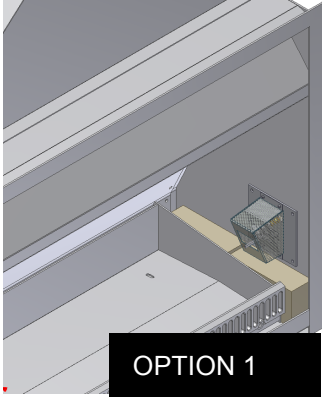


# Gas Flare/Rail & Tee Bar Log Lighters

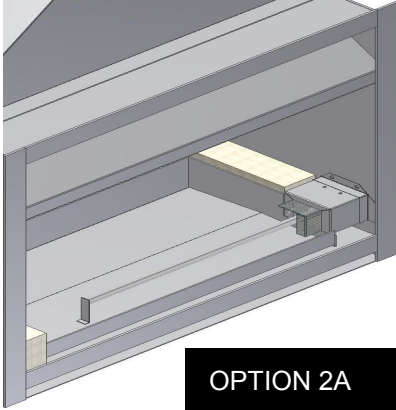
## Installation Instructions

### Gas flare



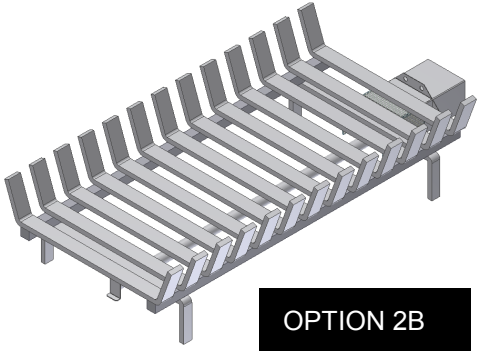
OPTION 1

### Rail burner (ash pan)



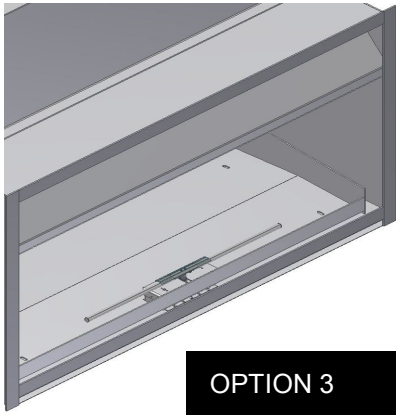
OPTION 2A

### Rail burner (grate)



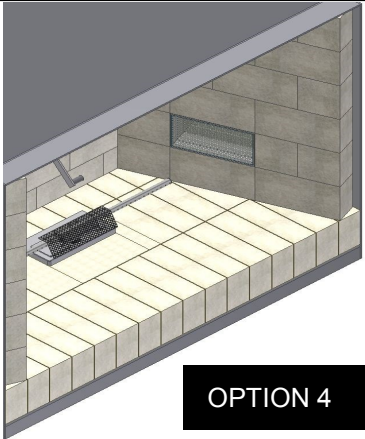
OPTION 2B

### Tee bar rail burner



OPTION 3

### Trad tee bar rail burner



OPTION 4

Related documents

**Fire installation, and instructions to comply with NZS 5601.1:2013, 3645.1(Int):2010, 3645.2(Int):2010, 5266:2014, 2918:2001.**

**The fireplace is constructed and tested to comply with NZS 4558(int):2013 “Decorative gas log and other fuel effect appliances”.**

Keep these instructions for further reference. Ensure that you have the correct and current installation details for the Warmington fireplace.

Installation

The Warmington unit is to be installed by a certified Warmington installer or an approved NZHHA installation technician.

See [www.homeheat.co.nz/members](http://www.homeheat.co.nz/members) for a certified NZHHA SFAIT Installer in your area.

A licenced certified gas fitter and licenced electrician are required to run power and gas supplies as required to the unit and any commissioning as part of the installation process. The heater must be installed according to these instructions and in compliance with all relevant building, gas fitting, electrical and other statutory regulations.

**IMPORTANT**

Read all the instructions carefully before commencing the Installation. Failure to follow these instructions may result in a fire hazard and void the warranty

Due to continued product improvement, Warmington Ind LTD reserves the right to change product specifications without prior notification.

All Dimension are in mm.....Copyright ©

## **PRIOR TO CONSTRUCTION AND INSTALLATION**

### **Consult a certified craftsman gas fitter for correct gas installation.**

1. Install to manufacture's specifications.
2. All new installations require a permit.
3. Allow for gas supply to control box, ensuring control box is clear at least 0.5metres but no more than 1m from the heating appliance.
4. Allow for electrical 5 core wiring to neutral pulse / wall switch, also from switch to main control panel unit. Consult a Certified Electrician for installation of wiring.

### **Stage 1: Frame Construction Procedure by Builder.**

When framing or building the construction of the cavity, consider requirements for housing and accessibility of the main control panel, and the gas supply. These need to be accessible to allow for set up & maintenance.

**NOTE: Control Box and Valve must be in a dry and moisture free environment because of electronics. Location of control box to be no further from the fire that the length of the supplied wires.**

### **Stage 2: Install Procedure by Certified Tradesman.**

1. All wiring to be done to diagram provided.( **by Certified Electrician** )
2. **Keeping the HT and Earth wires as short as possible as this will improve the performance of the spark. Do not join or extend leads. (see Diagram)**
3. **When placing HT wires through masonry, run in conduit to ensure they are free of moisture.**
4. Gas fitting done to diagram provided and tested.( **by Certified Craftsman Gasfitter**)
5. **Keeping the valve as close as possible to the burner is recommended ( see above and drawings) as this will reduce the ignition time. (see Diagram)**

**NOTE: Control Box and Valve must be in a dry and moisture free environment because of electronics**

### **Stage 3: Finishing Procedure by Builder.**

Ensure when finishing that the control panel and the gas valve are accessible for maintenance. Care must be taken not to damage any wiring or gas fittings once installed.

