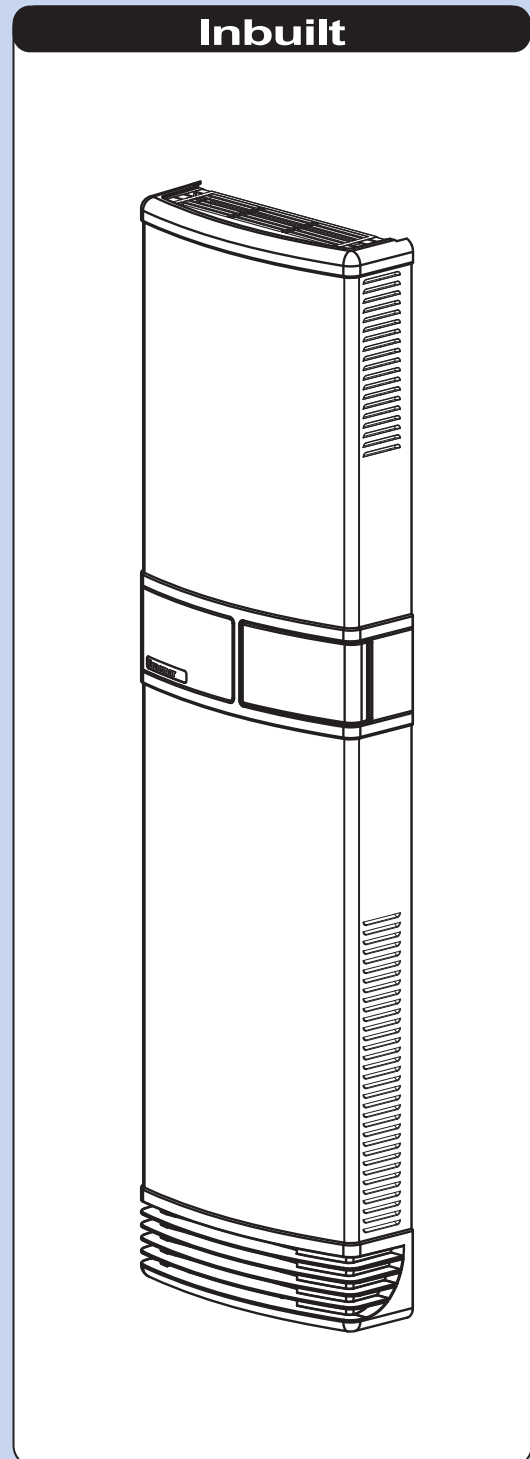
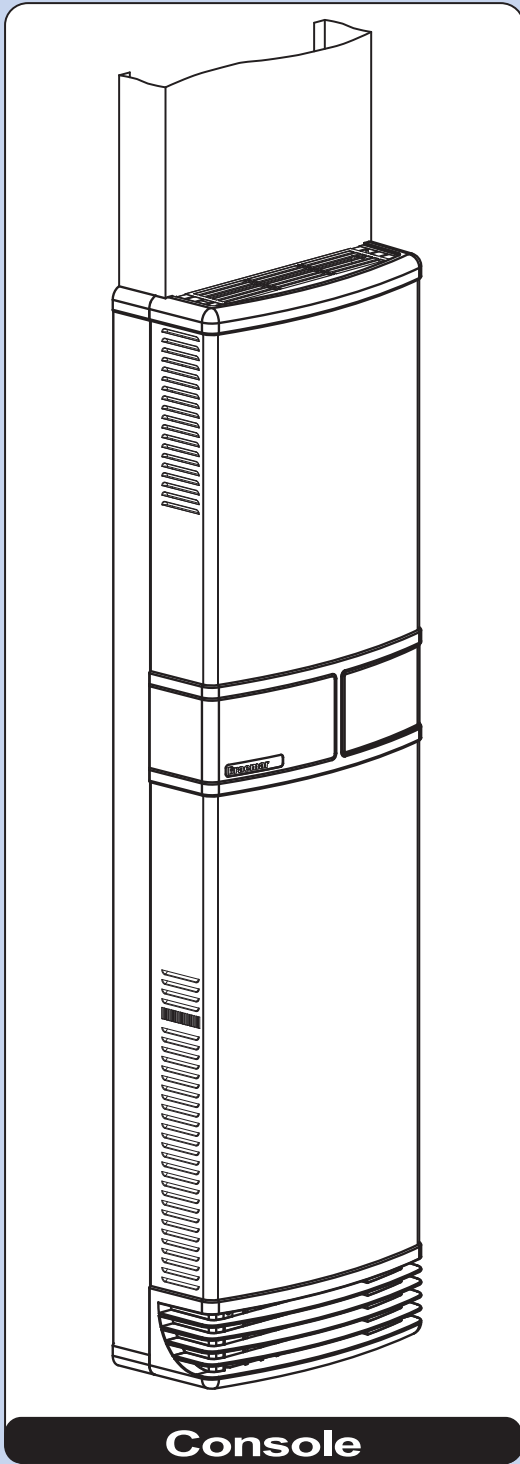


# ***WF2000 GAS WALL FURNACE***



***Employers and Employees Responsibility***

The installation and maintenance of gas wall furnaces and flue systems, particularly at height, has the potential to create Occupational Health and Safety issues for those involved. Installers are advised to ensure they are familiar with relevant State and Federal legislation, such as Acts, Regulations, approved Codes of Practice and Australian Standards, which offer practical guidance on these health and safety issues. Compliance with these regulations will require appropriate work practices, equipment, training and qualification of workers. Seeley International provides the following information as a guide to contractors and employees to assist in minimising risk.

***Risk Assessment:***

A risk assessment of all hazardous tasks is required under legislation. A risk assessment is an essential element that should be conducted before the commencement of work, to identify and eliminate the risk of falls and other risks, or to minimise these risks by implementing control measures. This does not need to be a complicated process - it is a matter of assessing the job to be done and considering what actions are necessary so the person doing the job does not injure themselves.

This should be considered in terms of:

- What are the chances of an incident occurring?
- What could the possible consequences be?
- What can be done to reduce, or better still, eliminate the risk?

***Some points to consider when working on or in a roof:***

- What is the best and safest access to the roof and working areas?
- What condition is the roof in? Should the roof structure and surface be checked?
- Does the worker have appropriate footwear?
- Are all power cables/extension leads safe and appropriately rated?
- Are all ladders, tools and equipment suitable and in good condition?
- Where ladders are to be used, is there a firm, stable base for them to stand on? Can they be tied or secured in some way at the top.
- Is there a roof anchor to attach a harness and lanyard to? If so, instruction should be issued for the use of an approved harness or only suitably trained people used.
- Are all tools and materials being used, prevented from slipping and falling onto a person at ground level? Is the area below the work area suitably protected to prevent people entering this area.
- Does the work schedule take into account weather conditions, allowing for work to be suspended in high winds, thunder storms/lightning or other types of weather giving wet, slippery surfaces?
- Is there an on-going safety check system of harnesses, ropes, ladders and access/lifting equipment, and where they exist on roofs, anchor points before the commencement of work?
- Is there a system which prevents employees from working on or in roofs if they are unwell or under the influence of drugs or alcohol?
- Are there any special conditions to consider i.e. excessive roof pitch, limited ground area, fragile roof, electrical power lines?

***Other Important Requirements:***

- **THIS HEATER TO BE INSTALLED BY AN AUTHORISED PERSON ONLY**
- **DO NOT** Operate this appliance before reading the instruction booklet.
- **DO NOT** Place articles on or against this appliance.
- **DO NOT** Use or store flammable materials near this appliance.
- **DO NOT** Operate this appliance with the front cover removed.

