

# Thermoflow

## Installation Guidelines and Operating Instructions

June 2018



Technical details subject to change  
Please ensure you have the latest specifications

**Living Flame**

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

343b Church Street, Penrose Auckland New Zealand - Ph:09622118 - Email: [info@livingflame.co.nz](mailto:info@livingflame.co.nz)



# Contents

---

## **5 Owners Section**

- 6 Fireplace Features and Options
- 7 Spécifications
- 8 Your Safety and Protection
  - What to do if you smell gas
  - Cleaning and Care
- 9 Operating Instructions – Manual Control
- 10 Operating Instructions – Electric
- 11 Operating Instructions – Electronic Control
- 12 Operating Instructions – Electronic with Variable Remote Control
- 13 Living Flame Expressed Guarantee
- 14 Living Flame Expressed Guarantee *contd.*
- 15 Annual Safety Service
- 16 Inspection Service on New Installations

## **19 Owner / Gasfitter / Architect / Builders Section**

- 20 Spécifications
- 21 Dimensions – Front Elevation
- 22 Dimensions – Side Elevation
- 23 Dimensions – Plan View
- 24 Clearances, Plan View – Trim Out – Hearth Regulation
- 25 Clearances, Front View – Hearth Guidelines
- 26 Clearance for Combustible Mantel

# Contents

---

## **27 Gasfitter / Architect / Builders Section**

28	<b>Gasfitter</b>	What you need to know
29	<b>Gasfitter / Architect / Builder</b>	What you need to know
30	<b>Gasfitter / Architect / Builder</b>	Install into new home
31	<b>Gasfitter / Architect / Builder</b>	Install into existing home
32	<b>Gasfitter / Architect / Builder</b>	Location
33	<b>Gasfitter / Architect / Builder</b>	Flue & Chimney Requirements
34	<b>Gasfitter / Architect / Builder</b>	Rules for Flues
35	<b>Gasfitter / Architect / Builder</b>	Diagram: Flue Height Diagram
36	<b>Gasfitter / Architect / Builder</b>	Diagram: Flue Off Set Rules
37	<b>Gasfitter / Architect / Builder</b>	Diagram: Flue Height, Cowl Clearance
38	<b>Gasfitter</b>	Gas Connection Gas Supply Test Pressures
39	<b>Gasfitter</b>	Testing Controls Ventilation
40	<b>Gasfitter</b>	Installation of Logs and Ember Effect
41	<b>Gasfitter / Architect / Builder</b>	Flue Components

## **43 Electrician Section**

44	Fan Wiring – On / Off
45	Electronic Control Wiring Switching
46	Electronic Control Wiring Testing Lead & Lamp
47	Electronic Burner Control TCAIS, SIT Tandem Gas Valve Wiring Layout – Pilot – Low Flame – High Flame
48	Electronic Burner Control TCAIS Sigma Gas Valve SIT 843 Wiring Layout – Pilot – Low Flame – High Flame

# Owner

---

## ***In This Section***

- 6 Fireplace Features and Options
- 7 Spécifications
- 8 Your Safety and Protection
  - What to do if you smell gas
  - Cleaning and Care
- 9 Operating Instructions – Manual Control
- 10 Operating Instructions – Electric
- 11 Operating Instructions – Electronic Control
- 12 Operating Instructions – Electronic with Variable Remote Control
- 13 Living Flame Expressed Guarantee
- 14 Living Flame Expressed Guarantee *contd.*
- 15 Annual Safety Service
- 16 Inspection Service on New Installations

## ***What you need to know*** ***Installation Instruction Guidelines***

Living Flame Thermoflow Gas Fireplaces must be installed in accordance with these guidelines.

For safe installation and operation carefully read the following information.

### **NOTE:**

Failure to follow these instructions may invalidate your household insurance and the fireplace warranty.

It may also cause a malfunction or damage to the fireplace, possibly causing injury and/or property damage.

**Specifications may change without notice.**

# Owner

---

## *Fireplace Features and Options*

High radiant and convected heat

Manual variable safety controls - **standard**

Electronic two stage, on / off and high / low – **optional**

Electronic, with Variable Remote - **optional**

Easily and safely installed into new and existing homes

No building consent required

Gas Certified Installation

Unique Living Flame Diffuser Burner fire,

Glowing coals, logs and embers

No products of combustion, (Co<sub>2</sub>, Co, No<sub>2</sub>) into the room,

Natural convection,

Totally clean room air,

No added moisture into the room,

Alumini steel construction for heat resistance and a longer lifetime,

Extended heat surface heat exchanger to maximise convected heat,

Air cavity sides,

Natural gas or home delivered bottled gas (LPG) fuel options,

Fire Sure Lifetime Body Guarantee,

Fire Sure Lifetime Burner Assembly Guarantee,

One Year Control Assembly Cover,

One Year Labour Cover,

Three Month Paint Cover

# Owner

---

## ***Thermoflow Specifications***

<b><i>Guarantee:</i></b>	Fire Sure Lifetime Body Guarantee Fire Sure Lifetime Burner Assembly One Year Control Assembly Cover One Year Labour Cover Three Month Paint Cover
<b><i>Gas Type:</i></b>	Natural Gas, Propane, LPG
<b><i>Heat Types:</i></b>	Radiant 70%    Convected 30%
<b><i>Gas Connection:</i></b>	10mm Flare
<b><i>Controls:</i></b>	Manual - <b><i>standard</i></b> Electric On / Off - <b><i>optional</i></b> Two Stage Electronic, On / Off, High / Low - <b><i>optional</i></b> Electronic with Variable Remote Control - <b><i>optional</i></b>
<b><i>Ignition:</i></b>	Piezo Spark - <b><i>standard</i></b>
<b><i>Rear Clearance:</i></b>	30mm from timber includes allowance for gas piping
<b><i>Side Clearance:</i></b>	25mm from combustibles
<b><i>First Lintel Clearance:</i></b>	above firebox/hood and dust cover 50mm clearance required
<b><i>Flue Clearance:</i></b>	25mm to any combustible material
<b><i>Colour:</i></b>	Black
<b><i>Effect:</i></b>	Fixed Logs, Coals and Embers

## ***Special Custom Sizes for a Thermoflow***

Thermoflow gas convector fireplaces can be manufactured in custom sizes as special orders and the minimum height that a Thermoflow can be manufactured to is 575mm.

Special Thermoflow Fireplaces that fall outside these specifications would need to be approved by our design team.

## ***Installation***

Detailed service and installation instructions conforming to NZ Safety Standards ASNZS5601, plus a wide range of technical data on fireplaces, flues and chimneys are available on request.

### **NOTE:**

Living Flame is constantly striving to improve products and services to customers. Information in this manual may change without notice, please check all details with Living Flame for the information you may require at the time of ordering.

# Owner

---

## *Your Safety and Protection*

A fireguard to BS6539 or BS6778 should be used for the protection of young children, the elderly and the infirm.

Do not store or use flammable vapours or liquids in the vicinity of this fireplace or any other gas appliance.

Do not place combustible materials around the fireplace.

Know where your gas shutoff valves are located.

## *What to do if you smell Gas*

Open windows.

Do not try to light any gas appliance.

Do not use any electrical appliance or switches.

Do not use the telephone in your home.

Turn off the gas supply to your house at the gas meter shut off valve, or the shut off valves at your gas bottle(s) location.

Call your local gasfitter from a neighbour's house or from a Mobile Phone away from the house.

## *Cleaning and Care*

### *Paint Surface*

- Dust lightly only when cold.

### *Logs and Coals Effect Set*

- Lightly vacuum with brush taking care not to vacuum up vermiculite.

### **NOTE:**

Ensure fireplace is cold before the fire is cleaned.



# Owner

## Operating Instructions Manual BM Rotary Control Operation

- Check gas supply is turned on.
- Start Up.
- Make sure the control is in the Off Position.
- Depress the control knob for ten seconds.
- Keeping the control knob depressed turn counter clockwise to the Pilot / Sparker diagram position.
- Gas flows to the pilot burner and the piezo igniter gives off a spark to light the pilot.

IF IT FAILS TO LIGHT REPEAT START UP SEQUENCE.

- When the pilot lights, keep the control knob depressed for approximately ten seconds until the pilot remains alight when the control knob is released.

### NOTE:

If the gas line has been interrupted when first lighting the fire, it may be necessary to follow the start up sequence several times.

### High / Low Flame

Turn the control knob to light the main burner.

Small Flame Diagram is low.

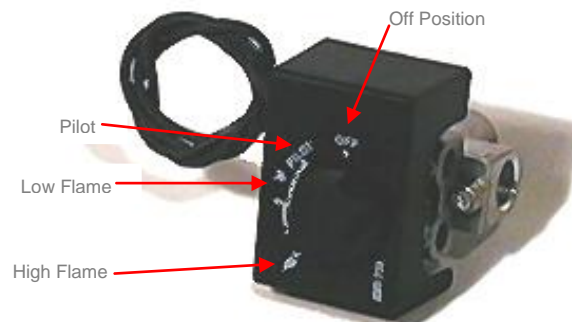
Large Flame Diagram is high or anywhere in between as desired.

### Shut Off

Turn the control knob clockwise to either the pilot position so that only the pilot remains alight or to the off position to extinguish the pilot light.

### Safety Shut Off

The variable rotary control will automatically shut down should the pilot be interrupted or the pilot fails to light.



# Owner

---

## ***Operating Instructions*** ***Electric On/Off Control Operation Option***

- Check gas supply is turned on.
- Start Up.
- Make sure the room switch is in the *off position* and the pilot light is lit according to your manual system.
- Set your manual control to the high flame setting.
- The room switch may now be used to turn the fire on and off as desired.
- When the room switch is in the off position the pilot will remain alight.

### **NOTE:**

If the gas line has been interrupted when first lighting the fire, it may be necessary to follow the start up sequence several times.

### ***High / Low Flame***

Turn the control knob to light the main burner.

Small Flame Diagram is low.

Large Flame Diagram is high or anywhere in between as desired

### ***Shut Off***

Turn the control knob clockwise to either the pilot position so that only the pilot remains alight or to the off position to extinguish the pilot light.

### ***Safety Shut Off***

The variable rotary control will automatically shut down should the pilot be interrupted or the pilot fails to light.

### **NOTE:**

If the system fails to light after several attempts, call for a registered Living Flame Maintenance Engineer or Living Flame Auckland for your nearest Registered Service Agent.

