

escea.

ST900 Direct Vent Gas Fireplace

Installation Manual

NEW ZEALAND EDITION



Important:

The appliance shall be installed in accordance with;

- This installation instruction booklet
- Local gas fitting regulations
- Municipal building codes
- Electrical wiring regulations
- NZS 5261, *Gas installations*
- Any other relevant statutory regulations.
- Must be installed by a qualified person

Note:

THERE ARE A FEW THINGS TO CONSIDER BEFORE INSTALLATION

- Cavity Dimensions and Clearances
 - **MUST** be installed a 100mm minimum off the floor or nearest horizontal surface.
 - Coupling of flue to fire
 - Coupling of gas lines to fire
 - Fixing the fire to cavity
 - Electrical mains socket at rear left corner of the cavity, to accommodate the power transformer
 - Isolation switch for electrical transformer.
 - Gas pipe placement to the front left of the cavity.
- The ST900 electronic control system is designed to work within the temperature range of 0°C to 60°C, with a humidity level that is non condensing. This is to ensure safe operation of the electronic and gas control system.
- If the fireplace is subjected to an environment with temperatures very close to or exceeding these temperature limits (irrespective of if the fireplace is on or off at the time) the fireplace may not start up until the temperature returns back to within the operating range.
- To remedy this the environmental temperature should be addressed and the fireplace control system given time to adjust accordingly. The fireplace should then function correctly.
- It would be prudent to consider these operational limits during the installation planning stage. Protecting the installed fireplace from low external ambient temperatures and cold drafts through the use of approved modern building methods and materials will help ensure that the required operating environment is maintained.

WARNING:

Failure to follow these instructions could cause a malfunction of the fire, which, could result in death, serious bodily injury, and/or property damage. Failure to follow these instructions may also void insurance cover and/or product warranty.

Installation:

Installation must be carried out by a registered installer who, on completion of the installation, must issue a certificate of compliance, in accordance with national and/or local codes. If a certificate of compliance is not issued then the Escea warranty *may* be void.

Warranty Repair and Annual Servicing:

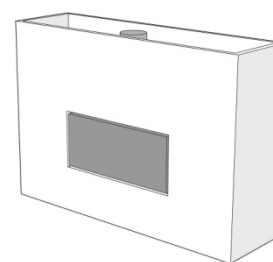
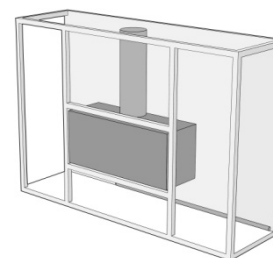
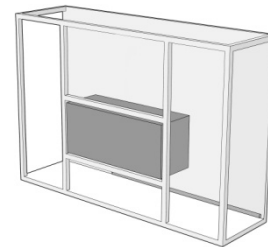
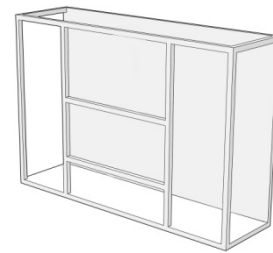
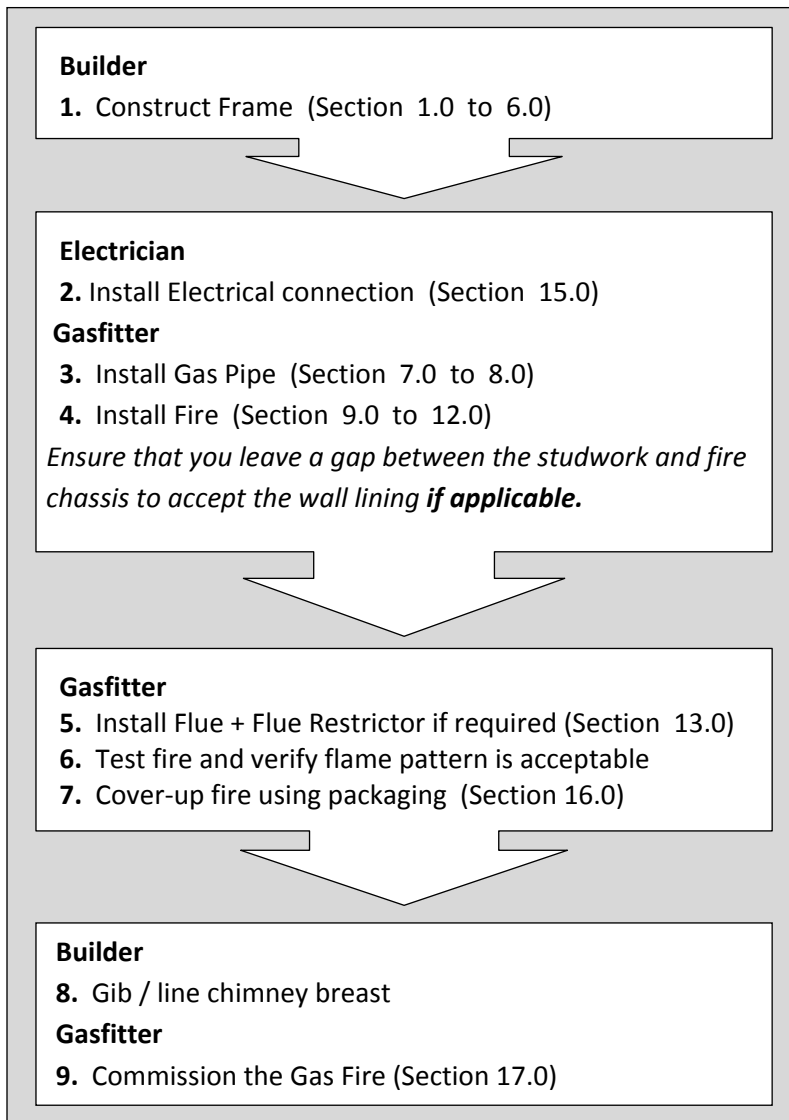
Warranty repair work must be carried out by a recognised Escea gas fire technician. It is recommended that recognised Escea Gas fire technicians are also used to carry out annual servicing requirements (particularly during the warranty period). For contact details of authorised Escea technicians in your area, please contact the retailer from whom the appliance was purchased.

This product must be installed according to these instructions and in compliance with all relevant building, gas fitting, electrical and other statutory regulations (eg. NZS 5261). 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.

Recommended Installation Process:

The following diagram illustrates the steps required to install your gas fire, and the trades required at each stage.

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. Leave the installation of the fascia panels until the very end of the installation and commissioning to avoid damage to the fascia panels.

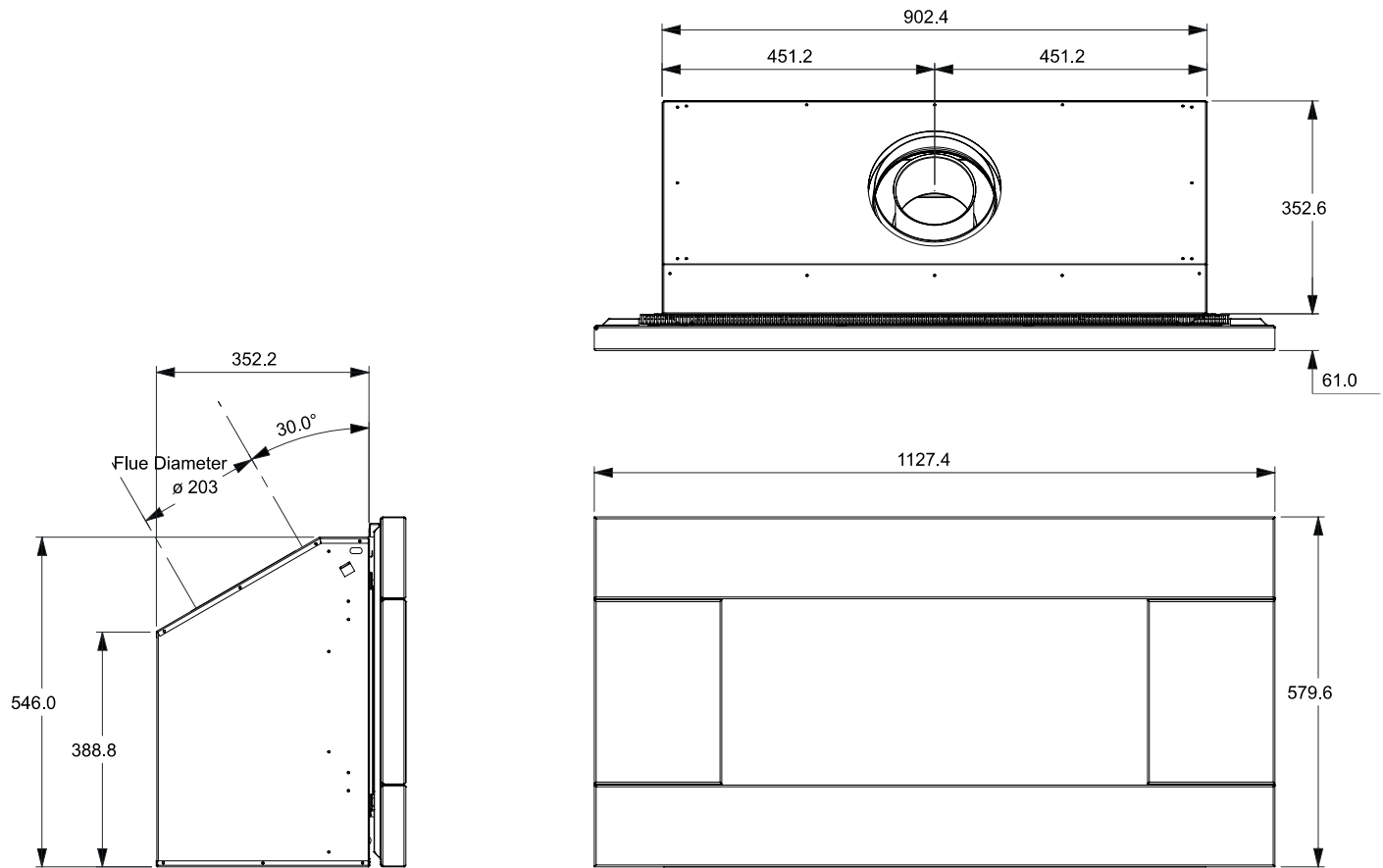


Contents:

1.0	Product Description
2.0	Creating the Cavity
3.0	Hearth and Floor Clearances
4.0	Wall Linings
5.0	Vertical Clearances
6.0	Corner Installations
7.0	Laying Gas Pipe
8.0	Connecting Gas Pipe
9.0	Power Supply
10.0	Fixing Fire to Wall
11.0	Removing the Firebox Glass
12.0	Installing the Flue system
13.0	Fitting the Flue Restrictor
14.0	Converting to Natural Gas
15.0	Placing the Fuel Bed
16.0	Checking Operating Pressure
17.0	Covering up the Fire
18.0	Commissioning the Fire (fitting the fascia)
19.0	Operating Instructions
20.0	Sounds and Smells
21.0	Annual Service Check
22.0	Installation Check List
23.0	Warranty Terms and Conditions

1.0 Product Description:

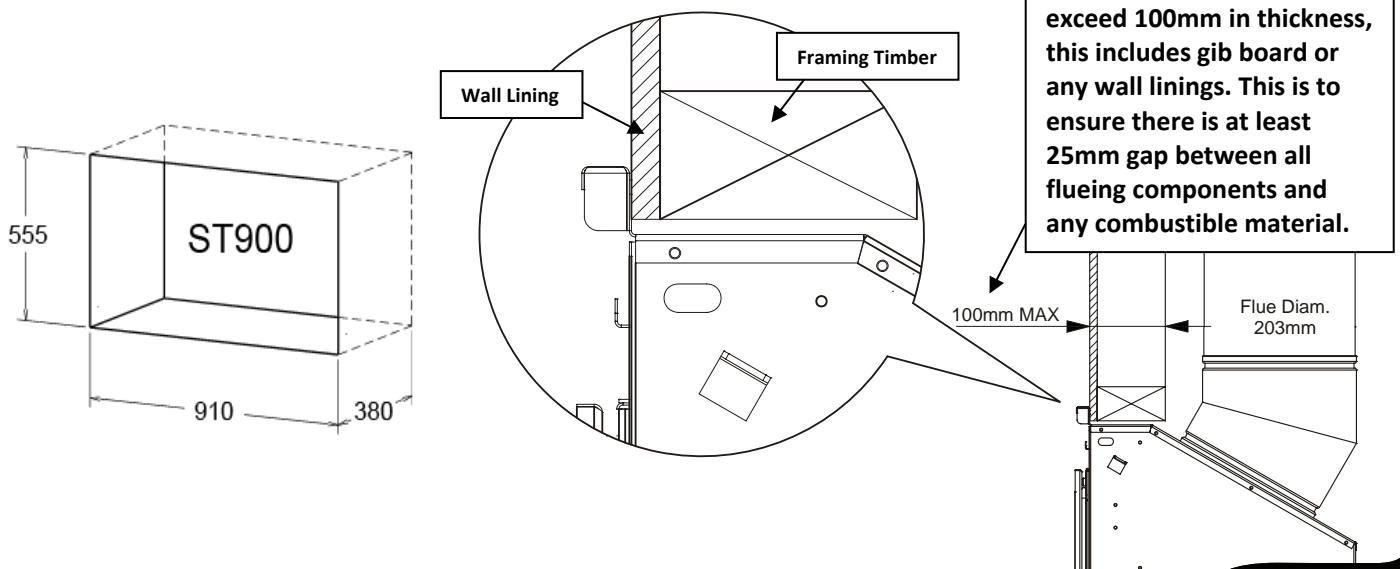
The Escea ST900 decorative gas fire is designed to be built into a cavity. The appliance is flued via Simpson Duravent Direct Vent Pro 5"x8" Flue, available from your Escea distributor or retailer. The user will control their fire with the Radio Frequency (RF) remote.



2.0 Creating the Cavity:

The dimensioned drawing below shows the size of opening that must be created to fit the ST900. The wall directly above the fire should be finished / gibbed / lined after the fire has been installed, unless there is an access hatch or the chase is open to the ceiling cavity, which allows the flue to be installed after the wall has been lined.

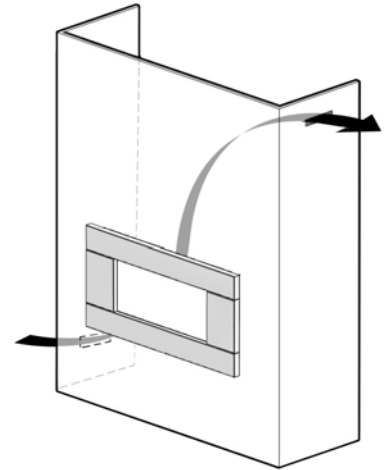
Note: It is not necessary to line the cavity, and it may be constructed with timber.



Considerations for creating the cavity:

If installing the ST900 into a purpose built chimney breast or chase which is not open to the roof space of the building, it may be appropriate during the planning stage to consider the installation of additional vents.

Heat otherwise lost through the outer skin of the fireplace and flue system into the cavity of the chimney breast or chase may be recovered into the room by placing two air vents in the cavity or chase. By placing one vent at or just above floor level and the other near the ceiling of the room will induce natural convection and prevent heat build up in the cavity and subsequently recover some of the heat into the room.



3.0 Hearth and Floor Clearances:

There should be at least 100mm between the bottom of the ST900 fire and any horizontal surface below, for example hearths and floors.

3.1 Wall and Cabinet Clearances:

There must be a minimum of 100mm from the sides of the fascia to any protruding side walls or cabinetry.