### **Maintenance:**

1. Care should be taken with igniters prongs not to crack ceramics insulation (not required on some units).
2. Keep Flare or Rail clear of any ash or soot build up.

## TO THE INSTALLER/GAS FITTER

**FLUED GAS APPLIANCES** All gas fires requiring Warmington flue systems shall be installed to the requirements of relevant gas standards and shall be appropriately designed and constructed to permit safe and effective use. This appliance must be flued to the outside atmosphere.

**GAS TYPE** All gas flare or rail burners shall operate safely on the gas type specified on the appliance and shall comply with the requirements of The Gas Act 1992.

**APPLIANCE SAFETY** Any gas fire appliance shall comply with the safety requirements of the current standards listed under “Related documents” in this specification.

**ELECTRICAL REQUIREMENTS** All gas flare or rail burner appliances are fitted with mains supplied electrical components for use of these appliances they must comply with The Electricity Regulations 1993.

**ELECTRONIC CONTROL SYSTEMS** Any gas flare or rail appliance fitted with manual or programmable electronic control systems shall be tested and/or approved by a recognised person or authority.

**SEISMIC RESTRAINTS** All gas flares or rails used for domestic and commercial purposes shall be firmly secured (unless defined as portable or mobile) to prevent dislodgement from their point of fixture or installation. Such restraint must be of a reasonable expectation.

**GAS CONNECTION**

A Gas Certificate must be obtained for the installation and commissioning of this appliance and flue system. Check that the gas type specified on the data plate is correct for the available supply (LPG or NG).

Gas Specification:					
LPG	600	800	Flare	Tee Bar	Trad Tee Bar
Pressure (kPa)	2.75	2.75	2.75	2.75	2.75
Burner Pressure (kPa)	2.5	2.5	1.5	2.5	2.5
MJ/h	35	44	21	45	45
Jet diameter (mm)	1.7	1.9	1.3	2.0	2.0
Supply Pipe Size dia (min)	3/8"	3/8"	3/8"	3/8"	3/8"
Natural Gas					
Pressure (kPa)	1.5	1.5	1.5	1.5	1.5
Burner Pressure (kPa)	1.5	1.5	1.35	1.5	1.5
MJ/h	31	41	19	56	56
Jet diameter (mm)	2.2	2.5	1.8	2.6	2.6
Supply Pipe Size dia (min)	3/8"	3/8"	3/8"	3/8"	3/8"

## THE GENERAL OPERATION OF THE CONTROL SYSTEM

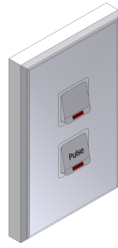
A flame will conduct direct current (D.C.) through itself.

Alternating current (A.C.) is supplied to the electrode, usually called a flame rod, which is in contact with the flame.

The flame conducts only the D.C. to the earthed burner, thus partially rectifying the current. This partial rectification of the A.C. to D.C. creates a specific current wavelength, which is monitored by the control unit.

Only flame rectification produces the correct current wavelength. If the flame fails, or if there is any electrical fault or failure, the current wavelength changes and the control unit operates the gas shut-off valve or system.

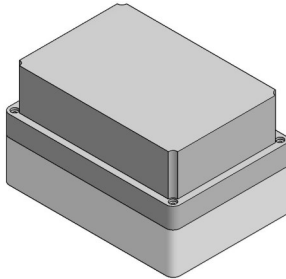
**COMPONENTS (GENERAL VIEW)**



**The main isolating switch with LED (NOT SUPPLIED)**

The pulse switch to start (Neutral)

**NOTE:** Switch must have 5 core loom to control box.

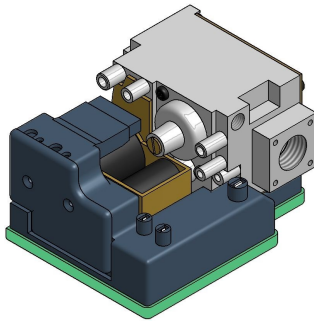


**The Main Control box (SUPPLIED)**

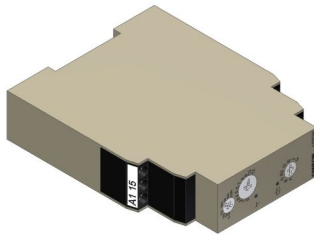
(Ensure that the box is accessible)

**NOTE:** Control box must be in a moisture free environment because of electronics.

**Dimensions:** L250 x W175 x H150

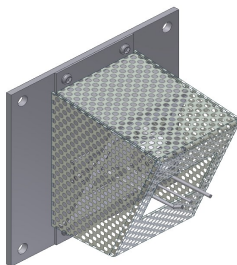


**SIT 840 Control Valve**



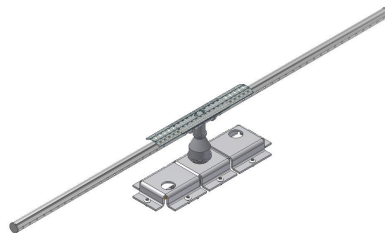
**Omron H3DK-M1 Timer**

**NOTE: ONLY ONE HEAD TYPE IS SUPPLIED**

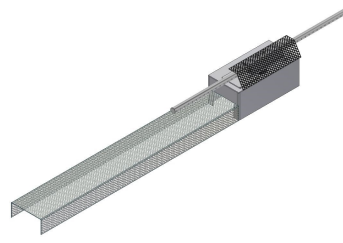


**Gas Flare - Head (SUPPLIED)**

To point down into the fire.