**INTRODUCTION**

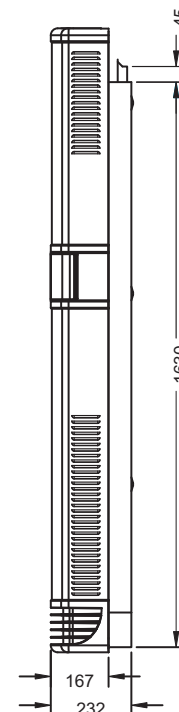
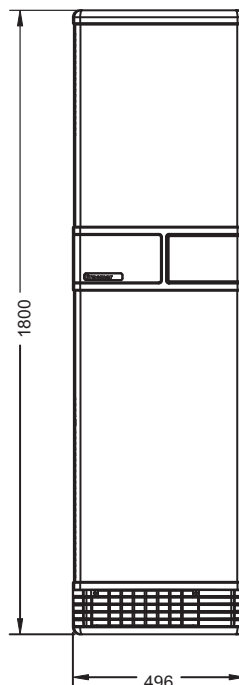
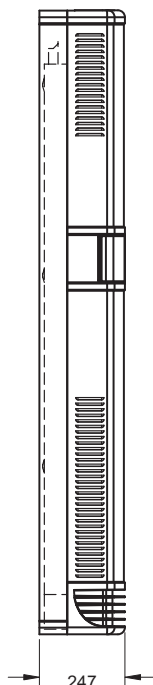
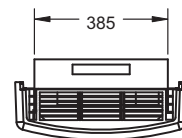
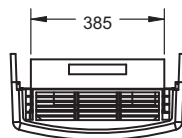
- These installation instructions cover the installation of Braemar WF2000 series gas wall furnaces. They apply to 30 and 40 MJ/hr, natural gas and propane, and inbuilt and console models.
- For console installations, one of the following "Console & Flue Cover Kits" is required:
  - Up to 3m ceiling height P/No 087818
  - 3 to 3.6m ceiling height P/No 087825
- An optional "Rear Register Kit" (P/No 085142) is available to direct up to 60% of the heated air flow to the rear.

**IMPORTANT**

- The 30 MJ/hr wall furnace is intended for domestic applications and replacement of older wall furnaces. Due to its higher thermal efficiency and improved air distribution, it is suitable for replacement of older 40 MJ/hr models.
- The 40 MJ/hr wall furnace is suitable for heating very large areas and is not generally recommended for normal domestic applications due to the higher air flow rates.

**WALL FURNACE SPECIFICATIONS**

	Natural gas			Propane		
	Injector diameter (mm)	Gas rate (MJ/hr)	Test point pressure (kPa)	Injector diameter (mm)	Gas rate (MJ/hr)	Test point pressure (kPa)
<b>30 MJ/hr</b>	<b>WF2000-30N</b>			<b>WF2000-30P</b>		
Main	2.55	30	0.90	1.50	30	2.70
Pilot	0.32	0.50	-	0.20	0.50	-
<b>40 MJ/hr</b>	<b>WF2000-40N</b>			<b>WF2000-40P</b>		
Main	2.95	40	0.90	1.75	40	2.70
Pilot	0.32	0.50	-	0.20	0.50	-



CONSOLE

INBUILT

## GENERAL

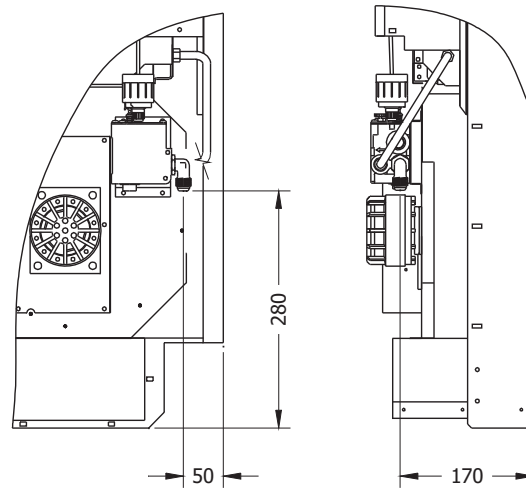
- The heater must be installed in accordance with these instructions, local gas fitting regulations, municipal building codes, electrical wiring regulations, Australian Standard AS5601 'Gas Installations', and any other relevant statutory requirements. Failure to comply with these requirements may void the warranty.
- A data plate fixed to the heater details both the model number and gas type.

## HEATER PREPARATION

- Check markings on carton to confirm that heater supplied is as required.
- With the unit laying on its back remove the top carton and liner.
- Remove the protective plastic film and discard.
- Remove the front cover by removing the 2 cover retaining screws above the top louvre inside the air outlet, and the 2 cover transit screws from the back of the cover top panel.
- If the heater is to be installed as a console fit the console side panels to the front cover at this point - instructions are included in the 'Console & flue cover kit'.
- If a rear register is to be installed with the heater, fit the required components to the back of the heater at this point - instructions are included in the 'Rear register kit'.

## GAS SUPPLY

- The gas connection point is on the lower right hand side of the heater.
- The gas supply pipe should be terminated to suit a 1/2" male compression fitting.
- Gas supply piping should be sized in accordance with pipe sizing guidelines given in AS5601 'Gas Installations'.
- The gas supply can be routed from below, above or behind the heater.



## ELECTRICITY SUPPLY

- The electricity supply must be a 240Vac 50Hz earthed power outlet with switch. It must be located within 900mm from the left of the heater or within 400mm from the right of the heater.

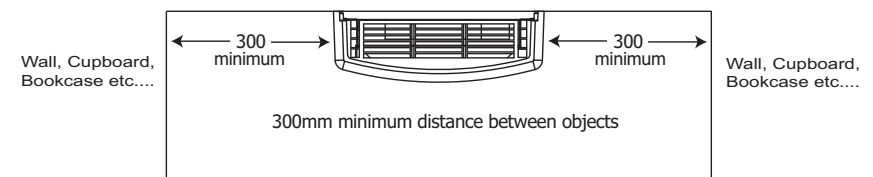
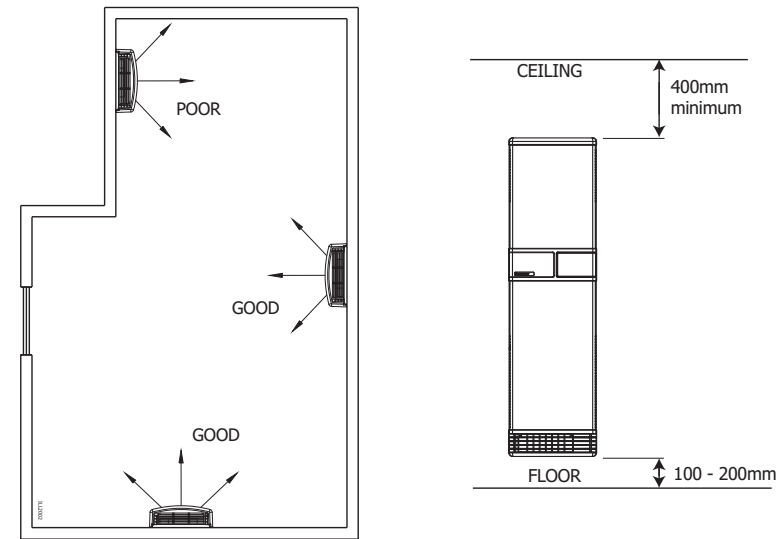
## FLUE SYSTEM

- The flue system must be installed in accordance with AS5601 'Gas Installations' and local building regulations. The flue must be an approved twin wall metal flue within a wall cavity. Single wall metal flue may be used within a ceiling space provided AS5601-specified clearances from combustible materials are maintained and access is possible for inspection and servicing.
- The Braemar flue kit (P/No 077956) is recommended for installation of this heater.
- If the heater is replacing an existing unit it must be confirmed that the flue system complies with current requirements of AS5601.
- The flue must be terminated outside - it must not be terminated in a roof space.

