



## **BURLEY G4111 ACUMEN FLUELESS GAS HEATER**

### **INSTALLATION, SERVICING & USER INSTRUCTIONS**

FOR USE IN THE COUNTRIES STATED ON THE DATA PLATE AND  
CARTON WITH NATURAL GAS G20  
OR LPG PROPANE GAS G31  
(REFER TO RATING LABEL)

**For the following countries: GB, IE**

**EVEN IF YOU HAVE FITTED THESE FIRES BEFORE,  
PLEASE FOLLOW THESE INSTRUCTIONS STEP BY STEP.**  
*Legislation and regulations do change over time!*

#### **LEAVE THESE INSTRUCTIONS WITH THE USER**

TO OBTAIN YOUR FIRST YEAR GUARANTEE, THE INSTALLER AND CUSTOMER  
MUST FILL IN THE SEPARATE GUARANTEE AND RETURN IT TO  
BURLEY WITHIN 7 DAYS OF FITTING.

A FREE SECOND YEAR GUARANTEE IS OFFERED SUBJECT TO THE FIRE BEING SERVICED  
BY A GAS SAFE™ REGISTERED INSTALLER (FORMERLY CORGI) DURING THE FIRST YEAR OF OWNERSHIP.  
PROOF OF SERVICING MUST BE RETAINED

**FAILURE TO HAVE THIS APPLIANCE FITTED BY A GAS SAFE™ REGISTERED INSTALLER  
(FORMERLY CORGI) INVALIDATES THE WARRANTY**

**Burley Appliances Ltd,**  
Lands End Way, Oakham, Rutland, LE15 6RB  
Telephone: +44 (0)1572 756956 Fax: +44 (0)1572 724390  
e-mail: [info@burley.co.uk](mailto:info@burley.co.uk) web: [www.burley.co.uk](http://www.burley.co.uk)

**G4111InstUser  
G20/31  
Issue: March09 – v.2**

# INTRODUCTION

Thank you for choosing this burley product. All of our products carry a CE mark which is awarded by an independent test house (notified body) and shows the fires have been type tested to meet the essential requirements of the European Gas Appliance Directive and the appropriate British Standards.

This is a highly efficient Flueless Inset Live Fuel Effect Appliance. The burner system is very clean burning and a catalyst cleans the combustion products even further.

A thermostat in the burner control system adjusts heat output to maintain a room temperature, which can easily be set by the user. The appliance is operated via a battery powered remote control system. Operation is also possible on the appliance with push button controls. There is also a separate control to adjust the flame effect as required. Please demonstrate its operation to the customer before leaving.

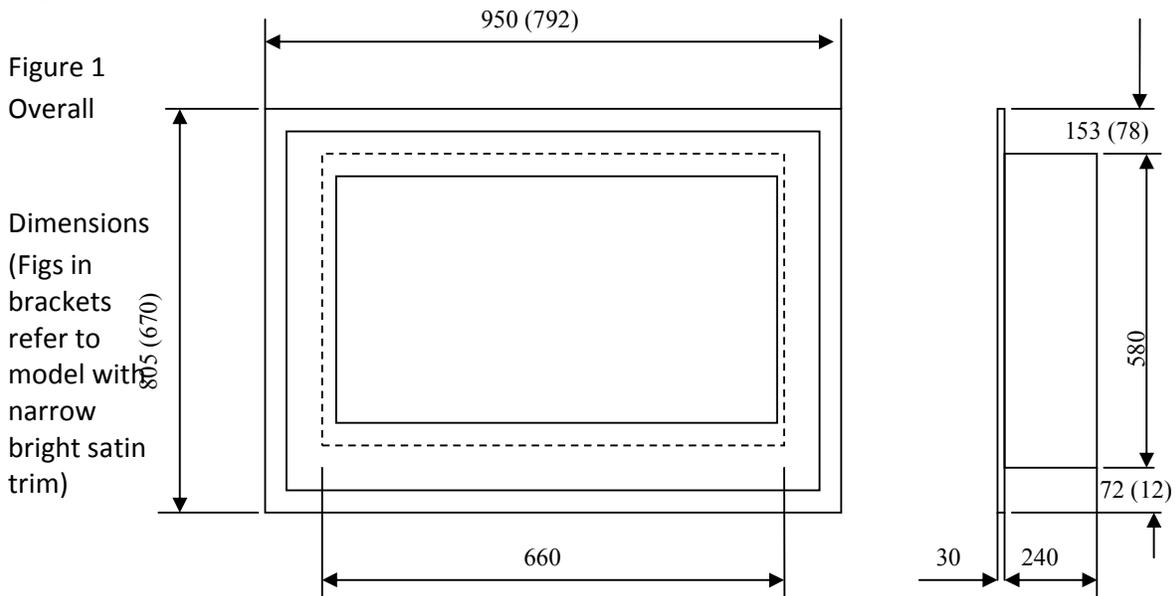
An oxygen depletion sensing pilot light is also fitted and will sense any significant oxygen depletion in the room and shut the fire down safely.

## 1. APPLIANCE DATA

Refer to the appliance data badge (this is located on a hinge-out plate ) **ENSURE THAT THE LOCAL CONDITIONS OF USE CORRESPOND TO THE INFORMATION ON THE DATA BADGE.**

	<u>Natural Gas G20</u>	<u>LPG (Propane) G31</u>
<b>Category</b>	I2H	I3P
<b>Supply Pressure</b>	20mBar	37mBar
<b>Inlet Pressure</b>	20mBar*	37mBar*
<b>Heat Input (net)</b>	<b>(High)</b> 4.2KW <b>(Low)</b> 2.5kW	4.2kW (180g/h) 1.5kW (107g/h)
<b>Inlet Connection</b>	8mm Compression	8mm Compression
<b>Injector (manual valve)</b>	Elbow 92/300	Elbow 92/90
<b>Injector (remote)</b>	Elbow 92/170	Elbow 92/85

**Note** - The inlet pressure must be within +/- 1.0 mbar of specification with **all** gas appliances in the house switched on and also with just the Burley appliance operating. If outside of tolerance the fault is most likely to be in the installation pipe work or service governor at the meter. A 'lazy' service governor can be the cause of pilot light problems if the problem is not spotted and rectified. If the problem is the meter governor, this is the property of the gas service provider (e.g. Transco in the UK or Bord Gais in Rep. of Ireland) and they should be called to rectify this.



## **2. UNPACKING THE APPLIANCE**

- 2.1** Carefully examine the carton for damage before unpacking. If it is obviously damaged, consult the supplier as to whether to proceed with the installation.
- 2.2** Make sure the carton is stood upright and open the top. Remove the cardboard top fitting and place to one side; this box can be used as a hearth protector when installing the fire.
- 2.3** Remove the fittings boxes contained within and open them and check the condition of the contents. Remove the fire and examine its general condition, paying particular attention to the frame, the glass front and fire box flanges.
- 2.4** If satisfied by the general condition, place the decorative components to one side and proceed with the installation. If in any doubt, seek advice from the supplier. **Read these instructions fully before proceeding even if you have fitted this model before.**
- 2.5 Component Checklist:**
- 1 x firebox complete with burner controls assembly with glass panel fitted
  - 1 x remote control hand set
  - 1 x outlet grille
  - 1 x ceramic log set (comprising large rear log, large front log and two intermediate logs)
  - 1 x installation fitting kit, included surround fixing screws
  - 1 x decorative trim assembly (in separate box)

## **3. GENERAL NOTES & REQUIREMENTS**

- 3.1** Gas appliances must be installed in accordance with the rules in force. In the UK it is the law that all gas appliances must be installed by a Gas Safe™ registered installer (formerly CORGI), in accordance with the Gas Safety (Installation and Use) regulations (as amended). The installation must also be in accordance with the relevant parts of local and national building regulations. **Failure to have the fire fitted by a qualified person nullifies ALL guarantees.**
- 3.2** With the exception of the bottom and sides of the decorative fire frame (that act as a controls door), all parts of this appliance are considered to be working surfaces. This includes the convection grill outlet
- 3.3** This appliance must not be installed or used in a living room of less than 50 m<sup>3</sup> in volume and with minimum permanent ventilation of 100 cm<sup>2</sup>.
- 3.4** Adjoining spaces, not separated by a door may be included. To convert cubic feet (ft<sup>3</sup>) to cubic metre (m<sup>3</sup>) divide the room volume in cubic feet by 35.3.
- 3.5** When providing ventilator openings consideration must be given to the avoidance of locations where discomfort from draughts may cause the user to block the openings. Similarly the possibility of curtains or furniture blocking ventilation openings must be considered.