# Owner

---

## *Operating Instructions*

### *Electronic Control Operation Option*

- Check gas supply is turned on.
- Start Up
- Switch the high / low switch to the HIGH position.
- Switch the on / off switch to the ON position.
- The controller will complete a safety check (for some controllers this will take approximately 10 seconds, others may take 30 – 35 seconds).
- The auto spark ignition will start and a clicking noise will be heard.
- The gas pilot valve will open and the pilot will establish.
- Once the pilot is established and sensed by the safety detection rod, the main valve will open and the burner will light after a few seconds.

#### **NOTE:**

If the gas line has been interrupted when first lighting the fire, it may be necessary to follow the start up sequence several times.

#### ***High / Low Flame***

Once the fire is fully glowing and maximum temperature has been reached, the high /low switch may be turned to the LOW position to give the low fire effect. For high flame just flick the switch back to HIGH.

#### ***Shut Off***

Switch the on / off room switch to the off position and the control system will shut off the pilot and main burner.

#### ***Safety Shut Off***

The Electronic control system will automatically shut down should the pilot be interrupted or the pilot fails to light. To re-set the control system, turn the rooms switch to the off position and after 60 seconds the fire can be re-started.

#### **NOTE:**

If the system fails to light after several attempts, call for a registered Living Flame Maintenance Engineer or Living Flame Auckland for your nearest Registered Service Agent.

# Owner

## Operating Instructions

### Electronic with Variable Remote Control 885

Remote powered by 3x AAA batteries.

#### Turn On the Remote

Press the On / Off key on the remote. The remote display will show all active icons on the screen. A single beep from the remote will confirm reception of the command.

#### Turn Off the Remote

Press the On / Off key on the remote. The remote LCD display will only show the room temperature. A single beep from the remote will confirm the reception of the command.

#### Manual 6 Flame Levels

Turn on the Remote.

Press the mode key until the flame icon shows on the bottom left hand corner on the LCD Screen. Pressing down the arrow key once will reduce the flame height by one step until the flame is turned off. The Up arrow key will increase the flame height each time it is pressed. If the Up arrow key is pressed while the system is on but the flame is off, the flame will come on in the high position. A single beep will confirm the reception of the command.



#### Room Thermostat

The Remote can operate as a room thermostat. The thermostat can be set to a desired temperature to control the comfort level in a room.

To activate this function, press the thermostat key. The LCD display on the Remote will change to show that the room thermostat is On. The set temperature is now the large number displayed..To adjust the set temperature, press the up or Down arrow keys until the desired set temperature is displayed on the LCD screen of the Remote.



#### Smart Thermostat

The Smart thermostat function adjusts the flame height in accordance to the difference between the set point temperature and the actual room temperatures. As the room temperature gets closer to the set point the Smart function will modulate the flame down.

Turn on the Remote. Press the mode key until the word SMART appears to the right of the temperature icon on the top left of the LCD Screen. To adjust the set temperature, press the Up or Down arrow keys until the desired set point temperature is displayed on the LCD screen on the remote.



# Owner

---

## ***Living Flame Expressed Guarantee***

***December 2012***

Inbuilt Fireplace bodies are constructed for a minimum working life of 15 years when installed in compliance with AS/NZS5601, C1 Outbreak of Fire & manufacturer's installation, operating and maintenance instructions.

### ***Fire Sure Lifetime Body Guarantee***

This is a Fire Sure Lifetime Replacement Guarantee that covers the fireplace body manufactured by Living Flame Fires and only covers the replacement of the fire body where an irreparable defect, due to material or manufacturing failure, occurs within the lifetime of the fire. The Fire Sure Lifetime Body Guarantee does not cover faults caused by incorrect installation, incorrect commissioning or misuse, and the fire should be installed and maintained in compliance with the guarantee and all conditions of the guarantee fulfilled.

### ***Fire Sure Lifetime Burner Assembly Guarantee***

This is a Fire Sure Lifetime Replacement Guarantee that covers the fire burner tray manufactured by Living Flame Fires and only covers the replacement of the fire burner tray where an irreparable defect, due to material or manufacturing failure, occurs within the lifetime of the fire. The Fire Sure Lifetime Assembly Guarantee does not cover faults caused by incorrect installation, incorrect commissioning or misuse, and the fire should be installed and maintained in compliance with the guarantee and all conditions of the guarantee fulfilled.

### ***One Year Control Assembly Cover***

This is a One Year Replacement Guarantee that covers the control parts used in the manufacturing of a Living Flame Fire. The manufacturer only covers the replacement of a control part where an irreparable defect, due to material or manufacturing failure, occurs within the first year from date of supply by Living Flame.

### ***One Year Labour Cover***

This is a One Year Guarantee covering the normal labour charges required to replace components of a Living Flame Fire should a part fail in its first year of service. The One Year Guarantee does not cover faults caused by incorrect installation or commissioning. The refund of associated labour charges are based on our schedule of costs listing services of parts to be charged for, time allotted and costs allowed including travel, when carried out by an approved Living Flame serviceperson. Travel is only covered within a 25km radius from Living Flame Ltd. The fire has to have been installed and maintained in compliance with the guarantee and all conditions of the guarantee must have been fulfilled.

### ***Three Month Paint Cover***

This is a Three Month Guarantee covering the painted surface of the firebox. It is a warranty against paint peeling and flaking off during normal use of the fire. It excludes discolouration as this is a normal property of the painted surface when heated by the flames. It also excludes any scratching of the painted surface that may occur at the time of installation. It is the responsibility of the installer to touch up any paint surfaces if necessary as it is part of a normal installation service. This does not affect the running of the fire but is aesthetically pleasing to have done. Please check with your annual service provider.

### ***Exclusion from Guarantee***

This Fireplace Replacement Guarantee excludes any costs associated with the removal or replacement on site of the fireplace at the owners request, required for finishing work or refurbishment work to the fireplace, surround, chimney, flue or gas line testing or re-certification. This guarantee is only valid when the fire has been installed in New Zealand.

# Owner

---

## ***Living Flame Expressed Guarantee contd.***

***December 2012***

### ***Installation***

Living Flame Fireplaces must be installed to comply with:

- New Zealand Standards and Building Codes where relevant;
- Australia/New Zealand Standards 5601 Installation Gas Code;
- Living Flame Installation Instructions;
- Living Flame Operating Instructions;
- Living Flame Maintenance Instructions.

Living Flame Fireplaces must be installed free from dampness and free from corrosive elements.

Living Flame Fireplaces must be installed with an unrestricted flue or chimney and with a Living Flame designed cowl.

Living Flame Fireplaces must be installed by a suitably qualified person and a certificate of compliance must be given by a Registered Certifying Craftsman Gasfitter under the New Zealand Gas Act.

### ***Guarantee and Warranty Validity***

Guarantee claims will only be considered when completed by a Living Flame approved serviceperson in accordance with Living Flame procedures.

### ***Operating***

Living Flame Fireplaces must be operated in accordance with Living Flame Operating Instructions.

Living Flame Fireplaces should be used only for the burning of gas fuels: Natural Gas, Liquid Petroleum Gas or Propane Gas. The type of gas to be used should be specified at the time of ordering the unit.

Living Flame Fireplaces must only be operated with a Living Flame Gas Insert Fire that has been commissioned to Living Flame's Commissioning Instructions.

### ***Maintenance***

Living Flame Fireplaces must be maintained, cleaned and re-commissioned annually as should all gas appliances.

### ***Domestic Users***

Living Flame Fireplaces should be inspected, cleaned, serviced and re-commissioned at least once yearly throughout the lifetime of the fire to maintain the guarantee.

### ***Commercial Users***

Living Flame Fireplaces should be inspected, cleaned, serviced and re-commissioned at least twice yearly throughout the lifetime of the fire to maintain the guarantee

***This Guarantee should be kept in a Safe Place Along with the operating Instructions.***

# Owner

---

## *Annual Safety Service*

### ***Service objective***

#### ***Every Living Flame Fire should look and operate at its best***

Check Meter or Cylinders

Pressure Drop Test Gas Lines

Inspect Inbuilt Fireplace

Dismantle Fireplace and Inspect Components

Clean all Components and Body

Check Operation of Controls and Safety Devices

Check Flue System is Clean

Check Flue Vent

Re-assemble Fire

Check Ignition System, Perform Lighting Test, minimum 20 out of 20

Check Injector and Pressure Settings

Check Fire Effect, Flame Distribution and Height of Flame

Check Complete Assembly

Test Flue Vent System

Check Complete Operation of the Fire

Final Clean and Dust

Re-light all Other Gas Appliances

Re-demonstrate Fireplace to ensure owner has full understanding of the Fireplace

Sign off Service Sheet with owner

Re-Spray body and components, - if required. This is extra to the Annual Service Check

### ***Maintenance***

Living Flame Fireplaces must be maintained, cleaned and re-commissioned annually as should all gas appliances.

#### ***Domestic Users***

Living Flame Fireplaces should be inspected, cleaned, serviced and re-commissioned at least once yearly throughout the lifetime of the fire to maintain the guarantee.

#### ***Commercial Users***

Living Flame Fireplaces should be inspected, cleaned, serviced and re-commissioned at least twice yearly throughout the lifetime of the fire to maintain the guarantee

# Owner

---

## ***Inspection Service on New Installations***

### ***Service objective***

#### ***Every Living Flame Fire should look and operate at its best***

Our new Installation Inspection Service is a free service for the purchase of a Living Flame Fire.

The objective of the service is to give peace of mind to our end customers and ensure that each Living Flame Fireplace is installed and operating correctly and safely.

Our Technical Inspection Team inspects every aspect of your fireplace installation.

- Location, Building and Finishing is correct
- Electrical Connections, Switching and Operation is correct
- Gas Supply, Connection, Pressures and Settings are correct
- Fireplace Flue Clearances, Operation and Room Ventilation is Correct
- Fireplace Control Operation, Pilot and Flame Sensing are correct
- Fireplace effect layout, finish and safety operations are correct

### ***Other Services We Offer***

Fireplace Design Service

Combustion Testing Service

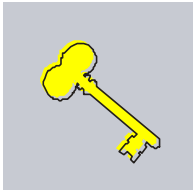
Problem Solving Service

Installation Design Service

Fireplace Project Management Service

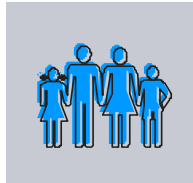


# Owner



## **Future Value**

Living Flames design background and passion, latest technology, quality control, backed by years of experience and our extensive after sales service, from our Installation Safety Inspection to our routine Annual Services. Ensuring the fireplace you choose will enable you to enjoy your Living Flame Fireplace well into the future, adding value to your life and your home.



