



Installation Instructions
WFBL Deluxe Wall Furnace
4720001, 4720006, 4720011



Please read this important manual before commencing installation. It is the responsibility of the installer that all statutory and regulator requirements are met in conjunction with these installation instructions. Failure to do so will void all guarantees and warranty beyond statutory and legal requirements.

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In the interest of continued product improvement Climate Technologies reserves the right to alter specifications without notice. E.&O.E.

Introduction

CONDITIONS

Installation of the Wall Furnace must be carried out by an authorised person in accordance with:-

- The manufacturer's instruction.
- Building regulations
- Electrical supply authority regulations
- Australian Standard for Gas Installations AS5601 (AG601).

IMPORTANT NOTICE TO AGENTS, INSTALLERS AND PURCHASERS

Climate Technologies manufactures appliances of World-Class standard. It's important that you're aware that problems can occur if these appliances are not properly installed. There are standards covering installation set down by Standards Australia AS5601 (AG601). The guidelines for installation in this document are in accordance with those standards. If an appropriately qualified person is not used to install the equipment or if it's not installed according to the guidelines, then Climate Technologies will not accept responsibility for any problems that occur as a result.

Relevant certificates of compliance for the installation must be issued. Service may be refused or warranty may be void and your household insurance may be affected if the installation does not meet state relevant compliance.

INCORRECT COMMISSIONING

If a Warranty Service Call is required because the system has been incorrectly installed or commissioned the cost of the service call will be charged to the customer or the installer for the installation.



SAFETY & ACCESSIBILITY RESPONSIBILITY

The manufacturer and its agents reserve the right to refuse service unless the safety and accessibility to the unit can be guaranteed.

For Safety Purposes It Is Mandatory For a Flue To Be Fitted To All Pyrox Wall Furnace Installations Taking Flue Gases External To Atmosphere.

This product exceeds 22Kg in weight. Use handling equipment or safe lifting practice to maneuver.

PLEASE READ THESE SAFETY PRECAUTIONS

- Do not connect your heating appliance to any power point that hasn't been checked by a qualified electrician to ensure correct earthing and polarity (This should be arranged by your installer).
- Do not use any type of gas other than that specified for the heating appliance. Each Wall Furnace is factory set to operate on a particular type of gas.
- Do not place any articles in front of or on the sides of the Wall Furnace.
- Do not place any articles on or against your heating appliance.
- Do not use or store flammable materials near this appliance.
- Do not spray aerosols in the vicinity of this appliance while it is in operation.

Please read the correct sections of this guide and make sure you understand them before commencing the installation.

Unit Location

IMPORTANT

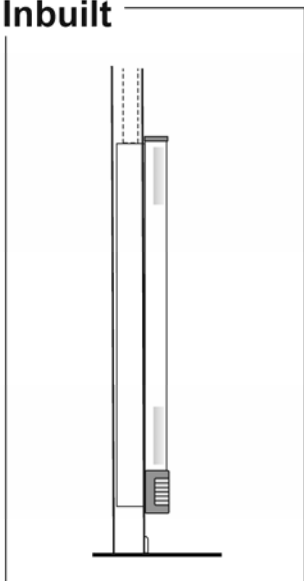
Do not install the heater in a location where combustible vapors from flammable or combustible liquids may be ignited.

NOTE: NOT INTENDED FOR FIRE PLACE INSERT.

UNIT TYPES

Consider the following when choosing location for the heater: There are 2 types of installation that may effect the heater location:

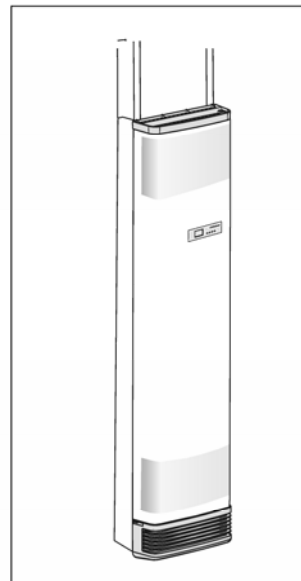
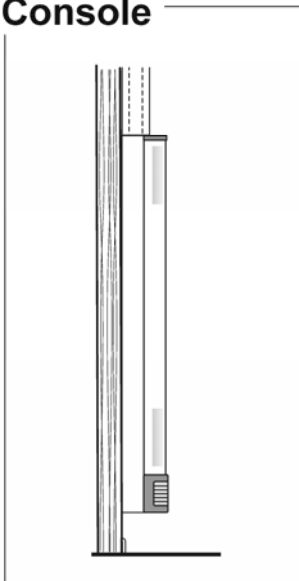
Inbuilt



- Inbuilt units are semi recessed into the wall cavity.
- Where structure is brick veneer and the wall cavity is 90mm or greater, the flue is concealed within the cavity.
- With double brick walls or where cavity depths are less than 90mm a flue screen will have to be fitted (optional accessory).

- Surface mounted on any wall face.
- Twin skin flue located on the surface of the wall hidden by a flue screen.
- Standard flue screen will suit ceiling heights up to 3 metres. Optional extensions are available for greater than 3 metres.
- The console unit is made up with an inbuilt unit and a console kit (optional accessory).