4.0 Wall Linings:

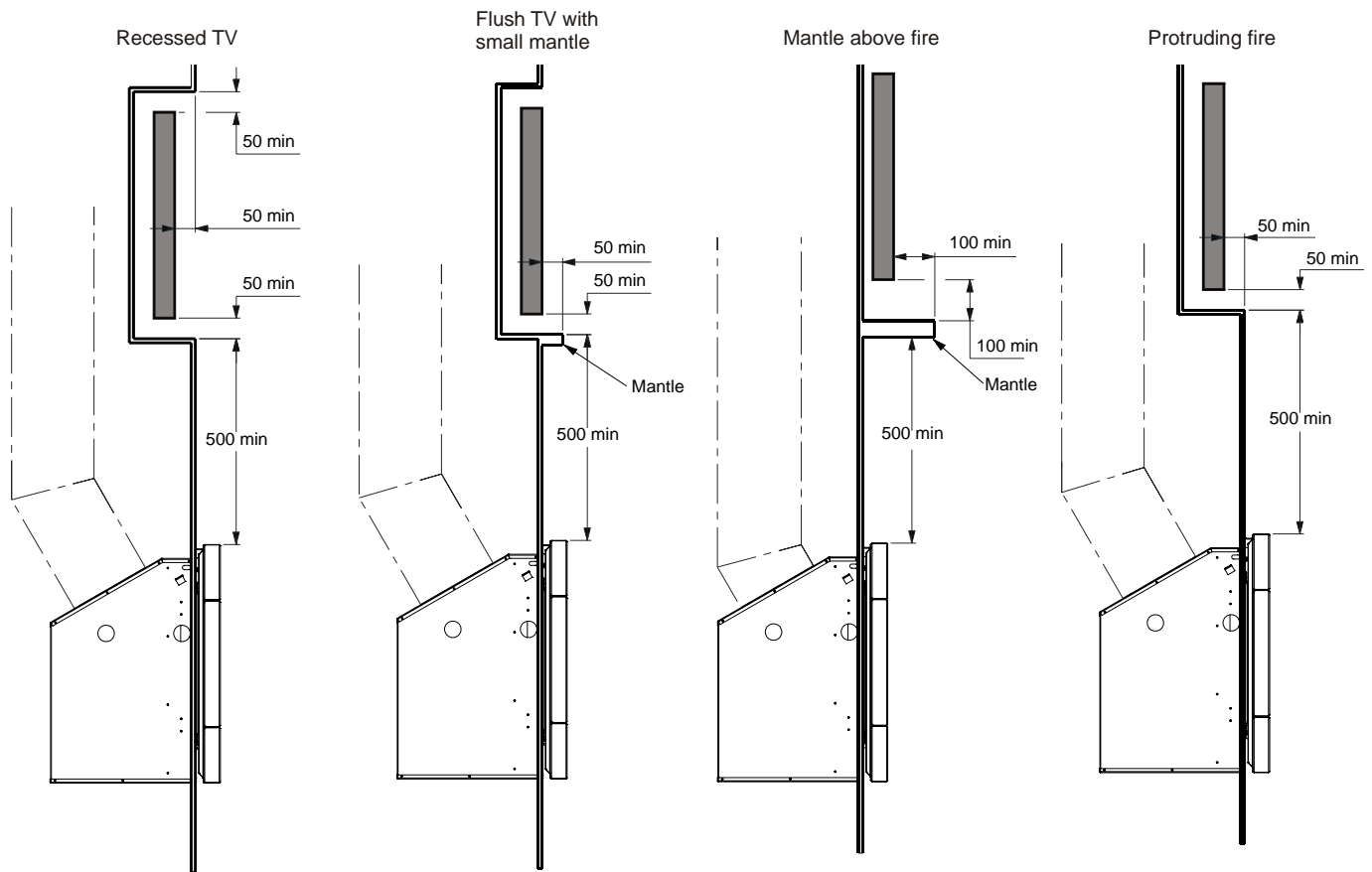
The wall board that lines the outside of this opening can be normal dry wall (Plaster Board) and does not need to be non-combustible providing that it does not come any closer to the fire than the dimensions shown in section 2.0. **Note:** The temperature of the wall lining directly above the fire does get warm and hence may discolour paint finishes that are susceptible to temperature damage or distort vinyl wall coverings.

5.0 Television Positioning Considerations:

It is becoming common practice for consumers to mount flat screen TV's above their gas fireplace.

Most TV manufacturers have specified in their instructions that the TV should not be installed on, near or above a heat source. For this reason TV location decisions rest solely with the householder and Escea will not be held liable for any adverse affects on a TV located near to an Escea fireplace that may be caused by heat.

The drawings below are suggestions that may be used as a GUIDE for those consumers who do decide to locate their TV above an ST900 gas fire. These drawings show ways to reduce the amount of warm air rising off the fireplace and onto the TV.

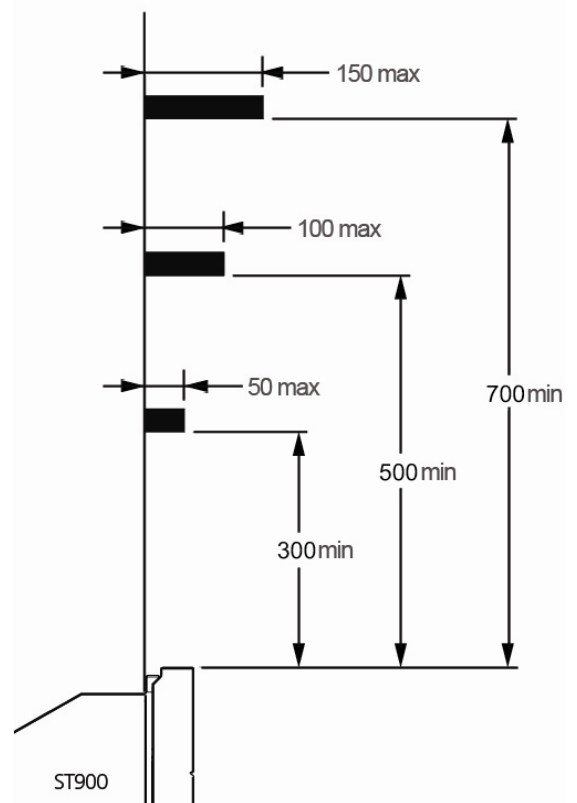


The material that the wall and mantle are made from will also affect the operating temperature of the TV so it is the customers responsibility to satisfy themselves that their TV mounting and mantle design will not exceed the listed maximum operating temperature of their electronic goods.

5.1 Combustible Mantle Clearances:

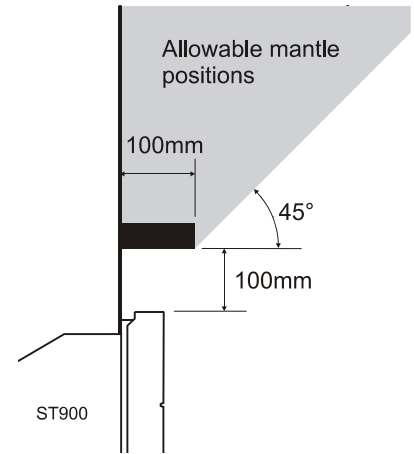
The diagram to the right shows the minimum and maximum allowable size for mantles or protruding surfaces mounted above the ST900.

***Note:** Escea does not recommend placement of items on the mantles shown in the diagram to the right. This is because of the potential for items placed on or above the mantle to be affected by the heat rising from the appliance.*



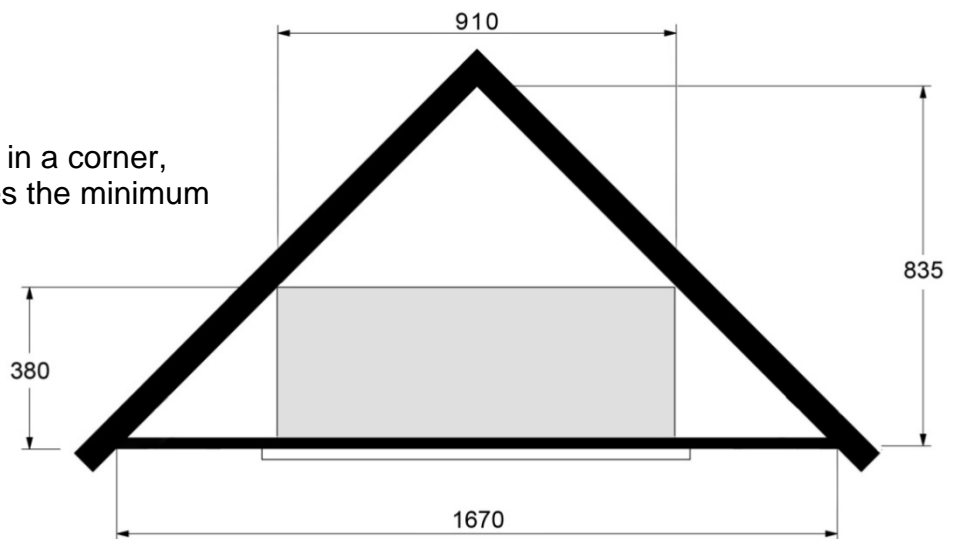
5.2 Non-Combustible Mantle Clearances:

If the entire installation (mantle, wall and cavity) is constructed from non-combustible materials, the clearances to mantles may be as shown in the shaded area.



6.0 Corner Installations:

If a cavity is to be created in a corner, the following drawing gives the minimum sizes.



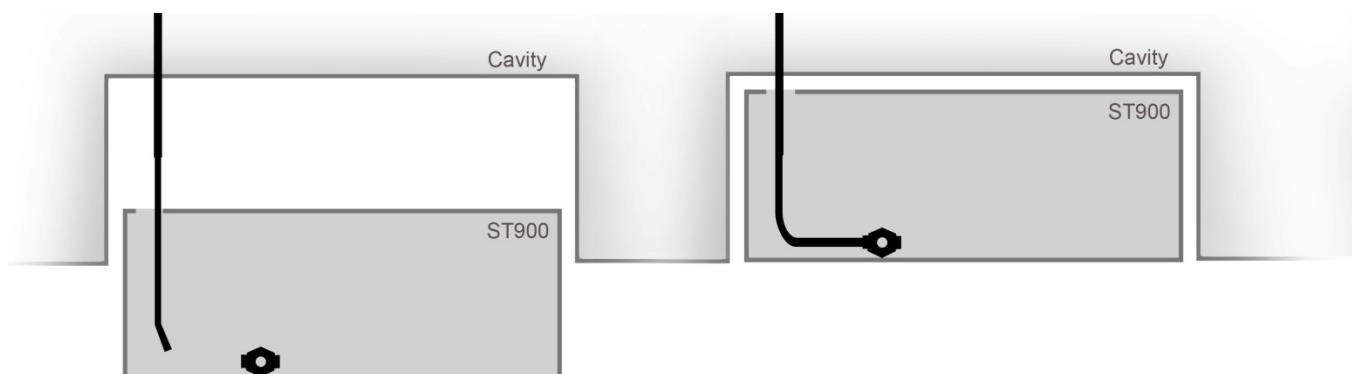
7.0 Laying Gas Pipe:

Gas pipe should be sized as per the requirements of NZS5261. The pipe sizing must be sufficient to deliver the following volume of gas to the fire with all other gas appliances in the home running at the same time;

$$\text{ST900} = 20\text{Mj/hr}$$

8.0 Connecting the Gas Pipe:

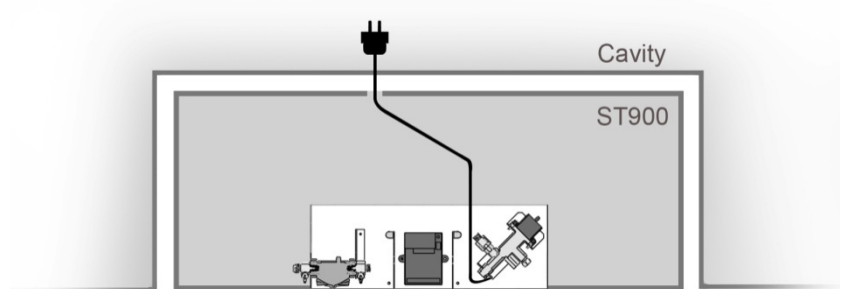
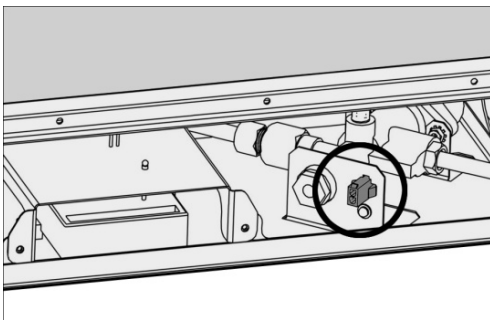
Soft copper should be run directly to fire and connected onto the regulator with flare nut (3/8" BSP thread). The regulator that is supplied with the fire **MUST NOT BE REMOVED**. Removal of the regulator, or replacing it with one not intended for use with an Escea fire, will void the limited appliance warranty.



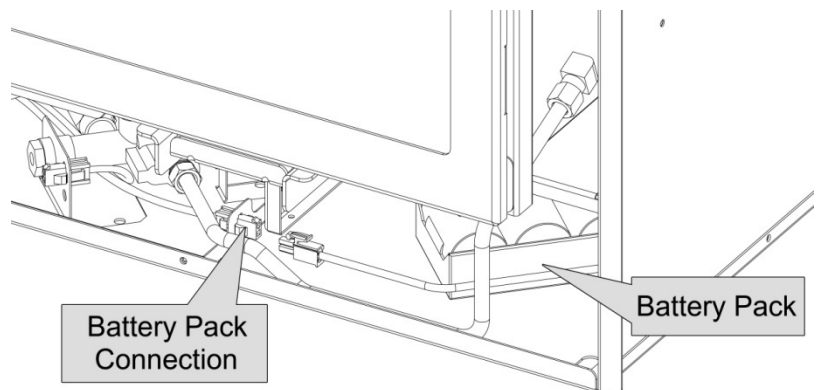
9.0 Power Supply:

Whilst the cavity is being created consideration should be given to appropriate location of a standard 3 pin, 240V power outlet to accommodate the supplied power transformer. This must be within **1.5m** of the lower left hand side of the appliance.

- 9.1** Locating this plug within the cavity makes the installation very neat but the provision must be made to be able to switch the power supply off and on (electrical isolation switch) and must be accessible after the fire has been installed. This is normally done by means of a separate switch located outside of the cavity and wired to the plug. This will allow service technicians to isolate the power supply before performing service work on the appliance.
- 9.2** The supplied power transformer cord should be run, as shown below left, through the small hole in the rear of the fire and connected to the panel mounted plug pictured below right.

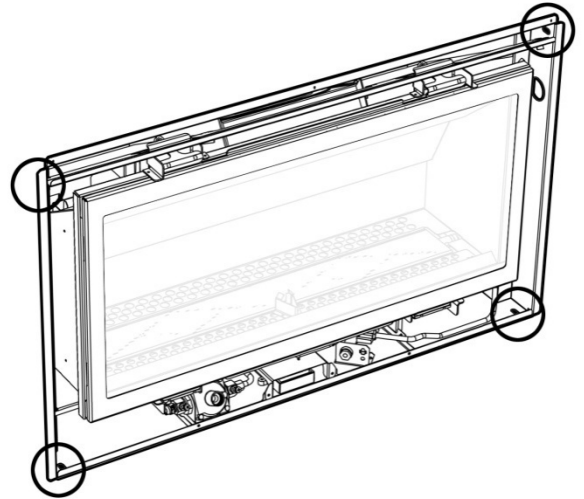


- 9.3** This appliance will draw a maximum of 100mA from a 240V supply.
- 9.4** If desired, an optional battery-pack can be purchased which will allow the ST900 to run without mains power, allowing the fire to run in the event of a power cut. This battery pack uses 3x D cell batteries.
- 9.5** To install the battery pack simply place the pack in the bottom right of the fire as pictured below and connect it to the plug which should be near the brass Copreci valve.
- 9.6** To access the battery pack, remove the fascia (described in section 18.2) and the battery pack will be on the lower right hand side.
- 9.7** As the ST900 draws a small current when not in use, it is recommended to remove the batteries if the fire will not be in use for long periods of time.