**The air vent must be at least 1 metre away from the appliance. Floor vents, window vents or chimneys are not suitable means of ventilation.**

This appliance shall not be installed or used in any of the following:

- high rise blocks of flats
- basements
- bathrooms
- in corridors, stairways, landing, or hallways of multi occupancy dwellings
- garages or rooms containing petroleum products.

Additionally, the appliance must not be used in rooms where the atmosphere is likely to

contain water or chemical vapours which may adversely affect the appliance or its finish.

- 3.6** Soft furnishings, decorations and loose wall coverings etc. must not be placed within 1 metre of the appliance and its convection outlets (see 5.0). Be aware of curtains etc which could be blown towards the appliance.

**On no account should glass mirrors or picture frames or any electrical equipment e.g. plasma screen TV's be fitted or positioned on the wall above the appliance as the heat rising could damage them.**

- 3.7** This appliance is intended as a secondary heat source. Check that a primary source of heat (such as radiators) is present in the room. If insufficient primary heat is being used there may be a build up of condensation.

- 3.8** Prevent use of the appliance whilst painting & decorating, as the residues can lead to unpleasant smells from the appliance. Always cover or have the appliance removed when decorating.

- 3.9** Houses with warm air heating systems, solid walls, or no damp proof course may be unsuitable for this appliance. (Consult your supplier)

- 3.10** **Asbestos is not contained within any part of this appliance.**

- 3.11** This is a Flueless appliance and MUST NOT be fitted into a working flue. Where an old fireplace opening is to be used then the flue must be sealed off from the fire. A specific installation method exists

#### **4. Gas Supply**

- 4.1** Prior to commencement of the installation, establish that an adequate supply of gas is available. If necessary consult the gas supplier. Any new or existing gas pipe work should be checked for sufficient size to carry the demand of this appliance and the demand of other appliances installed. To prevent unacceptable pressure losses, no more than 1.5m of 8mm pipe should be used.

- 4.2** Decide on the gas supply route to be taken up to the appliance location. (Fig 2)

- 4.3** Before carrying out any work on existing or new pipe work, ensure that the supply is isolated and disconnected and plug any ends to prevent the entry of debris or the risk of the gas supply being restored.

- 4.4** A concealed gas supply route is required for this appliance. (See fig 2)

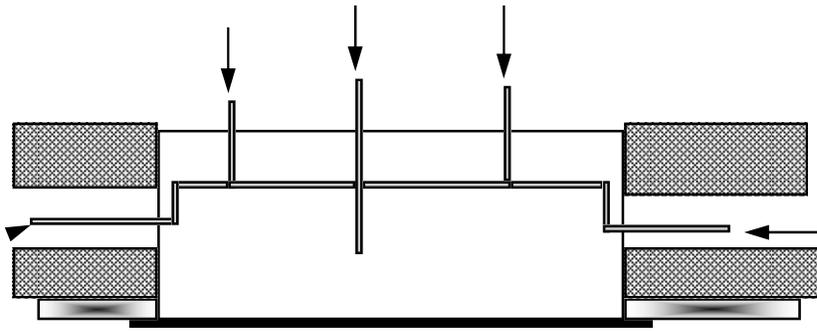
- 4.5** If the gas pipe passes through a wall, cavity or un-vented void then there should be no joins in this area and the pipes should be fully sleeved. Before pushing gas pipes through walls, seal the pipe ends to prevent debris entering the pipes.

- 4.6** An isolating valve must be situated near to the appliance for ease of servicing or in the event of a gas leak. The appliance gas inlet connection is only suitable for 8 mm diameter pipe with a compression fitting. In the event of a gas leak the appliance must be turned off at the nearest isolating valve.

- 4.7** Before connecting the appliance fully purge all pipe work. CAUTION: before purging open all doors and windows, extinguish all cigarettes and any other naked lights.

- 4.8** Before restoring the gas supply, fully check the system for gas tightness using an approved pressure drop test method and suitable leak detection fluid.

Fig 2 - Gas routes



## 5. SITE REQUIREMENTS

### 5.1. Cavity box

Where the fire is fitted into any kind of enclosure, flue or false wall, heat will rise up into the void behind. This can cause shelves to get hot and where the top is open (such as a flue or cavity wall) a 'pull' to develop behind the appliance which could disturb the flame picture. To prevent this, the void areas should be closed off as shown in the instructions for each method. Alternatively Burley supply a Cavity Box part no CAV4111.

### 5.1. Fireplace opening

The appliance requires an opening with the following minimum dimensions. The dimensions shown in brackets apply if a cavity box is used:

Width - 665 mm to 705 mm (710mm to 740mm)

Height - 585 mm to 620 mm (605mm to 620mm)

Depth - 245 mm minimum (270mm minimum) **Important Note – It is important to observe clearances to combustible materials and these will differ depending on the installation method chosen. (See following sections)**

5.1. **Hearth** -The fire does not require a hearth being wall mounted, however for aesthetic purposes or as a means of providing a physical barrier a hearth may be used. You must ensure that clearance for the trim is made as this protrudes below the bottom of the appliance. Due to the low temperatures at floor level, it is acceptable to use material such as wood for the hearth, however any treatment such as wax or stain can change colour over time.

5.1. Any combustible materials directly behind or to the sides of the fire box assembly must be removed and replaced with suitable non combustible material such as a rigid non combustible insulating board, a minimum thickness of 50 mm rock wool or similar non combustible material, cement or similar. Refer to the relevant installation requirements of Section 7.0 for further details.

5.1. The fire surround, back panel, wall and all paints / lacquers etc must be classed as non combustible with a minimum temperature rating of 150°C. Please ensure this is the case and if necessary check with the manufacturer, as we cannot be held responsible for subsequent damage.

5.1.5.1 Adequate clearances must be provided between any surround, wall or back panel and the fire to allow it to expand in the fireplace opening. Failure to do this may crack the fireplace back panel.

**To prevent heat from entering the area between the fireplace back panel and wall, the void must be blocked or packed with a non-flammable material.**

## 6. PREPARATION OF APPLIANCE AND FIXING METHOD

**6.1** Unpack the appliance and ensure it is correctly marked for the gas it is to be used with (see data badge). Take the appliance components and lay them out in an ordered manner. To prevent damage to the decorative frame and ceramic fire bed components (logs) place safely to one side.

**6.2** Remove the 3 screws in the underside of the outlet grille and remove grille. Remove the glass panel by lifting the vent panel from its top edge and withdrawing the glass from the lower location point.

**6.3** Remove the two screws from the rear log retaining platform and slide out the complete burner and control assembly (Fig. 4)



**6.4** Remove the appropriate knockout in the side or the rear of the fire box for the gas supply pipe and fit the supplied rubber grommet. Make a small incision in the grommet to accept the gas supply pipe.

If using a cavity box, prepare the appropriate grommet hole to align with the one in the firebox.