Console



Unit Location

ROOM LOCATION

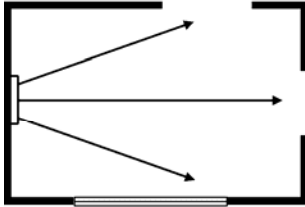


Fig. 1

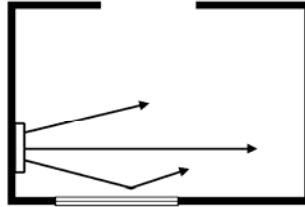


Fig. 2

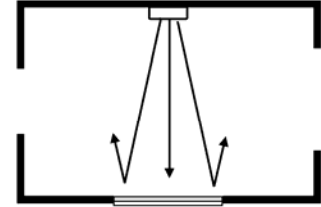
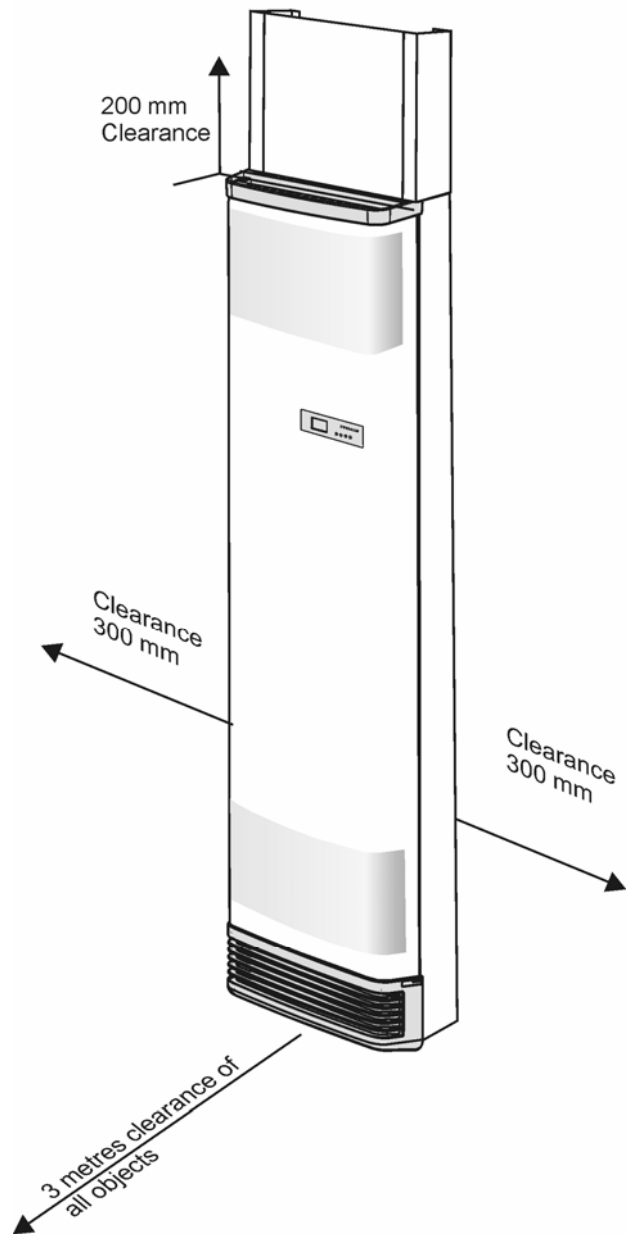


Fig. 3

- Face the heater down the room for maximum performance (fig.1)
- Corner placement restricts air movement, allows cold spots (fig.2)
- Long wall placement creates hot spot center and cold corners (fig.3)
- Ensure drapes, doors, etc, cannot cross heater face.
- Ensure large pieces of furniture are not placed in front of the heater.
- Unit Room Space Clearances
 - √ Sides: - Minimum 300mm or greater of wall / mounting surface must be maintained on each side of the unit.
 - √ Front: - Minimum clearance 3 metres must be maintained to the opposite wall.
 - √ Top: - Minimum of 200mm or greater must be maintained.
- Room must be adequately ventilated. Refer Standard AS5601 (AG601)



Wall Preparation

INBUILT UNITS

Mounting Brackets – Unit Upgrades

IMPORTANT NOTE: If an existing wall furnace is being replaced, use the new mounting brackets provided with the unit.

Preparation of Timber Framed / Brick Veneer Walls. See Fig.1

1. Minimum wall depth required including veneer is **90mm**
2. Establish datum line a minimum of **130mm** from the floor or **65mm** above the skirting board if the skirting board is greater than 65mm.
3. Cut a frame opening 1980mm high from the datum line and 410 – 430mm wide. Locate wall studs and noggins. Check for pipes and electrical cables and flue obstructions.
4. Provide a gas connection at the lower right hand side of opening – refer section Gas & Electrical this document.
5. Cut away top wall plate and immediate noggins.
6. Unit header and base mounting brackets are located inside the unit. To get the brackets:-
 - 6.1. Remove the 2 cabinet top retaining screws. See Fig. 2
 - 6.2. Lift the cabinet up and out of the bottom plastic moulding.
 - 6.3. Disconnect the thermostat loom.
 - 6.4. Disconnect the cabinet earth wire.
7. Bend ends of the base plate to fit stud opening - see Fig. 3. Position plate and nail in level with datum line and with folded bottom edge flush with the veneer wall surface.
8. Bend ends of the header plate to fit stud opening. Position header plate, locating the giprock / veneer in the header bracket locator and nail in level with datum line. The folded edge must be flush with the veneer wall surface.

Incorrect application of this bracket will contravene AS5601 code.

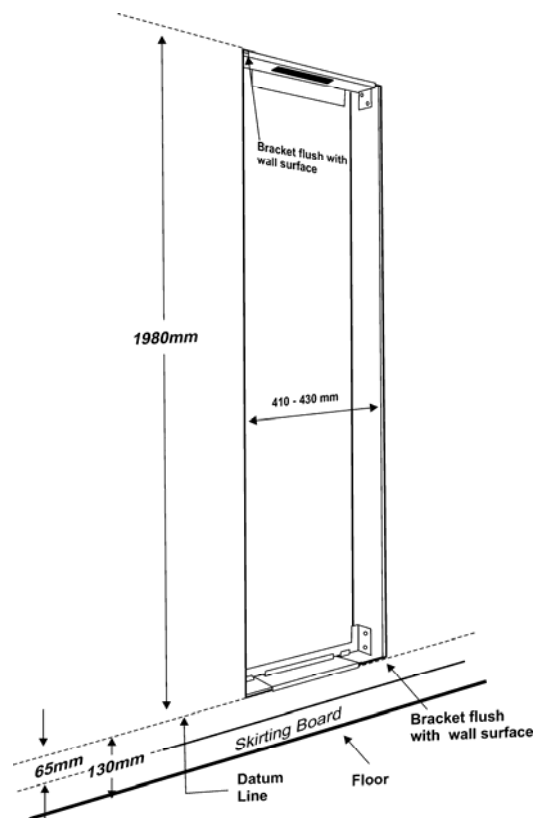


Fig. 1

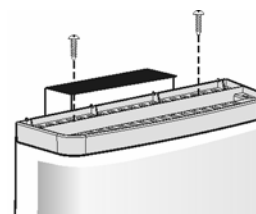


Fig. 2

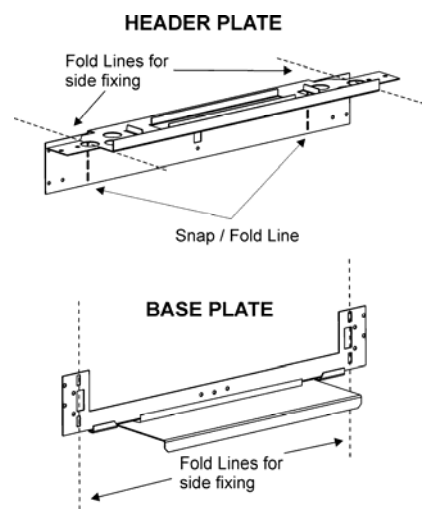


Fig. 3

Wall Preparation

CONSOLE UNITS

Mounting Brackets- Unit Upgrades

IMPORTANT NOTE: If an existing wall furnace is being replaced, use the new mounting brackets provided with the unit.

Preparation of Timer Framed Walls - see Fig.1

1. Establish datum line a minimum of **100mm** from the floor or **65mm** above the skirt board if the skirting board is greater than 65mm.
2. Position the bottom the base plate with the datum line and fix into position over 2 studs or centered on one stud.
3. Provide a gas connection at the lower right hand side of opening – refer to section Gas & Electrical this document.
4. Cut away ceiling cornice to suit flue screen size.
5. Cut ceiling penetration hole to suit the twin skin flue.
6. Header and base plate brackets are located inside the unit. To get the brackets:-
 - 6.1. Remove the cabinet top retaining screws – see fig. 3
 - 6.2. Lift the cabinet up and out of the bottom plastic moulding.
 - 6.3. Disconnect the thermostat loom
 - 6.4. Disconnect the cabinet earth lead.
7. Fit the base plate to the wall surface, securing to the wall studs level with the datum line and central to the location of the heater. Check for flue obstruction & clearances with roof or ceiling timbers.
8. Bend top tags of the header plate down to clear the inside of the front cabinet. Position header plate and nail in level with datum line and central to the location of the heater.

