

**INSTALLATION INSTRUCTIONS
&
MAINTENANCE GUIDE**

UltimateOne™

ALL-FUEL CHIMNEY FOR HEARTH PROFESSIONALS

A MAJOR CAUSE OF CHIMNEY-RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS.

IT IS OF THE UTMOST IMPORTANCE THAT THIS CHIMNEY BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING YOUR INSTALLATION. FAILURE TO INSTALL THIS SYSTEM IN ACCORDANCE WITH THESE INSTRUCTIONS WILL VOID THE CONDITIONS OF CERTIFICATION AND THE MANUFACTURER'S WARRANTY.



Intertek

LISTED

Installer: It is of the utmost importance that these instructions are left with the homeowner.

Homeowner: Keep these instructions and maintenance guide in a safe place for future reference.

**Certified to
CAN/ULC-S629
CAN/ULC-S604
UL103 TYPE HT
Standards**

SELKIRK CANADA CORPORATION
950 South Service Rd., Second Floor,
Stoney Creek, ON L6E 6A2
1.888.SELKIRK (735.5475)

SELKIRK®

SELKIRK CORPORATION
5030 Corporate Exchange Blvd. SE,
Grand Rapids, MI 49512
1.800.992.VENT (8368)

P/N 37800001 - 04/26/2021

TABLE OF CONTENTS

TECHNICAL SPECIFICATION	
Product Details.....	3
Tested Temperatures.....	3
Framing Dimensions.....	3
Maximum Support Capacity.....	3
APPROVAL LABELS	
UltimateONE Listing Information.....	4
PRE-INSTALLATION GUIDELINES	
Safety Tips	5
Chimney Applications.....	5
Pre-Installation Guidelines.....	5
CHIMNEY INSTALLATION	
Joint Security.....	6
Ceiling Supports.....	6-10
Smoke Pipe Adapter.....	11
Firestop/Joist Shield.....	11-12
Supplemental Radiation Shields.....	12-13
Attic Insulation Shields.....	14-15
Offset.....	15-16
Adjustable Length.....	16
Wall Supports, Wall Thimble.....	16-19
Wall Channel.....	19
Wall Bands.....	19-20
Cathedral and Pitched Ceiling.....	21-22
Universal Roof Support.....	22-23
Roof Flashings.....	23-24
Roof Brace Kit.....	24-25
Round Top Termination.....	25
Spark Arrester.....	26
Ceiling Insulation Shield.....	26
Insulated Wall Plug and Chase Plug.....	27
Anchor Plate.....	28
CHIMNEY MAINTENANCE	
Maintenance and Cleaning of Chimney.....	29
Knowing What and How to Burn.....	30
INFORMATION	
Replacement Parts.....	31-32
Offset Chart 1.....	33
Chimney Height Chart 2.....	34
Installation Information.....	35

CozyCabin.com 518-623-4349

UltimateONE TECHNICAL SPECIFICATION

Congratulations on purchasing the Selkirk UltimateONE Chimney System!

UltimateONE features an advanced engineering design with the latest modern technology. A lifetime of comfort and enjoyment can be obtained from your UltimateONE provided that it is installed, used and maintained properly. Your UltimateONE must be installed in accordance with the following installation instructions, so it is strongly advised that all instructions be read very carefully before proceeding.



WARNING!

Failure to follow the installation instructions could cause **FIRE, CARBON MONOXIDE POISONING, OR DEATH**. If you are unsure of installation requirements, call the Telephone Number listed on these instructions, or visit www.selkirkcorp.com

PRODUCT DETAILS

MATERIALS:

Exterior (Outer casing): .016" Type 304 Stainless Steel

Interior (Flue): .016" Type 304 Stainless Steel

Insulation Features:

- Bulk Pack
- Eco-Friendly
- High Temperature Capable
- High Insulating Value

Inside Diameter	6"	7"	8"
Outside diameter	8"	9"	10"
Approx. Weight/Foot (lb/ft.)	4.8	5.5	6.2
Clearance to combustibles	2" (50 mm) or as established by Factory-Built Supports or Firestops		

