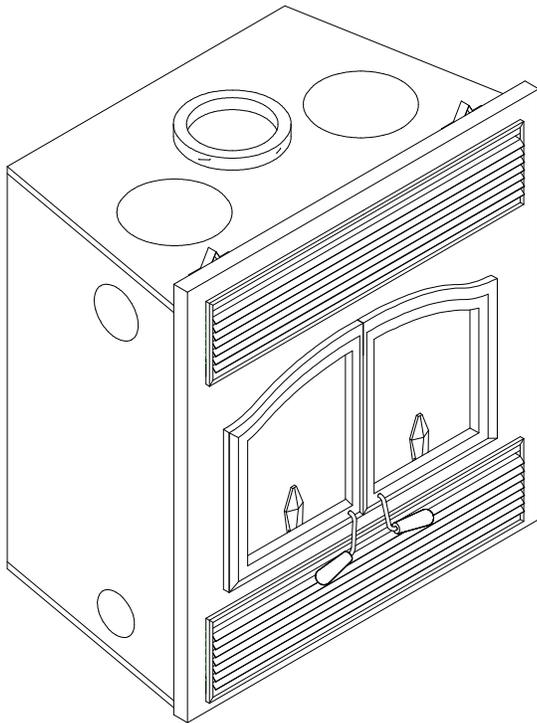




BIS™

ULTRA EPA



Installation and Operating Instructions

This installation manual will help you obtain a safe, efficient, dependable installation for your fireplace and chimney system. Please read and understand these installation instructions before beginning your installation.

CAUTION: Do not attempt to modify or alter the construction of the fireplace or its components. Any modification or alteration of construction may void the warranty, listings and approvals of this system. In that case, Security Chimneys International Ltd will not be responsible for damages. Install the fireplace only as described in these instructions.

SAVE THESE INSTRUCTIONS
FOR FUTURE REFERENCE

WARNING: The fireplace cannot be operated without a door or firescreen. Consult your dealer to select the correct door or firescreen model.

	<p>! WARNINGS</p>
	<ul style="list-style-type: none"> • Hot! Do not touch! The glass and surfaces of this appliance will be hot during operation and will retain heat for a while after shutting off the appliance. Severe burn may result. • Carefully supervise children in the same room as appliance. • If small children are present in the home, it is recommended that this appliance be used with a fire screen kit.

	<p>Listed to standards: ULC-S610, UL-127 Report # 192-5192</p>
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<p>NATIONAL FIREPLACE INSTITUTE</p>  <p>CERTIFIED</p> <p>www.nficertified.org</p>	<p>We suggest that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).</p> 
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2125 Monterey St., Laval, Quebec, Canada, H7L 3T6

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1. SAFETY RULES FOR OPERATING YOUR FIREPLACE MODEL BIS ULTRA™

Warning: An outside air kit must be installed on the fireplace model BIS ULTRA

Warning: The fireplace must be operated with the doors fully opened or fully closed. If the doors are left partly opened, smoke may be drawn into the room. If the unit is operated with the doors fully opened, the optional fire screen must be used.

- Use only Security Chimneys International glass doors specifically designed for the model BIS ULTRA fireplace.
- When cleaning the fireplace, the ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground outside the house, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

Caution: Never use gasoline, kerosene, charcoal lighter fluid or similar liquids to start or rekindle a fire in this fireplace. Keep all such liquids well away from the fireplace at all times.

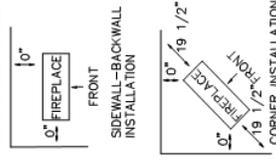
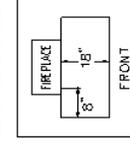
Caution: Keep combustible materials at least 48 inches away from the front of the fireplace opening.

Caution: Never leave children unattended when there is a fire burning in the fireplace.

Caution: Burn untreated wood only. Other materials such as wood preservatives, metal foils, coal, plastic, garbage, sulphur or oil may damage the fireplace.

WARNING: THIS FIREPLACE HAS NOT BEEN TESTED WITH AN UNVENTED GAS LOG SET. TO REDUCE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO THIS FIREPLACE.

2. CERTIFICATION LABEL

 <p>LISTED FACTORY BUILT FIREPLACE FOYER PRÉFABRIQUÉ HOMOLOGUÉ</p> <p>MODEL / MODÈLE: BIS ULTRA EPA</p> <p>UEPA-</p> <p>DÉGAGEMENTS AUX COMBUSTIBLES: MUR LATÉRAL: 24 po. (610 mm) (DE L'OUVERTURE DE LA PORTE) LINTEAU: 48 po. (1219 mm) (AU-DESSUS DE LA BASE DU FOYER) MUR ARRIÈRE: 0 po. (0 mm) (DES ESPACEURS)</p> <p>CLEARANCES TO COMBUSTIBLES: SIDE WALL: 24" (610 mm) (FROM DOOR EDGE) MANTLE: 48" (1219 mm) (ABOVE BASE OF THE FIREPLACE) BACK WALL: 0" (0 mm) (FROM SPACERS)</p>	<ul style="list-style-type: none"> FUEL: WOOD ONLY NON-COMBUSTIBLE HEARTH EXTENSION MUST BE INSTALLED AT FRONT OF UNIT EXTENDING 18 in. (467 mm) AT FRONT AND 8 in. (203 mm) TO SIDES OF DOOR OPENING. THIS FIREPLACE HAS NOT BEEN TESTED WITH UNVENTED GAS LOG SET. TO REDUCE RISK OF FIRE OR INJURY DO NOT INSTALL AN UNVENTED GAS LOG SET INTO THE FIREPLACE. ELECTRICAL RATING: 115 V, 60 Hz USE ONLY WITH A LISTED CHIMNEY 6 in. (152 mm) IN DIAMETER, MODEL ASHT*, S2100*, HT6000*, HT6103* OR AC. COMPONENTS USED WITH THE FIREPLACE MUST BE LISTED. SEE LIST IN THE INSTALLATION INSTRUCTIONS. REPLACE GLASS WITH CERAMIC GLASS 5 mm THICK. FOR SAFE OPERATION INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CAUTION: COMBUSTION AIR OPENING MUST NOT BE OBSTRUCTED DO NOT OVERFIRE THE FIREPLACE. OPERATE THE FIREPLACE WITH DOORS FULLY OPEN OR FULLY CLOSED ONLY <p>CONTACT YOUR LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION IN SECTIONS IN YOUR AREA.</p>
<p>SECURITY CHIMNEYS INTERNATIONAL LTD</p> <p>LAVAL, QUÉBEC, CANADA</p> <p>DATE OF MFG</p> <p>1 2 3 4 5 6 7 8 9 10 11 12</p> <p>YEAR</p> <p>2005-06-07-08-09-10-11-12-13-14-15</p>	<p>INSTALL WITH MINIMUM CLEARANCES TO WALL AS SHOWN IN INCHES</p>  <p>INSTALL AND USE ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND LOCAL BUILDING CODES.</p> <p>CHIMNEY TYPE: USE ONLY LISTED CHIMNEY MODEL ASHT*, S2100*, HT6000*, HT6103*, AC, 6 inches.</p> <p>SPECIAL METHODS ARE REQUIRED WHEN PASSING THROUGH A WALL OR CEILING. SEE INSTRUCTIONS AND BUILDING CODES.</p> <p>PREVENT CREOSOTE FIRE: INSPECT CHIMNEY CONNECTOR AND CHIMNEY FLUE MONTHLY AND CLEAN IF NECESSARY. DO NOT OVERFIRE IF DOME OR CHIMNEY CONNECTOR GLOWS YOU ARE OVERFIRING.</p> <p>KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIALS A CONSIDERABLE DISTANCE AWAY FROM APPLIANCE.</p>
<ul style="list-style-type: none"> COMBUSTIBLE: BOIS SEULEMENT UN TABLIER NON-COMBUSTIBLE DOIT ÊTRE INSTALLÉ À L'AVANT DU FOYER EXCÉDANT DE 18 po. (467 mm) À L'AVANT ET 8 po. (203 mm) DES CÔTÉS DE L'OUVERTURE DES PORTES. MAINTENIR LES MEUBLES ET AUTRES OBJETS À UNE DISTANCE SÉCURITAIRE DU FOYER. ALIMENTATION ÉLECTRIQUE: 115V, 60 Hz UTILISER SEULEMENT AVEC UNE CHEMINÉE 6 po. (152 mm) DE DIAMÈTRE, MODÈLE ASHT*, S2100*, HT61000*, HT6103* OU AC HOMOLOGUÉE. LES COMPOSANTES UTILISÉES AVEC LE FOYER DOIVENT ÊTRE HOMOLOGUÉES. VOIR LA LISTE DANS LE MANUEL D'INSTALLATION. REMPLACER LA VITRE AVEC UN VERRRE CÉRAMIQUE DE 5 mm D'ÉPAISSEUR. POUR UNE UTILISATION SÉCURITAIRE, INSTALLER CONFORMÉMENT AUX DIRECTIVES DU FABRICANT. ATTENTION: NE PAS OBSTRUER LES ARRIVÉES D'AIR COMBURANT. NE PAS FAIRE SURCHAUFFER LE FOYER. LES PORTES DU FOYER DOIVENT DEMEURER TOTALEMENT OUVERTES OU TOTALEMENT FERMÉES LORSQUE LE FOYER FONCTIONNE. 	<p>FLOOR PROTECTOR MINIMUM DISTANCE FROM OPENING IN INCHES</p>  <p>HEARTH EXTENSION MATERIAL:</p> <ul style="list-style-type: none"> 3/8" THICKNESS NON-COMBUSTIBLE MATERIAL OR EQUIVALENTS <p>NP216-1 REV.#3</p>

3. THE FIREPLACE

3.1 INTRODUCTION

The BIS ULTRA™ fireplace is an energy efficient, heat circulating, close combustion fireplace. You will receive a lifetime of comfort and enjoyment from your fireplace provided it is installed, maintained and operated properly.

- Please read these instructions and retain this manual for future reference.
- Before beginning the fireplace installation, consult the local authorities to obtain your building permit and check your local building codes. Install the fireplace only as described in these instructions and using only Security Chimneys International components.
- The BIS ULTRA fireplace is not intended for use with a gas log. Failure to follow these instructions will void the certification and the warranty of the fireplace and may result in an unsafe installation.

3.1.1 Parts Required

- Fireplace model BIS ULTRA
- Door set
- 6" diameter chimney model Secure Temp^{ASHT+}, Secure Temp^{S-2100+}, Nova Temp^{HT6000+}, Nova Temp^{HT6103+} or AC manufactured by Security Chimneys International only, including:
 - Chimney lengths
 - Elbows (where necessary)
 - Radiation shield, Attic radiation shield
 - Roof flashing
 - Rain cap
 - Supports (if necessary)
- Outside air kit

3.1.2 Additional Equipment (optional)

- 5" flexible venting system (central forced air kit – Not EPA approved)
- Gravity venting system
- Panel for clean face option (only with gravity venting system)
- Rigid fire screen
- Fireplace fan kit

3.2 OPERATING THE BIS ULTRA™

3.2.1 *Fuel*

The BIS ULTRA fireplace is designed to work best when fuelled with seasoned cordwood. Hardwoods are preferred to softwoods since the energy content of wood is relative to its density. Hardwoods will result in a longer burning fire and less frequent refuelling. A moisture content of 15% to 20% (seasoned) is recommended. Excessively wet wood will be difficult to burn and will result in lower efficiency, increased creosoting and deposits on the glass and in the chimney. Excessively dry wood will burn well but will also have higher emissions and shorter burning time.

Do not burn scrap or garbage, treated wood or wood such as driftwood from the ocean which has been exposed to salt or other chemicals. Salt or chemicals can corrode the firebox and chimney. Do not burn large amounts of paper, cardboard, Christmas tree branches or building construction materials. Intense firing with these materials may overheat the fireplace, causing damage to the unit, a fire or even possibly igniting a chimney fire if the chimney is creosoted.

Processed firelogs can be used. Refer to warnings and cautions markings on the packaging prior to use.

3.2.2 *First Fires*

Before using the fireplace make sure to remove the plastic wrapping on the doors. Remove all remaining glue with mild soap. Ensure that the doors are well adjusted before starting a fire (see page 11.)

The first 5 or 6 fires should be small fires of short duration (about 30 to 60 minutes). This will help cure the refractory bricks. Ashes that will accumulate in the ashtray will protect it from intense heat. The first fires may produce slight smoking due to drying of the paint and steel and any dust accumulated on the fireplace will burn off at this time. It may set off a smoke alarm located in the same room. For this reason the room should be well ventilated for the first few fires.

3.2.3 *Combustion Control*

There is no flue damper in the BIS ULTRA fireplace. As is common with airtight stoves, the combustion air damper controls the air entering the firebox. This allows for a more precise control of the fire. The combustion air damper knob is located below the left door. It is opened when moved completely to the left. This control should be in the closed position when the fireplace is not in use. This will minimise air leakage up the chimney. **The combustion air control should be opened before opening the door to minimise the possibility of back draft coming into the room.**

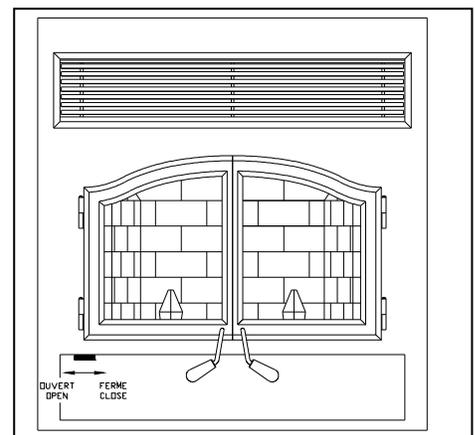
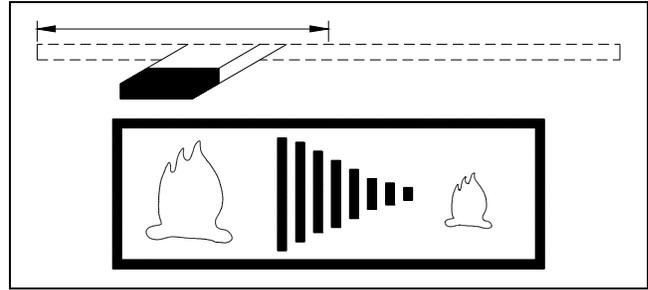


Figure 1

3.2.4 Accelerated Combustion

The maximum heat output for the BIS ULTRA™ fireplace is achieved by burning with the combustion air damper opened. By this method, the BIS ULTRA fireplace can produce up to 60,000 BTU of heat per hour.