## **Life Cycle Costing**

How much will a product cost over its life? It's not just the purchase price.

Living Flame Fireplaces have the lowest gas usage when comparing size for size with other producers. The highest guarantees of any gas fireplace products with the Lifetime Fireplace Body Guarantee and a Lifetime Gas Burner Guarantee, on all Living Flames range of Gas Fireplaces for your long term peace of mind.



## **Resource Friendly**

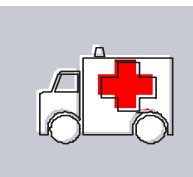
Living Flame design each fireplace to be as environmentally friendly as possible, to obtain the most radiant and convected heat possible for minimum amount of gas used.

Gas is the most environmentally friendly of all the fossil fuels and will continue to play a large part in our lives well into the future.



## **Quality Assurance**

Living Flame is proudly made in New Zealand to world standards for New Zealanders and beyond. With each fireplace individually tested and audited to QA Standard Schedule and signed off before they leave our testing bay.



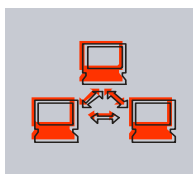
## **Safety**

Living Flame is at the forefront of technology with designs and the world's best flame monitoring devices, control and flue systems combining with the fireplaces built in safety clearances. For further peace of mind Living Flame provide an after install safety inspection service.



## **Healthy Home**

Living Flame Fireplaces are designed to flue all products of combustion and moisture away from the home and draw fresh air in for a healthier home. Living Flame Fireplaces also work hand in hand with direct air ventilation systems to aid in the elimination of mould and moisture.



## **Automation**

Living Flame systems are designed for the future with computer control automation capability, multi function remote controls and even cell phone dial up. Living Flame can work with your home automation specialist to give you the future control you need.

# Notes

---

# Owner / Gasfitter / Architect / Builder

---

## *In This Section*

- 20 Spécifications
- 21 Dimensions – Front Elevation
- 22 Dimensions – Side Elevation
- 23 Dimensions – Plan View
- 24 Clearances, Plan View – Trim Out – Hearth Regulation
- 25 Clearances, Front View – Hearth Guide Lines
- 26 Clearance for Combustible Mantel

## *What you need to Know Installation Instruction Guideline*

Living Flame Thermoflow Gas Fireplaces must be installed in accordance with these guidelines.

For safe installation and operation, carefully read the following information.

### **NOTE:**

Failure to follow these instructions may invalidate your household insurance and the fireplace warranty.

It may also cause a malfunction or damage to the fireplace, possibly causing injury and or property damage.

**Specifications may change without notice.**

# Owner / Gasfitter / Architect / Builder

---

## *Thermoflow Specifications*

<b>Guarantee:</b>	Fire Sure Lifetime Body Guarantee Fire Sure Lifetime Burner Assembly One Year Control Assembly Cover One Year Labour Cover Three Month Paint Cover
<b>Gas Type:</b>	Natural Gas, Propane, LPG
<b>Heat Types:</b>	Radiant 70%    Convected 30%
<b>Gas Connection:</b>	10mm Flare
<b>Controls:</b>	Manual - <b>standard</b> Electric On / Off - <b>optional</b> Two Stage Electronic, On / Off, High / Low - <b>optional</b> Electronic with Variable Remote Control - <b>optional</b>
<b>Ignition:</b>	Piezo Spark - <b>standard</b>
<b>Rear Clearance:</b>	30mm from timber includes allowance for gas piping
<b>Side Clearance:</b>	25mm from combustibles
<b>First Lintel Clearance:</b>	above firebox/hood and dust cover 50mm clearance required
<b>Flue Clearance:</b>	25mm to any combustible material
<b>Colour:</b>	Black
<b>Effect:</b>	Fixed Logs, Coals and Embers

### **Special Custom Sizes for Thermoflows**

Thermoflow gas convector fireplaces can be manufactured in custom sizes as special orders and the minimum height that a Thermoflow can be manufactured to is 575mm.

Special Thermoflow Fireplaces that fall outside these specifications would need to be approved by our design team.

### **Installation**

Detailed service and installation instructions conforming to NZ Safety Standards ASNZS5601, plus a wide range of technical data on fireplaces, flues and chimneys are available on request.

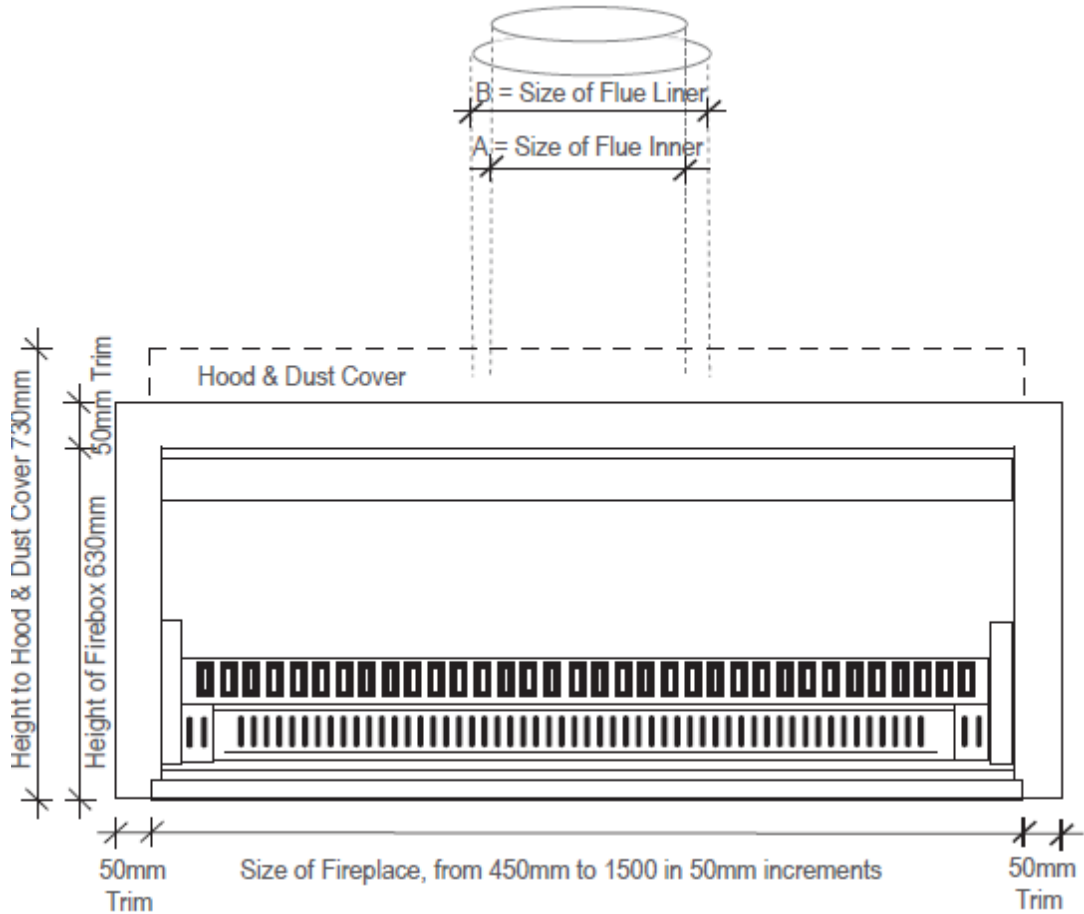
### **NOTE:**

Living Flame is constantly striving to improve products and services to customers. Information in this manual may change without notice, please check all details with Living Flame for the information you may require at the time of ordering.

# Owner / Gasfitter / Architect / Builder

## Dimensions Front Elevation

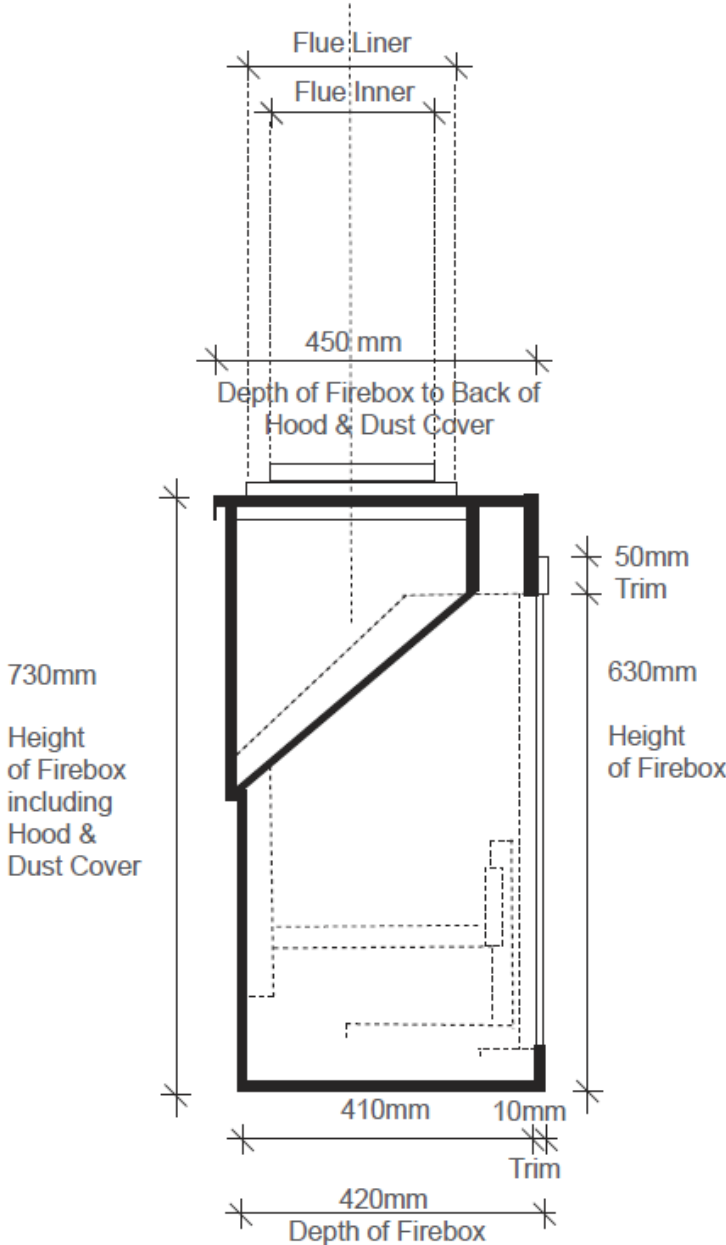
### Flue Dimensions



Fire Size	A – Flue Inner	B – Flue Liner
0450,0500,0550,0600,0650	150mm diameter	200mm diameter
0700,0750	175mm diameter	225mm diameter
0800,0850	200mm diameter	250mm diameter
0900,0950,1000,1050	250mm diameter	300mm diameter
1100,1150,1200,1250	275mm diameter	325mm diameter
1500	300mm diameter	350mm diameter

