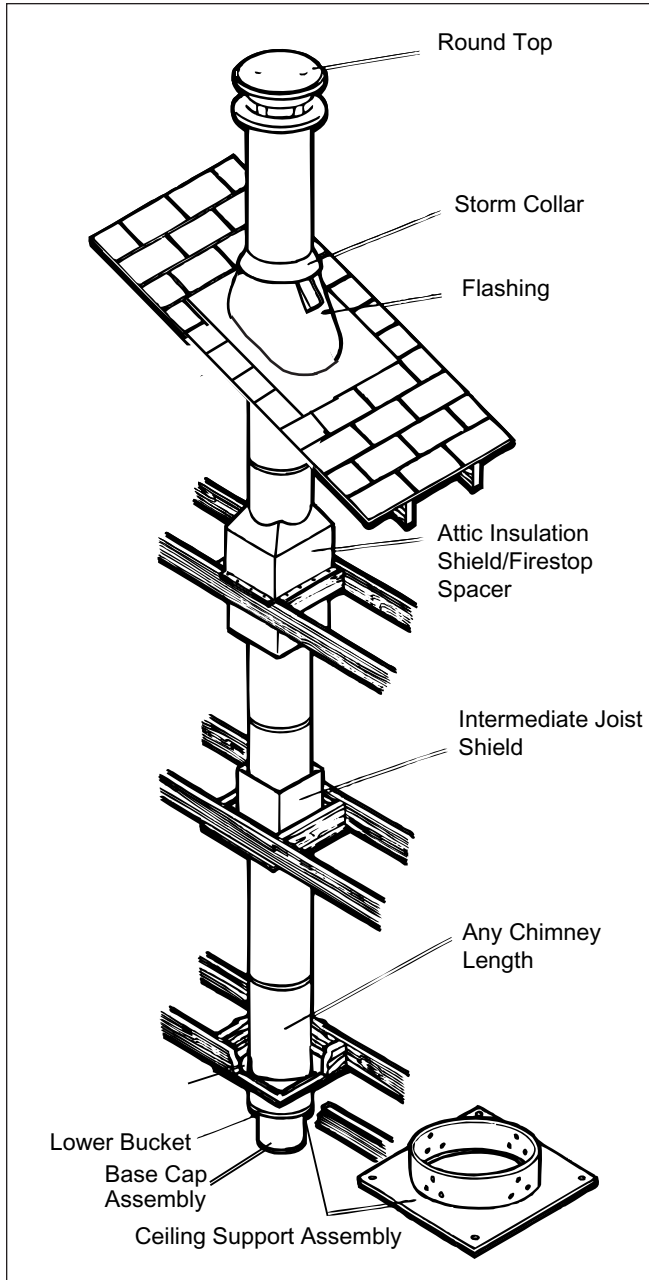




Manufactured by Selkirk Canada Corp. - Hamilton, Ontario

# Installation Instructions for MODEL CF CEILING SUPPORTED CHIMNEY



## IMPORTANT:

**A Major Cause of Chimney-Related Fires Is Failure To Maintain Required Clearances (Air Space) To Combustible Materials. The CF chimney requires 50 mm (2") clearance to combustible material. DO NOT place any type of insulation in this required clearance space surrounding the chimney.**

**It is of utmost importance that this chimney be installed only in accordance with these instructions. Certification of the chimney is void if the installation instructions are not followed. Read Them First.**

## FUELS & APPLIANCES:

The Model CF chimney, may be used for gas-, oil-, wood- and coal-fired residential type appliances normally producing flue gases of 650°C (1200°F) or less. The Model CF chimney is intended for use in accordance with the National Building Code of Canada, the Installation Code for Oil Burning Equipment CSA B139, Gas Burning Equipment CAN-B149.1 & CAN1-B149.2, and the Installation Code for Solid Fuel Fired Appliances CSA B365. It may be used with listed Factory Built Fireplaces as specified in the fireplace manufacturer's installation instructions and identified on the fireplace label and with Masonry fireplaces.

**REMEMBER; AN ADEQUATE AMOUNT OF AIR MUST BE SUPPLIED TO THE APPLIANCE TO ENSURE PROPER OPERATION.**

## CHOOSING YOUR HEATING APPLIANCE:

There are three important rules for selecting a woodburning stove, fireplace or heater.

- FIRST:** Look for a label or nameplate attached to the appliance which bears the mark or name of a well-known safety testing organization\* or laboratory.
- SECOND:** Don't buy a solid fuel heating appliance which is bigger than necessary.
- THIRD:** Look or ask for complete installation, operating and maintenance instructions for the appliance. If you can't get these, buy one that gives you all these very important details.