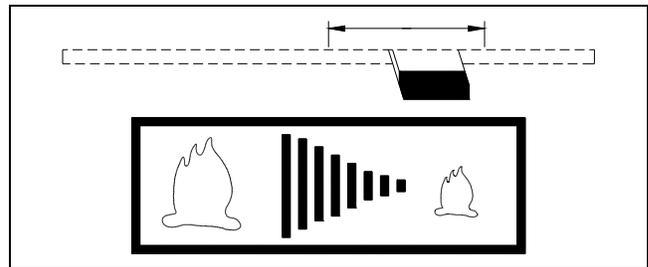


However, it will be necessary to reload with wood every one or two hours. This is the least efficient method of burning the BIS ULTRA fireplace.

Use caution when firing with the combustion air control wide open. Only burn cordwood in this manner. Small dry pieces of softwood and construction scraps will burn very intensely using this method and may damage the firebox.

3.2.5 Medium Combustion

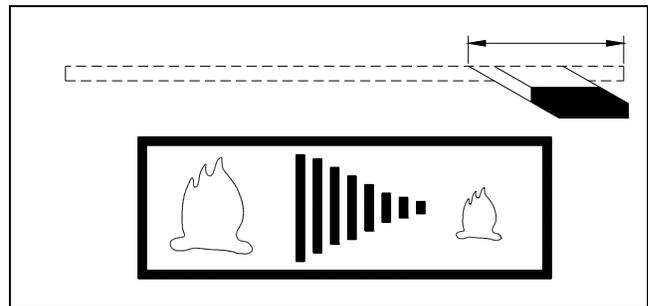
This is the recommended mode of operating the BIS ULTRA fireplace and should be the one normally used since it will deposit the least amount of creosote on the glass and in the chimney. The combustion air damper must be $\frac{3}{4}$ closed.



The precise setting will depend on many factors, including chimney length and the moisture content of the wood. For instance, a long chimney will necessitate closing the damper more. To obtain the proper combustion, close the damper completely, and then open it about $\frac{1}{2}$ " to $\frac{3}{4}$ ". Three medium size pieces of wood should be burning on a bed of hot coals. The heat output will be approximately 30,000 BTU per hour and the loading time will be about every 3-4 hours. Softwoods may be burned using this method but the time will be substantially reduced.

3.2.6 Slow Combustion

When the air combustion damper is closed, the fireplace is in a slow combustion phase. Slow combustion will not stop the fire, but there will be a noticeable change in the flame pattern. The flames will be slow and may appear dirty if the wood is too wet (moisture content of 20% and more).



Always set the damper so that flames are visible, that way you maintain a good clean combustion process. This method of burning should be used only after operating the BIS ULTRA fireplace with the air control opened to produce a hot fire for about an hour. Slow combustion can be used at night in order to reduce the heat output and prolong the burn. The loading time will be between 6-10 hours.

3.2.7 Starting And Maintaining a Fire

- A) Place several crumpled up balls of newspaper in the firebox. Place small dry pieces of kindling on top of the paper, criss-crossing the kindling so that there are air spaces in between. Keep the fuel far back enough so that air can get underneath.
- B) Open the air control fully. Light the newspaper. Leave the door open until the fire is well established.
- C) Once the kindling fire is well established, add increasingly larger pieces of cordwood until the fire is actively burning. Close the door and maintain an accelerated combustion air set up in order to achieve operating temperature.
- D) It takes about 15 – 30 minutes to reach proper operating temperature.

After that period, you may set the air control at the desired setting.

The unit will burn best with 2-3 pieces of cordwood spaced 1 to 2 inches apart and allowing air to get under the fuel. Criss-crossing or arranging the fuel so that air can get underneath, will help the fire get started easily.

3.2.8 Refuelling For Best Performance

The BIS fireplace will operate best if attention is given to operating the unit with the damper fully opened after refueling in order to bring the firebox and the chimney system up to their optimum operating temperature. Combustion efficiency is relative to firebox temperature. A temperature of 500° C and up in the upper part of the firebox indicates a maximum efficiency. To obtain this temperature, the fireplace must be operated with the damper fully opened during 15 to 30 minutes after reloading, depending on the heat and on the moisture content of the wood. Once you have reached the desired temperature, the damper can be closed gradually. You know you have reached the desired temperature when, closing the damper, you can see a flame at the top of the firebox. The benefit of this technique will be cleaner glass, less creosoting, greater efficiency and the most pleasing fire for your enjoyment. If your fireplace is equipped with a central forced air system, make sure the central blower is turned off during reloading to avoid smoking problems.

3.2.9 Smoking – Causes and Troubleshooting

To reduce the likelihood of smoking when opening the doors, set the air damper to the "accelerated combustion" position before opening the doors. Your fireplace has been designed and tested to provide smoke free operation. Occasionally, there may be a small amount of smoking upon lighting the fire, until the chimney heats up but this should not continue. If the fireplace does continue to smoke, it is probably for one of the following reasons:

1. The door is partly open

Open both doors fully when opening them.

2. Negative pressure in the house

As the fire burns, air goes up the chimney. This air must be replaced through leakage into

the house or through the outside air duct. When operating the BIS ULTRA™ fireplace, open a nearby window temporarily to check adequacy of the replacement air supply.

3. Fans operating (e.g.: range hood)

These fans draw air out of the house and may actually cause a negative pressure in the house. Turn off all fans and open a nearby window to determine if this is the cause of the problem.

4. Wet wood

Wet or tarred wood will smoulder and smoke instead of burn properly.

5. Dirty or blocked chimney

Check to make sure the chimney is clear and reasonably clean.

6. Chimney not long enough

The minimum chimney height is 12 ft., not including the fireplace height. The chimney must extend at least 3 feet (915 mm) above its point of contact with the roof and at least 2 feet (610 mm) higher than any roof or wall within 10 feet (3 m) of it. When installed with offsets, the minimum chimney height is 15 ft. Additional height will increase draught and will decrease the tendency to smoke.

7. Poor chimney draft

With no fire, there should be sufficient draught to exhaust cigarette smoke introduced under the baffle. Chimneys installed against an outside wall without protection may generate back draught problems that will cause start-up problems. To prevent such situation, open a nearby window, roll up a piece of paper and light it. Then, hold it in the upper part of the firebox to warm up the chimney. Wait until the draught is sufficient, and then start the fire.

8. Blower for central forced air kit operating (Not EPA approved)

Make sure that the blower is at the "off" position when you open the fireplace doors for reloading.

3.2.10 Important Notes

1. Do not block the hot air vents of the fireplace, as this will cause the fireplace to overheat.
2. Never start a fire using gasoline, kerosene, charcoal lighter fluid or any other combustible liquid.
3. Do not burn coal. The sulphur in coal will corrode the firebox.
4. Do not burn driftwood that has been in the ocean or salt water. The salt will corrode the firebox and chimney.
5. Do not operate the unit with the doors partly open since this may cause smoke to be drawn into the room.
6. Do not burn wood in the area in front of the grate.
7. Do not abuse the unit by burning paper, or cardboard or construction material such as pressed wood, plywood or lumber.
8. Do not allow the wood to smoulder or burn without flame, since this will produce excessive creosote in the unit.

3.3 MAINTAINING YOUR BIS ULTRA™

3.3.1 *Creosote*

When wood is burned slowly, it produces tar and other organic vapours which combine with expelled moisture to form a black deposit called creosote that accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. If the creosote accumulation is large, a creosote fire in the chimney can damage the chimney and overheat the surrounding wood framing. Creosote formation in a chimney can be minimised by making small hot fires rather than slow burning, smouldering fires and by proper refuelling techniques.

3.3.2 *Chimney Maintenance*

Regular chimney inspection and maintenance combined with proper operation will prevent chimney fires. Keep your chimney clean. Do not allow more than 1/16" creosote build up in your chimney. The amount of creosote will depend on variables such as frequency of use and type of fire. We recommend that you:

1. Initially inspect the chimney system weekly. From this, you will learn how often it will be necessary to clean your chimney.
2. Have your chimney cleaned by a qualified chimney sweep. If you wish to clean it yourself, we recommend using a stiff plastic or non-metallic brush. If a metal brush is used, its size should be slightly smaller than the flue to avoid damaging the chimney. Do not use a brush that will scratch the stainless steel interior of the chimney.
3. Do not expect chemical cleaners to keep your chimney clean. The rain cap can be removed for inspection and/or cleaning of the chimney. Using gloves, firmly grip the lower portion of the rain cap. Turn the cap 1/8 of a turn counter-clockwise and lift it off the chimney.

3.3.3 *Dealing with a Chimney Fire*

Regular chimney maintenance and inspection can prevent chimney fires. If you have a chimney fire, follow these steps:

1. Close the fireplace doors and the combustion air damper.
2. Alert your family of the possible danger.
3. If you require assistance, alert your fire department.
4. If possible, use a dry chemical fire extinguisher, baking soda or sand to control the fire. Do not use water as it may cause a dangerous steam explosion.
5. Check outside to ensure that sparks and hot embers coming out of the chimney are not igniting the roof.
6. Do not use the fireplace again until your chimney and fireplace have been inspected by a qualified chimney sweep or a Fire Department Inspector.

3.3.4 Doorframe Care

Use a glass cleaner and a soft cloth to polish the frame. Do not use abrasives such as steel wool or steel pads for they may scratch the doorframe finish.

3.3.5 Ashes

Remove ashes only when the fire is out and the ashes are cold (24 to 48 hours after the fire is out). Open the bottom louver and doors, lift the door trap lever, and remove the plug on the door trap of the ashtray using gloves or a poker. Sweep the ashes in the opening with a brush or any similar tool. Reinstall the plug on the door trap and pull down the lever.

3.3.6 Refractory Brick Replacement

The intense heat of the fire will normally cause hairline cracks in the refractory. These cracks can be minimised by proper curing as described in "First Fires". They will not normally diminish the effectiveness of the refractory. If large cracks develop, then the refractory should be replaced. To replace the refractory bricks, follow these steps:

1. Remove deflector plate
2. Remove the bottom refractory brick
3. Remove the left side refractory brick
4. Remove the right side refractory brick
5. Remove the back refractory brick
6. Remove the front baffle refractory
7. Remove the rear baffle refractory

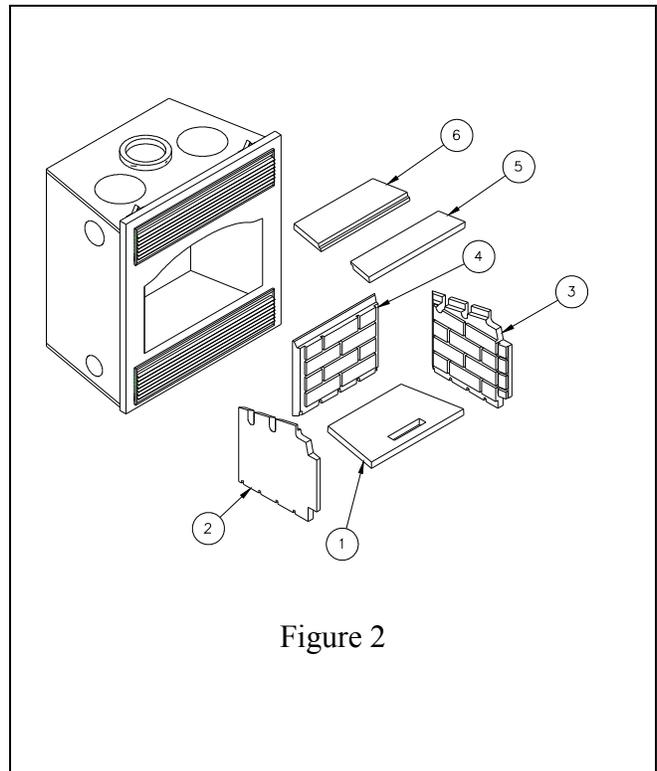


Figure 2

To install the new refractory bricks, follow the above steps in reverse.

3.3.7 Doors Installation

The doors must be installed only when the installation of the BIS ULTRA™ fireplace is completed. All you have to do is fit the male part of the hinge, already fixed on the doors, in the female part, which is already fixed on the fireplace.

To remove the doors, simply pull the doors up from the hinges.

The adjustment of the doors has been set at the factory. If the fit is still not perfect, you can adjust the doors using the hinge screws (see fig.4).

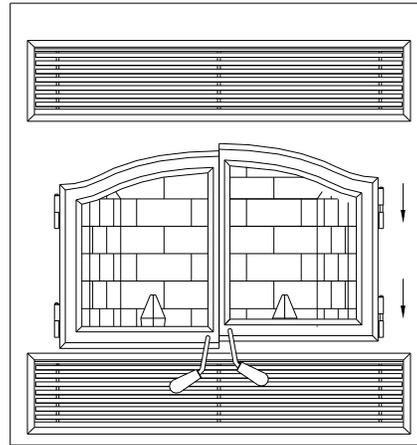


Figure 3

3.3.8 Door Adjustment

The doors may need to be adjusted to be completely airtight. For a door to be considered air tight, a piece of paper cannot be inserted in between the façade of the fireplace and the door gasket. The gasket air tightness can be adjusted using the adjustment screw located on the fireplace façade at the bottom of the fireplace opening. (An Allen key # 1/8 will be necessary for adjustment).

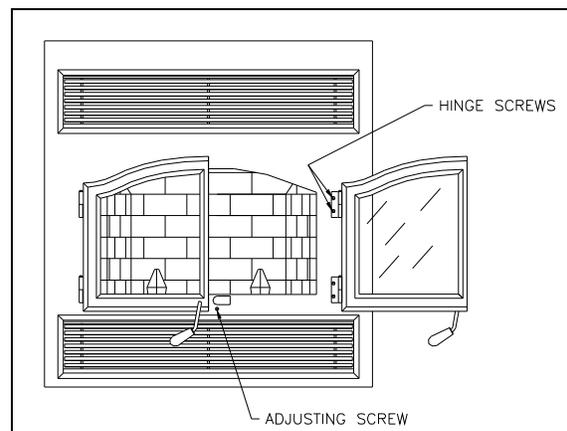


Figure 4

3.3.9 Glass Care - Replacement

The glass used for the BIS ULTRA fireplace is a high temperature ceramic glass. If the glass breaks, it must be replaced with a ceramic glass. Tempered glass or ordinary glass will not withstand the high temperatures of the BIS ULTRA fireplace. Replacement glass should be purchased from a Security Chimneys International dealer. Do not operate the unit with cracked or broken glass.

