

DF990 MK2 G3 Gas Fireplace

GAS FIREPLACE

Installation & Service Instructions

IMPORTANT: THERE ARE NEW FALSE CAVITY FRAMING REQUIREMENTS THAT MUST BE ADHERED TO (REFER TO SECTION B1).

IMPORTANT: THESE DF990 FIRE REQUIRES THE USE OF A 43MM RESTRICTOR ON THE UVP POWERFLUE INTAKE PIPE (REFER TO SECTION C4 AND C5).

IMPORTANT: THE FASCIA AND SECONDARY GLASS ARE CRITICAL COMPONENTS OF THE FIRE AND MUST BE PROPERLY FASTENED PRIOR TO RUNNING THE FIRE (REFER TO SECTIONS D2 AND F1).

IMPORTANT: KEEP THIS MANUAL AND ANY INSTRUCTION SHEETS THAT COME WITH YOUR FUELBED AS THEY CONTAIN NECESSARY INFORMATION FOR FUTURE SERVICING.

IMPORTANT:

The appliance shall be installed in accordance with;

- This installation instruction booklet
- Local gas fitting regulations
- Municipal building codes
- Electrical wiring regulations
- Any other relevant statutory regulations.
- AS/NZS 5601.1 Gas Installations

**WARNING:**

THIS APPLIANCE MUST BE INSTALLED BY A QUALIFIED PERSON. THIS APPLIANCE MUST BE INSTALLED INTO A CAVITY STRICTLY IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS.

DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.

DO NOT USE OR STORE FLAMMABLE MATERIALS IN OR NEAR THIS APPLIANCE.

DO NOT PLACE ARTICLES ON OR AGAINST THIS APPLIANCE.

DO NOT MODIFY THIS APPLIANCE.

This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely.

Young children should be supervised to ensure that they do not play with the appliance. Failure to follow these instructions could cause a malfunction of the heater, which could result in death, serious bodily injury, and/or property damage. Failure to follow these instructions may also void your fire insurance and/or warranty.

Who can install this product:

Installation must be carried out by a registered installer who, on completion of the installation, must issue a:

AUS: Certificate of Compliance

NZ: Certificates that comply with the latest legislation in accordance with national and/or local codes. If these are not issued then the Escea warranty may be void.

Warranty Repair and Annual Servicing:

Please contact Escea if you require warranty work. Warranty repair work must be carried out by a recognised gas fire technician. It is recommended that recognised Escea Gas Fire Technicians are also used to carry out annual servicing requirements (particularly during the warranty period). For contact details of recognised Escea Gas Fire Technicians in your area, or for replacement parts, please contact the retailer from whom the appliance was purchased or visit our website.

To progress any warranty claims for damaged appliances/parts, photographic evidence may be required. Providing this can help contribute to a timelier resolution of a claim.

The heater must be installed according to these instructions and in compliance with all relevant building, gas fitting, electrical and other statutory regulations (eg. AS/NZS 5601). Any shortcomings in the appliance and flue installation will be the responsibility of the installer, and Escea will not be accountable for any such failings or their consequences.

Manufactured by: Escea Ltd, PO Box 5277 Dunedin NZ, Ph: +64 3 478 8220

For contact details of your local Escea distributor or dealer please visit www.escea.com or email: info@escea.com. From Australia, visit www.escea.com.au or call: AUS : 1-800 460 832

CONTENTS

A Product Description and Installation Process	7
A1 Product Description	7
A2 Recommended Install Process	7
B Creating the Cavity	8
B1 Product Dimensions	8
B2 Masonry Installation	9
B3 Floor Clearances	9
B4 Corner Installations	10
B5 Hearth	10
B6 Cavity Base	10
B7 Wall Linings	10
B8 Side Wall Clearances	11
B9 Television & Mantel Clearances	11
B10 Fascia Dimensions	12
B11 Distance from Fireplace to Fascia Base	12
C Installing the Flue	13
C1 Flue Configuration (If less than 4m flue length is required)	13
C2 Flue Configuration (If more than 4m flue length is required)	15
C3 Installing the Horizontal Power Flue	16
C4 Installing the External Vertical Power Flue (UVP)	19
C5 Installing the Internal Vertical Power Flue	20
C6 Masonry Vertical Power Flue Kit (up to 6m)	23
C7 Masonry Vertical Power Flue Extension Kit (6 to 12m)	24
C8 Installing in Accordance with Relevant Codes	25
C9 Running the Flue	26
C10 Insulation Specification and Installation	26
C11 Running the Power Flue Electrical Cable	26
C12 Setting up the Flue Spigot Plate	27
D Installing the Electricity and Gas to the Appliance	28
D1 Power Supply	28
D2 Removing the Glass	28
D3 Removing the Elevated Burners	29
D4 Removing the Infill	29
D5 Removing the Front Grille	30
D6 Removing the Front and Rear Burners	30

D7	Removing the Burner Tray	31
D8	Gas Pipe Sizing	31
D9	Gas Pipe Position	31
E Installing The Appliance		33
E1	Installation	33
E2	Connecting the Flue	33
E3	Connecting the Power Flue Cable	34
E4	Fixing the Appliance to the Base	34
E5	Home Automation Setup (Optional)	35
E6	Connecting the Gas Pipe to the Regulator	36
E7	Gas Isolating Valve	36
E8	Pressure Test Point	36
E9	Checking the Operating Pressure	36
E10	Flame Picture	37
E11	Installing the Glass	38
F Fitting the Fascia and Finishing Installation		39
F1	Fitting the Fascia	39
F2	Locating Wall Mount Cradle for Remote	39
F3	Operating the Appliance for the First Time	40
F4	Normal Operating Sounds and Smells	41
F5	Cleaning the Glass	41
G Installation Checklist		42
S Service Manual		43
S1	Annual Service Procedure	43
S2	Error Codes	44
S3	Serial Number	46
S4	Checking Operating Pressure	46
S5	Cleaning the Fascia	46
S6	Converting the Appliance Gas Type	48
S7	Removing or Cleaning Fan	48
S8	Removing Electronic Tray	48
S9	Replacing the Thermal Cut Out	49
S10	Removing the Pressure Switch	50
S11	Replacing/Pairing a Remote Control	51
S12	Servicing the Horizontal/Universal Vertical Power Flue	52
S13	Wiring Diagram	54

DF990 MK2 PRODUCT SPECIFICATION				
MODEL NAME		DF990 MK2		
Description of Appliance		Powerflued Gas Fire Heater		
Star Rating		4.6		
Max. Heat Output		8.6kW		
Compliant To		AS/NZS 5263.1.3		
Gas Type		Natural	Propane	ULPG
Gas input	High	38 MJ/hr	36 MJ/hr	36 MJ/hr
	Low	29 MJ/hr	28 MJ/hr	28 MJ/hr
Inlet Pressure	Max	5.0 kPa	5.0 kPa	5.0 kPa
	Min	1.13 kPa	2.75 kPa	2.75 kPa
Operating Pressure on High		1.0 kPa	2.30 kPa	2.30 kPa
Operating Pressure @ Front Burner Jet on High		0.94 kPa	2.2 kPa	2.2 kPa
Burner Jet Size		Front: 1.4mm	Front: 0.85mm	Front: 0.85mm
		Elevated: 1.8mm	Elevated: 0.95mm	Elevated: 0.95mm
		Rear: 0.95mm	Rear: 0.75mm	Rear: 0.75mm
Aeration Collar Hole Size		Closed Front	2 x Ø4.5mm Front	2 x Ø12mm Front
		2 x Ø4.5mm Rear	2 x Ø11mm Rear	2 x Ø11mm Rear
		Closed Elevated	2 x Ø4.5mm Elevated	2 x Ø12mm Elevated
Pilot injector		#37	#27	#27
Appliance Dimensions (mm)	Width	940 mm		
	Height	886 mm		
	Depth	524 mm		
Weight	Kg	150 kg (inc. packaging)		
Ignition System		Electronic Ignition to pilot system. Fenwal safety controller		
		Thermostatic control - Escea PCB		
Ignition Activation		55 secs (approx) (30 second purge time)		
Flame Safeguard		Flame Rectification		
Consumption		84W @ 0.35A 230V		
Remote controls		Yes (Bluetooth)		
Timers		Yes (App and Internet connection compulsory)		
Clock		No		
Function lock / child		No		
Temperature control		Yes		
Connections	Electric	230V AC		
	Gas	1/2" BSPP female lower right of fireplace chassis		
	Flue Type	100mm and 75mm Flexi Flue		
	Spigot Location	Rear and Centre		
Data badge location		On Chassis Base		

A

PRODUCT DESCRIPTION AND INSTALLATION PROCESS

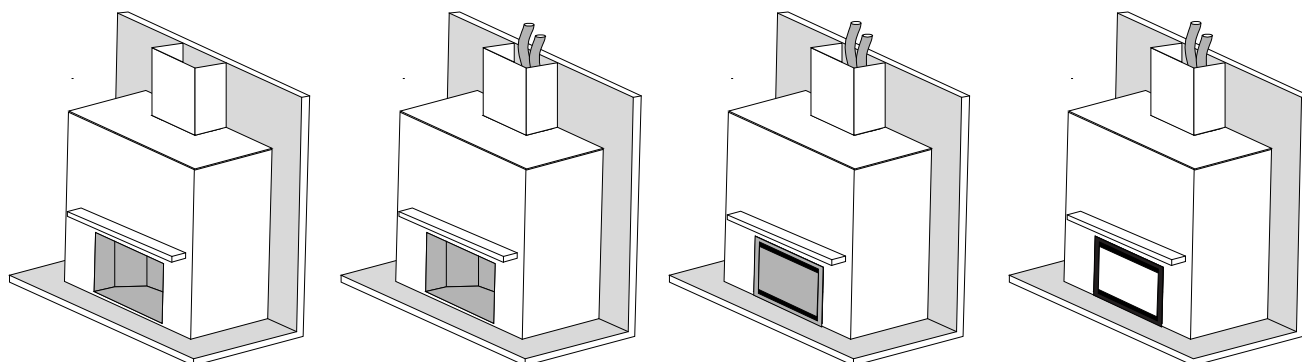
A1 Product Description

The Escea DF-Series gas fire is a room sealed gas appliance designed to be built into a masonry cavity or a false chimney cavity. DF-series products are provided with standoffs to ensure adequate clearances to combustible materials. These appliances are flued using co-linear flexible aluminum flue (with PolyPro flue extensions for some models) connected to a Power Flue. The user will control their fire with the Bluetooth remote that will normally be located in its wall mount cradle. In addition to the Bluetooth remote the appliance has a single auxiliary On/Off button on the unit. When not in operation it is in a standby mode unless it is physically isolated from the mains supply.

A2 Recommended Install Process

The following diagram illustrates the steps required to install your gas fire. The sequence in which you choose to do these tasks will vary depending on your individual scenario. Please read these instructions fully before proceeding with the installation.

Masonry Installation



**Modifying the
Cavity to suit**

Section B

**Install electrical /
gas connections
and flue system**

Section C, D

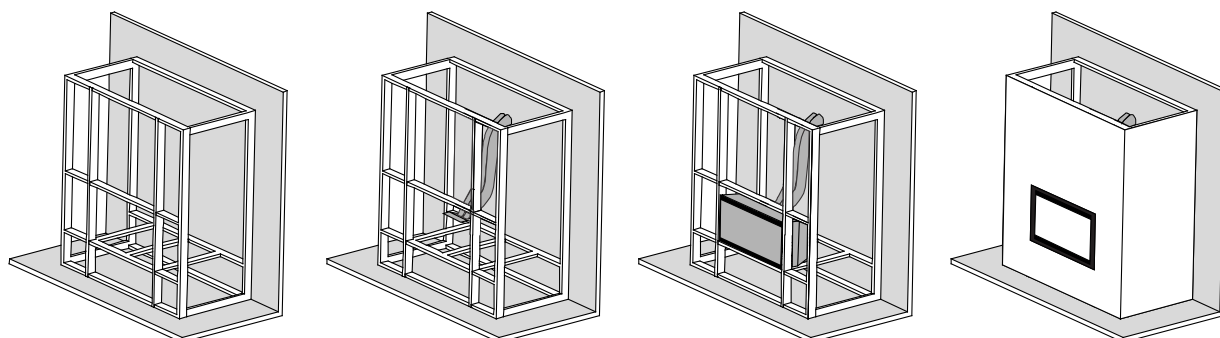
**Install appliance and finish
cavity**

Section E

**Finish installation, fit
fascia and test appliance**

Section F

False Cavity Installation



Create The Framed Cavity

Section B

**Install electrical / gas
connections and flue system**

Section C, D

**Install appliance and
finish cavity**

Section E

**Finish installation, fit
fascia, test appliance
and clad the cavity**

Section F

IMPORTANT: INSTALLATIONS THAT ARE NOT SPECIFICALLY OUTLINED IN THIS MANUAL SHOULD BE REFERRED TO THE ESCEA ARCHITECTURAL ADVISORY TEAM.

PLEASE EMAIL AA@ESCEA.COM

I.E. HUTCH, UNDER BENCH, RECESSED, AND JOINERY ENCLOSED INSTALLATIONS.

I.E. USE OF HEAT SENSITIVE MATERIALS SUCH AS RESIN STONE OR LAMINATED TIMBER.

I.E. DF FLUE INSTALLATIONS OVER 4 METRES.

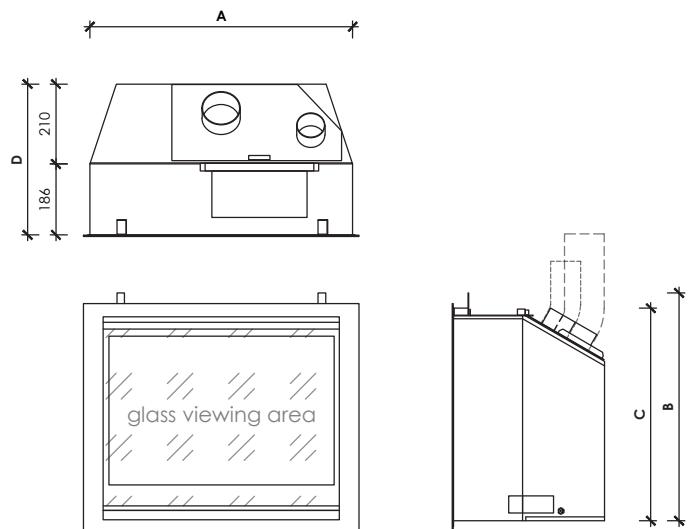
To ensure that your installation is fully complete, please use the "Installation Checklist" on page 42.

B CREATING THE CAVITY

B1 Product Dimensions

Note: All outside dimensions taken from the appliance are with the standoffs attached

Note: a top is not required when creating the cavity



Fireplace Width (A)	940mm
Fireplace Height (B)	886mm
Fireplace Height (C) Without standoff bracket	846mm
Fireplace Depth (D)	523mm
Glass Viewing Area Width	870mm
Glass Viewing Area Height	668mm

Framed Cavity Opening Width min.	960mm
Framed Cavity Opening Height min.	886mm
Framed Cavity Depth min.	530mm*

*** Cavity does not include the 50mm flue clearance to a combustible material**

B2 Masonry Installation

The DF gas fireplaces fit existing masonry chimneys and benefit from a fully non-combustible structure with minimised clearances. Installation requires a minimum opening size of:

DF990: 940mm W x 886mm H x 524mm D

WARNING: IDEALLY THE WALL LINING WONT BE INSTALLED UNTIL AFTER THE FIREPLACE IS INSERTED INTO THE CAVITY. PLEASE FOLLOW THE STEPS IN THE FIGURES SHOWN.

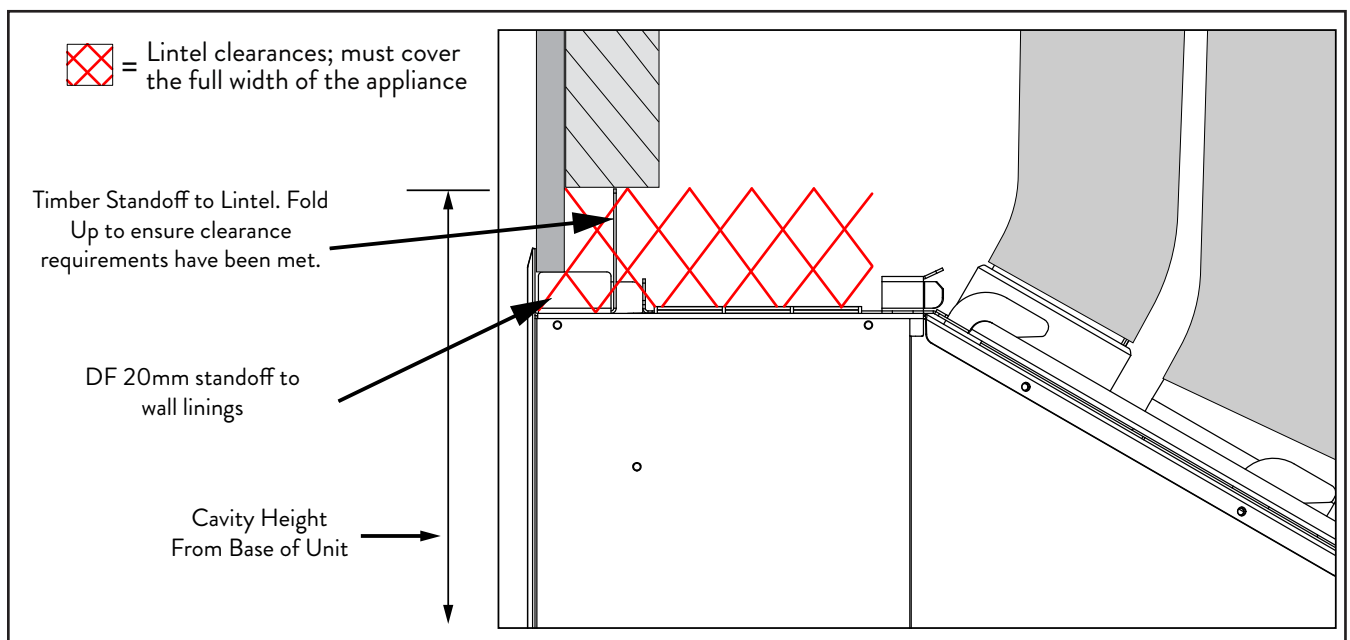
WARNING: ENSURE ADEQUATE ALLOWANCES ARE MADE FOR FASCIAS: SEE SECTION B6 ON PAGE 10 OR B11 ON PAGE 12.

Note: Measure the indicated framing dimensions from the base of the appliance.

Compulsory False Cavity Requirements

Ensure the fireplace is inserted first before the wall lining is built.

For floor-mounted installations, allow for fascia clearance, see B11 on page 12.



WARNING: THE TOP STANDOFFS MUST BE ADJUSTED TO THE UPRIGHT POSITION BEFORE THE FIREPLACE INSTALLATION. ALL STANDOFFS MUST REMAIN IN PLACE FOR FIREPLACE INSTALLATION.

NOTE: Wall lining should hang below the lintel to meet the appliance edge.

NOTE: If your installation requirements do not align with the diagram above, please contact our architectural advisory team: aa@escea.com

B3 Floor Clearances

If the appliance is mounted above a “heat resistant floor” (including but not necessarily limited to: ceramic tiles, concrete, and stone) then it may be positioned with the bottom of the fascia level with the finished floor if desired (30mm or 55mm spacer required under the fire in this case depending on the fascia type).

If the appliance is mounted above a “heat sensitive floor” (including but not necessarily limited to: carpets, vinyl, carpet tiles, rugs and mats, timber, joinery, wooden flooring - see materials guide) then we recommend a distance of

100mm from the bottom of the fascia to the finished floor or hearth.

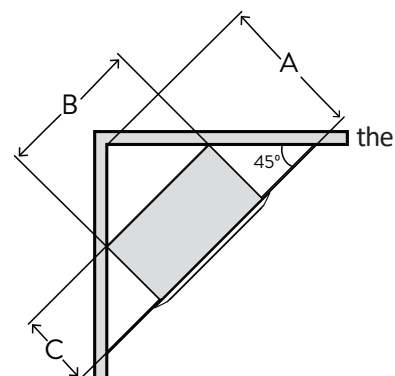
NOTE: Excerpt from AS/NZS 5601.1 Sec. 6.2.5. "A gas appliance shall be installed such that the surface temperature of any nearby combustibile surface will not exceed 65°C above ambient."

Refer to section B5 on page 10 for hearths.

B4 Corner Installations

If a cavity is to be created in a corner, the following drawing gives minimum sized interior wall dimensions.

	A	B	C
DF990	1010mm	960mm	530mm



B5 Hearth

A finished floor level hearth is not required, however it may be used for decorative purposes or for protection of soft/heat sensitive flooring as stated in the section "B3 Floor Clearances" on page 9 to allow a smaller floor clearance.

The hearth should not obscure the front face of the fire, must protrude at least 200mm from the face of the fireplace and be at least the width of the appliance and should be made from a non-combustible and heat resistant material.

A raised hearth should conform to the above guideline.

B6 Cavity Base

This appliance **MUST** be fully supported on its base. The base must extend over the entire area of the underside of the appliance. The base must also be leveled to prevent vibration from possible fan imbalance. The base of the cavity must be strong enough to support 150kgs.