## HEATER LOCATION

When selecting a location for the wall furnace, the following points must be considered:

- Avoid corners, as this can lead to poor heated air distribution.
- Locate wall studs - for an inbuilt installation the stud spacing (measured from inside to inside) must be 405 and 430mm - a false stud must be fitted if the spacing is greater than 430mm - an alternative location must be selected if the spacing is less than 405mm.
- Ensure that roof timbers will not obstruct the flue and that clearances of 10mm from twin wall metal flue and 25mm from single wall metal flue can be maintained from combustible materials.
- Ensure that concealed piping or wiring within the wall cavity will not obstruct the installation.
- If a rear register is to be fitted, select a location to ensure that wall studs do not obstruct the rear register.
- Do not obstruct the air outlet, or the rear register, with furniture as this can lead to poor heated air distribution.
- Do not face the heater across a room - along the room is better.
- Maintain a clearance of at least 300mm from both sides of the heater, at least 400mm above the heater, and 100-200mm from the floor.



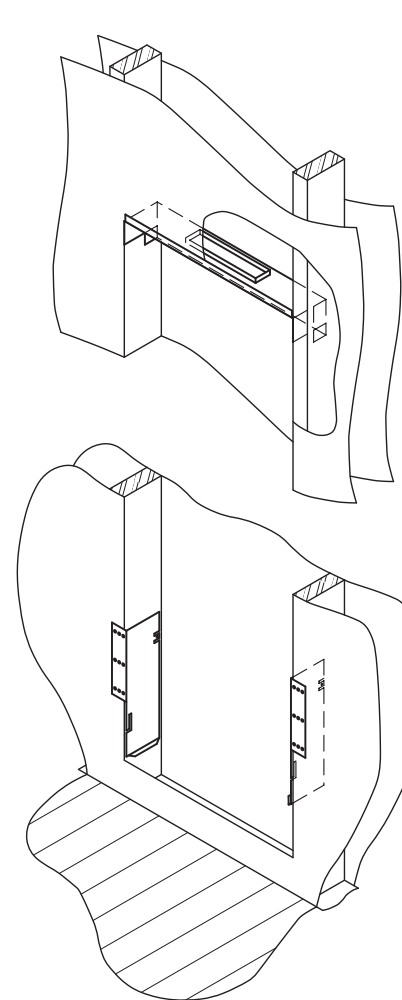
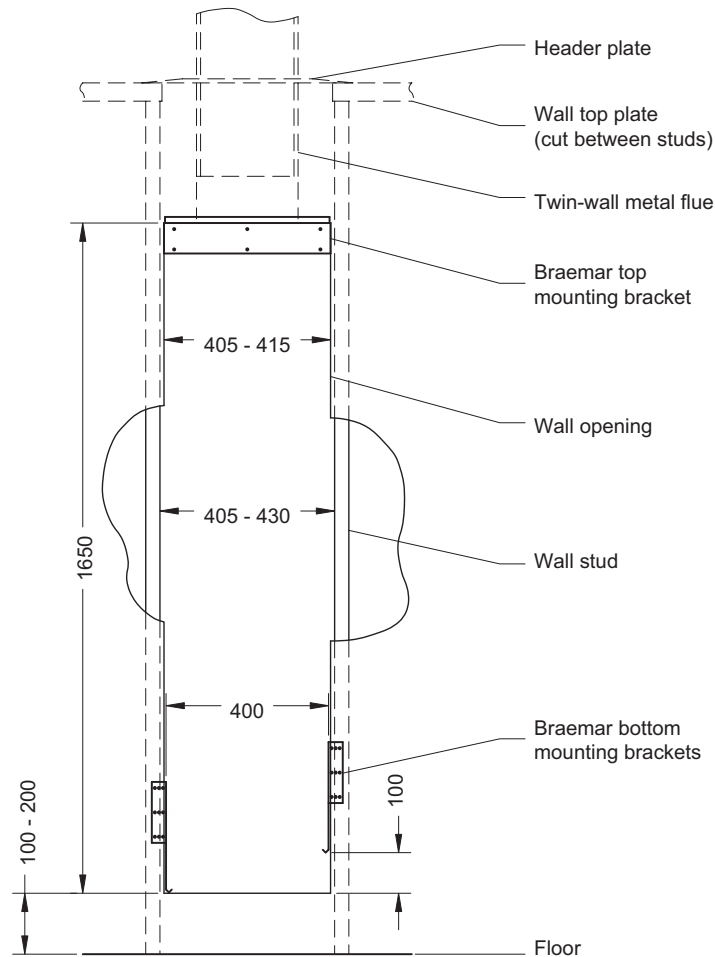
**CHECK**

- Select a suitable location between wall studs complying with requirements set out on page 3 of this manual.
- **WALL CAVITY DEPTH:** 80mm MINIMUM
- **STUD SPACING:** 405 to 430mm - FIT A FALSE STUD IF > 430mm

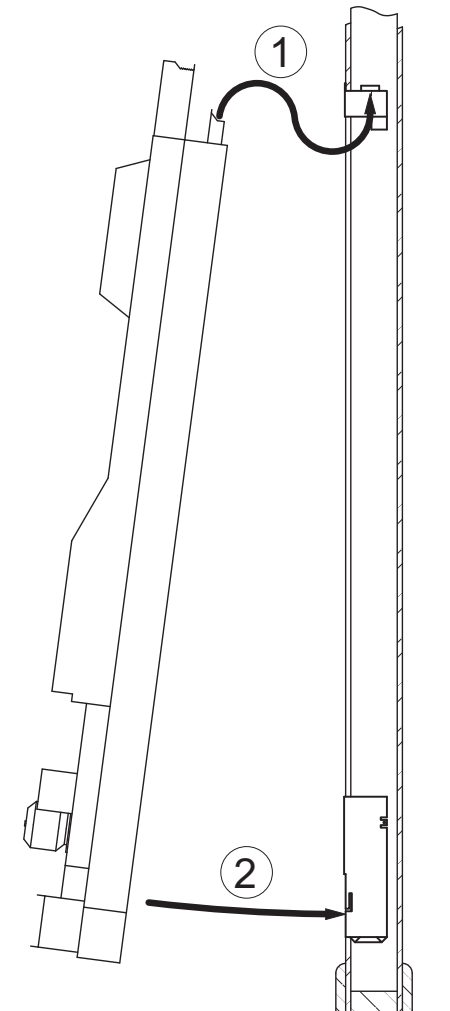
**WALL OPENING**

- **HEIGHT:** 1650mm - BOTTOM EDGE 100 - 200mm FROM FLOOR
- **WIDTH:** 405 to 415mm
- Remove the section of wall frame top plate from between the studs and fit the HEADER PLATE supplied with the flue kit.
- Fit top and bottom mounting brackets as shown - brackets and mounting screws are included with the heater.