3.3.10 Glass Care - Cleaning

The BIS ULTRA™ fireplace is designed to keep the glass clean under normal operating conditions. If the BIS ULTRA fireplace is operated continuously with the combustion air damper closed, the glass will tend to get dirty unless the fuel, firebox and glass are maintained at hot temperatures (see "Refuelling For Best Performance"). To clean the glass, there are a number of specially designed cleaners. Your authorised Security Chimneys International dealer can recommend a suitable cleaner which is available in your area. Regular household glass cleaners will not clean creosote. Do not use abrasives such as steel pads, steel wool or oven cleaner as they will scratch the glass.

DO NOT USE CHEMICAL GLASS CLEANERS ON PAINTED SURFACES AS IT MAY CAUSE THE PAINT TO PEEL.

CAUTION: Do not allow window cleaner to get in contact with door gasket or paint on facade or door. Once closed, contact of glass cleaner with the fireplace facade can provoke paint peeling off

3.3.11 Gasket Replacement

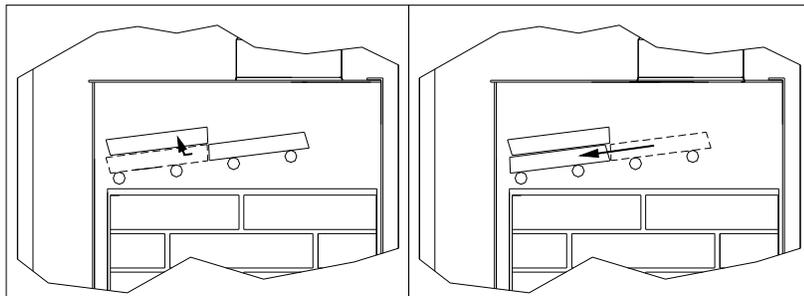
Remove the doors from the unit (see page 10) and lay them on a clean unabrasive surface. To replace the gasket, first remove all of the old gasket and gasket cement. Make sure that the surface is totally clean before applying new cement or adhesion problems may result. Apply gasket cement to the gasket channel and install the new gasket. This replacement part is available from your Security Chimneys International dealer in the following dimensions:

<u>Gasket</u>	<u>Length</u>	<u>Quantity</u>	<u>Dimensions</u>
Around glass	47.5"	2	5/16" dia.
Between doors	19"	1	5/16" dia.
On door frame	40"	2	5/8" dia.
Around ash trap	8"	1	2" wide x 1/4" thick

3.3.12 Top Baffle Removal Prior to Cleaning the Chimney

Before starting to clean your chimney, we recommend that you remove the top baffle to avoid creosote dust collection at the top of the baffle. Follow these steps to set the top baffle out of the way.

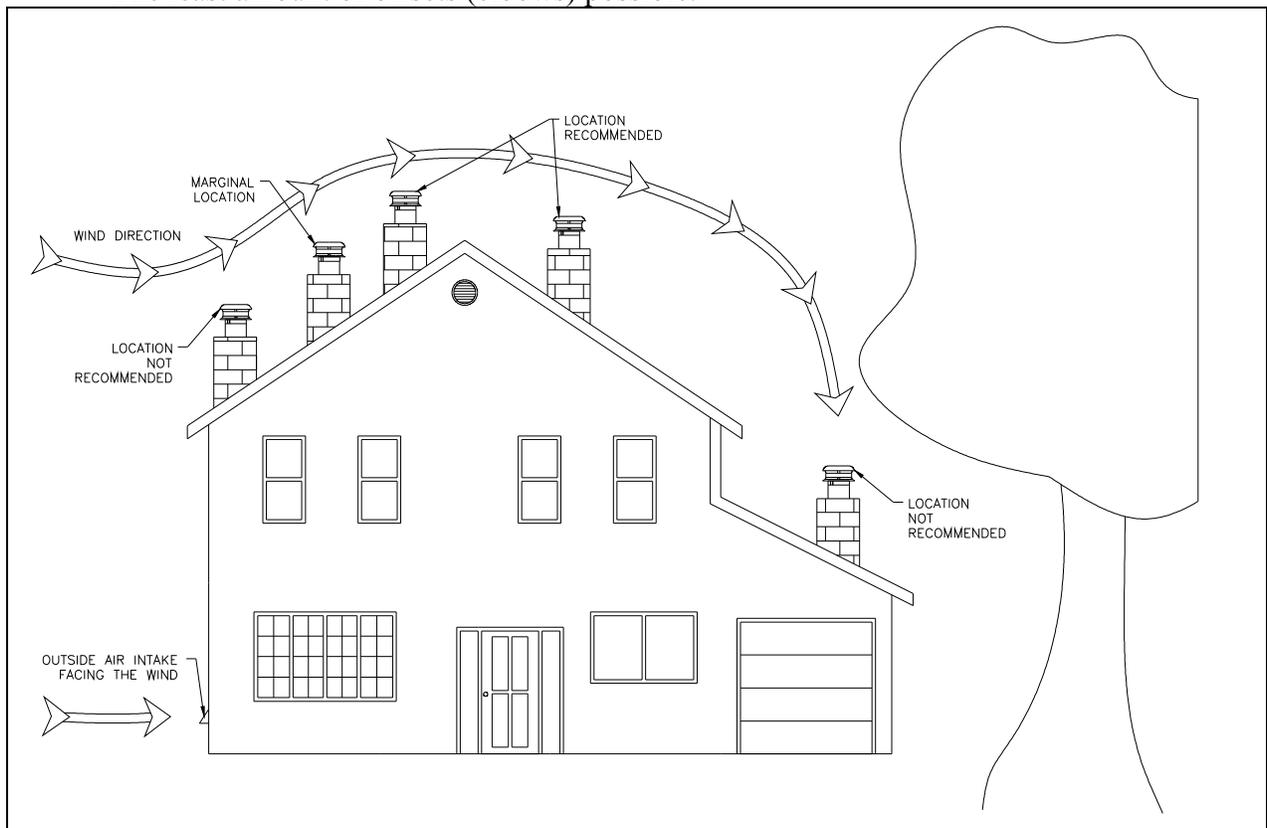
1. Lift the front baffle to disengage the locating tab of the inclined deflector before taking it out. Repeat for the other side.
2. Lift the front baffle and slide the back baffle under the first. You now have access to the chimney.



3.4 FIREPLACE INSTALLATION

3.4.1 Locating the BIS ULTRA™

1. The best place to install your fireplace is determined by considering the location of windows, doors, and the traffic flow in the room where the fireplace is to be located, allowing space in front of the unit for the hearth extension and the mantel, and taking into consideration the location of the hot air ducts (optional), outside air kit and chimney. If possible, you should choose a location where the chimney will pass through the house without cutting floor or roof joists (see fireplace dimensions page 14).
2. Usually, no additional floor support is needed for the fireplace. The adequacy of the floor can be checked by first estimating the weight of the fireplace system. Weights are given in the appendix. Next, measure the area occupied by the fireplace that is normally 38" X 24 ½". Note the floor construction and consult your local building code to determine if additional support is needed.
3. A minimum of 7' (2134 mm) measured from the floor to the ceiling is required to install the BIS ULTRA fireplace. The appliance can be installed on a combustible floor or on a base, leaving at least 6'8" (2032 mm) from the base of the unit to the ceiling.
4. When selecting the location, the chimney outlet position and the direction of the wind are important factor affecting the chimney performance. To allow a maximum draft and to reduce wind turbulence, the chimney must:
 - Penetrate the highest part of the roof.
 - Be installed as far as possible of roof offsets, trees or any other obstructions that may cause wind turbulence and back drafts in the chimney.
 - The least amount of offsets (elbows) possible.

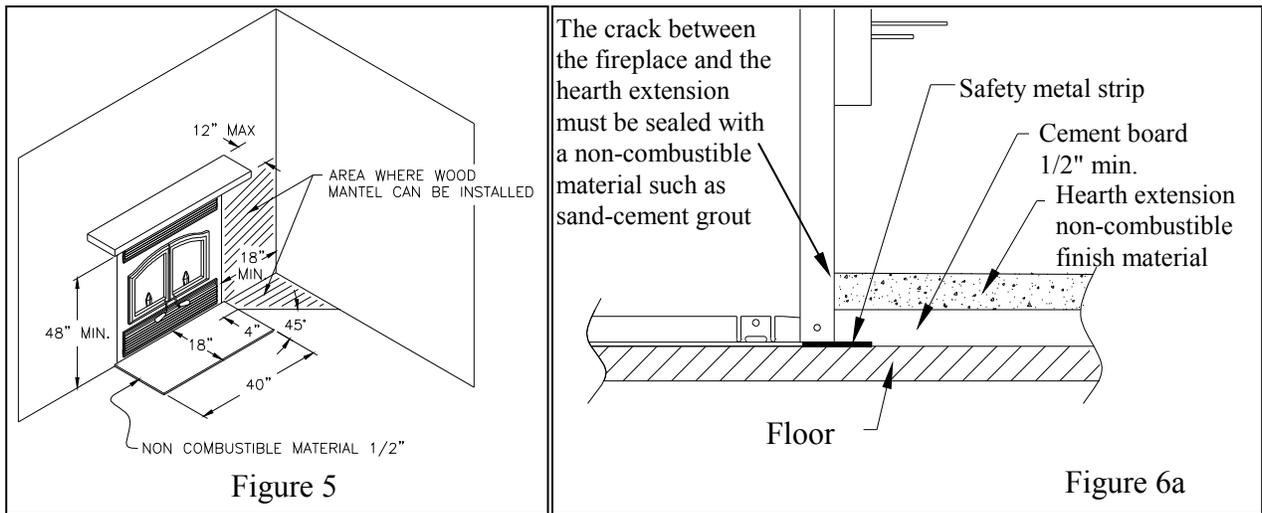


3.4.2 *Hearth Extension Requirements*

The BIS ULTRA™ fireplace may be installed directly on a combustible floor, however the hearth extension in front of the fireplace must be made of non combustible material and incorporate ½" cement board on the floor (fig.5). The cement board must be covered with tile, marble, stone or other non-combustible material.

The floor between the fireplace and the hearth extension must be protected with a safety metal strip. See points below according to the chosen solution.

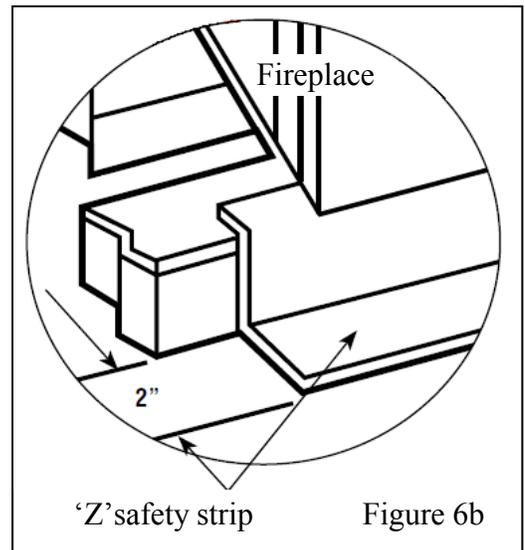
- Position the supplied safety metal strip as follows : One half must be under the fireplace and the other half must extend on the floor over which the hearth extension will be built (Figure 6a)



Elevated fireplace (figure 6b)

Elevated fireplace installations require a special 'Z' metal safety strip (field provided), in place of the metal strip shown on figure 6a. The safety strip should extend the full width of the fireplace. When more than one safety strip is used they must overlap by a minimum of 1".

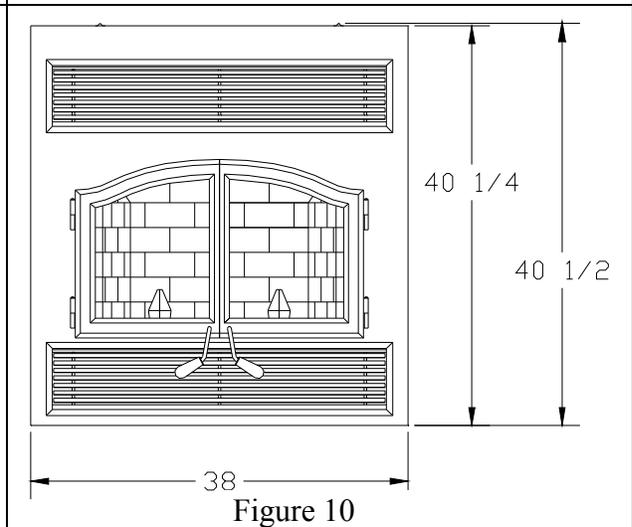
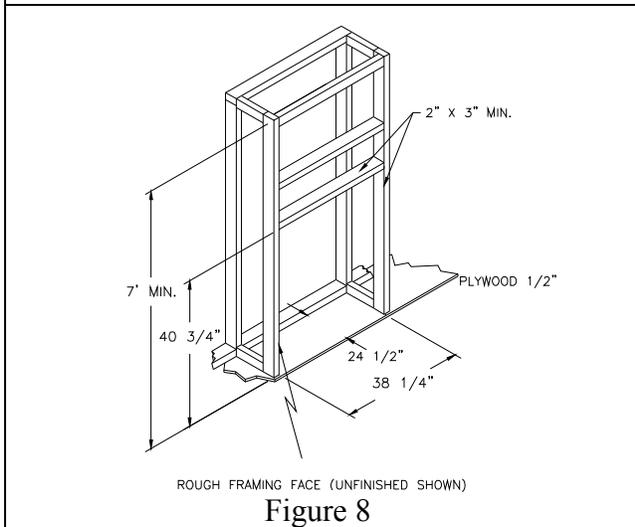
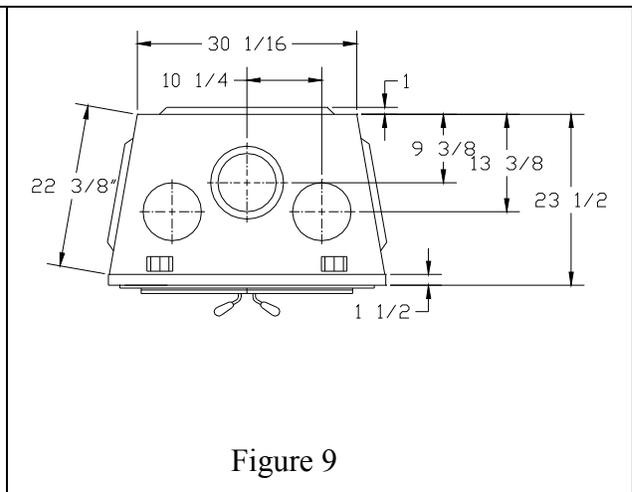
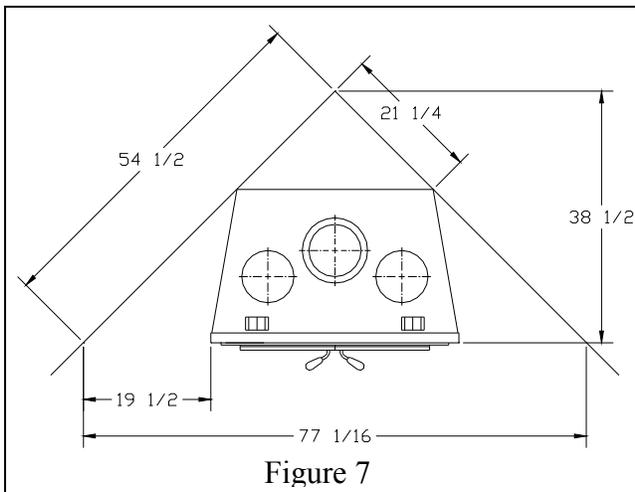
Hearth extension of an elevated fireplace must respect the same minimal dimensions as a fireplace installed directly on the floor (figure 5)