The fireplace must be seismically restrained in a manner appropriate to the installation location and accessible once the secondary glass is removed.

When placing the DF990 at floor level, raise the fireplace base to allow for the fascia overhang: 30mm for Slim/Stretch, 55mm for Edge.

B7 Wall Linings

NOTE: For false cavity installations, **DO NOT** line the wall before the fireplace has been fitted into the cavity; the top standoffs are required to be upright for this installation type and then folded down once framing is fixed.

The side-front flanges of the appliance must be on top of the finished wall surface in order for the fascia to mount properly. Take into account any plaster board, tiles, or any other finishing surface that may be intended for the finished wall surface.

The wall board that lines the outside of this opening can be normal dry wall (plaster board) and does not need to be non-combustible.

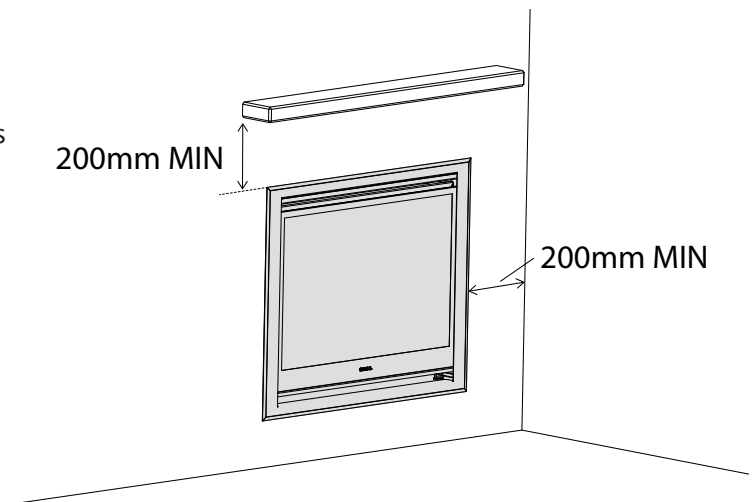
If, for some reason, the cavity dimensions exceed those specified in section B1 on page 8, a register plate is available (New Zealand only) for purchase through your local Escea distributor.

Note: The temperature of the wall lining directly above the heater does get warm and hence may discolour paint finishes that are susceptible to temperature damage or distort vinyl wall coverings. For durability of finishes and surfaces you should contact the relevant manufacturer for their specification.

B8 Side Wall Clearances

The diagram (shown below) shows the recommended minimum clearances for the location of any DF-Series gas fire in relation to a side wall.

Note: The Escea DF Mantels are suitable to use with these fires.



B9 Television & Mantel Clearances

Television

The diagram (shown below) shows the recommended minimum clearances for the location of any electrical equipment (such as Plasma TV, LCD TV or home theatre) above a DF-Series gas fire.

NOTE: Dimensions are from the top edge of the air opening.

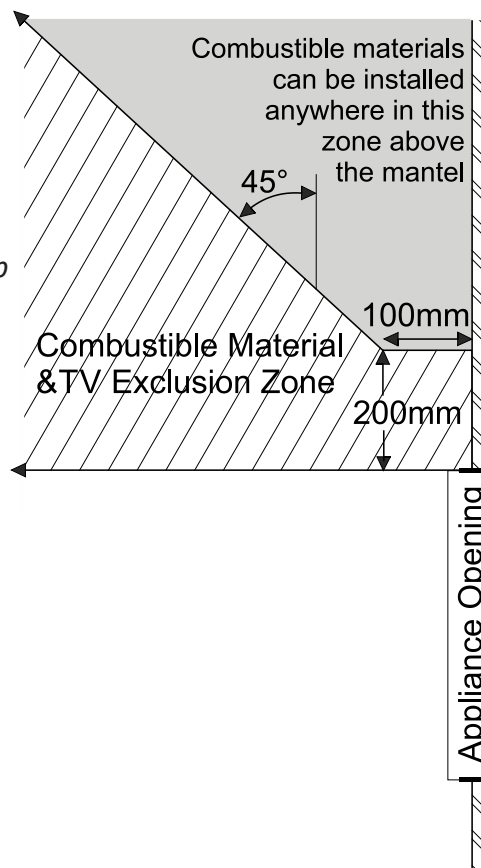
NOTE: Escea does not recommend putting artwork above the fireplace. Doing so is at your own risk.

NOTE: The television clearance recommendations are to be treated as a suggestion of a suitable installation only. It is the responsibility of the end user to check the installation instructions of their electrical appliances to ensure that the location in relation to the gas fire is suitable. Escea in no way guarantees or takes responsibility that the recommended installation suggestion will be suitable for all electrical or home entertainment appliances.

Mantel

Mantels or protruding ledges above the heater must not be installed lower than the dimension shown to the right of the diagram below.

NOTE: Dimensions are from the top edge of the air opening.



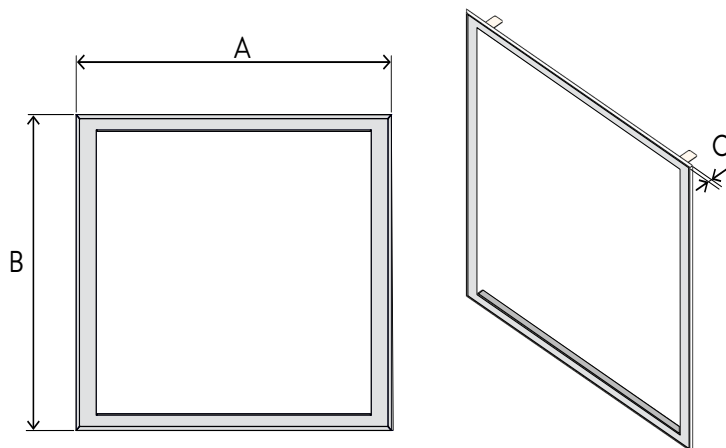
For DF700 & DF960
the minimum height for TV
installation without a
mantel installed: 200mm
For DF990 a mantel is required

B10 Fascia Dimensions

The dimensions of the fascia is shown below.

WARNING: THE FASCIA IS A CRITICAL COMPONENT OF YOUR GAS FIRE. NEVER RUN THE FIRE WITHOUT THE FASCIA PROPERLY FASTENED.

Slim Fascia

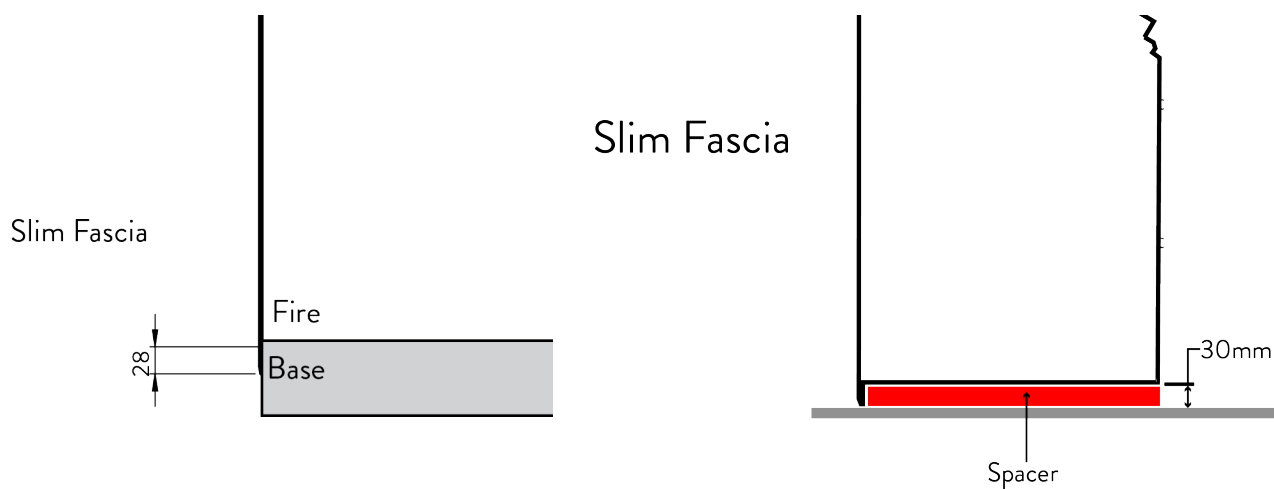


	Fascia Type	A	B	C
DF990	Slim	986mm	900mm	4mm

B11 Distance from Fireplace to Fascia Base

The installation requires a spacer below the appliance to allow room for the fascia to sit flush with the non combustible floor or a hearth.

The following side-on view shows the measurement from the base of the fireplace to the base of the fascia:



END OF SECTION B

BY THE END OF THIS SECTION, YOU SHOULD HAVE:

- ☐ A framed false cavity OR
- ☐ A masonry cavity sized to suit the appliance.

C INSTALLING THE FLUE

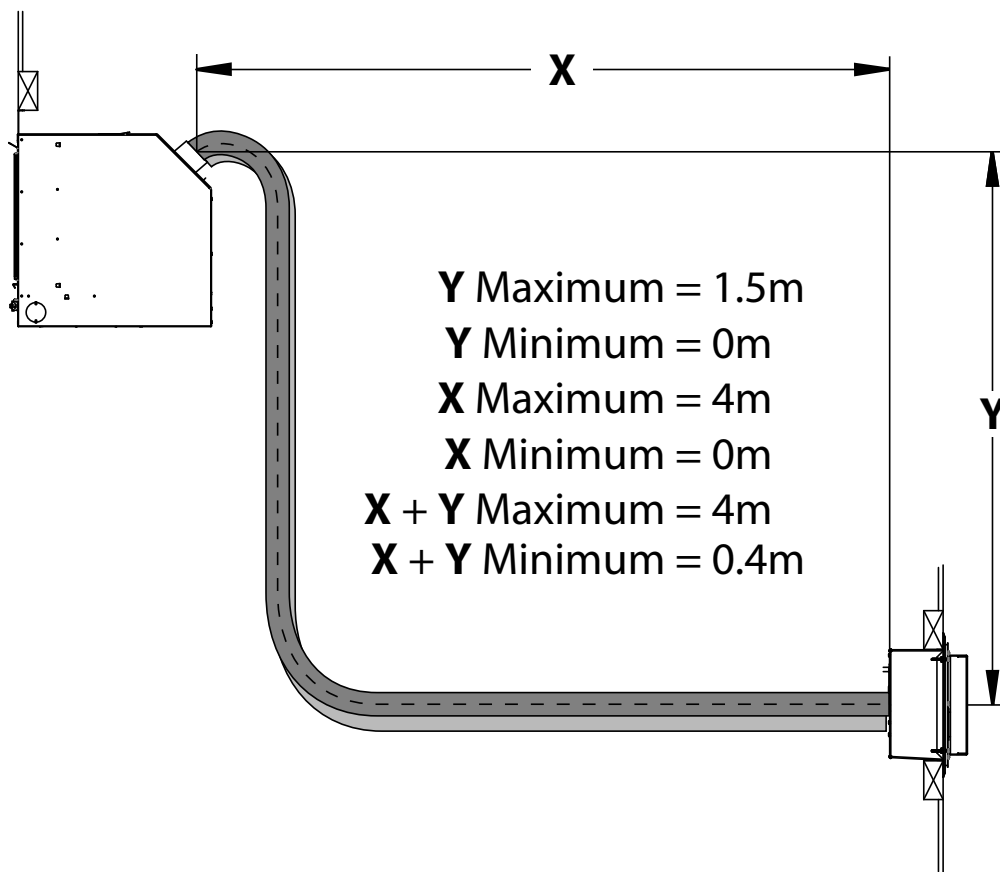
C1 Flue Configuration (If less than 4m flue length is required)

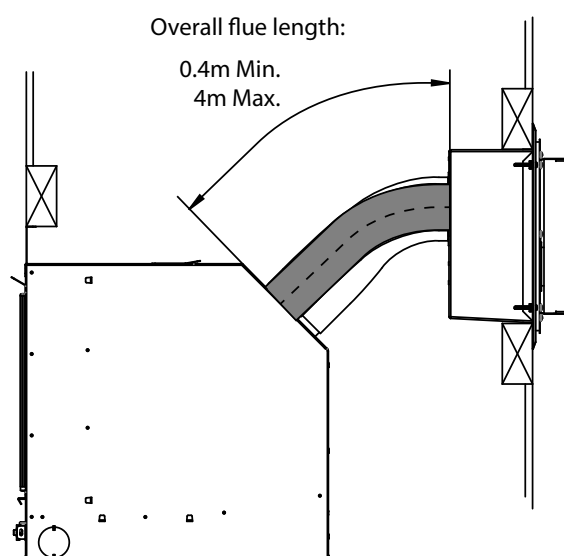
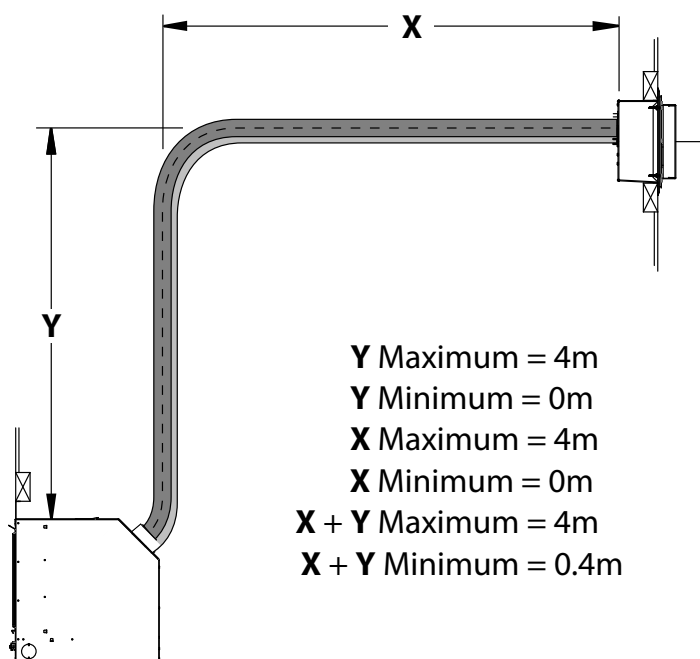
If your flue system is less than 4m long (as shown in diagrams below), then a simple aluminium flexible flue is required. If you wish to install a longer flue run, see either section C2 on page 15 or C6 on page 23.

Horizontally Terminated: Utilizes the Escea Horizontal Power Flue enclosure kit.

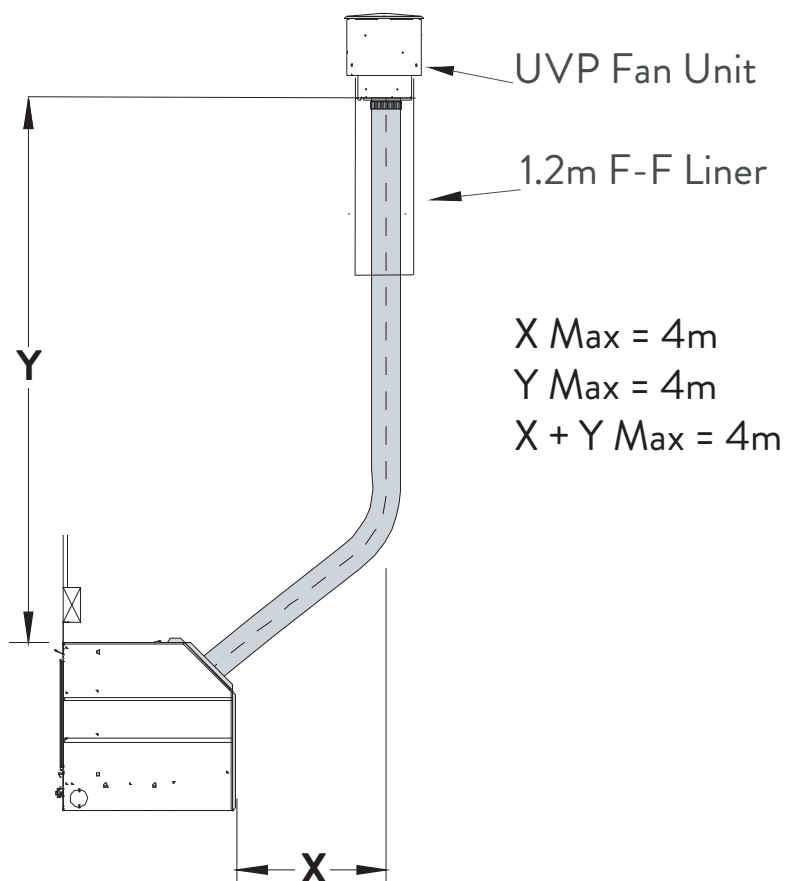
The horizontal offset of the terminal can be any amount up to the total flue length listed below. Please consult with Escea technical staff if your intended flue configuration steps outside of the bounds of the flue configurations shown below.

NOTE: The fan in this powerflue produces 52 DB of noise, think carefully around the location of the terminal, if the terminal is in close proximity to the fire then the fan noise will be more prevalent. If the only option is to install the terminal close to the fire then introducing sound deadening material around the back of the terminal or stretching out the flexiflue and adding more S-bends is recommended to reduce sound transfer through to the fire.





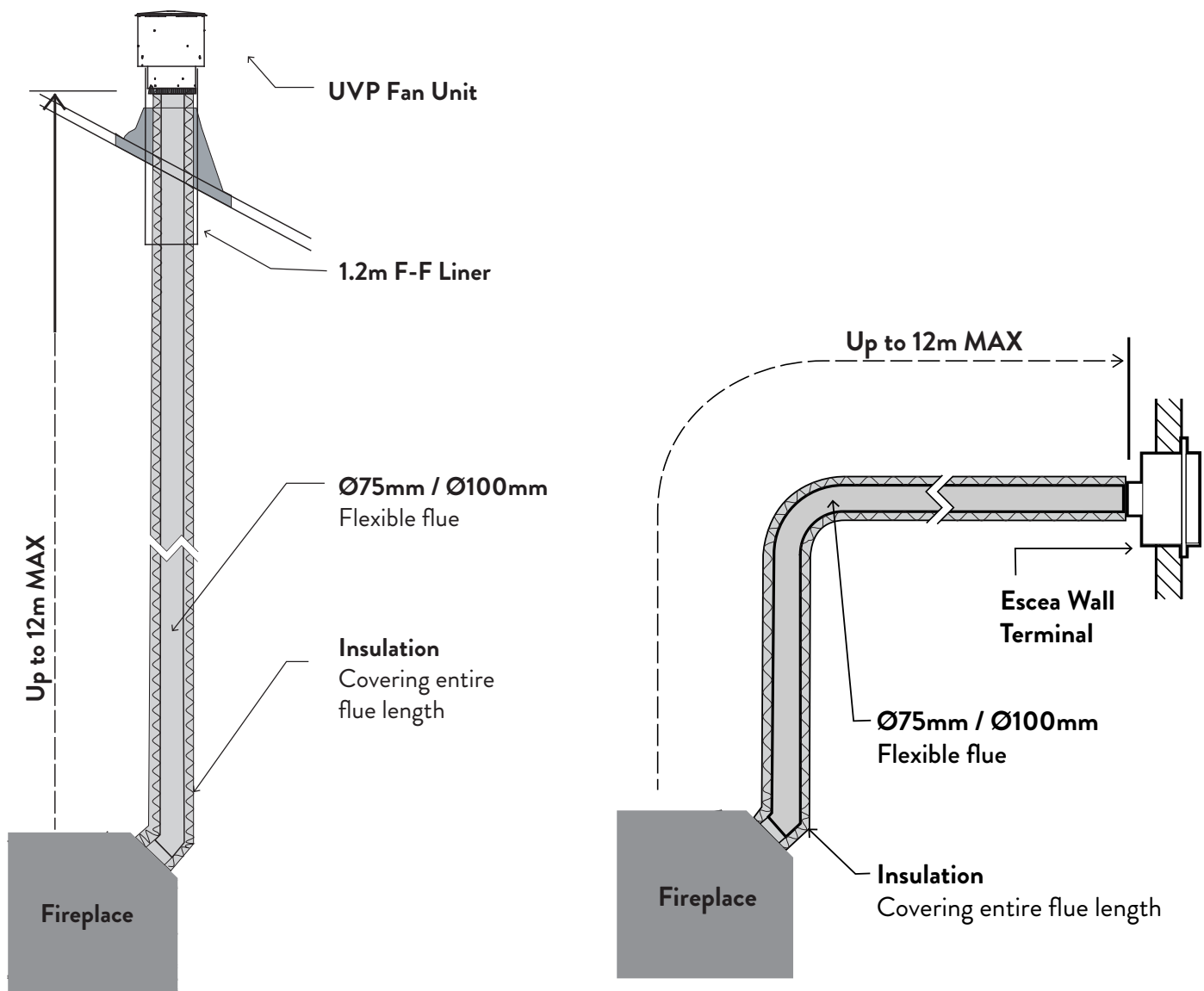
Vertically Terminated: Utilises the Escea Vertical Power Flue enclosure kit.



C2 Flue Configuration (If more than 4m flue length is required)

If your flue system is greater than 4m long (as shown in diagrams below), then there are the following options:

- DF: For flue run installations beyond 4m and up to 12m, flexi flue must be used for the entire flue run and must be fully insulated from appliance connection to fan unit. For information on the insulation installation see section C10 on page 26. Beyond 12m (up to 40m) please contact the Escea Advisory Team at aa@escea.com.



