

PLEASE NOTE

If at the time of the spillage tests carried out during commissioning, the stove cannot be confirmed as operating safely, an appropriately sized air vent, as specified in Building Regulations, should be fitted in order to supply additional air for the safe and correct operation of the stove as well as to provide sufficient air for the comfort and safety of the occupants. Under no circumstances should the stove be used until the appropriate air vent has been installed.

INSTALLER RESPONSIBILITIES

- This Direct Air Kit meets Hi-Flame's requirements under the General Product Safety Regulations 2005 and must be fitted in accordance with these manufacturer's instructions.
- These installation instructions, together with the Hi-Flame stove Operator's Handbook, are intended to give clear guidance to the installer on the safe installation of the stove with this Direct Air Kit.
- The person installing the appliance takes responsibility for a safe installation (see Approved Document J page 4) and must ensure that it complies with Building Regulations (see Approved Document J page 9, requirements J1 to J5). Northern Ireland has similar requirements (see Technical Booklet L, page 8 paras 70 – 77).
- The installer must fully commission the appliance, including undertaking appropriate spillage tests, to demonstrate and confirm the stove's safe operation with the room in its normal state and also with doors and windows closed and any extractor fans at maximum operation i.e. worst case scenario conditions.
- As already required by Building Regulations a CO detector(s) must be correctly fitted.
- The user must be instructed on the lighting and use of the stove and servicing / chimney sweeping requirements should be explained to the user.

DIRECT AIR DUCTING REQUIREMENTS

Ensure that the diameter of the direct air ducting is at least the same size as the Direct Air Kit inlet pipe or greater. Do not reduce the diameter as this will affect the performance and safe operation of your stove. For fire safety reasons only use the appropriate metal ducting. *Do not use plastic ducting.*

The maximum recommended ducting length is 1 metre (40"). Keep bends to a minimum and avoid using bends greater than 60°. Ensure that there is a good air-tight seal between the ducting and the Direct Air Kit inlet pipe. Use an appropriate weather-proof, non-closable, external vent grille.

PACKING LIST

Check that you have been supplied all six self-tapping metal bolts that you need to successfully attach the Air Box to your new Hi-Flame stove

TOOLS NEEDED TO ATTACH AIR BOX

- Protective eye wear
- Tape measure
- Sheet of A3 paper
- Tile marker or coloured pencil (to mark fixing point)
- Masking tape
- Strong metal punch
- Hammer
- High-powered electric drill (to drill pilot holes)
- 2 metal drill bits 4.0mm and 5.0mm
- Protective sheeting (old carpet or blanket)
- 8.0mm socket (for self-tapping bolt heads)
- Shifting spanner (to lock primary air control)

BUILDING REGULATIONS

The installer should refer to the current issue of British Standard BS 8303, Code of Practice for installation of domestic heating burning solid mineral fuel, the current issues of British Standards BS EN 15287-1:2007 design, installation and commissioning of chimneys (www.hetas.co.uk/professionals/standards), as well as Building Regulations, Local Authority Byelaws and other specifications / regulations as they affect the installation of the appliance.

For further information on Building Regulations please consult:

England & Wales Building Regulations Document J (revised October 2010) – Combustion Appliances and Fuel Storage Systems
www.planningportal.gov.uk

Scotland Building Standards (2001) Domestic
www.sbsa.gov.uk

Northern Ireland Building Regulations (Northern Ireland) Guidance Technical Booklet L (2012)
www.buildingcontrol-ni.com

Isle of Man Building Regulations (2007) – Isle of Man
www.gov.im

Republic of Ireland Document J (2014)
www.environ.ie

AIR SUPPLY REQUIREMENTS

The air supply must be sufficient for full combustion of the stove's fuel as well as the health and safety of the room's occupants. In particular, we draw your attention to the air supply requirements for your particular stove as outlined in the stove Operator's Handbook.

INSTALLER HEALTH & SAFETY

During the installation of this stove and any related building works you must comply with current Health & Safety at Work regulations.

The stove will be extremely heavy. Adequate facilities must be available for its safe loading, unloading and site handling. Always handle with care and make sure that you have additional strong help when you move it. Care should be taken to avoid the possibility of personal injury from the stove and air box metal parts.

