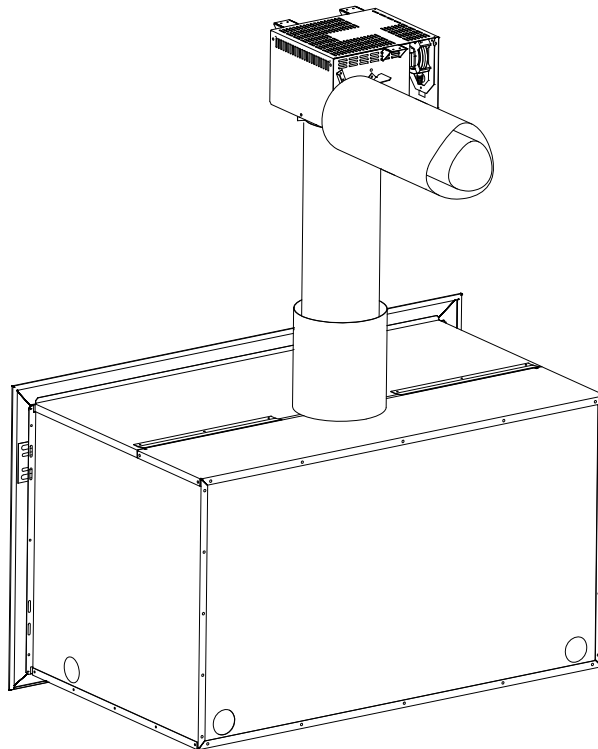


escea.

IB1100, IB850 and IB600

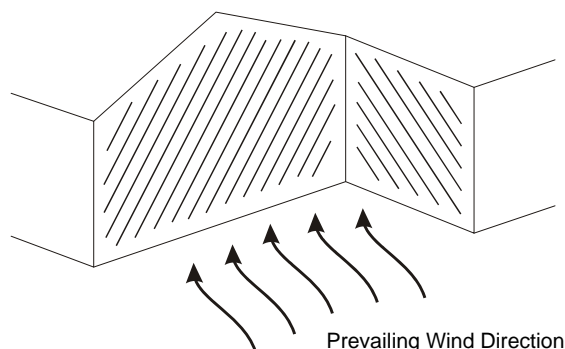
Powerflue Installation Manual



Important:

- This Flue kit is to be installed only by a suitably qualified and trained person
- This Flue kit can ONLY be fitted to escea IB1100, IB850 and IB600 gas fires
- Electrical supply to the heater must be isolated before fitting or service work is carried out.
- The installation of this flue kit MUST comply with these manufacturers written instructions and the requirements of NZS 5261:2003
 - **Access for service: Consideration MUST be given to how the fan box will be accessed for the purpose of service. This may mean the provision of a service hatch or removable panel.**
 - **Don't forget that the fire controller wiring must be reconfigured to allow the fan unit to operate. See wiring change instruction at the end of this manual.**
 - **Flue terminal positioning: As with any flue terminal its location and surrounding structures can affect the operation of the appliance. Avoid positioning the terminal in high wind pressure zones such as large weather facing walls or close to return walls. If the terminal is exposed to high pressure this can cause nuisance pressure switch tripping and therefore shut down the fire.**