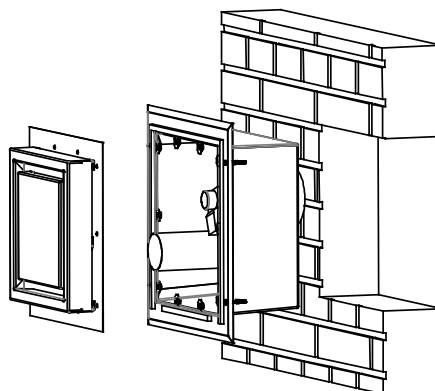
C3 Installing the Horizontal Power Flue

Note: The appliance is designed only to operate using the approved flexible or PolyPro flue supplied by Escea. Other brands of flue may not fit, and this will affect the appliance warranty.

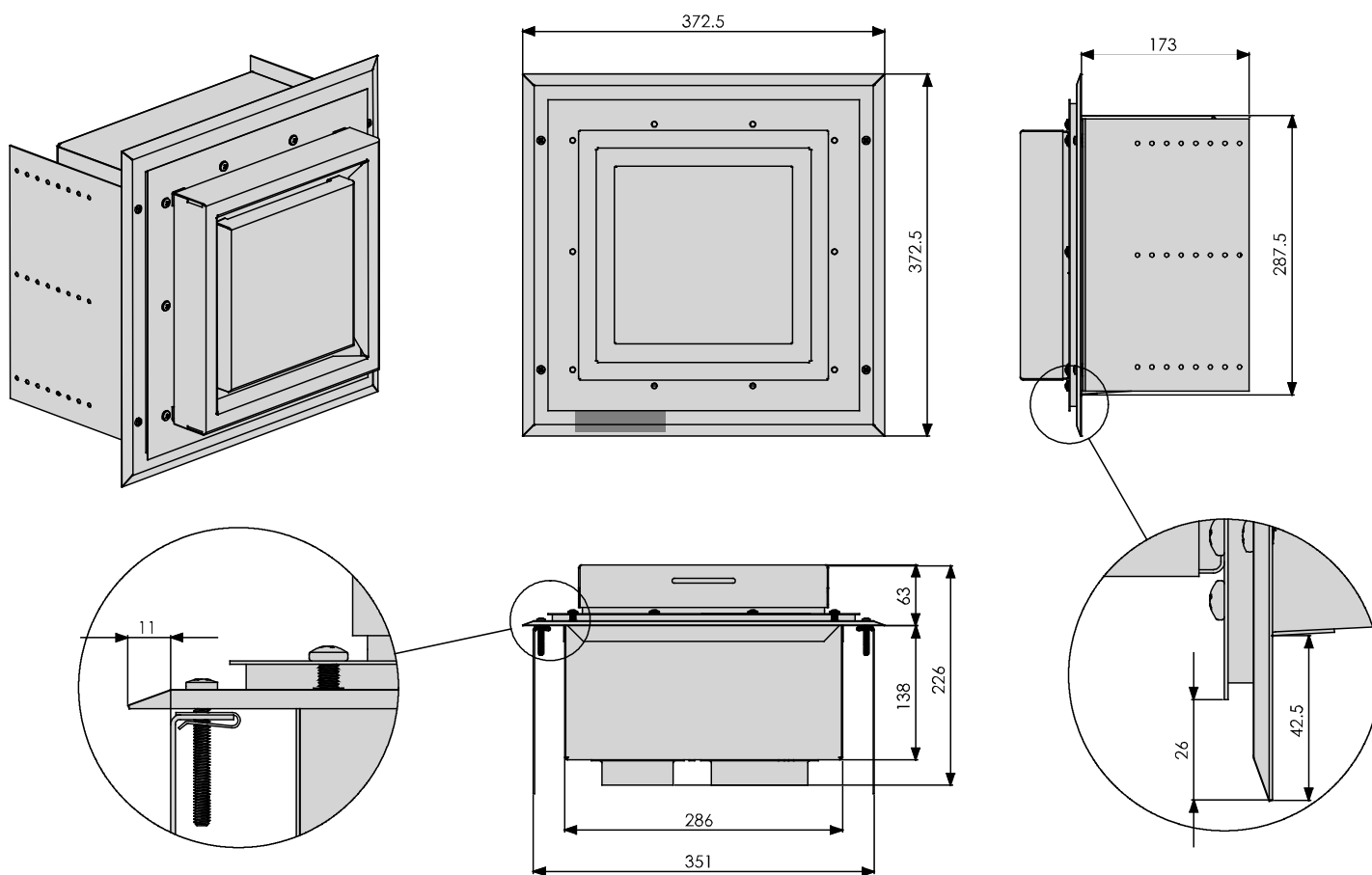
The Horizontal Power Flue Wall Terminal must be installed in the correct orientation (the small horizontal slot should be at the bottom). This allows for the correct operation of the flue system and prevents the ingress of water.

The Horizontal Power Flue Wall Terminal must be weather tight when installation is complete to prevent damage to the dwelling. It must be installed by a suitably qualified person.

Fit the Horizontal Power Flue Wall Terminal into the hole and fix in place, making sure the installation is sealed appropriately to prevent the ingress of water from outside the wall cladding. Take notice of the label on the termination which shows the correct orientation of the terminal.

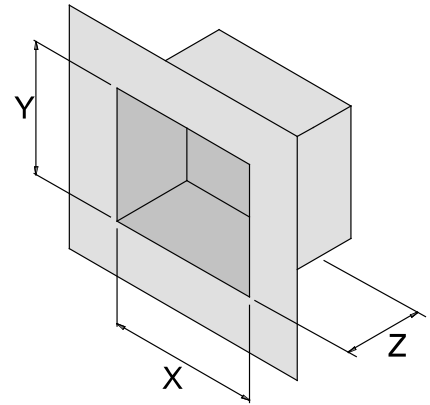


Note: It is the responsibility of the installer to ensure the Horizontal Power Flue Wall Terminal is installed to all relevant building codes to ensure weather tightness.



Creating the Hole in the Outside Wall

When cutting the hole in the outside wall, be mindful of how the installation of the Horizontal Power Flue Wall Terminal will be finished; the installation must be weatherproof.

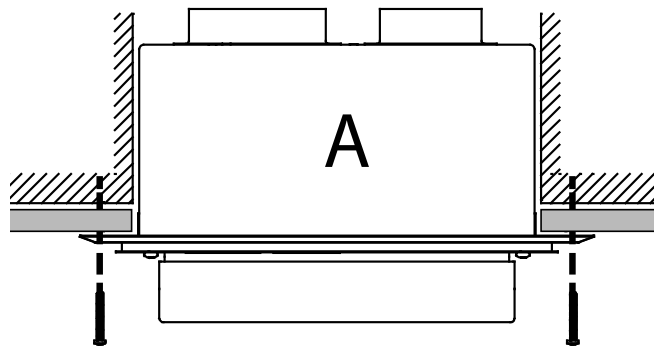


Ideal hole/cavity size for horizontal Power Flue

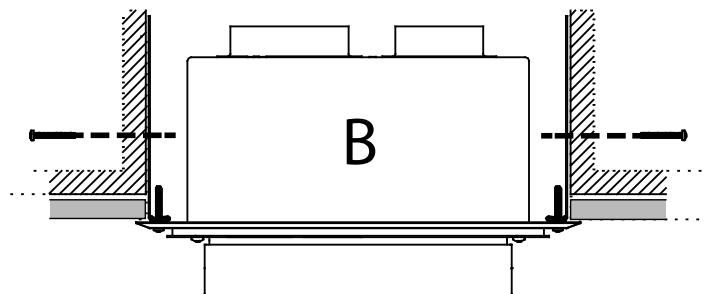
	Without Side Brackets	With Side Brackets
X	298mm	360mm
Y	298mm	298mm
Z	175mm Excluding allowance for flue which exits here	

The Horizontal Power Flue Wall Terminal can be attached to the wall in two ways:

A) By attaching the optional wall terminal installation brackets to the sides of the cavity and attaching the Horizontal Power Flue Wall Terminal to these, from the front:



B) From the front of the terminal:



Attach the Ø100mm and Ø75mm flexible aluminium flues to the spigots on the rear of the Horizontal Power Flue Wall Terminal using the hose band clamps supplied. Plug the Power Flue electrical cable into the back of the Horizontal Power Flue Wall Terminal.

For information on the PolyPro flue, see the installation manual which is supplied with the flue components.

Ensure that the electrical cable is firmly secured to the wall terminal or building to prevent damage or disconnection if pulled.

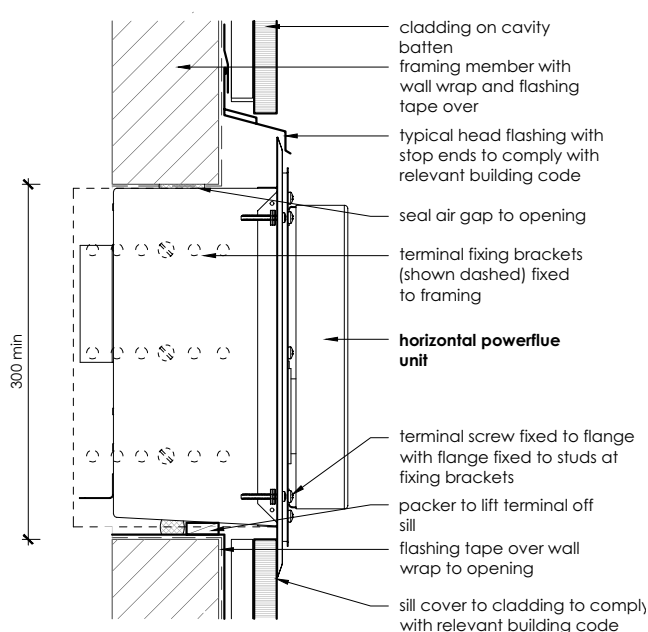
Fit the Horizontal Power Flue Wall Terminal into the hole and fix it in place, making sure the installation is sealed appropriately to prevent the ingress of water from outside the wall cladding.

Note: It is the responsibility of the installer to ensure the horizontal Power Flue wall terminal is installed to all relevant building codes to ensure weather tightness. This may necessitate the use of appropriate flashing material where appropriate.

IMPORTANT: ENSURE THAT FLASHINGS DO NOT RESTRICT THE AIR INTAKE SLOT AROUND THE PERIPHERY OF THE COWL.

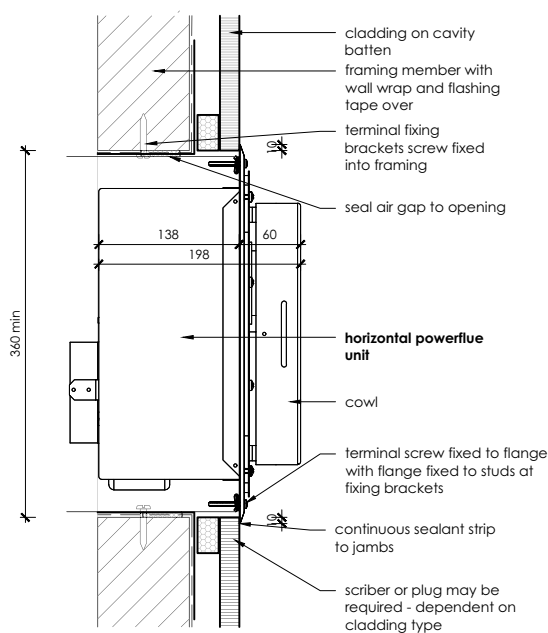
How to Flash the Horizontal Power Flue

The following diagrams are excerpts from the Escea architect drawings and are available in full on our website. These diagrams are recommendations, and your installation must comply with any local or national building codes.



Head and Sill

scale 1:5



Jamb

scale 1:5

C4 Installing the External Vertical Power Flue (UVP)

The UVP is designed to have the enclosure containing the fan unit mounted externally. Escea recommends this install for a UVP powerflue; an example is shown below.

Note: When installing the unit onto a flue liner, ensure the length of flue liner above the roof is the minimum required length. ENSURE the Ø43mm restriction plate is installed on the inlet.

The cowl surround should be fixed in place as shown right.

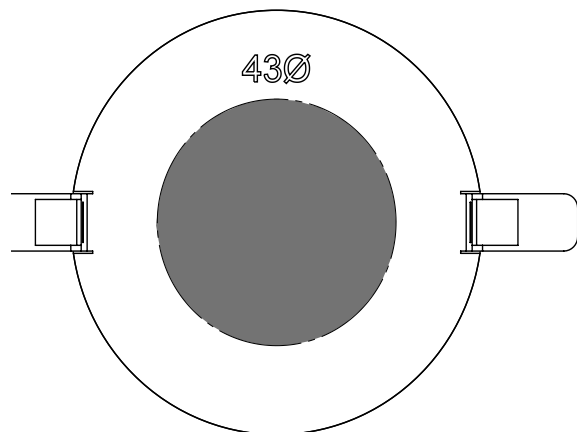
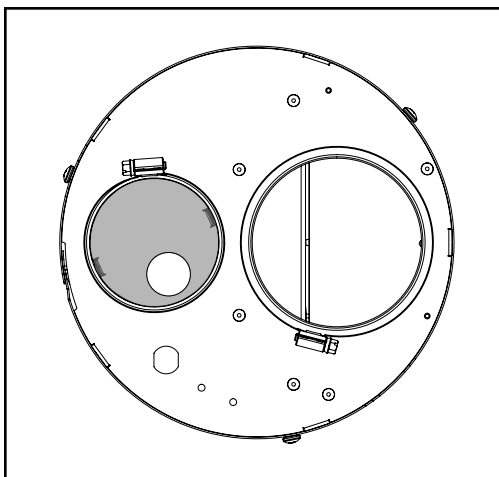
Mount the UVP kit to the top of a chimney flashing plate or penetrate the roof with an optional flue liner accessory and fit the UVP kit over the flue liner, sealing the penetration with a deekтите or similar flashing.

Ensure the terminal is vertical and rigidly mounted and the flexi flue attached below is fixed to the terminal spigots using the supplied hose clamps and aid clips.

Place the clamp over the flexi flue and the clip over this. Make sure the flexi tube has been stretched out as far as possible where the hose band clamps are going to be attached (not still compressed). Slide the flexi tube over the spigot and hold it in place by drilling one hole through the spigot using the clip guide hole and riveting the three components together.

Note: If this install is unpractical for your situation see information regarding an internal install of the UVP, go to section C5 on page 20.

NOTE: The DF990 MK2 needs to be paired with a specific inlet flue restrictor to work as intended, some UVP units will already have this installed, If your powerflue has the smaller restrictor on the inlet (shown bottom left) a replacement restrictor is required, please contact your nearest supplier and request the spare part. If you have the large restrictor (shown bottom right) this is the correct version.



C5 Installing the Internal Vertical Power Flue

Note: Internal install is only recommended for situations where an external install is unpractical. For information regarding an external install of the UVP, go to section C4 on page 19.

The Universal Vertical Power Flue (UVP) internal configuration is designed to have the fan, mounted within the roof space of the house, and the vertical Ø225mm diameter liner, containing a Ø100mm flexi, penetrate through the roof. The UVP internal conversion kit comes with a 1200mm liner that is specific to the internal installation and must always be used.

Note: The flue setup must comply with section C1 on page 13 or C2 on page 15

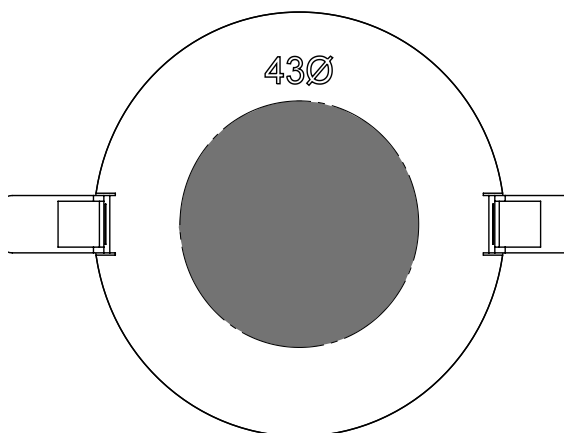
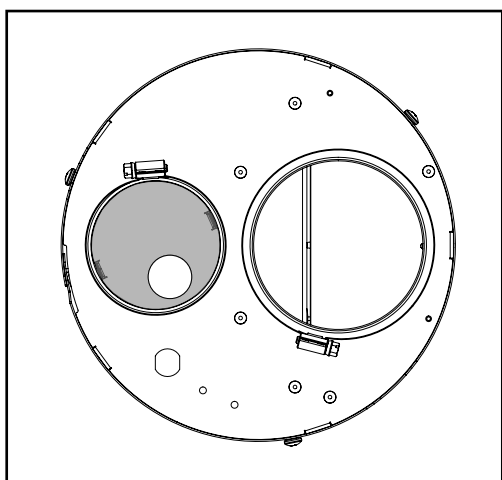
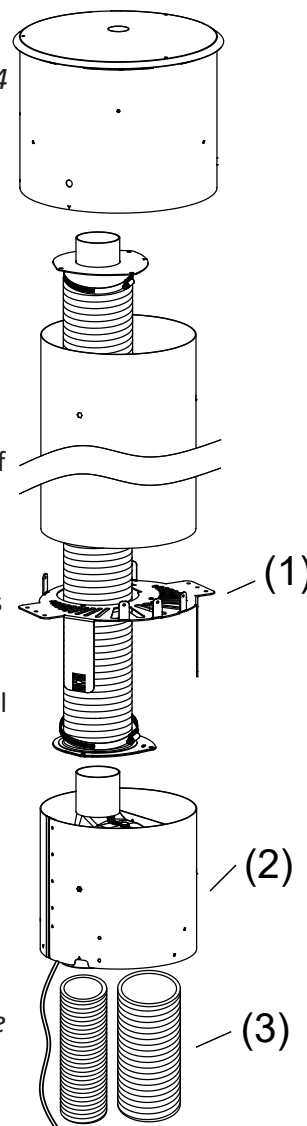
Use standard methods to flash the roof penetration. The installation must be weatherproof and conform to all local council standards including powered flue termination rules.

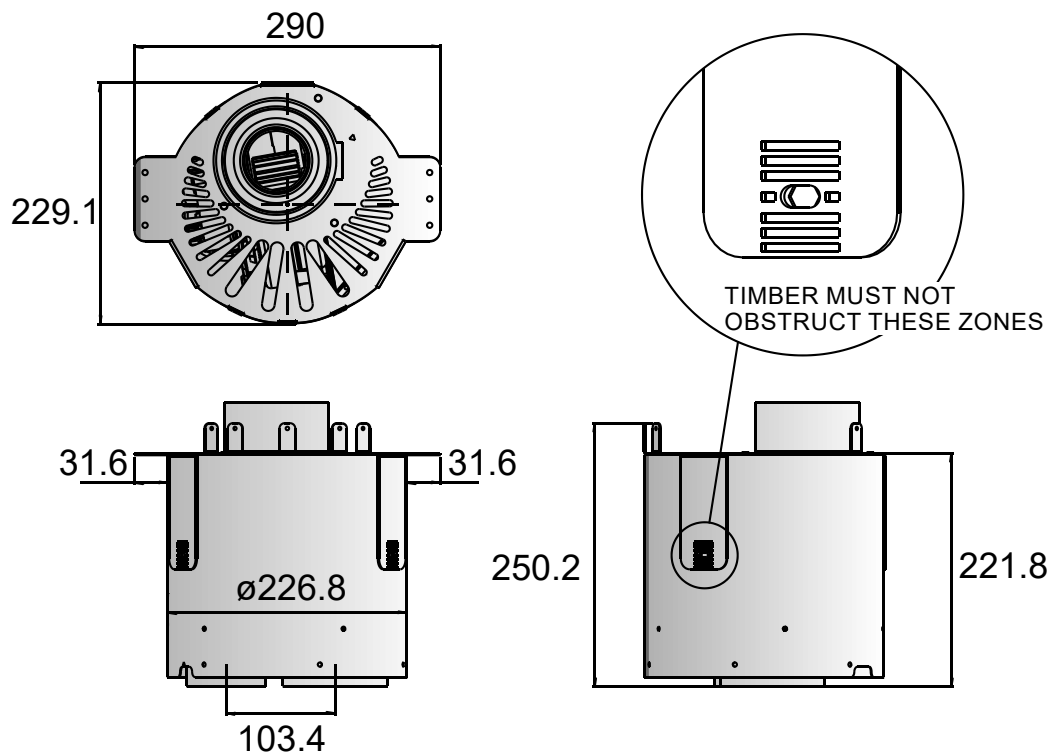
Mount the fan mount bracket (1) to the roof framing and strapping using timber ensuring that the flue is rigid and vertical. Ensure that the mounting timber does not obstruct access to the 3xM5 screw threads on the side of the fan unit.

Aim to have the fan enclosure (2) mounted as high as possible, mainly to allow sufficient fall for condensation drainage if the flexi-flue is to run horizontally.

Ensure there is sufficient space below fan enclosure (2) to have access to fit the flexi-flue tubes (3) and allow flowing bends if required.