\*Such as Underwriters' Laboratories of Canada or Warnock Hersey Professional Services Limited.

## CHIMNEY SIZING:

The correct chimney size is essential to the efficient operation of the chimney and the appliance which it serves. Consult the appliance manufacturer's installation instructions or your dealer for proper chimney diameter size.

**WHEN INSTALLING YOUR CHIMNEY AND WOODBURNING STOVE OR FIREPLACE SYSTEM, REMEMBER...SAFETY FIRST.**

These installation requirements are based on complete tests of the Model CF Chimney in accordance with the Standard for 650 deg. C Factory-Built Chimneys CAN/ULC-S629-M87.

Selkirk chimney parts are produced under the Listing Program of Underwriters Laboratories of Canada. Each ULC Listed part carries the label specified in their "List of Equipment and Materials".

You may well have a basic knowledge of carpentry and the use of hand tools. However, it is important that you also review the rules of safety on the following pages. If you have any doubt about your ability to complete your installation in a workmanlike manner, you should arrange for a professional installation.

## RULES FOR SAFETY DURING INSTALLATION:

1. Read all installation sheets. Look for them in the cartons, or ask your dealer for a complete set. Keep the instructions handy and save them for future reference.
2. Check your local building, installation and fire codes for all requirements affecting the fuel-burning appliance and its chimney. Such as:
  - CSA-B365 Installation Code for Solid Fuel Burning Appliances and Equipment.
  - CSA-B139 Installation Code for Oil Burning Equipment.
  - CAN1-B149 Installation Codes for Gas Burning Appliances and Equipment.
  - National Building Code of Canada
  - Provincial Building Codes
3. Obtain a building permit for both the appliance and the chimney. Contact local building or fire officials about restrictions and installation inspection in your area. **IMPORTANT:** An improperly installed heating system can void your fire insurance.
4. Be very careful around electrical wiring and be sure it is secured at least 2 inches away from any part of the chimney. If wiring must be relocated, hire a professional electrician.
5. Be sure that ladders are in good condition and always rest on a level firm surface.
6. Wear gloves when handling sheet metal parts with sharp edges.
7. Be sure that electrically powered tools are properly grounded.

## GENERAL INSTALLATION RULES:

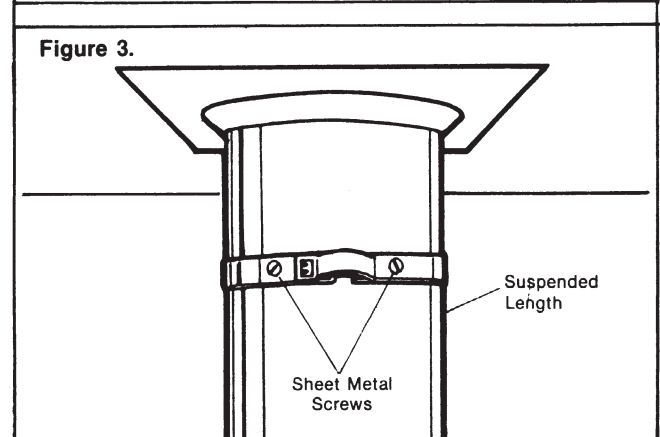
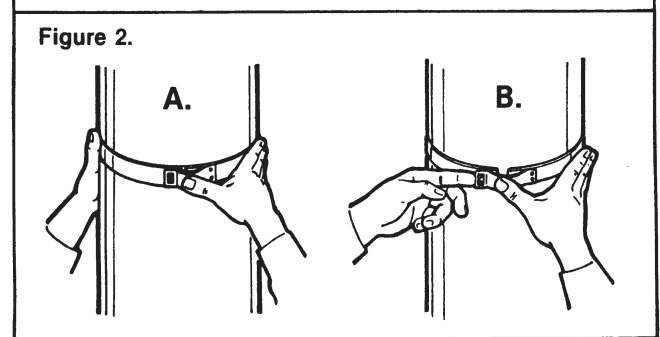
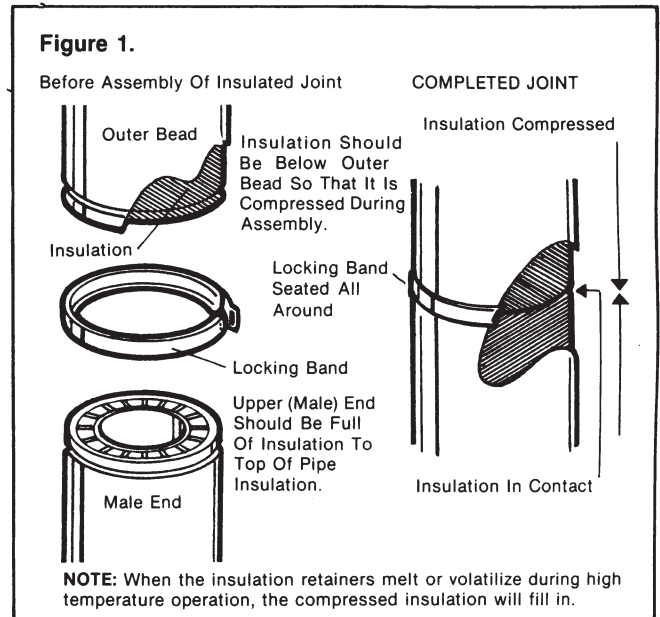
1. Situate the chimney in the structure so that it can be installed without cutting joists, sills, plates or load bearing partitions or members.
  2. Each wood or coal appliance should have its own chimney.
- DON'T INTERCONNECT.**
3. There should be no draft regulators on solid fuel equipment and smoke pipes and cleanout caps should be tight.
  4. A minimum smoke pipe length of 1 m (3 ft.) between appliance and chimney is recommended.
  5. Continuous operating flue gas temperature should not exceed 650°C (1200°F).