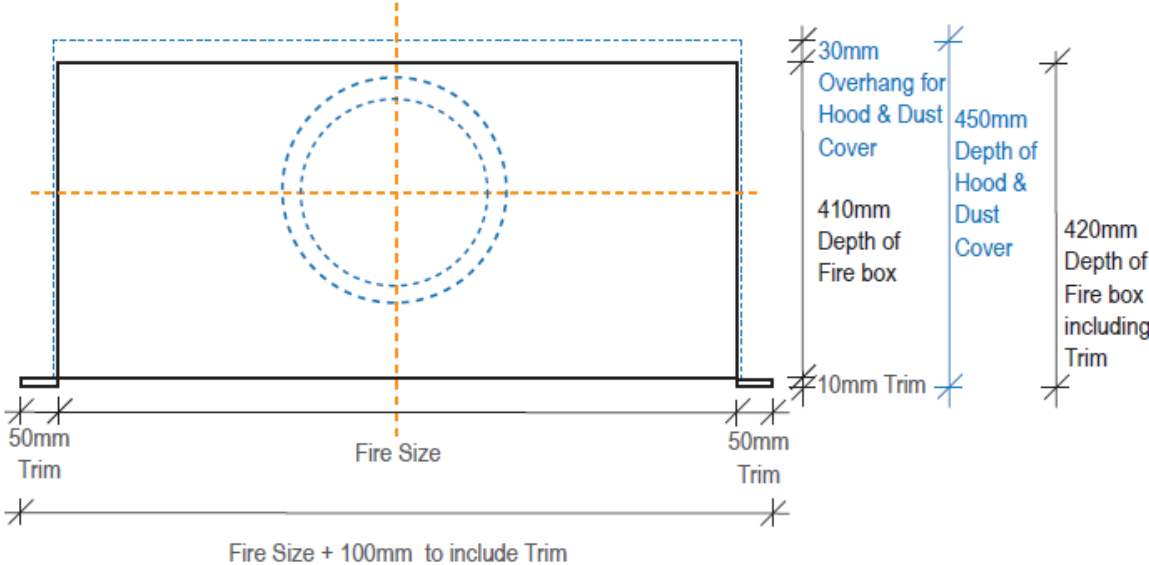
# Owner / Gasfitter / Architect / Builder

## Dimensions Side Elevation



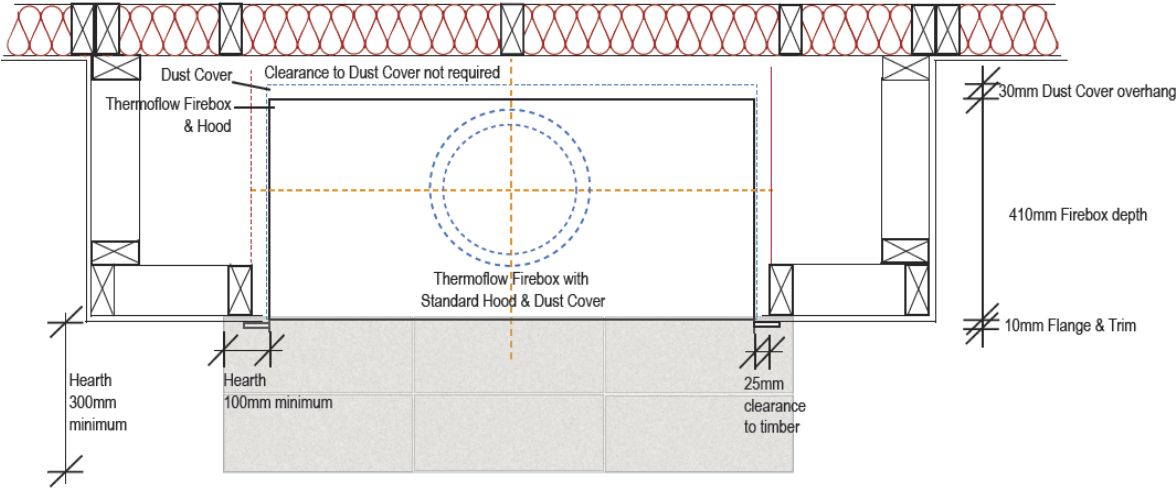
# Owner / Gasfitter / Architect / Builder

## Dimensions Plan View



# Owner / Gasfitter / Architect / Builder

## Trim Out Firebox Clearances Hearth Regulation

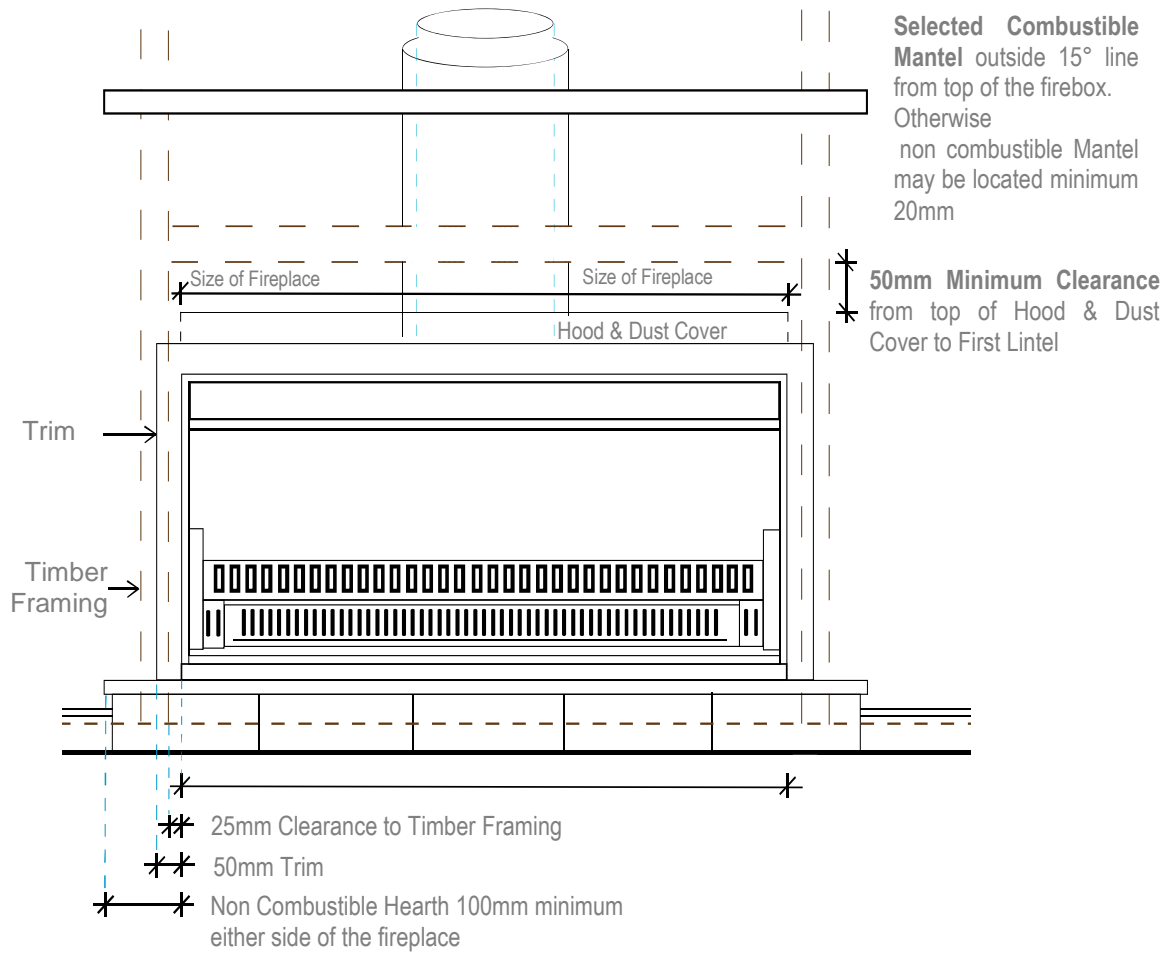


**Hearth**  
Hearth to be of non combustible material  
**Hearth Size**  
Minimum of 300m from front of fireplace  
Minimum of 100mm either side of fireplace