3.4.3 Framing, Facing and Mantel

The construction of the framing, facing, and mantel must be in accordance with the standards and the following illustrations (figures 7 to 11):

1. Frame the fireplace using 2" x 3" or heavier lumber.
2. **WARNING:** Combustible materials cannot be used in the space directly above the fireplace (except for framing on the front facing). This area must remain empty for **a height of 6'8" (2032 mm) measured from the base of the appliance.**
3. Frame the fireplace with vertical studs at the sides of the fireplace running from floor to ceiling (see figure 8). If combustible facing is to be used, position the studs back from the front edge of the fireplace, a space the thickness of the facing material so that the facing can be installed flush with the fireplace facing. Frame headers between the vertical studs only as follows:
 - Place 2" x 3" or 2" x 4" headers, only along the upper part of the front, side and back faces. Do not put wood or any combustible material within the area above the fireplace except on the front facing. Place headers only as required to support the facing and mantel.
4. The fireplace cannot be in contact with the house insulation material. Cover the insulation with drywall panels or other rigid materials around the fireplace.



INSULATED CHASE CONSTRUCTION

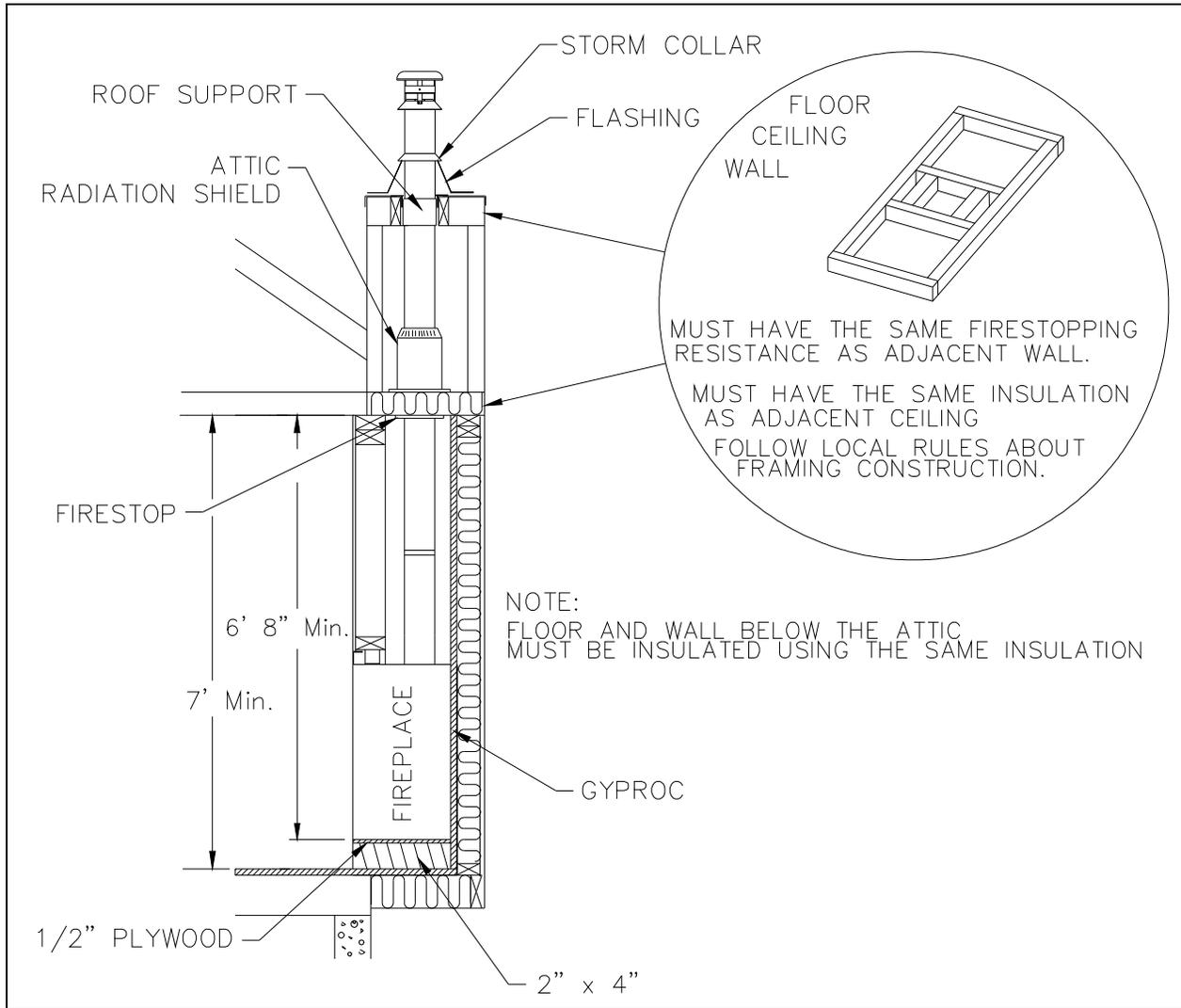
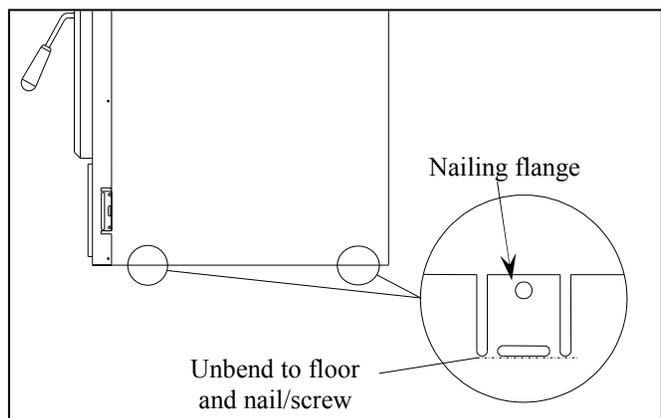


Figure 11

Nailing flanges

Four nailing flanges are provided to secure the fireplace on the floor (see figure beside). Bend the nailing flanges down so each flange is flush with the floor, then using nails or screws, secure the fireplace to the floor (2 places each side). The heads of the screws or nails must be large enough to cover the holes in the nailing flanges.



Facing

1. Combustible wall (such as drywall) must be installed flush with the fireplace. It may not project in front of and on the fireplace (i.e. the steel façade of the fireplace) (fig. 12)
2. Decorative frame made of combustible material cannot project in front of and on the fireplace steel front, in the space delimited by the width of the unit (38") and a height of 48" from the base of the appliance.
3. Non-combustible materials such as brick, stone or ceramic tile may project in front of and onto the fireplace facing (figure 13).

Mantel

The mantel must be installed at least 48" (1016 mm) above the base of the fireplace (figure 12).

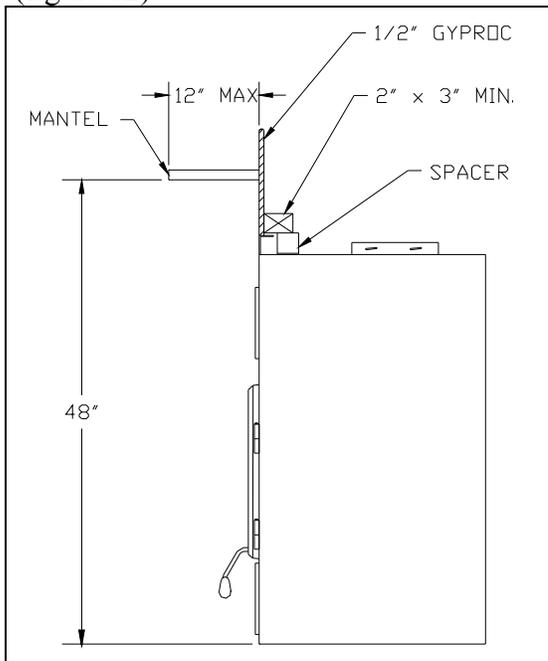


Figure 12

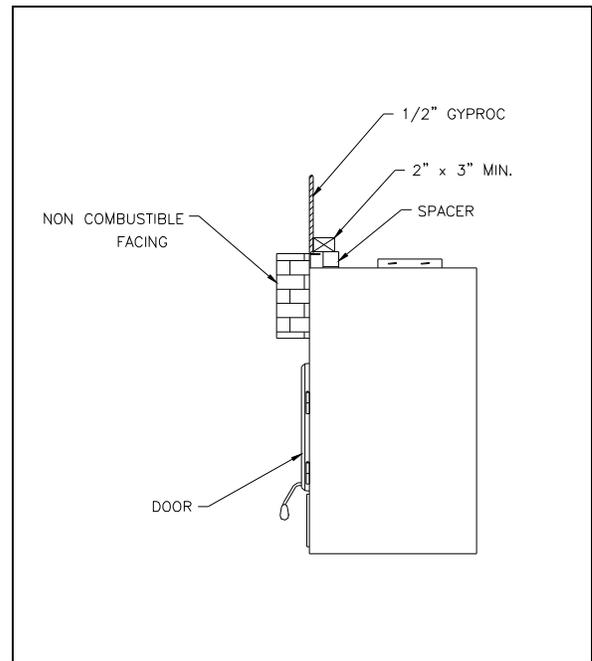


Figure 13

3.5 HOT AIR DUCTING INSTALLATION

Different hot air ducting systems can be installed with the BIS ULTRA™:

- Gravity kit
- Forced air kit (Not EPA approved) (p. 18)

3.5.1 *Gravity Kit*

Double hot air outlet including :

(See Figure 15)

- 2 telescopic lengths 8" I.D.
- 2 90° elbows 8" I.D.
- 2 hot air outlet kits (louvers and frames)
- 2 adaptors

See components list on last page

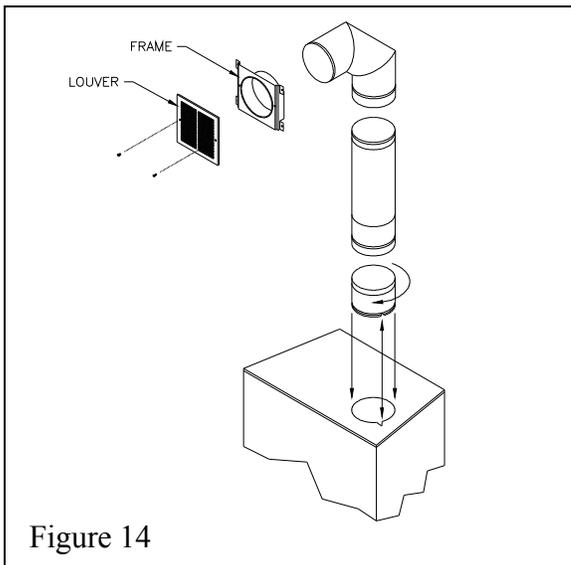


Figure 14

NOTE : To install the single hot air outlet, in conjunction with AC chimney, the chimney must be offset towards the back using 2 – 30 deg. elbows back to back on the fireplace.

The only fan that can be used with the gravity kit is the UZY5

The gravity kit allows you to block the upper grill of the fireplace. To do so, follow the steps below:

- a) Remove the upper grill and its frame from the fireplace.
- b) Install the panel for clean face option (BISCF) making sure that the insulation strip is installed inside.
- c) The fireplace façade can be covered with non-combustible material (fig. 16).

The safety rules for hot air ducting gravity kit installations are the following:

Minimum height* 68" (1727 mm)

Maximum length See figure 15

* *The height of the louver must be measured from the base of the BIS to the middle point of the louver.*

When installing the double outlet system, the hot air outlets can be installed in the same room as the fireplace, or one or both of the outlets can be installed in adjacent or upper rooms. Installing the ducts at different elevations will tend to exhaust more heat out of the higher outlet (figure 15).

NOTE: both pipes of the double hot air outlet must be installed. Any other installation may cause fire and void the warranty.