- Install the flue system in accordance with instructions contained in the flue kit.
- If a rear register is required, fit the components in accordance with instructions contained in the rear register kit before fitting the heater into the wall - ENSURE THAT A SUITABLE VENTILATION OPENING IS PROVIDED AS SPECIFIED IN THE REAR REGISTER KIT.
- Fit the heater onto the mounting brackets by sliding the flue spigot at the top of the heater up through the top mounting bracket, push into wall cavity at bottom and lower onto bottom mounting brackets - ENSURE THAT THE HEATER IS RESTING ON BOTH BOTTOM MOUNTING BRACKETS. Screw side flange of heater to bottom mounting bracket at each side to secure heater.



Top and bottom mounting brackets installed into wall cavity

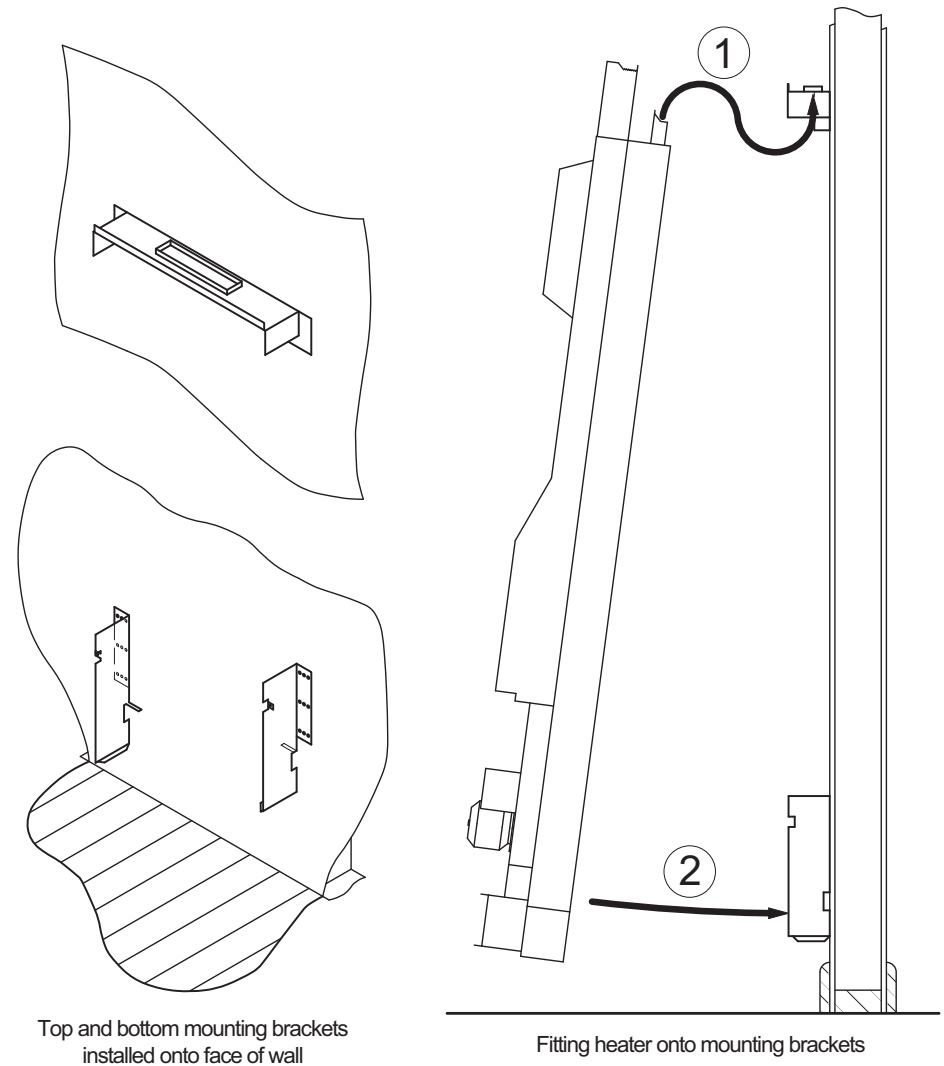
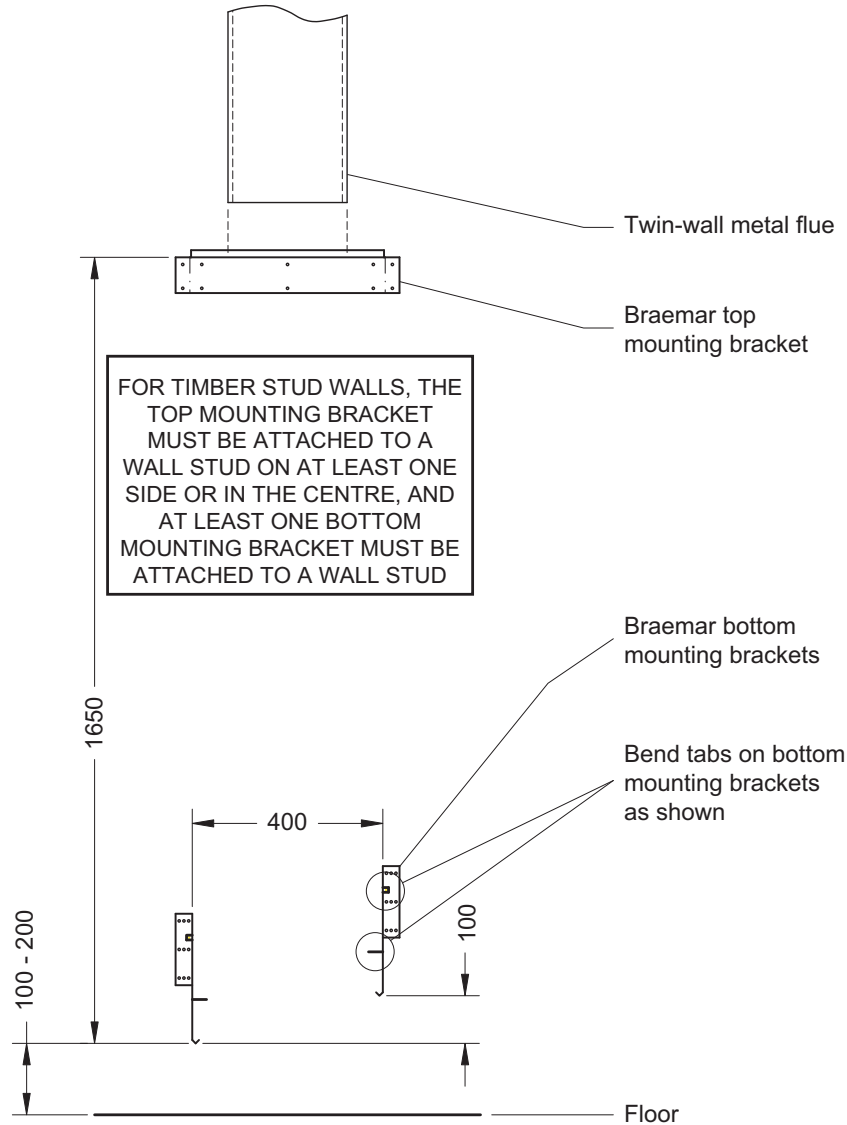


Fitting heater onto mounting brackets

**CHECK**

- The heater may be installed onto a plasterboard/timber stud wall, or a masonry wall.
- Select a suitable location between wall studs complying with requirements set out on page 3 of this manual.
- Fit top and bottom mounting brackets as shown - brackets and mounting screws are included with the heater.