### **6.5 Methods of fixing Appliance**

The fire box can be fixed in position by any of the following methods. Provision for one of these methods should be made when planning the installation, it is not acceptable to leave the appliance unsecured as it could be dislodged or topple causing accident or injury.

**IMPORTANT - Closure plate tape, adhesives, silicone and foam seals are unsuitable for fixing and sealing the fire into place. A mechanical fixing is required. The use of sealants and adhesives is not recommended as these can give off smells when heated and stain fireplaces. Always use one or a combination of the methods detailed.**

**Method one** - Using the eye bolt and cable fixing kit supplied.

**Note - This method can only be used if there is sufficient space (at least 35 mm) behind the fire box when pushed into the opening, and if the rear of the fire place opening is non combustible and suitably solid.**

Drill 4 holes and fit the rawlplugs and eye bolts in the rear of the fire place opening as detailed in Fig.5.

Feed the fixing cables, one either side of the rear top of the appliance through the two 2 mm holes. Use self tap screws to retain the cable end.

Push the appliance into the opening and pull the cable through. Slide a cable tensioning bolt onto each of the wires and adjust the nut down the bolt. Slide on the remaining screwed nipples to each cable, pull the cable tight and tighten up the screwed nipple.

The appliance can now be pulled up and tight against the wall face by adjusting the tension of the cable via the nut on the tensioning bolt.

Coil up the excessive cable, DO NOT CUT. If cut it will not be possible to re-fit the appliance if removed without obtaining a new fixing kit.

**Method two** - Fixing to the wall or fire place back panel.

Note - It is not recommended to use this method if the fire place back panel material is marble or tile as cracking may result when drilling.

Push the fire box into the opening and centralise. Mark on the wall the position of the five holes in the fire box frame (Fig. 5). Withdraw the fire box, drill and plug the holes in the wall and re-fit the fire box whilst feeding the gas supply pipe into the appliance. Using suitable No.8 or No.10 wood screws, fix the appliance in place.

**Method three** - Fixing through the base of the fire box.

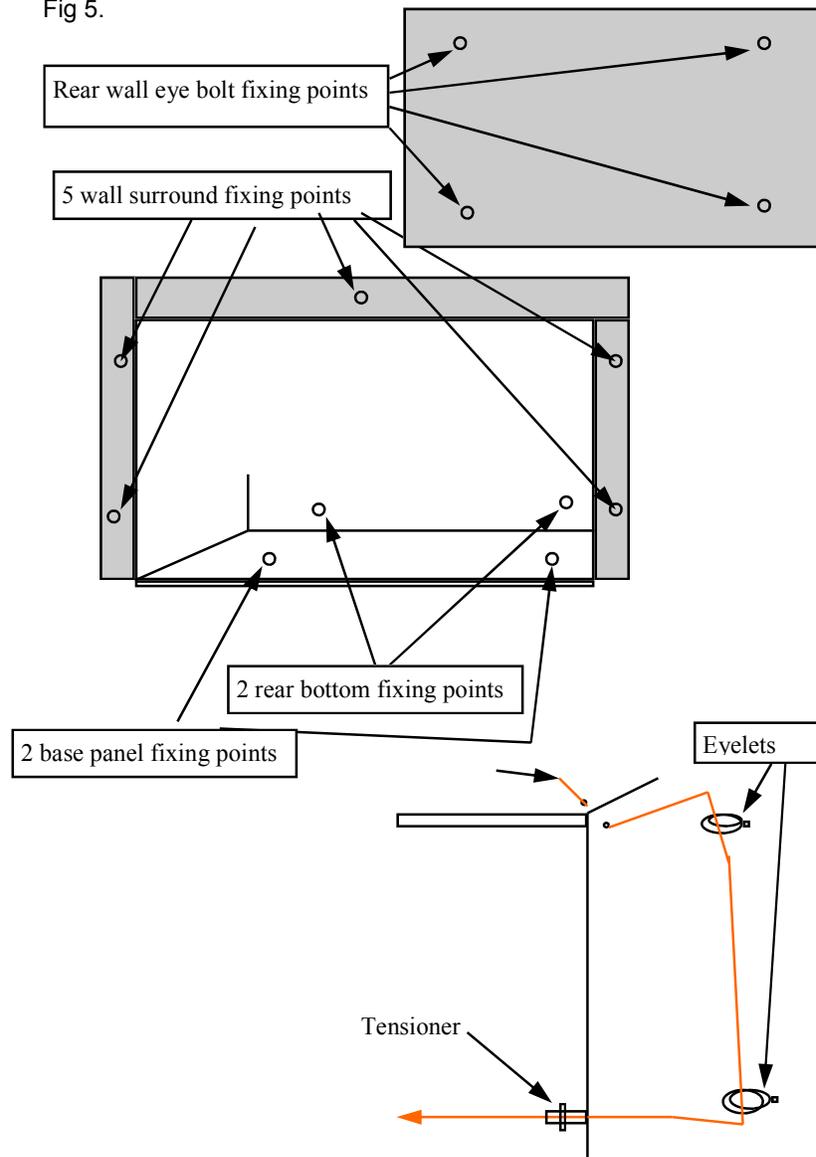
Note - It is not recommended to use this method on its own as the appliance may lean forward. Use a further fixing to retain the top of the appliance.

Use suitable No.8 or No.10 wood screws to fix the appliance in place.

**Method Four** – This is ONLY for use where there is a cavity box fitted

The appliance and cavity box both have holes in their outside flange and can be screwed and rawplugged to the wall as a pair. Alternatively the cavity box can be secured through its flange and the fire attached through its back face to the brackets on the inside rear of the cavity box.

Fig 5.



## Installation methods

This appliance is designed to be installed into any of the following installations:

- 1 – (Preferred Method) Using deep rebated fire surround or false chimney breast to enclose the fire
- 2 – Inserted partially into a cavity wall inner leaf or opening in wall
- 3 – Fitted into an existing fireplace or builders opening

**Note - Burley Appliances do not recommend fitting into the inner leaf of timber framed buildings. A false chimney breast / deep surround or false wall should be provided**

### 7. Installation method 1

***Fitting against the inner face of a wall with a suitably constructed false chimney breast or rebated fire surround which encloses the depth of the appliance.***