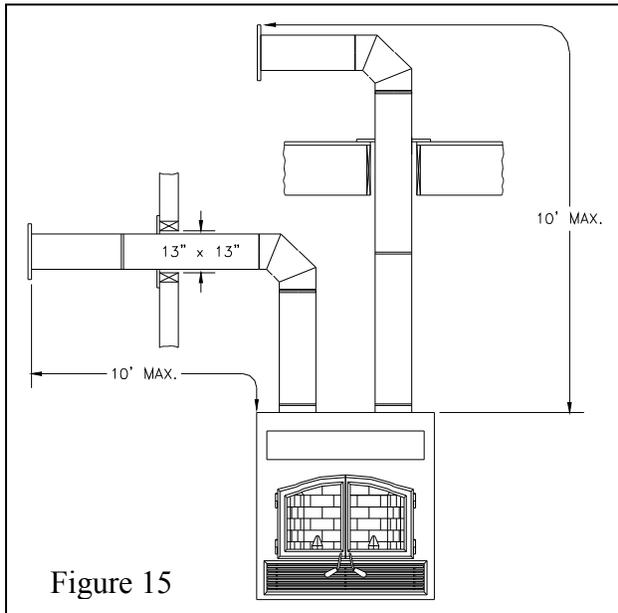


Figure 15

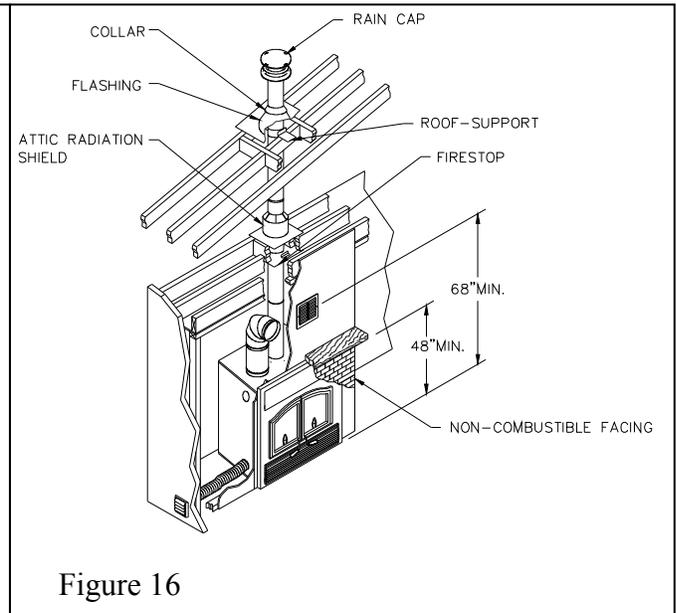


Figure 16

The duct system must be installed respecting the following:

1. Remove the top and bottom plates closing up the 8" dia. holes on top of the fireplace. Then, cut the insulation in order to obtain two 8" dia. openings. Fix the adaptors on the fireplace openings by turning clockwise (figure 14)
2. Maintain at least a 2" (50mm) clearance between the ducts and any combustible material; the required hole size is 13" x 13" (330 mm x 330 mm).
Exception #1: For the grills, the framing can be 10 3/4" x 10 3/4" (275 mm x 275 mm) to provide the clearance as required by the integral spacers on the double outlet duct system.
3. The maximum number of elbows in a run of duct is two.
4. Maintain at least 6 1/2" (160 mm) clearance from the outlet grill framing to a combustible ceiling, side wall or mantel.
5. When traversing a combustible wall or floor, a fire stop must be installed at the wall or floor penetration. The hole size must be 13" X 13". (330 mm x 330 mm)
6. Do not connect the hot air ducts to a central heating system. Malfunction of the heating system's fan will cause the fireplace to overheat. A furnace duct is only single wall and not double wall as is required for the BIS ULTRA™ hot air exhaust
7. Use only Security Chimneys International grills and components as described in this manual. Other grills or registers, for example, may be too restrictive and may overheat the fireplace or ceiling.
8. Do not use insulated flexible ducts, as they may overheat.
9. Do not use tees or any other components than the ones specifically listed here.
10. All ducts must extend upwards or horizontally. Never try to route the ducting downward.
11. The hot air outlet grills must be installed with the louvers pointing downwards in order to prevent overheating adjacent ceilings.

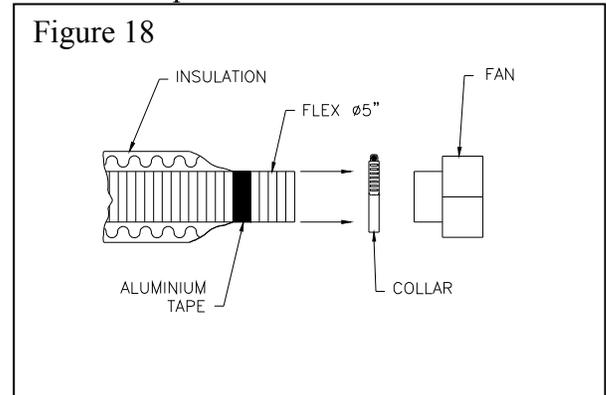
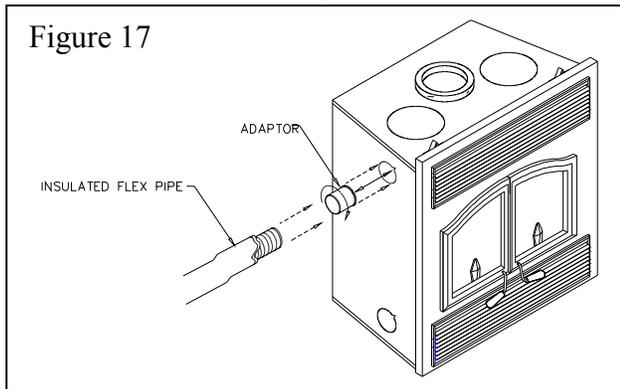
3.5.2 Central Forced Air Kit (Not tested under EPA certification)

The knock-outs provided on the back and on the sides of the BIS ULTRA allow the connection of insulated flexible pipe which enables you to heat adjacent rooms up to 50 feet from the fireplace.

The ducting system must be installed as described below:

1. Fix the adaptor at the back and/or the side of the fireplace by twist-locking the adaptor to the fireplace. You can use more than one outlet on the fireplace (figure 17).
2. Attach the 5" flexible pipe, using the collars provided. **Important:** Make sure that the plastic wrapping around the flexible pipe will not be in contact with the fireplace.
3. Route the flexible pipe to the chosen location. The ducting system can be installed either in an upper room or in a lower room.
4. Attach the flexible pipe to the fan, using the collars (figure 18).
5. Fix the decorative grill fan adaptor to the fan.
6. Attach a standard 3" x 10" grill to the adaptor.
7. Install the *blower thermostat* in that part of the house to be heated by the hot air duct. **Do not install** the *blower thermostat* in the room where the fireplace is located. A *cooling thermostat* can be installed in the same room as the unit. This thermostat will turn on the blower when the room where the fireplace is located becomes too hot.

This option requires electricity. Make sure that the connections to the fan have been made according to the local codes and comply with their requirements.



During operation, the fireplace requires air for combustion and draws air out of the house. It may starve other fuel burning appliances such as gas or oil furnaces. As well, exhaust fans may compete for air, causing negative pressure in the house, resulting in smoke entering the house from the fireplace. This situation is aggravated in modern airtight houses. To overcome this potential problem, we **require the installation of an outside air assembly**.

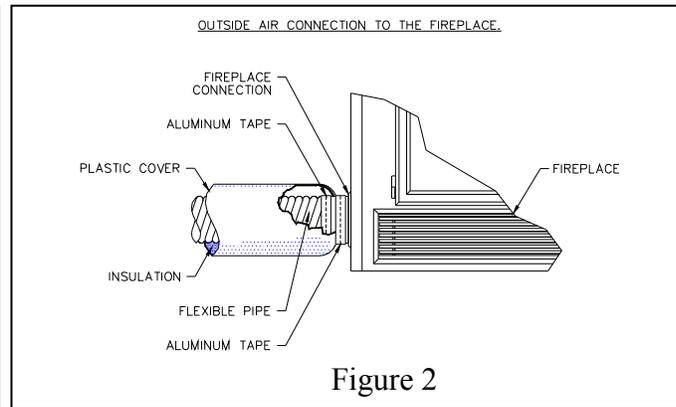
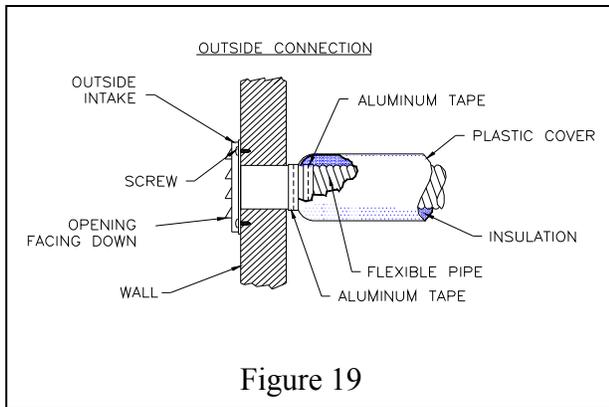
The outside air assembly must be installed according to the following requirements:

1. Duct length should be kept to a minimum. The maximum length of a 4" I.D. (100mm) insulated flexible duct is 20 ft. (6.1 m). The duct can be extended to a maximum of 40 ft. (12 m) using a 6" I.D. (150mm) insulated flexible duct.
2. The air intake register must not be installed more than 10 ft. (3050 mm) above the base of the fireplace.
3. The fresh air must come from outside the house. The air intake must not draw air from the attic, from the basement or garage.

4. The air intake register should be installed where it is not likely to be blocked by snow or exposed to extreme wind and well away from automobile exhaust fumes, gas meters and other vents.
5. The duct and register may be installed above or below floor level.

3.6.1 Outside Air Installation

Make a 4 1/4" (110 mm) hole in the outside wall of the house at the chosen location. From outside, place the outside air register in the hole (open side down) and fasten the register to the wall, with screws as shown (see figure 19). Slip the pipe into the insulated sleeve. Place the insulated pipe over the register tube and over the fireplace's outside air connector (see figure 20). At each end, carefully pull back the insulation and plastic cover exposing the flexible pipe. Using the aluminium tape provided, wrap the tape around the joint between the flexible pipe and the air inlets. Carefully push the insulation and plastic cover back over the pipe. Using aluminium tape, fasten the plastic cover in place.



4. THE CHIMNEY

4.1 CHIMNEY INSTALLATION NOTES

1. If possible, install an interior chimney, as it will provide better performance. In areas with continuous temperatures below 18° C (0° F), the use of an exterior chimney increases the likelihood of operating problems such as low draft, high rate of creosoting, and poor start-up characteristics. Exterior chimneys are also prone to down drafting and flow reversal. Installations, which are located on lower floors in the house, such as in a basement, in combination with outside chimney, are especially prone to flow reversal.

NOTE : In areas where winter temperatures are normally below freezing, the air cooled (AC) chimney may produce condensation. This condensation may corrode the top of the fireplace and is not covered under warranty. For optimum performance of your fireplace, Security Chimneys International recommends the use of an ASHT+/HT6103+ or S2100+/HT6000+ chimneys.

2. The Security fireplace model BIS ULTRA™ is listed only with Security Chimneys International Ltd 6" dia. chimney systems.
3. A chimney venting a fireplace shall not vent any other appliance.
4. The minimum chimney height is 12 ft. (3.7 m). In altitude, add 18" (450 mm) to the chimney for every 2000 feet (600 m) above sea level.
5. All chimney installations must include at least one support. The maximum chimney length that can be supported by the fireplace is 9 ft. (2.75 m) for Secure Temp^{S2100+} / Nova Temp^{HT6000+}, 12 ft. (3.7 m) for Secure Temp^{ASHT+} / Nova Temp^{HT6103+} and 20 ft. (6m) for AC chimney.
6. The chimney must extend at least 3 ft. (915 mm) above its point of contact with the roof and at least 2 ft. (610 mm) higher than any wall, roof or building within 10 ft. (3m) of it (Figure 21).
7. If the chimney extends higher than 5 ft. (1500 mm) above its point of contact with the roof, it must be secured using a roof brace.
8. A rain cap must be installed on top of the chimney. Failure to install a rain cap may cause corrosion problems.
9. Cut and frame square holes in all floors, ceilings, and roof that the chimney will go through to provide a 2" (50 mm) clearance between the chimney and any combustible materials. Do not fill this 2" space with insulation or any other combustible material.
10. Portions of the chimney that may extend through accessible spaces must be enclosed to avoid contact with combustible materials or damage the chimney.

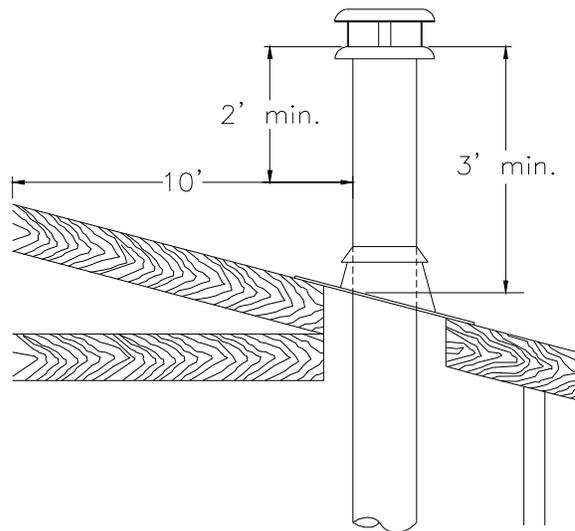


Figure 21

4.2 CHIMNEY INSTALLATION INSTRUCTIONS

1. Cut and frame the holes in the ceiling, floor and roof where the chimney will pass (see figure 22). Use a plumb bob to line up the centre of the holes. The sizes are indicated in table 1 for the floor and ceiling holes and table 2 (page 24) for the roof holes.

CHIMNEY MODEL	SQUARE HOLE SIZE OPENING
Secure Temp ^{ASHT+} Nova Temp ^{HT6103+}	12 3/8" (314 mm)
Secure Temo ^{S2100+} Nova Temp ^{HT6000+}	14 1/8" (359 mm)
AC:	15" (380 mm)

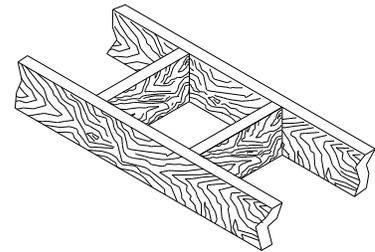


Figure 22

Table 1

2. From below, install a fire stop in each ceiling/floor separation through which the chimney will pass. At the attic level, install an attic radiation shield from above. (Figures 23 & 24).
3. For Secure Temp^{ASHT+} / Nova Temp^{HT6103+} and Secure Temp^{S2100+} / Nova Temp^{HT6000+} chimneys, place the first chimney length on the fireplace. To lock it in place, turn ¼ of a turn clockwise. With the AC chimney, you must use a starter section before installing the first chimney length (figure 25). Continue installing chimney lengths making sure to lock each length in place.
4. Every time the chimney passes through a ceiling or a wall, install the appropriate fire stop. When you reach the desired height, install the roof support. (Refer to instructions included with the support).
5. Then, put the roof flashing in place and seal the joint between the roof and the flashing with roofing pitch. (See figures 26 & 27). For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles. Nail the flashing to the roof, using roofing nails.
6. Place the storm collar over the flashing, and tighten it with the bolt supplied. Finally, seal the joint between the storm collar and the chimney, using silicone caulking.
7. Install the chimney cap.