## CF JOINT SECURITY:

High internal gas temperatures in a chimney force the internal pipe to expand or lengthen. This, in turn, may cause the joints to separate if they are not securely locked. Use of chimney cleaning brushes may also cause joints to unlock.

### WARNING:

- a) The chimney pipe and fittings must be assembled only with the locking bands as furnished.
  - b) Support all offsets with an offset support and adequate strapping.
  - c) Attach smoke pipe parts securely to each other, and to the appliance using three sheet metal screws per joint.
1. The clasp lockbands are simply seated in the beads of the joints and clipped together. Figure 1 & 2A.
  2. To remove the lockband, the clasp is pushed in and then unhooked. Figure 2B (Lift the clasp with a screwdriver if necessary.)
  3. When a chimney section is suspended e.g.: below a ceiling support then the band and the joints should be fastened using two (2) #6 x 1/2" sheet metal screws. (Drill 3/32 holes). Figures 3.



## CHIMNEY OPERATION AND MAINTENANCE:

All chimneys should be inspected at least once a year to determine that their physical integrity is being maintained. The need for chimney maintenance also depends on the kind of appliance and how it is operated. Wood and coal-burning appliances may need a great deal of chimney maintenance. Open front fireplaces without doors usually dilute their smoke with large amounts of air. Thus the buildup of chimney deposits is generally very low. "Air tight" or controlled draft wood stoves and heaters produce dense smoke if they are loaded for long duration or overnight fires, and can rapidly produce heavy, thick creosote deposits. It is possible, by having a short duration daily hot fire, to burn off these deposits or prevent them from building up to dangerous levels. This takes skillful operation and an appreciation of how to get the correct temperature.

## CREOSOTE AND SOOT FORMATION AND NEED FOR REMOVAL:

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue makes an extremely hot fire.

With coal, which can burn with a smoky fire, this smoke also condenses in the chimney to form soot.

The chimney should be inspected at least once every 2 weeks during the heating season to determine if a creosote or soot buildup has occurred.

If creosote has accumulated, it should be removed to reduce the risk of chimney fire.

If you see deposits more than 1/16 inch thick, clean all of the chimney parts mechanically. This means using brushes, scraping or equivalent. Don't start a chimney fire! With only slight deposits, try a hot fire to see if the black deposits change to light ash, or fall down the chimney and the inside of the appliance for deposits. Do not use chemical cleaners, they may corrode the inside of the chimney. They may or may not prevent or remove creosote. When they are used together with a hot fire, it is probably the fire that is doing the work.

Depending on the rate of buildup, as you learn what is going on in the chimney, you can adjust your cleaning schedule.

If you have any doubts about your ability to clean the chimney, or if the deposits are very heavy and hard to remove, call a professional chimney sweep. Do not try to burn them off.

It doesn't matter how careful you are with loading, fuel wood selection or draft control, you should observe the above precautions with any wood stove or chimney installation.

## CHIMNEY FIRES AND WHAT TO DO ABOUT THEM

Your Selkirk Model CF Chimney is not intended or designed for use as a combustion or fire chamber. It is very easy to overfire your woodburning appliance with kindling, scrap lumber, brush or any fast burning fuel. This can produce flames and high temperatures all the way up the chimney, and may cause chimney damage.