NOTE: The new DF990 fire needs to be paired with a specific inlet flue restrictor to work as intended, some UVP units will already have this installed, If your powerflue has the smaller restrictor on the inlet (shown bottom left) a replacement restrictor is required, please contact your nearest supplier and request the spare part. If you have the large restrictor (shown bottom right) this is the correct version.





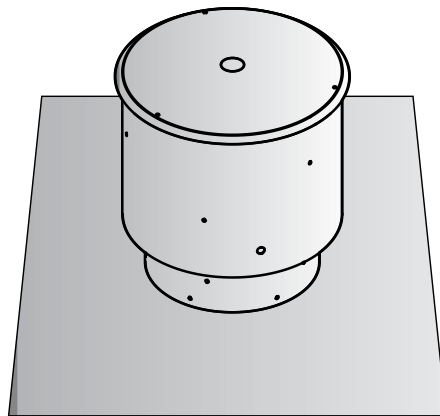
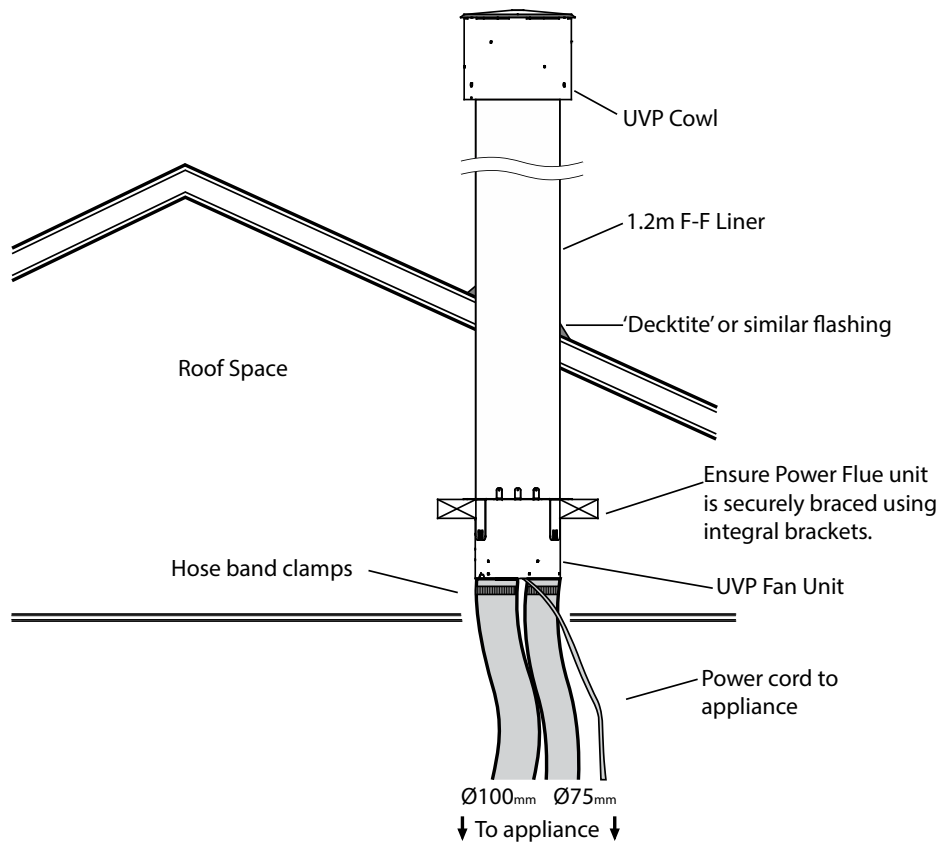
Note: The UVP-Internal and the flexi flue connections must be installed in a location accessible for service or replacement; a service hatch or removable flashing to allow access is required.

Note: When installing the unit onto a flue liner, ensure the length of flue liner above the roof is the minimum required length.

The UVP-Internal kit is intended for use within an accessible roof space or 'chimney' construction.

SERVICE ACCESS MUST BE PROVIDED.

Ensure installation complies with relevant building codes and regulations.

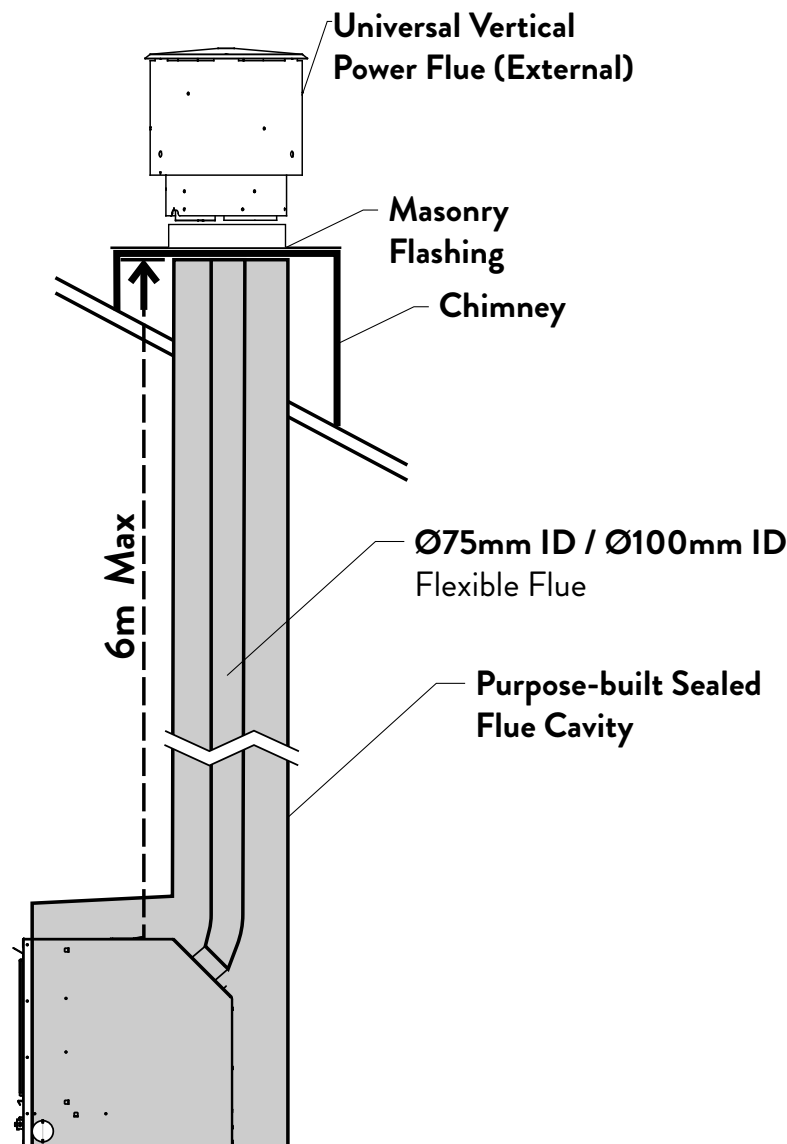


C6 Masonry Vertical Power Flue Kit (up to 6m)

The following kit enables the installation of the aluminium flexi into vertical masonry chimneys for extending the flue system from the appliance spigot to 6.0 meters while providing the masonry flashing.

Including, but not limited to, installations into: a complete masonry chimney, a flue liner, or a combustible sealed false chimney.

If your flue system is to be run vertically through a purpose-built sealed flue cavity (the cavity must remain sealed up to the terminal); PolyPro and a condensate drain is not required. An extension kit can be purchased to extend the maximum length to 12m, see section C7 on page 24. Only the Universal Vertical Power Flue (UVP-External) kit can be used for this installation type.



Note: 225mm wide x 240mm long 906624-Masonry flue liner extension kit can be purchased to add extra protection for the high snow and rainfall areas.

Note: If any gap occurs in between the 400mm x 400mm masonry flashing and the chimney due to the chimney dimensions, the suitable chimney cap flashing can be built as keeping the spigot diameter 225mm.

C7 Masonry Vertical Power Flue Extension Kit (6 to 12m)

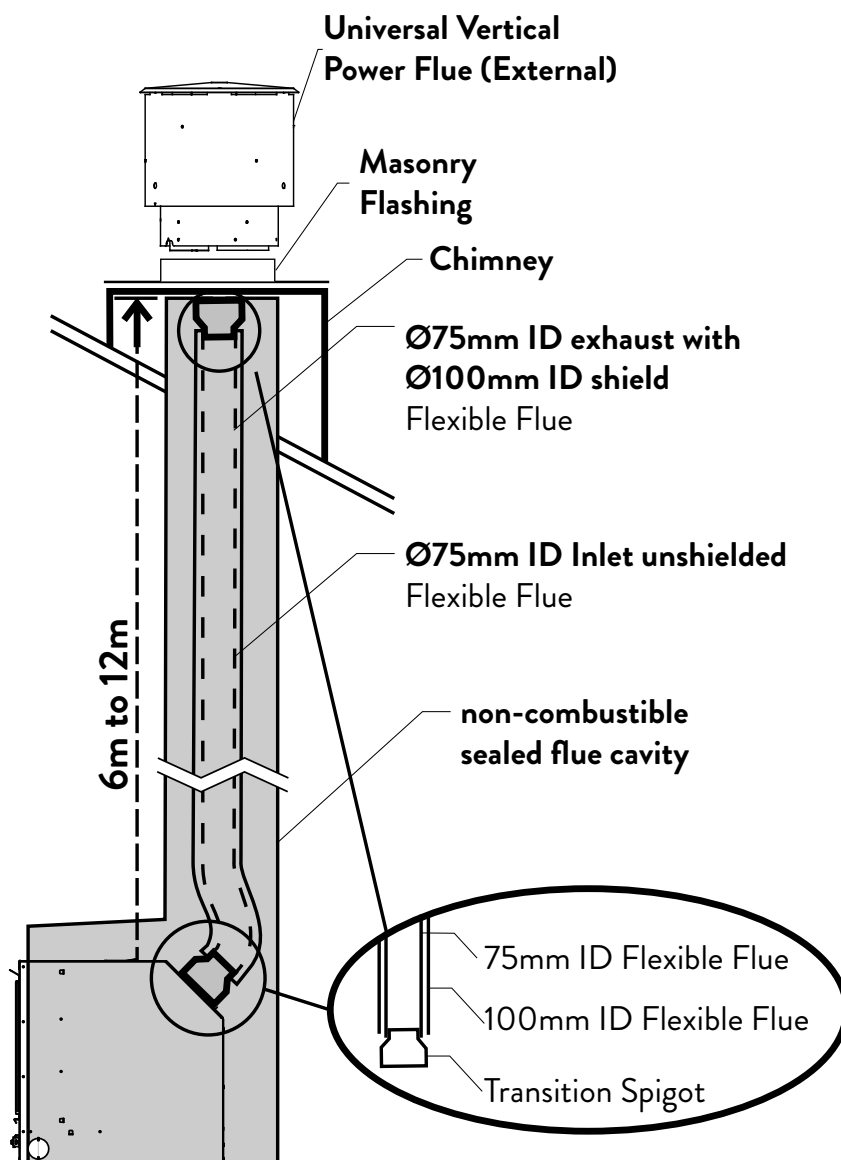
The following kit enables the installation of the aluminium flexi into vertical masonry chimneys for extending the flue system to 12.0 meters from the Masonry Vertical Power Flue kit that is required and supplemented by the 12m Masonry Vertical Power Flue Extension Kit.

Including, but not limited to, installations into: a complete masonry chimney, a combustible sealed false chimney.

- If your flue system is to be run vertically through a purpose-built sealed flue cavity (the cavity must remain sealed up to the terminal); PolyPro and a condensate drain is not required. Only the Universal Vertical Power Flue (UVP-External) kit can be used for this installation type.
- The exhaust/inlet flue MUST BE NO longer than 12.0M.
- The 100mm flue shroud must cover the entire length of the exhaust flue.
- The intake and shrouded exhaust flue must be entirely enclosed within a fully vertical masonry or purposely constructed, a combustible sealed cavity/masonry chimney.
- Feed the power flue cable down through the chimney cavity and connect to the appliance and Power Flue.

NOTE: This kit supplements and requires 906602-Masonry vertical Power Flue kit.

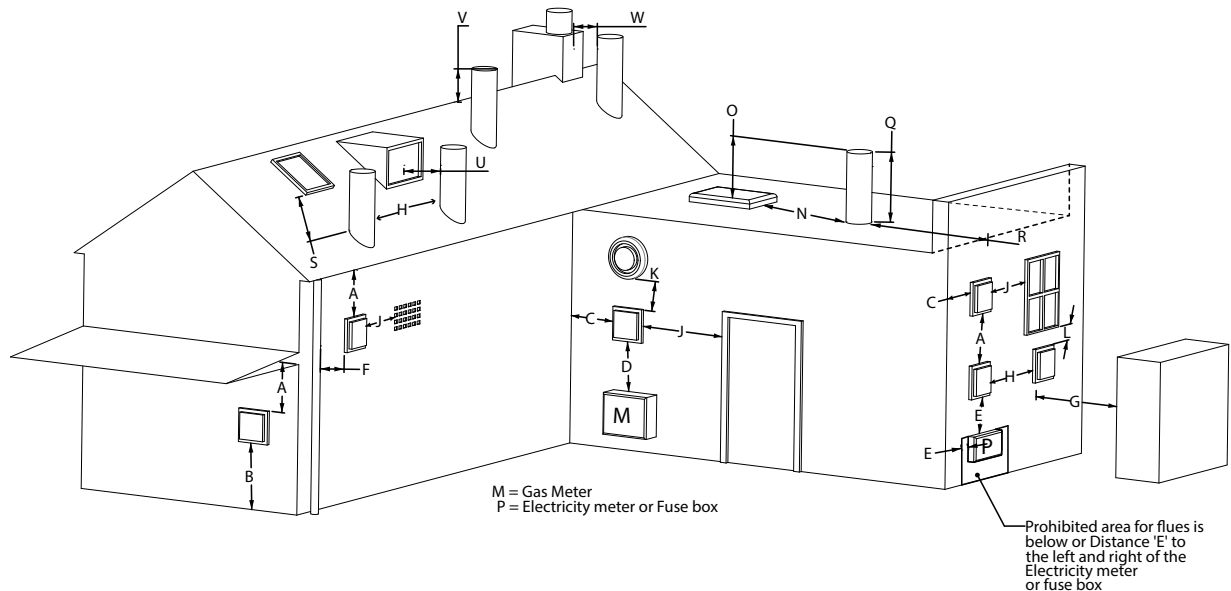
Note: If any gap occurs in between the 400mm x 400mm masonry flashing and the chimney due to the chimney dimensions, the suitable masonry flashing can be built as keeping the spigot diameter 225mm.



C8 Installing in Accordance with Relevant Codes

The location of the Horizontal Power Flue Wall Terminal must be installed in accordance with AS/NZS 5601 and any other relevant building codes. If possible, avoid installing the Horizontal Power Flue Wall Terminal in areas exposed to high winds and extreme weather.

Some of the minimum clearances for a fan assisted wall terminal are listed below; please refer to AS/NZS 5601 Gas installation standard for full guidance on the design of the flue system. Where possible allow a greater clearance.



A	Below eaves, balconies and other projections	200mm
B	From the floor, above a balcony or other surface	300mm
C	From a return wall or external corner	300mm
D	From a gas meter or regulator vent	1000mm
E	From electricity meter or fuse box	500mm
F	From a drain pipe or soil stack	75mm
G	Horizontally from any building structure or obstruction	500mm
H	From any other flue terminal or combustion air intake	300mm
J	Horizontally from any openable window, door, non-mechanical air inlet, or any other opening into a building with the exception of sub floor ventilation	300mm
K	From a mechanical air inlet or spa blower	1000mm
L	Vertically below any openable window, door, non-mechanical air inlet, or any other opening into a building with the exception of sub floor ventilation	300mm
N	Horizontally from a roof light	600mm
O	Vertically from a roof light	500mm
Q	Vertically from a flat roof	500mm
R	Horizontally from a vertical structure	500mm
S	Below a roof window	2000mm
T	Above or either side of a roof window	600mm
U	From a dormer window	1500mm
V	Above the apex of the roof (see note 1 on following page)	300mm
W	From an open flue	1500mm

Notes:

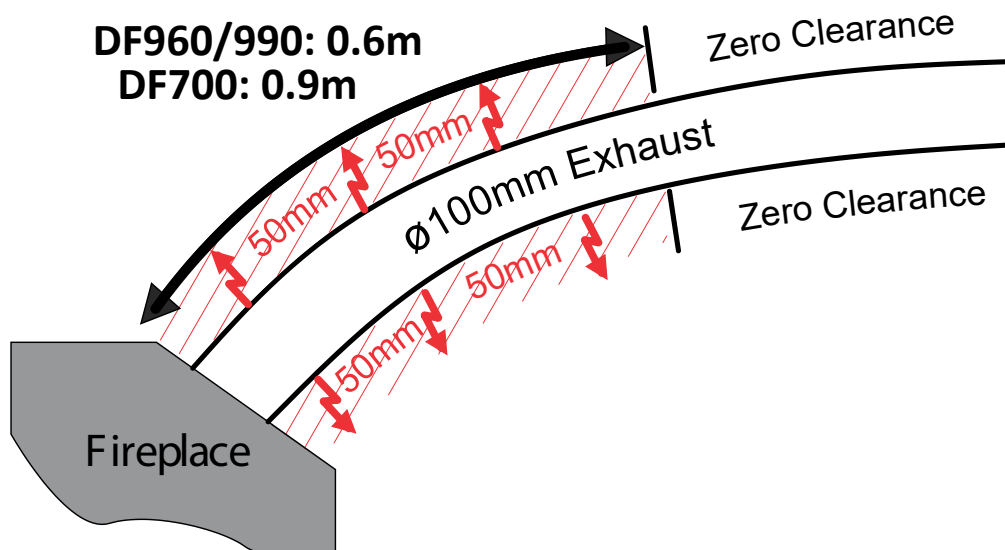
- Should the flue not extend past the apex of the roof, the bottom opening of the flue should extend at least 200mm from the roof (or 300mm in regions with heavy snow).
- The installation of a flue into a carport is not recommended.
- The flue terminal will get very hot when in use. Precautions should be taken to protect people and animals from injury.
- When installing in an enclosed balcony, follow AS/NZS 5601.1 for appropriate clearances.

C9 Running the Flue

Run the Ø100mm ID and Ø75mm ID (Ø110mm OD and Ø85mm OD) flexible aluminium hoses from the cavity to the rear of where the Horizontal or Vertical Power Flue Terminal will be installed. Allow enough stretch in the flexible aluminium flue to allow it to be able to protrude through the wall/ceiling/roof/flue liner to enable it to be connected to the Power Flue Terminal. The flue should be expanded at each end in order for the flue to be attached to the fire/Power Flue. It is advisable to secure the flexi flue at regular intervals to prevent vibration, movement and sagging. Steel wire or 'builders strapping' may be used for this purpose.

Note: The flexible flue is shipped in a 'compressed' form. Extend it to your desired length by stretching.

For information on running the PolyPro flue, refer to the Extended Flue Run Manual which is supplied with the flue components.

**C10 Insulation Specification and Installation**

Type of Insulation to use: Insulation R-value to be R1.5 and of malleable/flexible construction (rock wool or glass wool) and certified to withstand 230°C.

Insulation Installation: Tape must be used for all overlapping joints and the entire flue must be wrapped. Care must be taken not to compress insulation.

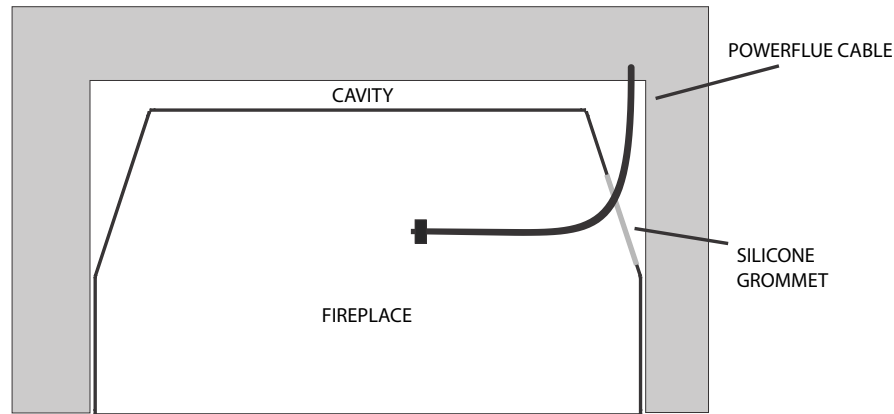
C11 Running the Power Flue Electrical Cable

Note: The Power Flue Terminal is powered from the appliance, and must be connected to the appliance with the supplied electrical cable only.

Note: Ensure that the appliance power supply is disconnected before making the connection to the terminal.

The supplied electrical cable is 7m long, flue extension kits also include a Power Flue electrical cable extension.

Run the electrical cable from the cavity where the appliance will be installed to the hole in the outside wall. Ensure it is not draped over, or in contact with, the outer shell of the appliance or the exhaust flue and kept clear from any other possible heat sources, sharp edges, or moisture. Fix it appropriately and allow enough cable looped to be able to pull both the appliance and the Horizontal Power Flue Wall Terminal out from their installed positions. Push the cable into the fire through the grommet, this will be plugged into the electronics tray in section "E3 Connecting the Power Flue Cable" on page 34.