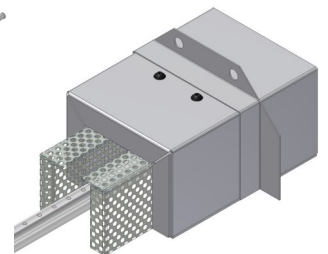


**Tee Bar - Head (SUPPLIED)**



**Rail Burner - Ash Pan & Grate (SUPPLIED)**

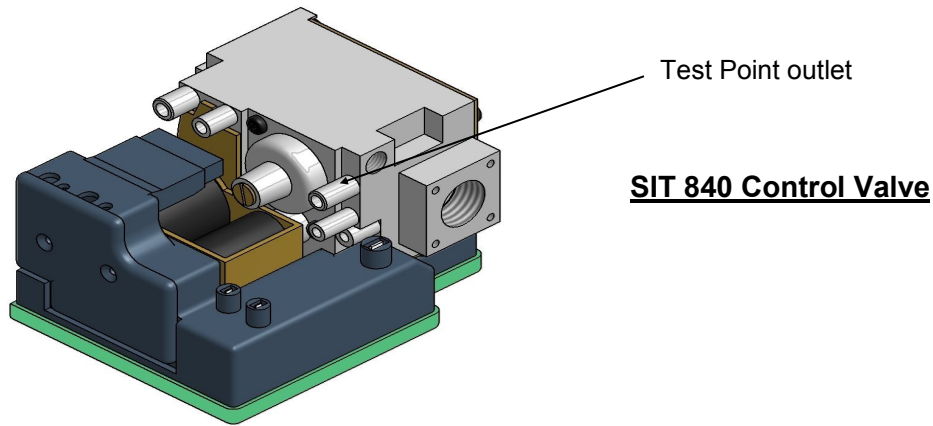
Varies in size.



## PROCEDURE FOR THE TEST AND COMISSIONING OF LOG LIGHTER/FLARE

### Ensure Gas Supply and the Power Supply (caution 240V) to the Unit.

- Refer to Data Plate on this Specification for settings. The Data Plate is attached to the outside of the control box.
- Loosen the Jet Test point and attach manometer (Digital is preferred). The Test Point is on 840 control valve as shown below.



- Light appliance and check the pressure to the Hi kPa value in the table for maximum output.

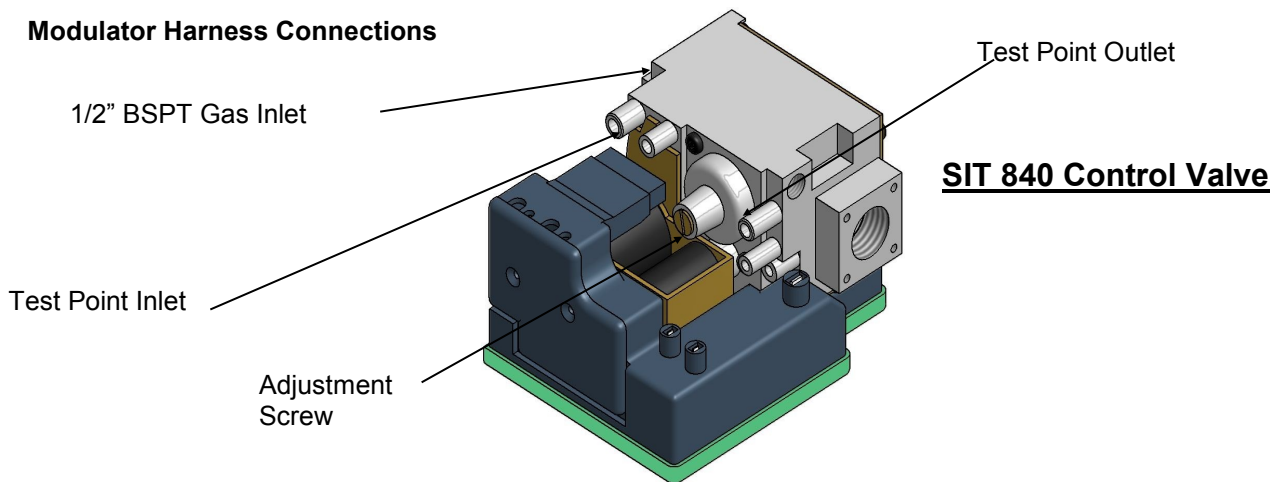
**NOTE: Any pressure setting required, is to be carried out by a Certified Gasfitter.**

- If adjustments are necessary, remove the dust cap on the control value. The Pressure Adjustment Screw is on the front side of the Gas Control Valve (shown in Diagram **B** in this specification) and are **Factory** set.

**Pressure Setting: Set the pressure to the kPa value in the table.**

**Pressure Setting:** Using the switch, turn the burner on and wait for full ignition. Screw (using a standard screw driver), the adjusting screw clockwise to Increase the Outlet Pressure or screw counter clockwise to Decrease the Pressure to the desired setting.

**WARNING:** Ensure that the dust cap is replaced after adjustment

**DIAGRAM B ( SHOWING CONTROL VALVE WITH TEST POINTS AND ADJUSTING SCREW )**

- After checking the pressure, turn the unit off, remove Manometer from the Test Point and tighten the Test Point Screw. Ensure to check for gas leaks.
- Turn the Appliance On and Off a few times to check ignition.
- When you are satisfied that the Appliance is working correctly, fit all the covers to the unit.
- All Burner Aerations are Factory Preset and cannot be adjusted.
- If you are unable to get the unit to operate correctly, refer to troubleshooting before contacting your Local Warmington Agent.
- During the initial burning in period, some smoke and smell may be experienced, the appliance should be run in a well ventilated room until these dissipate.