10.0 Fixing the Fire to the base and wall:

It is a requirement that this fire be securely fastened to the wall and base. Once the fire has been pushed back into the correct position, use wood screws (or other suitable fasteners) to fix the fire to the cavity through each of the four holes in the corners, as shown in the diagram to the right. *Note: It may be necessary to use washers on the fasteners to securely fasten the fire to the wall.*

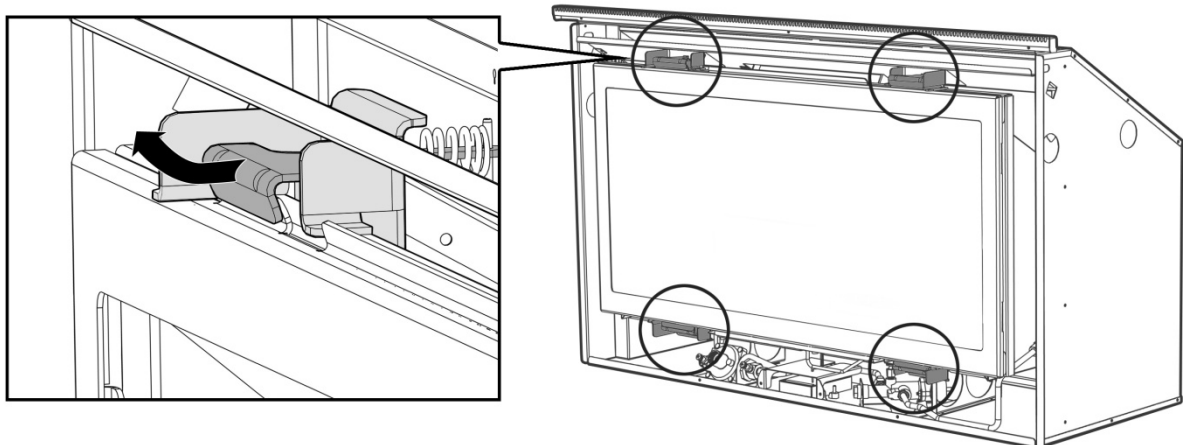


When fixing the fireplace in position ensure that you leave a gap between the fireplace flange and the framing timber for the wall lining, which will be added at a later stage.

11.0 Removing the Firebox Glass:

Pull the four hooks shown below towards you and then away from the glass to release the glass frame underneath the hook.

Do not operate the appliance if the glass has been broken, damaged, or the glass is not properly positioned/hooked onto the appliance.



12.0 Installing the Flue System:

Ensure all flue components are Simpson Duravent Direct Vent Pro 5" x 8," no other flue types may be used.

Note: Consult section 12.13 to ensure correct length of flue is calculated.

There are two basic types of Balanced Flue System installations:

- Horizontal Termination
- Vertical Termination

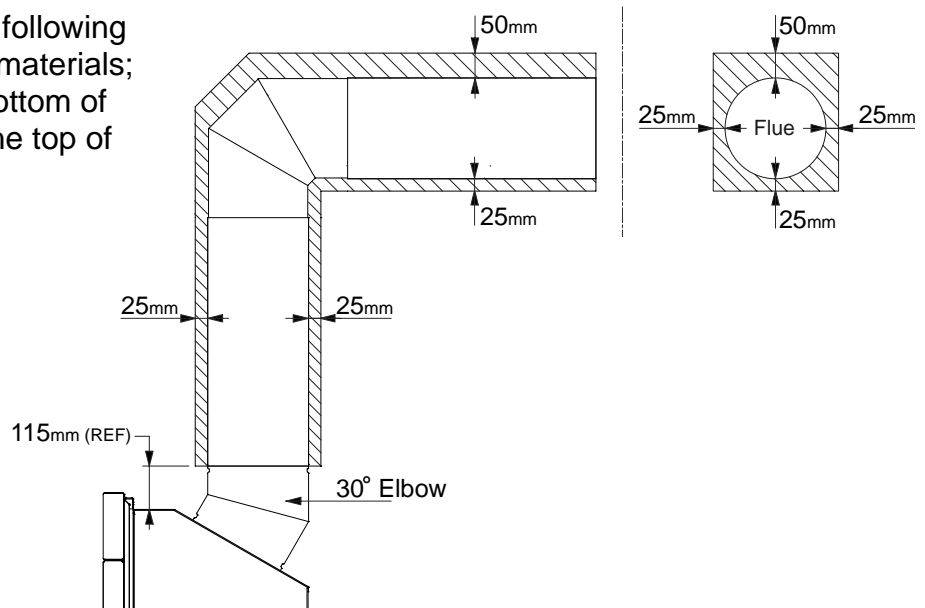
Use the diagrams in sections 12.5, 12.6 & 12.7 to check if your proposed flue system is acceptable. Section 12.9 will also need to be used to determine whether the flue terminal location meets the requirements of NZS 5261. Then use Appendix A to work out the quantities of the flue components that are required.

12.1 Any offsets in your flue configuration should be 45° where possible.

12.2 If your flue configuration has a horizontal run, there must be a minimum 1° inclination (20mm vertical rise per 1m horizontal run) leading upwards towards the termination.

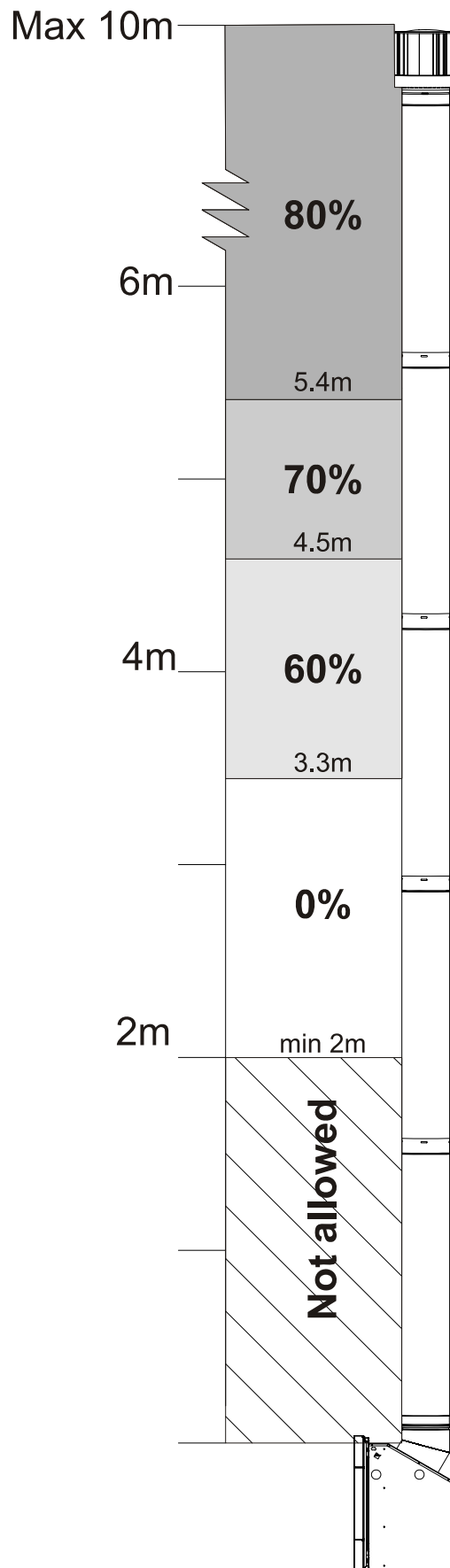
Do not install the flue with horizontal sections sloping down towards the termination. This could cause the fire to operate incorrectly and possibly create an unsafe condition.

12.3 The flue must maintain the following clearances to combustible materials; 25mm from all sides and bottom of the flue, and 50mm from the top of the flue.



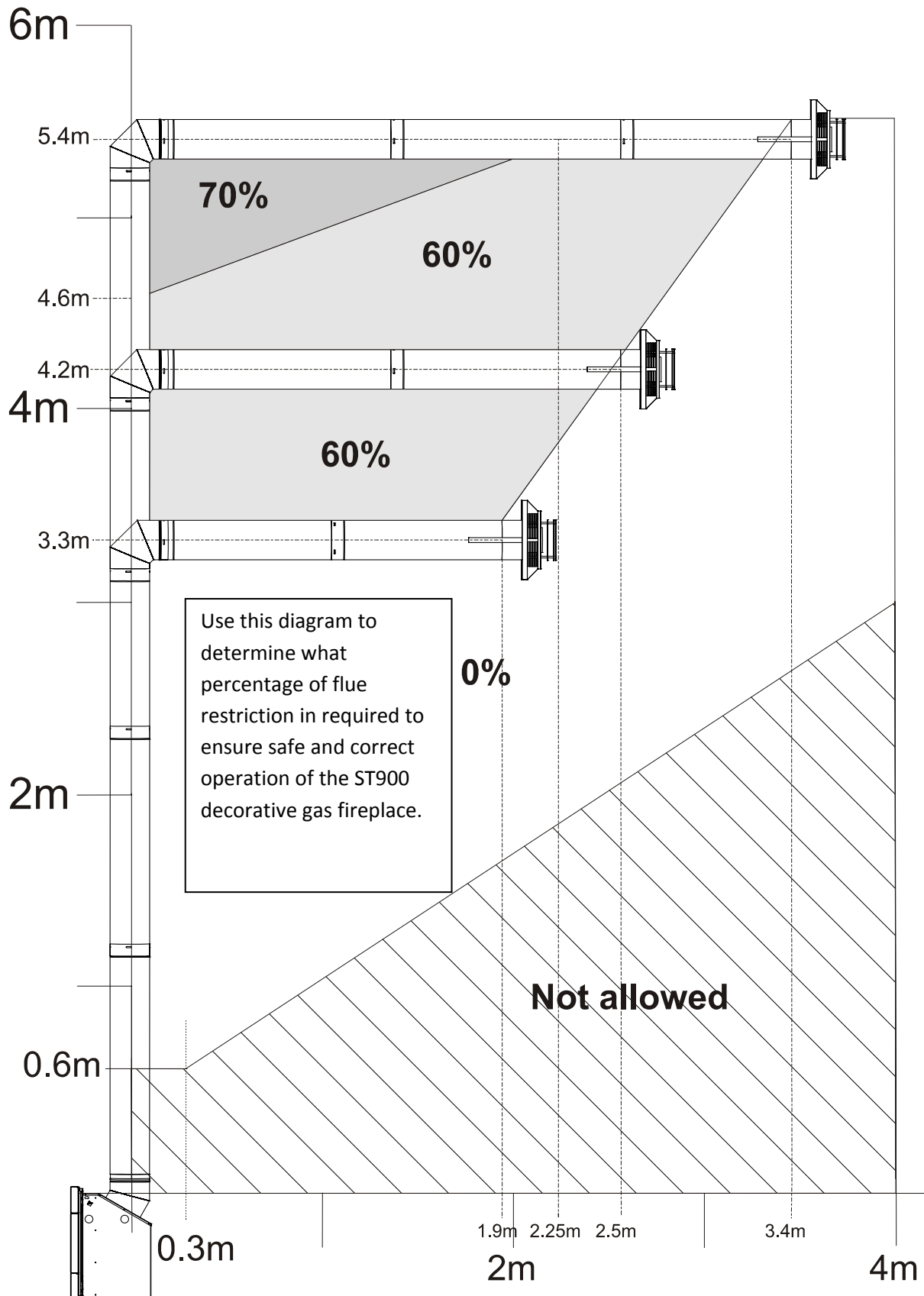
12.4 If your flue configuration falls on or near a restriction zone boundary line in diagrams 12.5, 12.6 & 12.7, it may require the restriction value from either side of the boundary line to achieve the correct flame aesthetic, this may vary from installation to installation.

12.5 Vertical Only Flue Diagram:

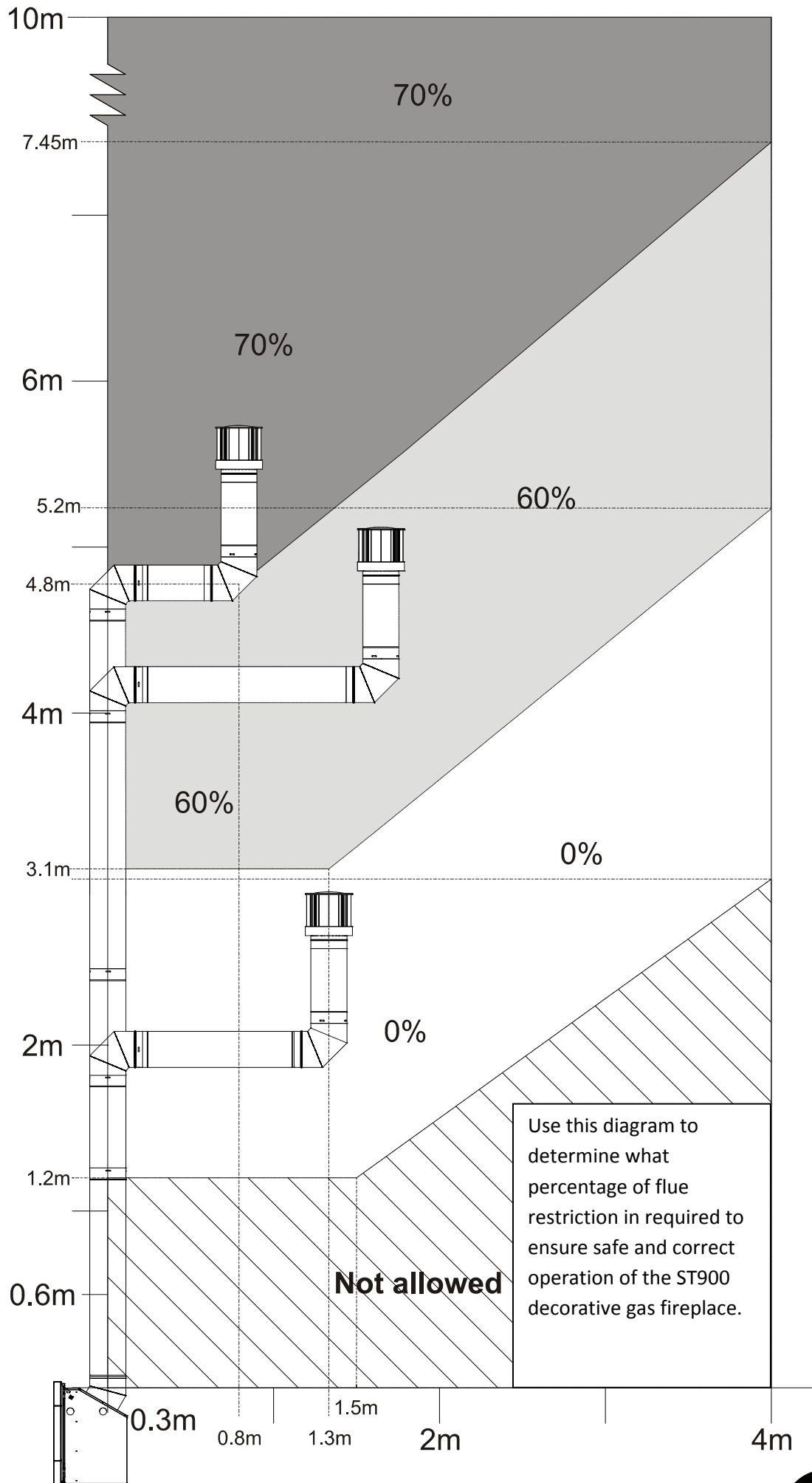


Use this diagram to determine what percentage of flue restriction is required to ensure safe and correct operation of the ST900 decorative gas fireplace.

