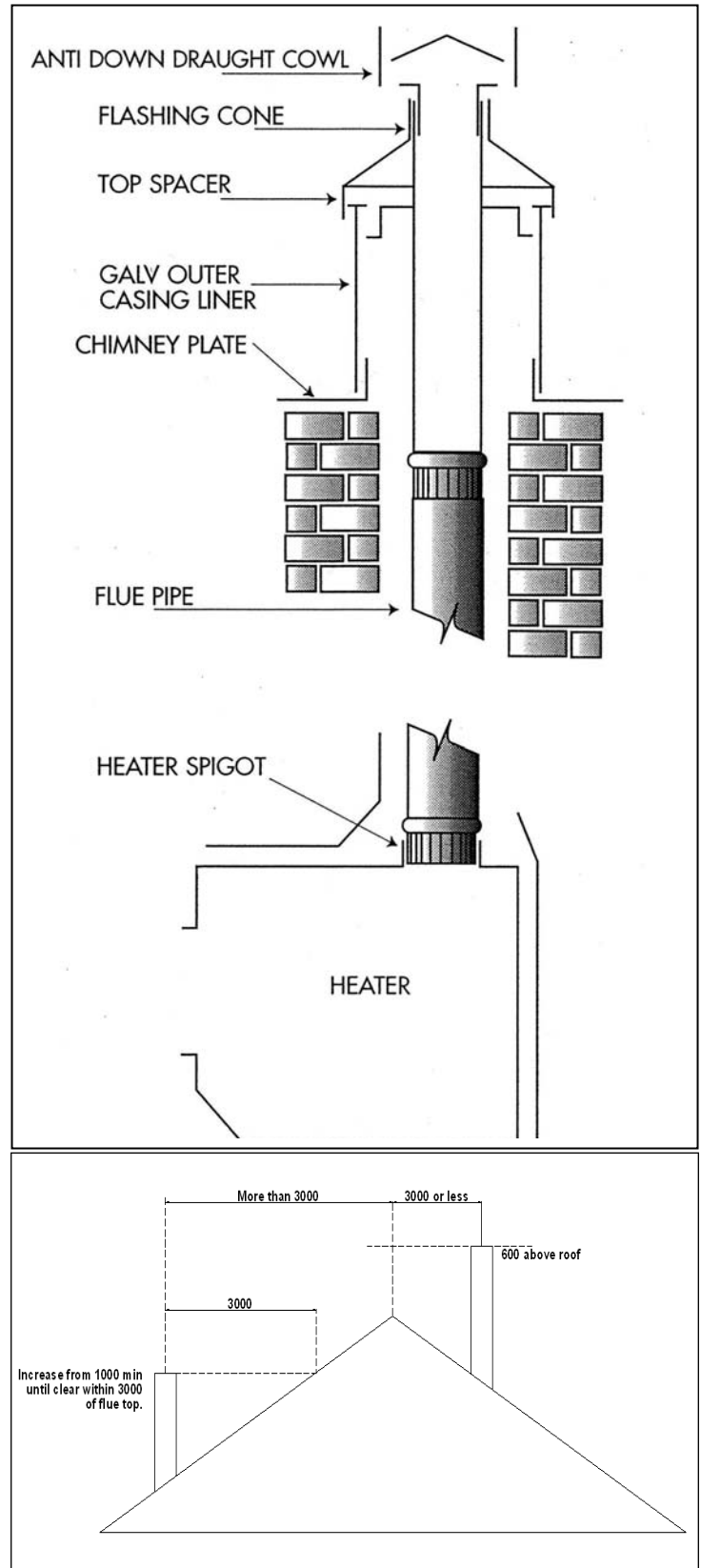
# INSTALLATION OF BUILD-IN CABINET AND FLUE KIT

This Build-In Cabinet and Fireplace Insert shall be installed with the Manufacturer's approved Flue Kit, complying with AS/NZS 2918:2001.

1. Frame up the wall opening as described above, ensuring required clearances of 40mm timber to casing are maintained.
2. Place the concrete floor protector into the opening and fasten it to the house structure. Ensure that it projects 595mm behind the face of the wall.
3. Fit the wall facing of Cape Superlux or similar on the wall framing.
4. Slide the casing of the Build-In Cabinet into the wall opening until the front face is flush with the front face of the wall. Bolt it down to the slab with three 8mm diameter Dynabolts.
5. Slide the fireplace Insert into the casing and align the front edge of the insert with the face of the casing and the wall surface. Fasten it down with two 8mm Dynabolts.

The Flue Starter Kit supplied with the Build-In Cabinet contains a length each of 150mm stainless flue pipe, 200mm inner casing and 250mm outer casing. Note that the casings have a row of holes in one end. They must be installed with this end at the bottom.