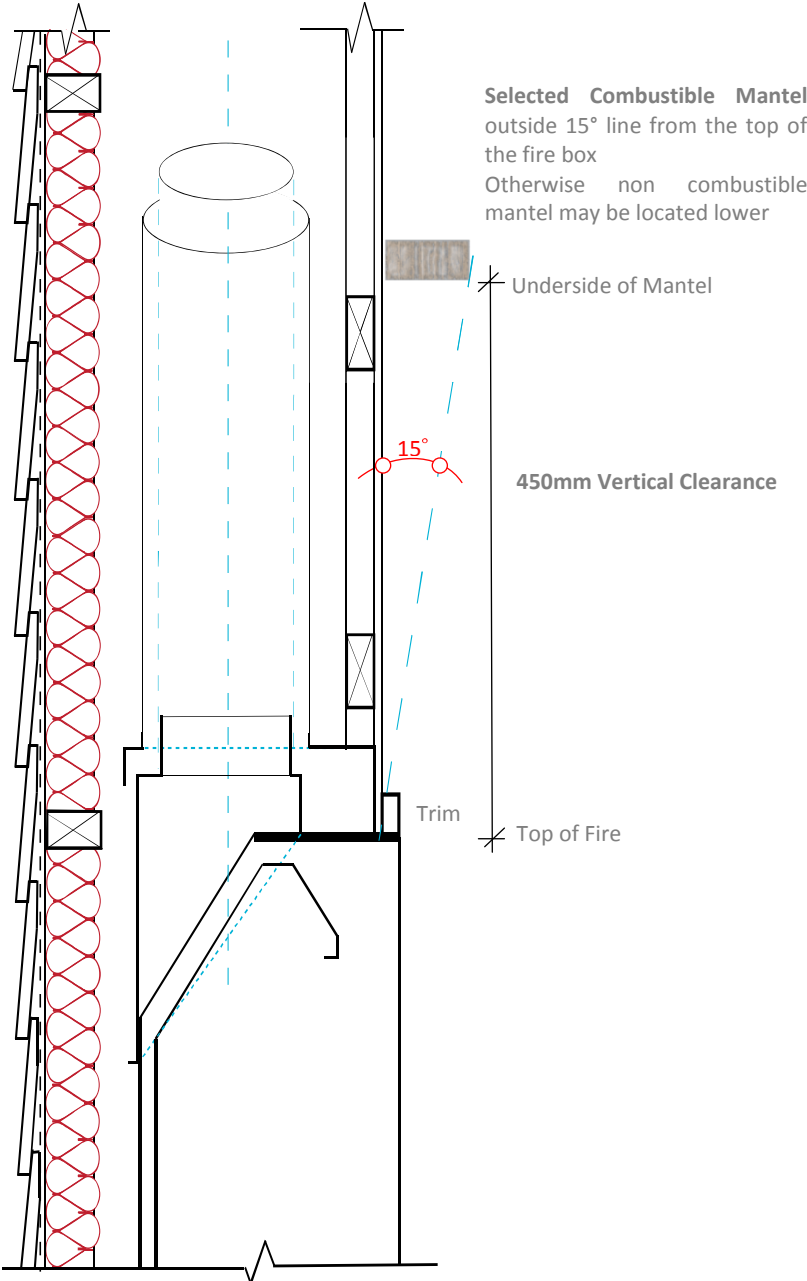
# Owner / Gasfitter / Architect / Builder

## Clearances Hearth Guidelines



# Owner / Gasfitter / Architect / Builder

## Clearance for Combustible Mantel



# Gasfitter / Architect / Builder

---

## In This Section

28	<b>Gasfitter</b>	What you need to know
29	<b>Gasfitter / Architect / Builder</b>	What you need to know
30	<b>Gasfitter / Architect / Builder</b>	Install into new home
31	<b>Gasfitter / Architect / Builder</b>	Install into existing home
32	<b>Gasfitter / Architect / Builder</b>	Location
33	<b>Gasfitter / Architect / Builder</b>	Flue & Chimney Requirements
34	<b>Gasfitter / Architect / Builder</b>	Rules for Flues
35	<b>Gasfitter / Architect / Builder</b>	Diagram: Flue Height Diagram
36	<b>Gasfitter / Architect / Builder</b>	Diagram: Flue Off Set Rules
37	<b>Gasfitter / Architect / Builder</b>	Diagram: Flue Height, Cowl Clearance
38	<b>Gasfitter</b>	Gas Connection Gas Supply Test Pressures
39	<b>Gasfitter</b>	Testing Controls Ventilation
40	<b>Gasfitter</b>	Installation of Logs and Ember Effect
41	<b>Gasfitter / Architect / Builder</b>	Flue Components

## What you need to know Installation Instruction Guideline

Living Flame Thermoflow Gas Fireplaces must be installed in accordance with these guidelines.

For safe installation and operation, carefully read the following information.

### **NOTE:**

Failure to follow these instructions may invalidate your household insurance and the fireplace warranty.

It may also cause a malfunction or damage to the fireplace, possibly causing injury and or property damage.

**Specifications may change without notice.**

# Gasfitter

---

## What you need to know

1. All Living Flame fires are connected with a 10mm soft copper pipe and flare nuts, requiring a 19mm spanner to tighten the flare fitting.
2. Inserts, Baskets and Custom made Register Inserts (to fit the fireplace requirements) where the fireplace is not accessible from a floor cavity, the 10mm soft copper pipe needs to be brought into the fireplace at the rear centre, and one metre of spare pipe left for connecting to the fire at a later date.
3. When sizing the gas line being run to the fireplace, the supply line should be capable of passing 60MJ/h of gas at the fireplace.
4. All chimneys or flues should be unrestricted with a suitable cowl fitted where possible. The size of the flue or chimney should be checked to ensure that the ratio between the opening and the chimney or flue is correct.
5. Thermoflow fires, into existing fireplaces, also require the same criteria as above but with the old firebricks removed from the fireplace and the bottom levelled to accommodate the fire.
6. Thermoflow fires built into new locations with flues require a gas supply of 60MJ/h to be brought to the left hand side of the false cavity in which the fire will be located, with final connection being made in 10mm soft copper with welded joints connecting to the 10mm soft copper provided on the rear of the fire.
7. Vision and Manhattan Designer Fireplaces also require a 60MJ/h gas supply to be brought to the rear of the fireplace and to be connected to the 10mm soft copper provided. Check configuration of the particular fire prior to connecting.
8. For Vision and Manhattan Quattro fireplaces, the gas supply is required to be brought into the underneath of the fireplace due to the clear glass sides.
9. A Gas Certification must be taken out for all Gas Supply lines that are installed.
10. All gas work must be carried out in compliance with ASNZS5601 Installation Code.
11. At the time of installation, you will need to carry out a Gas Pressure Test of the Gas Line. If the line is unsound and a leak is detected the client will need to have the line repaired.

# Architect / Builder

---

## What you need to know

Planning for a fireplace should be undertaken before the pre-framing stage.

Living Flame make a large range of fireplaces and it is essential that you check that you have the correct building information for the make and type of fireplace you or your customer order.

The fireplace should be ordered at the time the foundations are started and the installation timing booked.

Installation bookings should be made to coincide with the completion of the closing in of the house.

Installation of a fireplace and flue system usually takes one to two days to complete.

Gas supplies should be brought into the fireplace cavity before the fireplace installation.

Electrical cabling should be brought into the fireplace cavity before the fireplace installation.

Living Flame fireplaces have a large range of control systems available. It is essential that the control system needed for a particular fireplace installation be confirmed before installing takes place. For example: Manual Control, Electronic Control, and Remote Control.

### Before Booking the commissioning of a fireplace, check:

- The gas system is connected.
- Gas is available at the meter or you have the gas bottles arranged.
- There are no gas leaks in the gas line.
- The decorating is finished in the fireplace area.
- The fireplace surround is complete.
- The hearth is installed and complete.
- The finished flooring has been laid.

When the fireplace and fittings have been delivered / installed and signed for, it is the builders or owners responsibility to ensure the fireplace and all fittings are free from site damage. For example: dust, overspray, plaster splashes, mechanical damage etc.

Living Flame supply spigot plates only for the tops of false chimneys.

Living Flame do not supply or fit over flashing capping for chimneys.

Protective masking should be taped around the fireplace after installation to protect it from site damage and this should only be removed when commissioned.

Finishing work should be carried out and completed after the fireplace installation is complete, but before commissioning.

# Gasfitter / Architect / Builder

---

## Installation into New Homes and New Fireplaces

In New Zealand every home is different from the next. Therefore, these are general guidelines for installation only.

A gas certificate must be completed at the finish of any installation of a gas appliance or gas pipe work.

Flue planning should be checked for correct height and location in relation to the roof and other objects in close proximity (refer to Flue and Chimney Clearance sheet).

A gas connection should be brought into the right hand rear corner of the fireplace, sized for a capacity of 60 MJ/h to provide spare capacity in the gas line. Pressure test gas lines before connection to the fire.

Electrical supply: A 230V AC 1m cable from a room switch should be brought to the left-hand rear corner of the fire for connection of a fan (if fitted). A 22mm hole and cover plate is provided for a cable gland and connector to be used. Provision should also be made for any cabling required if electronic or solenoid control options are to be taken.

Install the fire into position, level and fix. Connect a 10mm gas line from the rear of the fireplace to the 15mm gas supply line with a copper reducer and silfos joint (do not use a flare or gland fitting). Care should be taken when coiling any spare gas line at the rear of the fireplace that it does not touch the back of the fireplace.

Install flue components as required and connect to the fireplace spigot.

or

The roof seal is then tightly secured over the flue and sealed from the weather.

Trim flue and galvanised liner to same length and slip on anti-downdraught cowl and windskirt. In exposed areas, the cowl should be riveted onto the outside liner.

On completion of the fire installation, the flue should be inspected by the certifying person, in compliance with the New Zealand Standards, before cladding is fitted.

Turn on gas supply and bleed air from the lines, commission fire, set flame height and combustion test.

***Some variations to these guidelines may be needed with different sized and shaped fireplaces.***

***If you have any doubts, please do not hesitate to contact Living Flame Fires for advice on installation.***

# Gasfitter / Architect / Builder

---

## Installation into Existing Fireplaces

In New Zealand every home is different from the next. Therefore, these are general guidelines for installation only.

A gas certificate must be completed at the finish of any installation of a gas appliance or gas pipe work.

Remove existing rear and side firebricks (if required).

Check measurements of opening height, width and depth.

Check chimney is clean and unrestricted. Size of chimney should not be less than 12% of the fireplace opening size.

Chimney should be checked for correct height in relation to the roof and other objects in close proximity.

A gas connection should be brought into the right hand rear corner of the fireplace, sized for a capacity of 60 MJ/h to provide spare capacity in the gas line. Pressure test gas lines before connection to the fire.

Electrical supply: A 230V AC 1m cable from a room switch should be brought to the left hand rear corner of the fire for connection of a fan (if fitted). A 22mm hole and cover plate is provided for a cable gland and connector to be used. Provision should also be made for any cabling required if electronic or solenoid control options are to be taken.

The firebox should be slid into place to check for size, levels and fixing.

The firebox may be fixed by its own front flanges or by side fixings under the front sloping vent.

Connect a gas line from the rear of the fireplace to the gas supply line with a copper reducer and silfos joint (do not use a flare or gland fitting). Care should be taken when coiling any spare gas line at the rear of the fireplace that it does not touch the back of the fireplace.

Slide firebox back into place and fix level.

The spigot plate is then nailed to the top of the chimney and plastered over and around up to the spigot.

Slip on anti-downdraught cowl and windskirt. In exposed areas, the cowl should be riveted onto the outside spigot.

Turn power on and check operation of the fan (if fitted).

Turn on gas supply and bleed air from lines.

Commission fire, smoke test, set flame height and combustion test.

Care should be taken not to buckle and dent trim.

Connection of gas supply and electrical supply must be carried out by a suitably qualified person.

The room should be checked to ensure adequate ventilation is provided for the operation of the fire. (Special care should be taken where extractors, range hoods and transfer ducts are used on the property).