## TESTING FLARE OR RAIL BURNER

**Once the unit is installed: (to be tested by the electrician and the gas fitter for correct operation)**

Ensure that all gas connections are leak free.

Position of the flare or burner are correct.

Ensure all components and electrical connections are completed and firmly secured.

Ensure the unit is free of obstruction and any flammable material.

Switch on main power switch (supplied by electrician).

Depress the pulse switch (supplied by electrician).

The high frequency spark electrode will operate. At the same time the gas solenoid valve will open allowing the gas to flow to the burner. If the unit does not light it will automatically shut down.(On flame failure)

When the unit lights it will run for approx. 10mins, then shut down unless the timer is set differently.

Once the unit has timed out it is in a standby state, ready for restart by activating the pulse switch.

The Main power switch can be switched off to ensure that there is no accidental operation of the unit.

If the unit is required to be shut down before it has timed out then the main power switch can be turned off, the unit will stop and be electrically isolated.

## TO THE CUSTOMER/HOME OWNER

Your Warmington Gas appliance operates on the principle of a fire. Therefore it is important to observe the following precautions associated with any heating appliance or open fire.

- The fire is not intended for the drying of clothing, bedding etc.
- Avoid installing this appliance in high traffic areas, strong draughts or near drapes or furniture.
- The use of an approved fireguard is recommended for the protection of young children.

## SAFETY

- Always use a registered gas fitter for installing and maintenance work
- Always use certified gas cylinders that have been tested and are safe to use.
- Never modify your gas appliance or its settings from those specified by the manufacturer.
- Always use a registered electrician for installation and maintenance work on the electrical components.

## WHAT DO YOU DO IF YOU SMELL GAS

Open windows and doors.

Do not light any gas appliance.

Do not use any electrical appliance or switches.

Do not use the telephone in your home.

Leave the building; shut off the domestic gas supply valve (beside your meter).

Call your gas supplier/gas fitter or the Fire Service for further advice.

## OPERATION OF YOUR WARMINGTON GAS FLARE OR RAIL BURNER (WITH ELECTRONIC CONTROL)

*Your Flare or Rail Burner must be installed and tested by a suitably qualified gasfitter or technician, prior to use.*

### To light:

Ensure the unit is free of obstruction and any flammable material.

Switch on main power switch (supplied by Electrician).

Depress the pulse switch (supplied by Electrician).

After a few seconds, the high frequency spark electrode will operate. At the same time the gas solenoid valve will open allowing the gas to flow to the burner. If the unit does not light it will automatically shut down. (On flame failure/ safety feature)

When the unit lights it will run for approx. 10mins, then shut down unless the timer is set differently.

### To shut down:

The unit will automatically shut down in approx 10mins and the unit is in a stand by state, ready for restart by activating the pulse switch.

The Main power switch can be switched off to ensure that there is no accidental operation of the unit.

If the unit is required to be shut down before the unit has timed out then the main power switch can be turned off, the unit will stop and be electrically isolated.

*\*Lighting your gas fire using electronic or remote ignition systems may vary as per manufacturer instructions.*



## FAULT FINDING

### 1: Pulse Switch depressed and no spark at the electrode:

#### Check

- Earth Wire connected
- Main power is turned on
- Correct wiring to the wiring diagram (wiring to switches/ electrodes)
- The gap between the electrode and the earth is approx 6mm ( see drawings)
- The ceramic insulator on the electrode is not cracked
- Electrode is not coated by soot or dust
- Electrode burnt out (melted)

### 2: Sparking but failure to light:

#### Check

- Gas supply to the unit is turned on
- Solenoid valve operating
- Electrically wiring to solenoid is correct
- Correct jet for gas supply ( LPG / NG )

### 3: Lights but goes out after a short time:

#### Check

- Flame rod is in the flame path
- Setting of the timer in the control box – Contact Dealer. Check setting to 10 minutes on timer

### 4: Flame burns well away from the burner head:

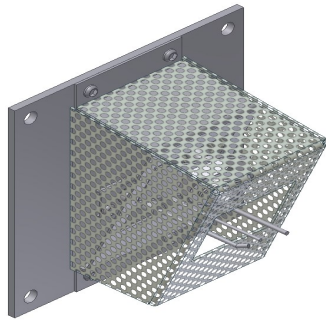
#### Check

- The correct jet for the gas supply (LPG / NG )
- Check the gas pressure

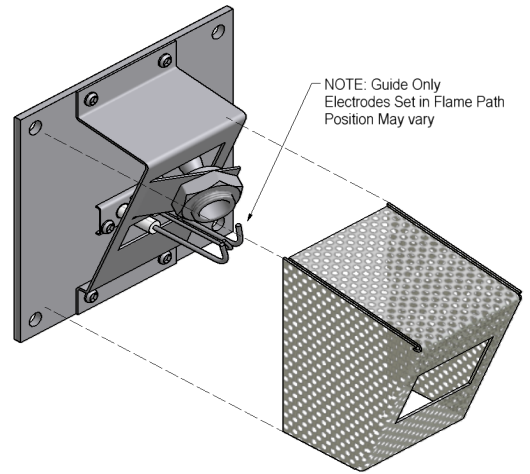
**Note:** If unit is fitted with an LED, the LED will light up on a flame failure.