6. Fit the stainless flue pipe into the spigot of the fireplace insert. Fit the inner casing over the flue pipe and sit it down hard onto the flange of the flue spigot.
7. Fit the outer casing over these and sit it down hard onto the top of the Build-In Cabinet, locating it with the four tabs on the top surface of the cabinet.
8. Align the inner and outer casings so that the holes are staggered, ie you should not be able to sight the flue pipe directly through the holes in the outer casing. See diagram opposite.
9. Run the rest of the flue up out of the roof, and flash it in the normal way. The inner and outer casings must run continuously from insert to cowl as shown. Fasten each joint with screws or rivets to prevent the joint coming apart.
10. Fit the fascia to the Fireplace Insert, ensuring it is flush against the wall facing.



- **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 WOODBURNER.
- **WARNING:** DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHEN IT IS OPERATING.
- **WARNING:** DO NOT STORE WOOD WITHIN WOODBURNER INSTALLATION CLEARANCES OR WITHIN SPACE REQUIRED FOR REFUELLING OR ASH REMOVAL.
- **WARNING:** OPEN AIR CONTROL BEFORE OPENING WOODBURNER DOOR.
- **CAUTION:** THIS APPLIANCE SHOULD NOT BE OPERATED WITH A CRACKED GLASS.
- **CAUTION:** THIS APPLIANCE SHOULD BE MAINTAINED AND OPERATED AT ALL TIME IN ACCORDANCE WITH THESE INSTRUCTIONS.
- **CAUTION:** THE USE OF SOME TYPES OF PRESERVATIVE-TREATED WOOD AS FUEL CAN BE HAZARDOUS.

## OPERATING

The air slide is the only control on the Magnum ARDOS fireplace insert. Slide **left** for fully open - high burning. Slide **right** for reduced air intake - slower burning. The air slide can be adjusted mid-way.

It is preferable for clean burning to keep the air slide open and adjust heat by the amount of fuel loaded.

To avoid creosote formation, a small intense fire is preferable to a large smouldering one. When wood is burned slowly, it produces tar and vapours which combine and condense in the cooling flue to form creosote residue.

If ignited, creosote burns very hot and could result in a chimney fire. It is therefore important to have the flue cleaned regularly.

**WARNING:** IN THE EVENT OF A CHIMNEY FIRE, CLOSE THE FIREBOX DOOR, CLOSE OFF THE AIR CONTROL, VACATE THE PREMISES AND CALL THE FIRE SERVICE.

## LIGHTING

Move air slide to high. Place 4 or 5 sheets of crumpled newspaper with kindling on top at the front of the firebox and light. Gradually add larger pieces of wood until the fire is established. Operate for 20-30 mins on HIGH until the firebox is fully heated and a hot rolling flame appears through the glass and any residue on the glass has burned off. Avoid slamming the door or letting any object hit the glass. DO NOT OPERATE THE HEATER WITH THE DOOR OPEN EXCEPT WHEN LIGHTING.

- On first lighting a new fireplace insert, for your comfort, open a window for 30 mins until any paint fumes have dispersed.
- On refueling, in normal operation, move the air slide to HIGH setting and open the door slowly. A quickly opened door could result in smoke entering the room.
- On re-igniting, DO NOT use chemical fluids (e.g. petrol, kerosene, lighter fluid etc.) to start unit.

## WOOD

A wood burner's performance can be affected by external factors e.g. the type of fuel and its moisture content, weather conditions, the size and layout of a home and its insulation. It is advisable to order your wood in the summer for the following winter. Well-seasoned wood is best. DO NOT use treated timber which may emit poisonous gases and leave toxic residue in the wood burner and flue.

Moisture content of wood greatly affects the performance of your wood burner and is most important in clean air zones, where moisture content of wood must only be 16-20%.

Soft wood (e.g. pine, willow) may dry in 6 months. Soft wood burns faster with a high heat output - great for establishing the fire but leaves more ash, needs refueling more often and may deposit more creosote in the flue.

Wet wood will produce hardly any heat (but will eventually burn) because about 80% of the energy goes into drying it instead of giving heat. It will spit and splutter causing creosote to form on the glass and in the flue so the flue will need cleaning more often. *N B Heat is better regulated by the amount loaded than by using the air slide.*

## CLEANING

Ash Removal - Once a month, or when filled to the lip of the firebox. Wood burners operate best with a layer of ash at the bottom of the firebox so leave a thin layer when removing ash. Dispose in a metal container with a lid and move outside, immediately away from other combustible materials.

Flue - Flue cleanliness is largely dependent on use of properly seasoned wood and the correct operation of your wood burner.

Normally flue cleaning should be done once a year but if wet wood has been used or the wood burner operated continuously on low burn more frequent cleaning will be required.

Note that the ARDOS has removable baffle plates for proper flue cleaning.

Door Glass - When the fire is out, the cold door glass can be cleaned with mild detergent.

Dampened, scrunched newspaper dipped in ash is a good abrasive to clean off residue.