If you see your appliance or the smoke pipe glowing red, you are risking chimney damage, or a fire. The creosote may be burning inside the chimney. If you see flames coming out of the top, you are either overfiring or there is a chimney fire.

If the fire in your heater has gotten out of control, or if you suspect a chimney fire for any reason, follow these steps:

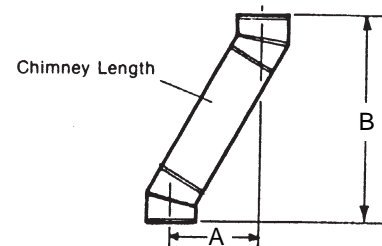
1. Immediately close all dampers and/or air entrance openings to your appliance. This includes doors on Franklin type stoves. Block off fireplace openings.
2. Alert your family to the possible danger.
3. Inspect your appliance and chimney surroundings for possible fire. If in doubt, alert your fire department.
4. Do not continue to use your appliance until it and your chimney have been thoroughly inspected. Overheating can cause metal parts to expand, buckle and crack. If you are not certain, have a qualified heating man disassemble all parts so they can be inspected and replaced.
5. Do not use salt or water on the fire in your appliance. Salt is corrosive and water will cause a danger steam explosion. You might be able to control the fire by using ashes, sand or baking soda, since baking soda is an ingredient used for dry chemical fire extinguishers.
6. After a chimney fire, when it is safe to do so, check internal locations such as the attic and under the roof and keep watching for two or three hours. There may be delayed smoldering and subsequent ignition, even if the fire inside the chimney has been controlled.

Model CF Chimney			
Inside Diameter	6"	7"	8"
Outside Diameter	267mm (10-1/2")	299mm (11-3/4")	330mm (13")
Enclosure Framing (Square)	369mm (14-1/2")	400mm (15-3/4")	432mm (17")
* Ceiling Support Framing (Square)	362mm (14-1/4")	362mm (14-1/4")	362mm (14-1/4")
Approx. weight kg/m (lbs/ft.)	11.5 (8)	13.5 (9)	15.5 (10.5)
Maximum Height for all supporting methods			
Ceiling Support Package	12m (40')		} All Sizes
Interior Resupport Assembly/ Offset Support	9 m (30')		
Wall Support Package	12 m (40')		
Roof Support	9 m (30')		
Minimum Clearance to combustibles 50 mm (2") all sizes			
* The clearance to combustibles obtained with a correctly installed Ceiling Support Assembly in the framed opening specified has been tested. The 2" clearance does not apply at this location.			

## CHIMNEY OFFSETS:

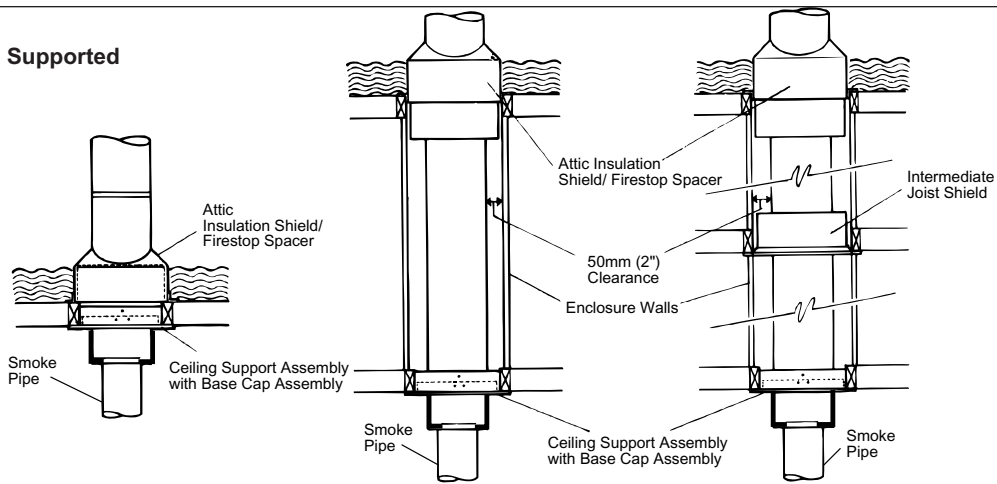
One pair of (2) 15° or 30° elbows can be used to provide a sloped offset. The maximum permissible angle with solid fuel installation is 30 degrees.

An offset data table is supplied to determine the offset desired and the offset height.