- Install the flue system in accordance with instructions contained in the flue kit.
- If a rear register is required, fit the components in accordance with instructions contained in the rear register kit before fitting the heater into the wall - ENSURE THAT A SUITABLE VENTILATION OPENING IS PROVIDED AS SPECIFIED IN THE REAR REGISTER KIT.
- Fit the heater onto the mounting brackets by sliding the flue spigot at the top of the heater up through the top mounting bracket, push into wall at bottom and lower onto bottom mounting brackets - ENSURE THAT THE HEATER IS RESTING ON BOTH BOTTOM MOUNTING BRACKETS. Screw side flange of heater to bottom mounting bracket at each side to secure heater.
- Fit the flue cover components in accordance with instructions contained in the console & flue cover kit. The console sides can also be fitted to the front cover at this stage.



**GENERAL**

- The Braemar WF2000 wall furnace is suitable for replacement of a wide range of common existing wall furnaces without modification of the wall opening, and with minimal or no modification to the existing flue system (provided the flue system is satisfactory as specified under "Flue System" on page 3 of this manual).
- The Braemar WF2000 wall furnace is NOT suitable for replacement of fully-recessed wall furnaces that are installed into a double-brick wall.

**IMPORTANT**

- The 30 MJ/hr wall furnace is intended for domestic applications and replacement of older wall furnaces. Due to its higher thermal efficiency and improved air distribution, it is suitable for replacement of older 40 MJ/hr models.
- The 40 MJ/hr wall furnace is suitable for heating very large areas and is not generally recommended for normal domestic applications due to the higher air flow rates.

**INSTALLATION**

- Remove the existing wall furnace.
- Remove the existing mounting brackets.
- Fit the Braemar mounting brackets supplied with the heater as per the dimensions given on page 4 or 5 of this manual.
- Complete the heater installation as per a new installation.
- Note that if the existing flue system is to be used it must comply with the current requirements of AS5601 "Gas installations".
- The following table details kits that are available to assist in replacing an existing wall furnace and identifies kit requirements for MOST common replacements.

**INSTALLATION KITS FOR COMMON REPLACEMENTS**

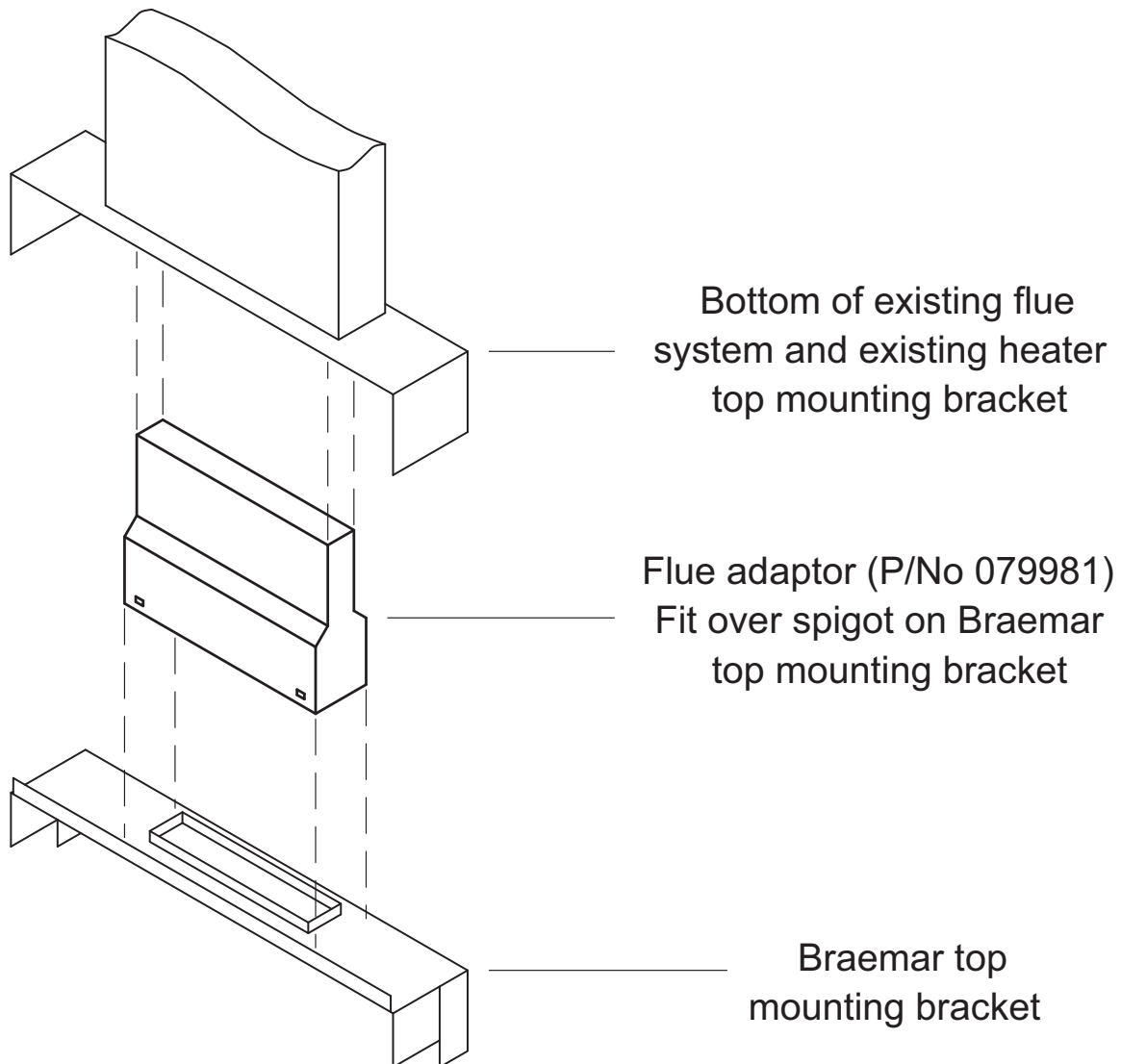
Model being replaced	Kit Application		
	Flue adaptor kit (079981)	Flue extension kit (079943)	In-fill panel kit (085135)
Braemar D11/D12	Kit not required	Kit not required	Kit not required
Braemar D45/D55	Kit not required	Kit not required	Yes*
Vulcan Series 20/22	Yes	Kit not required	Kit not required
Vulcan Quasar	Yes	Yes	Yes*
IXL 10862	Yes	Yes	Kit not required
Convair Finnesse	Yes	Yes	Kit not required

\* Required for inbuilt installations only

- Pages 7, 8 and 9 of this manual describe the installation of the above kits.