***Some variations to these guidelines may be needed with different sized and shaped fireplaces.***

***If you have any doubts, please do not hesitate to contact Living Flame Fires for advice on installation.***

***Note: IF YOU ARE UNSURE, PLEASE REFER TO LIVING FLAME RULES FOR EXISTING FIREPLACES.***

# Gasfitter / Architect / Builder

---

## Location

- The fireplace should be located:
  - Out of high traffic areas;
  - Out of strong draughts;
  - Away from furniture;
  - Where the flue system can be correctly installed without damaging the structure of the building, checking that the flue vent and its shielding will not interfere with any structural timberwork;
  - Where there is sufficient access for safe operation and maintenance;
  - Where there is a flat and level surface;
  - Where there is sufficient flue vent clearance around the flue in relation to doors or windows;
  - Where there is access to a gas line or the gas line can be brought to the fireplace in accordance with AS/NZS5601;
  - Where there is access to an electrical supply for the electrical control system to be connected to if required;
  - Where there is unobstructed adequate ventilation to allow correct combustion and operation of the fireplace;
  - Where the fireplace can be used to optimise the radiant heat given off by the fireplace;
- The inbuilt fireplaces do require a hearth.



# Gasfitter / Architect / Builder

---

## Flue and Chimney Requirements

LIVING FLAME will be pleased to assist you with the design of the flue or chimney to achieve a result which functions correctly and has the desired appearance for the house.

This fireplace must be vented to outside atmosphere.

- A flue or chimney is required for a Living Flame Fireplace.
- Flueing must be in accordance with the ASNZS5601 and all local body bylaws.
- Flue vent must be unrestricted and terminated with a Living Flame cowl.
- The flue vent should be checked for correct height and location in relation to other objects in close proximity (refer to Flue Clearance Sheets).
- Stand the fireplace in its proposed position, taking care to observe the minimum clearances shown.
- Drop a plumb-bob from the ceiling to hang centrally in the flue spigot of the fire and mark the position on the ceiling. Drive a nail through at this position and inspect the ceiling and roof to ensure that the flue and its air space liner will be at least 25mm clear of any combustible material.
- A minimum clearance of 25mm is required between the flue and air space liner where it penetrates the ceiling.
- A suitable flashing should be used to seal the roof and flue liner, supplied by other.
- Flues must be sealed to prevent damage from water or products of combustion leakage.
- Flues should be inspected and tested annually.

**Note:** *IF YOU ARE UNSURE, PLEASE REFER TO LIVING FLAME RULES FOR FLUES.*

### **Liner Installation**

- Flue outer airspace should be a minimum of 25mm from any combustible material.
- Flues may be offset at not less than a 10° angle from the horizontal.
- Flues should not be restricted in any way.
- Flues should be bracketed to take their own weight.
- Flues must have an anti-downdraught rain and wind cowl fitted.
- Roof flashing and seals should be the appropriate type for the roof.

### **Height**

- The minimum effective height of the flue shall be at least 3.6m.
- Flues or chimneys should rise until there is a 2.5m clearance horizontally from any part of the roof or other obstructions. The flue then rises a further 500mm vertically from the clearance point, giving the correct height and wind clearance.
- The anti-downdraught cowl and windskirt should then be fitted.

# Gasfitter / Architect / Builder

---

## Rules for Flues

### *Flue Runs*

- Non standard flue must be checked with our technical support team.
- Use the correct standard size of flue for each appliance or fireplace.
- Reduce the flue only where the height is greater than 6m or 6 lengths.
- Reduce the flue after first standard length only.
- Reduce on size only. ie: 200mm down to 175mm.
- Reduce where flue draft is excessive. ie: 1mm wg and above.
- Flue must be unrestricted.
- Dampers must be fixed – test and set to working flue operational position.

### *Off Sets*

- Offset ratio is 1m horizontal to 1.5 vertical – minimum.
- Flue must be bracketed to support each vertical rise after an off set.
- Offset angle is to be a minimum of 10 off the horizontal.

### *Penetrations*

- False chimney spigot plates can be used as a top bracket fixing.
- Flue penetrating roofs must be bracketed to roof trusses and fully supported above and below the roof to protect flashings.
- Flue in the high wind areas needs to have the inner and outer flues sealed and should be stayed. A false chimney is recommended.

### *Clearances*

- Clearances from the flue to the room and / or other objects must be applied.

### *Cowls*

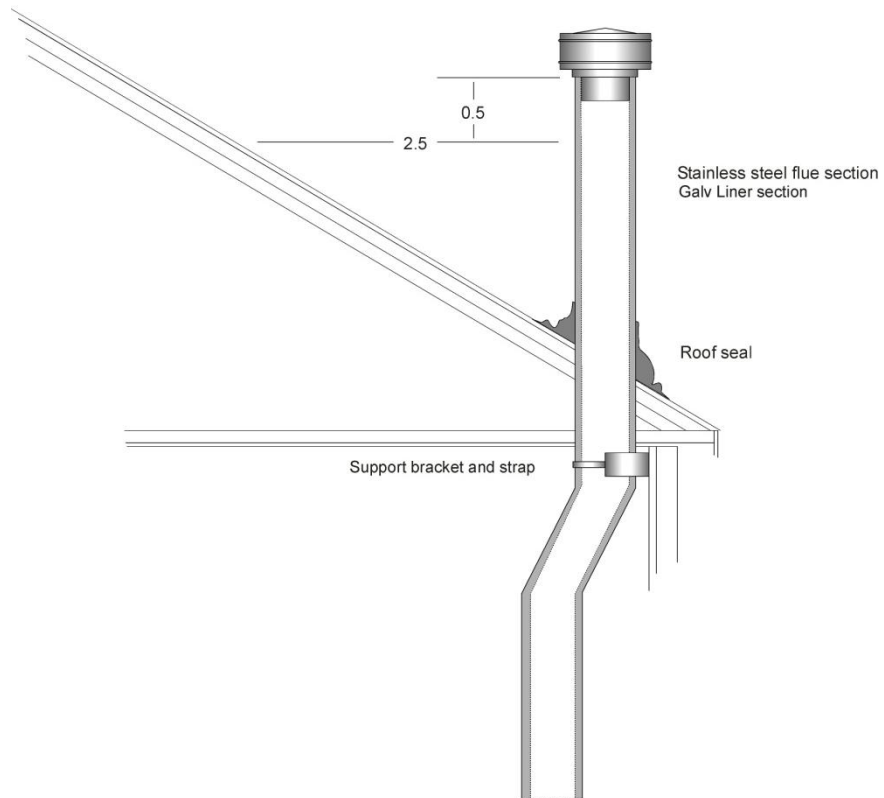
- A full flow cowl must be fitted.
- A cowl is required to protect the fire and to aid the performance of the flue.
- Cowls must not be obstructed.
- Decorative surrounds can be placed around the cowl but they must not restrict its performance in any way.

### *Ventilation*

- All natural draft flues require ventilation.
- Make up air must be provided for a natural draft flued fireplace.
- Care should be taken and allowance made for extractor fans.  
For example: range hoods, central heating, return air grills, bar and commercial kitchen extractors etc.
- To maintain natural atmospheric balance in the room permanent ventilation equal to the cross section area of the existing natural draft fireplace flue or chimney should be provided.
- Additional ventilation or make up air will be required if there are any other extractor fans or other natural draft flues located within or adjacent to the catchment area for the fireplace ventilation.