Unsuitable Powerflue Terminal Location



Escea Ltd
31 Devon St
PO Box 5277
Dunedin
www.escea.co.nz

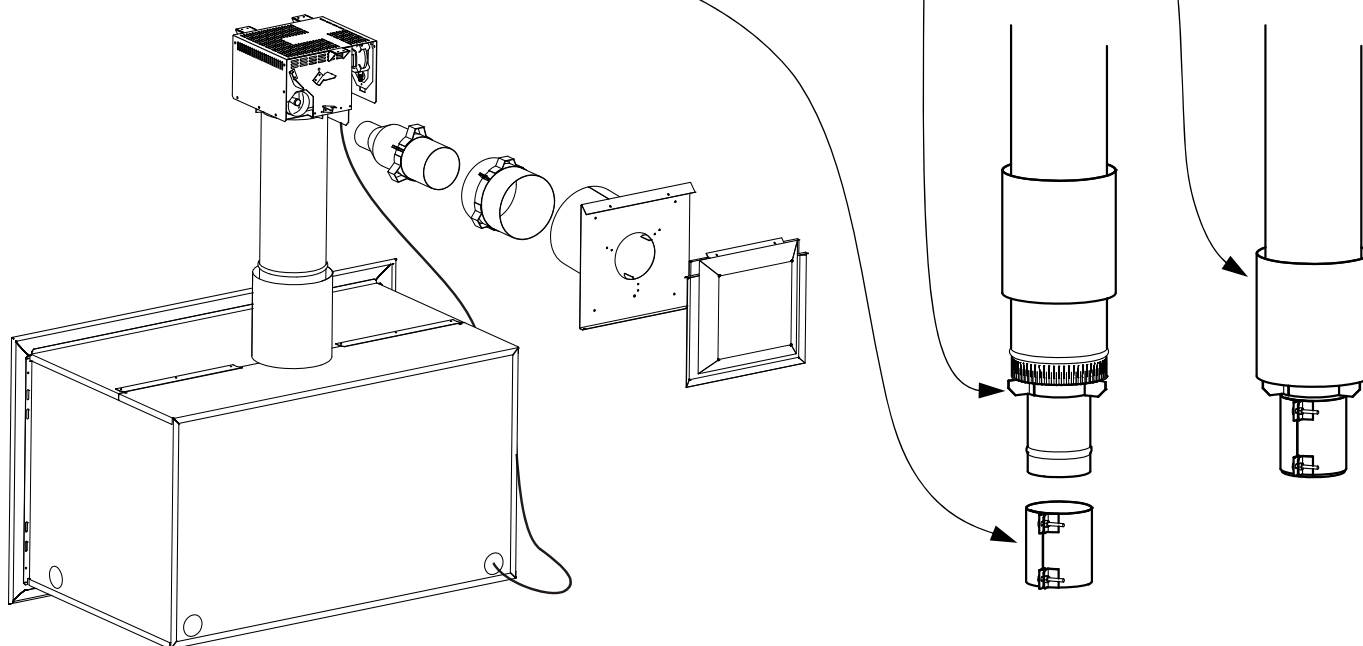
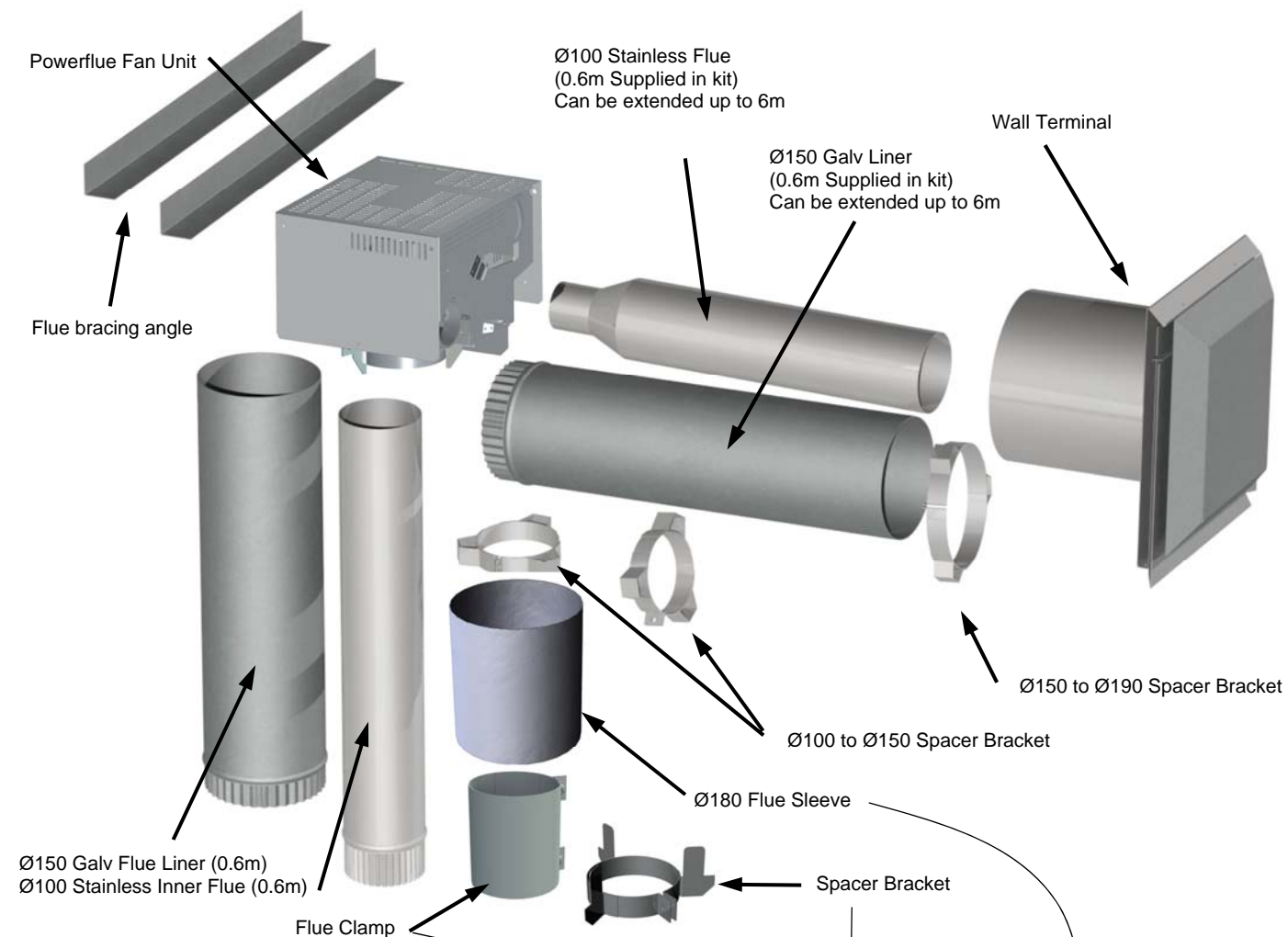
Ph: 03 479 0302
Fax: 03 479 0301
E: info@escea.co.nz