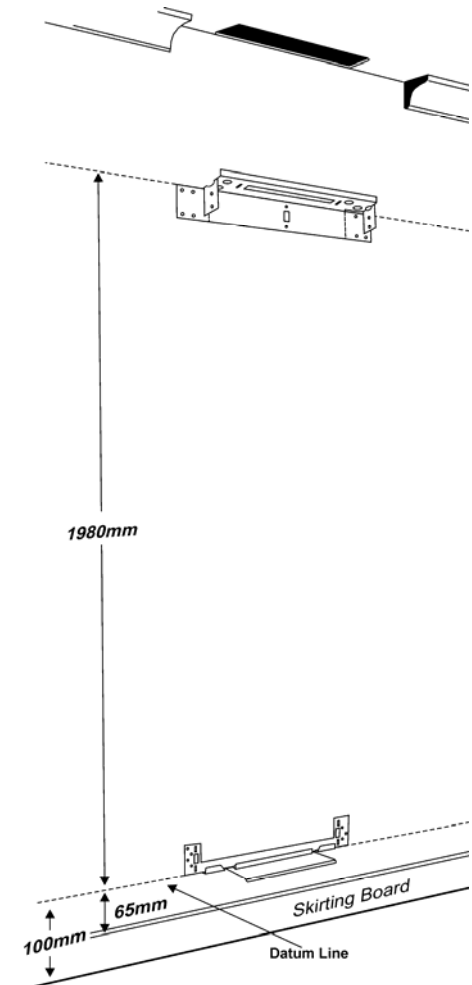


Fig. 1

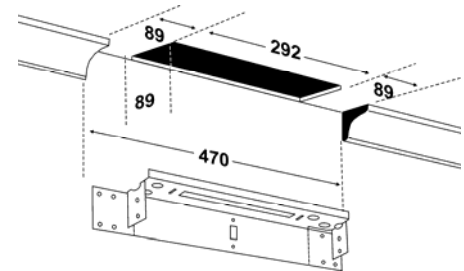


Fig. 2

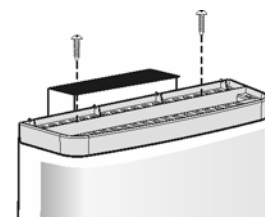


Fig. 3

Gas & Electrical
GAS
Important note

When connecting the gas supply inlet pipe to the gas valve, hold the connection nipple on the valve with a spanner while tightening the inlet pipe compression nut. This ensures the nipple is not over tightened. Climate Technologies is not responsible for a cracked gas valve casting due to over tightening during the installation. The replacement valve is therefore not covered by warranty.

1. **Natural Gas:** The connection on heater is a ½" BSP compression fitting. Flare the copper connection tube using a flare nut to connect to the unit.
2. Use gas copper pipe to AS 1432 Type B or other approved gas piping.
3. Have a licensed gas fitter install the gas supply pipe. The gas supply can be plumbed from the ceiling or from a low level either from the floor or through an outside wall depending on the installation.

Note: Ensure the gas line has been purged of any inline fragments before connecting to the gas valve. This is especially important where a new gas service has been installed.

Warranty will be voided if the gas valve is damaged with inline fragments.

4. Pipe entry to the product is approximately 150mm above the datum line. Leave around 250mm (Inbuilt) or 350mm (Console) of tail to make the connection to the gas valve.
5. A gas cock is not required for domestic application. However for commercial applications the installer must supply and fit an AGA approved ½" gas cock to suit the gas specified.

ELECTRICAL

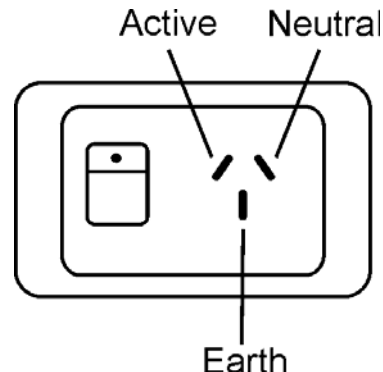
1. Have a licensed Electrician install a 10 Amp 3 pin GPO (general-purpose outlet).

Note: Ensure the polarity of the outlet is correct otherwise the flame can't be sustained and the heater won't operate.

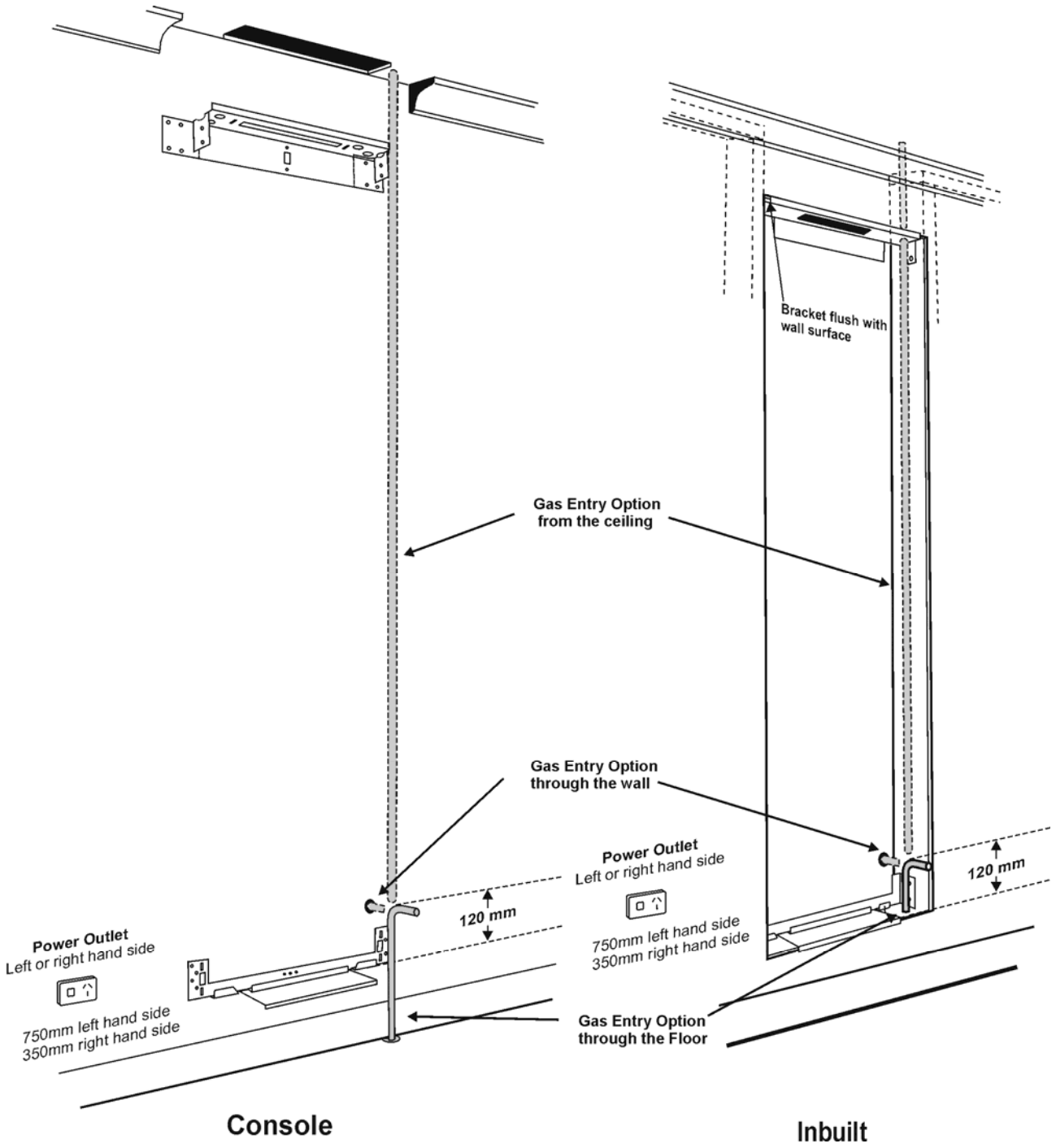
2. The GPO should be installed within 750mm of the left side or 350mm of the right side of the heater.
3. Plug the pre-wired service lead into the GPO once the installation is complete.