**FLUE ADAPTOR KIT (P/No 079981)**

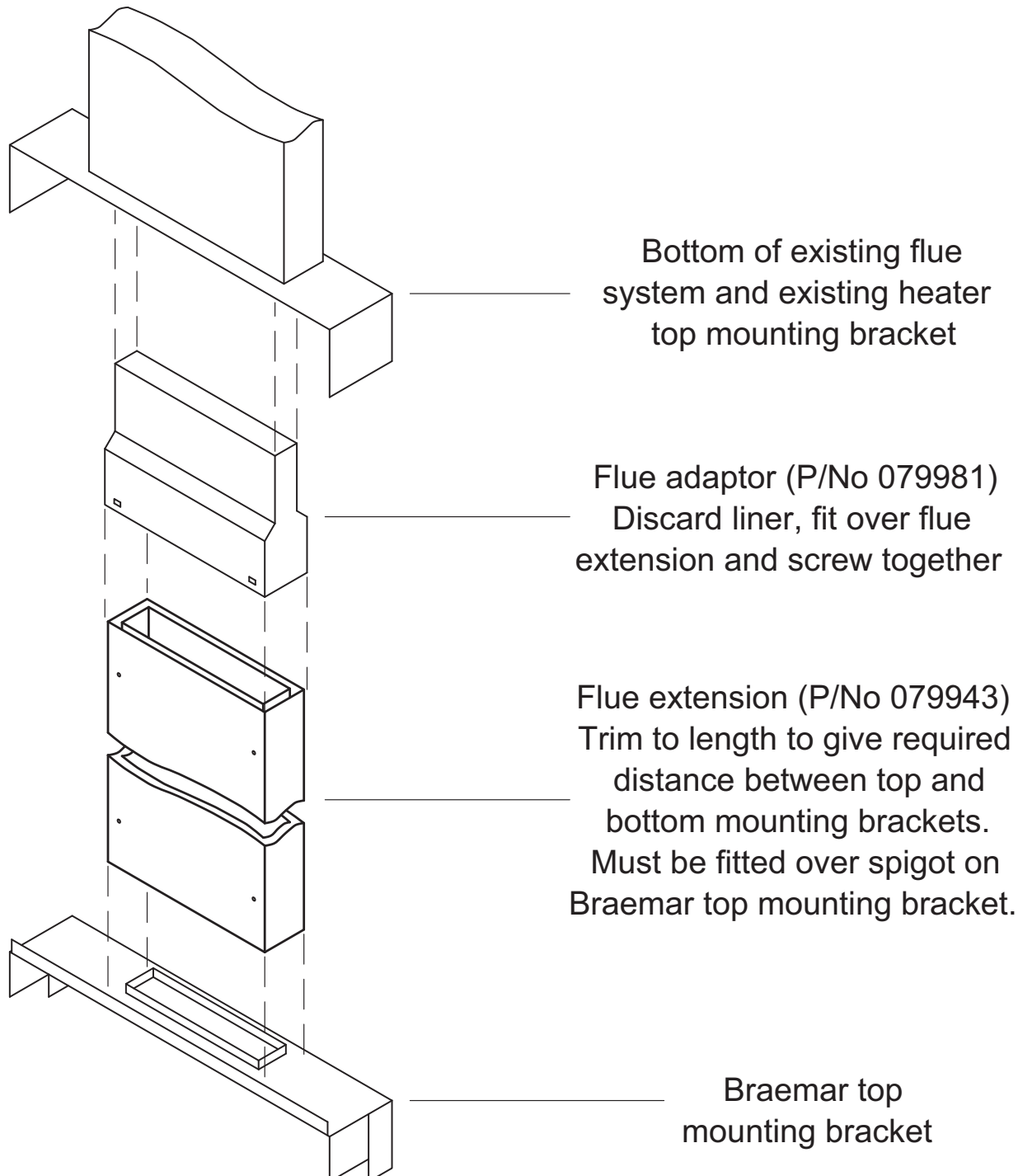
- The flue adaptor is used to connect between the flue spigot on the top of the Braemar WF2000 and the bottom of the existing flue system to allow the WF2000 to be installed at the correct height for some replacement installations, and to enable the use of the existing flue system (note that if the existing flue system is to be used it must comply with the current requirements of AS5601 "Gas installations").
- Fit the flue adaptor into the bottom of the existing flue before fitting the Braemar top mounting bracket. The location of the top and bottom mounting brackets must comply with details given on page 4 or 5 of this manual.





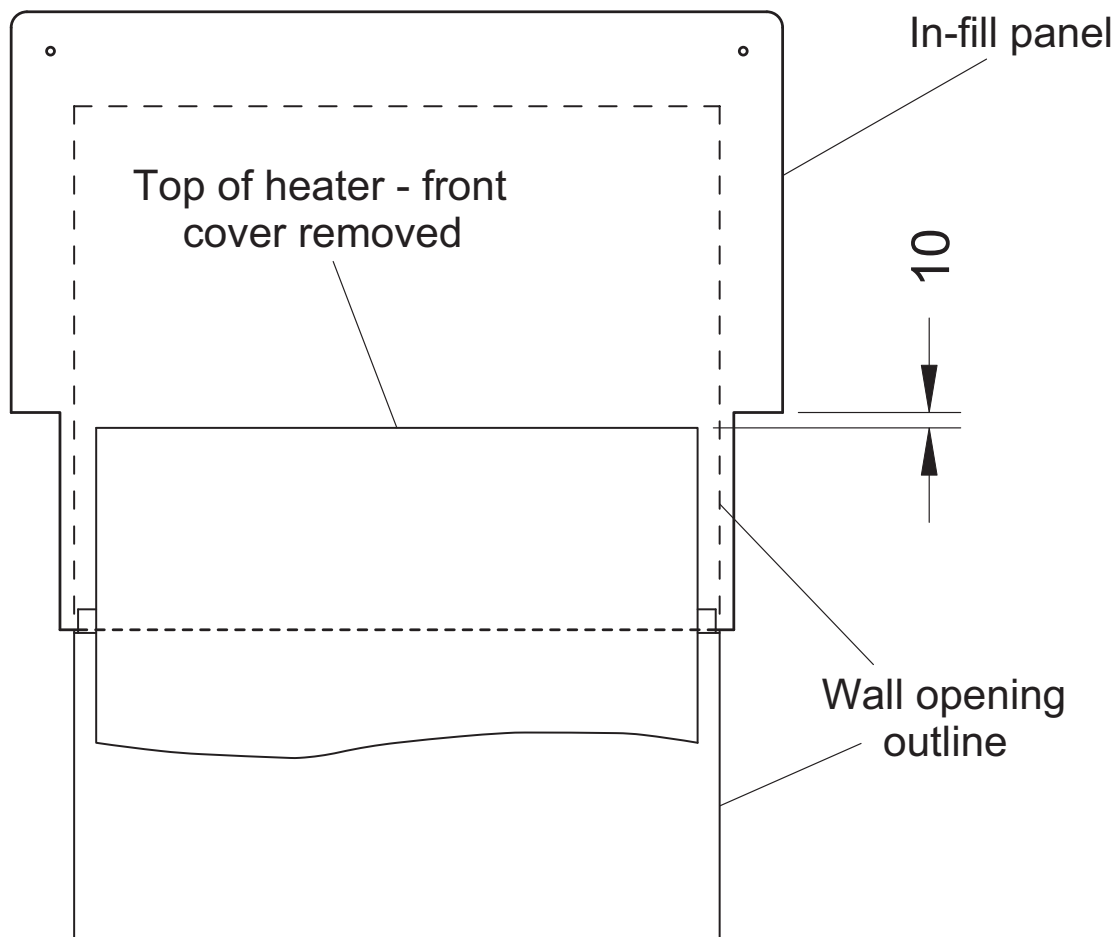
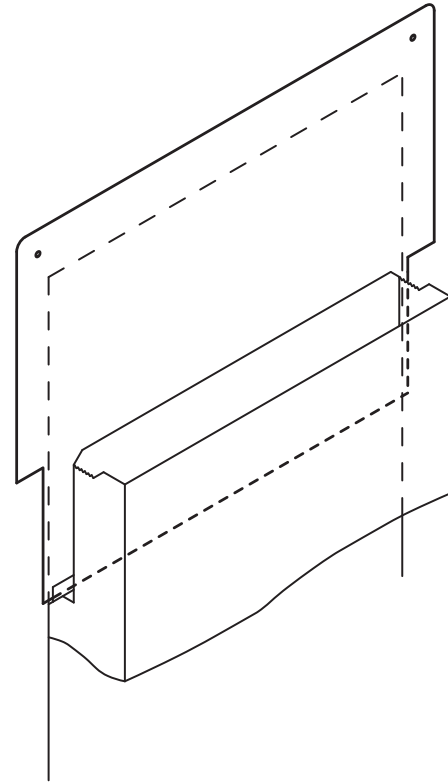
**FLUE EXTENSION KIT (P/No 079943)**

- The twin-skin flue extension is used in conjunction with the flue adaptor to connect between the flue spigot on the top of the Braemar WF2000 and the bottom of the existing flue system to allow the WF2000 to be installed at the correct height for some replacement installations, and to enable the use of the existing flue system (note that if the existing flue system is to be used it must comply with the current requirements of AS5601 "Gas installations").
- Remove and discard the liner from the flue adaptor.
- Fit the flue adaptor onto the flue extension.
- Fit the flue adaptor and flue extension into the bottom of the existing flue before fitting the Braemar top mounting bracket. The location of the top and bottom mounting brackets must comply with details given on page 4 or 5 of this manual. Trim the flue extension to length if required.