The door and door handle, should never be used to grip the stove as they could be damaged from supporting the stove's weight. Items, such as the fire grate and carrier frame, as well as the baffle plate can all be easily removed to help reduce the weight and also help avoid damage or glass breakage should they move when tilting the stove during the fitting process.

ATTACHING THE DIRECT AIR BOX

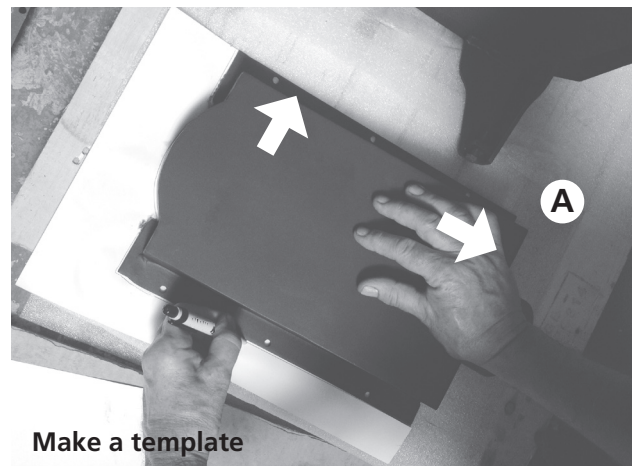
If you use the correct tools this should only take approximately 30 minutes. The key to this is to use a high-powered drill and preferably new metal drill bits.

1 You will need to lay the stove on its side to easily access the base. So firstly remove the lid and the baffle plate and any other components from inside the stove which may move as you tilt it on its side.

You must also ensure that the stove door is firmly closed. Use protective material to prevent the stove's side panel from getting scratched or damaged.

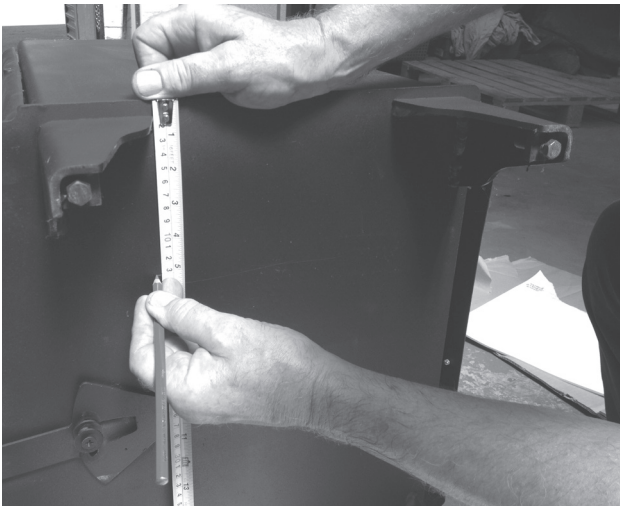


2 Place the Air Box face down on the A3 paper so that the top edge and corner of the Air Box are precisely positioned in the top right hand corner of the sheet (A). This will ensure that the top corner and edge of your template is also square.



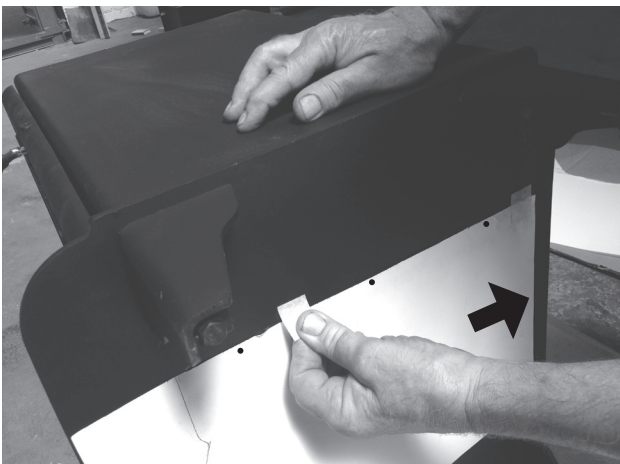
3 Draw around the bottom edge of the template and also mark the position of the six bolt holes. Cut off any excess paper from the bottom of the template so that it doesn't snag on the lower stove legs and prevent the template from sitting flat against the stove base.