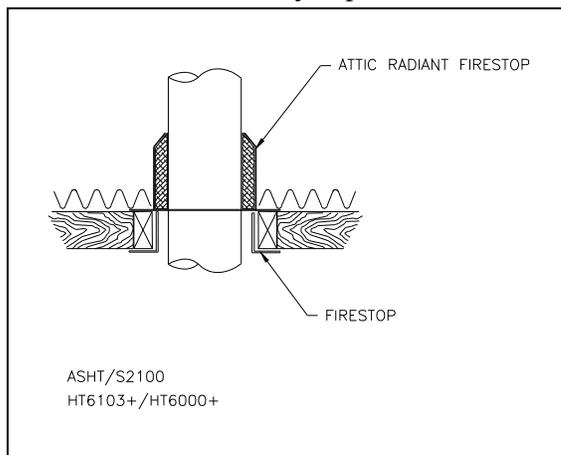


Figure 23

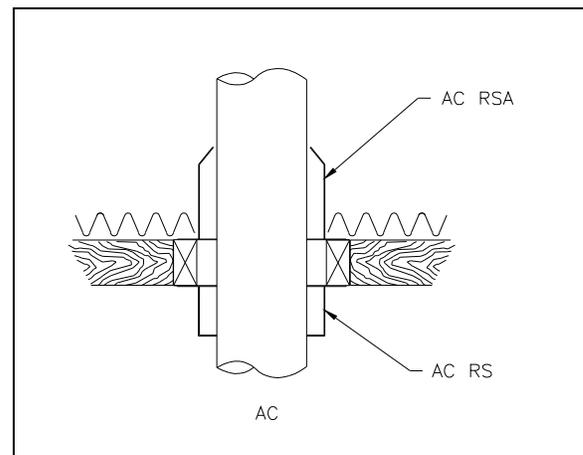


Figure 24

AC CHIMNEY INSTALLATION (AIR COOLED GALVALUME CHIMNEY)

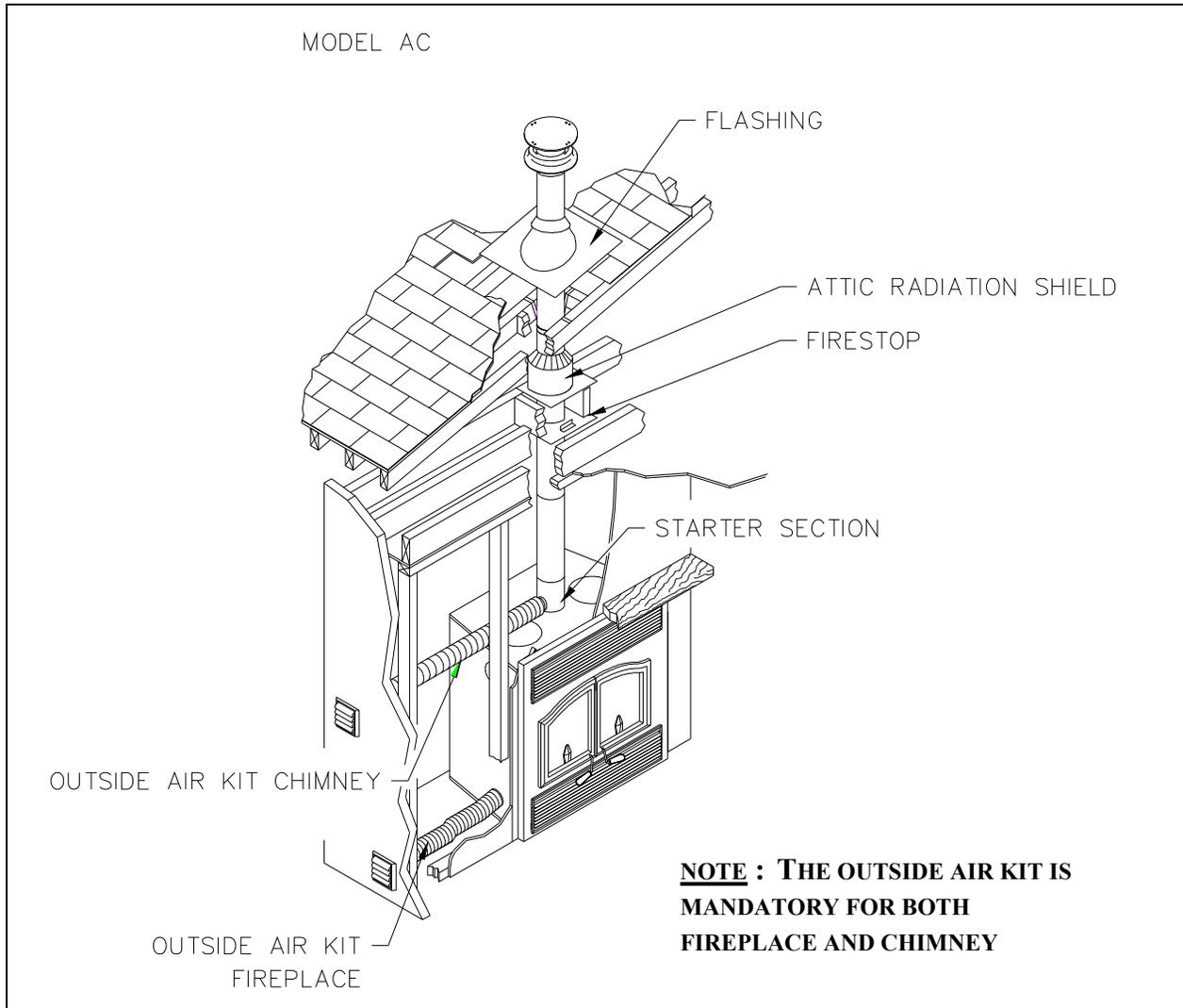


Figure 25

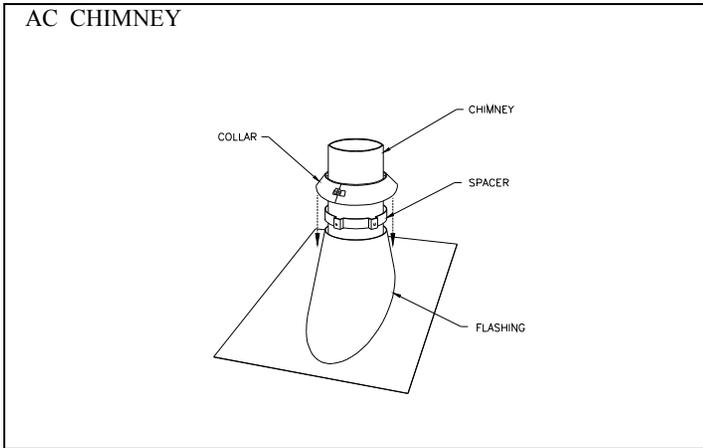


Figure 26

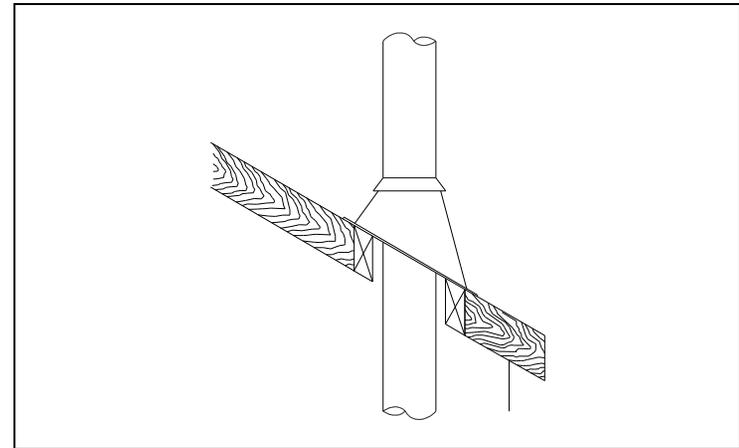


Figure 27

Table 2

ROOF DOWN SLOPE HOLE SIZE			
SLOPE	Secure Temp ^{ASHT+} Nova Temp ^{HT6103+}	Secure Temp ^{S-2100+} Nova Temp ^{HT6000+}	AC
Roof Pitch	6"	6"	6"
0 *	12 3/8" (314 mm)	14 1/8" (359 mm)	15" (380 mm)
2/12	12 9/16" (319 mm)	14 3/8" (365 mm)	15 3/8" (390 mm)
4/12	13" (330 mm)	14 7/8" (378 mm)	16 1/8" (410 mm)
6/12	13 7/8" (352 mm)	15 3/4" (400 mm)	16 7/8" (430 mm)
8/12	14 7/8" (378 mm)	17" (432 mm)	18 1/4" (465 mm)
10/12	16 1/8" (410 mm)	18 3/8" (467 mm)	19 5/8" (500 mm)
12/12	17 1/2" (445 mm)	20" (508 mm)	21 3/8" (545 mm)
* CROSS SLOPE HOLE SIZE			

4.3 OFFSET CHIMNEY INSTALLATION

The minimum chimney height when using elbows is:

Fireplace model	BIS ULTRA™
Chimney model	Secure Temp ^{S-2100+} / Nova Temp ^{HT6000+} / Secure Temp ^{ASHT+} / Nova Temp ^{HT6103+} AC
Vertical installation	12 ft. (3.66 m)
Two (2) elbows	15 ft. (4.57 m)
Four (4) elbows	17 ft. (5.18 m)

Table 3

After reaching the location requiring the elbow, proceed as follows:

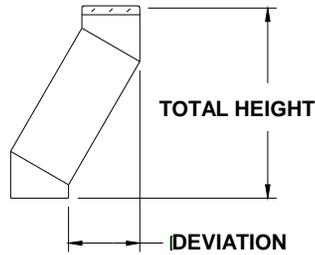
Secure Temp^{S2100+} / Nova Temp^{HT6000+} / Secure Temp^{ASHT+} / Nova Temp^{HT6103+} Chimneys

1. Install the first elbow; turn it in the required direction. Fasten it to the chimney with the three (3) ½" (12 mm) metal screws provided with the elbow.
2. Install the necessary chimney lengths to achieve the required offset. Lock the chimney lengths together: it is recommended to use three (3) ½" (12 mm) screws. If the offset length is made of two (2) chimney lengths or more, use an offset support halfway up the offset. If penetrating a wall, install a wall radiation shield (see figures 29 & 30).
3. Use another elbow to turn the chimney vertically. Secure the elbow, using three (3) ½" (12 mm) screws (provided with the elbow).
4. Use a plumb bob to line up the centre of the hole. Cut a hole for the chimney in the ceiling/floor. Frame this hole as described previously (refer to page 24).
5. From below, install a fire stop (See figure 23).
6. A support (ST+ or SO+) must be used on the first 15' section (5 m.).
7. Continue with the regular installation.

AC Chimney

1. Install the first elbow. Turn it in the required direction. To lock it in place, turn 1/8 of a turn. Fasten the straps attached to the elbow to the surrounding frame, using nails or drywall screws (figure 28).
2. Install the necessary chimney lengths to achieve the required offset. Lock the chimney lengths together. If penetrating a wall, use a wall radiation shield.
3. Use another elbow to turn the chimney vertically. Lock it to the chimney. Fasten the straps attached to the elbow to the surrounding framing using nails or drywall screws.
4. Use a plumb bob to line up the centre of the hole. Cut a hole for the chimney in the ceiling. Frame this hole as described previously.
5. From below, install a fire stop. (See figure 24).
6. Continue with the regular installation.

N.B. : An AC-SB starter section must be used before installing an elbow. When offset is needed immediately off the top of the fireplace, an elbow starter section (ACSB30) or a starter section allowing a 4" offset (AC-SBO) are available.