12.6 Horizontally Terminating Flue Diagram:



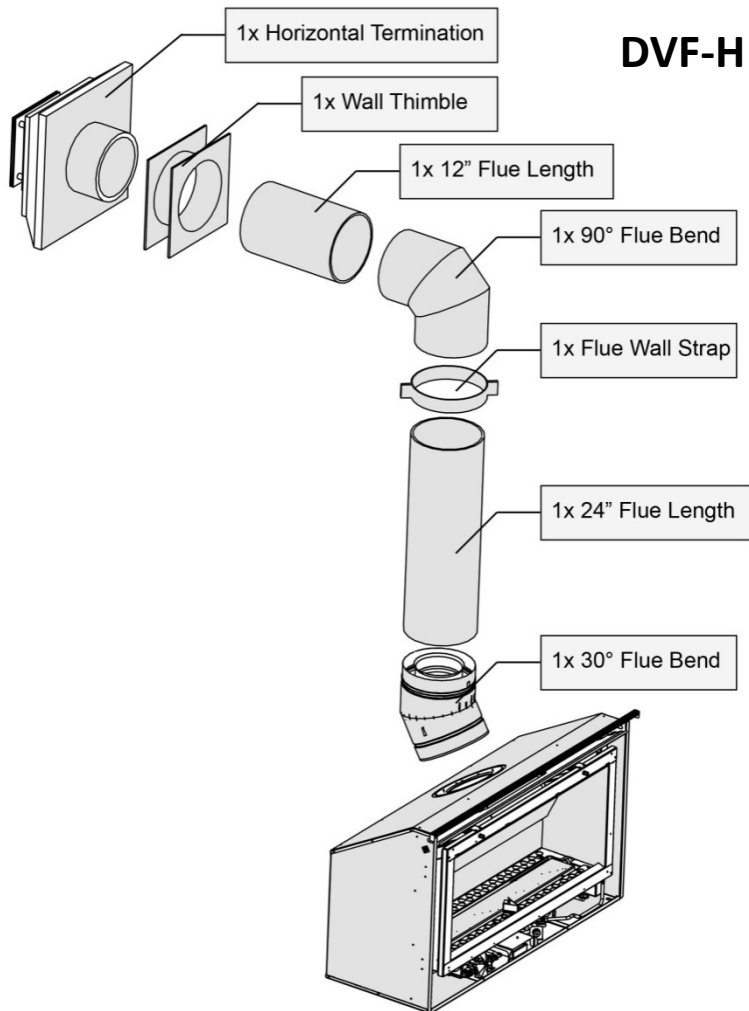
12.7 Vertically Terminating flue with a Horizontal Offset:



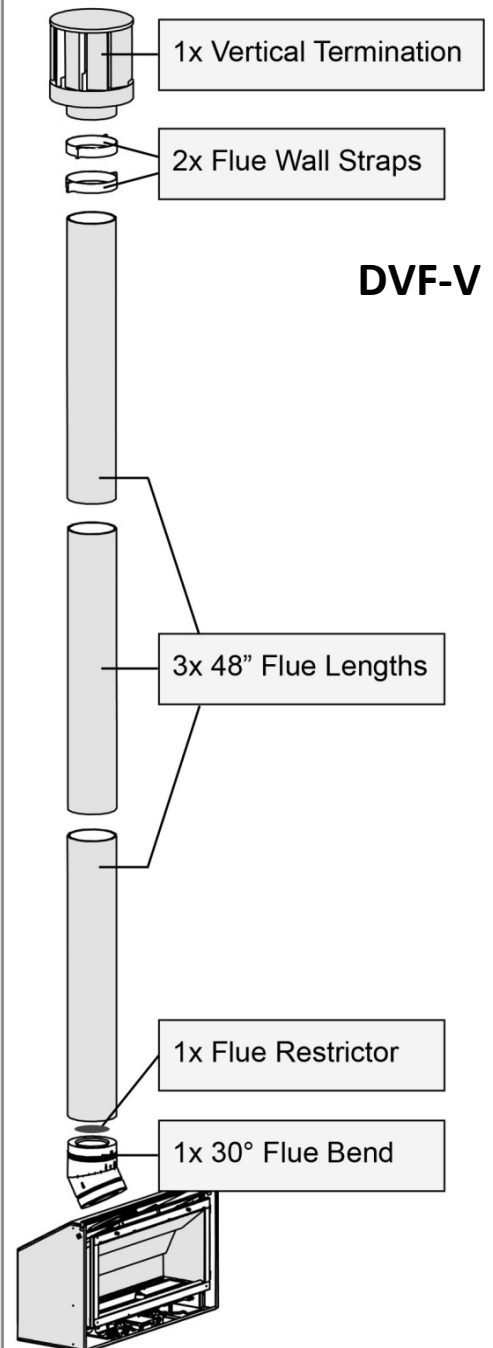
12.8 Standard Flueing Configurations:

The following flue components are available from escea in kitset form.

0.75m Vertical, 0.3m Horizontal Installation



3.6m Standard Installation



12.9 Locating the Flue Terminal:

The flue terminal must be located using the information given in the following diagram and table based on NZS 5261

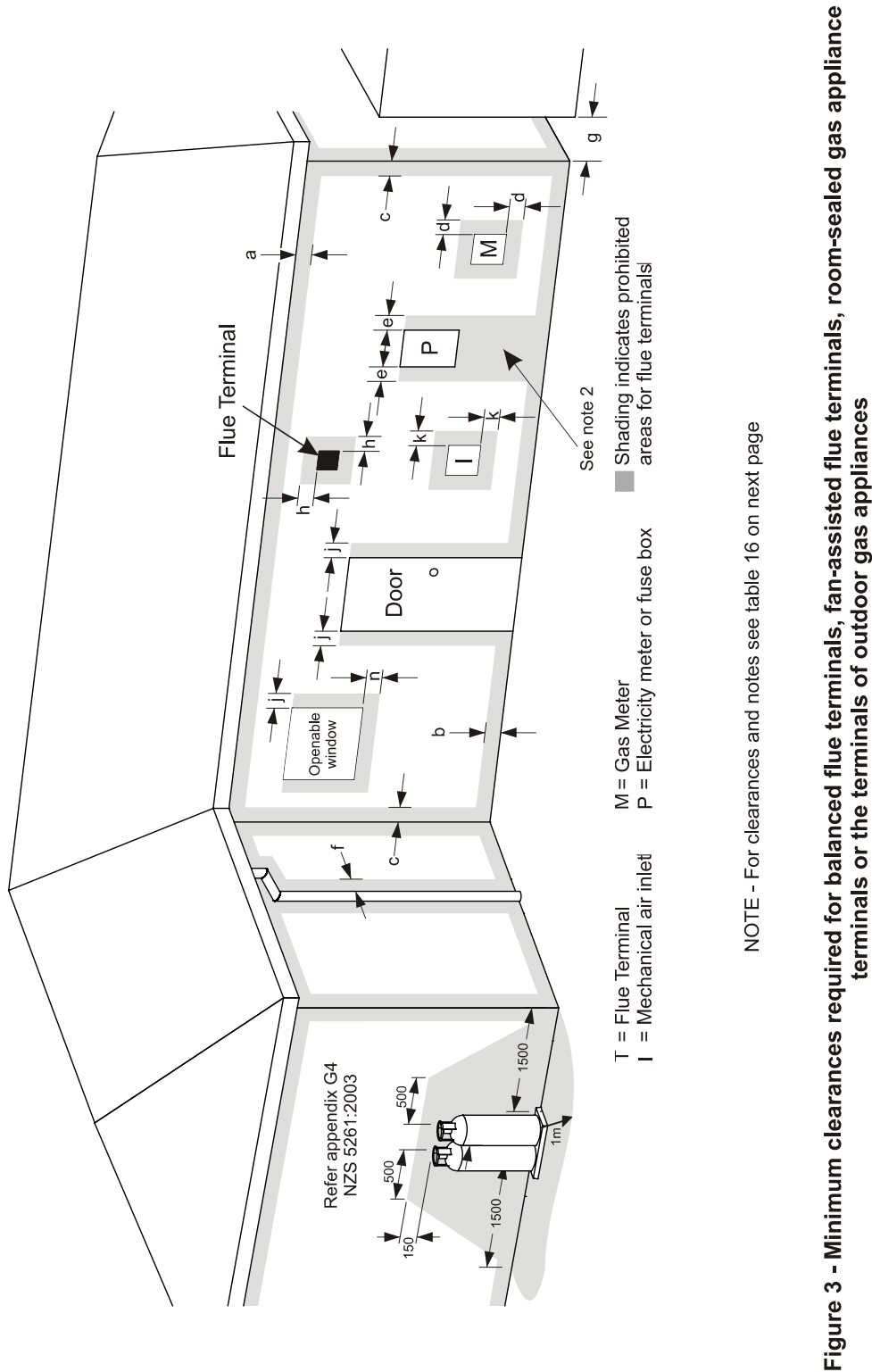


Table 16 – Minimum clearances required for flue terminals shown in figure 3

Ref.	Item	Minimum Clearances (mm)	
		Natural draught	Fan assisted
a	Below eaves, balconies and other projections: Gas appliances up to 50 MJ/h input Gas appliances over 50 MJ/h input	300 500	200 300
b	From the ground, above a balcony or other surface (see note 6)	300	300
c	From a return wall or external corner (see note 6)	500	300
d	From a gas meter (M) (see 2.5.4.9 for vent terminal location of Regulator)	1000	1000
e	From an electricity meter or fuse box (P)	500	500
f	From a drain pipe or soil pipe	150	75
g	Horizontally from any building structure (see note 6) or obstruction Facing a terminal	500	500
h	From any other flue terminal, cowl, or combustion air intake (see note 6)	500	300
j	Horizontally from an openable window, door, non-mechanical air Inlet, or any other opening into a building with the exception of Sub-floor ventilation: Gas appliances up to 150 MJ/h input Gas appliances over 150 MJ/h input up to 200 MJ/h input Gas appliances over 200 MJ/h input All fan-assisted flue gas appliances, in the direction of discharge	500 1500 1500	300 300 500 1500
k	From a mechanical air inlet, including a spa blower	1500	1000
n	Vertically below an openable window, non-mechanical air inlet, or Any other opening into a building with the exception of sub-floor Ventilation: Space heaters up to 50 MJ/h input Other gas appliances up to 50 MJ/h input Gas appliances over 50 MJ/h input and up to 150 MJ/h input Gas appliances over 150 MJ/h input	150 500 1000 1500	150 500 1000 1500

NOTE-

- (1) All distances are measured to the nearest part of the flue terminal
- (2) Prohibited area below electricity meter or fuse box extends to ground level
- (3) See 2.6.13.3 for restrictions on a flue terminal under a covered area
- (4) See appendix G LPG Cylinder Locations, figure G2 and figure G3, for clearances required from a flue terminal to An LPG cylinder. A flue terminal is considered to be a source of ignition.
- (5) For gas appliances not addressed above, the design shall be certified by a suitably qualified engineer.
- (6) Some gas appliances may be suitable for closer installation; refer to the manufacturer's instructions.

12.10 Supporting the flue system:

Wall straps are required to fix the flue system in place for each installation. This will ensure that no undue strain is placed on flue components once installed.

For a flue offset or horizontal run, it is recommended that wall straps be used to the flue system with a spacing of 900mm between straps. Plumbers strapping / tape can be used to connect the wall straps to the building structure where there are large distances between the support point and the anchor point.

For vertical flue runs it is recommended that wall straps be used to anchor the flue system with a spacing of 1200mm between straps.

12.11 Sealing 'through roof' and 'through wall' penetrations:

For 'through roof' penetrations, use a Deck-tite flashing or equivalent to create a weather-tight seal between the flue and the roof cladding.

For 'through wall' penetrations, this will require the use of a Wall Thimble. The Wall Thimble will ensure you have suitable clearance from combustibles as well as sealing the penetration. The section of the wall thimble installed on the external surface of the wall should be sealed to the wall using a high temperature sealant such as a High Temperature RTV Silicone or equivalent. Additional sealant is required to seal the Terminal Cap to the external wall. A bead should be run along the edge of the Terminal that will be in contact with the wall once installed.

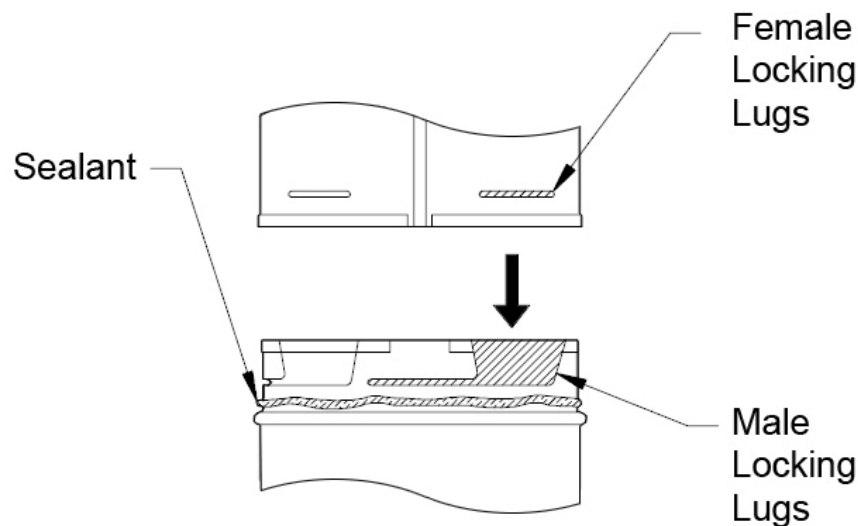
12.12 Twist locking procedure:

Before connecting flue components, to ensure an airtight seal run a single 7-8mm bead of High Temperature RTV Silicone or equivalent, on the 'male' end of the flue as shown in the diagram below.

The four indentations located on the female end of the flue are designed to slide straight onto the male ends of the adjacent flue length, by orienting the four flue indentations so they match and slide into the four entry slots on the male ends.

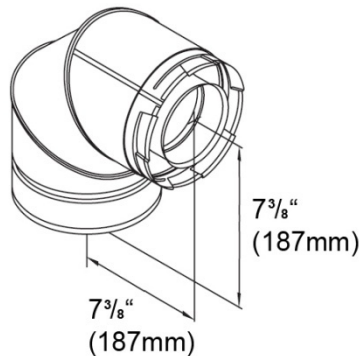
Push the pipe sections completely together, then twist-lock one section clockwise approximately one-quarter turn, until the two sections are fully locked.

Wipe off any excess sealant from the exterior of the flue joint.