Note: Do not use an extension cord to reach the GPO, as this is unsafe.

Where required, have an Electrician relocate the GPO.



Gas & Electrical



Flue Installation

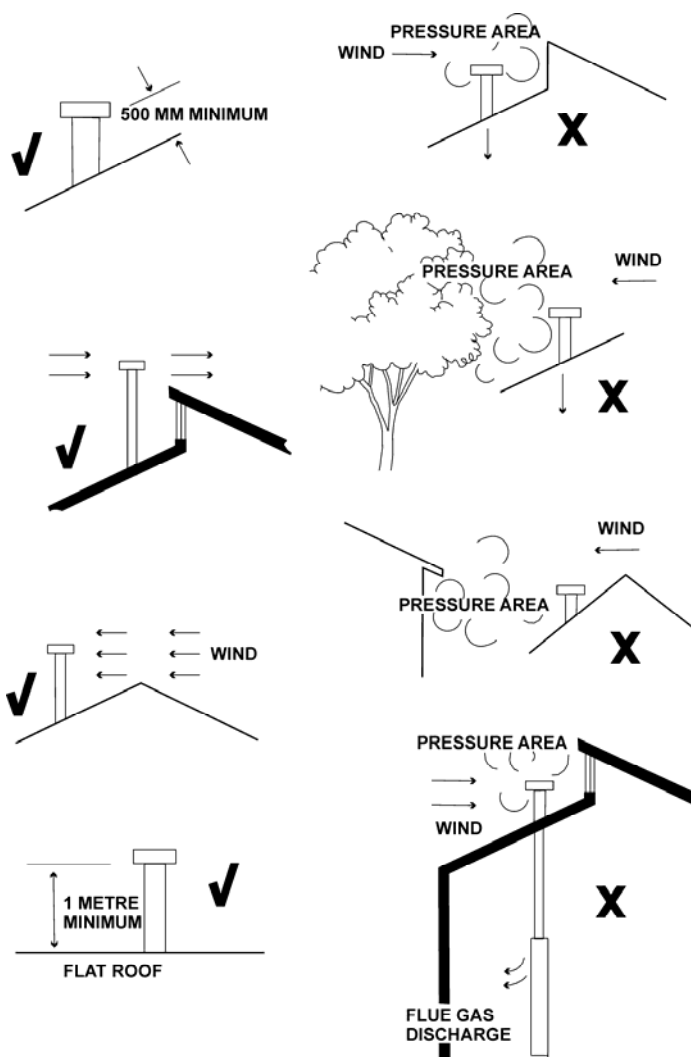
LOCATION OF RESIDENTIAL FLUE TERMINALS

The termination of a natural draught flue must be located in relation to neighboring constructions so that wind from any direction will not create down draught in the flue. See diagrams this page.

Down-Draught

Reverse flow (down-draught) in the flue occurs when pressure at the flue outlet is greater than the inside of the heater. In this condition, flue gases are discharged through the down-draught diverted into the room. This is of no consequence where occasional wind conditions cause small intermittent discharge. Excessive down-draught and resultant discharge of flue gas into living areas may cause user discomfort.

Clause 5-13.6.2 of the AS5601 gas installation standard is a minimum requirement only. It is good practice to position the flue terminal above the roof ridge line. The flue terminal must not be sited adjacent to nearby buildings, parapets or, walls which may cause pressure build up due to obstruction to free flow of wind. See diagrams this page.



FLUE INSTALLATION

For safety purposes it is mandatory for a flue, with minimum length of 600mm, to be fitted to all Pyrox wall furnace installations taking flue gases external to atmosphere.

Note: Flue lengths, diameters, vertical rises, lateral runs and all flue design principles should be in accordance with Australian Standard Gas Installations AS5601 appendix H "Flue Design"

1. Flue components must be installed in accordance with AS5601 gas installation standard and building regulations (Section 5.13 Flueing)
2. The Pyrox wall furnace must be fitted with an AGA approved twin skin flue, transition, 100 mm single skin flue and a flue cowl.
Pyrox flue kit recommended.
3. Install header plate for unit. (See section Wall Preparation)
4. Install the twin skin flue on to the header plate.