4 Measure the distance between the sides of the stove bodywork and the width of the Air Box. Divide the

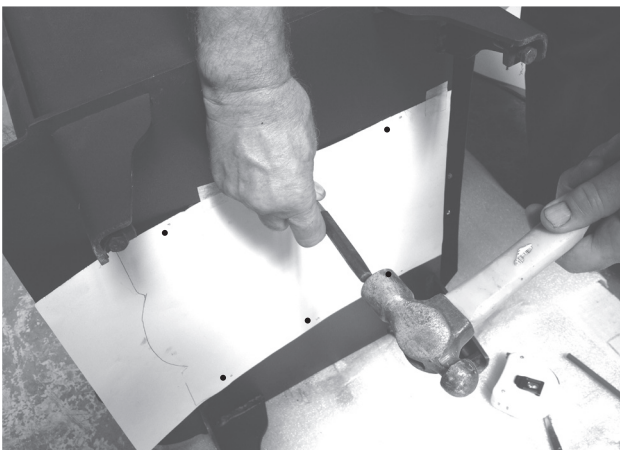


difference between the two in half and measure this distance down from the upper-most edge of the base of the stove. Mark this distance in two places.

5 Line up the uncut top edge of the template to both marks ensuring that the right hand side of the template also lines up precisely with the back edge of the stove bodywork (not the heat shield). Tape the template firmly in place so that it does not move.



6 Using the metal punch and hammer now mark the precise position of all six bolt holes and remove the template, checking first to see that all six holes on the base have been sufficiently marked.

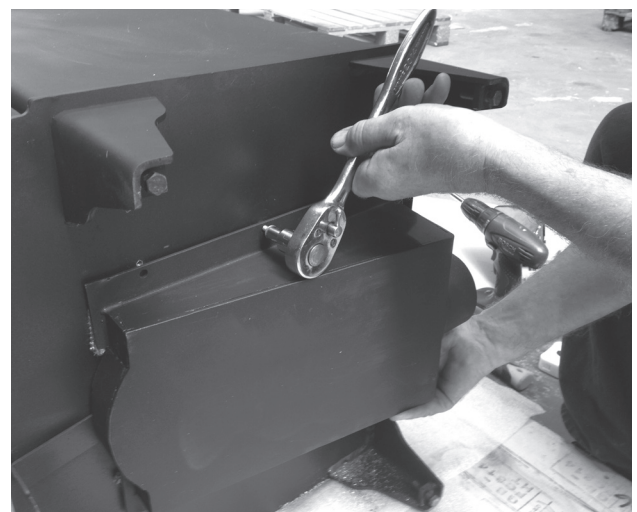


7 Using the 4.0 mm metal drill bit drill all the pilot holes. Use the protective eye wear and ensure that the drill is kept at right angles to the base.

8 Next, use the 5.0 mm drill bit to enlarge these holes.

9 Position the Air Box and line up the Air Box bolt holes with the newly drilled pilot holes and place the first self-tapping metal screw in the middle top bolt hole. Tighten this up with the 8.0 mm socket but do not fully tighten this yet until the remaining bolts are also partly screwed in. The larger holes in the Air box will provide a little bit of flexibility to allow for some inaccuracy in the position of the pilot holes.

10 Now gradually tighten all of the bolts, working your way diagonally around all six bolts. Be careful not to over-tighten these as they could easily snap and do not tighten all the bolts on one side first as this could distort the flange on the Air Box.



11 Test that the Secondary Air slider control can still move freely.

12 Your Air Box is now ready to receive the vent' pipe and jubilee clip. Depending on the final location of the stove you may prefer to attach this while the stove is on its side and you can easily access the Air Box.

13 Return the stove to its upright position and replace any components which have been removed from the fire chamber. Ensure the baffle plate is in the correct position (see the stove handbook).

14 To prevent the stove using any room air through the primary air control, you may prefer to 'lock' this in the closed position. Remember, primary air is needed when burning fuels other than wood, for example smokeless coal. However, if you only plan to burn wood then you should not need to use the primary air control, so we recommend that it is locked.