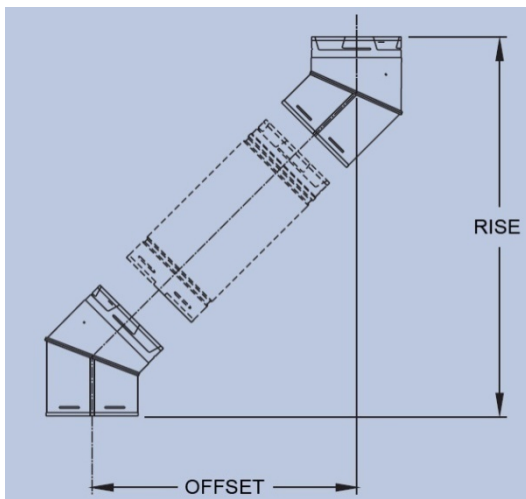


12.13 Points to note when planning the Installation of the Escea DV flue:

- This flue system cannot be cut to length. Correct lengths must be selected for each installation. For a full list of available flue lengths, contact your Escea retailer.
- The listed length of the flue pipe is not the installed length. 1 ½" (38mm) needs to be subtracted for each join to determine the installed length of each piece of flue pipe. E.g. 48" length has installed length of 45".
- All vertical measurements should be measured from the top surface of the fireplace casing itself (not the fascia).
- When using horizontal flue runs, vertical measurements should be measured to the centre line of the horizontal flue pipes.
- When using 90° elbows in the installation, use the diagram below to help calculate installations horizontal and vertical distances. 1½" (38mm) will still need to be subtracted from each join.



- If using a 45° offset in your installation, consult the chart below to select the required flue length to give the desired offset. 1½" (38mm) will still need to be subtracted from each of the 45° bends to allow for the joins.



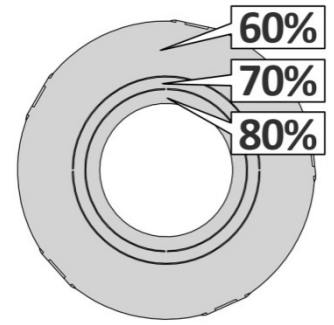
Straight Flue Length:	Offset:	Rise:
0"	5 5/8"	15 3/8"
6"	8 7/8"	18 3/8"
9"	10 7/8"	20 5/8"
12"	13"	22 5/8"
24"	21 3/8"	31 1/8"
36"	29 7/8"	39 3/8"
48"	38 1/4"	47 7/8"

- Adjustable lengths are available depending on stock levels. Contact escea for more information.

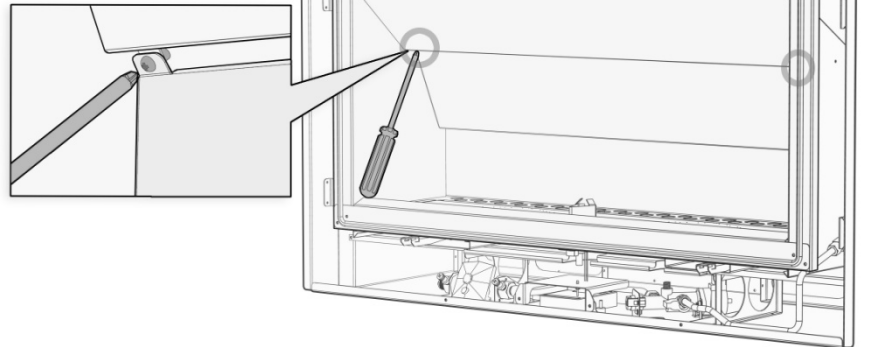
13.0 Fitting the Flue Restrictor:

If your flueing configuration requires that you fit a flue restrictor (see graph in section 12.5, 12.6 & 12.7 of this manual to find out if your configuration requires a flue restrictor), follow the instructions below.

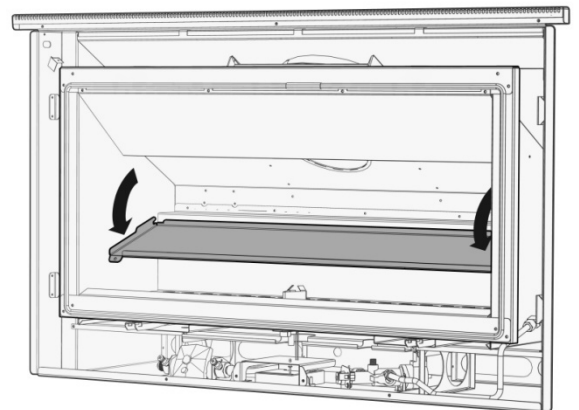
First, prepare the Flue Restrictor by removing and discarding the two inner rings to achieve 60%, 70% or 80% restriction and hand bending the five tabs 90°.



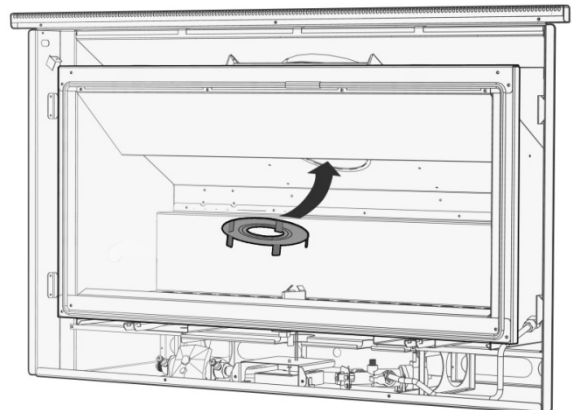
Remove the firebox glass (if fitted), and using a Phillips / Pozi Drive screwdriver remove the two screws located inside the firebox as shown.



Once the two screws are removed the baffle will be free to slide down and out as pictured. Ensure the firebox paint is not scratched and that the baffle is not damaged.



Fit the flue restrictor by pushing it up into the flue with the tabs facing downwards as shown. Push it up into the flue until the tabs no longer protrude into the firebox and it is securely placed. If the restrictor is loose or will not stay in position manipulate the five tabs to suit.



Once the restrictor is in place, replace the baffle taking care not to damage or scrap paint, and replace the two screws.

14.0 Converting to Natural Gas:

Where a conversion to natural gas is needed, the following steps should be followed

- 14.1** First you need to remove the burner by removing the screw holding it in place on the left hand side of the firebox (Fig. 1).

Then remove the 1.3mm burner jet (Fig. 2) and replace it with the 1.9mm jet supplied in the kit.

Now remove the gas pipe fitting under the pilot (Fig. 3) and remove the No.46 pilot Jet (Fig. 4) and replace it with the No.48 pilot jet supplied in the kit.

Replace the pilot line.

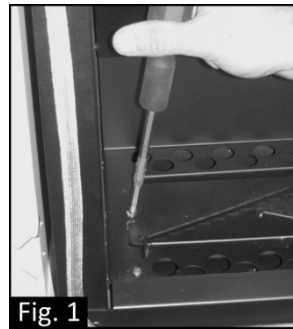


Fig. 1

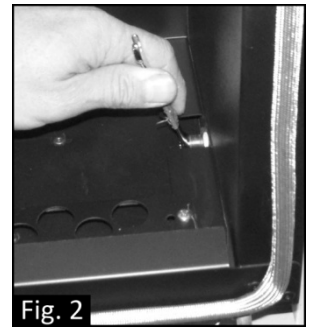


Fig. 2



Fig. 3

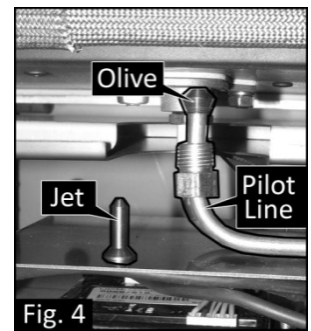
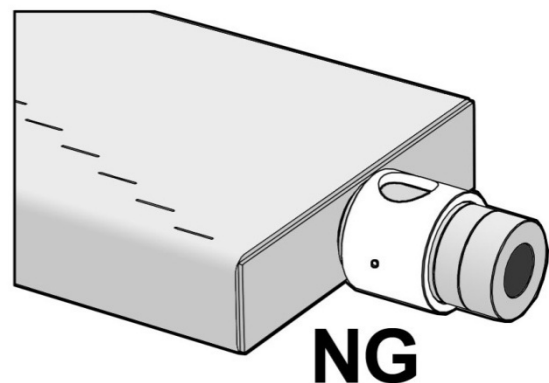


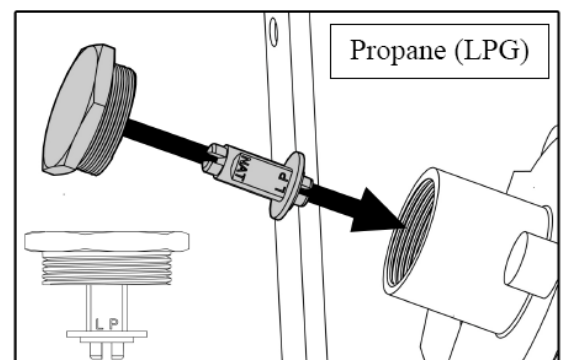
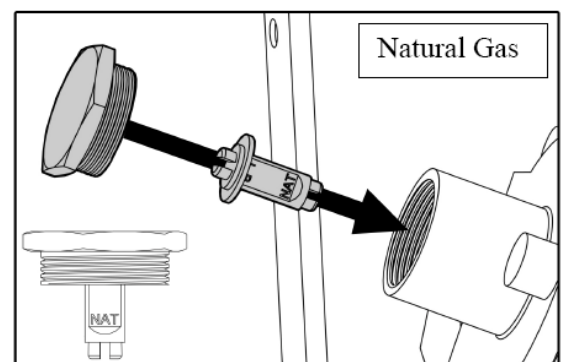
Fig. 4

Adjust the Primary Aeration Collar on the burner to the Natural Gas position as shown in the diagram below, then place the burner into position and screw it in place.



The gas regulator needs to be converted from the LPG setting to the Natural Gas setting.

The regulator is located on the left hand side of the control tray, at the base of the fire. To change the regulator between Natural Gas and Propane, unscrew the top cap off the regulator and pull the plunger from it. Re-insert the plunger on the opposite side (as shown in the diagram to the right) and screw the assembly back in the stack



Finally, put the sticker supplied in the conversion kit in onto the dataplate of the ST900 in the position shown.

The sticker must be signed and dated by the installer who has converted the fire.

Sticker

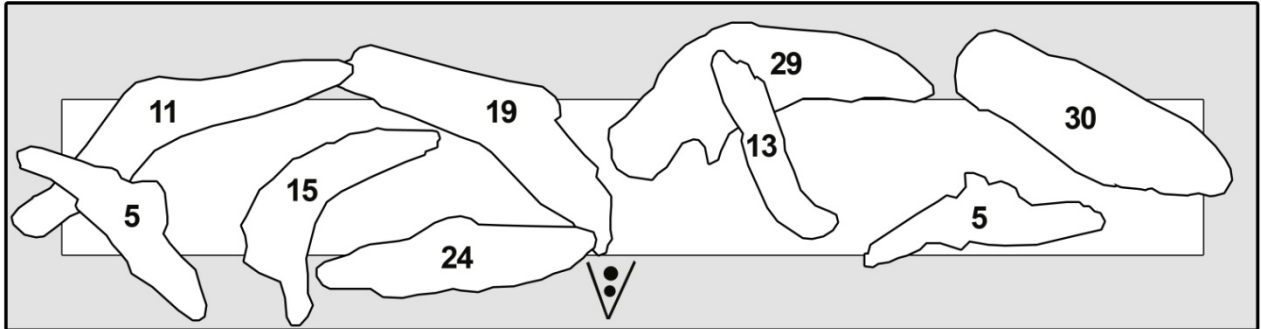
ST900		NZ Edition													
<p>TO BE INSTALLED ONLY BY AN AUTHORISED PERSON.</p> <p>THIS APPLIANCE MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NZS5261, AND ALL OTHER LOCAL AND NATIONAL GAS, ELECTRICAL, AND BUILDING STANDARDS.</p> <p>THIS APPLIANCE MUST BE INSTALLED AS PER THE DIRECTION IN THE SUPPLIED INSTALLATION MANUAL. IT IS THE RESPONSIBILITY OF THE INSTALLING GAS FITTER TO FIND, READ, AND FOLLOW THESE INSTRUCTIONS. FOR PROTECTION OF YOUNG CHILDREN OR THE INFIRM, A SECONDARY GUARD IS REQUIRED.</p>															
Serial Number:		Date of Manufacture:													
<input type="text"/>		<input type="text"/>													
<p>This appliance has been converted to operate only on:</p> <p style="text-align: center;">Natural Gas</p> <table border="1"> <tr> <td>Minimum Inlet Pressure(p):</td> <td>1.2 kPa</td> </tr> <tr> <td>Operating Pressure:</td> <td>1.0 kPa</td> </tr> <tr> <td>Maximum Gas Consumption:</td> <td>20 MJ/hr</td> </tr> <tr> <td>Electrical Supply:</td> <td>4.5 VDC</td> </tr> <tr> <td>Maximum Electrical Consumption:</td> <td>0.004kW@0.9A</td> </tr> <tr> <td>Burner Jet Size:</td> <td>1.9 mmØ</td> </tr> </table>				Minimum Inlet Pressure(p):	1.2 kPa	Operating Pressure:	1.0 kPa	Maximum Gas Consumption:	20 MJ/hr	Electrical Supply:	4.5 VDC	Maximum Electrical Consumption:	0.004kW@0.9A	Burner Jet Size:	1.9 mmØ
Minimum Inlet Pressure(p):	1.2 kPa														
Operating Pressure:	1.0 kPa														
Maximum Gas Consumption:	20 MJ/hr														
Electrical Supply:	4.5 VDC														
Maximum Electrical Consumption:	0.004kW@0.9A														
Burner Jet Size:	1.9 mmØ														
Signature / Initials:		Part No. 620141_2													
<input type="text"/>															
<p>Manufactured by: Escea Ltd, PO Box 5277, Dunedin, NZ</p> <p style="text-align: center;">escea.</p>															

15.0 Placing the Fuel Bed Media:

Your ST900 Gas fire will be supplied with a Fuel Bed kit. Follow the instructions below for the Fuel Bed kit that applies to you.

15.1 Driftwood Fuel Bed:

First scatter one layer of the supplied white stones evenly across the base of the firebox, ensuring there are no stones or driftwood pieces inside the pilot flame surround guard. Arrange the supplied driftwood pieces exactly as shown in the diagram and photo below. Underneath each piece of driftwood is a written number which will help in correctly positioning it within the firebox.



15.2 Coal Fuel Bed:

Scatter the supplied coals evenly across the base of the firebox, ensuring there are no coals or media inside the pilot flame surround guard which may obstruct or impair the pilot assembly.



Ensure no coals, driftwood, or other material are inside the pilot flame surround guard, and the pilot flame is clearly visible. If any loose material is inside this guard it may interfere with the pilot and ignition system.