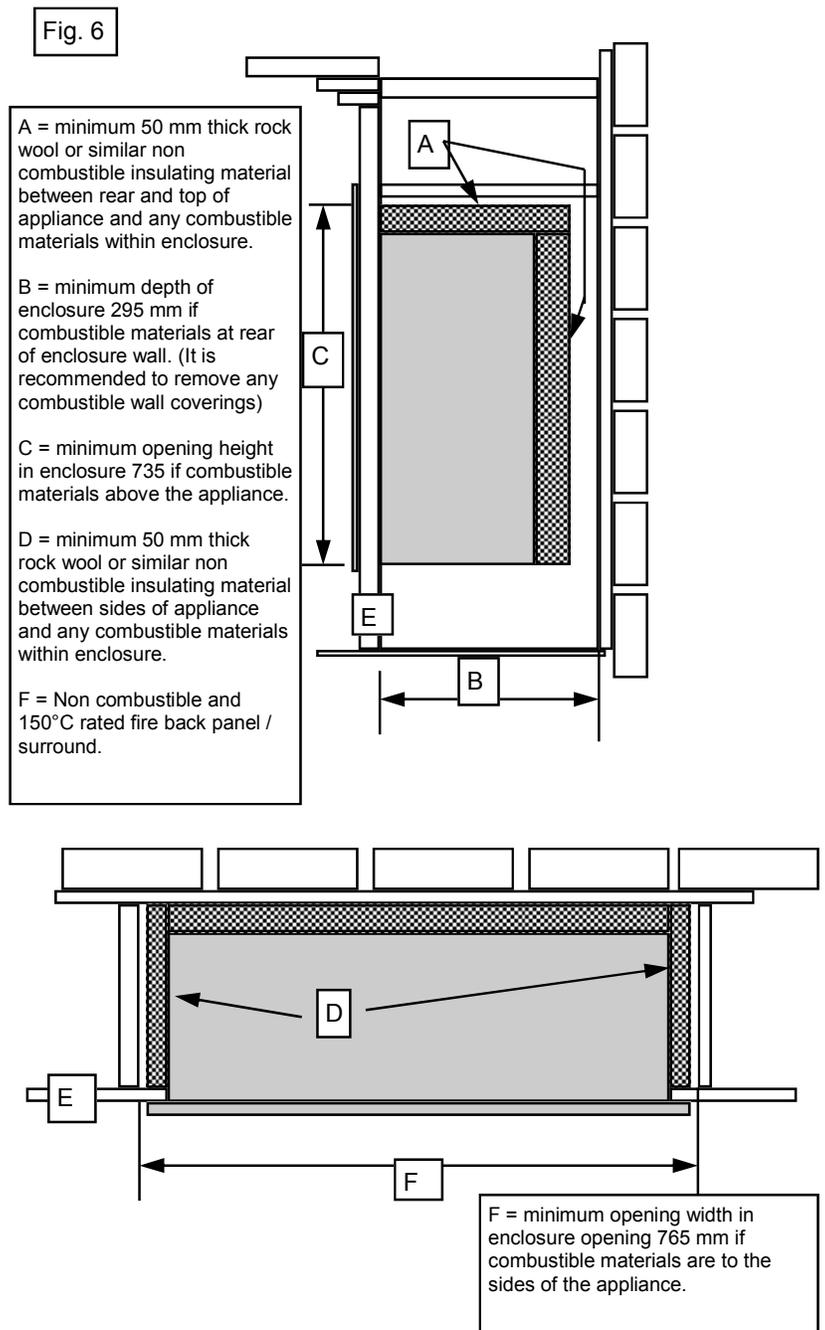
7.1.1 This method of installation requires no modifications to the wall of the property.

7.1.2 Decide on the location of the appliance and construct and install a false enclosure for the product taking account of the recommendations regarding combustible materials.

7.1.3 The construction and size of the false enclosure shall be considered with the need to use suitable non combustible insulating materials where applicable to the top, rear and sides of the appliance.

Any wall coverings shall be removed within the enclosure and any paper backed plaster board on the wall face location shall be protected or replaced with plaster or rigid non combustible insulating board. If installing on the inside wall of a timber framed dwelling, as a precaution the wall area to the rear of the appliance location shall be protected with rigid non combustible insulating board or 50 mm thick rock wool or similar.

A cavity box CAV4111 can be used to simplify the process of building the enclosure. If this is used then clearances to combustible materials can be reduced to 25mm at the rear and sides of the appliance and 50mm over the top.



7.1.4 A suitable non combustible support platform shall be constructed within the enclosure for the appliance to sit upon.

7.1.5 Ensure that the wall around the opening and the base are flat and level.

7.1.6 Finally fit a non combustible back panel against the enclosure and fit any fire surround. Due note shall be taken of the recommendations specified in section 5.

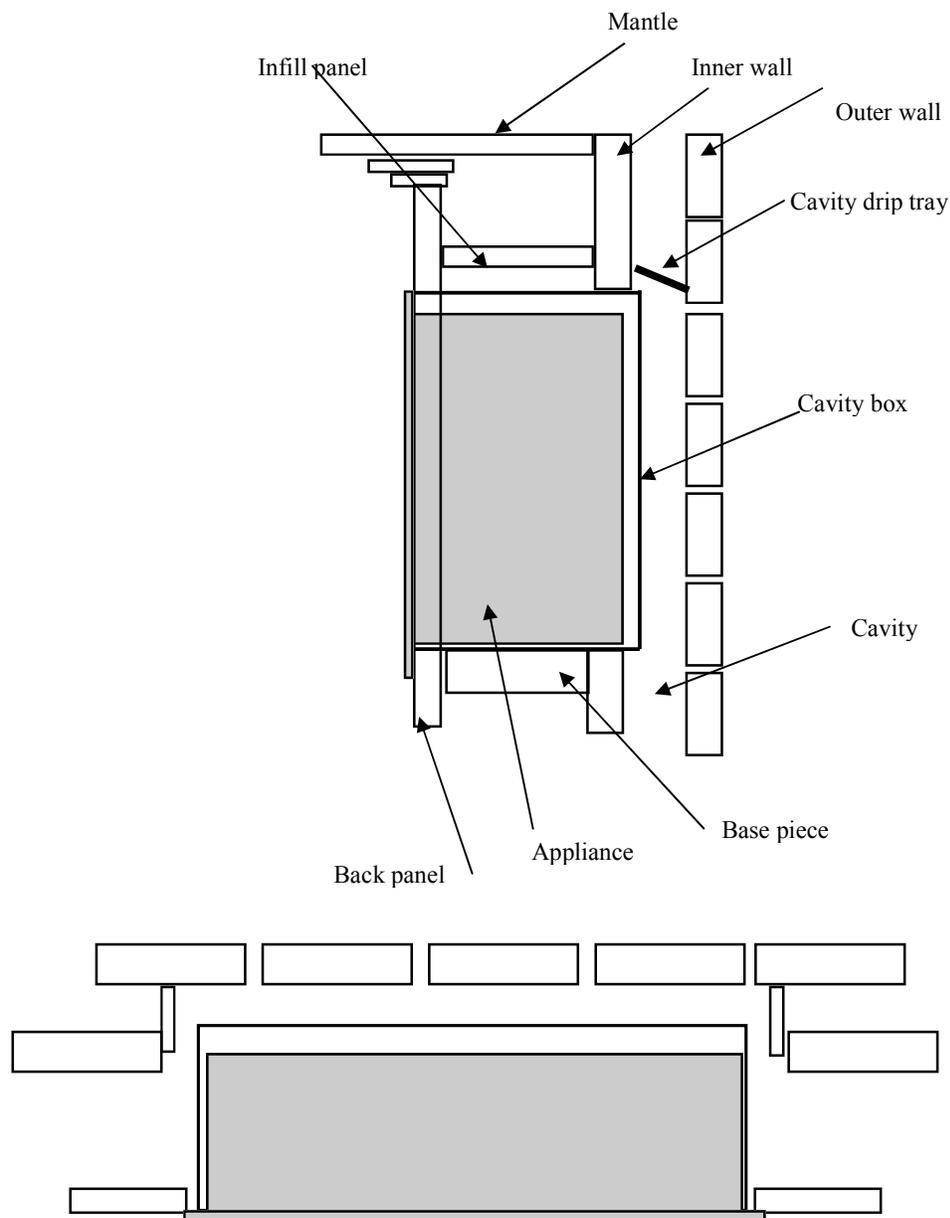
7.1.7 With the fire box fitted securely into the opening, refit the burner control assembly.

7.1.8 Connect the gas supply pipe to the 8 mm compression fitting on the inlet pressure test point elbow. The complete installation shall be checked for gas tightness using an approved method.

7.1.8 Complete the assembly of the appliance in accordance with section 8.0.

## 7.2 Installation method 2

### **Insetting fire into a purpose made opening within the inner leaf of a cavity wall**



7.2.1 Decide on the location of the appliance taking account of any wiring or pipe work that may be running within the wall, and mark the wall for the fire place opening to the dimensions specified in section 4.2.

**7.2.2 It is important to consider any precautions necessary to maintain the structural character of the wall. It is therefore recommended to fit a suitable concrete or steel lintel over the proposed fire place opening.**

First, mark out the position of fireplace opening on wall, then mark position of lintel. Use a drill for guide holes and remove an opening to suit the lintel.

Insert the lintel, bed it on mortar and slate pin in position.