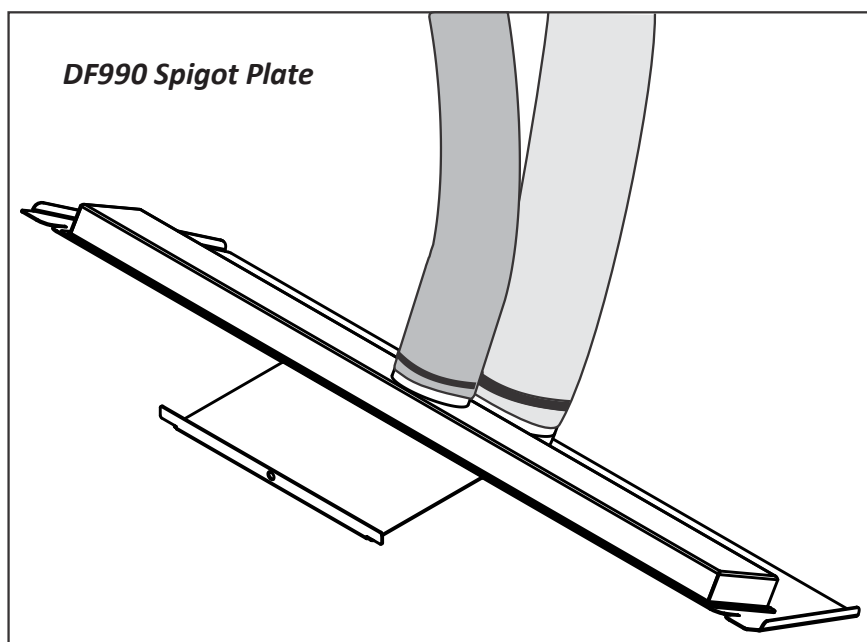
IF YOU DO NOT CONNECT THE POWER FLUE ELECTRICAL CABLE TO BOTH THE FIREPLACE AND THE POWERFLUE, THIS WILL RESULT IN AN ERROR WHEN THE FIREPLACE IS TURNED ON.

TEST THE FAN BEFORE CONTINUING WITH THE REST OF THE INSTALLATION.

C12 Setting up the Flue Spigot Plate

Connect the flexi flue to the spigot plate using the hose band clamps provided while the cavity is still empty.

DO NOT OVER STRETCH THE ALUMINIUM FLEXI FLUE.



D

INSTALLING THE ELECTRICITY AND GAS TO THE APPLIANCE

To install gas to the fireplace, check the operating pressure, and connect the powerflue electrical cable, the inner and outer glass and burner tray need to be removed.

D1 Power Supply

While the cavity is being created, consideration must be given to the location of an appropriate power supply. An earthed 230/240 volt mains power connection (typically a standard 3 pin outlet) must be available within 1m of the bottom right of the appliance. This connection must be accessible after the heater has been fully installed so that the appliance can be safely disconnected from the mains power supply prior to servicing.

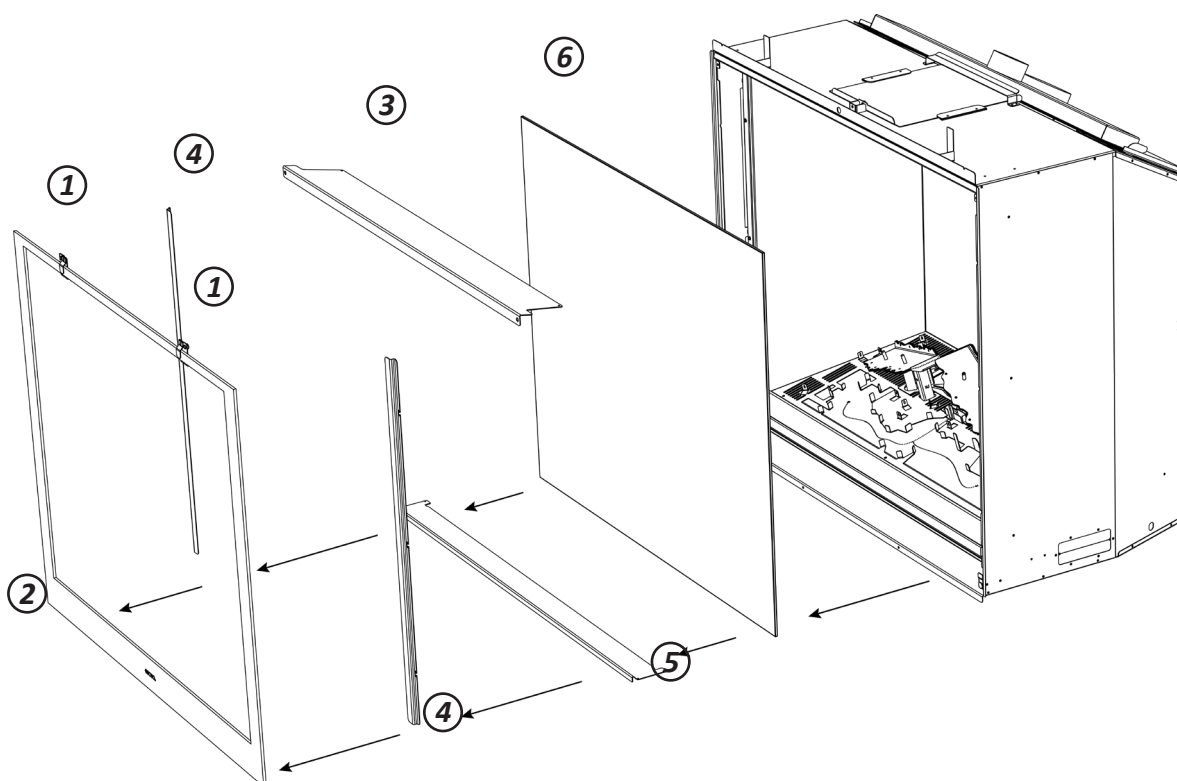
A mains isolation switch (compliant to AS/NZS 5601 Clause 6.2.8) which is accessible from outside the cavity can also be used to disconnect the power. Regardless of the method used, it **MUST ALWAYS** be possible to safely isolate the electrical supply to the appliance after it has been fully installed.

This appliance must not be located immediately below a socket outlet. This appliance will draw a maximum of 2 Amps from a 230/240V supply. No additional power supply is required for the Power Flue. An electrical wiring diagram is located underneath the electronic tray, and also in the rear of this manual (Service Section S13 on page 54).

D2 Removing the Glass

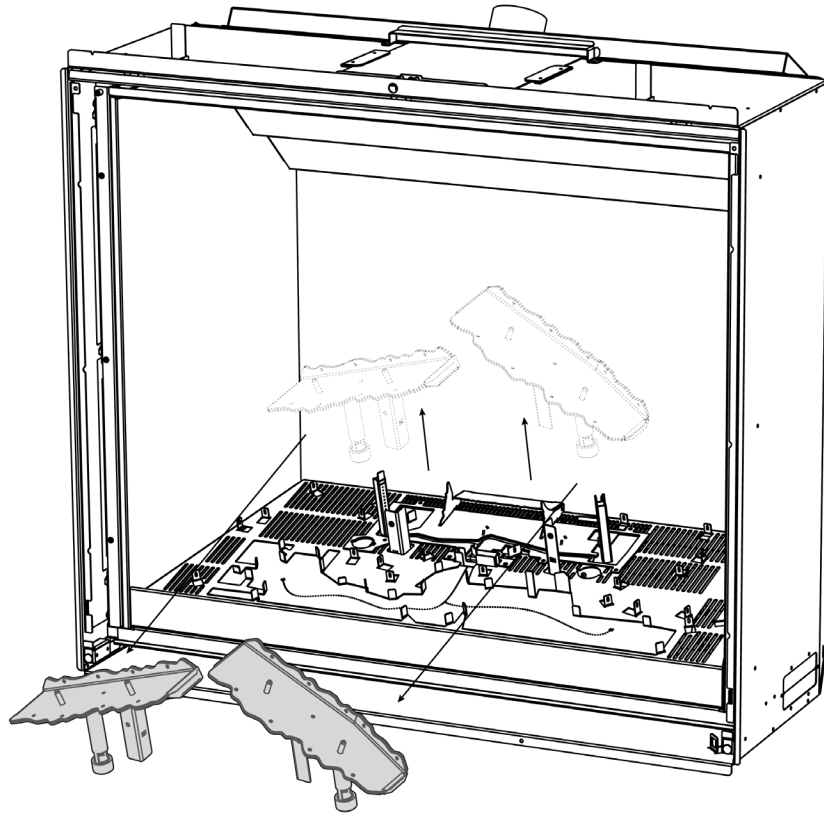
The DF990 MK2 has 2 layers of glass; inner glass (**Primary Glass**) seals the firebox and outer glass is (**Secondary Glass**).

1. Unscrew the 2x secondary glass retainers at the top corners, and slide them towards the middle of the glass.
2. Tilt the outer glass towards you slightly, lift the glass out of the bottom glass retainer and carefully set aside.
3. Remove the 2x screws at the top left and right of the primary glass retainer. Pull forward, tilt down and then slide out the glass retainer through the gap in the side flanges. *NOTE: slide forward with caution to avoid scratches to the retainers finish.*
4. Partially undo the 3x screws holding in each of side glass retainers, slide up and twist out leaving the screws behind.
5. Remove the bottom trim by tilting back and pulling out through the gaps in the outer chassis.
6. Tilt the top of the inner glass towards you slightly, lift the glass out of the bottom glass retainer (channel) and carefully set aside. *Note: The fiberglass tape around the glass can mark carpet and furnishings.*



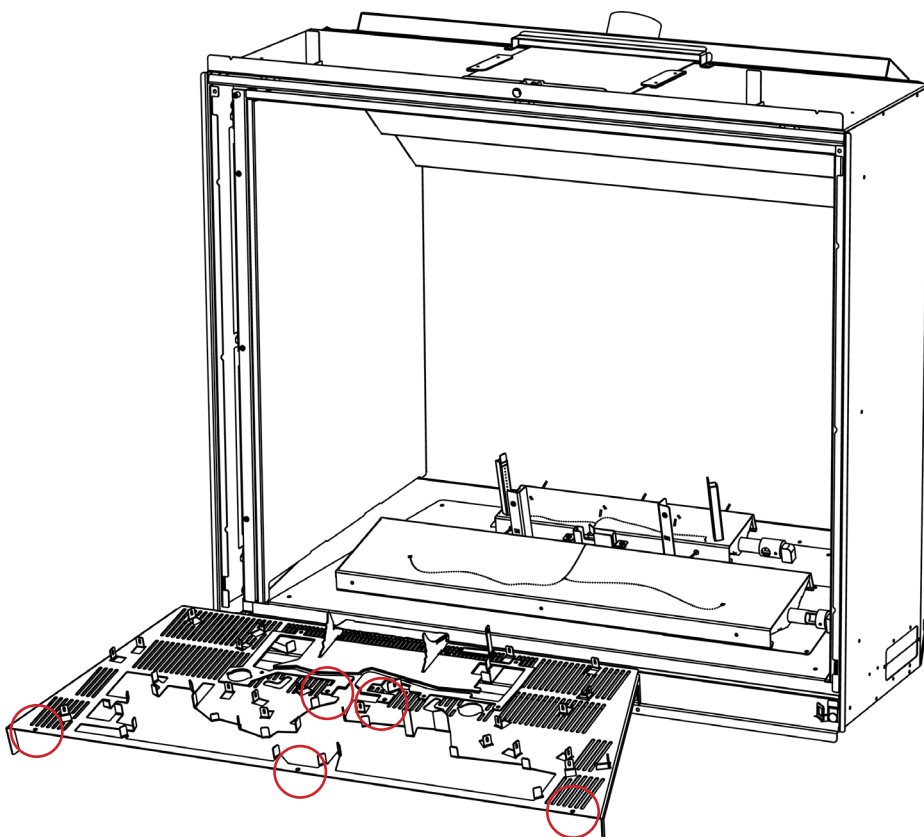
D3 Removing the Elevated Burners

Undo the 1x screw on each elevated burner leg. Lift the burners upwards and out of the firebox. The burner collars and supply pipes are fixed to each elevated burner.



D4 Removing the Infill

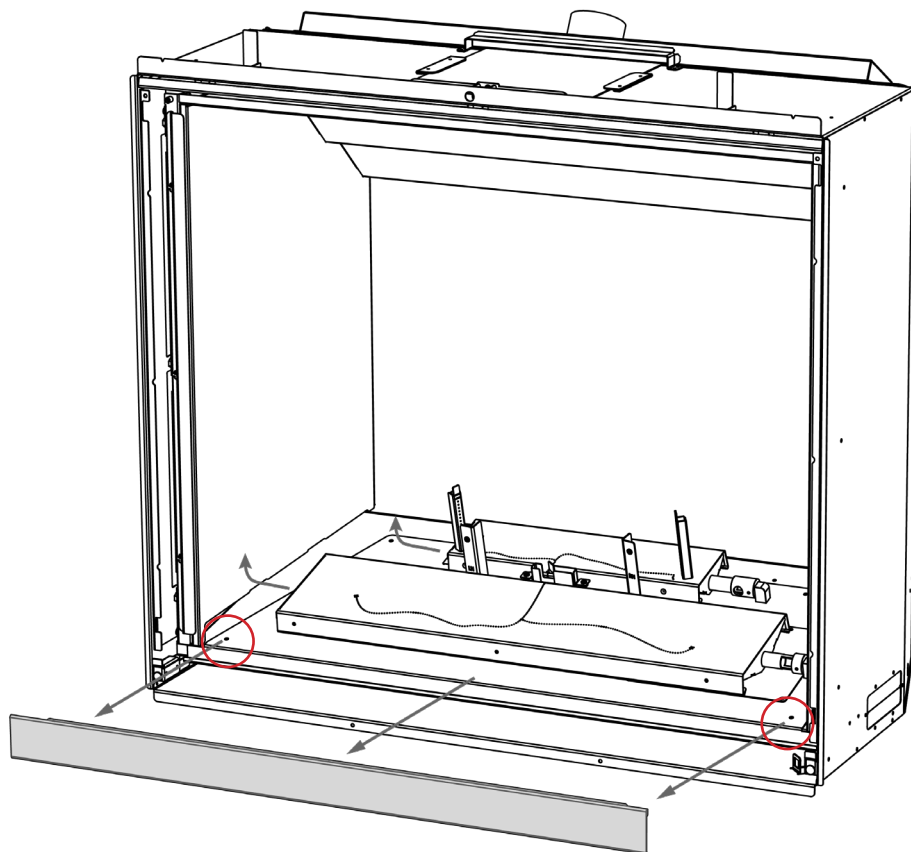
Remove the 3x screws along the front edge of the infill, and 2x screws at the base of the pilot shroud. Lift the infill up and out of the firebox, careful to not scratch the firebox paint.



D5 Removing the Front Grille

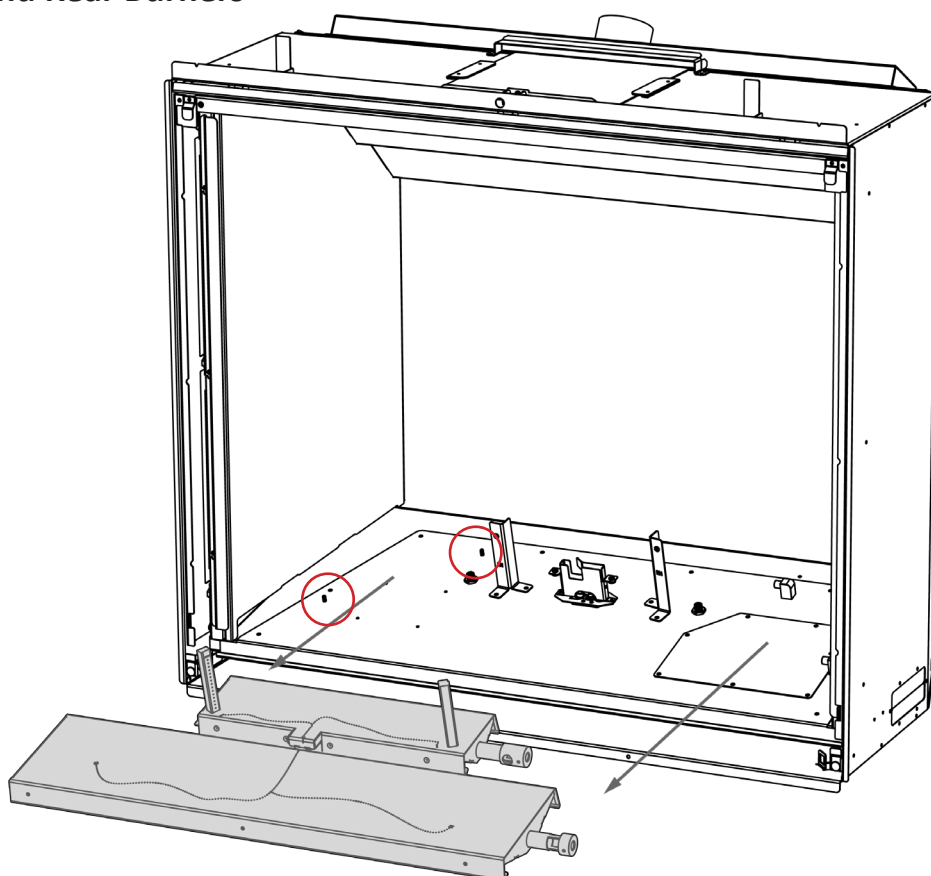
The front trim or grille needs to be removed to safely remove the front burner.

1. Partially undo the 2x screws at the inside of each end of the trim. The screws do not need to be removed fully.
2. Slide the front trim towards you and set aside.



D6 Removing the Front and Rear Burners

1. Undo the 1x nut at the left end of the front burner, using an 8mm socket or spanner.
2. Lift the left end of the burner upwards and slide the burner to the left, disengaging the burner tube from the burner jet.
3. Rotate and pull the burner towards you and set aside.
4. Repeat for the rear burner.

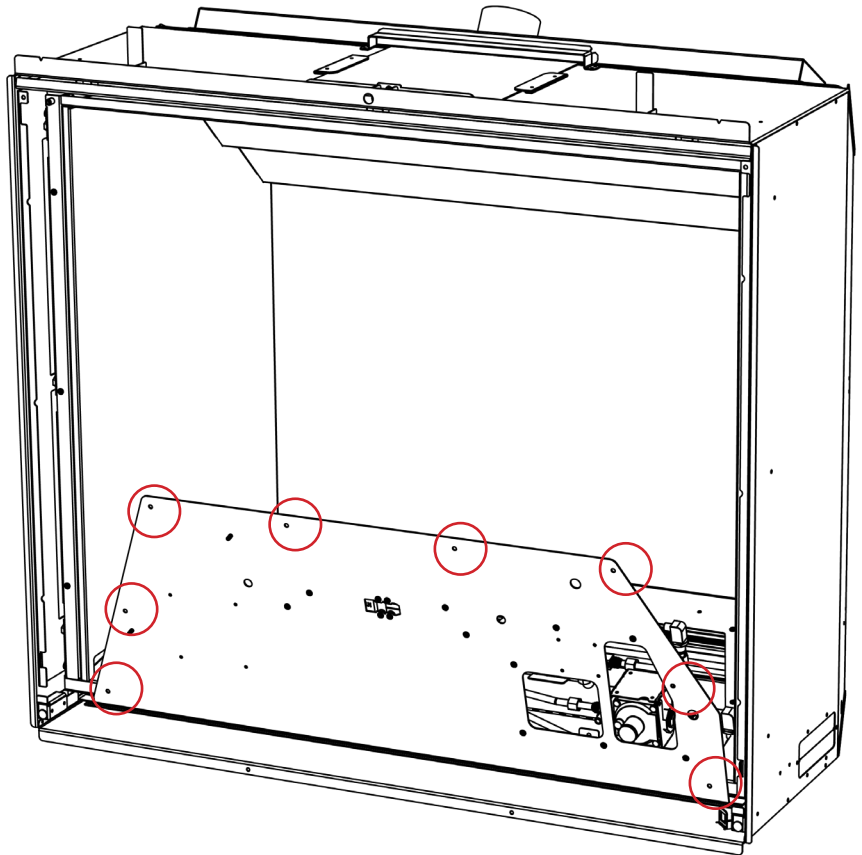


D7 Removing the Burner Tray

To simplify installation of gas to the fireplace and connect the powerflue electrical cable, the burner tray needs to be removed.

1. Undo the 8x screws holding the Removable Tray to the firebox base. One screw is used to hold in the access hatch.
2. Carefully lift and rotate the rear of the Removable Tray upwards and towards you, pivoting on its front edge.
3. Gas supply and powerflue electrical cable can be connected to the gas regulator and electronics tray.

The Removable Tray is held in place by the Pilot and Gas Valve wiring. This Removable Tray can be fully removed, for better access, from the firebox by disconnecting the Spark Electrode and Flame Sensing wires, and the Gas Valve earth wire from the Ignition Module, and the Gas Valve loom wire from the Electronics Tray. Ensure to reconnect them correctly when reinstalling.