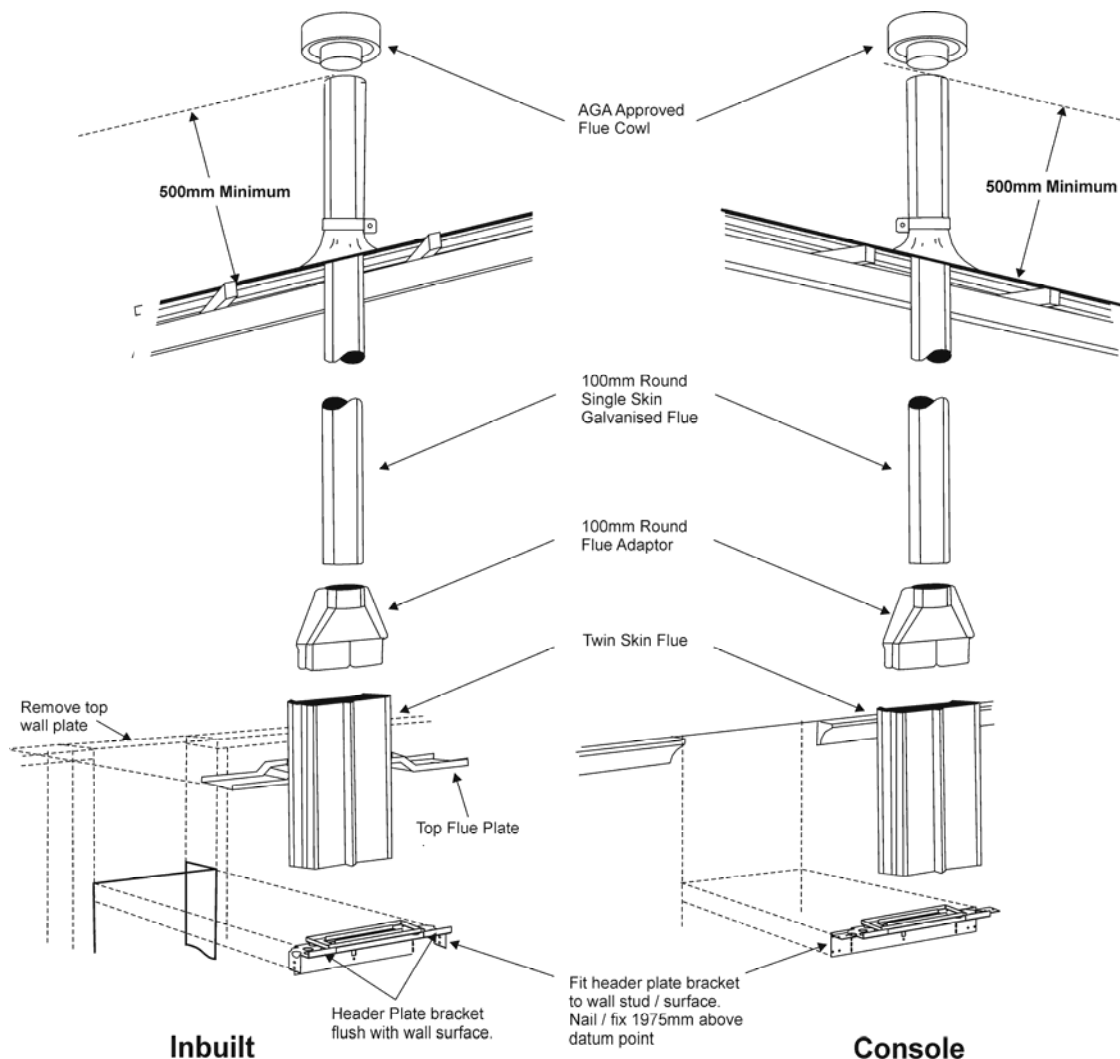
For inbuilt units fit the top plate flue support to secure the flue.

Flue Installation

5. Fit the flue adaptor to the inside inner of the twin skin flue.
6. Fit the 100mm galvanized flue pipe and fix the flue cowl to the flue pipe.
7. Install flue cowl with a minimum height of 500mm above the roof for an angled roof and 1 metre for a flat roof.
8. Ensure roof / flue flashing is secure and water proof
9. Flue heights may have to be extended to avoid down drafts. See roof examples on previous page.
10. Flue clearances to all combustible materials:
 - Single skin 25mm or greater to all combustible materials
 - Single skin 150mm or greater to all plastics and electrical cables
 - Twin Skin 10mm or greater to all combustible materials.

Please Note: Before locating the unit and flue, check for ceiling and roof timber will not obstruct flue clearances.

11. Flue angles. After a 300mm vertical distance, flues can only be angle at maximum of 45° for a maximum distance of 2 metres before resuming final vertical to atmosphere.



Unit Installation

INSTALLING THE CONSOLE HEATER

1. Install the heater assembly:
 - 1.1. Fit flue insulation over flue spigot before inserting into the header plate.
 - 1.2. Insert the flue spigot of the heater assembly into the header plate flue access / twin skin inner flue.
 - 1.3. Place the bottom of the unit onto the base plate locating it behind the retaining angle.
2. Make the gas connection using a flare and flare nut connection. See fig.1.
3. Install the console kit. See Fig.2.
 - 3.1. Fit to each side of the front panel with fastenings provided.
4. Connect the thermostat loom to the circuit board
5. Connect the cabinet earth lead
6. Commission the product as per the commissioning instructions.
7. Place front cabinet onto unit:-
 - 7.1. Fit the cabinet over the unit with the top above the locating teeth on the top of the unit and slide the cabinet down into the bottom plastic housing. (You will need to give the cabinet a slight bow for it to fit the moulding)
 - 7.2. Ensure the cabinet is fitting flush against the wall.
 - 7.3. Secure the cabinet by fixing the top of the cabinet with the 2 screws supplied. See fig.3.
8. Fit the flue screen
 - 8.1. Fit the flue screen ceiling locator to the ceiling.
 - 8.2. Cut the flue screen components to length and assemble. See fig.4
 - 8.3. Insert the flue screen into place.

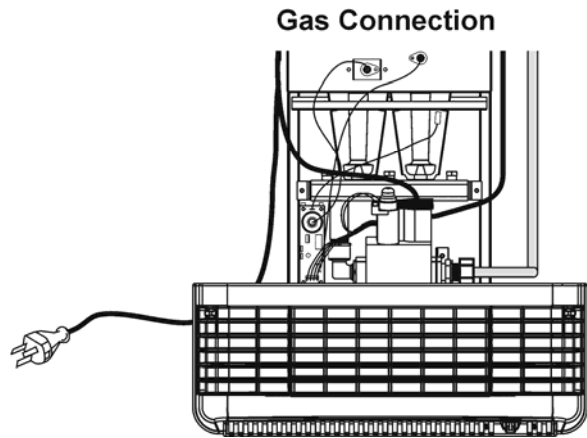
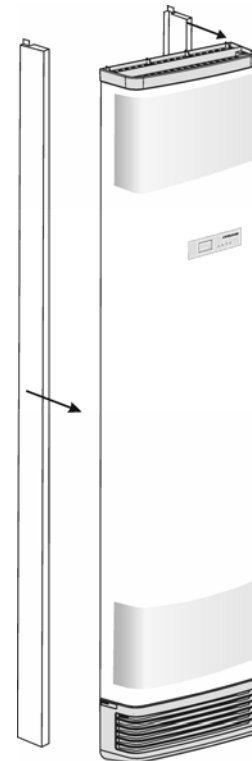


Fig. 1



**Console Kit
Infill Panels**

Fig. 2

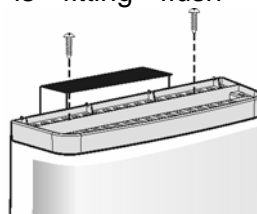
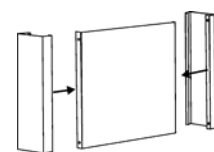