15 To lock primary air control knob simply turn it anti-clockwise until it is released from its spindle bolt. Remove the locking nut from the end of spindle bolt and then unscrew the spindle bolt from the door. Next screw the locking nut back on to the spindle until it sits close to the 'nut' end of the spindle.

16 Screw the spindle bolt back into the door and attach the primary air control knob. Screw the spindle bolt as far into the knob as it will go being careful not to over-tighten it. Position the knob so that its lugs are horizontal.

17 Holding the knob in this position unwind the locking nut on the spindle so that it moves tightly against the door. You may need to use a shifting spanner to finally lock this nut in position, taking extra care not to over-tighten and damage the bolt threads in the cast iron door.

Your stove is now ready for the final stages of its installation. Please refer to the stove's handbook

ROUTINE MAINTENANCE

When standing down the stove at the end of the heating season use an aerosol applied machine oil with a fine nozzle extension to lubricate the secondary air control mechanism which is now concealed inside the air box. Please note, as with all aerosols, it can be dangerous to undertake this when the stove is operating or is still hot.

Position the nozzle extension through the secondary air slider channel and apply a light application of the oil to the mechanism in the middle of the air box. Move the slider control backwards and forwards to ensure that the oil penetrates all parts of the mechanism. Take care to protect any porous surfaces on the hearth and fireplace from oil residue.

Important You may experience some light smoke or fumes emanating from the air box when you next light the stove as the excess oil 'burns off'. This is perfectly normal, however ensure that the room is adequately ventilated by opening a window until the smoke or fumes dissipate. Ensure that you have read the 'Trouble Shooting' section of the stove Handbook regarding other potential smoke-related issues

STOVE SERVICING

During its annual service the service engineer should also check that any seals on the direct air duct and grille remain air-tight. Particular attention should be paid to soot or staining in the duct or grille which could indicate regular or prolonged wind-induced reversals of the combustion air supply. This should be immediately remedied and additional measures taken to protect any potentially combustible materials near the duct and grille before the stove is used again.

TROUBLE SHOOTING

Properly installed, operated and maintained this stove should not emit fumes into the dwelling. Occasional fumes from removing ash and refuelling may occur. Persistent fume emission is potentially dangerous and must not be tolerated.

Adverse weather or an imbalance between the outside air and internal air pressures can occasionally

cause some operational issues, such as smoke spillage, when a stove has been fitted with a direct air supply. Once you understand the cause then such problems can be very easily resolved.

Carbon monoxide alarm sounds

Cause: This may be caused by a number of factors not necessarily always associated with the direct air system.

Cure: The following immediate action should be taken: Quickly open the doors and windows to ventilate the room and then leave the premises. Let the fire go out. Seek expert advice and do not attempt to relight the stove until the cause has been identified and corrected.

Smoke Spillage / smoke entering room

Cause: Adverse weather / wind conditions or room depressurisation.

Cure: Open the window or turn off any extractor fan or cooker hood. If the smoke spillage continues, leave the room and let the stove go out. Seek professional advice before you use the stove again.

Difficult to light fire

Cause: Insufficient difference between the room and outside air pressures.

Cure: Open the window to re-balance the air pressure. If this does not work immediately then you may have to build a bigger pre-fire using much more kindling than usual. This will quickly raise the temperature in the flue system and should re-start the chimney up-draught. Do not add more thick logs to a poorly performing pre-fire. Simply add more kindling until the flames are bright and vigorous, adding progressively thicker wood until the fire is properly established.

Condensation on direct air duct or vent' grille

Cause: At particular times of the year the differences between the incoming colder external air temperature and the hotter room temperature may create the conditions for condensation to occur on the surface of the direct air duct. When the stove is cold and it is safe to access the duct area the condensation should be removed with a dry cloth so that it does not damage or stain any wall or floor surfaces.

If condensation is a persistent problem then the duct should be insulated with the appropriate heat-resistant material.

For a comprehensive Trouble Shooting guide please refer to the section in your stove Operator's Handbook.

hi-flame

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