escea.

Product Description:

This Power Flue Kit is designed to allow the products of combustion released from an Escea gas fire to be removed from the building via a flue system that terminates on an exterior wall or through a tortured flue path to a conventional roof terminal.

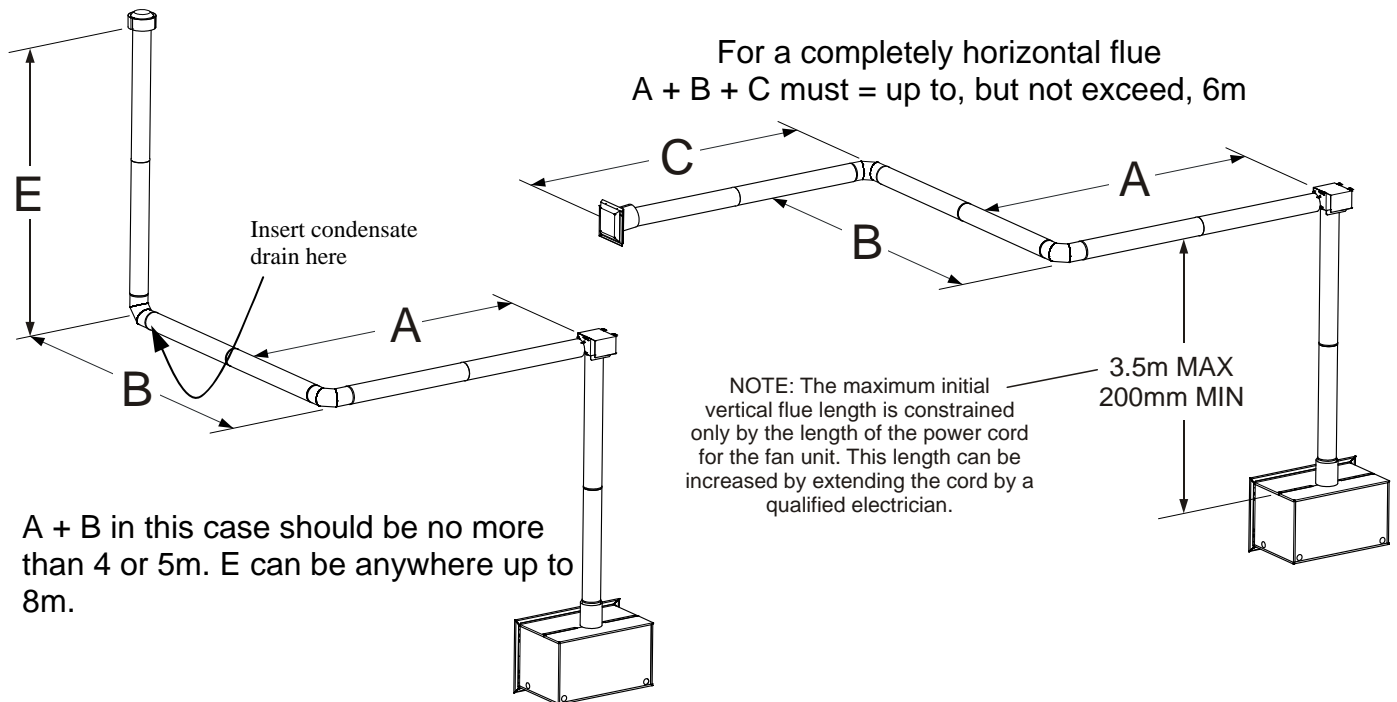
Kitset Contents:



Flue Configurations:

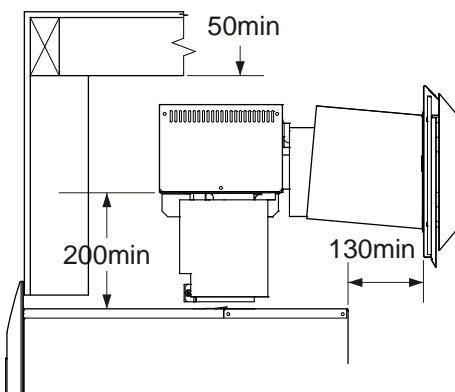
If it is NOT POSSIBLE to install a natural draught flue directly above the fire then the power flue allows horizontal flueing to either a remote roof terminal or directly out an adjacent wall.

The maximum allowable horizontal distance is 6m. A maximum of two 90° elbows is allowed after the fan unit. It is acceptable to install a short 45° offset before the fan unit.



Raise the fan unit above the wall terminal slightly to allow a drop of 2 or 3° over the horizontal section of any flue configuration to allow any condensate to run away from the fan unit towards the flue terminal. If the flue is finally run vertically to a roof terminal then the fan unit should be slightly above the last elbow and a condensate drain should also be fitted at the base of that last elbow as shown above.

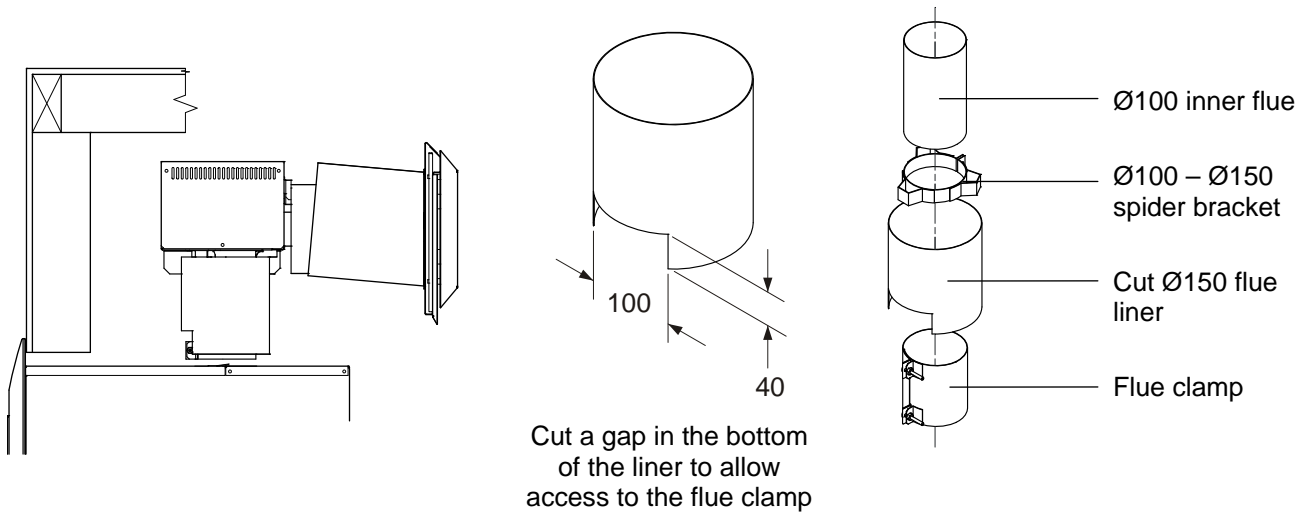
Minimum installation distances:



IMPORTANT:

If the fan unit is installed into a small confined space then it is **CRITICAL** that there is plenty of ventilation at both the top and bottom of the cavity in order to allow the hot ambient air to escape. Failure to do so may allow some of the fan units' components to overheat and fail. Any installation where a fan unit has failed and has been found to be in a confined cavity with **no ventilation** its repair or replacement **WILL NOT BE COVERED BY ESCEA** under the limited warranty terms associated with the appliance.

When the fan unit is installed close to the fire, with a very short flue length between, it may be necessary to simplify the flue liner and leave out the liner sleeve and bottom spacer bracket.