**OPTION 1**

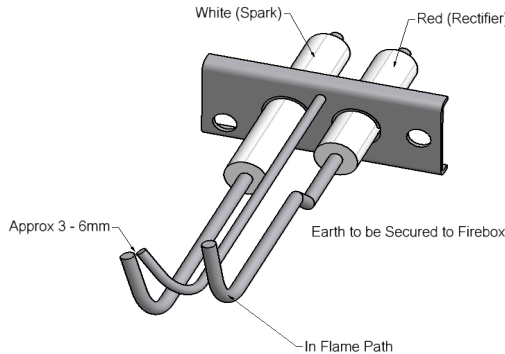
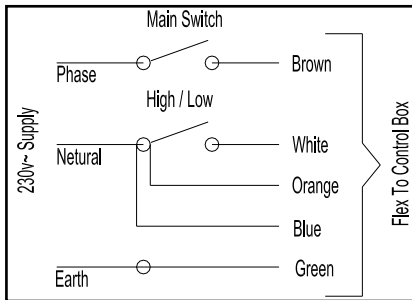
**GAS FLARE - BURNER HEAD ( layout only )**



**Note:**  
 1: Cover to be removed for installation, setting electrodes and service.  
 2: Careful not to damage or break the electrodes.  
 3: Ensure that the Earth wire is secure.



**MAIN & PULSE SWITCH CONNECTIONS**



**Note:**  
 1: Connections of the Electrodes and wires  
 2: Ensure that the electrodes are in the flame path. Care needed when bending into flame path.  
 3: Electrode position will vary.

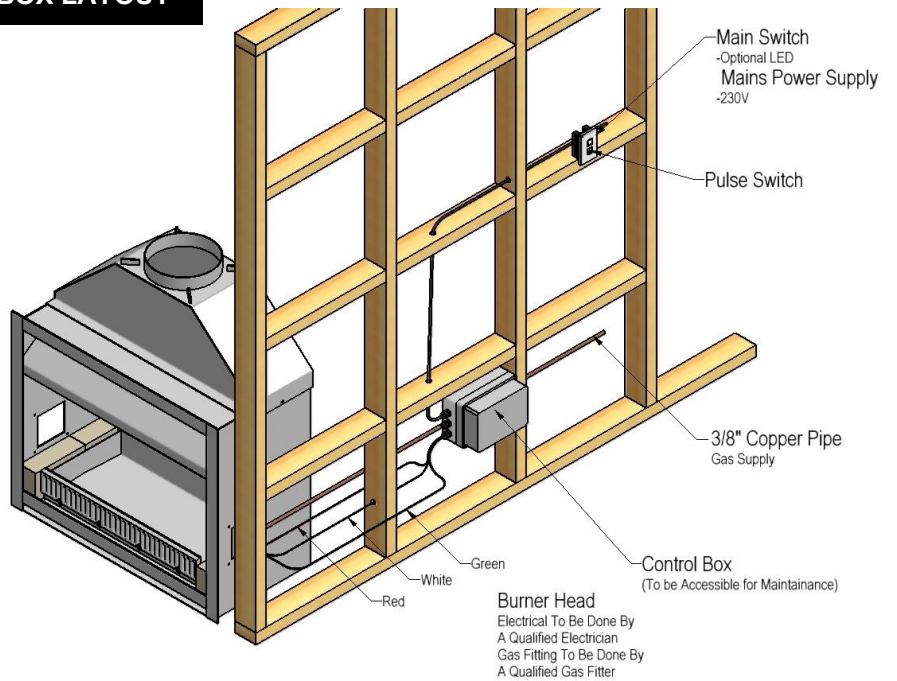
**Note:**  
 Pulse switch is normally open.

**GAS COMPONENTS & ELECTRICAL CONTROL BOX LAYOUT**

**Note: Position Of Components\***  
 1) **Control Box**  
 To be placed no closer than 0.5m to the firebox, and no further than the supplied wiring allows (1500mm approx.)

**Please Note:**  
 If placed outside the heat cell, these clearances are not required.

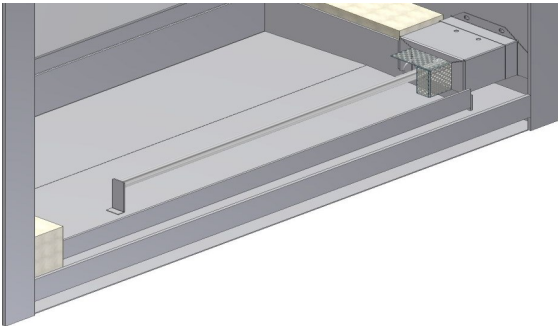
Gas Specification:	
LPG	Flare
Pressure (kPa)	2.75
Burner Pressure (kPa)	1.5
MJ/h	21
Jet diameter (mm)	1.5
Supply pipe size dia (min)	3/8"
Outlet pipe size dia	1/4"
Natural Gas	
Pressure (kPa)	1.5
Burner Pressure (kPa)	1.35
MJ/h	19
Jet diameter (mm)	1.8
Supply Pipe Size dia (min)	3/8"
Outlet pipe size dia	1/4"