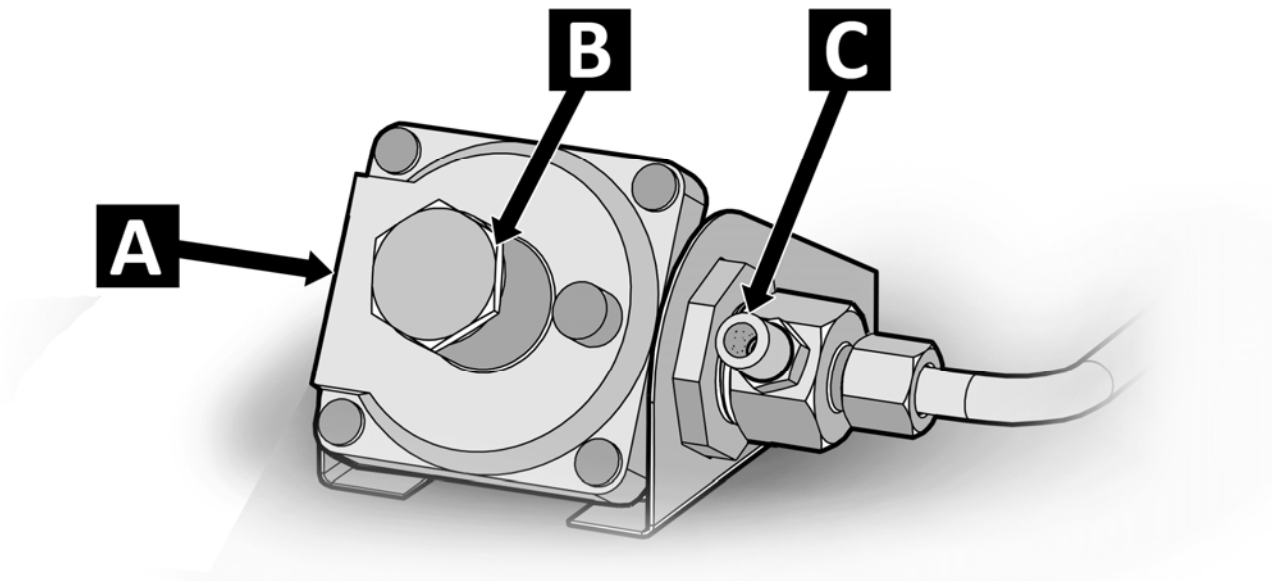
16.0 Checking Operating Pressure:

WARNING: The regulator that is supplied with the fire **MUST NOT BE REMOVED**. Removal of the regulator, or replacing it with one not intended for use with an Escea fire, will void the limited appliance warranty.

The regulator is factory set (not adjustable) to supply the correct operating pressures based on the minimum and maximum inlet pressure in the table below for the relevant gas type.

This is done at the regulator located at the front LH corner of the appliance. This is best done before the fascia panels have been fitted to avoid fascia damage. Pressure test points are available for both inlet and operating test pressure (as shown below).

- 1) Remove inlet pressure test point screw and attach manometer tube.
- 2) Run the fire on full and measure inlet pressure with all the other gas appliances running. If pressure does not fall within the maximum or minimum pressures listed on the table below then reassess installation pipe size or upstream regulator settings.
- 3) Remove the manometer and replace inlet test point screw.
- 4) Remove the operating pressure test point screw. Connect manometer tube and measure pressure with fire running on full and with all the other gas appliances running.
- 5) Replace operating test point screw and leak test inlet and operating pressure test points and inlet gas connection union.



A = 1/2" BSPT Female Inlet Connection
B = Gas Conversion Cap
C = Operating Pressure test point

ST900 Pressure Table	Gas Type	
	LPG	Natural
Minimum Inlet Pressure	2.5 kPa	1.2 kPa
Maximum Inlet Pressure	5.0 kPa	5.0 kPa
Operating Pressure	2.30 kPa	1.0 kPa

17.0 Covering up the fire:

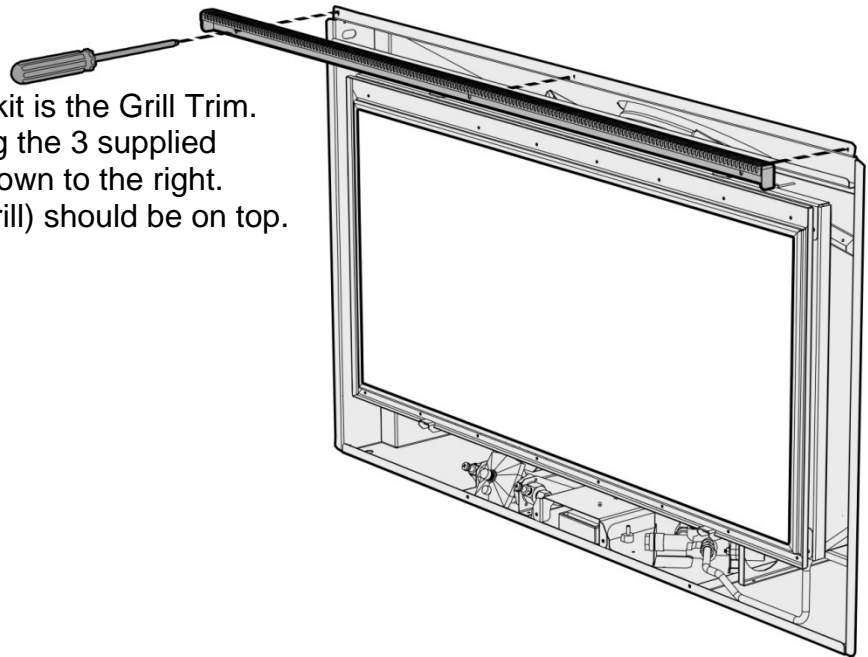
Before the wall surrounding the ST900 is lined, the fire must be covered up and sealed to prevent Gib dust from getting into the fire. It is recommended that the packaging supplied with the fire is used to achieve this.

18.0 Commissioning the Fire:

After the cladding process is completed, the gasfitter must return to the site to fit the grill trim, run the fire and assemble and fit the Fascia.

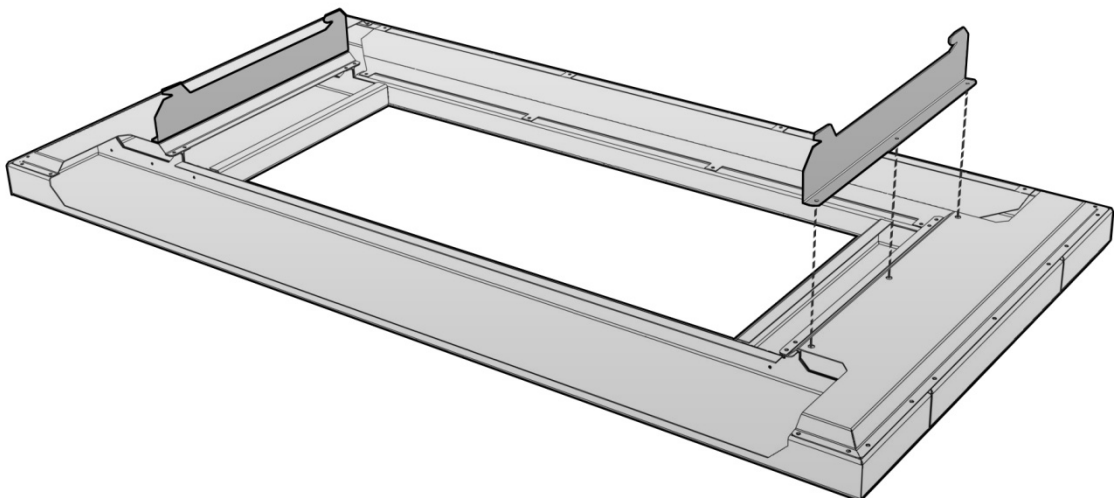
18.1 Fitting the Grill Trim:

Packed in with the fascia kit is the Grill Trim. Attach this to the fire using the 3 supplied screws in the positions shown to the right. The perforated surface (grill) should be on top.



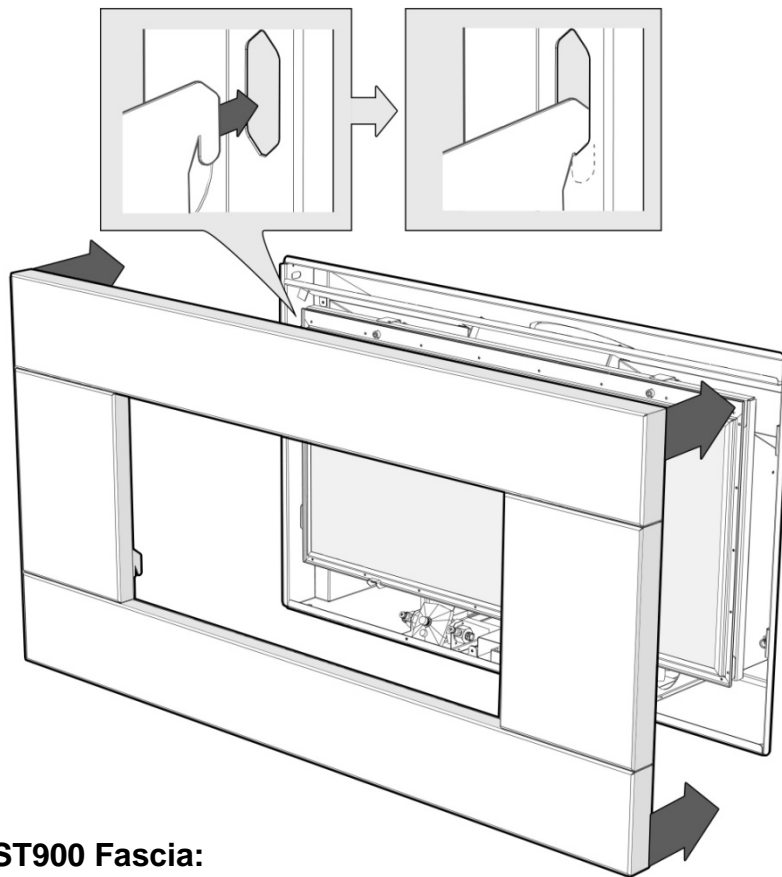
18.2 Fitting the Fascia:

The ST900 fascia has two brackets supplied in the fascia box which have not been fully assembled. To assemble them use the 6x screws supplied to fasten the brackets to the fascia as shown below. Position the brackets with the flange facing outwards, and the hooks facing the bottom of the fascia [Identify the bottom of the fascia by the large cut-out shown below, or the 'Escea' logo on the front].



The ST900 fascia uses these four hooks for attaching to the fire. Do this by lining up the fascia hooks with the receptacles on the sides of the fire. Lift the fascia so that the hooks are above the receptacles, and let it drop down into position until it is secure and free from movement. **Remove all protective plastic and packaging material before operating the fire.** Care should be taken when handling the fascia.

To remove the Fascia, lift it upwards briefly, and then pull towards you. Ensure the fascia is allowed to cool before attempting to remove it.



18.3 Cleaning the ST900 Fascia:

The fascia must be cold before starting any form of maintenance or cleaning.

If your Stainless Steel fascia requires cleaning, 3M Stainless Steel cleaner is recommended.

If your Powder Coated (Painted) fascia requires cleaning, you must only use a damp cloth to give it a gentle wipe. Never ever rub the fascia.

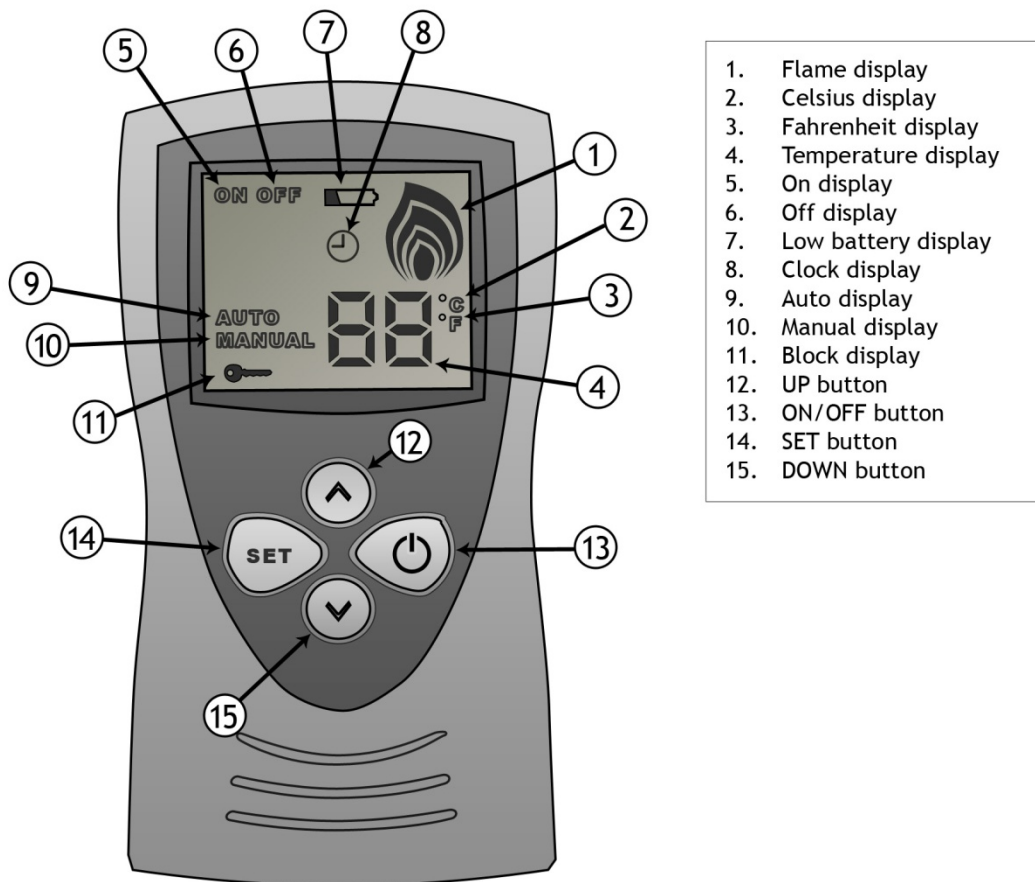
- 18.4** To clean the glass, remove it as described in section 10.0 and clean inside and out using standard window cleaner. Do not allow glass to become excessively dirty as this will be difficult to remove.

DO NOT ATTEMPT TO CLEAN THE GLASS WHILE IT IS HOT. NEVER OPERATE THE UNIT WITH THE GLASS REMOVED.

19.0 Operating Instructions:

The escea ST900 remote control allows you to turn ON and OFF the fire, control the flame height in the Manual mode, or control the room temperature in the Thermostat mode. The remote has a maximum range of approximately 10 meters, and because the remote works by radio frequency, it does not need to be aimed at the ST900 for it to operate. The remote control runs off 3x AAA batteries which are supplied in the same packaging as the remote.

The remote control is supplied with a wall-mount cradle, the installer should mount this at a location determined by the customer.



Note: If this is the first time running the ST900 the air will need to be purged from the gas lines. To do this, follow the instructions below to switch the fire on and then switch it off. Repeat this up to 10 times until the pilot flame successfully sparks and ignites.

19.1 Switching on the ST900:

To turn on the ST900, push the ON/OFF button (13), and the ON display (5) will start to blink on the screen. Now push SET (14) and the pilot will start sparking and gas will start flowing to the pilot, which should then be lit within a few seconds.

The pilot flame display (1) will blink for 10 seconds while the ignition process takes place - No other button should be pressed during this time. The remote control is now in MANUAL mode, and ready to be used.

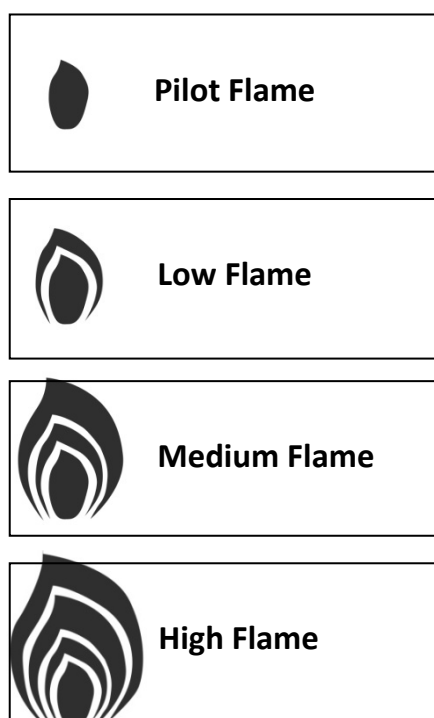
If the pilot flame fails to ignite, you must turn OFF the ST900 from the remote and start the process of turning it ON again.