Noise Reduction:

This fan system is reasonably quiet. However if customers want to ensure that the noise level heard inside the home reduces further, then we suggest that the interior of the wall cavity that contains the fan unit, is lined with noise reducing bats (don't forget to ventilate the fan enclosure).

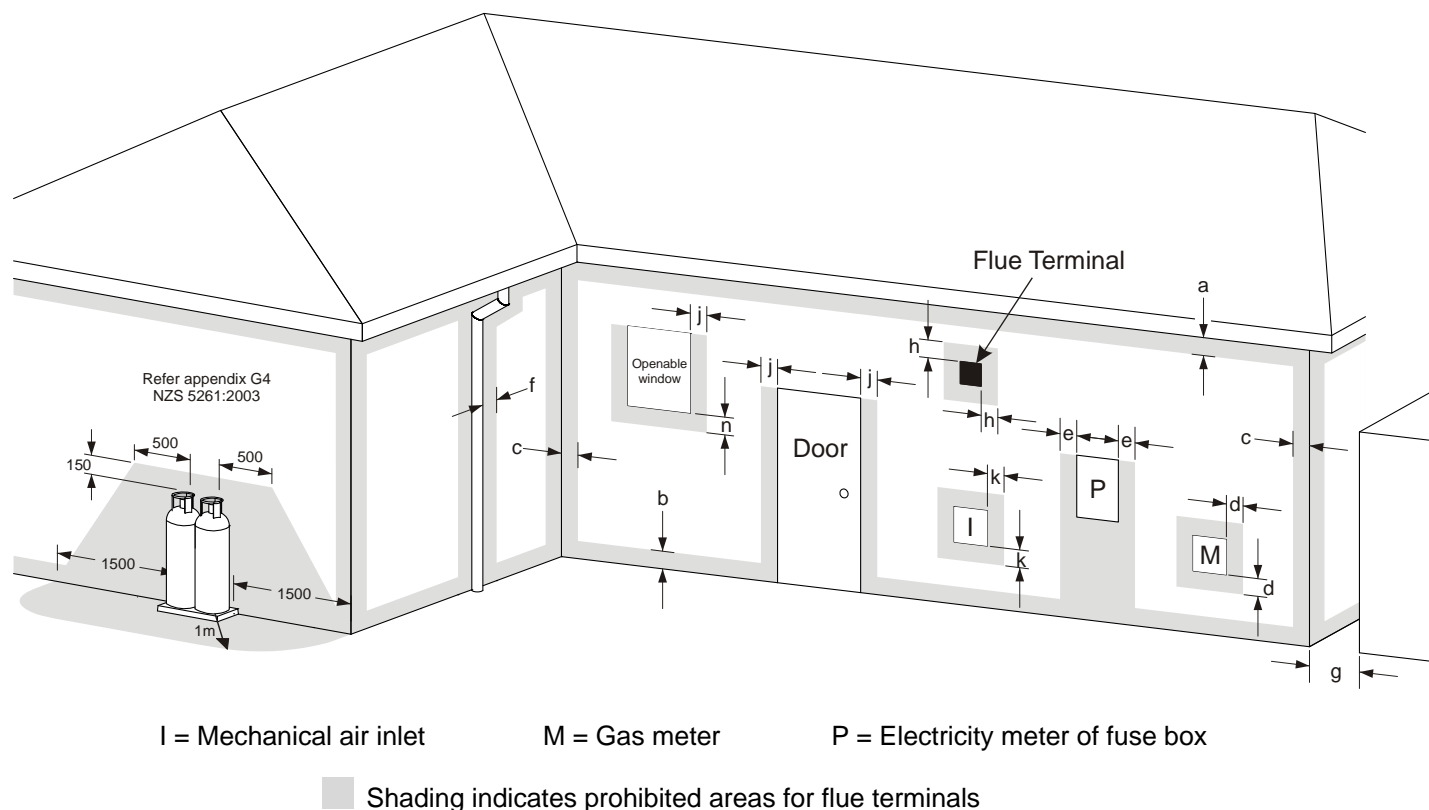
Weather Proofing:

Please refer to the instructions and "best practice" advice given by the cladding supplier in relation to vertical wall penetrations, to ensure that no moisture enters the home around the wall penetration part of the flue kit.