Cut and clear the masonry below the lintel to form the fire opening. Take suitable precautions to prevent excessive loss of any cavity wall insulation by packing area with Rockwool or similar.

Clear all debris from the cavity as failing to do this can lead to water tracking over.

Any combustible material in the cavity area must be at least 100mm from the appliance and protected with Superlux board or similar.

7.2.3 With suitable lintels fitted, clear the block work to obtain the fire place opening.

7.2.4 Precautions should also be taken to prevent the ingress of moisture above the appliance location. A cavity drip tray is essential above the fire place opening which is securely fixed and slopes slightly down to the outside wall.

7.2.5 Ensure that the wall around the opening and the base are flat and level. If installing a hearth area ensure that it will be clear of the fire trims.

7.2.6 Finally fit a non combustible back panel against the wall and fit any fire surround. Due note shall be taken of the recommendations specified in section 5.

7.2.7 Fit the appliance into the recess using the methods detailed in section 7.6 and refit the burner control assembly.

7.2.8 With the fire box fitted securely into the opening, refit the burner control assembly.

7.2.9 Connect the gas supply pipe to the 8 mm compression fitting on the inlet pressure test point elbow. The complete installation shall be checked for gas tightness using an approved method.

7.2.10 Complete the assembly of the appliance in accordance with section 8.0.

### **7.3 Installation method 3 –**

Fitting into an existing, disused or unserviceable fireplace opening previously served by a natural draught flue.

7.3.1 Any under grate draught device must be sealed off. Failure to do so could adversely affect the flame picture and lead to sooting.

7.3.2 The flue must be sealed off to prevent suction being exerted on the back of the appliance. Some ventilation into the old flue will be required to prevent condensation and a suitable cowl fitted on top to prevent moisture ingress. Any ventilation fitted to the flue must not exert a pull or draught on the fire. Further advice should be sought from the local building control.

7.3.3 Ensure that the fire place opening is to the dimensions specified in section 4.2 and that the wall surround and base are flat and level.

7.3.4 Fix the fire box into the opening using one or a combination of the methods detailed in section 7.6 and refit the burner control assembly ensuring that the infra red remote detection sensor is relocated correctly in the bottom left hand corner of the glass panel aperture.

7.3.5 With the fire box fitted securely into the opening, refit the burner control assembly.

7.3.6 Connect the gas supply pipe to the 8 mm compression fitting on the inlet pressure test point elbow. The complete installation shall be checked for gas tightness using an approved method.

7.3.7 Complete the assembly of the appliance in accordance with section 8.0

## 8.0 COMPLETE THE ASSEMBLY

### 8.1 Fuel Bed Arrangement

It is important for clean burning that the fuel bed components are correctly located as detailed. Do not use with incorrectly fitted, broken, or any other fuel bed components than those supplied with the product.



8.1.1 Carefully place the rear (largest) log piece on the support platform behind the burner. Ensure the base of the log piece is flat on the support and that the rear is pushed back as far as possible. Ensure that no part of this log piece is in contact with the tubular burner (Fig.8).



ends of the rear log piece (Fig. 9)

8.1.2 Carefully place the front log piece on the support platform in front of the burner. Ensure that the base of this piece is flat and slowly push back until it touches the protruding

8.1.3 Using photo to identify the correct 'Y' shaped log, place log on the left hand side of the fuel bed to bridge the front and rear logs. The 'V' of the log should rest towards the centre of the fuel bed with one branch located in the notch of the rear log whilst the other branch rests on the front log. The other end of this log should be touching both front and rear logs and the left hand side cheek (Fig. 10)





8.1.4 Place the remaining log to the right hand side of the fuel bed to bridge the front and rear log pieces. The stubby branch should nestle down and be located in the notch on the right of the rear log piece. The other end of the log shall come to rest on the branch stub

protruding from the front log piece, whilst also touching the rear log piece (Fig. 11)

## **8.2 Fitting the Glass Panel**

**Important - Do not use this appliance with a broken or damaged glass panel. Do not operate the appliance unless the glass panel is fitted correctly.**

8.2.1 Engage the bottom edge of the glass in the groove of the front log support and within the sides of the appliance opening. The small window in the screen print of the panel should be in the bottom left corner. The printing should on the inside of the glass and the larger black strip will be at the bottom. It is very important to ensure the remote control sensor is visible through the window in the printing.

8.2.2 The top part of the glass panel should be engaged under the catalyst vent panel. The vent panel shall then be fixed using the 3 screws (Fig. 3).

## **8.3 Fitting the Outlet Grille**

8.3.1 Push and hold grille in position and secure grille from underneath using 3 screws removed earlier. It may be easier to have an assistant hold the grille whilst doing this.

## **8.4 Fitting the trim and backer assembly**

8.4.1 The trim and its backer are supplied as a complete assembly.

8.4.2 A bracket is located centrally in the back of the backer top edge; this locates over the top flange of the appliance.

8.4.3 Carefully opening the hinged trim will reveal 2 holes into which the retaining screws locate. Fit these and tighten.



## 9.0 CLEARANCES TO COMBUSTIBLE MATERIALS AND SHELVES

- 9.1** On no account should glass mirrors or picture frames or any electrical equipment e.g. plasma screen TV's be fitted or positioned on the wall above the appliance as the heat rising could damage them.
- 9.2** A non combustibile shelf may be fitted to within 200 mm of the top edge of the fire frame. Note that shelves will get hot and delicate ornaments, wax candles etc should be kept away from hot surfaces. The shelf overhang must be no more than 200mm.
- 9.3** A combustibile shelf to the dimensions given in may be fitted to within 500 mm of the top edge of the fire frame. The shelf overhang must be no more than 200mm.  
Combustibile materials of fire surrounds to the sides of the appliance may be fitted to within 100 mm provided it protrudes no further forward than 100 mm.  
Any combustibile side walls must be at least 500 mm from the fire bed.

**The user shall be advised when relevant that hot convection air from the grille outlet induces the possibility of staining on surfaces in the vicinity of the appliance. This can be caused by the effect of heat on the finish and also burned dust & tobacco particles etc being carried in the convection currents of the fire. Particular attention should taken to ensure soft furnishings such as soft cushions and curtains are kept at least 1 metre from the appliance. Blown vinyl and flock and embossed wallpapers can be scorch damaged by being too close to a heat source and may discolour over a period of time.**

## 10.0 COMMISSIONING AND OPERATION

**YOU MUST COMPLETELY ASSEMBLE THE FIRE INCLUDING THE GRILL BEFORE COMMISSIONING! BURLEY APPLIANCES IS THE ONLY COMPANY TO BENCH RUN AND THOROUGHLY TEST EVERY SINGLE GAS FIRE IT PRODUCES. BURLEY IS IN THE UNIQUE POSITION OF KNOWING THAT EVERY APPLIANCE LEAVES THE FACTORY IN PERFECT WORKING ORDER.**

### **10.1 *Checking for gas soundness***

10.1.1 Open the decorative trim from the bottom, to obtain access to the burner control assembly. Remove the screw from the pressure test point inlet elbow and connect a suitable pressure gauge.

10.1.2 Turn on the gas supply at the isolating valve and using an approved pressure drop test method and suitable leak detection solution, check for gas soundness.

10.1.3 Ensure that that the static inlet pressure reading is above the required inlet pressure stated in section 1.0 of these instructions. Leave the pressure gauge connected and with the appliance in operation.

The inlet pressure must be within +/- 1.0 mbar of specification with **all** gas appliances in the house switched on and also with just the Burley appliance operating. If outside of tolerance the fault is most likely to be in the installation pipe work or service governor at the meter. A 'lazy' service governor can be the cause of pilot light problems if the problem is not spotted and rectified. If the problem is the meter governor, this is the property of the gas service provider (e.g. Transco in the UK or Bord Gais in Rep. of Ireland) and they should be called to rectify this.