TESTED TEMPERATURES	USA (UL 103 HT)	CANADA (ULC-S629)	CANADA (ULC-S604)
Maximum continuous flue gas temperature	1000°F	650°C / 1200°F	540°C / 1000°F
Brief forced firing (1 hour max)	1400°F	925°C / 1700°F	760°C / 1400°F
Tested to: (3 x 10 minutes - USA) (3 x 30 minutes - CANADA)	2100°F	1150°C / 2100°F	925°C / 1700°F

Chimney Flue Diameter	*Round and Square Ceiling Support/ **Cathedral Support		Square Ceiling Support with Attic Insulation Shield (SCSC)	Firestop Joist Shield (JS & JS-C)	Wall Support (WSP)	Insulated Wall Thimble	All Other Framing
	*Round (RBCS)	*Square (SBCS)					
6"	10-3/8" x 10-3/8" 264mm x 264mm	10-3/8" x 10-3/8" 264mm x 264mm	12-3/8" x 12-3/8" 314mm x 314mm	12" x 12" 305mm x 305mm	16" on Center	12" x 12" 305mm x 305mm	12" x 12" 305mm x 305mm
7"	11-3/8" x 11-3/8" 289mm x 289mm	11-3/8" x 11-3/8" 289mm x 289mm	13-3/8" x 13-3/8" 340mm x 340mm	13" x 13" 330mm x 330mm	16" on Center	13" x 13" 330mm x 330mm	13" x 13" 330mm x 330mm
8"	12-3/8" x 12-3/8" 314mm x 314mm	12-3/8" x 12-3/8" 314mm x 314mm	14-3/8" x 14-3/8" 365mm x 365mm	14" x 14" 356mm x 356mm	16" on Center	14" x 14" 356mm x 356mm	14" x 14" 356mm x 356mm

*Note: The clearance to combustibles obtained with a correctly installed UltimateONE Round or Square Ceiling / Cathedral Support in the framed opening specified above has been tested. The 2 inch clearance does not apply at this location.

NOTE: The distance between a vertical stove pipe and the ceiling may be less than 18" when it is installed with UltimateONE Round or Square Ceiling / Cathedral Support. The reduced clearance in these areas has been confirmed as part of the chimney safety testing.

**Note: For a Cathedral sloped ceiling application a rectangular opening that is longer in the sloped direction must be prepared to suit the pitch of the ceiling / roof.

Chimney Flue Diameter	Ceiling / Cathedral Supports (RBCS and SBCS)		Square Ceiling Support with Attic Insulation Shield (SCSC)	Universal Roof Support	Universal Interior Resupport	Wall Support (WSP)		Universal Extended Wall Support/Wall ReSupport
	Support Band	Brackets				2" From Wall	6" From Wall	
6"	26 feet (7.9 m)	26 feet (7.9 m)	20 feet (6.1 m)	30 feet (9.1 m)	18 feet (5.5 m)	47ft (14.3 m)	36 ft (11 m)	28 feet (8.5 m)
7"	23 feet (7.0 m)	23 feet (7.0 m)				41 ft (12.5 m)	32 ft (9.8 m)	25 feet (7.6 m)
8"	20 feet (6.1 m)	20 feet (6.1 m)				36 ft (11 m)	28 ft (8.5 m)	20 feet (7.3 m)

Maximum Height of Chimney: Based on information supplied by the appliance manufacturer.

Read These Instructions Before Installing your UltimateONE chimney

SAFETY TIPS - GENERAL

It is important that these installation instructions are followed. This product should be installed by professionals who are certified in Canada by WETT (Wood Energy Technology Transfer) or l'APC (l'association des professionnels du chauffage) or in the U.S.A. by NFI (National Fireplace Institute).

The following installation instructions will assist in conducting a safe, efficient, dependable installation of your chimney system. Use only Selkirk certified parts.