Terminal Positioning:

The location of the flue wall terminal (outer cap) must comply with the requirements of NZS 5261:2003

Some of those minimum clearances for a fan assisted wall terminal are listed below; please refer to section 2.6.13.2 of the NZS 5261:2003 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 ground, 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 pipe	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
n	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

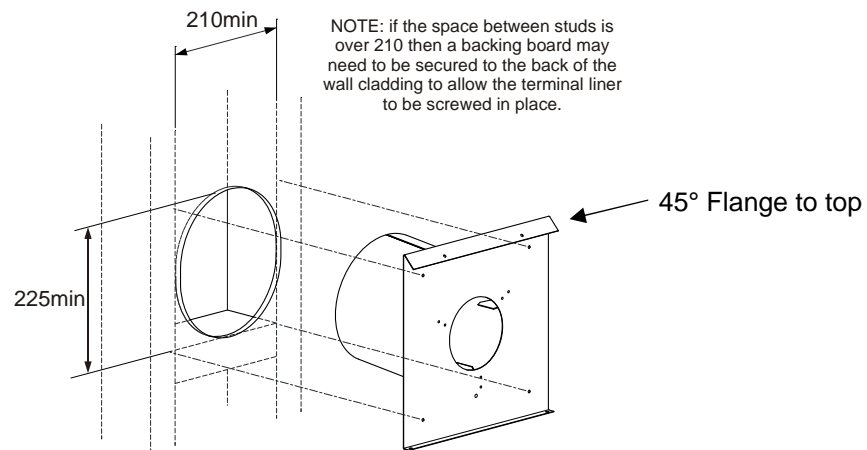
Distances are to the nearest part of the flue terminal

The above is a guide only and roughly follows section 2.6.13.2 of the NZS 5261:2003. It is the fitters responsibility to ensure the suitability of the terminal placement making sure that it is conducive to the operation of the gas appliance and adheres to NZS 5261:2003.

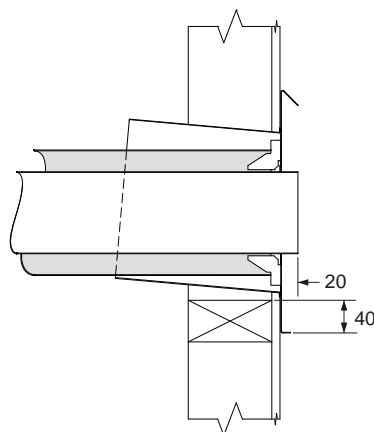
Installation Process:

1. Ensure that framed cavity size, ventilation and clearances to combustibles are compliant with instructions.
2. Cut vertical and horizontal flue to necessary lengths. Note: Additional flue may be required than that supplied in kitset
3. Measure and create a round hole in the external wall that is 210mm wide and 225 high for the wall penetration (or a Ø225mm hole cutter). NOTE: The wall liner should be installed onto a flat surface to ensure there are no gaps leading back into the cavity, sealing off the wall space from the area outside around the terminal.

4.

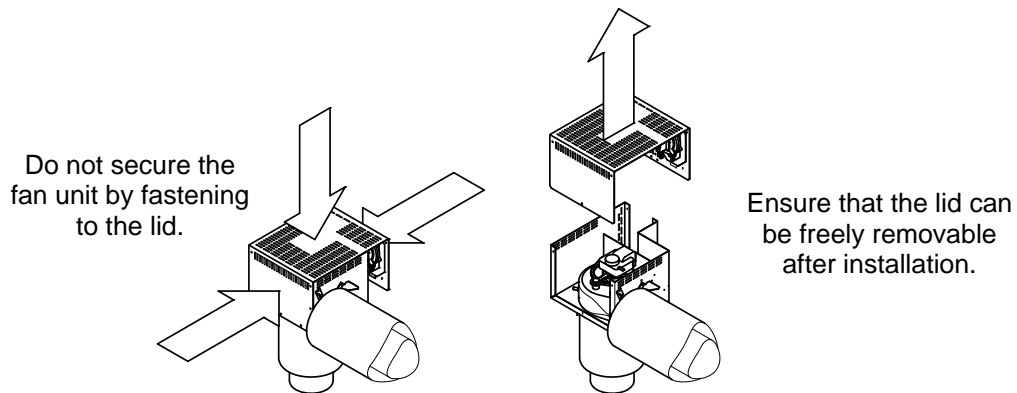


5. Fit wall penetration part to outer wall from outside, weather proof as appropriate for whichever cladding system has been used as well as a good thick bead of clear silicon between the liner and wall surface. *If necessary seek advice from cladding supplier or builder on additional weatherproofing for the wall penetration.* Make sure the flange that is bent at 45 degrees is at the top.