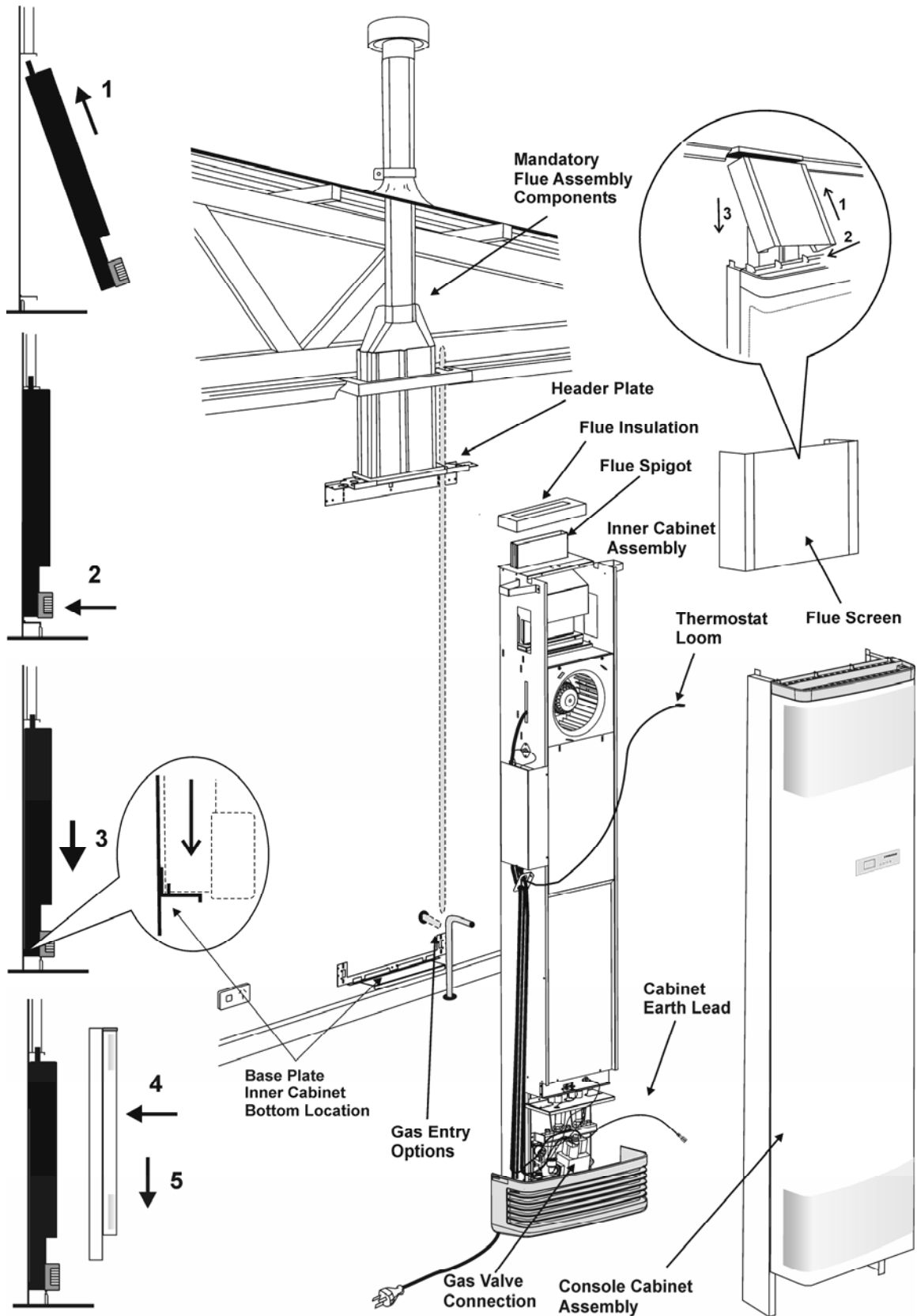
Fig. 3



Flue Screen

Fig. 4

Unit Installation



Unit Installation

INSTALLING THE INBUILT HEATER

1. Install the heater assembly:
 - 1.1. Fit flue insulation over flue spigot before inserting into the header plate
 - 1.2. Insert the flue spigot of the heater assembly into the header plate flue access / twin skin inner flue.
 - 1.3. Place the bottom of the unit onto the base plate locating it behind the retaining angle.
2. Make the gas connection using a flare and flare nut connection see fig.1.
3. Connect the thermostat loom to the circuit board
4. Connect the cabinet earth lead
5. Commission the product as per the commissioning instructions.
6. Place front cabinet onto unit:-
 - 6.1. Fit the cabinet over the unit with the top above the locating teeth on the top of the unit and slide the cabinet down into the bottom plastic housing. (You will need to give the cabinet a slight bow for it to fit the moulding)
 - 6.2. Fit the bottom of the metal cabinet into the bottom plastic housing ensuring the top is located over the metal catches.
 - 6.3. Ensure the cabinet is fitting flush against the wall All the cabinet to slide down into place with a flush fit against the wall
 - 6.4. Secure the cabinet by fixing the top of the cabinet with the 2 screws supplied. See fig.3