10.1.4 Following successful operation, turn the appliance off, remove pressure gauge and replace the screw in the pressure test point elbow. Check for gas soundness at the screw using a leak detection solution.

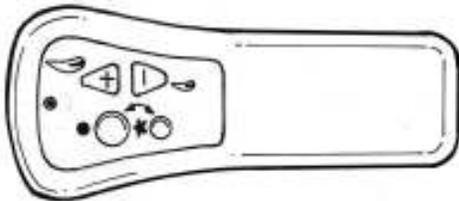
*Note - If the appliance battery power is becoming low, a continuous beeping sound will be heard from the control unit every time the appliance is operated.*

**If you have any questions or the appliance is not operating correctly, phone the Burley help-line BEFORE you leave the installation.**

**If the appliance is not fitted in strict accordance with these instructions, Burley cannot be held responsible for any damage caused and reserve the right to charge for any corrective work.**

**Note: When lighting the fire from very cold, it may sometimes switch itself off after about 20 seconds. This is the very sensitive oxygen depletion circuit proving itself and is normal. Wait for 1 minute and relight fire. If this continues to happen more than 3 or 4 times from cold then seek advice. To avoid this happening it is possible to leave the pilot alight at all times.**

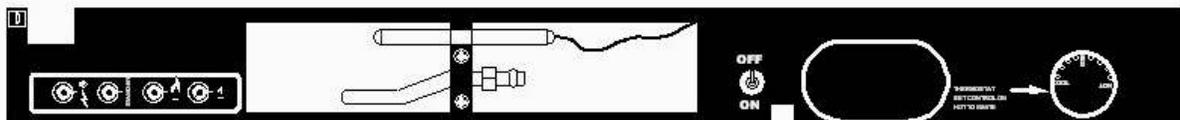
## **10.2 Remote Operation**



10.2.1 Batteries – The handset takes a standard 9v battery. This should be changed annually to ensure the fire continues to operate correctly. It can be accessed through a flap on the back of the handset.

The fire is fitted with a rechargeable battery available from your retailer or from Burley Appliances on 01572 756956. In normal use, this will last between 6 and 9 months. It can be charged by simply sliding it out of its housing under the fire, undoing the connector block and carefully connecting it to the mains charger. It will need to be charged for 4 hours every month irrespective of use.

10.2.2 We regret that the warranty does not cover items such as batteries. When disposing of batteries, always do so in an environmentally friendly manner.



10.2.2 On first operation, ensure the thermostat is set to the hot position.

10.2.3 Ensure the infra red sensor is visible. The fire relies on line of sight between the sensor and handset to operate. In the event of the fire not working check the above points before calling an engineer.

10.2.4 To ignite the fire point the handset at the fire, push and hold simultaneously the 2 left hand buttons marked \* and ● for several seconds until the ignition sequence begins. The fire will automatically light the pilot light, monitor its safety for about 20 seconds and then it will light the burner on high flame.

10.2.5 To alternate between high and low flame use the flame buttons on the right hand side of the handset.

10.2.6 To turn the fire OFF press the ● button on the top left hand side of the remote handset.

10.2.7 The fire is fitted with a comfort thermostat behind the ash pan door and it is possible to set this to modulate the fire between off and on. If the pilot is alight but the main burner will not light, check the position of this thermostat before changing batteries etc.

10.2.8 An audible signal is heard when the fire receives a signal from the handset. This will help you to know that the fire has received your instruction and is changing settings. When the battery power is low, a continuous bleep will be heard from the fire and it will allow you to shut down safely but will not reignite.

### 10.3 Manual Operation



10.3.1 **To light the fire:** Depress and hold button marked '● \*'. A single beep may be heard to indicate that the operation has been accepted by the control system and that the appliance is commencing with an ignition sequence. After a few seconds the clicking of the spark may be heard and the pilot should light. The pilot flame can be seen through the small hole in the left hand side of the front log.

10.3.2 If the pilot flame is not established correctly within approximately 25 seconds, the control system will revert back to the OFF position.

Wait approximately 3 minutes before repeating the ignition sequence.

10.3.3 With the pilot flame established, the gas valve will open and the main burner will light at the maximum rate setting. This operation should take no longer than 20 seconds. At this point lower the flames to the low setting and allow to run for 10 mins. This will allow the products of combustions to be exhausted through the grill and fresh air to be taken in to the fire. If this step is not followed then the fire will extinguish as there is not enough oxygen to maintain a full flame.

NOTE - all control operations will produce an audible single beep from the appliance control system to indicate that the 10.3.4 To adjust the burner flames such that the appliance operates at the minimum rate setting, depress the button marked with - symbol. To adjust the flame back to the maximum setting depress the button marked with the + symbol. To get a setting between high and low, press and hold the appropriate + or - button until the desired flame size is reached.

10.3.5 To turn the main burner OFF but leave the pilot flame established, press the button marked 'standby'. To turn OFF the appliance completely, depress the button marked '●'.

### THERMOSTAT OPERATION

10.3.6 Control the fire by a combination of the rotary thermostat marked High / Med / Low and / or flame setting to suit your mode of use. Discuss with the user and adjust the thermostat to the required setting.

### 11.0 Fireguards

A fireguard is not supplied with this appliance; however it is recommended that a fireguard to BS6539 or BS6778 is fitted if the fire is to be used in the presence of young children, the elderly and the infirm. The glass screen acts as a fireguard and also directs the combustions products through the safety catalyst. The appliance must not be operated with the glass removed.

### 12.0 Instruct the User

It is important to hand these instructions to the user for safe keeping and future reference.

The user shall be instructed how to fully operate the appliance, remotely and manually and shown how to adjust the thermostat for desired comfort levels.

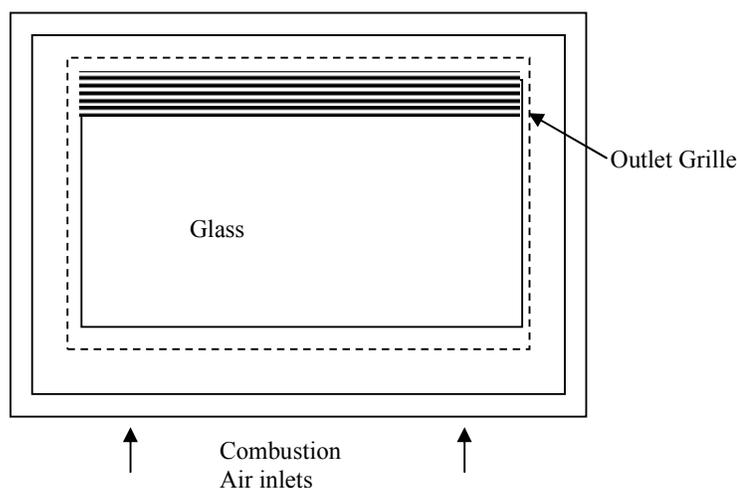
The user shall also be made aware of the precautions to prevent blockage of any purpose made room ventilation, and the need to keep soft furnishings away from the appliance.

The outlet grille and glass on the appliance are working surfaces. On no account should these be covered or obstructed. The air inlets should also be kept clear.

The user shall be made aware of the need to operate the appliance safely in accordance with sections 8-12 of the instructions and of the need for regular servicing and maintenance (section 13).

The user shall be informed of the need for at least an annual service and the importance of returning the guarantee card. **The installer section of the guarantee card must be filled in fully to validate the warranty.**

Advise that a fireguard to BS6539 or BS6778 should be used for the protection of the elderly, the infirm or children.



### 13.0 Maintenance and Servicing

**13.1** Any maintenance and servicing shall be carried out at least on an annual basis and by a competent person in accordance with relevant regulations.

**13.2** Before carrying out any servicing procedure ensure the gas supply to the appliance is isolated and that the appliance is cold.