CHIMNEY 6"	ELBOW	DEVIATION & HEIGHT	ONE LENGTH BETWEEN ELBOWS						TWO LENGTHS BETWEEN ELBOWS						
			8"	12"	18"	24"	36"	48"	8" & 48"	12" & 48"	18" & 48"	24" & 48"	36" & 48"	48" & 48"	
Secure Temp ^{ASHT+} Nova Temp ^{HT6103+}	15°	DEVIATION	3 5/16" (84mm)	4 5/16" (110mm)	5 7/8" (149mm)	7 7/16" (189mm)	10 1/2" (267mm)	13 5/8" (346mm)	15 3/8" (391mm)	16 7/16" (418mm)	18" (457mm)	19 1/2" (495mm)	22 5/8" (575mm)	25 3/4" (654mm)	
		HEIGHT	15 11/16" (398mm)	19 9/16" (497mm)	25 3/8" (645mm)	31 3/16" (792mm)	42 3/4" (1086mm)	54 3/8" (1381mm)	60 15/16" (1548mm)	64 13/16" (1646mm)	70 9/16" (1792mm)	76 3/8" (1940mm)	87" (2210mm)	99 9/16" (2529mm)	
	30°	DEVIATION	7 7/16" (189mm)	9 7/16" (240mm)	12 7/16" (316mm)	15 7/16" (392mm)	21 7/16" (545mm)	27 7/16" (697mm)	30 13/16" (783mm)	32 13/16" (833mm)	35 13/16" (910mm)	38 13/16" (986mm)	44 13/16" (1138mm)	50 13/16" (1291mm)	
		HEIGHT	20" (508mm)	23 1/2" (597mm)	28 11/16" (729mm)	33 7/8" (860mm)	44 1/4" (1124mm)	54 11/16" (1389mm)	60 9/16" (1538mm)	64" (1627mm)	69 1/4" (1759mm)	74 7/16" (1891mm)	84 13/16" (2154mm)	95 1/4" (2419mm)	
	45°	DEVIATION	10 5/16" (262mm)	13 3/16" (335mm)	17 3/8" (441mm)	21 5/8" (549mm)	30 1/8" (765mm)	38 5/8" (981mm)	43 7/16" (113mm)	46 1/4" (1175mm)	50 1/2" (1283mm)	54 3/4" (1391mm)	63 1/4" (1607mm)	71 11/16" (1818mm)	
		HEIGHT	17 13/16" (452mm)	20 5/8" (524mm)	24 7/8" (632mm)	29 1/8" (740mm)	37 5/8" (956mm)	46 1/8" (1172mm)	50 15/16" (1294mm)	53 3/4" (1365mm)	58" (1473mm)	62 1/4" (1581mm)	70 3/4" (1797mm)	79 3/16" (2011mm)	
CHIMNEY 6"	ELBOW	DEVIATION & HEIGHT	ONE LENGTH BETWEEN ELBOWS						TWO LENGTHS BETWEEN ELBOWS						
			8"	12"	18"	24"	36"	48"	8" & 48"	12 & 48"	18 & 48"	24" & 48"	36" & 48"	48" & 48"	
	Secure Temp ^{S2100+} Nova Temp ^{HT6000+}	15°	DEVIATION	3 5/16" (84mm)	4 5/16" (110mm)	5 7/8" (149mm)	7 7/16" (189mm)	10 1/2" (267mm)	13 5/8" (346mm)	15 1/2" (394mm)	16 1/2" (419mm)	18 1/16" (459mm)	19 5/8" (498mm)	22 3/4" (578mm)	25 13/16" (656mm)
			HEIGHT	16" (406mm)	19 7/8" (505mm)	25 11/16" (652mm)	31 1/2" (800mm)	43 1/16" (1094mm)	54 5/8" (1387mm)	61 7/16" (1561mm)	65 1/4" (1657mm)	71 1/16" (1805mm)	76 7/8" (1953mm)	88 1/2" (2248mm)	100 1/16" (2542mm)
	30°	DEVIATION	7 3/8" (187mm)	9 3/8" (238mm)	12 3/8" (314mm)	15 3/8" (391mm)	21 3/8" (543mm)	27 3/8" (695mm)	30 7/8" (784mm)	32 7/8" (835mm)	35 7/8" (911mm)	38 7/8" (987mm)	44 7/8" (1140mm)	50 7/8" (1292mm)	
		HEIGHT	20 11/16" (525mm)	24 3/16" (614mm)	29 3/8" (746mm)	34 9/16" (878mm)	44 15/16" (1141mm)	55 5/16" (1405mm)	61 3/8" (1559mm)	64 7/8" (1648mm)	70 1/16" (1780mm)	75 1/4" (1911mm)	85 5/8" (2175mm)	96" (2438mm)	
CHIMNEY 6"	ELBOW	DEVIATION & HEIGHT	ONE LENGTH BETWEEN ELBOWS						TWO LENGTHS BETWEEN ELBOWS						
			---	12"	18"	---	36"	48"	---	12" & 48"	18" & 48"	---	36" & 48"	48" & 48"	
AC 6"	15°	DEVIATION	---	4 13/16" (122mm)	6 1/8" (156mm)	---	11" (280mm)	14 1/8" (359mm)	---	16 7/8" (429mm)	18 7/16" (468mm)	---	23" (584mm)	26 3/16" (665mm)	
		HEIGHT	---	27 11/16" (703mm)	33 1/2" (851mm)	---	50 7/8" (1292mm)	65 1/2" (1588mm)	---	72 5/8" (1845mm)	78 7/16" (1992mm)	---	95 3/4" (2432mm)	107 3/8" (2727mm)	
	30°	DEVIATION	---	9 3/8" (238mm)	12 3/8" (314mm)	---	21 3/8" (543mm)	27 3/8" (695mm)	---	32 5/8" (829mm)	35 5/8" (905mm)	---	44 5/8" (1134mm)	50 5/8" (1286mm)	
		HEIGHT	---	25 3/4" (654mm)	31" (878mm)	---	46 1/2" (1181mm)	57" (1448mm)	---	66" (1676mm)	71 1/4" (1810mm)	---	86 7/8" (2207mm)	97 1/4" (2470mm)	
*** NOTE : With the ACBI chimney, a starting length of 6" high must be used on top of the fireplace before installing an elbow. ***															

Table 4

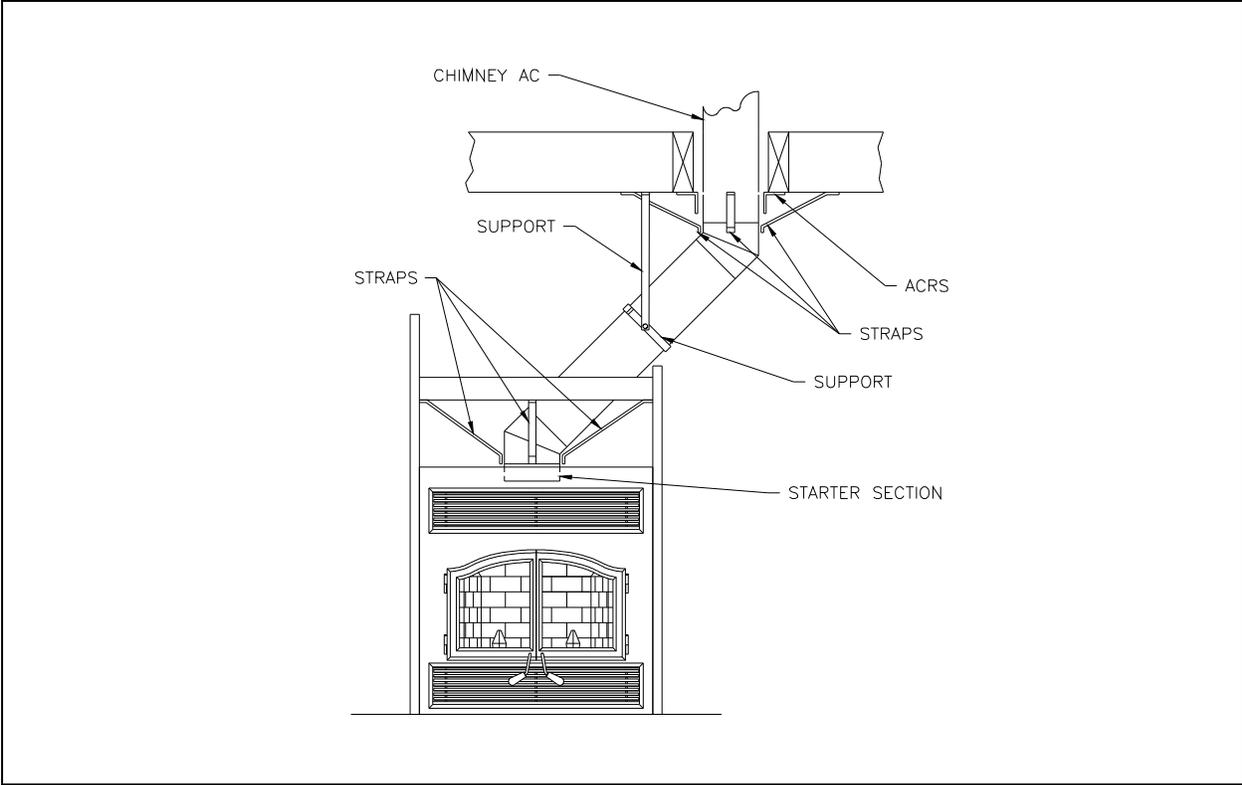


Figure 28

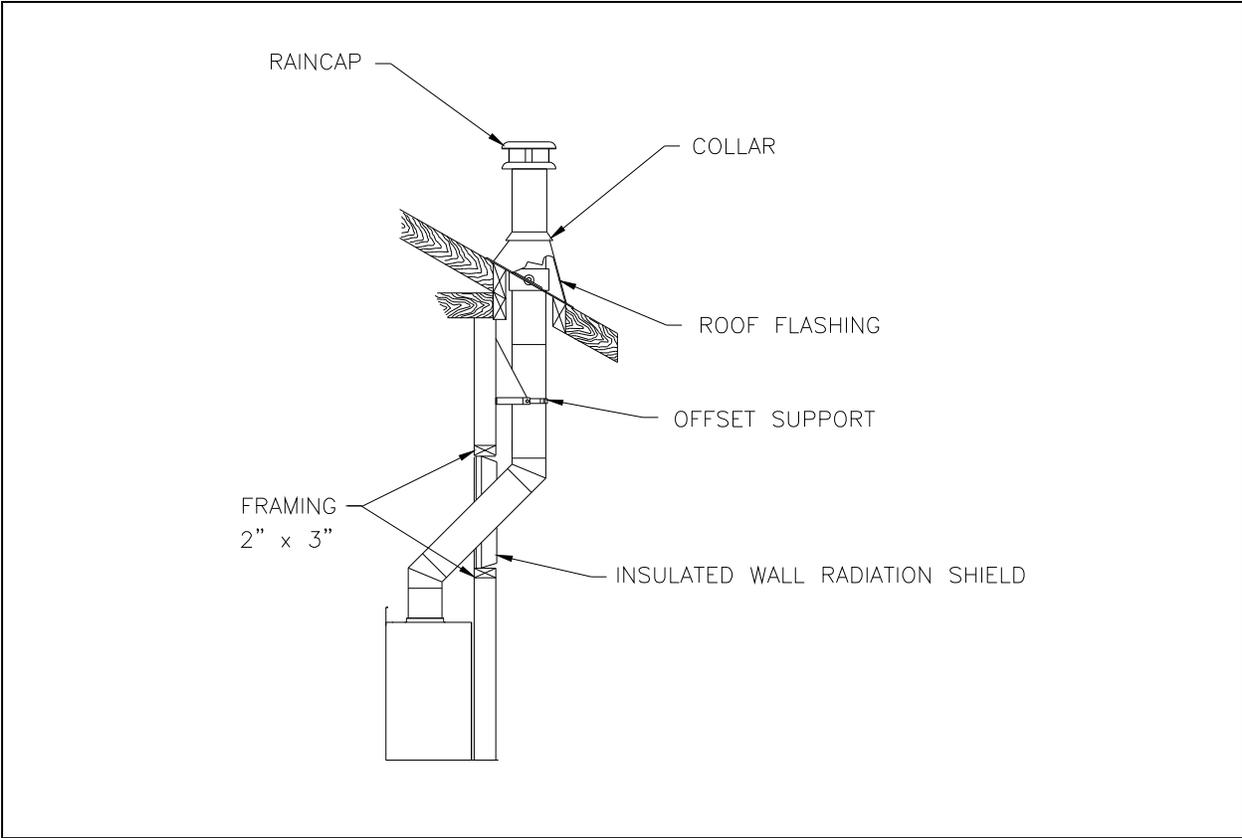


Figure 29

4.4 ANGLED WALL RADIATION SHIELD (RSM+, RSMI30, RSMI45)

When traversing a combustible wall with the chimney at a 30° or 45° angle, an angled fire stop or wall radiation shield must be installed. Only one is required.

Note: 45° angle for Canada only

In cold climate locations, we recommend that you use the insulated wall radiation shield since it will maintain the home's thermal barrier.

RSM+ and RSMI30, RSMI45		
CHIMNEY – 6" dia.	ANGLE	HOLE SIZE
Secure Temp ^{ASHT+} Nova Temp ^{HT6103+}	30°	283 mm x 781 mm (11 1/8 " x 30 3/4 ")
	45° Canada only	283 mm x 518 mm (11 1/8 " x 20 3/8 ")
Secure Temp ^{S2100+} Nova Temp ^{HT6000+}	30°	327 mm x 881 mm (12 7/8" x 34 11/16")
	45° Canada only	380 mm x 972 mm (15" x 38 1/4 ")
Ac (6" Dia.)		

Table 5

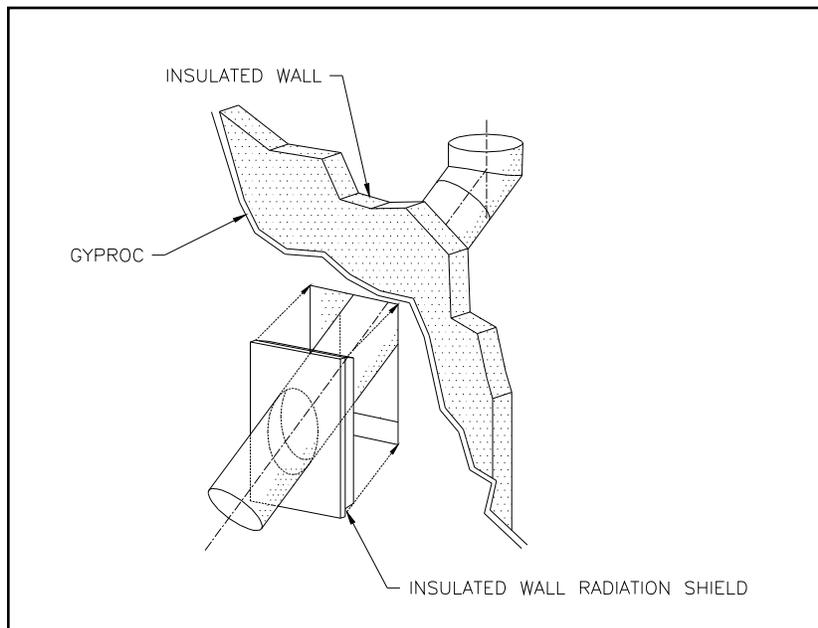


Figure 30

4.5 CHIMNEY SUPPORT INSTALLATION

UNIVERSAL ROOF SUPPORT

This support has three possible uses:

1. For Secure Temp^{ASHT+} / Nova Temp^{HT6103+} and Secure Temp^{S2100+} / Nova Temp^{HT6000+}, it must be used on a roof to support the chimney.
2. It may be used on a floor, ceiling or roof above an offset to support the chimney above the offset.
3. It may be used on a floor, ceiling or roof as a supplementary support when the chimney height exceeds 15 ft. (4.6 m.).

Table 6 gives maximum height of supported chimney.

NOTE: For the AC chimney, a support section (AC6SL) must be used every 30 ft. (10 m).

For roof support installation, refer to the instructions provided with the support.