D8 Gas Pipe Sizing

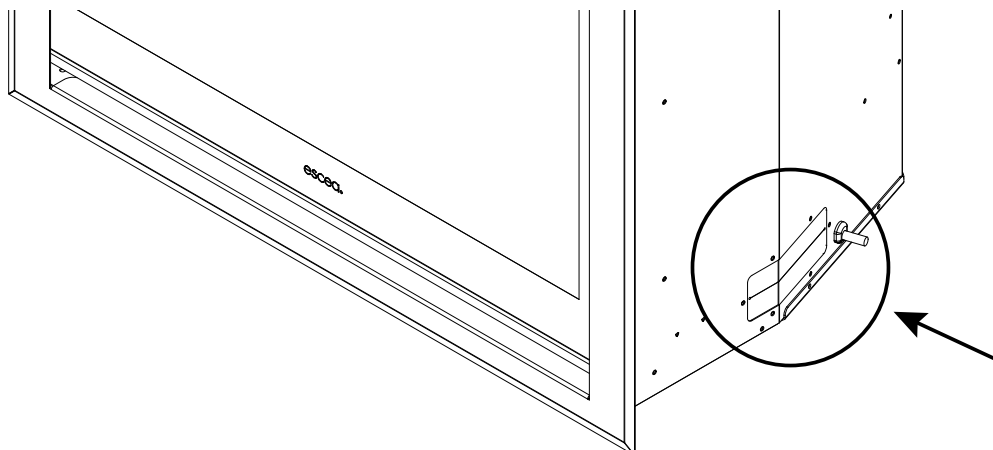
Gas pipe should be sized as per the requirements of AS/NZS 5601. The pipe sizing must be sufficient to deliver the following volume of gas to the heater with all other gas appliances in the home running at the same time:

DF990 Gas Consumption = 39MJ/hr

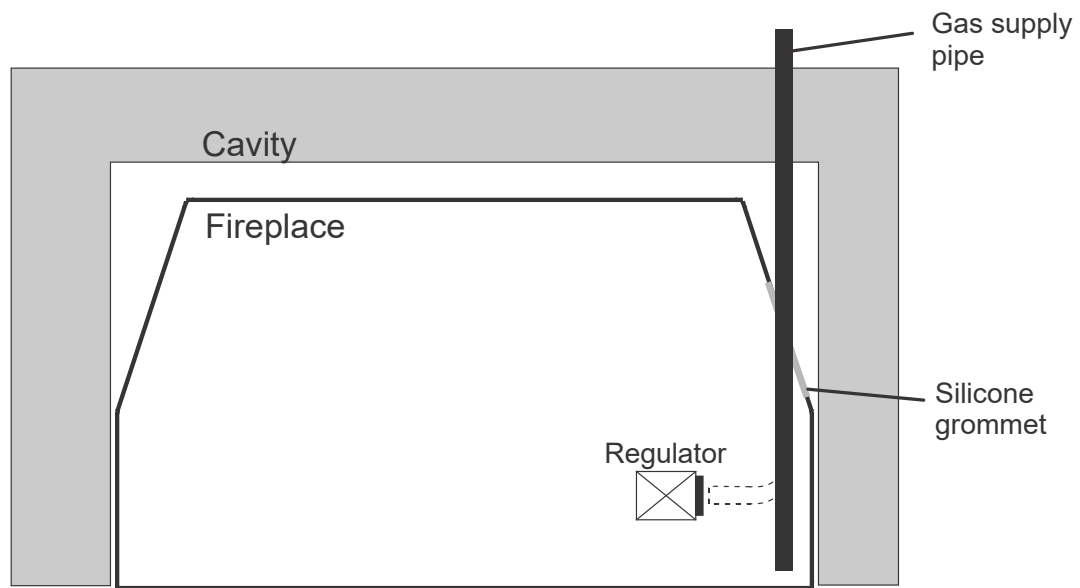
Escea does not condone using a 9kg bottle as the main gas supply for an Escea fire. Doing so could result in a dirty or poor flame and produce excess soot build up.

D9 Gas Pipe Position

The DF990 MK2 gas pipe entry point is located in the lower right corner; a sheet of silicone is used as a grommet (circled below).



Line up the gas supply pipe with the silicone grommet so that when the chassis is pushed into the cavity in section E on page 33 the fire will look like the diagram shown below. Attaching the pipe will come in section "E6 Connecting the Gas Pipe to the Regulator" on page 36



E

INSTALLING THE APPLIANCE

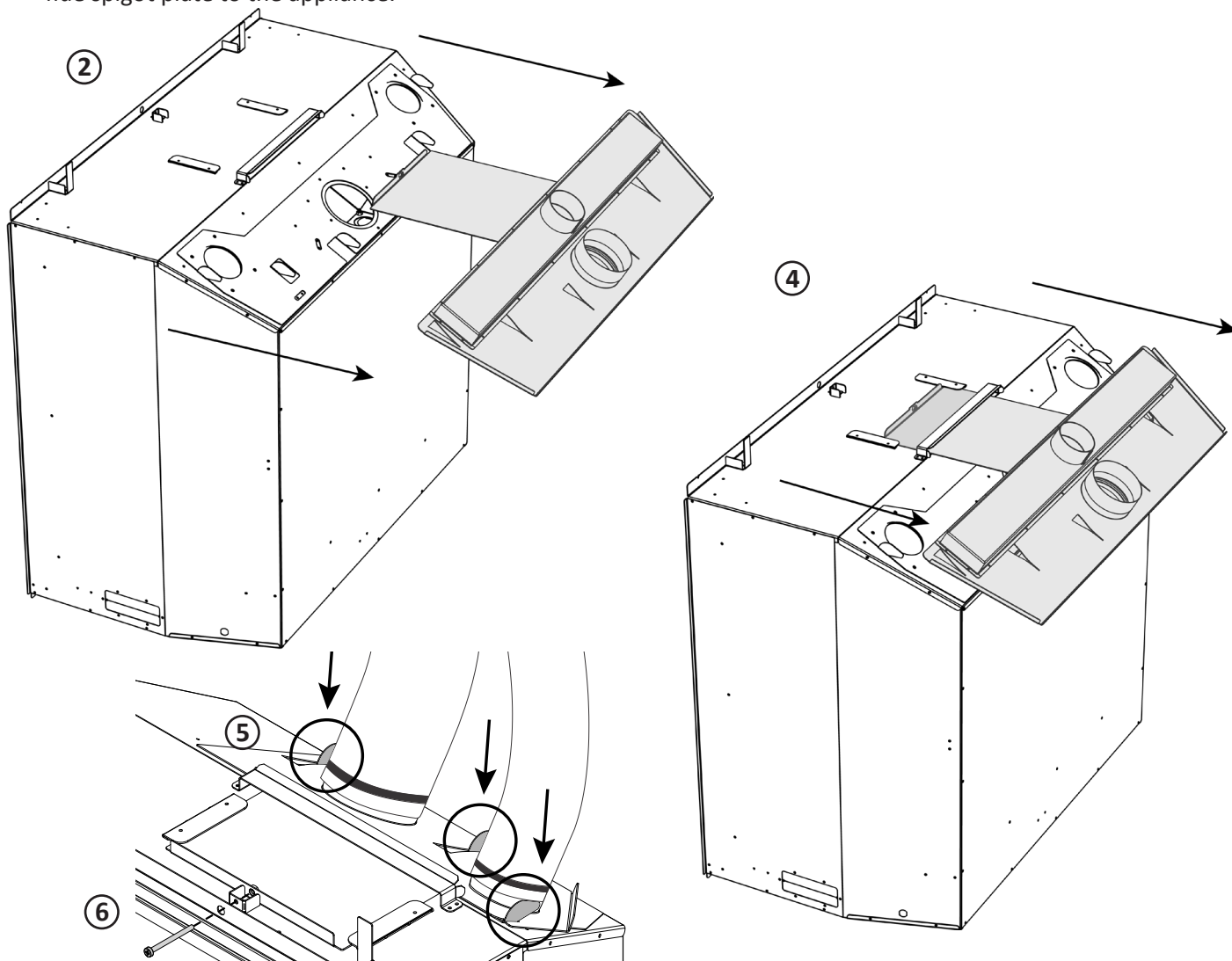
E1 Installation

Note: Ensure the wall has been correctly framed to the dimensions specified in section B1 on page 8 before starting the appliance install. The wall must be lined after the fire has been fitted into the cavity with the appliance electrical cord plugged into an outlet, carefully place the appliance in front of the cavity base.

E2 Connecting the Flue

Where a cavity is inaccessible or space is restricted, the flue spigot plate is removable to allow for flue pipe connections to be made and the fireplace installed later.

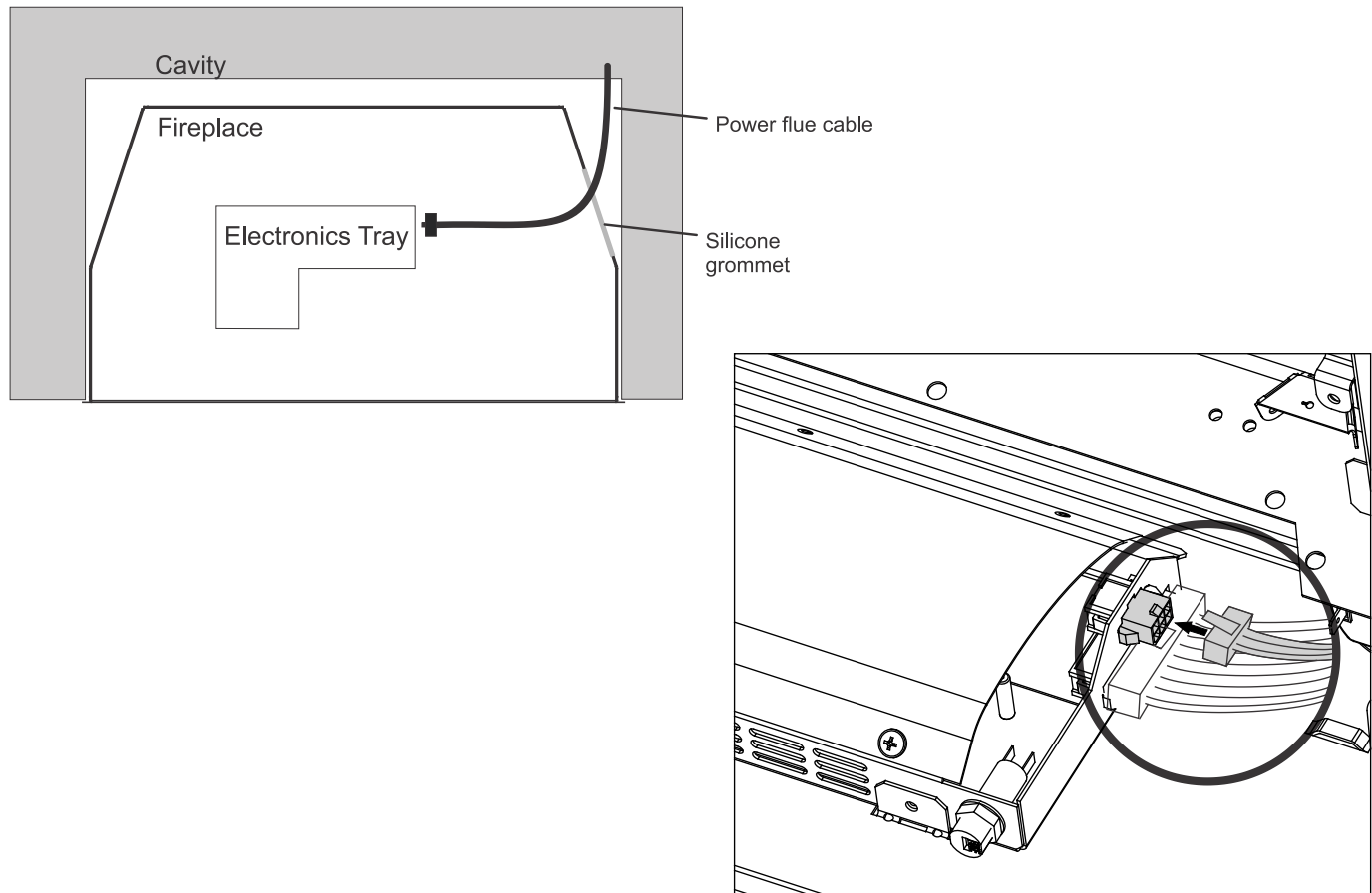
1. Run the flue pipes through the cavity or chase, from the flue terminal and leave them hanging in the cavity.
2. Detach the flue spigot plate from the fireplace, by releasing the M5 Screw on the front of upper flange of the appliance. Slide the flue spigot plate to the back of the fireplace.
3. Connect each flue pipe to the corresponding spigot on the removable flue spigot plate.
4. When ready carefully slide the DF990 MK2 Fireplace into the cavity engaging the horizontal flat part of the flue spigot plate with the top of the appliance.
5. Ensure the rounded vertical tabs on the angled top of the appliance, engage with the slots on the flue spigot plate. Circled below in red.
6. Reinsert the 1x M5 Screw into the hole in the upper flange of the appliance. Tighten the screw to fully secure the flue spigot plate to the appliance.



E3 Connecting the Power Flue Cable

Note: Make sure to turn off the power supply before connecting the power flue cable. Feed the Power Flue cable through the silicone grommet on the lower right hand side of the chassis and connect it to the terminal on the electronics tray shown in the diagram below.

Note: The burner tray must be removed to access the electronics tray as shown in section D7 on p31.

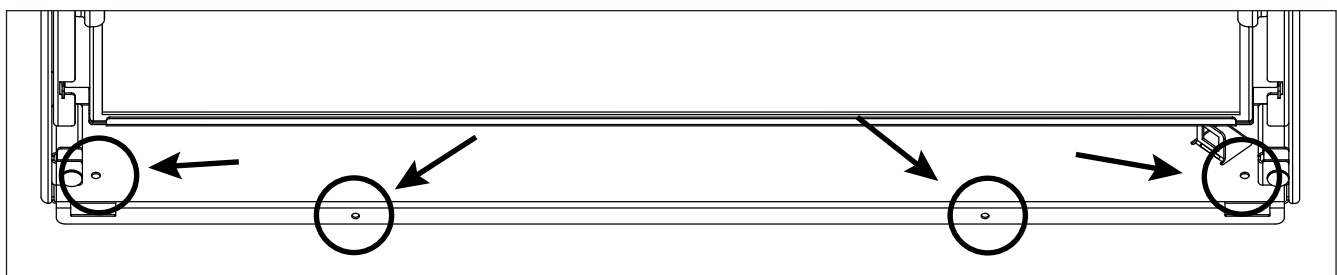


Test the fan now to ensure that it will run prior to continuing with installation. Failure to plug in the fan will result in an error code when starting the fireplace.

E4 Fixing the Appliance to the Base

An appropriate fastening can be screwed down to the cavity base through the 4 circled holes in the diagram.

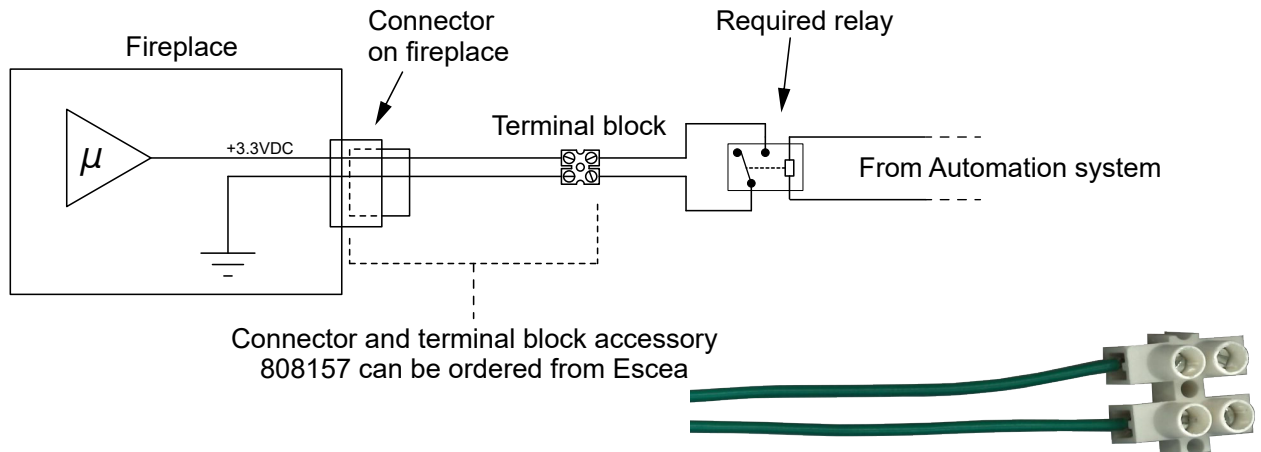
ENSURE THAT THE FIRE IS SEISMICALLY RESTRAINED IN A MANNER APPROPRIATE TO THE INSTALLATION LOCATION.



E5 Home Automation Setup (Optional)

Escea DF-Series fireplaces have a simple interface for connection to a home automation system. This allows the fireplace to be woken up, started, and then shut down. The “Close to Wake” connection (shown below) is essentially taking one of the 3.3 volt DC pins on the fireplace micro-controller and shorting it to ground.

In order to isolate the fireplace from the automation system, a relay needs to be used (as shown). This allows you to keep the fireplace’s 3.3V supply isolated.



The home automation connection (shown right) can be found in the bottom of the fireplace connected to the electronic tray, on the right.

Home Automation Operation

Relay closed

The fireplace will start in a medium setting until the remote control talks to the fireplace and picks up the ‘ON’ signal (which can take up to 4 minutes). Once the remote has communicated with the fireplace it will turn on and begin operating thermostatically. The remote will use whatever temperature the user has previously set and cannot be altered by the home automation system. The fireplace will continue to operate while the relay is closed.

Note: If the fireplace cannot communicate with the remote within 10 minutes of the relay contact closure then the fireplace will shut down and return to standby. The remote controller is required to be within operating range of the fireplace for its safe operation.

Relay open

If the fireplace is operating with a closed relay then, upon opening the relay contacts, the fireplace will shut down and return the remote controller to its standby mode when it next updates (which can take up to 4 minutes). While the relay is open the fireplace will be in standby mode and available for manual operation by the user.

E6 Connecting the Gas Pipe to the Regulator

THE REGULATOR SUPPLIED WITH THE APPLIANCE MUST NOT BE REMOVED. REMOVAL OR REPLACING WITH A NON-ESCEA REGULATOR, WILL VOID THE LIMITED APPLIANCE WARRANTY.

The gas connection on the appliance regulator is a ½" female BSPT at the front right of the appliance; the regulator is located on the underside of the main burner tray (circled left). The gas supply section of the piping will need to be flexible inside the chassis to allow for pipe disconnection and burner tray removal.

With the burner tray out, the flexible gas supply pipe may be bent into position to align with the regulator connection point when the burner tray is replaced. The gas supply can be tightened onto the regulator through the access hatch shaded in the diagram below.

E7 Gas Isolating Valve

As per AS/NZS 5601 it is recommended that a gas isolating valve be installed prior to the inlet of the fire for servicing in the future.

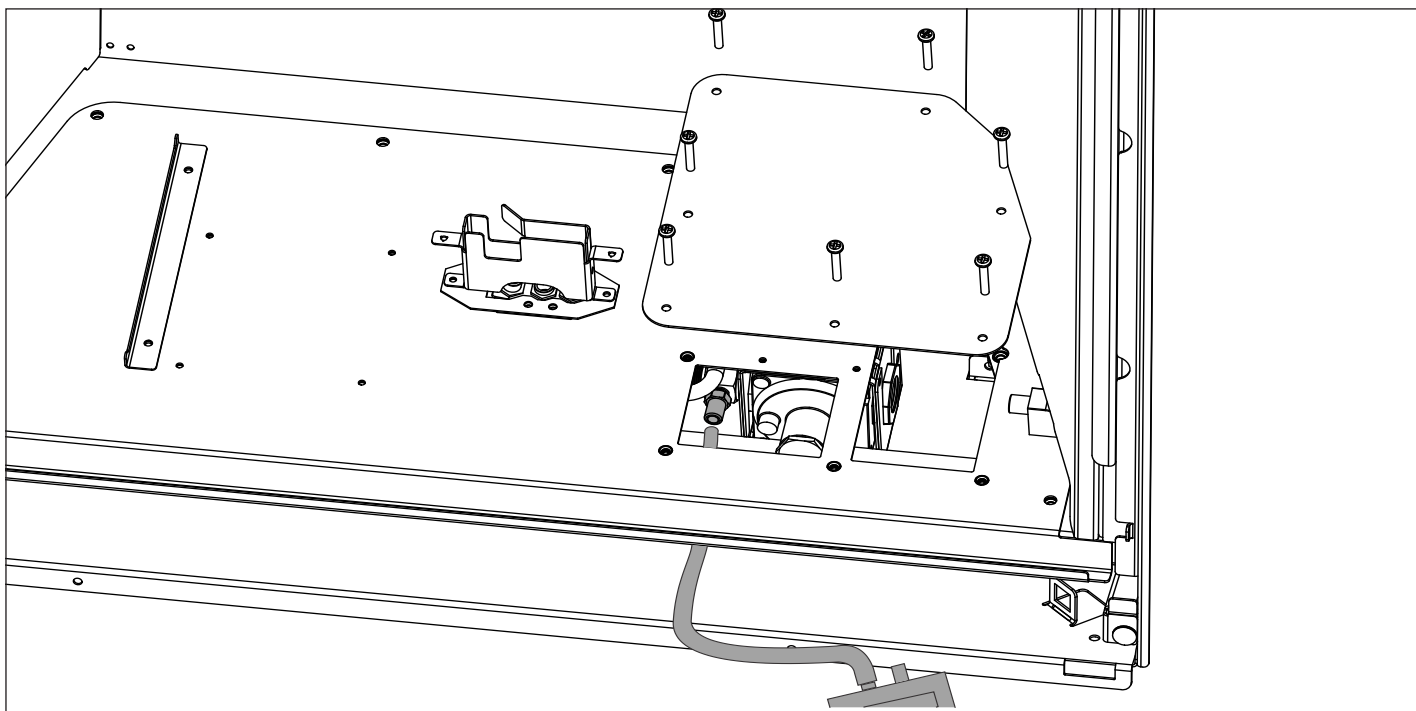
It is recommended to install a gas isolating valve as close to the appliance as possible when installing your Escea gas product. Fix it in a convenient position to allow it to be closed easily during operation. Consider access once wall linings have been fixed. In some instances, a gas isolation valve will not be able to be fitted due to physical limitations and access points. In such a situation it is acceptable to place a valve closer to the gas meter or use the gas meter as the isolating valve during service work and install.