**13.3** After completion of any servicing procedure check for gas soundness.

**13.4** Check the installation for compliance with these instructions.

**13.5** Check all purpose provided ventilation is clear from obstruction.

**13.6** The following servicing procedure is recommended in order to cover all aspects of the appliance to ensure safe and correct operation of the appliance:

Protect the floor area around the appliance to avoid damage or soiling when laying out the component parts.

Open the decorative trim frame; unscrew the fixing screws holding backer to fire, lift backer off and place to one side. The trim may be cleaned with a damp cloth.

Remove the outlet grille by removing the 3 screws in its underside. Clear away any dust or debris from the openings using a soft brush and vacuum, and place to one side.

Remove the 3 screws in the catalyst vent panel (Fig. 3) and remove the glass panel by lifting the vent panel slightly and withdrawing the glass from the lower location point. The glass panel can be cleaned using hot water and a mild non - abrasive detergent. Check the glass for damage and **replace in if necessary.**

Carefully withdraw the catalyst vent panel and examine the condition of the two catalysts both from the top and from inside the unit. If any damage or cracking of the catalysts is evident, replace. **DO NOT ALLOW THIS APPLIANCE TO BE OPERATED WITH DEFECTIVE CATALYSTS.**

Carefully remove the ceramic fuel bed components. These components are extremely fragile. Examine the condition and check for signs of damage or cracking. **Replace if necessary.** Clean these components with a soft brush and / or vacuum with brush attachment to prevent dust spread.

Examine the condition, and check for cracking of the back panel and side cheeks of the combustion chamber surround. **Replace if necessary.**

**NOTE** - Unless replacing component parts, it is not necessary to remove the burner control system from the appliance, as all components are serviceable without the need for further dismantling.

Undo the gas supply pipe at 8 mm compression fitting at the gas inlet pressure test point elbow.

Remove the two screws from the rear log retaining platform and slide out the complete burner and control assembly (Fig. 4)

Remove the four retaining screws of the front log / glass locating platform and withdraw. This allows total access to the burner and control components (Fig. 12)

Examine the tubular burner for any signs of damage. **Replace if necessary.** Ensure all ports particularly the ladder ports from opposite the pilot assembly are clear of dust and debris. Clean using only a soft brush and vacuum with brush attachment. Ensure the large aeration ports in the injector end of the burner are dust free and clear.

The main burner injector of this appliance should not normally require attention unless there is evidence of particular flame reduction or excessive dust and debris within the aeration ports of the burner. If examination is necessary, return to point No. 9 and refer to parts replacement section 13. The end of the injector is ceramic and under no circumstances should the ports be cleared using wire or any hard instrument.

Examine the pilot assembly and clear of any dust or debris using a soft brush. Ensure the aeration hole is clear. Check the condition of the thermocouple and the ceramic spark electrode and wire for any damage or deterioration. If there are any signs of damage the full pilot assembly will need replacing. **Replace if necessary.**

**NOTE** - There is a highly sensitive oxygen depletion sensor designed into the pilot assembly. If any part of the assembly is damaged the entire unit must be replaced. Do not attempt to bend or alter the flame head, thermocouple or aeration hole. Use only genuine spare parts as similar looking parts from other appliances may well give different or inferior performance and could lead to a hazard.

Check the condition of the spark ignition lead ensuring both ends are securely connected. **Replace if necessary.**

Check that all wiring and plug connections to the control unit, gas valve motor, battery, remote sensor and control switches are secure and in good condition.

Check that the thermostat bulb is correctly located and the coil is not kinked or damaged. **Replace if necessary.**

Re-assemble all removed components in reverse order and carry out a commissioning procedure as detailed in section

**Burley Appliances recommend the following on an annual basis.**

**Check for combustion product leakage** - It is important that the products of combustion produced by this appliance all pass through the two catalysts. A very small amount of product

leakage is acceptable providing safety can be confidently assured when the appliance is operational.

To check for leakage, remove the decorative grill and glass screen and check box construction and glass fitting for visible gaps / signs of leakage. The appliance is not pressurised therefore small manufacturing gaps are permissible and these will have been measured in the factory.

If the manufactured assembly is suspect contact your supplier.

**Emission of combustion products** - If available a combustion analyser to BS 7967 should be used to sample the combustion products exiting from the appliance grill outlet into the room. The appliance should be switched on and allowed to warm for 20 minutes. A sample should be gathered across the entire width of the grill. A CO/CO<sub>2</sub> ratio of less than 0.002 should be measured at all times irrespective of the length of time the appliance has been operating. A sample taken in the centre of the room shall indicate that the CO content is no more than 9 ppm above ambient.

#### 14.0 Replacement of Parts

Before carrying out any replacement of parts procedure (*with the exception of the lithium battery which can be replaced by the user*) ensure the gas supply to the appliance is isolated and that the appliance is cold.

After completion check for gas tightness.

<b>13.1 Rechargeable Battery Pack</b>	<b>BAT4240</b>
<b>13.2 Glass Panel</b>	<b>GLA4111</b>
<b>13.3 Fuel Bed components</b>	<b>LOG4111L, R, F &amp; B</b>
<b>13.4 Rear and side fuel bed surrounds</b>	<b>BRI4111B, L &amp; R</b>
<b>13.5 Main Burner</b>	<b>BUR4111</b>
<b>13.6 Injector</b>	<b>NOZ4111NG</b>
<b>13.7 Pilot assembly</b>	<b>OXY4111NG</b>
<b>13.8 Thermostat</b>	<b>THE4240</b>
<b>13.9 Motorised gas valve</b>	<b>VAL4242</b>
<b>13.10 Control unit</b>	
<b>13.11 Spark Ignition lead</b>	<b>PIE4240</b>
<b>13.12 Infra red sensor</b>	
<b>13.13 Catalyst</b>	<b>CAT4001 X 2</b>

**USE ONLY GENUINE REPLACEMENT PARTS.**

In certain cases, depending on the fault and the part or parts to be replaced, Burley Appliances may request an exchange of the full burner control assembly.

*Due to our policy of continual improvement and development the exact accuracy of descriptions and illustrations can not be guaranteed.*

*Burley Appliances are the only company to bench run and thoroughly test every single Flueless gas fire it produces. Burley is in the unique position of knowing that every appliance leaves the factory in perfect working order.*

## **1. Flue Gas Analysers – Installation & Servicing Facts**

- Please read this sheet even if you have fitted our fires before.
- Please leave this sheet with the customer as reference for future servicing of the appliance.
- Please explain to the customer how the fire works and the details and facts listed on this sheet, particularly what the catalyst does and doesn't do.
- If you have any doubts about the test procedure please visit our website or call our technical help line

### **Testing – Points to note...**

- Before testing ensure that the room size is correct for the heat output of the fire. 30cu<sup>3</sup> for 2.5kw output, 40cu<sup>3</sup> for 3.5kw and 50cu<sup>3</sup> for 4.5kw.
- In all installations regardless of room size there must be an air vent positioned at least one metre from the fire at either high or low level through an outside wall providing 100cm<sup>2</sup> of free air. (For the Republic of Ireland 2 vents of not less than 60cm<sup>2</sup> must be provided at high and low level, with minimum vertical separation of 1.6m).
- The analyser used must be manufactured to BS7967 and the test must be carried out in accordance with BS5871 Pt 4
- The catalytic converter needs heat to work, therefore before you start testing; the fire must have been lit and burning on full for at least 15 mins.

There are two tests to carry out. A Co / CO<sup>2</sup> ratio test and a room centre CO test.