**IN-FILL PANEL KIT (P/No 085135)**

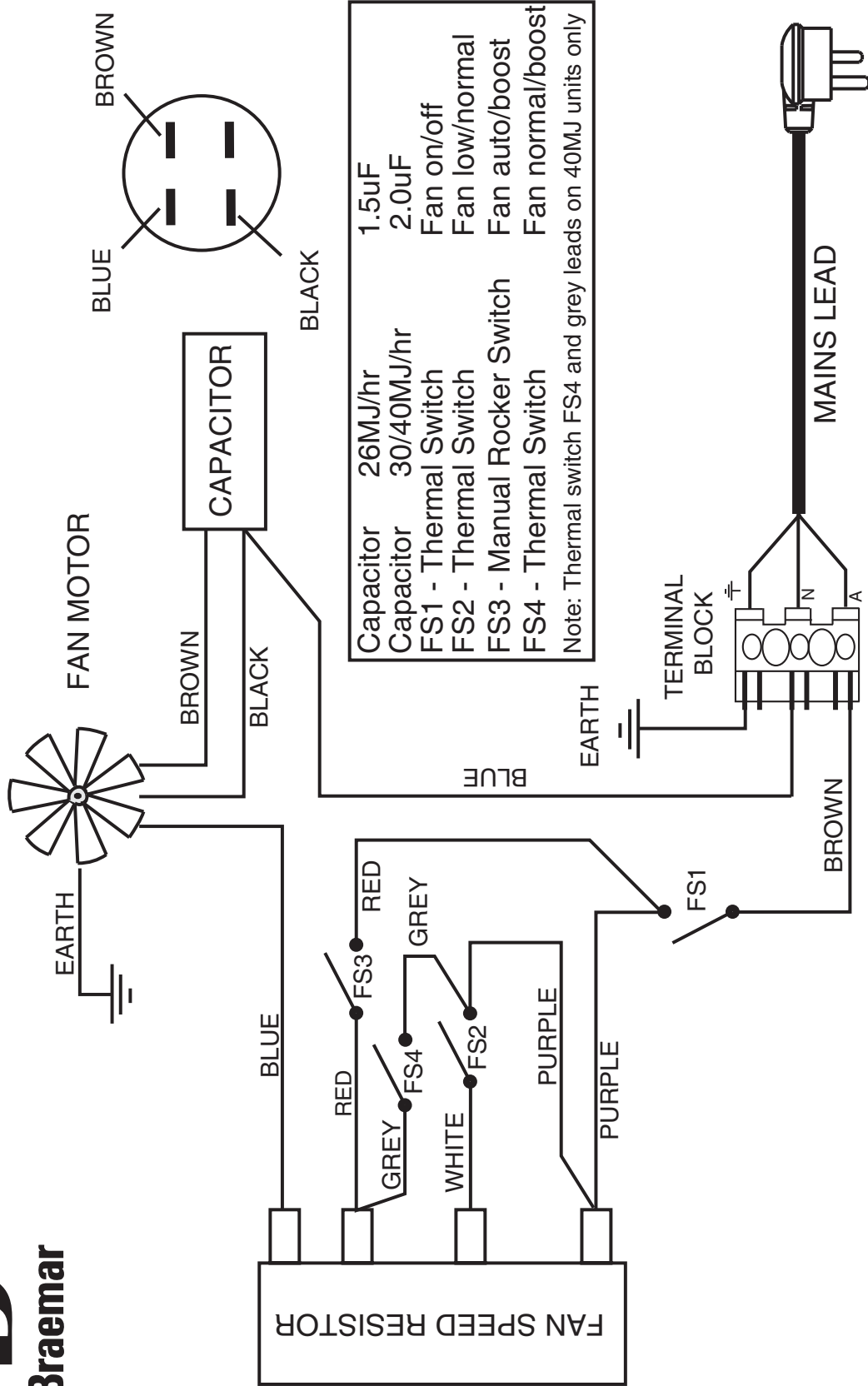
- The in-fill panel kit is used to cover the existing wall opening of wall markings when replacing some older and taller heaters.
- Fit the in-fill panel after the heater is fitted onto the mounting brackets as shown below.
- Attach the in-fill panel to the wall using screws to suit the wall type - screws to suit plaster board, timber or masonry walls are supplied in the in-fill panel kit).
- Fit the screws through the snap-cap base. Clip the snap-cap cover to the base after fitting the screws to cover the screw heads.



WF2000 WIRING DIAGRAM



**Braemar**



Capacitor	26MJ/hr	1.5uF
Capacitor	30/40MJ/hr	2.0uF
FS1 - Thermal Switch		Fan on/off
FS2 - Thermal Switch		Fan low/normal
FS3 - Manual Rocker Switch		Fan auto/boost
FS4 - Thermal Switch		Fan normal/boost

Note: Thermal switch FS4 and grey leads on 40MJ units only

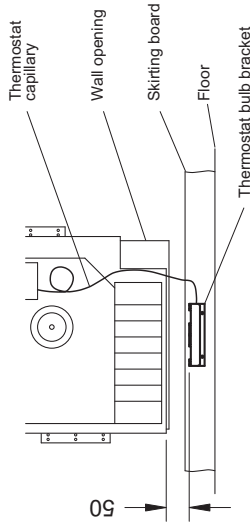
**WARNING**  
**KEEP CLEAR OF FAN MOTOR**  
**IT WILL START AUTOMATICALLY WHEN THE HEATER IS WARM ENOUGH**

**CONNECT GAS AND ELECTRICITY**

- Connect the gas supply to the inlet fitting on the gas valve. The fitting on the valve is 1/2" compression in accordance with section 6 of AS3688.
- Check for and rectify any gas leaks in accordance with AS5601 'Gas Installations' prior to any further commissioning.
- Connect the 3-pin plug to a suitable 240Vac 50Hz power outlet.

**FIT THE THERMOSTAT BRACKET**

- Carefully un-coil enough of the thermostat bulb capillary line to enable the thermostat bracket to be fitted to the wall approximately 50mm below the bottom of the heater.
- Screw the thermostat bracket to the wall or skirting board 50mm below the bottom of the heater with the thermostat bulb horizontal and in line with the heater centreline.



**SET THE GAS PRESSURE (NATURAL GAS MODELS)**

- Remove the burner pressure test-point screw and connect manometer - UPPER TEST POINT ON LEFT HAND SIDE OF GAS VALVE.