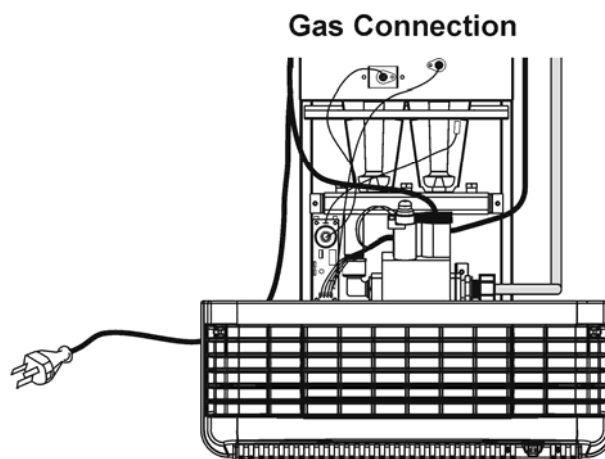


Fig. 1

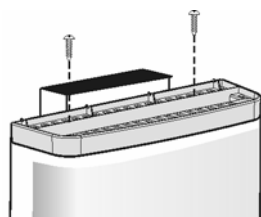
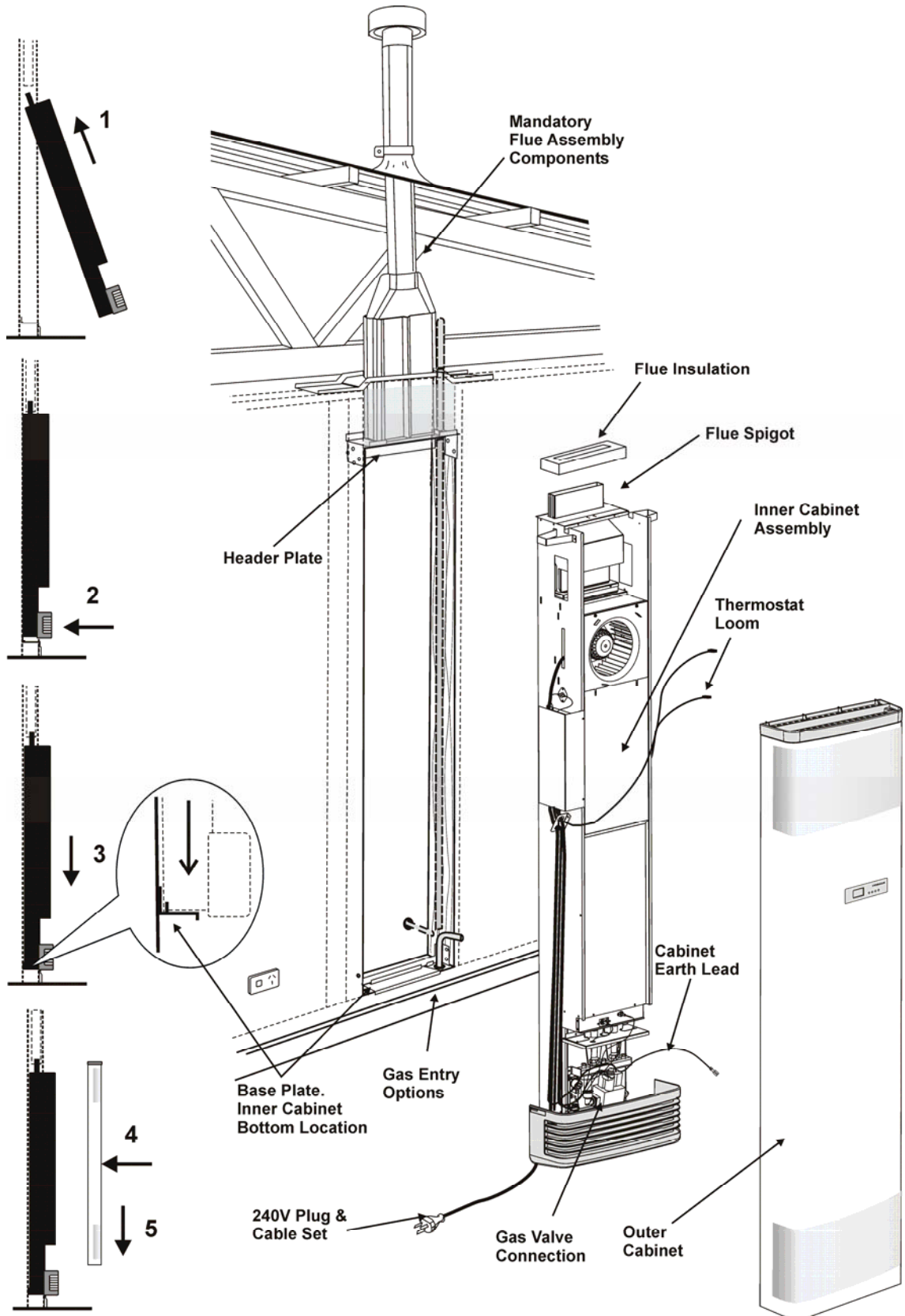


Fig. 3

Unit Installation



Unit Commissioning

BEFORE STARTING

- Check the unit is correctly and securely located in the header and base brackets.
- Check the flue connections are complete and confirm flue integrity & effectiveness. See section “Confirming flue integrity and effectiveness”.
- Check the gas has been turned on and that the line has been purged.
- Check the gas connections are complete and checked for leaks
- Check there is power at the GPO.
- Check the polarity is correct
- Check the thermostat loom is connected
- The thermostat screen should be displayed and in the OFF mode.
- Remove the protective film from the control decal

START-UP SEQUENCE

1. Press the ON / OFF button.
2. Raise the temperature to HIGH so that the heater calls for heat
3. Within 10 seconds the gas valve will open and the sparker will function. Ignition will commence on a low gas rate and move to high fire after 3- 5 seconds (if high is selected on the control)
4. Within 5 seconds the flame sensor will prove the flame.
5. The fan will start on low after a 30 second delay.
6. The fan will not move to high speed (if High is selected on the control), until the fan thermostat switch has sensed temperature rise. This may take 2 or 3 minutes.
7. The gas valve and the fan will now modulate according to the sensing of the heat thermistor and the thermostat settings.
8. Once the heater has reached the set temperature, the flame will extinguish and the fan will continue to run on low for at minimum of 60 seconds or until the fan off temperature has been reached.
9. Once the room temperature drops approximately 2°C, the heating sequence will restart.

Unit Commissioning

SETTING GAS PRESSURES

Checking the Dynamic Gas Pressure

To check dynamic gas pressure

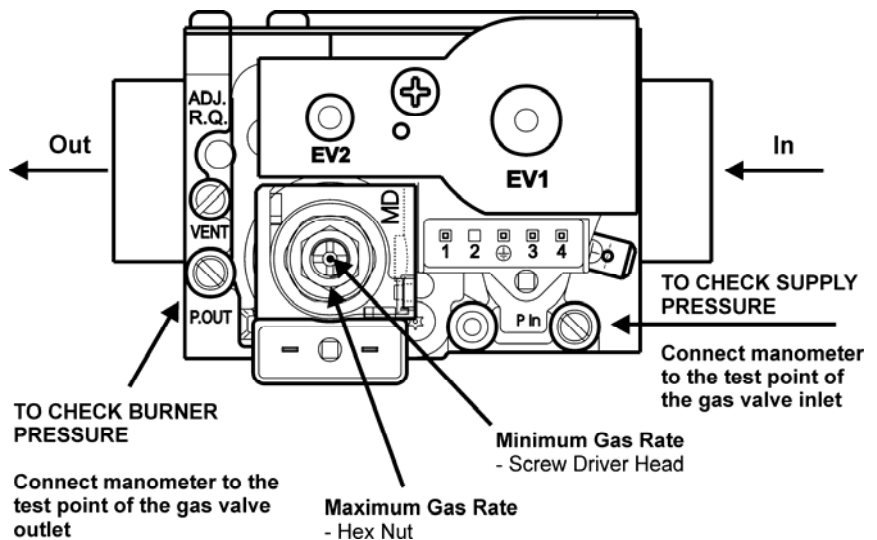
1. Loosen the test point screw "P IN"
2. Fit the manometer tube and check the reading against the stated supply pressure on the customer's supply regulator.
3. If the correct supply pressure is not available, contact the local gas authority to obtain the correct pressure.
4. Remove the manometer tube. Tighten the test point screw and check for leaks.

Burner Pressure - Modulating

Setting the burner pressure is done in 2 parts. The high pressure must always be set before the low pressure can be correctly established.

Loosen the test point screw "P OUT" and connect the manometer.

When adjusting either maximum or minimum gas rate, ensure the adjuster not being set is secured e.g. when adjusting the maximum gas rate, use a screwdriver to hold the minimum gas rate adjuster from moving.



Setting the Maximum Burner Pressure

1. To adjust the maximum burner pressure, set unit to high fan/gas using the mode key, use a spanner on the hexagon nut and adjust in small increments.
2. Screw the adjuster clockwise to increase pressure, anti-clockwise to decrease burner pressure.
3. If the heater has been running for a while, the thermistor may be turning down the gas rate. To check the full gas rate, press down the pin in the middle of the minimum gas rate screw head. You will need something the diameter of a 1/8" rivet shank.