1. The first test is the CO / CO<sup>2</sup> ratio test and should be carried out at the fire exhaust vent, do not stick the probe of the analyser in through the grill but move the probe back and forth 1 inch in front of the outlet grill. (We use a piece of perforated 8mm pipe attached to the analyser with flexible rubber tube). You should record a ratio of no more than 0.002 % (20ppm CO to 1% Co<sup>2</sup>). It is advisable to have a high sample of CO as this will improve the test
2. The second test is the room centre CO test. You should stand in the room centre with the probe at waist height and read the level of CO; this should be no more than 9ppm over ambient peak. Please record these readings on the customers guarantee card.

Our Flueless fires also contain the following safety devices (an ODS (Oxygen Depletion Sensor) and FSD (Flame Supervision Device). Point out to the customer that unfortunately these are not found on all gas hobs; which are also flueless devices)

## **1. Points to Note Regarding the Catalytic Converter!**

- If the customer smokes tobacco products, lives on a busy road or is cooking with a gas oven/hob at the time of testing you must ensure that an ambient CO reading is taken before lighting the fire and attempting a reading.
- *Does the catalytic converter need replacing?* The catalytic converter does not need replacing unless it has become physically broken or the combustion test shows deterioration in performance over time. To constantly test the performance of the catalytic converter, our laboratory has been running appliances eight hours per day, five days per week, for up to seven years. Periodically we send catalytic converters back to the manufacturer for testing. After the equivalent of 30 years of use, the catalytic converter is as efficient as it was when brand new. Burley manages to achieve this by designing the fire to ensure that the catalytic converter is in exactly the right position for long life and maximum efficiency. (For other makes of fire please consult the relevant manufacturer). Only use replacement catalyst supplied by Burley.
- If you or the customer detects any odours from the fire please remember that the catalytic converter is not an air filter and does not remove smells. The ceramics in the fire can absorb household smells and in turn these smells get emitted when the fire is lit, especially if the fire is used in an enclosed space for a period of time. If this is the case we recommend that the fire is run on maximum for at least 5 hours with the doors and windows open. This should be done at least twice a year, preferably in the spring and autumn or at any time they notice a smell.
- We do not advise the burning of wax candles within 1 metre of the fire. Wax particles can become airborne and deposit and solidify in the fire causing potential combustion problems.
- The catalyst can also be affected by airborne paint smells and vapors from some plug in air fresheners. The fire must be removed or sealed if you plan to decorate anywhere in the house. If you can detect smells from the fire carry out the burning off procedure as above.

**Further information regarding the catalytic converter and Flueless fires in general can be found on our website [www.burley.co.uk](http://www.burley.co.uk)**

## 2. Gas rating of Burley Flueless Appliances

Burley's Flueless Gas Appliances are all gas input rated in the factory and undergo further line tests for combustion, sooting and visual performance. For Installers who wish to gas input rate appliances we need to establish tolerances for pass and fail.

### Manufacturers Tolerances

The Heat Input on appliances can be expressed as either a Nett or a Gross figure. When the installer is gas rating from the meter they will be using gross heat input which is 10% higher than Nett. This conversion has to be taken into account if the manufacturer has quoted a nett figure. The manufacturer also has to account for production tolerances on pipes, injectors, valves etc and is allowed a further +/-5% tolerance on the maximum rate.

### Burn Down

Cold appliances generally allow a greater rate of gas to pass through them and once the appliance warms the gas density alters and causes the rate to reduce to the figure stated. This is known as Burn Down.

Manufacturers carrying out their technical tests allow appliances to be fully warm and burn down before taking readings and this is typically after 1 hour. Some appliance manufacturers quote a 'cold' figure for the gas rate so that installers can measure this immediately.

### Installer Tolerances

It is important to take a gas rate test over a reasonable period of time so that the capacity of the meter is used. On low Input appliances such as our flueless this is even more critical because uncertainties can creep in. It is worth measuring over a 5 minute period to make sure.

It is also important to get your inlet pressure to 20mBar.

In a gas appliance factory compensation is also made for variations in

- % Saturation of Gas
- Variation in Calorific Value
- Variation in Gas Density
- Gas Temperature
- Gas Pressure
- Atmospheric Pressure
- Meter Calibration
- Stopwatch Calibration.

In the home it is not possible to correct for these therefore an uncertainty factor needs to be built into all measurements.

Currently Gas Safe™ (formerly CORGI) does not quote a figure on this uncertainty but the measured gas rate could vary by +/-5%.

### Conclusion

In adding all the variables together,

- an appliance quoting Gross Heat Input could be anything from +/-10% of the quoted heat input
- an appliance quoting Nett Heat Input could be anything from 0% to +20% of the quoted figure when measured as a Gross figure.
- If the appliance is cold anything up to a further 10% error could be expected and we don't quote these figures because they change rapidly. The figures shown below are hot figures.

Model	Heat Input Quoted	Minimum (Gross)	Maximum (Gross)	Cu Ft Per Hour
Environ, Esteem	2.5kW Nett	2.5kW Gross	3.0kW Gross	8.49
Ambience 4121	3.5kW Nett	3.5kW Gross	4.2kW Gross	11.67
Acumen / Elan 4111	4.2kW Nett	4.2kW Gross	5.4kW Gross	14.85

### 3. Burley Appliances Ltd - Domestic Guarantee Conditions?

We pride ourselves on the quality of service we deliver to our customers and all Burley Appliances' products carry a fully inclusive 12-month parts and labour guarantee. This guarantee is extended by another 12 months free of charge provided that your appliance is registered with us within two weeks of installation and that it is serviced by a Gas Safe™ registered installer (formerly CORGI) at the end of the first year. What the guarantee cannot cover is problems caused by incorrect installation or servicing, or any work carried out by non- Gas Safe™ registered installer (formerly CORGI).

We undertake that if within 12 months of the date of purchase, your fire or any part thereof is proved to be defective by reason of faulty workmanship or materials, we will at our discretion repair or replace the same free of any charge for labour, materials or carriage subject to condition that:

- All gas appliances are installed to the latest Gas Installation regulations by a qualified Gas Safe™ registered installer (formerly CORGI) and connected to the correct gas type and pressure as stated on the rating plate attached to the equipment.
- The fire is fitted in a room with the following minimum dimensions 2.5Kw = 30m<sup>3</sup> / 3.5Kw = 40m<sup>3</sup> / 4.2Kw = 50m<sup>3</sup>
- A wall vent is installed not less than 1 meter away from the fire allowing 100cm<sup>2</sup> of free air.
- You have the fire serviced by a Gas Safe™ registered installer (formerly CORGI) within the first year (as with all gas products, every gas appliances must be serviced every year).
- The appliance has not been subject to misuse, accident, or repaired or fitted by anyone other than Gas Safe™ registered installer (formerly CORGI) or our own engineer.
- The appliance has been used solely for domestic purposes and is on domestic premises i.e. not for commercial or trade use.
- The appliance has been used solely in accordance with the instruction book.

Any in guarantee work carried out by Burley Appliances will be charged for if the fault is caused by incorrect pressure or gas, incorrect installation, operator error, neglect or abuse.

**All guarantee cover is instantly and permanently cancelled if a non- Gas Safe™ registered installer (formerly CORGI) person carries out any installation or servicing.**

#### Exclusions

This guarantee **does not** cover:

- Damage resulting from external transportation, improper use or neglect, the replacement of any light bulbs or removable parts of glass or plastic.
- Costs incurred for calls to put right an appliance, which is improperly installed.
- Appliances that are the subject of rental agreements.
- EC Countries - the standard guarantee is applicable but is subject to the owner's responsibility and cost, to ensure the appliance meets the standards set by the country to which the product is taken.

**Any appliance or defective part replaced shall become the Company's property**

**Service Calls are made between 09.30 am and 04.30 pm Monday - Friday.**

**This guarantee is in addition to your statutory and other legal rights.**

**Proof of purchase will be required as will be a copy of the Gas Safe™ registered installer (formerly CORGI) installer notice.**