**BURNER PRESSURE TEST POINT**  
(Use 8mm spanner or blade screwdriver)

**INLET PRESSURE TEST POINT**

**SET THE GAS PRESSURE (Continued)**

- Light the pilot and main burner following the "Owners Operating Instructions" supplied with the heater. Set the gas control to 7.
- Check burner pressure at burner pressure test point - adjust to 0.90 kPa (if required) using regulator adjustment on right hand side of gas valve.

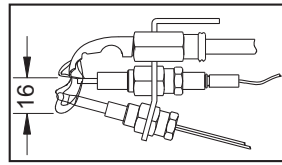


**REGULATOR ADJUSTMENT SCREW**

**CLOCKWISE: Increase pressure**  
**ANTI-CLOCKWISE: Decrease pressure**

**CHECK PILOT OPERATION**

- With the pilot only running check that the pilot flame is approximately as shown below.
- It may be necessary to increase or decrease the pilot rate to suit different supply pressure areas.



**NORMAL PILOT FLAME**



**PILOT ADJUSTMENT SCREW**

**CLOCKWISE: Decrease**  
**ANTI-CLOCKWISE: Increase**

**CHECK ROOM FAN OPERATION**

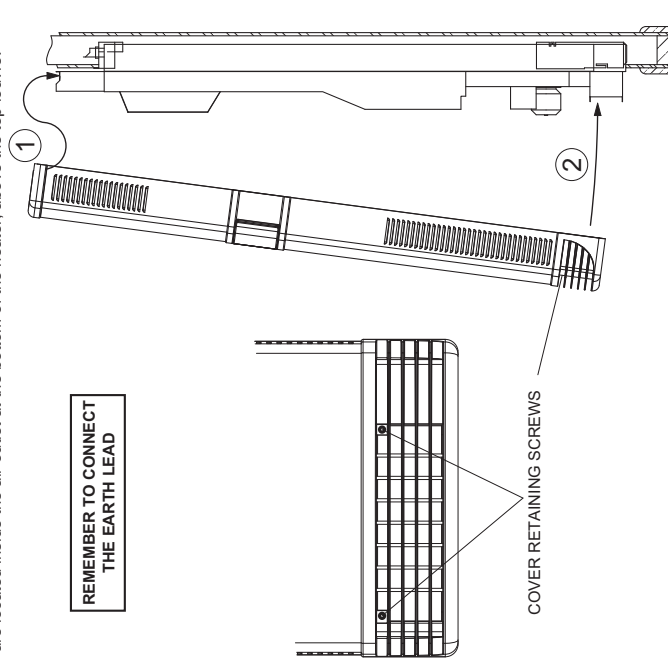
- Light the pilot and main burner and set the control to 7. Set the fan switch to 'Auto'. The fan should start on low approximately 1-2 minutes after the main burner is ignited.
- Allow the unit to warm up and check that the fan increases to its 'normal' speed. This may take a few minutes - the actual time will depend on room temperature.
- Switch the fan to 'boost' and check that the fan speed increases.
- Turn the gas control back to the 'pilot' position.

**SET THE AIR OUTLET SIDEWAYS ADJUSTMENT VANES**

- Vertical vanes are fitted inside the air outlet at the bottom of the heater. These allow the sideways spread of the heated air jet to be adjusted to suit each installation.
- Adjust the vanes to take account of room shape, furniture positions, and normally occupied zones of the room.

**FIT THE FRONT COVER**

- Stand the cover on the right hand side of the heater and **CONNECT THE EARTH LEAD FROM THE COVER TO THE TAB AT THE TOP RIGHT HAND SIDE OF THE HEATER.**
- Hook the rear edge of the front cover top panel over the top of the heater so that the notches engage on the serrations on each side of the heater - **TAKE CARE NOT TO DISLODGE THE EARTH LEAD.**
- Push the cover in at the bottom to engage over the air outlet and push back against the wall.
- Fit the cover retaining screws (2) to hold the cover in against the heater and the wall - these are located inside the air outlet at the bottom of the heater, above the top louvre.



**SELECT SUITABLE LOCATION**

- Room layout
- Wall stud location/clearance
- Gas and electricity available
- Flue clearances OK, no obstructions

**UNPACK HEATER**

- Remove plastic film
- Remove 2 transit screws from top rear of cover
- Remove cover retaining screws from bottom (above top louvre inside air outlet)

**FIT MOUNTING BRACKETS**

- Remove existing mounting brackets
- Fit bottom mounting brackets (right hand bracket 100mm higher than left)
- Fit top mounting bracket (fit flue extension/flue adaptor if required for connection to existing flue system)

**FIT FLUE SYSTEM**

- Must comply with current requirements of AS5601

**FIT FLUE COVER COMPONENTS (console installation only)**

- Refer instructions in Console & Flue Cover Kit

**FIT REAR REGISTER COMPONENTS**

- Refer instructions in Rear Register Kit

**FIT HEATER ONTO MOUNTING BRACKETS**

- Slide heater flue spigot up through top mounting bracket
- Lower bottom of heater onto BOTH bottom mounting brackets
- Fit thermostat bracket to wall or skirting board 50mm below heater

**CONNECT GAS AND ELECTRICITY**

- Gas inlet fitting - 1/2" compression fitting on gas valve
- Power point within 900mm from left or 400mm from right
- DO NOT COIL EXCESS POWER LEAD INSIDE APPLIANCE

**COMMISSIONING**

- Check for gas leaks
- Check gas pressure
- Check ignition and pilot flame
- Check room fan operation

**FIT FRONT COVER**

- Fit console sides and top bracket (console installations only)
- Hook on at top, push in at bottom - CONNECT EARTH LEAD
- Fit cover retaining screws (above top louvre inside air outlet)

**INSTRUCT USER ON HEATER OPERATION**

FAULT	POSSIBLE CAUSES	REMEDY
Pilot will not light	Air in gas line.	Purge gas line.
	Blockage in gas line.	Check and clear gas supply line.
	Insufficient gas supply pressure.	Check supply pressure at gas valve inlet pressure test point - increase supply pressure to specified value with main burner running: - Natural Gas: 1.13 kPa - Propane: 2.75 kPa
	No spark.	Check ignition lead is connected and not damaged. Check ignition electrode position.
Pilot goes out when main burner is turned on.	Insufficient gas supply pressure.	See above.
Main burner will not ignite.	Low pilot flame.	Check and adjust pilot flame (see 'Commissioning').
Cannot achieve specified test point pressure.	Insufficient gas supply pressure.	See above.
Room fan does not start.	No electricity supply.	Check/connect electricity supply.
	Wiring dislodged.	Check/re-connect wiring.
	Room fan pushed in and jammed during transport.	Check room fan is free to rotate. Gently pull motor forwards to clear fan wheel from internal rear panels if necessary.
Fan will not switch from low to normal.	Test point pressure too low.	Check test point pressure - adjust if necessary (see 'Specifications').
Fan noisy.	Boost selected at manual fan switch.	Select 'Auto' at manual fan switch.
Heater turns off before room warms up.	Control set too low.	Increase setting on control.
	Thermostat bulb too close to bottom of heater.	Re-locate thermostat bulb bracket (see 'Commissioning').
	Hot air recirculation.	Check/re-locate furniture to ensure clear path for heated air jet. Check for air leakage from rear register components if fitted.
Objectionable odour when heater is running (see note below).	Flue cowl pushed on too far.	Check flue cowl installation - re-fit correctly if necessary.
	Flue cowl too close to roof.	Check flue cowl location - must be at least 500mm from roof.

Note: Some odour from a new heater is normal - this will generally disappear after a few hours of operation at maximum gas rate.

SERVICE  
1300 650 644

TECHNICAL SUPPORT  
1300 650 399

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