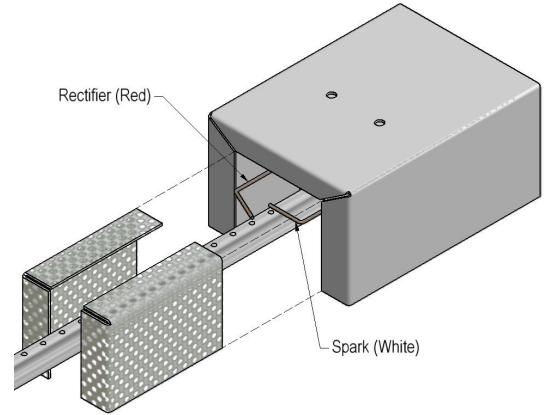
**Note:**  
**DO NOT extend HT leads**

**OPTION 2A AND 2B**

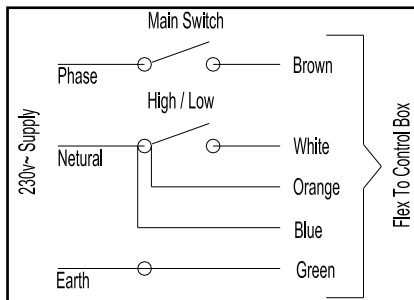
**RAIL BURNER - BURNER HEAD (ashpan and grate layout)**



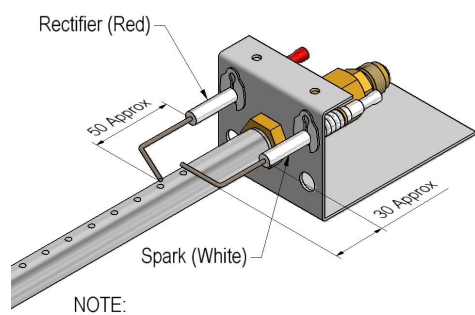
**Note:**  
 1: Cover to be removed for installation, setting electrodes and service.  
 2: Careful not to damage or break the electrodes.  
 3: Ensure that the Earth wire is secured.



**MAIN & PULSE SWITCH CONNECTIONS**



**Note:**  
 Pulse switch is normally open



**NOTE:**  
 Distance may vary. Ensure Flame rods in flame in Flame Path

**Note:**  
 1: Connections of the Electrodes and wires  
 2: Ensure that the electrodes are in the flame path. Care needed when bending into flame path.  
 3: Electrode position will vary.

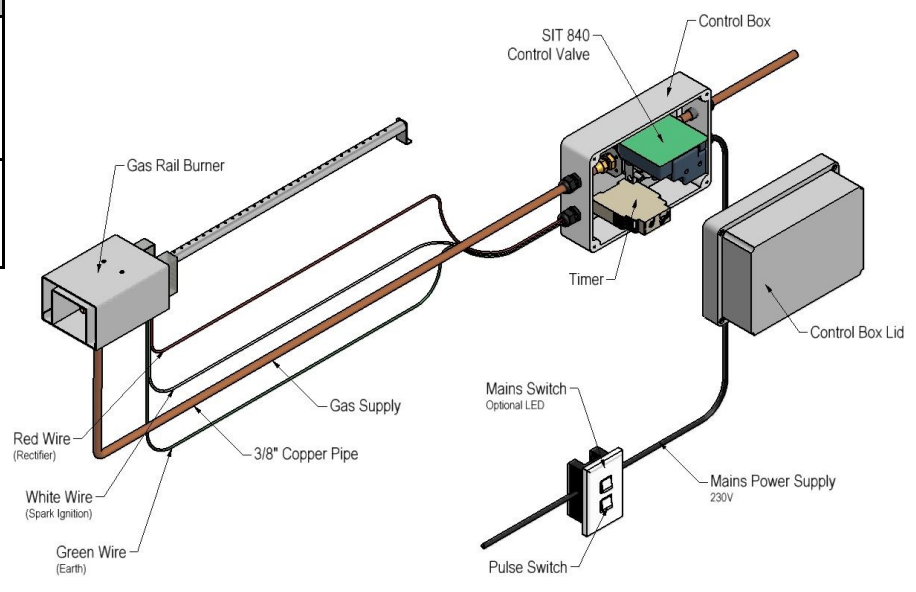
**GAS COMPONENTS & ELECTRICAL CONTROL BOX LAYOUT**

**Note: Position Of Components\***

**1) Control Box**  
 To be placed no closer than 0.5m to the firebox, and no further than the supplied wiring allows (1500mm approx.)

**Please Note:**  
 If placed outside the heat cell these clearances are not required.

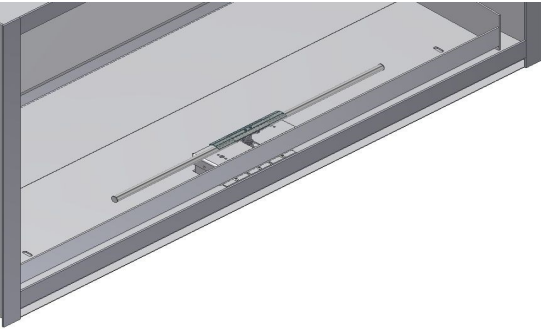
Gas Specification:		
LPG	600	800
Pressure (kPa)	2.75	2.75
Burner Pressure (kPa)	2.5	2.5
MJ/h	35	44
Jet diameter (mm)	1.7	1.9
Supply pipe size dia (min)	3/8"	3/8"
Outlet pipe size dia	3/8"	3/8"
Natural Gas		
Pressure (kPa)	1.5	1.5
Burner Pressure (kPa)	1.5	1.5
MJ/h	31	41
Jet diameter	2.2	2.5
Supply pipe size dia (min)	3/8"	3/8"
Outlet pipe size dia	3/8"	3/8"