E8 Pressure Test Point

As per AS/NZS 5601, a pressure test point shall be provided by the installer prior to the inlet of the appliance.

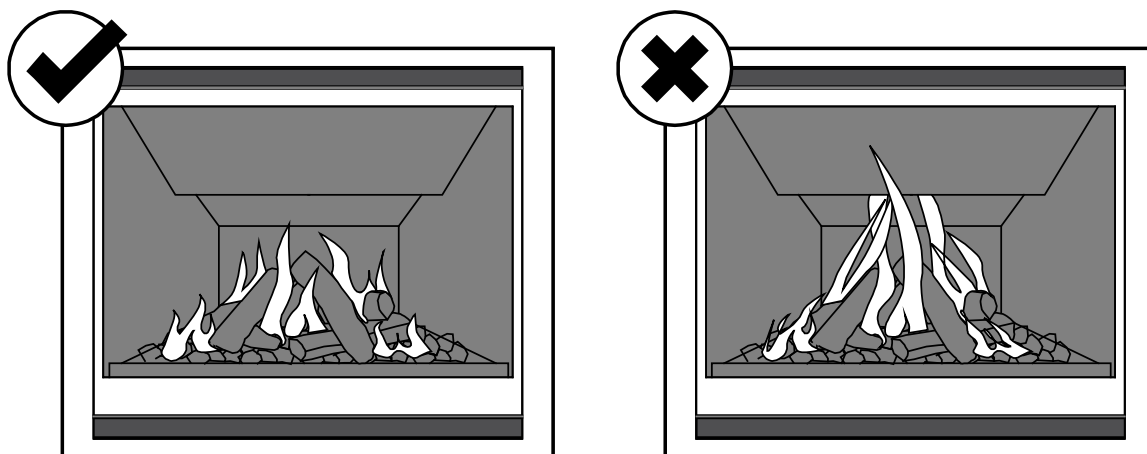
E9 Checking the Operating Pressure

1. Check the inlet pressure to the appliance. Attach manometer tube to the first test point upstream of the appliance (typically at the gas utility meter or auto change device for a propane bottle station)
2. Run the heater on full (both burners running) and measure inlet pressure with all the other gas appliances in the building running. If pressure does not fall within the maximum or minimum pressures listed on the specification sheet at the start of this manual then reassess installation pipe size or upstream regulator settings.
3. Loosen the operating pressure test point screw. Connect the manometer tube and measure the operating pressure with the fireplace running on full (both burners running) and with all the other gas appliances in the building running. The manometer tube can be applied to the test point by removing the access hatch and feeding the tube through the front (as shown in the diagram next page).
4. Adjust the operating pressure by feeding a screw driver through the front face of the fireplace and turning the regulator adjustment screw.
5. Tighten the operating test point screw and leak test both test points using a soapy water solution.
6. Replace the test point hatch



E10 Flame Picture

An abnormal flame pattern will look long and stringy and may cause soot to build up inside the firebox.



An abnormal flame pattern will likely be the result of incorrect settings (jet size, burner aeration collar, flue restriction), and if present you must check these are correct before proceeding.

Note: When checking flame picture ensure burners fully light on ignition, build up of embers or large embers can impede and cause breaks in the cross-lighting.

If an abnormal flame pattern is still present or cross-lighting is an issue, please contact Escea.

It is the responsibility of the installer to ensure a correct flame pattern.

Note: The fuel bed instructions contain necessary information on installing the fuel bed, these are supplied separately with the fuel bed. Retain these instruction sheets for future servicing.

E11 Installing the Glass

Refer to section D2 on page 28 and reverse the steps to reinstall the glass.

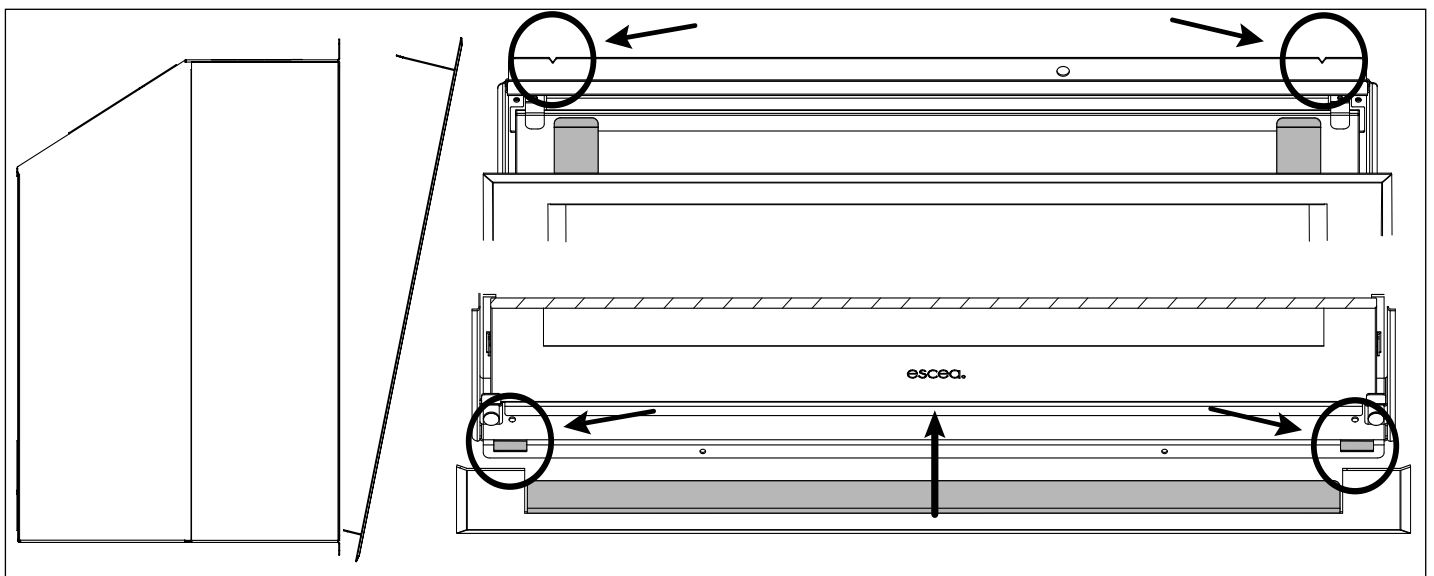
F FITTING THE FASCIA AND FINISHING INSTALLATION

F1 Fitting the Fascia

WARNING: THE FASCIA IS A CRITICAL COMPONENT OF YOUR GAS FIRE AND IS INTEGRAL TO THE AIRFLOW. NEVER RUN THE FIRE WITHOUT THE FASCIA PROPERLY FASTENED.

To align the fascia, place the bottom flange in first and center the fascia using the bottom flange and the two holes in the chassis bottom (circled bottom) then swing the fascia up to meet the top locating notches (circled top).

Slide the two prongs into the space between the chassis lid and black ramp in the two top corners using the notches to center the fascia. You should feel some resistance as the prongs engage with the retainers.



THE FASCIA MUST NOW BE FLUSH WITH THE WALL.

F2 Locating Wall Mount Cradle for Remote

The appliance's remote contains the thermostat that will sense the room temperature and communicate this back to the heater via radio frequency.

A wall mount cradle has been provided for the wireless control and where possible the control should be housed in this cradle.

The location of this cradle should be decided by taking into account the following factors:

- ☐ **Simple and convenient access for the user**
- ☐ **Away from air flow and drafts through the room**
- ☐ **The parts of the room that people are likely to spend time**
- ☐ **Away from direct sun light**
- ☐ **A suitable distance away from the heater**

Please ensure that the cradle is screwed firmly onto the wall using the screws provided.

F3 Operating the Appliance for the First Time

Activating the Remote (first time use)

The remote arrives in a locked shipping state. To unlock it, please plug it into power via the USB-C port for 1 second. The remote will come with about 50% charge.

Note: The remote does not come with a charging cable.

Charging the Remote

Charge the remote through the USB-C port in the bottom of the remote using a USB-C cable. The remote can't be used while it is charging. The battery icon will "fill up" and turn green once it is fully charged.



Initial Start

To turn the fire on, press the "POWER" () button once, and within a few seconds the appliance will begin its startup sequence.



Note: Before starting up, the appliance has a 15 to 30-second pre-ignition purge. During this time, a fan runs by itself before attempting to ignite. A visual indicator on the top of the remote screen shows which part of the startup process the appliance is in (see above).

NOTE: once the front burner has lit there will be a fixed 15 second delay before the rear burner will light.

Run the appliance on full for an hour with the windows and doors open in the dwelling. This will ensure any running-in smells have the chance to dissipate.

The appliance is turned off by pressing the "POWER" button once more. The remote will display the time only.

For further operation instructions please refer to the User Guide.

F4 Normal Operating Sounds and Smells

Note: Each time the fire is lit from cold the glass may fog up with condensation. This is normal and the condensation will disappear within a few minutes once the glass heats up.

Sounds:

It is possible that you will hear some sounds from your gas appliance. This is perfectly normal due to the fact that various types of materials are used within your appliance. Listed below are some examples. These are all normal operating sounds and should not be considered as defects in your appliance.

Fan:

Escea gas appliances use electric fans to push heated air into the room. It is not unusual for the fan to make a “whirring” sound when ON. This sound will increase or decrease in volume depending on the speed setting of your fan.

Gas Control Valve:

As the gas control valves turn ON and OFF, a dull clicking sound may be audible. This is the normal operation of a valve. When the fire is switched off after being run for a while, there may be popping and fluttering noises as the residual gas in the burners burns away. These are normal and are no cause for concern.

Unit Body/Firebox:

Different types and thicknesses of steel will expand and contract at different rates resulting in some “cracking” and “ticking” sounds being heard throughout the heating and cool down processes.

Smells:

The first few times the unit is operated, the unit may release an odour and the flames will appear orange due to: the curing of the paint, the burning off of the starch in the gas logs and the oils in the metal. This is a temporary curing process which will disappear with use.

F5 Cleaning the Glass

WARNING: DO NOT ATTEMPT TO CLEAN THE GLASS WHILE IT IS HOT. ALL INTERNAL GLASS/PARTS OF THE FIREPLACE MUST BE SERVICED BY AN AUTHORISED TECHNICIAN.

Clean the outside of the glass with normal glass cleaning products and a clean dry cloth. Stubborn marks may be cleaned with a ceramic glass cleaner.

END OF SECTION F

BY THE END OF THIS SECTION, YOU SHOULD HAVE:

- ☐ **A correctly fitted fascia**
- ☐ **The remote control mounted on its cradle on a wall**
- ☐ **Operated the fire and verified that it lights reliably and safely**
- ☐ **Run the appliance on full for an hour with the doors & windows open**
- ☐ **Checked the operation of the thermostat, Flame Effect & Fan Boost function.**

G

INSTALLATION CHECKLIST

Go through the following checklist to ensure you have installed the appliance correctly

- ☐ **Correctly sized cavity to suit your fascia and flue configuration**
- ☐ **Correct clearances to combustibles and mantles around the fascia**
- ☐ **An electrical isolating switch to the appliance, accessible after finished installation**
- ☐ **Correctly sized gas supply with a pressure test point, ensuring adequate supply with all other gas appliances in the dwelling running**
- ☐ **A weather-tight installed Horizontal or Vertical Flue Terminal with clearance as specified by AS/NZ5601**
- ☐ **Power flue cable connected correctly to the Power Flue Terminal and the electronics tray within the appliance**
- ☐ **Reasonable access to the Horizontal or Vertical Flue Terminal for maintenance purposes**
- ☐ **Flue attached to the rear/bottom of the flue terminal leading back to the appliance**
- ☐ **The appliance fixed to the cavity base**
- ☐ **The appliance plugged into a mains electricity supply**
- ☐ **All gas joints and pressure points leak tested, and soapy water and drop tests completed on gas pipework**
- ☐ **Gas type conversion process carried out if required**
- ☐ **Log fuel bed correctly installed**
- ☐ **Primary and secondary glass correctly fitted**
- ☐ **A fitted fascia**
- ☐ **The remote control mounted on its cradle on a wall**
- ☐ **Operated the fire and verified that it lights reliably and safely**
- ☐ **Run the appliance on full for an hour with the doors & windows open**
- ☐ **Appliance functions checked, including thermostat operation, Flame Effect and Fan Boost**
- ☐ **Home-owner shown how to operate the appliance correctly**
- ☐ **User Guide made available for end user**
- ☐ **Plumbing Industry Commission Compliance Certificate given to end user**

IMPORTANT:

THIS APPLIANCE MUST BE SERVICED EVERY 12 MONTHS.

ANY SERVICE OPERATION SHOULD BE CARRIED OUT ONLY BY A SUITABLY QUALIFIED AND TRAINED PERSON.

GAS AND ELECTRICITY SUPPLY MUST BE ISOLATED BEFORE ANY SERVICE OPERATION IS CARRIED OUT ON THIS APPLIANCE.

THIS MANUAL SHOULD BE LEFT WITH THE APPLIANCE.

ONLY USE ESCEA APPROVED SPARE PARTS.

ESCEA SPARE PARTS ARE AVAILABLE FROM AN ESCEA DISTRIBUTOR OR RETAILER

DO NOT MODIFY THIS APPLIANCE.

S1 Annual Service Procedure

- ☐ Isolate power and gas supply to fire.
- ☐ Remove glass and clean inside of glass.
- ☐ Remove fuel bed and brush off any soot.
- ☐ Clean electrode and pilot hood of any carbon build up and ensure correct gaps between electrode and pilot hood
- ☐ Remove burners and blow compressed air through the burner ports.
- ☐ Remove jets and clean injector hole (with solvent if necessary).
- ☐ Vacuum any dust from the cavity that houses the fan and from the underside of the fire box around the valve and solenoids.
- ☐ Test all joints for gas tightness.
- ☐ Reassemble heater and check that operating pressure is correct.
- ☐ Check glass sealing tape and replace if necessary.
- ☐ Check to make sure that flue system is intact and not in any way blocked.
- ☐ Trial heater with several start/stop cycles, Fan Boost, Effect Only, and thermostat modes to ensure that all modes function correctly.

The product data plate is located underneath the electronics tray. (See section "S8 Removing Electronic Tray" on page 48 34.)

S2 Error Codes

This gas fire has been designed to show error codes to help explain and identify any fault situation that occurs. These codes will appear on the top of the remote touchscreen in the form of a letter “E” with a number code beside it. Codes can normally be reset by turning the fireplace off then on again at the mains power wall switch.

The following table shows what each code means and possible ways to rectify the situation. In the case of persistent or repeated shutdown errors, action must be taken immediately to find and repair the fault.

Some codes are not applicable for this model or are for factory diagnostics. These have not been included in this table.

NOTE: An error code may not signify a fault/warranty issue; depending on the error code, it may signify that the remote batteries are low or the LPG cylinder is empty. Refer to the section below and contact Escea if needed.

Error Code	Suggested action
E1 Electronics Over Temp	Ensure correct gaps are present around glass. Check fascia and trims are correctly fitted. Room air fan/s may be slowed or stalled. Check that the fans are plugged in, clean, and free turning. Check for excess lint and dust build-up on the PCB/Controller.
E2.1 The fire has tried to light three times and failed during a normal startup.	Check correct gas pressure to the appliance with all other appliances running. Check the spark electrode is sparking at the end of each 15s - 30s purge. Check the electrode is well enveloped in flame. Ensure no small embers/coins have dropped onto the ignition electrodes inside the pilot guard. Ensure the electrode is not contacting any metalwork.
E2.2 Waited too long for purge to finish.	The fire has completed its purge but has not attempted to ignite the pilot.
E2.3 Three failures during normal runtime.	Check gas supply and check other gas appliances to see if they are affected. If you have two separate LPG cylinders, switch over to the full bottle or contact your gas supplier. You may need to retry igniting the fire a few times after re-establishing gas supply.
E2.5 Pilot has extinguished when the fire is in over-temperature mode.	The fire has moved to over-temperature mode (pilot flame only) and the pilot has extinguished. Check pilot jet for obstructions.
E2.6 Pilot ignited then extinguished when main burners lit.	Check gas supply and check other gas appliances to see if they are affected. If you have two separate LPG cylinders, switch over to the full bottle or contact your gas supplier. You may need to retry igniting the fire a few times after re-establishing gas supply. Check regulator and burner pressure.

E2.7

Critically low supply voltage.
($<185V$)

Check supply voltage.

E3.1

TCO 1 (Heat exchanger) has
gone over temperature.

Check that fan is plugged in, cleaned, and free turning - room air fan may be slowed or stalled.

Check the burner pressure -being set too high may result in excess heat build-up.

Check the gas jets are correct.

E3.3

TCO over current protection
activated.

Check that TCO wiring terminals are properly connected and not touching the chassis or firebox.

E4.1

Primary valve solenoid current
abnormal.

Check that the connections to each solenoid are secure and in place.

The primary solenoid on the valve inside the fire may have failed. If this is the case, the coil will need to be replaced.

E4.2

Secondary valve solenoid
drawing current when
supposed to be off.

Contact Escea technical support.

E4.3

Secondary valve solenoid over-
current protection activated.

The valve solenoids have failed the pre-ignition test. A wire may have dislodged or the valve solenoid is faulty.

Check that the connections to each solenoid are secure and in place.

The connections on the ends of the wires may need to be tightened (e.g. with a pair of pliers) to ensure a robust connection to the valve terminal.

E4.4

Secondary valve solenoid
drawing too much current.

Check the wiring to the solenoids for damage.

E4.5

Secondary valve solenoid
drawing too little current.

E6.5

Room fan current too low.

Check that room fan is plugged in.

E6.6 Room fan current too high.	Check that room fan is not stalled or jammed. Check wiring loom for damage.
E7.1 Pressure switch stuck closed at startup	Ensure the pressure switch is mounted vertically and the diaphragm is operational.
E7.2 Flue fan current too low.	Check powerflue cable is correctly plugged into the fire and powerflue. Check powerflue cable for damage.
E7.3 Flue fan current too high.	Check powerflue fan is free spinning and not stalled or jammed. Check powerflue cable for damage.
E7.4 Pressure switch does not close during purge.	Check whether the pressure switch is activating at startup (there is an orange indicator LED in the control tray and near the Aux button). Check that both flues are securely connected at both ends to the appliance and the Power Flue wall terminal and that the flue is not damaged. Check that the pressure switch electrical connection is correct. Check that the pressure switch hoses are connected at both ends. Ensure the hoses are not kinked. Ensure the pressure switch is mounted vertically and the diaphragm is operational. The black hose should be connected to the lighter pressure port and the translucent hose to the darker pressure port. Check that the fan inside the Power Flue wall terminal is running during startup. This fan may need servicing if it is slowed or stalled.

S3 Serial Number

The serial number for the fire can be found, on the front page of this manual, underneath the electrical tray on the data plate, on the quick start guide, and by pairing a mobile device as shown in the user guide.

S4 Checking Operating Pressure

See section E9 on page 36 of this manual.

S5 Cleaning the Fascia

The outside of an Escea Fascia must only be cleaned with a soft microfibre cloth. If heavier cleaning is required for the likes of grease or stubborn fingerprint removal we recommend the use of a dedicated stainless steel cleaner for stainless steel fascias or warm soapy water for powder coated fascias. These wipes have been tested by Escea technicians and produce very satisfying results, when used correctly. Instructions for their use follow.

NEVER RUB THE FASCIA.

For Stainless Steel Fascias:

- Ensure that the Gas Fireplace is off and that the fascia is cold to the touch.
- Using the gloves provided with your fascia, a stainless steel cleaner and a clean cloth, apply a small amount of cleaner to the cloth and wipe the fascia with even, straight strokes.
- Make sure your strokes follow the direction of the grain or brush finish. Wiping across the grain can leave small scratches.
- The wipe will leave a very fine film over the fascia, ensure this film is distributed evenly.
- If the film is applied too heavily and is quite visible, you can remove the excess by gently wiping dry with a microfibre cloth. Ensure your strokes still follow the direction of the grain or brush finish.
- Ensure that no film is applied to the glass of your Escea Gas Fireplace. If applied accidentally, wipe off with an absorbent microfibre cloth.