Elbow	Length	6" Dia		7" Dia		8" Dia	
		A	B	A	B	A	B
2 x 15°	9"	76mm (3%)	457mm (18½")	473mm (3-5/8")	400mm (18-7/8")	473mm (3-5/8")	483mm (19¼")
2 x 15°	12"	102mm (4½")	191mm (20-3/8")	105mm (4-1/8")	508mm (20¾")	112mm (4-1/8")	530mm (20-7/8")
2 x 15°	18"	143mm (5-5/8")	714mm (28-1/8")	127mm (5¼")	660mm (26½")	127mm (5¼")	660mm (26¾")
2 x 15°	36"	264mm (10-3/8")	1114mm (43-7/8")	254mm (10½")	1121mm (44-1/8")	254mm (10½")	1118mm (44½")
2 x 30°	9"	187mm (7-3/8")	495mm (19-1/2")	203mm (8")	537mm (21-1/8")	200mm (7-7/8")	543mm (21-3/8")
2 x 30°	12"	225mm (8-7/8")	559mm (22")	235mm (9-1/4")	600mm (23-5/8")	238mm (9-3/8")	608mm (23-7/8")
2 x 30°	18"	302mm (11-7/8")	695mm (27-3/8")	311mm (12-1/4")	737mm (29")	314mm (12-3/8")	743mm (29-1/4")
2 x 30°	36"	530mm (20-7/8")	1089mm (42-7/8")	540mm (21-1/4")	1130mm (44-1/2")	543mm (21-3/8")	1137mm (44-3/4")

**Figure 4.**  
**Typical Ceiling Supported**  
**Installations**



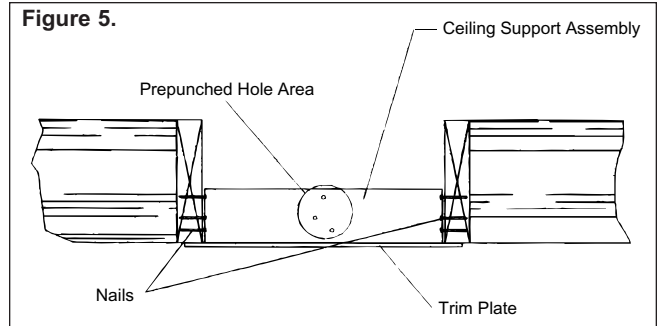
**CEILING SUPPORT ASSEMBLY** (See Figure 4)

1. Totally frame (all 4 sides) a level square opening with inside dimensions 362mm (14 1/4") square.
2. With the Lower Bucket removed, place the Ceiling Support Assembly into the framed opening from below.
3. Drive one nail, 1-1/2" common or spiral, part way into each of the four (4) nailing areas of the support. Check that the trim plate is level and flush. (Figure 5)
4. Finish nailing through all pre punched holes. (12 nails total)
5. Replace the Lower Bucket. Insert the Basecap Assembly in the bottom of the first chimney length (Figure 6).
6. Lower the first chimney length into the Lower Bucket. Ensure the Basecap Assembly is located inside the base of the chimney and the chimney length rests on the Lower Bucket. (Figure 6 & 7)

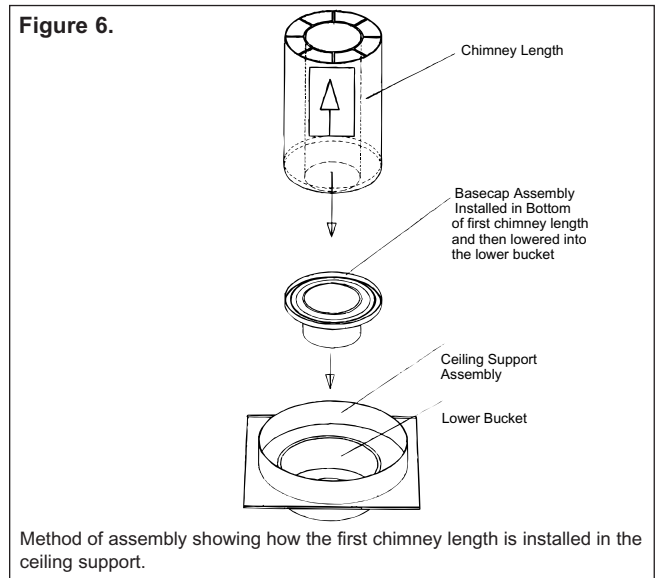
**NOTE: Any length of CF Chimney can be used. There is no special "starter" length required with this Ceiling Support.**

7. Additional chimney lengths may now be installed above this support to a total height of 12 m (40").
8. Continue the chimney installation as specified in the CF Chimney Installation Instructions.