**Note:**  
 Do NOT extend HT leads

**OPTION 3**

**RAIL BURNER - BURNER HEAD (ashpan and grate layout)**



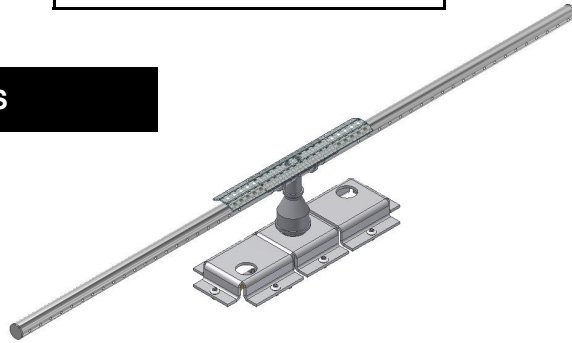
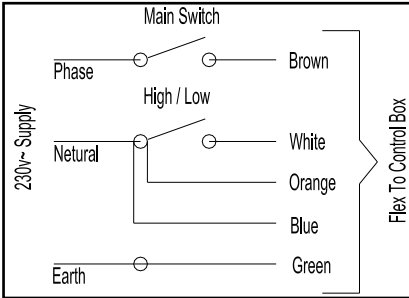
**Note:**

- 1: Cover to be removed for installation, setting electrodes and service.
- 2: Careful not to damage or break the electrodes.
- 3: Ensure that the Earth wire is secured.

**IMPORTANT:**

For installation in a firebox 2 meter or larger wires have to be fed directly out the back and control box placement have to be considered due to limitations in length of wires.

**MAIN & PULSE SWITCH CONNECTIONS**



**Note:**

- 1: Connections of the Electrodes and wires
- 2: Ensure that the electrodes are in the flame path. Care needed when bending into flame path.
- 3: Electrode position will vary.

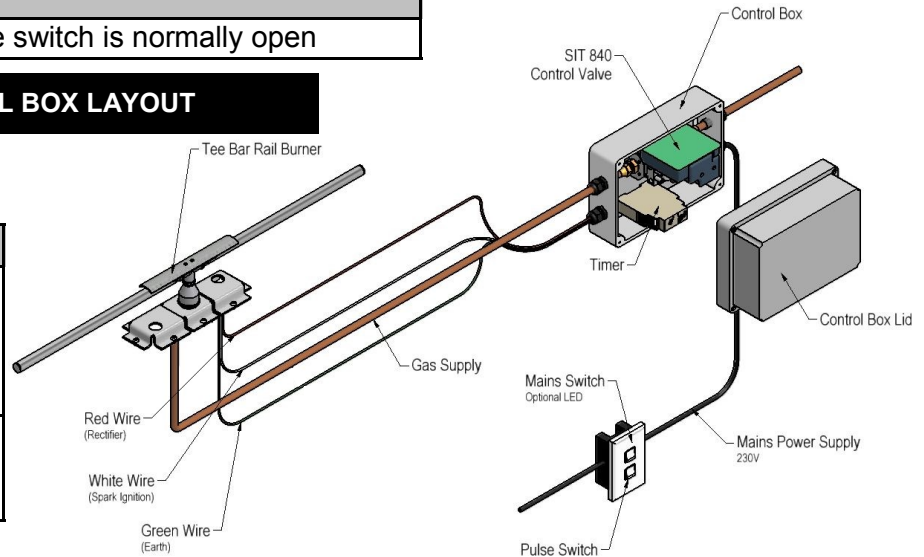
**Note:**  
Pulse switch is normally open

**GAS COMPONENTS & ELECTRICAL CONTROL BOX LAYOUT**

**Note: Position Of Components\***

**1) Control Box**  
To be placed no closer than 0.5m to the firebox, and no further than the supplied wiring allows (1500mm approx.)

**Please Note:**  
If placed outside the heat cell these clearances are not required.

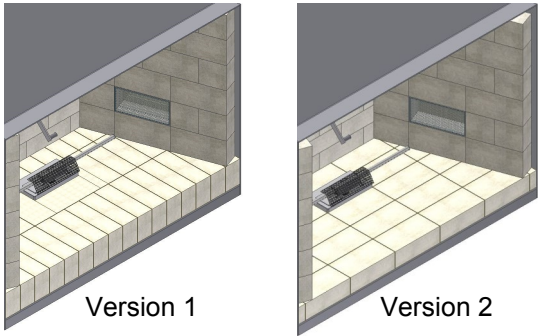


**Note:**  
**DO NOT extend HT leads**

Gas Specification:		
LPG	T 700 (SI900)	T 800—(SI1100 up)
Pressure (kPa)	2.75	2.75
Burner Pressure (kPa)	2.5	2.5
MJ/h	41	45
Jet diameter (mm)	1.8	2.0
Supply pipe size dia (min)	3/8"	3/8"
Outlet pipe size dia	1/4"	1/4"
<b>Natural Gas</b>		
Pressure (kPa)	2.00	2.00
Burner Pressure (kPa)	1.50	1.50
MJ/h	56	56
Jet diameter	2.6	2.6
Supply pipe size dia (min)	3/8"	3/8"
Outlet pipe size dia	1/4"	1/4"

**OPTION 4**

**RAIL BURNER— BURNER HEAD ( Brick Layout)**



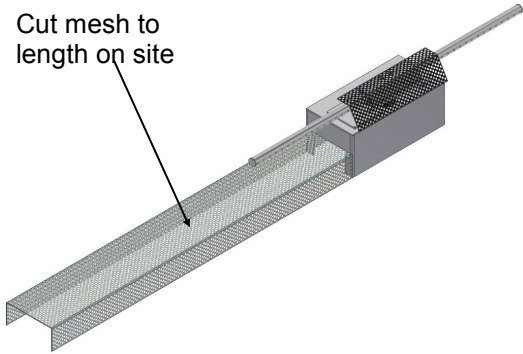
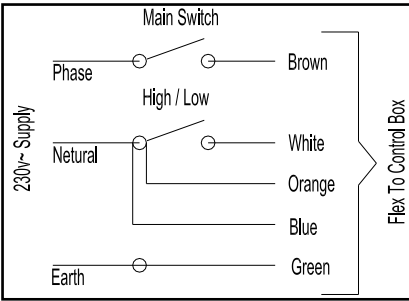
**Note:**

- 1: Cover to be removed for installation, setting electrodes and service.
- 2: Careful not to damage or break the electrodes.
- 3: Ensure that the Earth wire is secured.