CHIMNEY APPLICATIONS

CANADA

Your UltimateONE chimney has been tested per CAN/ULC-S629 Standard for 650°C Factory-Built Chimneys. As such it is code approved for connection to solid, liquid or gas fueled residential type appliances and building heating appliances with maximum continuous flue gas temperatures of 650°C (1200°F). The installation should be in accordance with the Installation Code CAN/CSA-B365 (Installation Code for Solid-Fuel-Burning Appliances and Equipment). The National Building Code of Canada and Provincial Building Code, etc. should also be consulted.

UltimateONE has also been tested per CAN/ULC-S604 Standard for Factory-Built Type A Chimneys for connection to gas and oil fired appliances such as furnace, water heater, and other appliances with continuous flue gas temperatures up to 540°C (1000°F).

U.S.A.

Your UltimateONE chimney has been tested per UL-103 Standard for Factory-Built Chimneys for Residential Type and Building Heating Appliances as "Type HT". As such it is code approved for connection to solid, liquid or gas fueled residential type appliances and building heating appliances with maximum continuous flue gases temperatures of 1000°F.

The installation should be in accordance with NFPA 211 (Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances), and / or local and regional codes such as the International Mechanical Code, Uniform Mechanical Code, etc.

FACTORY BUILT FIREPLACES

UltimateONE may also be used with specific factory-built fireplaces listed to UL 127 or CAN/ULC-S610 when specified in the fireplace manufacturer's installation instructions.

UltimateONE

PRE-INSTALLATION GUIDELINES

Your UltimateOne chimney and connecting stove pipe diameter should be sized in accordance with the appliance manufacturer's recommendations.

Your chimney has been tested, and listed using all of the supports, shields, etc., described herein. The safe operation of a factory-built chimney assembly is based on the use of parts supplied by Selkirk. The performance of the assembly may be affected if the combination of these parts is not used in actual building construction. Acceptance of the assembly is void if the installation instructions are not followed.

Deletion or modification of any of the required parts or materials may seriously impair the safety of your installation and void the certification and / or warranty of this chimney.

Plan the installation of your appliance and chimney in such a way that both your chimney and your chimney connector (stovepipe) run is as short and straight as possible. By having too long and / or multiple offset installations you can reduce system draft which can affect the operation of your appliance and / or the chimney system. The chimney should be located within the building so as to avoid cutting or altering load bearing members such as joists, rafters, studs, etc. If you have to cut or alter an existing load bearing member, special reframing methods are required which often include doubling of adjacent members. If such a case arises, contact your local Building Code Official regarding local regulations and proper installation methods.

Prior to starting the installation, contact the local building officials in your area, to determine the need for any necessary building permits, and to ensure that your installation will conform with all local, provincial / state and national code requirements. Contact your insurance provider to determine if an inspection by a Certified Professional is required.

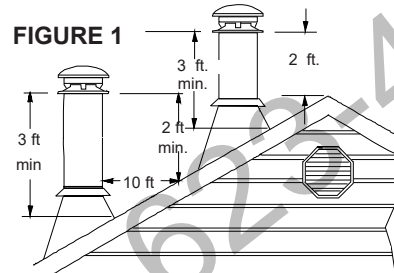
Sections of the UltimateOne chimney which pass through accessible areas of the building such as closets, storage areas, occupied spaces or any place where the surface of the chimney could be contacted by persons or combustible materials **must** be enclosed in a chase (framed in). The chase may be fabricated using standard building materials. Drywall mounted on 2" x 4" studs is typically used in this situation. Except for installation in single and two family dwellings, factory-built chimneys shall be enclosed with approved walls having a fire resistance rating equal or greater than that of the floor, wall or roof assemblies through which they pass.

The minimum airspace clearance between the outer wall of the chimney and the enclosure shall be at least 2 inches.

MAINTAIN A 2" MINIMUM AIR SPACE CLEARANCE BETWEEN INSULATED CHIMNEY SECTIONS AND COMBUSTIBLE MATERIALS.