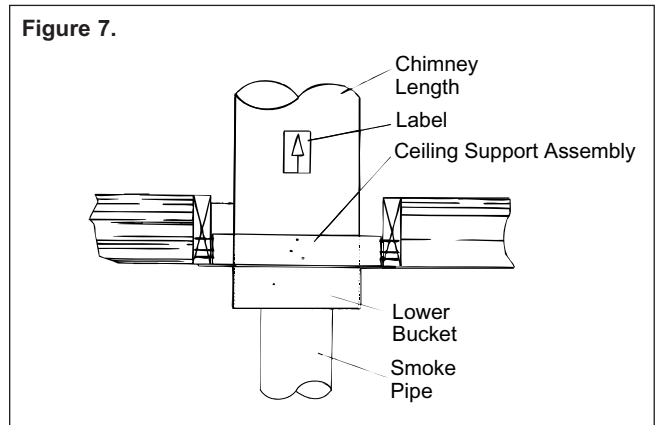
**Figure 5.**



**Figure 6.**



**Figure 7.**



## SMOKE PIPE ADAPTER INSTALLATION:

1. The stub end of the adapter is intended to fit inside of the smoke pipe from a solid fuel appliance, thus preventing condensate drips at the chimney connection. See Figure 8.
2. Secure the smoke pipe from the appliance to the smoke pipe adapter using 3 sheet metal screws per joint.

**IMPORTANT:** CF chimney ceiling supports have been temperature tested using a vertical single wall connector. Ceiling surface temperatures within and around the support were within limits allowable in accordance with ULC Standard S629. These tests establish that connector clearances to combustible may be less than those permitted for untested connector installations.

## INTERMEDIATE JOIST SHIELD INSTALLATION (See Figure 9)

This shield protects and firestops the floor joist of a house where there is no insulation resting above the floor nor any intention of insulation being put in.

1. Fully frame a level square opening (all four sides) for 50 mm (2") clearance from the outside of the chimney to the inside of the frame.

- 6" – square opening 369 mm (14 1/2")
- 7" – square opening 400 mm (15 3/4")
- 8" – square opening 432 mm (17")

2. Place the joist shield up into the framed opening.
3. Nail the side flanges into the framing or ceiling for stability.
4. If the framed opening is larger than necessary, the joist shield outer edges must be extended by appropriate means (attaching metal plates, 28 gauge galvanized steel or heavier) to completely block the framed opening from any vertical air flow around the chimney (chase installation).
5. Ceiling material can be placed over the joist shield edges, provided 50 mm (2") minimum clearance is maintained from the chimney pipe.
6. Enclose the chimney when accessible to prevent any accidental contact with the chimney.

## INSTALLATION OF THE ATTIC INSULATION SHIELD/FIRESTOP SPACER:

This shield has three main components and is very versatile, as will be illustrated below. The shield must be used at a ceiling level entering an attic to prevent insulation from coming into contact with the chimney. It also firestops this level and because it is a firestop, DO NOT CUT the upper box.

1. Fully frame a level square opening (all four sides) for 50 mm (2") clearance from the outside of the chimney to the inside of the frame.

- 6" – square opening 369 mm (14 1/2")
- 7" – square opening 400 mm (15 3/4")
- 8" – square opening 432 mm (17")