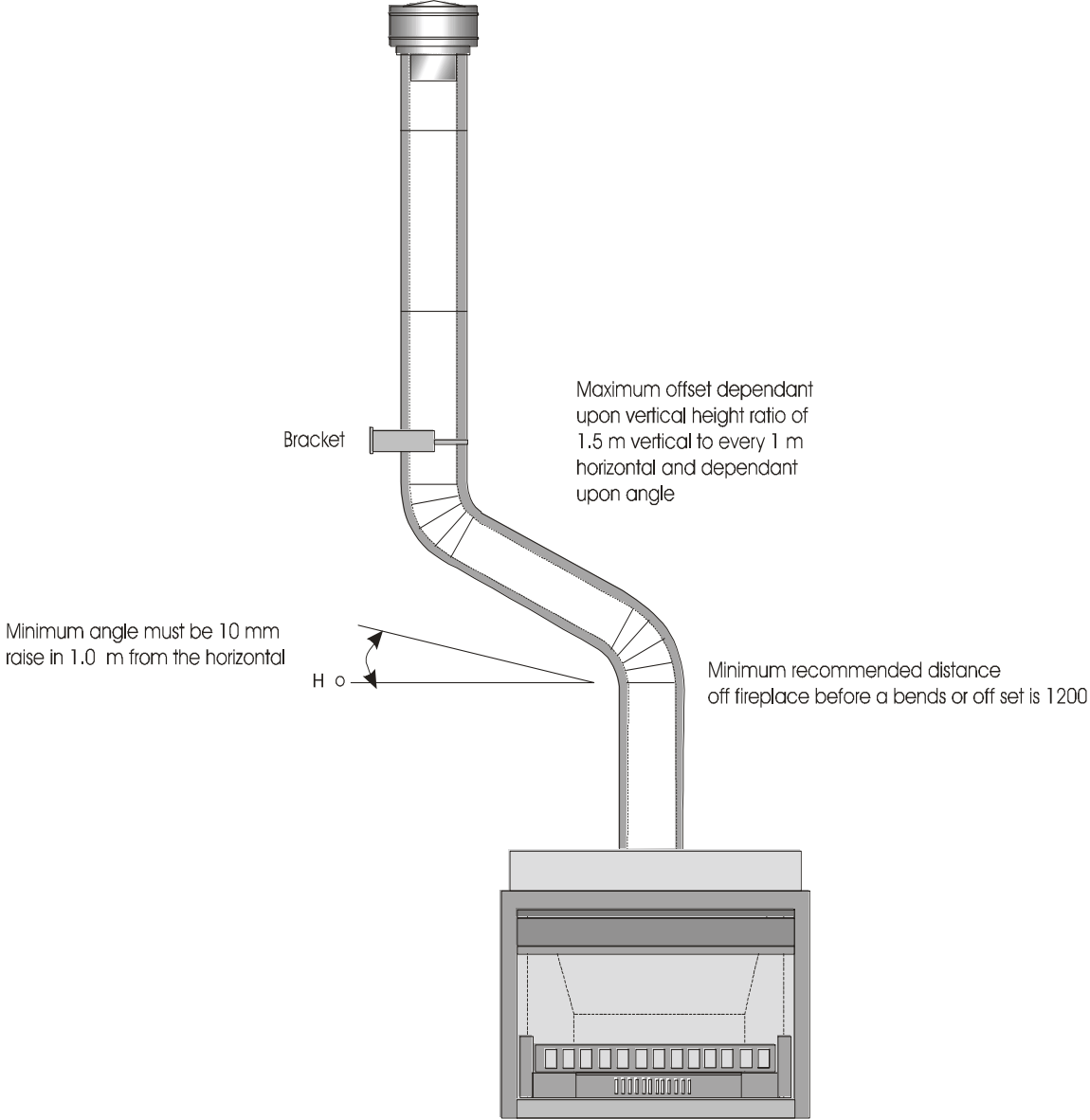
# Gasfitter / Architect / Builder

## Flue Height Diagram – Flue Clearance



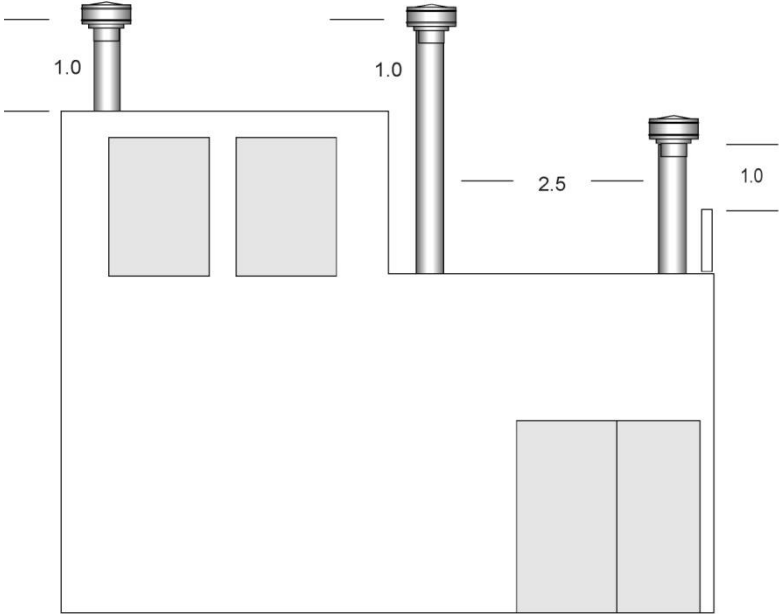
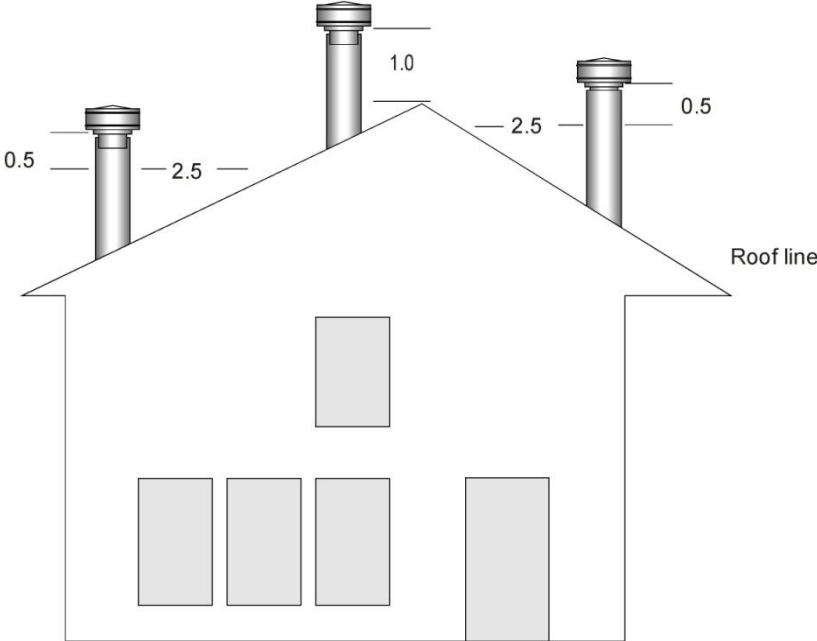
# Gasfitter / Architect / Builder

## Flue off Set Rules



# Gasfitter / Architect / Builder

## Flue Height Diagram – Cowl Clearance



# Gasfitter

## Gas Connection

A gas certificate must be given for the installation, connection and the associated flue vent system.

All installation work should be carried out by a suitably trained and qualified person to comply with installation code AS/NZS5601 and then certified by a Craftsman Gasfitter.

Before installation commences, check the data plate on the fire to verify that the fire is set up to suit your type of gas supply. Field conversion to suit a different gas is not always practical.

This fireplace is supplied with a 10mm soft copper connection mounted at the bottom right hand side of the fireplace (as seen from the front).

A gas line capable of supplying a minimum of 50MJ/h should be brought to the fireplace with a 10mm soft copper tail. This is to be connected to the 10mm soft copper pipe.

Other systems of connection may be used in accordance with AS/NZS5601.

## Gas Supply

	<u>Inlet Standing Pressure</u>	<u>Set Up Pressure</u>
Natural Gas	2.0 kPa	HIGH 1.0 kPa
		LOW 0.5 kPa
LPG Propane	2.75 kPa	HIGH 2.5kPa
		LOW 1.5kPa
Maximum Inlet Pressure	4.0 kPa	

If inlet pressure exceeds 4.0 kPa, then damage will occur and may result in a hazardous condition.

## Test Pressures

- Test nipple is located on the injection elbow before the main burner and on the control valve for LPG.
- When electronic controls are fitted, test nipples will be located on the gas control valve, on both the gas inlet and the gas outlet.

# Gasfitter

---

## Testing

The fire outlet pressures have been preset in the factory. Some small adjustment may be necessary and it should always be checked.

To adjust:

- Turn off the fire and loosen the test nipple screw;
- Fit 6mm tube and test gauge securely;
- Turn on the fire, check pressure settings on high and low;
- Adjust control valve setting where required (refer Rating Plate for correct adjustment and settings);
- Turn off the fire, remove the gauge and tube. Secure the test nipple screw and replace the cover.

## Controls

CUSTOMER REQUIREMENTS:

Show customer the appropriate control system.

Ask them to operate it.

Ensure the customer fully understands the control system and that they can operate it satisfactorily.

## Ventilation

Adequate ventilation for the fireplace shall be provided in accordance with ASNZS5601 and Manufacturers Instructions.

This fireplace has also been designed to draw room air into the fireplace and to circulate it as convected heat.

The blocking up or modifying of any of the airways of the fireplace in any way, could create a hazardous situation of either overheating or poor ventilation.

Living Flame has carried out extensive research and testing into the correct ventilating for an open gas fireplace.

The requirements for an open natural draught fireplace is for fixed ventilation grills to be fitted to supply makeup air with an open area equal to 100mm x 100mm a factor of 1 for every 10MJ/h that the gas fireplace is gas rated at.

As a rule of thumb you will find that the size of the required ventilation grill will closely match the cross sectional area in m<sup>2</sup> of the fireplace natural draught flue.

The air flow through an open natural draught fireplace ventilation grill is at very low velocity, approximately 2KPa with an air flow of between 250m<sup>3</sup> – 1200m<sup>3</sup>/hr depending on the size of fireplace.

# Gasfitter

---

## Installation of Logs, Coals and Embers

Only the coals, logs and embers supplied with this fire may be used on this fire and said coals, logs and embers may not be used on any other brand of fire.

Take care to avoid any damage to the diffuser blanket and scatter a handful of embers lightly over the bed to cover the diffuser blanket. Fill the channel at the front and rear of the burner blanket completely with embers.

Place the fixed set on the ember bed.

Gently settle the frame of the fixed set into the embers, ensuring that the metal frame is not visible.

When the fire is set correctly the flames should be approximately 75mm – 100mm tall on high and 25mm – 35mm tall on low.

If the flames are incorrectly set refer to: Gas Supply, Test Pressures and Testing.



# Gasfitter / Architect / Builder

---

## Flue Components

Spigot Plate



Cowl and Windskirt



Fully Adjustable Bend



Bracket and Strap



# Notes

---

# Electrician

---

## **43** *In This Section*

- 44 Fan Wiring – On / Off
- 45 Electronic Control Wiring Switching
- 46 Electronic Control Wiring Testing Lead & Lamp
- 47 Electronic Burner Control TCAIS,  
SIT Tandem Gas Valve  
Wiring Layout – Pilot – Low Flame – High Flame
- 48 Electronic Burner Control TCAIS  
Sigma Gas Valve SIT 843  
Wiring Layout – Pilot – Low Flame – High Flame

## ***What you need to know*** ***Installation Instruction Guideline***

Living Flame Thermoflow Gas Fireplaces must be installed in accordance with these guidelines.

For safe installation and operation, carefully read the following information.

### **NOTE:**

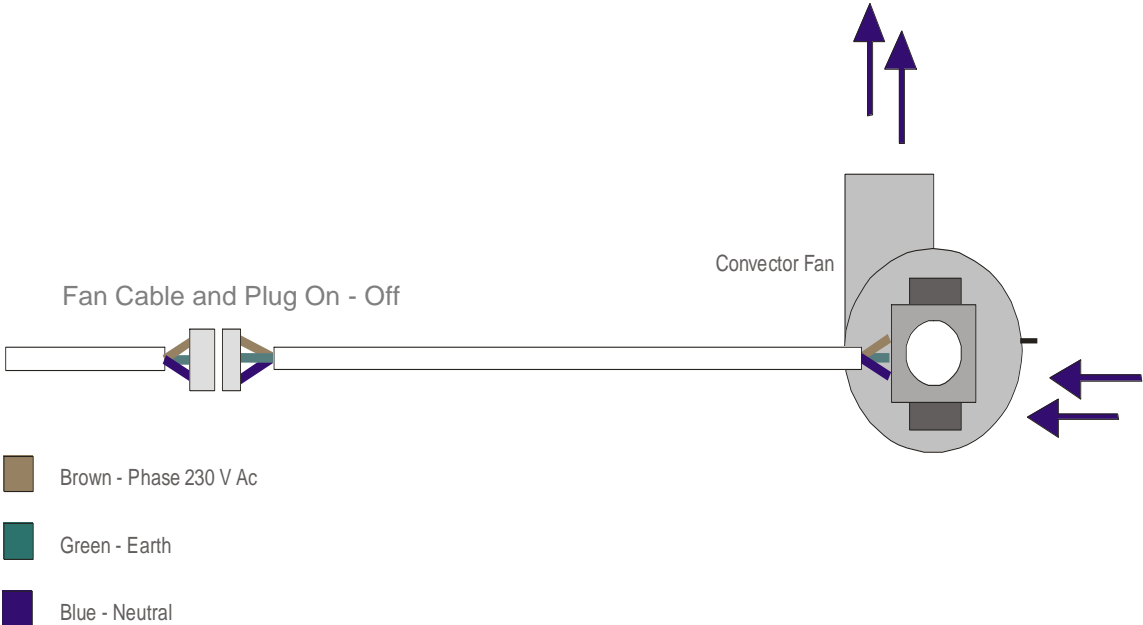
Failure to follow these instructions may invalidate your household insurance and the fireplace warranty.