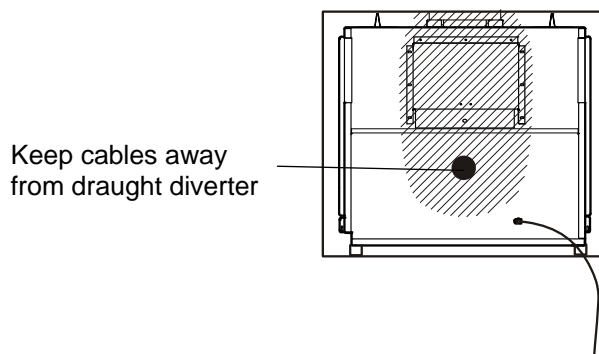


6. Install vertical and horizontal flue lengths, ensuring compliance with requirements of NZS5261. Allow the inner flue to protrude 20mm out from the wall liner as shown above.
7. Ensure that horizontal flue lengths run slightly downwards towards flue terminal to allow any condensation to drain out.

8. Fix flue liner to framing, within 200-300mm of fan units' location using the supplied pieces of angle sections of sheetmetal or additional sheetmetal strapping.
9. Fit fan box in place and secure, use sealant on any joints which do not appear to be a good interference fit. Ensure that the lid of the fan unit can be freely removed once installed and do not secure the fan unit by fastening to the lid as shown below.



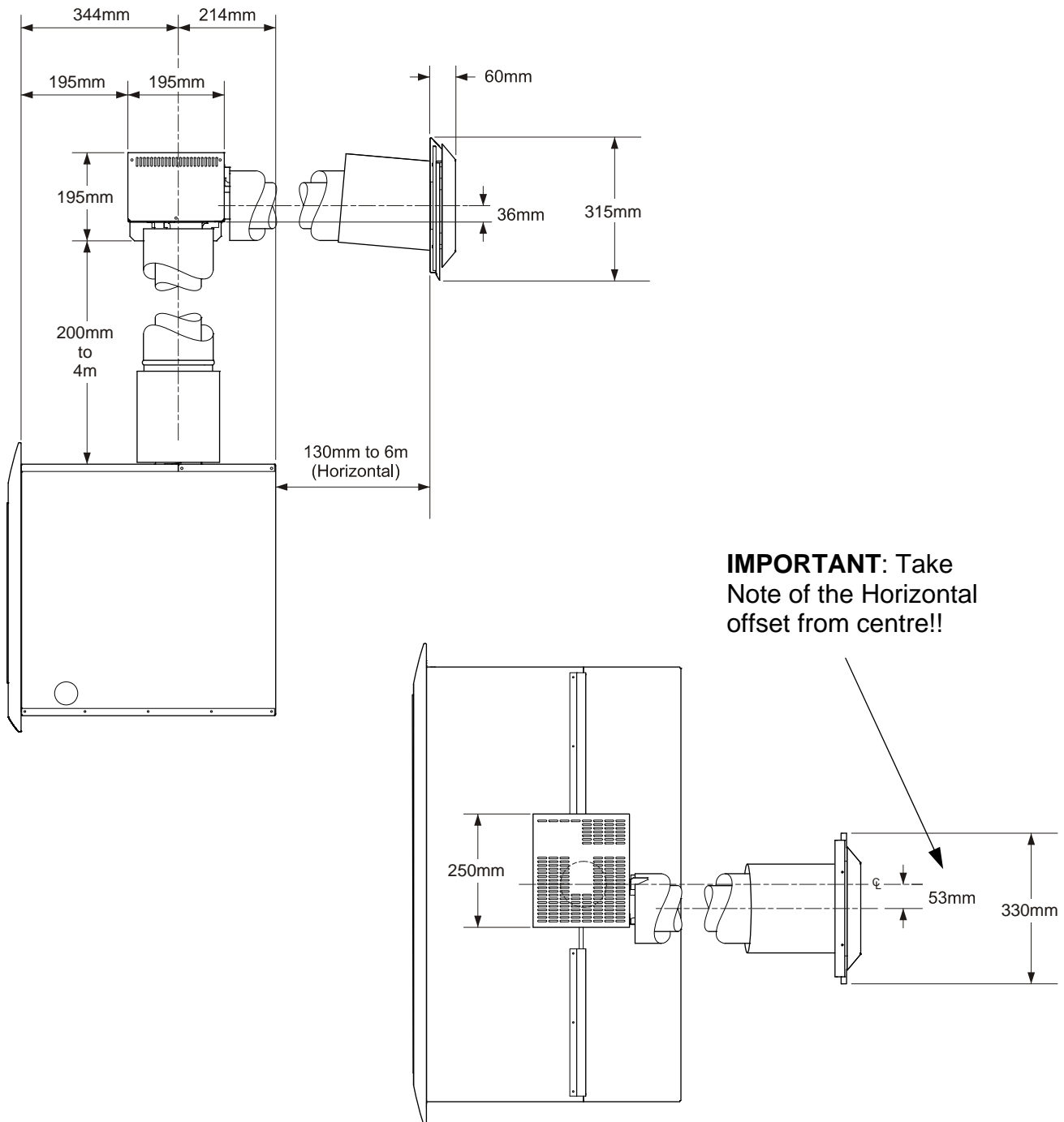
10. Run power cord from the fan unit to the rear left of the zero clearance kit and through one of the supplied rubber grommets through to the corresponding connector on the back of the fire. Tie the cable loosely to framing and ensure that it does not touch any hot flue parts. When pushing fire back into the zero clearance kit avoid letting both the fire and fan unit power cords bunch up around the draught diverter.