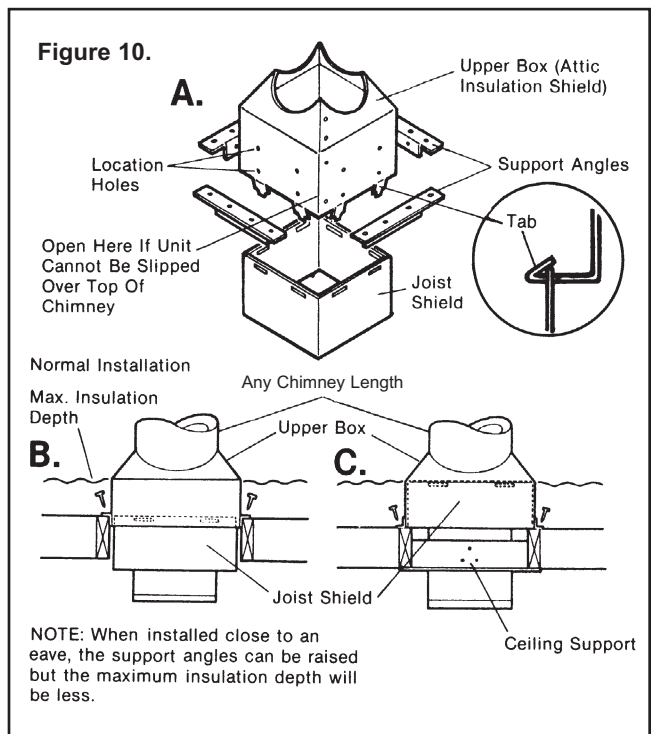
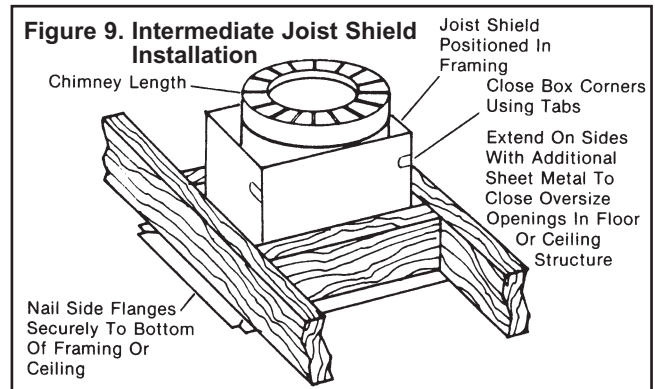
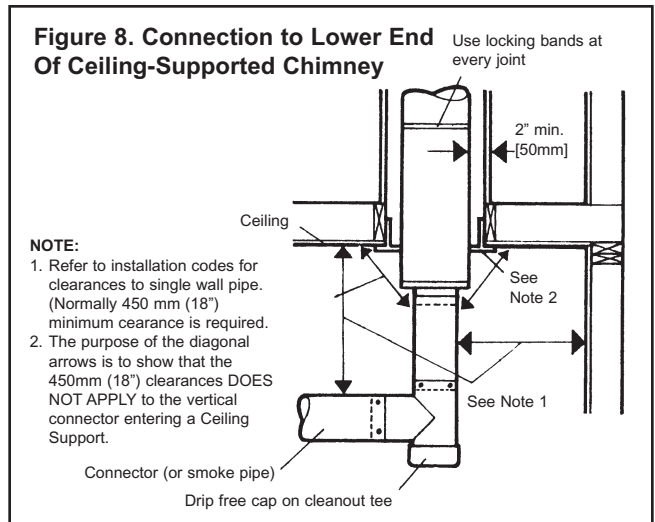
2. Remove the joist shield from the inside of the attic insulation shield (upper box).
3. Attach the joist shield to the inside tabs of the upper box. Bend the tabs up to secure the two together.

4. Place the support angles in the most convenient set of holes provided (with overlapping edges up, Figures 10A & B) and lower the complete assembly over the chimney. If necessary, unscrew the assembly to surround the chimney.

5. Nail securely into place on all four sides.

6. If the attic insulation shield (upper box) is to be used over a ceiling support, leave the joist shield inside the upper box. The support angles can then be installed as shown in Figure 10C.

**NOTE:** It is mandatory that an attic insulation shield be used.



## INSTALLED ELBOWS & INTERIOR RESUPPORT ASSEMBLY / OFFSET SUPPORT INSTALLATION (See Figure 11)

Two pairs of (four) 15 or 30 degree elbows may be used to provide an offset in order to avoid cutting of joists and to clear other obstructions. Offsets are within the house envelope only.

The Maximum Permissible Angle With Solid Fuel Installation is 30 Degrees.

1. The last vertical run of chimney above an offset must be resupported using an Interior Resupport Assembly/Offset Support.
2. Securely clamp it to the pipe just above a locking band.
3. The straps are then run along the OUTSIDE of the joists and nailed to them using 1 1/2" nails, 2 per strap.

The weight carrying capacity of the support, which depends on the angle of the straps, and the security of attachment is adequate for 9 m (30') of Model CF Chimney pipe.