It may also cause a malfunction or damage to the fireplace, possibly causing injury and or property damage.

**Specifications may change without notice.**

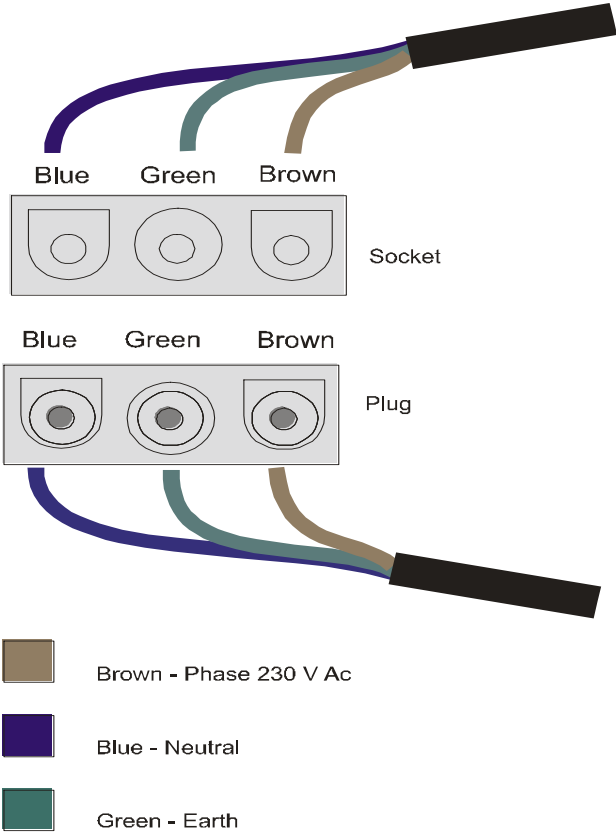
# Electrician

## Fan Wiring – On / Off



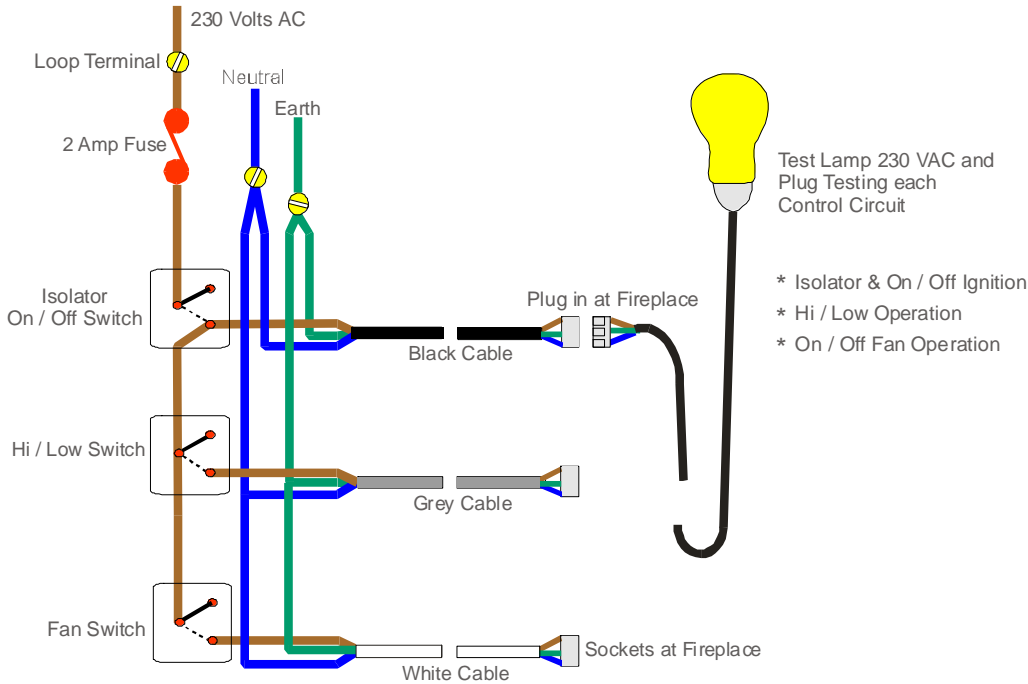
# Electrician

## Internal Fireplace Power Plugs



# Electrician

## Switching & Testing Lead & Lamp



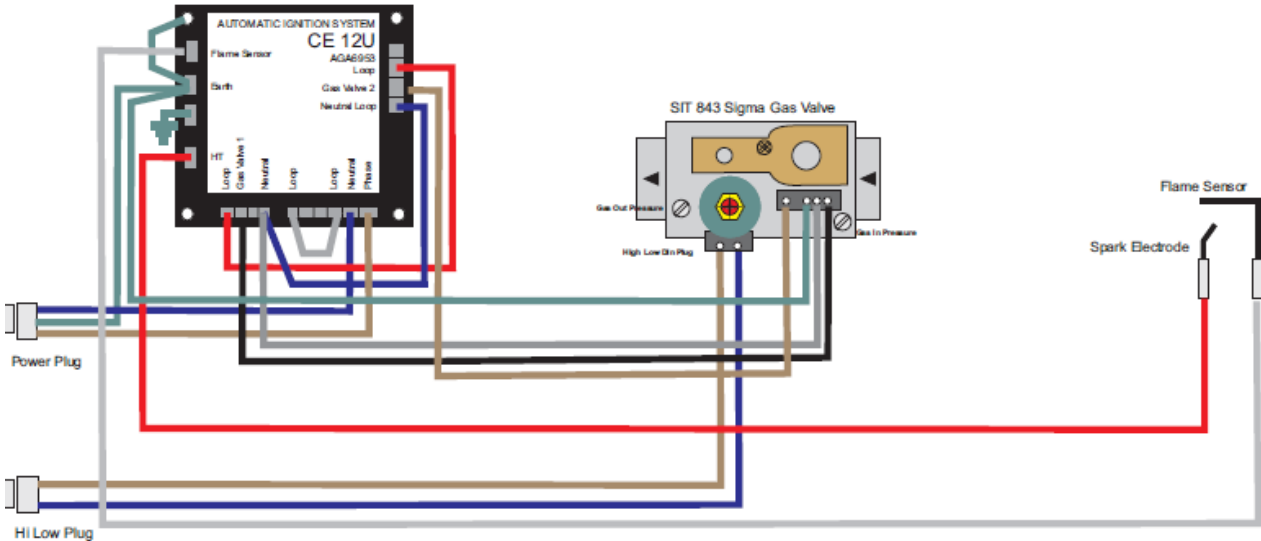
# Electrician

## Electronic Burner Control

CE12U AGA6953

## Sigma Gas Valve SIT 843

### Wiring Layout Pilot – Low Flame – High Flame



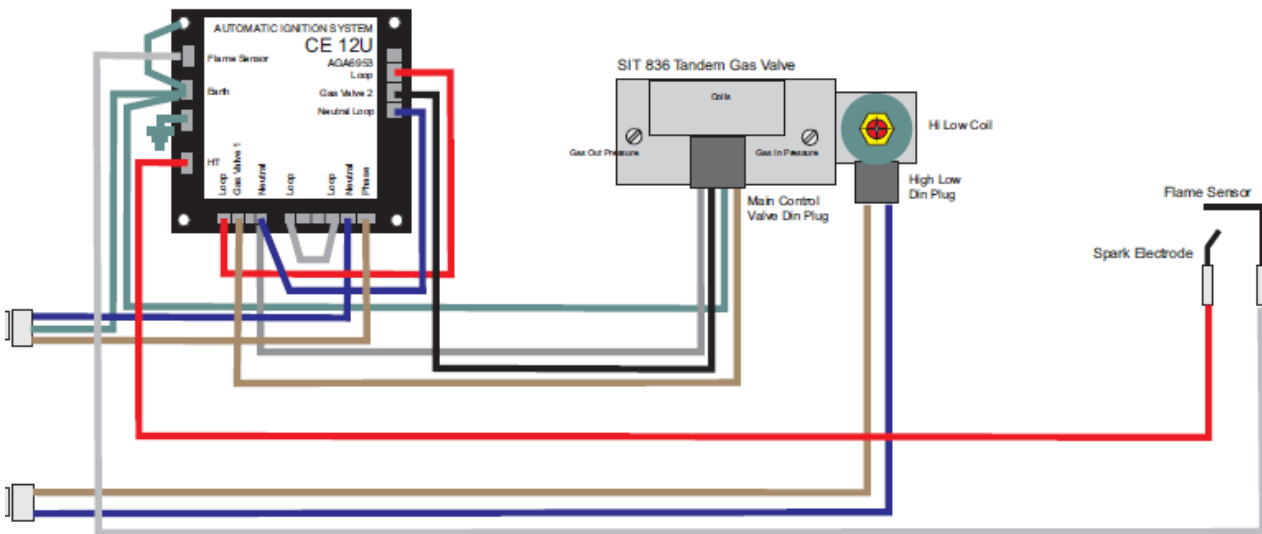
# Electrician

## Electronic Burner Control

CE12U AGA6953

Tandem Valve SIT 836

### Wiring Layout Pilot – Low Flame – High Flame





## Notes:

---

**Living Flame** Auckland  
DISPLAY CENTRE: 343b Church Street, Penrose, Auckland  
POSTAL ADDRESS: PO Box 12964, Penrose, Auckland 1642  
TELEPHONE: 64 9 622 1148  
FAX: 64 9 622 1179  
EMAIL: [info@livingflame.co.nz](mailto:info@livingflame.co.nz)  
WEB : [www.livingflame.co.nz](http://www.livingflame.co.nz)