## **TROUBLE SHOOTING GUIDE**

### **1. If smoke continues to enter the room when the door is opened:**

A puff of smoke is normal when the door is opened for refueling, but if it continues, check the following:

- Check that there is sufficient air getting into the room - a window in the room cracked open only about 25mm should be enough.
- Check that the flue is not blocked – have the flue swept and any ash or soot removed from the fire, especially in the space above the top baffle.
- Have your installer check for insufficient draught. The flue may need lengthening if the fire cannot get sufficient draught.

### **2. If the door glass keeps getting dirty:**

The fire is not burning hot enough. A good hot fire will burn off any residue on the door.

- Ensure that the firewood is dry (less than 25% moisture content)
- Keep a good flame in the firebox as long as possible. Don't close the air control too far.
- Check the items in Point 1 as well.

### **3. There does not seem to be enough heat output:**

The firebox is not running hot enough to allow sufficient heated air to be vented into the room.

- When starting the fire, burn it on HIGH for the first 30 minutes, or even longer, until the entire firebox and flue is well heated. Start off with a big fire, and then reduce its size if desired. Starting with a small fire will not be successful.
- Ensure that the air required for burning is coming from a window as close as possible to the heater, to prevent excessive draughts across the room which will interfere with proper convection.
- Keep the rest of the house closed off until the room is well heated. Then you can allow the warm air to move into the rest of the house.
- The amount of heat produced by the heater is directly proportional to the amount of fuel used. To achieve full rate, the fire should be burning approximately 4.5 kg of dry wood per hour. A lesser quantity than this will reduce the amount of heat produced.
- The wood must be dry – wet wood will absorb up to 75-80% of the energy produced simply in order to dry the wood enough to burn properly.
- Check also the items in Points 1 and 2.

**[www.crighton.co.nz](http://www.crighton.co.nz)**

## **CRIGHTON WARRANTY POLICY**

Before any warranty can be accepted by Crighton Engineering the following information is required:

- Details of the Unit Model.
- Serial Number.
- Date of Purchase and the store from which it was purchased.
- Installation details.
- Nature of the Problem.

A service works order number will only be issued if the work required falls within the warranty guidelines expressed in this document.

### **Installation:**

Crighton Engineering recommends that all installations be carried out by a recognized Installer or a Registered Home heating association installer. Failure to install correctly will void the warranty.

### **Warranty:**

Crighton Engineering will warrant their fire for five years (5) with the exception of the following:

- Door glass and seal
- Fire bricks and retainer
- Secondary air tube
- Removable baffle
- Water booster
- Flue systems



Crighton Engineering will warrant the above components, excluding the glass, for a period of one year (1) if proved to be defective in material or workmanship under normal domestic use. Warranties cover parts only and not labour.

In order for the warranty to be valid the warranty card must be completed in its entirety and mailed within 30-days of the date of installation to:

Crighton Engineering  
PO Box 13438  
Onehunga  
Auckland

**Conditions:**

Any wood fire must be installed in accordance with all applicable by-laws, regulations and manufacturer's specifications. This warranty explicitly does not cover damage by work completed by others including chimney sweeps, plumbers and installers, the use of the incorrect fuel e.g. chemically treated wood, bituminous coal, coastal driftwood and unseasoned wood.

**Policy:**

It is the position of Crighton Engineering that the first visit to a customer is to be at the expense of the dealer. If the problem cannot be resolved on the first visit and it is confirmed to be a warranty issue, Crighton Engineering will recompense the Dealer for the time spent on this warranty.

Crighton Engineering will pay \$0.65 cents per kilometer; however a Purchase Order must first be obtained by Crighton Customer Services. No Invoice will be paid without a Purchase Order Number.

A flat rate of \$40.00 per hour will be paid for a service call.

Crighton Engineering will not be responsible for any adjustments that should have been made during the initial installation. A fire must be inspected before it leaves the dealers shop for installation. If a panel is found to be faulty, fastenings loose or parts missing due to non-inspection Crighton Engineering will not be responsible for any travel time to correct these faults.



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[www.crighton.co.nz](http://www.crighton.co.nz)

## WARRANTY /FREIGHT DAMAGE FORM

Dealer Name: \_\_\_\_\_

Dealer Contact: \_\_\_\_\_

Dealer Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Serial Number: \_\_\_\_\_

Description of damage: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date Received: \_\_\_\_\_ Consignment Note: \_\_\_\_\_

Parts required for repair: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



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# WARRANTY CARD

(Please mail to the above address within 30 days of installation –  
Refer to the Warranty Policy in the Installation and Operation Manual.)

Date	_____
Name of Installer	_____
Installers Address	_____ _____ _____
Phone Number	_____
Dealer Name	_____
Dealer Address	_____ _____
Phone Number	_____
Installation Address	_____ _____ _____
Serial No.	_____
Model of Fire	_____
Date of Installation	_____
Signature of Installer	_____