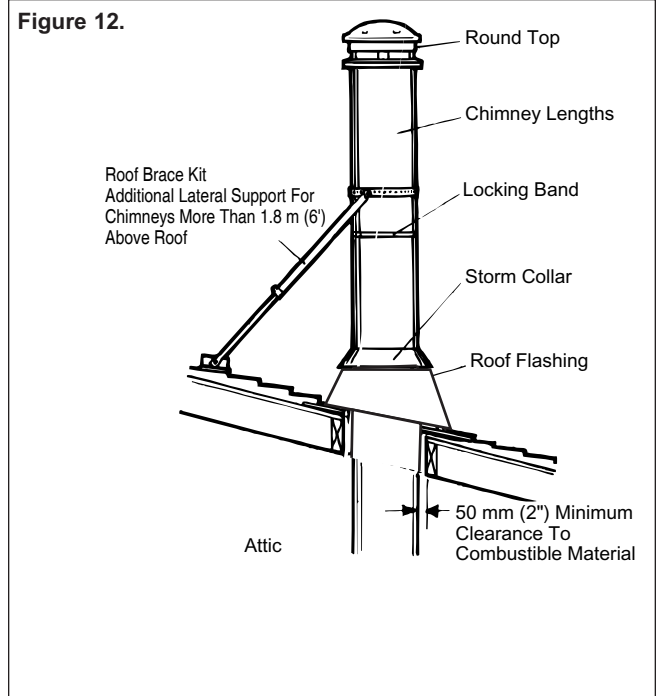
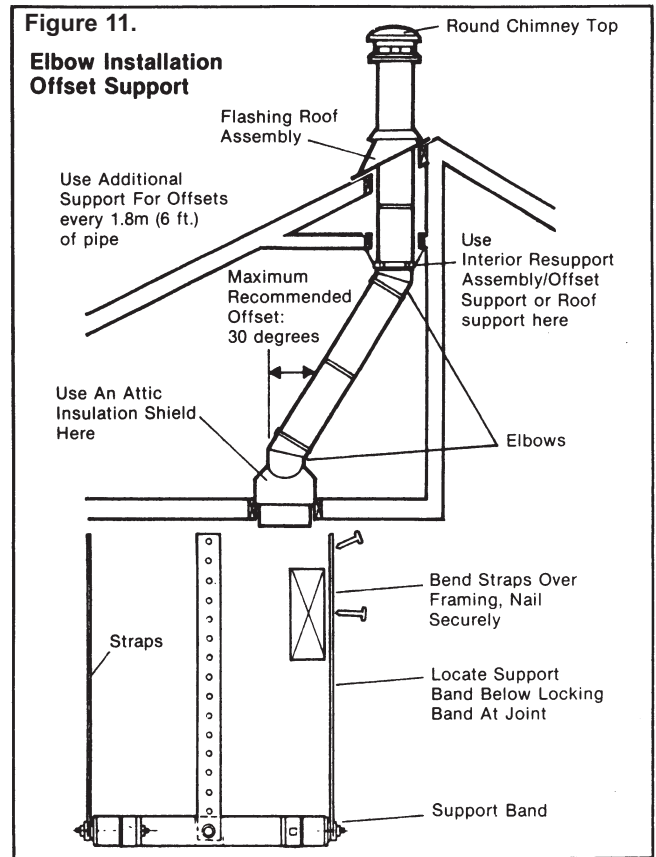
### ENCLOSURE OF CHIMNEY:

The chimney must be enclosed when installed in an accessible area to prevent damage and personal contact.

Enclosure walls should have a fire rating equal to or greater than that required for the floors or ceilings through which the chimney passes except in single or two family dwellings. Remember to maintain a 50 mm (2") minimum air space clearance to any combustible material.

### ROOF FLASHING INSTALLATION (See Figure 12)

1. Once you have marked where the chimney will penetrate through the roof, center, position and prepare the roof area.
2. Frame a RECTANGULAR opening to suit the pitch of the roof and ensure that a 50mm (2") clearance is maintained to all combustibles.
3. Finish the chimney off to its proper height. Chimneys are required to extend at least 900 mm (3') above the highest point where they pass through the roof of a building and at least 600 mm (2') higher than any portion of a building within 3 m (10').
4. Place the roof flashing suitable for the roof pitch over the chimney casing and nail (1 1/2" common or spiral nails) securely to the roof, top end (nearest roof peak) UNDER shingles, lower end OVER shingles to provide a watershed.
5. Apply a 1/4" bead of suitable grey or white caulking compound just above the top of the flashing cone on the chimney casing. Slide the storm collar downward through the applied compound and into position to ensure a waterproof joint. Apply additional caulking compound above the storm collar as required.
6. If the chimney extends more than 1.8 m (6') above the roof, a roof brace kit is required. See installation instructions packaged with it.
7. Install a round top (see instructions packaged with the round top). The round top prevents entry of moisture which might lead to premature deterioration of the chimney.
8. The chimney may be painted with a heat resistant paint. To improve adhesion to the Model CF chimney, degrease, dry and follow the paint manufacturer's application instructions. Refer to their Paint Warranty (if applicable).



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