**IMPORTANT:**

For installation in a firebox 2 metre or larger, wires have to be fed directly out the back. The control box placement needs to be considered due to limitations in length of wires.

**MAIN & PULSE SWITCH CONNECTIONS**



**Note:**

- 1 : Connections of the Electrodes and wires
- 2 : Ensure that the electrodes are in the flame path. Care needed when bending into flame path.
- 3 : Electrode position will vary.

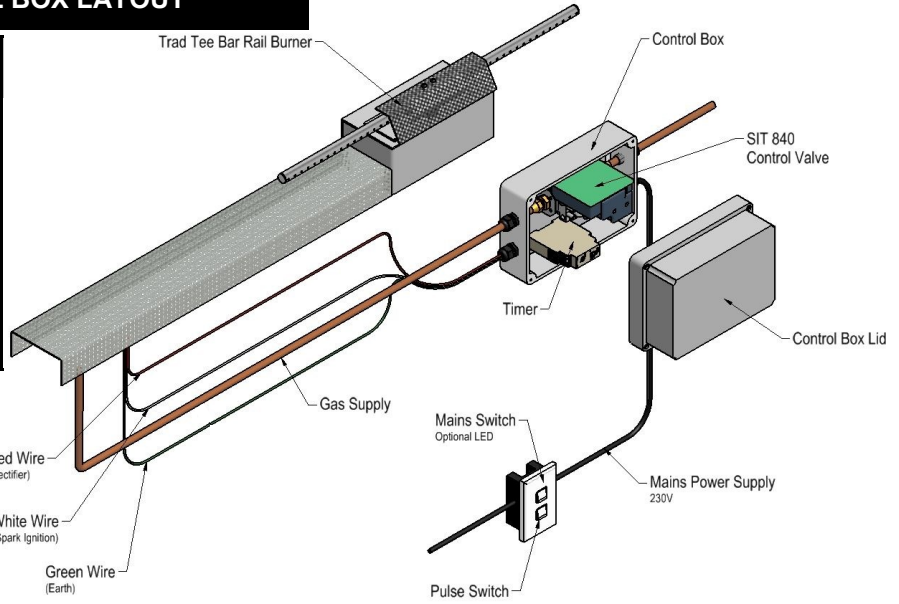
**Note:**  
Pulse switch is normally open

**GAS COMPONETS & ELECTRICAL CONTROL BOX LAYOUT**

**Note: Position Of Components\***

**1) Control Box -**  
To be placed no closer than 0.5m to the firebox, and no further than the supplied wiring allows (1500mm approx.)

**Please Note:**  
If placed outside the heat cell these clearances are not required.



**Note:**  
**DO NOT extend HT leads**

Gas Specification:	
LPG	Trad
Pressure (kPa)	2.75
Burner Pressure (kPa)	2.5
MJ/h	45
Jet diameter (mm)	2.0
Supply pipe size dia (min)	3/8"
Outlet pipe size dia	1/4"
Natural Gas	
Pressure (kPa)	2.00
Burner Pressure (kPa)	1.50
MJ/h	56
Jet diameter	2.6
Supply pipe size dia (min)	3/8"
Outlet pipe size dia	1/4"



## GENERAL NOTES

### MAINTENANCE:

Warmington Industries recommend annual servicing of your gas appliances by an Authorised Service Technician i.e. Gasfitter or Electrician.

External surfaces should be dusted with a damp, lint-free cloth when the appliance is cold.

### NOTES:

- These installation and operating instructions should be kept in a safe place. Should you require another copy, download from the **Warmington** website [www.warmington.co.nz](http://www.warmington.co.nz)
- This appliance must be installed in accordance with the manufacturer's written instructions to comply with the **Warmington** warranty.
- The appliance and flue system must be installed in accordance with relevant standards and the appropriate building codes.
- This appliance must be serviced annually and any service operation must be carried out by a qualified service person.

### WARNINGS:

- **WARNING: ANY MODIFICATION OF THE APPLIANCE THAT HAS NOT BEEN APPROVED IN WRITING BY THE TESTING AUTHORITY IS CONSIDERED A BREACH OF NZ STANDARDS.**
- **WARNING: DO NOT USE OR STORE FLAMMABLE LIQUIDS OR AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILST IN OPERATION.**
- **WARNING: DO NOT PLACE FLAMMABLE MATERIALS ON OR AGAINST THIS APPLIANCE.**
- **CAUTION: THIS APPLIANCE SHOULD BE MAINTAINED AND OPERATED AT ALL TIMES IN ACCORDANCE WITH THESE INSTRUCTIONS.**
- **CAUTION: ALL SERVICING MUST BE CARRIED OUT BY AN AUTHORISED SERVICE TECHNICIAN.**
- **CAUTION: MAKE SURE THE USE OF CORRECT FUEL TYPE WITH THIS APPLIANCE.**

**NOTE: Keep a copy of these instructions for operating and maintenance guidelines.**



Industries 1994 LTD  
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