See Technical Specification section for burner pressures

Setting the Low Burner Pressure

1. To check and or set the minimum gas rate, remove one of the black low voltage leads to the gas valve.
2. Adjust the gas rate in small increments to the specifications using a Phillips head screw driver.
3. Replace the black low voltage lead removed to the gas valve.

RETIGHTEN TEST POINT SCREW AND CHECK FOR GAS LEAKS

Unit Commissioning

CONFIRMING FLUE INTEGRITY AND EFFECTIVENESS.

Open flued gas appliances and natural draught flue systems

This information provides Gasfitters with a procedure for confirming the integrity and the effectiveness of flues.

Application

- This procedure is applicable to gas appliances incorporating flue systems of the open flue type, operating under natural draught conditions.
- This procedure is approved for the use of gasfitters when attending appliances of the above type for
 - New unit installation commissioning
 - Appliance or flue system repair
 - Modification, or
 - Safety inspection.
- The procedure includes both inspection and testing.

Confirming the integrity of the flue system

Detailed inspection of the flue system will confirm its integrity. If faults are found these should be rectified before testing the flue for effectiveness.

Method of inspection

- Primary flue and down draught diverter
 - Examine the assembly for damage and the accumulation of debris from the secondary flue (see **Note 1**).
 - Where practicable, and without dismantling any flue element, examine the internal space of the secondary flue (torch required)
- Secondary flue
 - Examine the flue for cracks, damage and continuity where visible
 - Confirm flue joints are sealed
 - Gain access to the flue terminal (cowl) and confirm it is firmly fixed (see **Note 2**).

Information supplied by the Office of Gas Safety – Victoria
Information Sheet 28

Testing the effectiveness of the flue

Testing the flue system will confirm the safe discharge of combustion products from the flue terminal (cowl).

Where the discharge of combustion products cannot be confirmed by testing additional investigation shall be undertaken to establish the cause and, where faults are found, these must be rectified.

Before testing the flue

- Confirm fixed air vents are unobstructed and check for the presence of exhaust fans e.g. kitchen or bathroom exhaust fans.
- Check the appliance gas pressure or gas rate

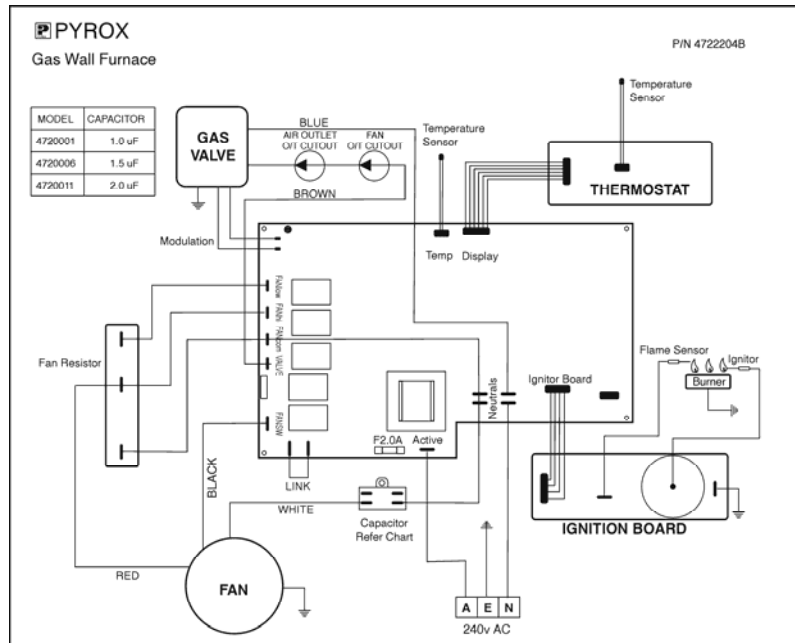
Method of testing

- If an exhaust fan is present switch it on
- Turn on the gas appliance and leave for at least 5 minutes (See **Note 3**).
- Position a smoke pellet or hold smoke match(s) inside the draught diverter
 - Confirm that smoke does not ‘flow back’ into the room
 - Observe the smoke ‘plume’ from the terminal (see **Note 4**).

Notes:

1. The accumulation of debris at the draught diverter and heat exchanger is an indicator of faults within the secondary flue and flue terminal.
2. Damaged or loose cowls should be replaced only after an internal examination of the secondary flue.
3. Flue spillage is a characteristic of appliance ‘start-up’ and may be during the first 5 minutes of operation.
4. Sufficient smoke is required to ‘Flood’ the flue enabling a plume to be observed. Absence of smoke at the terminal and appliance may indicate a break in the flue within a roof space or other void.

Unit Commissioning



NOTE: Should the unit fail to operate correctly after all adjustments have been made, turn off the unit and contact an authorized Climate Technologies service provider.

For Metro Service only ring the numbers below.

SERVICE

For Metro Service Only Ring the Number Below

- South Australia/** (08) 8307 5230
- Northern Territory**
- New South Wales /** (03) 8795 2457
- Australian Capital Territory**
- Western Australia** (08) 9454 1000
- Victoria /** (03) 8795 2456
- Tasmania**
- Queensland** (03) 8795 2457

Outside Metro areas please contact your nearest Climate Technologies Service Provider.

- New Zealand (ABERGAS Ltd)** 0800 161 161

Technical Specifications

DESCRIPTION	WFBL26	WFBL30	WFBL40
Product Weight & Dimensions			
Weight (Kg)	40	45	45
Height (mm)	2010	2010	2010
Width (mm)	480	480	480
Depth (mm) Cabinet from Wall - Inbuilt	160	160	160
Depth (mm) Cabinet from Wall - Console	250	250	250
Gas / Output Specifications			
Capacity Output – Total Unit	5.3kW	6.5kW	7.8kW
Gas Input MJ/HR (NG)	26.4	30	40
Connections - Gas / Flue			
Gas Connection BSP (NG)	1/2"	1/2"	1/2"
Gas Inlet Entry Position	Front Right Hand Side		
Gas Inlet Height Above Datum	120mm	120mm	120mm
Flue Connection - Twin Skin	247 x 45	247 x 45	247 x 45
Galvanized Flue Pipe	100mm (4")	100mm (4")	100mm (4")
Installation Dimensions			
Hole Size - Inbuilt Only	1980H x 420W	1980H x 420W	1980H x 420W
Minimum Depth Including wall material - Inbuilt Only	90mm	90mm	90mm
Datum Line (Minimum distance above the skirting board)	65mm	65mm	65mm
Datum Line (Minimum Distance above the Floor)	100mm	100mm	100mm
Clearances Each Side of Unit Mounting Surface	300mm	300mm	300mm
Clearance Forward	3 Metres	3 Metres	3 Metres
Gas Burner Specifications – NG only			
Injector Size (mm)	1.65 x 2	1.8 x 2	1.65 x 3
Burner Pressure – High (kPa)	0.90 – 0.95	0.85 – 0.90	0.85 – 0.90
Burner Pressure – Medium (kPa)	0.65 – 0.70	0.65 – 0.70	0.65 – 0.70
Burner Pressure – Low (kPa)	0.50 – 0.55	0.50 – 0.55	0.50 – 0.55



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