19.2 Switching off the ST900:

To turn off the ST900, push the ON/OFF button (13) and the OFF display (6) will start blinking. Push the SET button (14) again to shut down the gas flow to the ST900 and switch it off. The OFF display (6) will now appear in the display.

19.3 Increasing and Decreasing the Flame Height:

While in MANUAL mode (10), push the UP button (12) or the DOWN button (15) to increase or decrease the flame height. The flame display (1) shows 4 possible flame positions:



If the UP button (12) is pushed while the flame is in the High flame position, nothing will happen. Similarly, if the DOWN button (15) is pushed while the flame is in the Pilot flame position, nothing will happen.

If your fire uses LPG, there will be minimal discernable difference between the low, medium, and high flame setting

19.4 Turning on the Thermostat:

While the MANUAL display (10) is showing, push the SET button (14) and the AUTO display (9) will start blinking. Push the SET button (14) again and the AUTOMATIC mode is set, and the temperature display (4) will start blinking.

When the temperature display (4) is blinking you will be able to adjust the room temperature by pushing the UP button (12) or the DOWN button (15) to adjust the desired room temperature, and push SET (14) to select the temperature

19.5 Adjusting desired temperature in Thermostat mode:

When you want to change the set room temperature while In the AUTOMATIC mode and the AUTO display (9) is showing, you can push the UP button (12) or the DOWN button (15). At that time the temperature display (9) will start blinking. Depending if you want to increase or decrease the set room temperature you must continue pushing the UP button (12) or the DOWN button (15) until the new desired room temperature appears in the temperature display (4). At that time you must push the SET button (14) to set that temperature as the desired room temperature.

If the SET button (14) is not pushed, the temperature display (4) will stop blinking in a few seconds and the set room temperature will remain unchanged.

19.6 Turning off the Thermostat mode:

While in the AUTOMATIC mode and the AUTO display (9) is showing, push the SET button (14), and the MANUAL display (10) will start blinking. Push the SET button (14) again, and the MANUAL display (10) will stay lit. This means that the manual option is now activated.

19.7 Changing the display from Fahrenheit to Celsius:

If the temperature is set to Fahrenheit, push the ON/OFF button (13) and the ON (5) or OFF display (6) will start blinking. After that push the ON/OFF button (13) and the UP button (12) together. The temperature scale in the display will change to Celsius (2).

19.8 To lock the Remote Control buttons:

To lock the remote control, push the ON/OFF button (13) and the ON button (5) or OFF button (6) will start blinking, you then need to push the ON/OFF button (13) and the DOWN button (15) together. The key display (11) will now appear.

You can lock the remote control in the ON or OFF positions and during either the MANUAL or the AUTOMATIC mode. The LOCK feature is designed as a CHILD SAFETY feature.

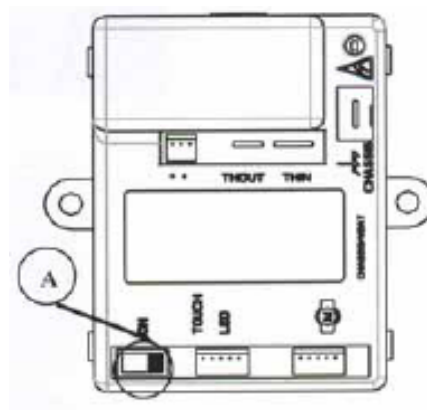
19.9 To unlock the Remote Control buttons:

To unlock keys while the key display is showing, you have to push the ON/OFF button (13) and the DOWN button (15) together. After that the key display (11) should disappear.

19.10 Teaching the radio frequency code of the Remote Control to the ST900 fire:

The handheld remote controller uses a radio frequency receiver and must learn the unique address of the matching fireplace control unit. The ST900 comes with a remote that has already been “matched” with the fireplace, so this must be done only if either the fireplace control unit or the remote controller has been damaged and replaced.

In order to do this, you must turn the lock/unlock switch on the fireplace control unit box (A) to the UNLOCK position.



After that, you must push the ON/OFF button (13), and the ON display (5) or the OFF display (6) will start blinking.

When this happens, push at the same time the ON/OFF button (13), the UP button (12) and the DOWN button (15).

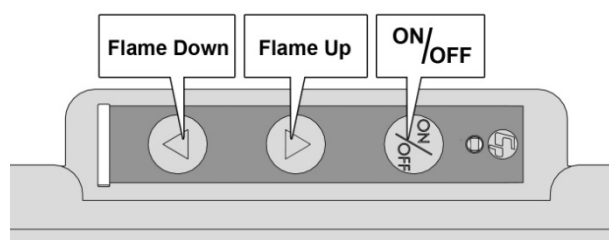
At that time nothing appears to happen, then you must push the SET button (14) once. The clock display (8) will appear in the remote control. This means that the remote has sent the instructions to the unit control.

The clock display (8) will disappear in a few seconds automatically. To finish the learning procedure, turn the switch on the control unit (A) to the LOCK position.

19.11 Operation from the Touch Pad:

The touch pad is intended to be used for service/diagnostic purposes and to operate the fire in the event that the remote handset becomes lost or inoperative.

If you remove the fascia you will find an electronic touch pad in the lower centre of the fire. The touch pad features the basic operations of the fire: On, off, and manual adjustment of the flame height.



To turn on the ST900, push the ON/OFF button on the touch pad. The LED will start to blink while the pilot starts to spark. The pilot should be lit within a few seconds, during which time the LED will blink while the ignition process takes place. The ST900 is now in the 'Manual' mode and ready to be used.

While the pilot is lit, press the 'Flame Up' or 'Flame Down' button to alter the flame height. The LED will flash once to confirm the flame height has been adjusted. The ST900 has 4 flame positions: Pilot only, Low, Medium, and High flame height.

If the 'Flame Up' button is pressed while the unit is in the 'high' flame position, nothing will happen. Similarly, if 'Flame Down' is pressed while the unit is in the 'pilot' flame position, nothing will happen.

To shut down the gas flow to the ST900, press the On/Off button and the LED will begin to blink.

If while using the Remote control in the Manual mode, you push any button on the Touch Control, the unit will receive the command of the touch control and follow it. If the command is to turn Off the ST900, the fire will be turned Off however the display on the Remote will continue to show the unit as On. In this case, to be able to use the remote control again you must turn the fire Off again via the Remote Control.

If you push a button on the touch pad while using the remote control in the Automatic / Thermostatic mode, the ST900 will follow the command from the touch control, while the remote control display continues to show the mode as Automatic. If you do not push any further buttons on the touch pad, the remote control will continue working in Automatic / Thermostatic mode after 6 minutes.

20.0 Sounds And Smells:

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

20.1 Sounds:

It is possible that you will hear some sounds from your gas appliance. This is perfectly normal due to the fact that there are various types of materials 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.

Gas Control Valve:

As the gas control valves turn ON and OFF, a dull clicking sound may be audible, this is 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 burner burns away. These are normal and should be no cause for concern.

Unit Body/Firebox:

Different types and thickness' of steel will expand and contract at different rates resulting in some "dull drumming" and "ticking" sounds being heard throughout the cycling process.

20.2 Smells:

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

A deposit on the inside of the glass, caused by the starch in the coals may appear as a build up after several uses. If this film is not removed, it may bake on and may become difficult to remove. When the glass is cold, remove it (see section 11.0) and clean the inside with a non-abrasive cleaner.

DO NOT ATTEMPT TO CLEAN THE GLASS WHILE IT IS HOT. NEVER OPERATE THE UNIT WITH THE GLASS REMOVED.

21.0 Annual Service Check:

The ST900 Fireplace should be serviced annually to ensure it continues to operate in a safe manner. This annual service check should involve the following

- Replace thermocouple
- Check glass assembly gasket
- Clean pilot and main burner jets
- Paint firebox [if required]
- Inspect flue system [if possible]
- General clean and inspection

22.0 Installation Check List:

- | | | |
|----|--|--------------------------|
| 1 | Fuel Bed Media correctly installed as per manual _____ | <input type="checkbox"/> |
| 2 | Operating pressure checked with fire running on full (high flame setting) and all other gas appliances in the house switched on. _____ | <input type="checkbox"/> |
| 3 | Flue restrictor fitted if required, flame picture verified 15 minutes after start-up. _____ | <input type="checkbox"/> |
| 4 | Ensure the pilot frame is clearly visible and free from loose material (coals). _____ | <input type="checkbox"/> |
| 5 | After Gib installation, fire run on high for 60 minutes with house doors and windows open to clear smell of paint and oils initial burn. _____ | <input type="checkbox"/> |
| 6 | Fire and flue clearances comply with these instructions. _____ | <input type="checkbox"/> |
| 7 | Fire securely fixed to wall. _____ | <input type="checkbox"/> |
| 8 | Leak test all joints and pressure test points. Soapy water and drop test done on pipe work. _____ | <input type="checkbox"/> |
| 9 | Remote cradle screwed to wall. _____ | <input type="checkbox"/> |
| 10 | House holder has been shown how to operate fire. _____ | <input type="checkbox"/> |
| 11 | User manual has been left out for house holder, installer has filled in their own details and fire serial number into warranty card. _____ | <input type="checkbox"/> |
| 12 | Inform the customer that the fire may continue smelling for a while after installation depending on frequency & duration of use _____ | <input type="checkbox"/> |
| 13 | Given house holder Plumbing Industry Commission Compliance Certificate. _____ | <input type="checkbox"/> |

24.0 WARRANTY TERMS & CONDITIONS:

Provided that the Product is installed as per ESCEA's Installation Manual and the step by step warranty procedure has been followed as per instructions issued by ESCEA, (documented in the Agent Manual), and the product is operated and maintained in accordance with ESCEA operating and maintenance instructions, then for the first period of twelve (12) months from the **date of purchase** ESCEA will pay the cost of repairing or replacing any part of the Product that is deemed by ESCEA to be faulty.

For the second period of twelve (12) months from the **date of purchase** ESCEA will supply replacement parts only, without charge.

Parts and Labour for the first twelve (12) months:

- a) ESCEA, at its sole discretion, may modify, adjust, repair, or replace the faulty products. The warranty period on parts and labour shall be for twelve (12) months from the date of purchase.
- b) Labour costs will only be reimbursed when ESCEA specified procedure has been followed, and ESCEA has authorised service work before it was carried out.

Parts Only for the second twelve (12) months:

- a) ESCEA, at its sole discretion, will provide replacement parts to the Distributor, retailer or repair service. Faulty parts **MUST** be returned to ESCEA. The parts only warranty period shall be for twelve (12) months and will commence twelve (12) months after **the acceptance date** of the Products by the ESCEA retailer.

General Terms and Exclusions:

1. All repairs made within the Limited Warranty period shall be covered by this Limited Warranty for a period of three (3) months from the date of completion of the repair, or for the remainder of the overall Limited Warranty period, whichever is the longer.
2. If the buyer or any other party modifies any part of the Product within the Limited Warranty period without the prior written consent of ESCEA then the Limited Warranty shall be void. ESCEA may, at its sole discretion, decide that the Limited Warranty is void in relation to any part of the product, which has been modified.
3. ESCEA must be notified of all claims under this Limited Warranty as soon as possible, but in any event not later than two (2) weeks of the claimant becoming aware of the circumstance giving rise to the claims.
4. No ESCEA Distributor, retailer, employee or other third party is authorized to make any modification, extension, or addition to this Limited Warranty, whether verbal or written.
5. ESCEA reserves the right to discontinue products or make substitutions, in such event, the buyer may receive a substitute product or a cash refund at ESCEA'S sole discretion, if a replacement for the product covered by this Limited Warranty is no longer available.
6. ESCEA is not responsible for damage arising from failure to follow instructions for the product's installation, maintenance and permitted and proper use. The Limited Warranty does not cover damage caused by use with non-ESCEA products or damage caused by accident, abuse, misuse, weather, fire, flood, earthquake or other external causes. Products where an ESCEA serial number has been removed or defaced, cosmetic damage, including but not limited to scratches, and normal fair wear and tear are not covered as well.
7. This warranty does not cover installation of the fire into wet areas such as bathrooms or areas of very high humidity.

15.0 Troubleshooting

Use the following troubleshooting chart to diagnose and fault-find operational issues with ST900 decorative gas fireplaces.

Problem	Cause	Message of error	Solution
Stove does not ignite.	Lack of batteries or ran down batteries in control unit.	10 bips followed	Replace new batteries in control unit .
	ROM Error.	2 cycles of 3 bips.	<ul style="list-style-type: none"> • Change control unit.
	Helping current test error.	2 cycles of 5 bips.	<ul style="list-style-type: none"> • Connect earth cable from battery box to valve. • Change batteries in the handset. • Verify that learning switch is in close position. If not, make learning and then move switch to close position. • Verify communication in a closer distance.
	Bad communication from remote handset.		<ul style="list-style-type: none"> • Connect cable to keyboard. • connect cable to keyboard correctly. • Change keyboard.
	No respond to keyboard. Cable loose or broken or connected the other way round to keyboard. Supply cable to valve disconnected or broken. Spark cable disconnected or broken.	If LED continuously on, keyboard connected the other way round. 2 cycles of 5 bips.	<ul style="list-style-type: none"> Connect or replace supply cable to valve. Connect or replace spark cable.
Sparks but no pilot ignition.	Gas closed or no gas.		Verify gas circuit. Open gas valve
	Motor cable disconnected or broken.		Connect correctly or replace motor cable.
	Thermocouple cable disconnected or broken.		Connect correctly or replace Thermocouple cable.
Pilot ignites but doesn't keep switched on	Thermocouple is not warmed up.		Check pilot flame and verify that heats the thermocouple.
	Thermocouple cable badly connected		Change polarity of Thermocouple cable.
	Thermocouple cable disconnected or broken.		Connect or replace motor cable.
Ignites commanding from remote handset but not from keyboard	Keyboard cable disconnected or broken.		Connect or replace keyboard cable.
	Defective keyboard		Change keyboard.
Ignites commanding from keyboard but not from remote handset.	Bad communication with handset.		<ul style="list-style-type: none"> • Change batteries in the handset. • Verify that learning switch is in close position. If not, make learning and then move switch to close position. • Verify communication in a closer distance.
	Shortcut in keyboard		Change keyboard wiring.
Stove switches off after 6 seconds.			

13.0 Re-establish Gas and Electrical Connections

With all applicable service work completed and the fire fully assembled again the gas and electricity supplies can be re-established.

Check gas inlet pressure against data plate at pressure test point using a manometer. Adjust gas pressure to specifications.

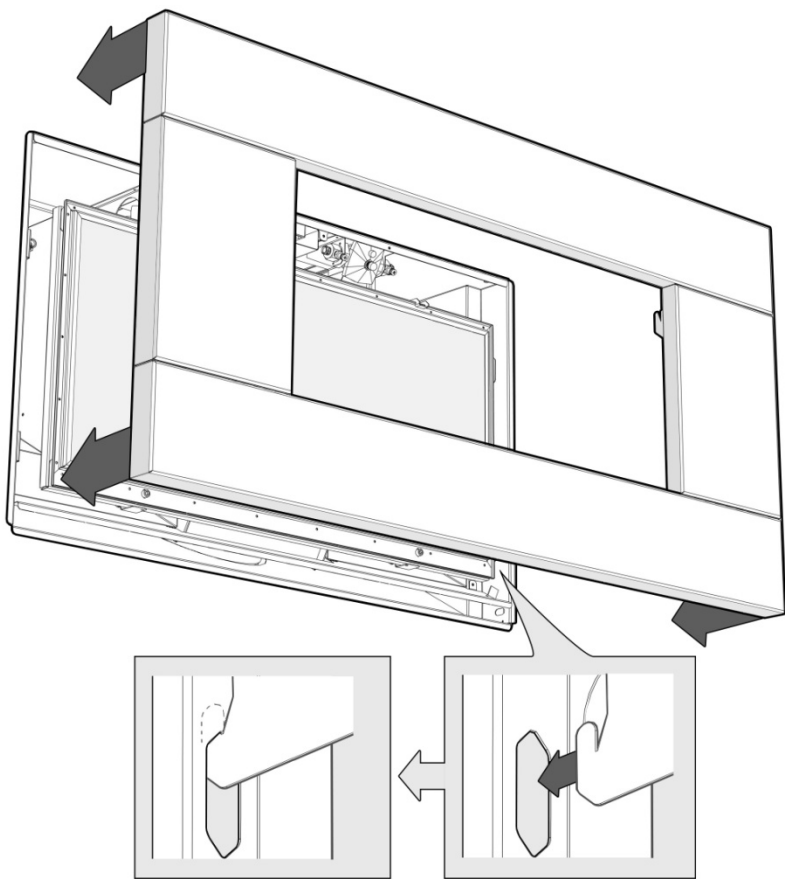
Remove the manometer and replace the test point screw.