For Powder Coated Fascias:

- Ensure that the Gas Fireplace is off and that the fascia is cold to the touch.
- Using the gloves provided with your fascia, gently clean the fascia with a cloth and warm soapy water.
- Wipe off with an absorbent microfibre cloth.

Cleaning the Log Set and Glass

This is a service procedure that will need to be carried out whenever soot builds up on logs and/or inside of glass. If soot build up becomes excessive or regular then one of the following actions may be required:

- Check gas pressure; operating gas pressure may be too high.
- Reposition log set so that each log is sitting correctly in the log retainer bracket.
- Clear any blockage from primary air port of burner.
- Check flue tube is not damaged or disconnected.

For diagrams and further info on removing your fascia, reverse the steps found in section F on page 39.

- Refer to section D2 on page 28 for instructions on removing the glass. Note that the fiberglass tape around the glass can cause marking on carpet or furnishing.
- Clean the inside and outside of both pieces of glass with normal ammonia-free glass cleaning products. Use a CLEAN DRY cloth only. Stubborn marks may be cleaned with a ceramic glass cleaner.
- Replace in opposite order and test run heater.

S6 Converting the Appliance Gas Type

If there is a need to convert the gas type of the appliance, follow the instructions provided with your gas conversion kit using the following table for correct jets and collars:

For Natural gas fires a silver spring is installed in the regulator and Propane and ULPG use a purple spring.

DF990							
Jets	Front Burner	Elevated Burners	Rear Burner	Front Aeration Collar	Elevated Aeration Collar	Rear Aeration Collar	Pilot Jet
NG	Ø 1.4 mm	Ø 1.8 mm	Ø 0.95 mm	Closed	Closed	2 x Ø 4.5 mm	#42
Propane	Ø 0.85 mm	Ø 0.95 mm	Ø 0.75 mm	2 x Ø 4.5 mm	2 x Ø 4.5 mm	2 x Ø 11 mm	#27
ULPG	Ø 0.85 mm	Ø 0.95 mm	Ø 0.75 mm	2 x Ø 12 mm	2 x Ø 11 mm	2 x Ø 12 mm	#27

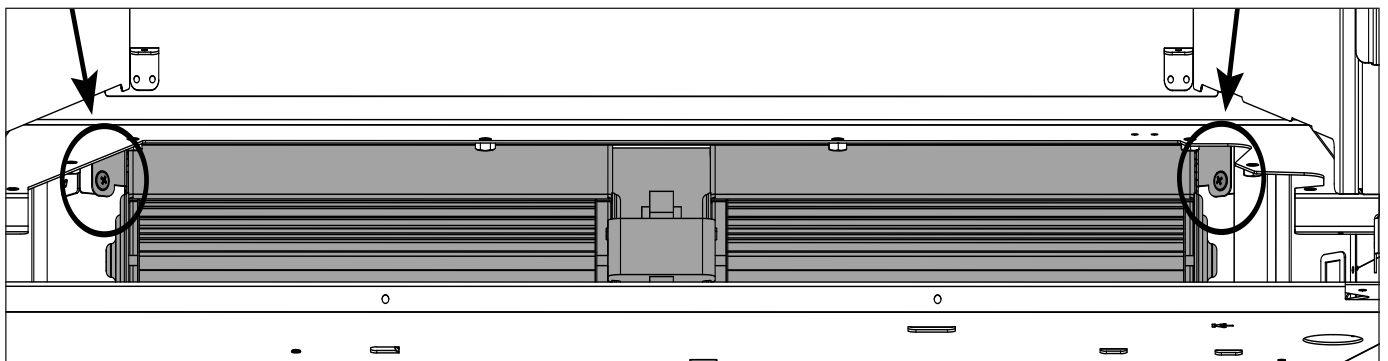
S7 Removing or Cleaning Fan

As part of regular service procedure, it is recommended that the fan is removed for cleaning. Dust will build up on the fan rotor and in the cavity where the fan is located. This can be removed by the service person using a hearth brush and a vacuum cleaner.

ISOLATE THE POWER AND GAS SUPPLY TO THE FIRE BEFORE COMMENCING THIS PROCEDURE.

Remove the electronic tray located on the base of the chassis (instructions provided in the next section) before attempting to remove the room air fan. Disconnect the 3-way fan connector and remove the two screws circled in the diagram below. The room air fan can now be pull towards you and removed through the burner tray hole.

DF990Fan Screw Locations



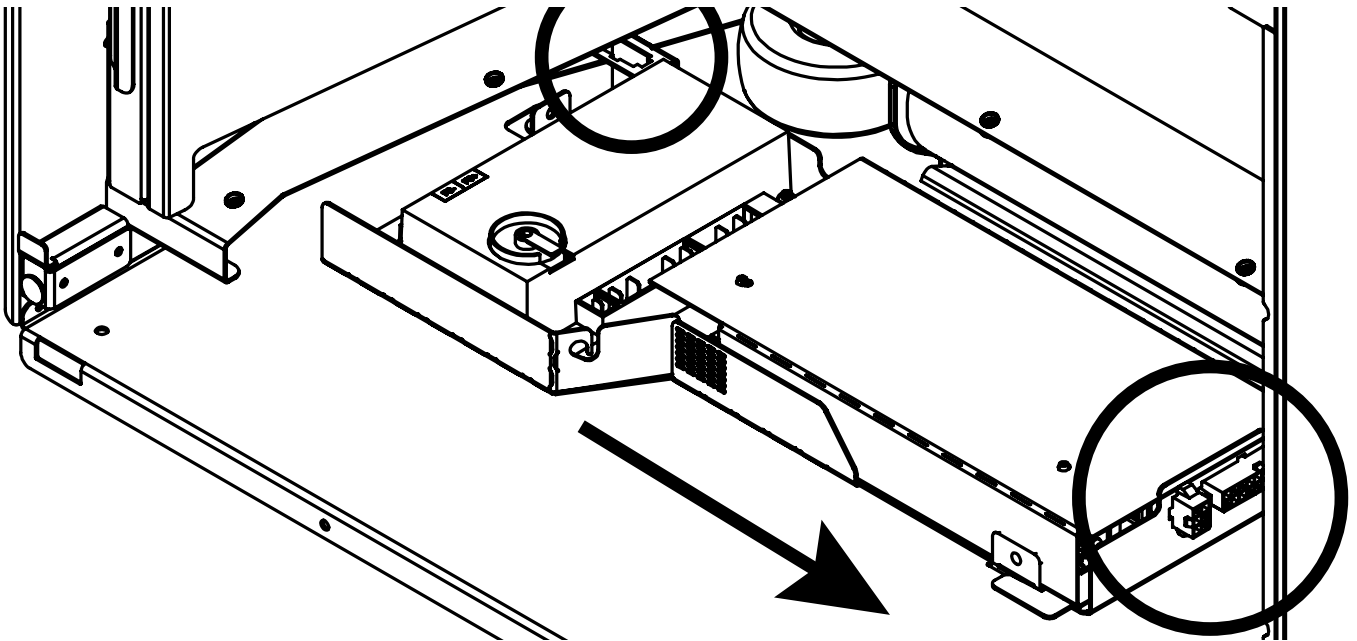
S8 Removing Electronic Tray

ISOLATE THE POWER TO THE FIRE BEFORE THIS PROCEDURE.

All of the electronic components of the heater have been located on a removable tray.

Remove the 18-way connector and 6-way connector from the end of the tray and the transformer connector located in the rear LH corner of the electronics tray.

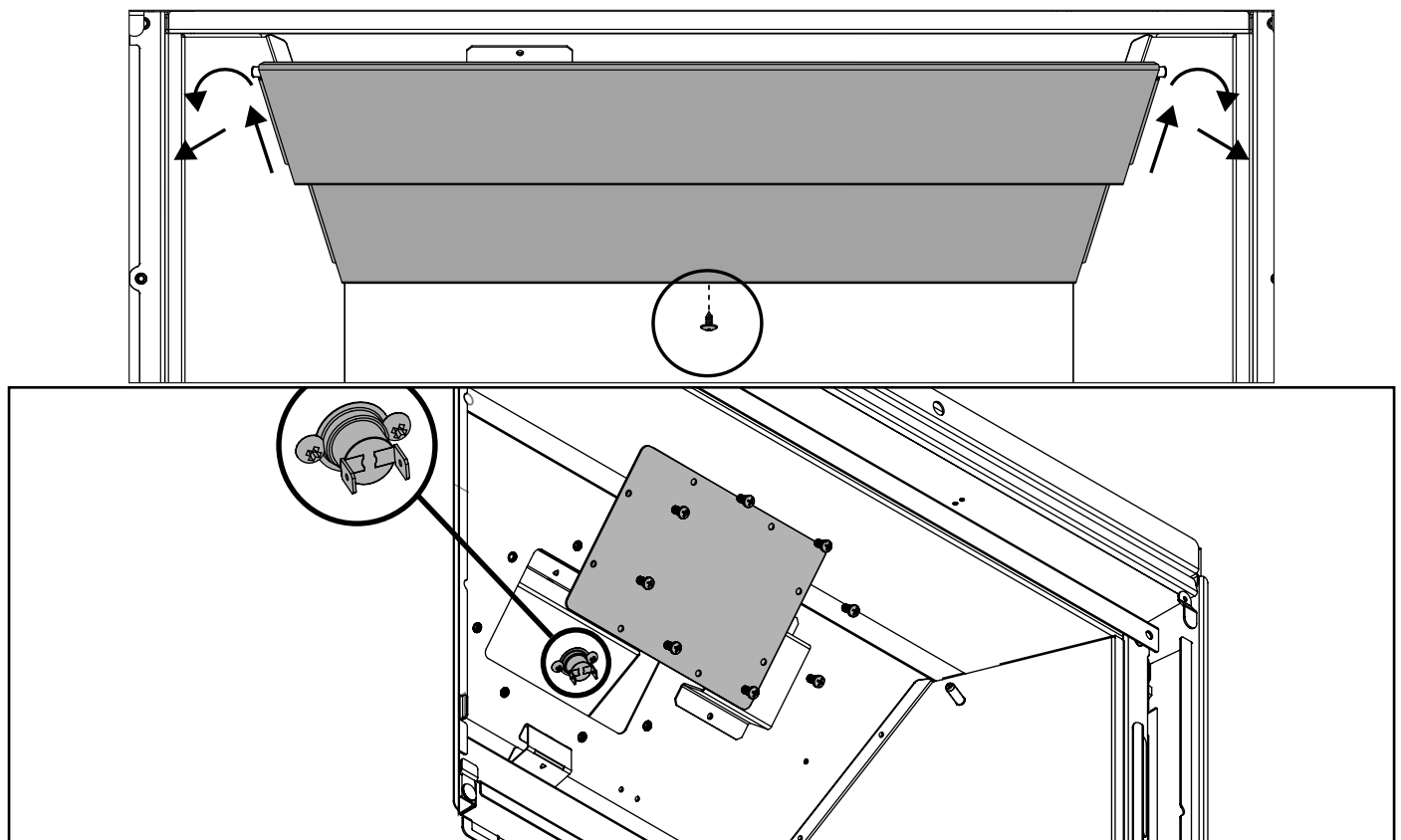
The tray can now be slid towards the RH side then lifted out of the burner tray hole in the firebox.



S9 Replacing the Thermal Cut Out

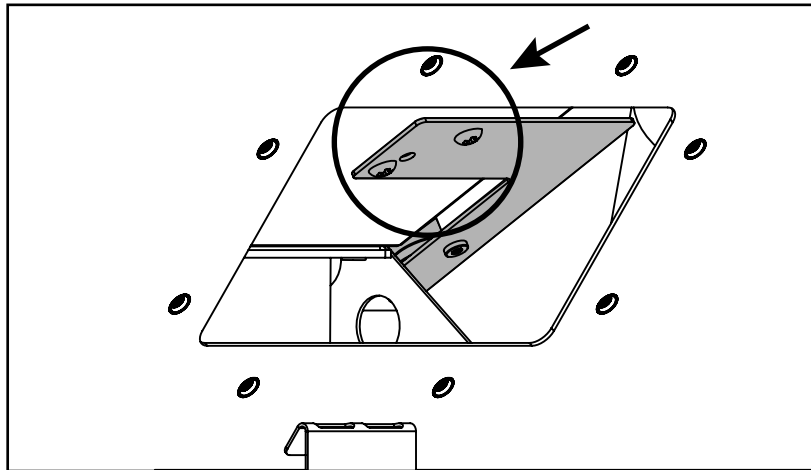
ISOLATE THE POWER TO THE FIRE BEFORE THIS PROCEDURE.

Undo the screw below the stepped baffle halfway then gently lift the baffle up and bring towards you. Remove the 8 machine screws in the access panel (as shown in the diagram below).



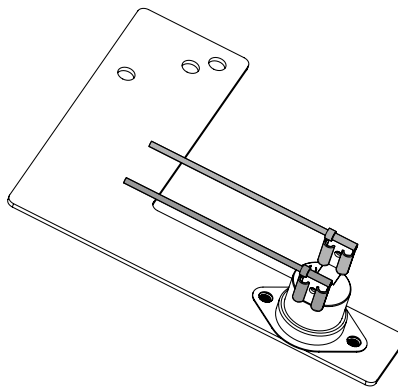
In the DF990 the TCO is attached to a bracket which sits in the position shown below.

Remove the two screws that hold in the bracket and manoeuvre the bracket out of the access hatch.



Disconnect the two wires from the TCO and then pull out the bracket and TCO assembly this may then be removed from the fire box for replacement.

When reconnecting the wires to the TCO point them in the direction shown to the right.

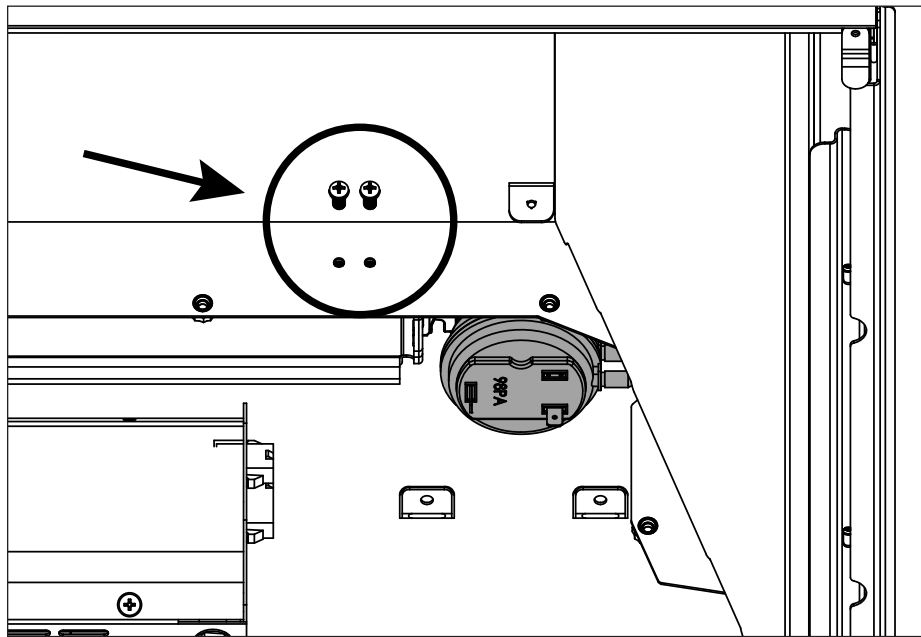


S10 Removing the Pressure Switch

Remove the two machine screws located in the rear RH side of the firebox to detach the pressure switch bracket. Unplug the white and orange wires along with the two tubes to remove the bracket and pressure switch from the appliance.

The bracket with the pressure switch may now be removed from the firebox.

Reinstalling the pressure switch, the black hose should be connected to the lighter pressure port and the translucent to the darker pressure port.



S11 Replacing/Pairing a Remote Control

If the wireless control becomes lost or damaged, a new one can be ordered from any Escea retail agent.

1. Hold down the black (AUX) button on your fire for a minimum of 20 seconds, this will tell your fire to forget any paired remotes.
2. Ensure the fire and remote are set to 'Off'. Gently shake the remote to wake it up if necessary.
3. Press the menu button on the touchscreen
 - Go into Settings
 - Advanced
 - More
 - Pair Fire
4. Select the fire you wish to pair to and select "Next".
5. Enter the fire's PIN. Tap each digit then use the up and down arrows to change the digit.
6. Press "pair". The fire is now linked to the remote control.

Note: Do not attempt to use the old remote once the new one is paired.

S12 Servicing the Horizontal/Universal Vertical Power Flue

Ensure the power to the power flue is off by disconnecting the power to the appliance inside. If the appliance has been running, allow the power flue to cool before attempting to service it.

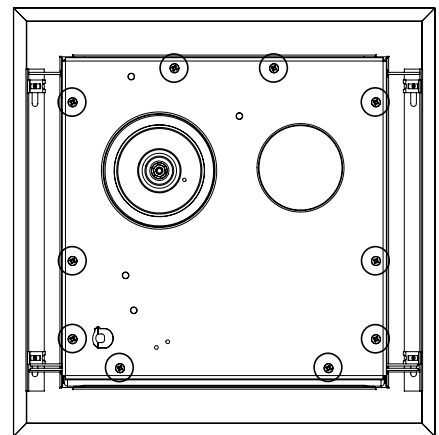
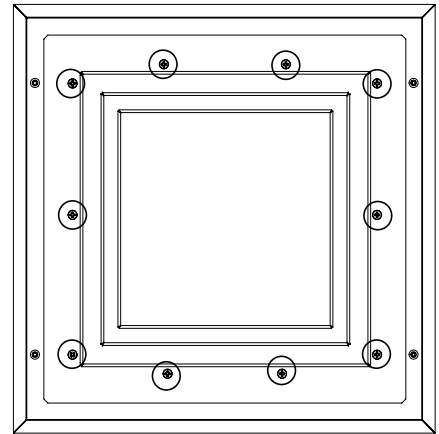
If the Power Flue needs servicing, the fan can be accessed from the outside of the installation (top drawing) or inside (bottom drawing) for horizontal termination and accessed from within the roof space for vertical termination.

Servicing a Horizontal Power Flue:

Undo the screws on the outside of the Power Flue box and separate the two parts, giving you access to the fan inside.

Removing this plate gives complete access to the fan for servicing or replacement. Check that all the seals are still intact. Check that the fan electrical terminals, motor, and impeller are not corroded. Ensure there are no signs of leakage in or around the terminal.

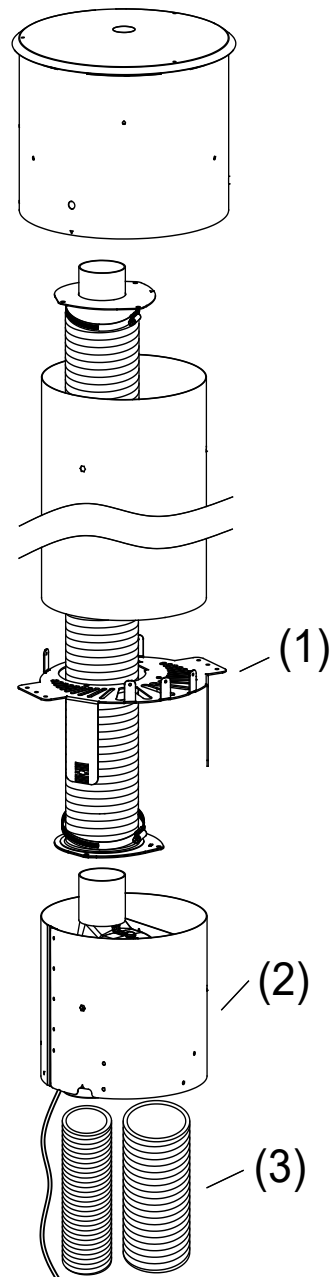
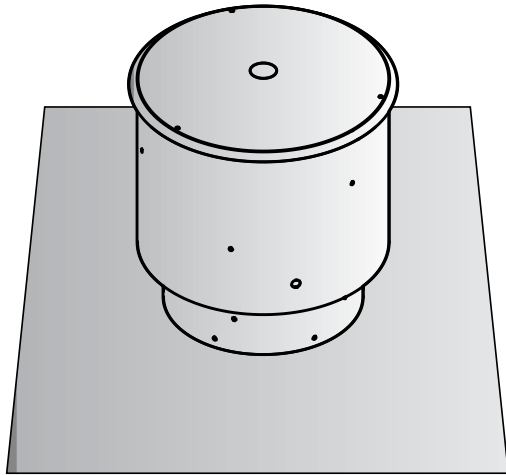
When reassembling the Power Flue, line up the round silicon grommets with the outlet tube of the fan and push the cowl back into place. Ensure all seals are still in place and replace all of the screws to hold the cowl in the correct position.



Servicing a Universal Vertical Power Flue:

If the UVP is internally installed remove the unit (2 in the right hand image) and replace the complete fan unit.

If the UVP is externally installed the cowl/fan unit pictured below is to be completely replaced by removing it from the liner or flashing.



S13 Wiring Diagram