UNIVERSAL OFFSET SUPPORT

This support is used to support the chimney above an offset. When the chimney offset is used to traverse a wall this support may be used on the wall to support the chimney. The maximum heights are given in Table 6. For offset support installation, refer to the instructions provided with the support.

CHIMNEY MODEL	MAXIMUM HEIGHT OF SUPPORTED CHIMNEY	
	OFFSET SUPPORT	ROOF SUPPORT
Secure Temp ^{ASHT+} Nova Temp ^{HT6103+} (6" dia.)	28 ft. (8.54m)	29 ft. (8.84 m)
Secure Temp ^{S2100+} Nova Temp ^{HT6000+} (6" dia.)	18 ft. (5.49 m)	20 ft. (6.1 m)
AC (6" dia.)	40 ft. (12.19)	50 ft. (15.52)

Table 6

4.6 CHIMNEY CHASE AND MULTIPLE TERMINATIONS

For the purpose of this manual, a chimney chase is considered a part of the chimney system rather than part of a building. The termination must be placed a minimum of 18" (460 mm) above the chase.

For installations where more than one chimney is located in the same chase or within the same area, we suggest that their terminations be separated by at least 16" (410 mm) horizontally, and 18" (460 mm) vertically. This separation is to prevent smoke migrating from one chimney to another (see figure 31).

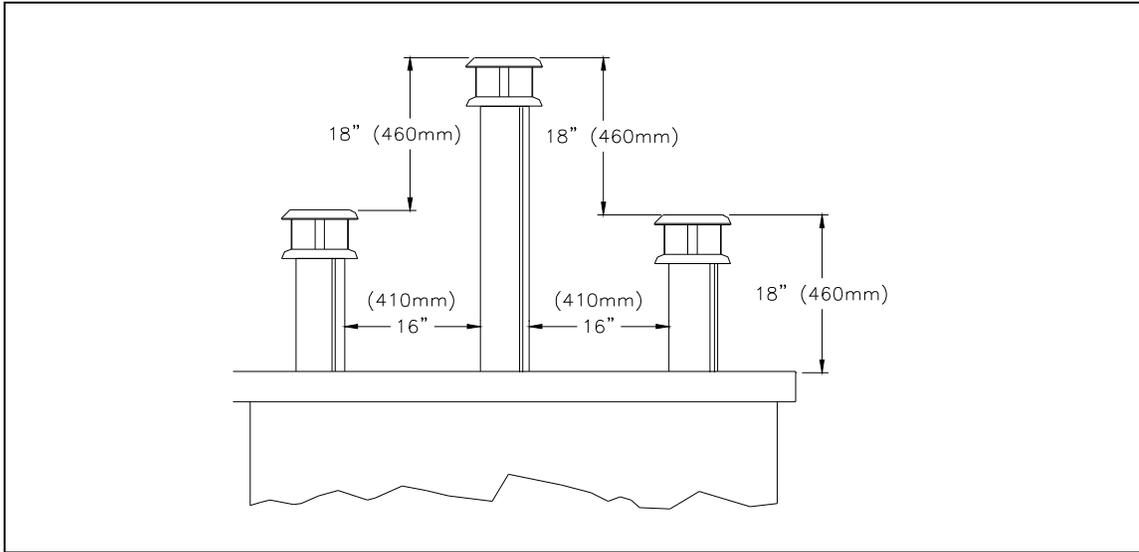


Figure 31

4.7 CHIMNEY ADAPTOR (Secure Temp^{S2100+} / Nova Temp^{HT6000+} /

The fireplace is normally supplied with a chimney adaptor suitable for the Secure Temp^{ASHT+} / Nova Temp^{HT6103+} chimney. If you want to install a Secure Temp^{S-2100+} / Nova Temp^{HT6000+} chimney, an adaptor is available (6UCA) (figure 32). A separate starter section will also be required if AC chimney is installed.

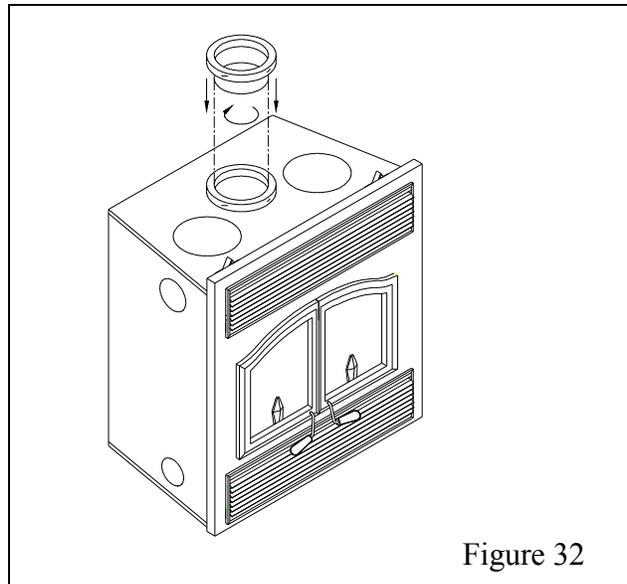


Figure 32

4.8 INSTALLATION INSTRUCTIONS FOR MASONRY APPLICATION

WARNING: Before starting the installation, the masonry chimney must be inspected by a qualified sweep.

The following requirements must be respected:

1. The chimney must be absolutely clear of any soot residue or creosote. Check for cracks, loose or missing bricks that could inhibit correct installation of the liner.
2. The clearance to combustibles must be a minimum of 1" between the outside of the masonry and any wood framing or loose insulation.
3. The chimney must be built in accordance with the current building code.
4. No other appliance can be connected to the same chimney.
5. The clearances to combustibles for the BISUMA or BISPMA and BISUMA30 or BISPMA30 connectors are 2" on the side and bottom and 16" at the top.
6. **The connector parts are not necessary if the connection between the insulated length and the stainless steel liner is done within the masonry chimney.**

Installation:

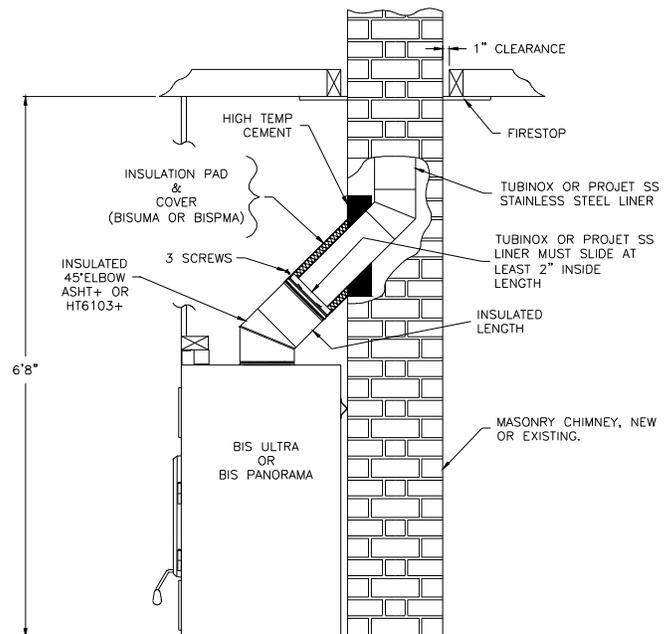
The chimney must be relined with a stainless steel liner model Tubinox™ or Projet SS of the same diameter as the outlet of the fireplace.

For connection at 45° angles, a special connector (BISUMA for the BIS Ultra™ fireplace or BISPMA for the BIS PANORAMA™ fireplace) must be used to connect the liner to the insulated chimney. For connection at 30°, use the BISUMA30 or BISPMA30 connectors.

Follow these steps:

- 1- Position the fireplace in its location. Temporarily install the ASHT+ elbow on the top of the fireplace and, using a level, mark with an oval the location where the flue liner will enter the masonry chimney.
- 2- In the middle of the oval, drill a hole in the masonry chimney at 45° or 30°.
- 3- Increase the size of the hole until a 45° or 30° Tubinox liner elbow can be easily slipped through.
- 4- Slide the liner down from the top of the masonry chimney until you reach the hole level.
- 5- Slip through the hole a 45° or 30° liner elbow and connect it to the liner.
- 6- Add a small liner section to the liner elbow that will allow the liner to extend at least 12" (measured at the top of the liner) from the masonry chimney.
- 7- Seal the opening around the liner with high temperature refractory cement.
- 8- The next steps must be done in the following order:
 - A. Select the ASHT + length that will fit between the elbow and the liner so that it will slide at least 2" over the liner section. (You may need to cut the liner for a better fit).
 - B. Take that section and the BISUMA or BISPMA (BISUMA30 or BISPMA30) cover and slide it over the liner. Make sure you have enough opening to be able to install the ASHT+ elbow without difficulty.
 - C. Install the 45° or 30° elbow on the fireplace.
 - D. Slide the length section back down on the elbow and twist lock the two together.
 - E. Pull the cover down over the length and install the insulation pad over the liner; be careful to cover the liner completely.
 - F. Slide back the cover over the insulation and fix it in place using the 3 metal screws supplied.

See typical installation illustrated below.



5. PARTS AND COMPONENTS LIST AC Chimney

<u>Description</u>	<u>Part No.</u>
Lengths	6" dia.
12" length	AC6L12
18" length	AC6L18
36" length	AC6L36
48" length	AC6L48
15° elbow	AC6E15
30° elbow	AC6E30
Rain cap	AC6CPR
Spark arrester band	PE+
Starter section	AC6SB
Supports	
Offset support	XSO+
Support section	AC6SL
Roof support	XST+
Roof brace	XBS2+
Wall band	XBM+
Universal support	ACSU
Firestop	
Firestop	AC BF
Radiation shield	AC RS
Attic radiation shield	AC RSA
Wall radiation shield 30°	AC RSM30
Insulated wall radiation shield 30°	AC RSMI30
Wall radiation shield 45°	AC RSM45
Insulated wall radiation shield 45°	AC RSMI45
Outside air kit (chimney) (flex, insulation, outside register and coupling)	AC ZI
Flat roof flashing	ACF
Adjustable Roof Flashings	
1/12 - 7/12 (5° - 30°)	AC FA
8/12 - 12/12 (30° - 45°)	AC FB
12/12 - 21/12 (45° - 60°)	AC FBB
Storm collar	AC FC
PARTS AND COMPONENTS LIST (Fireplace)	
<u>Description:</u>	<u>Part No.</u>
Victorian arch shape door, gold plated 24K	BAG38
Victorian arch shape door, black	BAN38
Contemporary arch shape doors, gold plated 24K	BCG38
Contemporary arch shape doors, black	BCN38
Outside air kit	UZI

6. OPTIONS (Fireplace)

Description:

Complete double ducting system including: 2 elbows 90°, 2 telescopic lengths, 2 grill supports and 2 black grills

Black grill with support	7B30ZO
Brass grill for 7B30ZK	7B30ZGB
Elbow 90°, 8" dia.	7B26ZE90
Elbow 45°, 8" dia.	7B26ZE45
Telescopic length, 8" dia.	7B26ZLA
Adjustable length, 8" dia. (2" - 5")	7B26ZL2A
Radiation shield	7B26ZR

Central forced air kit including: adaptor and 2 clamps (BISAF), Blower (BISZY), Blower variable speed control (VRUW), Thermo-disk (VTU) and fan to flex adaptor (BISAVF).

Flex adaptor and 2 clamps	BISAF
Flexible pipe 5" D.I. x 15 ft. Long	5FLEX15
Flexible pipe 5" D.I. x 30 ft. Long	5FLEX25
Blower (250CFM) for central forced air kit	BISZY
Blower variable speed control with decorative wall plate for (BISZY)	VRUW
Thermo-disk, on/off blower control for (BISZY)	VTU
Thermostat 24V kit (heating and cooling)	HCTW
Back draft damper	BISBD
Adaptor for fan to flexible pipe	BISAVF

Other Options:

Panel for clean face option	BISCF
Rigid fire screen	BISZN-1
Heat activated on/off pre-wired fan kit	UZY3
Masonry chimney adaptor	BISUMA

7. APPENDIX

SPECIFICATIONS

Weight	412 lbs.
Height	40 1/2"
Width	38"
Depth	24 1/2"
Chimney weight ASHT+ (7" dia.):	6.25 lbs./ft.
Chimney weight S2100+ (7" dia.):	10.8 lbs./ft.

CLEARANCE TO COMBUSTIBLES

The following clearances meet the minimum requirements for a safe installation

Side wall:	24" (457 mm) measured from the doors edge		
Ceiling:	6' 8" (2032 mm) measured from the base of the fireplace		
Fireplace enclosure:	Bottom: 0"	Side: 0" to spacers	Back: 0" to spacers
	Top: Do not fill the space above the fireplace with any material		
Chimney:	2" (50 mm)		
Mantel:	48" (1219 mm) measured from the base of the fireplace.		

REPLACEMENT PARTS

Rear baffle refractory	PR-SR1965
Front baffle refractory	PR-SR1968
Back refractory	PR-SR1972
Right side refractory	PR-SR1971D
Left side refractory	PR-SR1971G
Bottom refractory	PR-SR1973
1 st Secondary air tube (rear)	PR-SR1995
2 nd Secondary air tube (middle)	PR-SR1994a
3 rd Secondary air tube (middle)	PR-SR1994b
4 th Secondary air tube (middle)	PR-SR1994c
5 th Secondary air tube (front)	PR-SR1979
Cast-iron log supports (2)	PR-B2CH
Cast-iron center support (1)	PR-SR1982
Louver	PR-SR1799
Louver frame (top)	PR-SR1839
Louver frame (bottom)	PR-SR1840
Ash tray cap	7B30B2CF01
Ash tray kit	PR-B2GA1
Ash tray	PR-BISUZH
Fireplace top	PR-SR2449
Fireplace left side	PR-SR2445
Fireplace right side	PR-SR2444
Fireplace back	PR-SR2446
Touch up paint (Forrest Paint Metallic Black), SBMB6309	70K99
Left handle with rod	PR-SR1785
Right handle with rod and lock	PR-SR1784
Ceramic glass panel:	
(Victorian door) -right	PR-SR1788D
-left	PR-SR1788G
(Contemporary doors) - right	PR-SR1818D
- left	PR-SR1818G
Gaskets:	
Door	PR-SR1823A
Glass	PR-SR1823B
Between doors	PR-SR1823C
Ash tray	PR-R161
Hinges set (doors and fireplace)	PR-SR1800UR