Leak test all test points and gas system joins/unions.

Check that the pilot flame correctly impinges on the flame failure device (thermocouples should not glow red, as this indicates that the pilot flame is set too high and will reduce the life of the thermocouple).

14.0 Re-fit the Fascia

The ST900 fascia uses these four hooks for attaching to the fire. Do this by lining up the fascia hooks with the receptacles on the sides of the fire. Lift the fascia so that the hooks are above the receptacles, and let it drop down into position until it is secure and free from movement.



8.0 Clean Thermocouple:

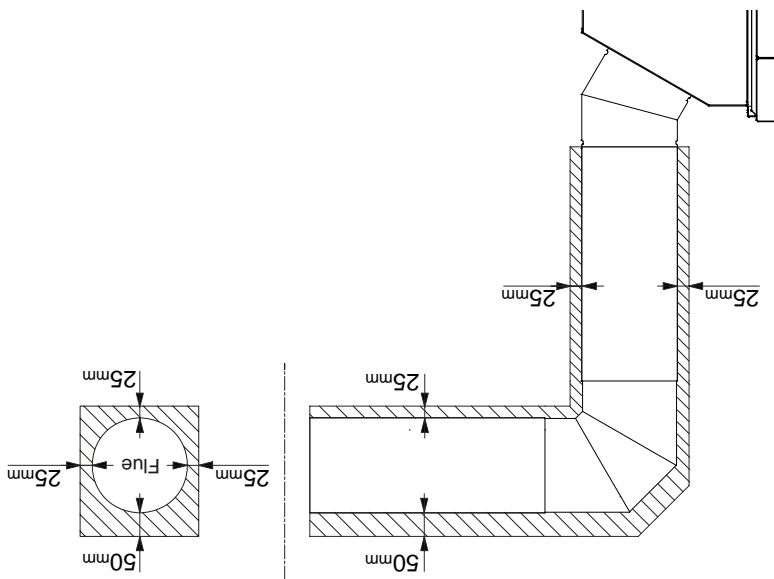
With the Pilot Cover removed you now have access to clean the thermocouple. Do this by wiping it down with a rag or other appropriate cleaning tools in order to remove any soot from the surface.

9.0 Paint Firebox *[if required]:*

If there are any scrapes or damage to the paint on the inside of the firebox you may wish to touch up the paint. To do this use a suitable high temperature matt black paint. Do not put any paint on the burner, as there is a risk of blocking burner ports.

10.0 Inspect Flue System *[if possible]:*

If you have access to the flue system, inspect it for damage or potential blockages (including the cow!). Ensure each flue component is twist-locked into the adjacent components, and that there are no combustible objects or material within 25mm of either side or below flue components or 50mm above any flue components, as shown in the diagram below:

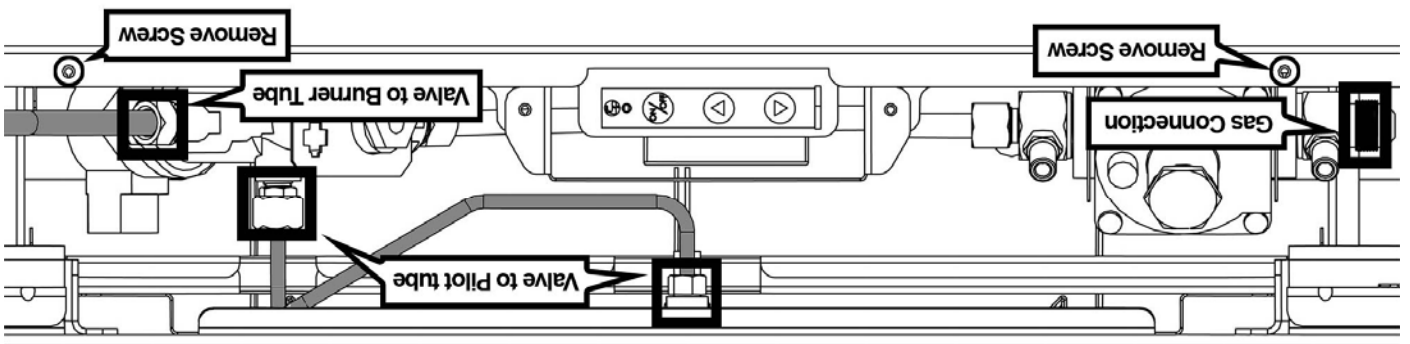


11.0 General Clean and Inspection:

A general clean of the ST900 should be undertaken by wiping down or dusting all accessible areas and surfaces.

12.0 Re-assemble

Once the service work is complete, the fire should be re-assembled by reversing the actions done in previous steps, replacing the Pilot Cover, Burner, Fuel bed media, Glass assembly, and Control Tray (if removed).



Once the control unit cover has been removed the main gas connection, Valve to pilot tube, and Valve to Burner tubes should be disconnected. Push the thermocouple down from inside the firebox to disconnect from pilot assembly. Once the two screws pictured above are removed the tray is free to be lifted (ensuring that all wiring is clear from sheet metal) up 15mm to clear the metal edge and pulled towards you.

If the thermocouple needs to be replaced unplug from tray and unscrew from end of valve. It can then be replaced with the replacement thermocouple. Ensure that the replaced thermocouple is pushed fully home – This may require substantial force. A click should be felt.

When replacing the tray, make sure to reconnect all gas pipes tightly and using sealant where required.

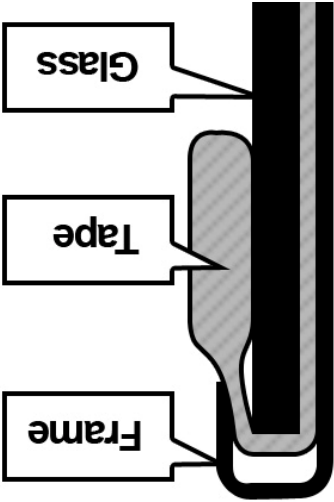
6.0 Check Glass Assembly:

Check that the glass assembly (Removed in section 3.0) for damage to glass or sealing tape. If the glass has any visible damage it must be replaced before use.

Ensure the tape which seals the glass against the firebox is in the correct position (shown to the right) and that the glass is secure inside the metal frame and free from movement.

7.0 Clean Burner Jet:

With the burner removed the burner jet is now accessible. Remove the jet and clean it using an appropriate method, such as using a micro drill or compressed air.



4.0 Remove Firebox Contents:

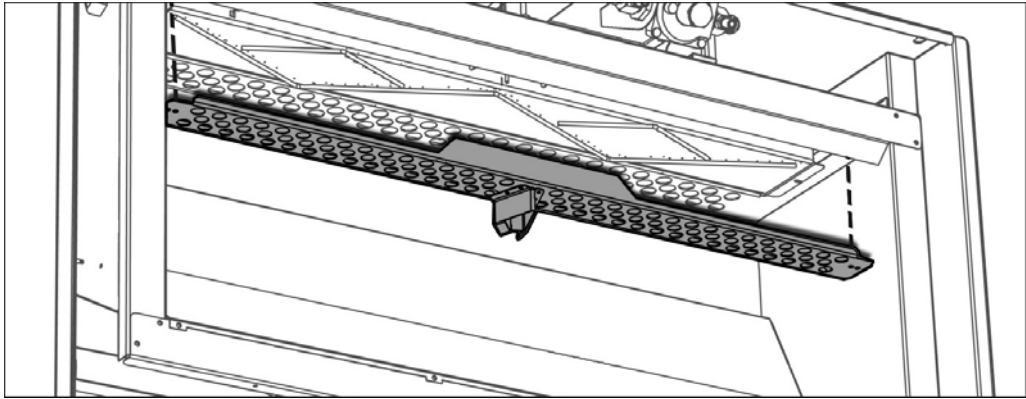
Ensure the firebox contents have cooled down completely before attempting to touch or remove any part.

First remove all fuel bed media (Logs and coals, or just coals) and place them carefully to the side somewhere they will not be damaged.

The driftwood logs are extremely fragile – Use extreme care!

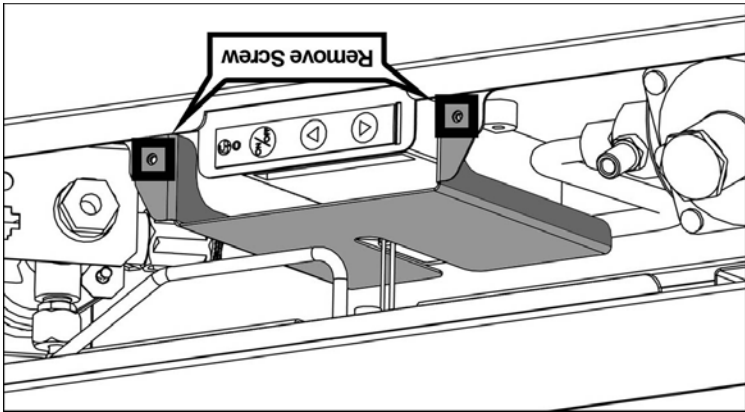
Next remove the burner by removing the screw holding it in place as shown to the right, and then lifting the left side of the burner upwards and sliding the burner off the jet on the right hand side.

You will also need to remove the Pilot Cover (The long grill at the front of the firebox) in order to access and clean the pilot and thermocouple. To do this, remove the two screws on either side of the Pilot Cover and lift upwards, as shown below, taking care not to scrape or damage the firebox as shown below.



5.0 Remove Control Tray [if required]:

If the thermocouple needs to be replaced, or the Control Tray needs to be cleaned, it may be necessary to remove the control tray from the appliance. First remove the control unit cover by removing the two screws as pictured to the right.



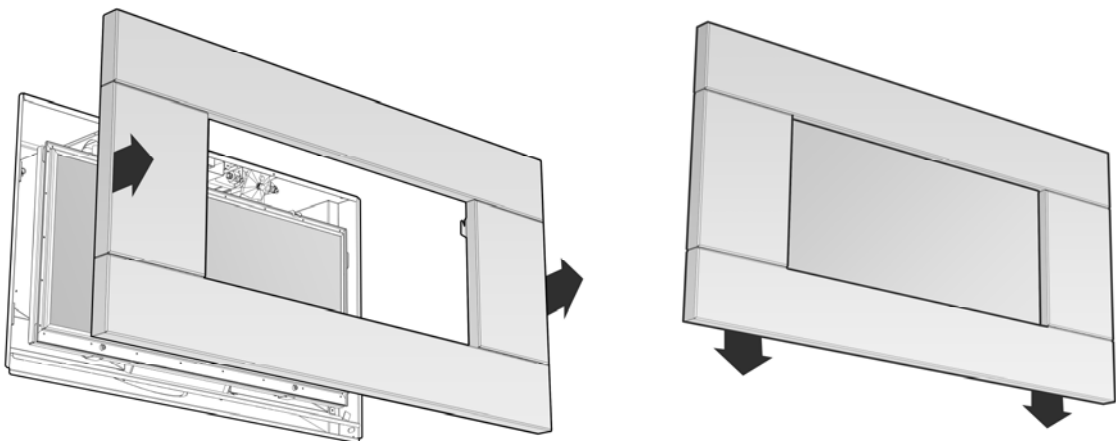
1.0 Isolate Power and Gas Supply:

Before any service and maintenance work is done on the ST900, electricity and gas supply must be isolated or shut off. Gas can be isolated by either turning the gas off at the bottles, or by using an inline shut-off valve if fitted. Electricity can be isolated by switching the transformer off at the switch or removing the batteries from the battery pack, if fitted.

2.0 Remove the Fascia:

Ensure the fascia has cooled before attempting to remove it.

The ST900 fascia attaches to the fire by four hooks. To remove the fascia, simply lift it upwards 15-20mm, and pull towards you. Care should always be taken when handling the fascia.

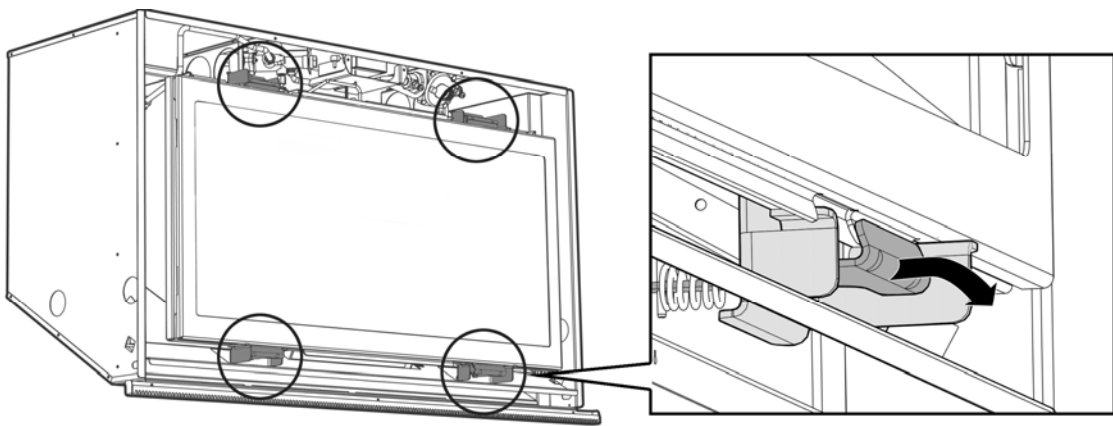


3.0

Remove Glass Assembly:

Ensure the glass assembly has cooled completely before attempting to remove it.

Pull the four hooks shown below towards you and then away from the glass to release the glass frame underneath the hook. Lift the glass assembly towards you to clear the locating supports and place it flat upon some newspaper or a sheet of cardboard to protect your floor coverings



DIS-ASSEMBLY	-	Isolate power and gas supply	1.0
	-	Remove fascia	2.0
	-	Remove glass assembly	3.0
	-	Remove firebox contents	4.0
	-	Remove Control Tray <i>[if required]</i>	5.0
SERVICE	-	Check glass assembly	6.0
	-	Clean burner jet	7.0
	-	Clean burner thermocouple	8.0
	-	Paint firebox <i>[if required]</i>	9.0
	-	Inspect flue system <i>[if possible]</i>	10.0
	-	General clean and inspection	11.0
RE-ASSEMBLY	-	Re-assemble	12.0
	-	Re-establish gas and electrical connections	13.0
	-	Replace fascia	14.0
TROUBLESHOOTING	-		15.0



Important

- It is recommended that this appliance 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.

Manufactured by: Escea Ltd, PO Box 5277 Dunedin NZ, Ph: +64 3 479 0302, email: info@escea.net

For contact details of your local escea distributor or dealer please visit www.escea.net