11. Pull out the electronic drawer on the heater as described on page 8 of heater service manual (supplied with all fires). Perform the alterations to the wire jumpers as described on the last two pages of this manual, replace electronic drawer.
12. Test operation of fan system before cavity is lined. Check that products of combustion are being *blown* out of terminal on outside wall.

System Dimensions:

The drawings below show the overall dimensions of the powerflue kit.



Changing the standard eSCEA. electronics tray to suit a powered flue fan installation.

Tray conversion kit contents.

- 1 x Yellow wire link.
- 1 x Orange wire link.
- 1 x Grey wire link.
- 1 x 1.5 Amp 5x20 Glass fuse.

Procedure: (Refer to Figure 2 on next page)

NOTE: Take care not to disturb the components on the circuit boards.

1. Remove the existing yellow double wire link from between the two circuit boards.
2. Disconnect the end of the single white wire link connected to the "IND" terminal on the green circuit board and connect it to the "PSW" terminal on the blue circuit board.
3. Using the grey link wire connect the "INDUCER" terminal on the blue circuit board to the "IND" terminal on the green board.
4. Using the orange link wire connect the "L1" terminals between the two circuit boards.
5. Connect the "W" terminal on the blue circuit board to the "W" terminal on the green circuit board using the single yellow link wire.
6. Insert the 1.5 amp fuse into the clips beside the "L1" terminal on the blue board, being careful not to press too hard. Gently push it in allowing the fuse to snap into place.

Figure 1: Standard eSCEA. factory wired electronics tray.
For use without a powered flue fan installation.

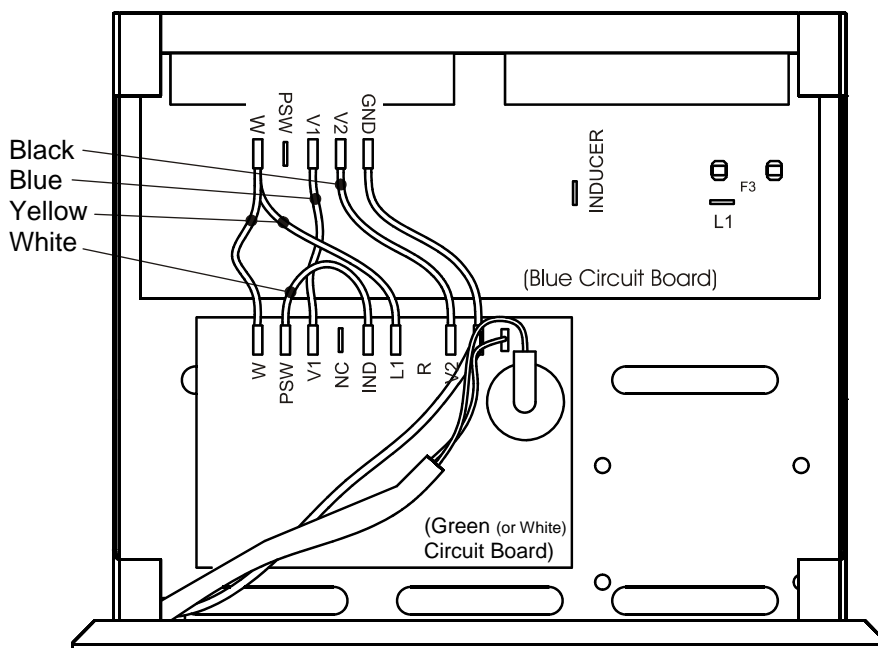


Figure 2: eSCEA. electronics tray re-wired for
powered flue fan installations.