Authorities require that the chimney extend not less than 3 feet (900 mm) above the highest point where it passes through the roof of a building and not less than 2 feet (600 mm) above any portion of the building within 10 feet (3 m). See Figure 1 and Chart 2.

FIGURE 1



Be sure that ladders are in good condition and always rest on a level firm surface.

Be sure that electrically powered tools are properly grounded.

The ideal location for your chimney is within the building envelope. In cold climates, the use of external chimneys may result in operational problems such as poor draft, excessive condensation of combustion products and rapid accumulation of creosote. Under these circumstances, installation of the chimney within the building is strongly recommended.

If the chimney must be installed on an exterior wall it is recommended that the chimney be enclosed below the roof line to protect the chimney from cold outdoor temperatures. This may help reduce condensation, creosote formation and enhance draft. Provide an access door by the Tee Cap for chimney inspection and cleaning. The exterior enclosure may be insulated, maintaining the required minimum air space clearance of 2" (50mm) to any part of the chimney. Consult local codes for cold climate applications.

Do **not** install the chimney directly at the outlet of the appliance. Interconnecting smoke pipe is required unless the appliance is specifically approved for direct connection to a chimney.

Install inter-connecting stove pipe following appliance manufacturer's instructions and appropriate code requirements keeping in mind that the stove pipe run should be as short and

We recommend that this product be installed by **WETT** and **NFI Certified Professionals**.

WARNING: Risk of fire. Do not place any insulating materials or run any electrical wiring within the required air space clearance surrounding the chimney.

WARNING! Wear safety gloves when handling sheet metal parts with sharp edges.

GENERAL CHIMNEY INFORMATION - CEILING SUPPORT INSTALLATION

WARNING! Maintain the required airspace clearance of 2" (50mm) to all combustible materials.

ATTENTION! Locate appliance where the chimney will pass through the house without cutting a floor or ceiling joist.

ATTENTION! Locking Bands must be installed at each joint.

straight as possible and secured in place with a minimum of 3 sheet metal screws per joint. Generally, for a wood burning appliance installation, an 18" minimum clearance to combustibles must be maintained for a single wall stove pipe. NOTE: The exception to this is a double wall stove pipe, such as Selkirk's Model DCC which can be installed at reduced clearances to combustibles. See separate installation instructions for more details.

There should be no draft regulators on solid fuel equipment or in smoke pipe connectors.

Situate the chimney in the structure so that it can be installed without cutting joists, sills, plates or load bearing partitions or members. If you do, follow local codes.

Connect only one solid fuel burning appliance to a chimney.

A minimum smoke pipe connector length of 3 feet (1 m) between appliance and chimney is recommended.

TYPES OF APPLIANCES

Use only with an appliance listed by a recognized testing authority such as Underwriters Laboratories Inc., Underwriters Laboratories of Canada, Intertek Testing Services, Warnock Hersey, OMNI or CSA. EPA Approved appliances are highly recommended.

The flue diameter of gas or oil fired appliances should comply with the appropriate Installation Codes such as CAN/CSA-B139 (oil) or CAN/CSA-B149 (gas) when installed in Canada, and the National Fuel Gas Code NFPA 54 / ANSI Z223.1 (gas) and NFPA 31 (oil) in the United States.

TOOLS

Your UltimateONE chimney system is designed for installation using standard building materials and procedures. The following tools may be required:

- SAFETY GLOVES & GOGGLES
- HAMMER AND NAILS
- TIN SNIPS
- TAPE MEASURE
- SCREWDRIVER AND PLIERS
- PLUMB LINE AND LEVEL
- SQUARE
- KEYHOLE SAW OR POWER JIG SAW
- CAULKING GUN

Other tools or equipment may be required, depending on your chimney location and the structure in which it is to be installed.

ULTIMATEONE JOINT SECURITY:

High internal gas temperatures in a chimney force the internal pipe to expand.

This, in turn, could cause the joints to separate if they are not securely locked.

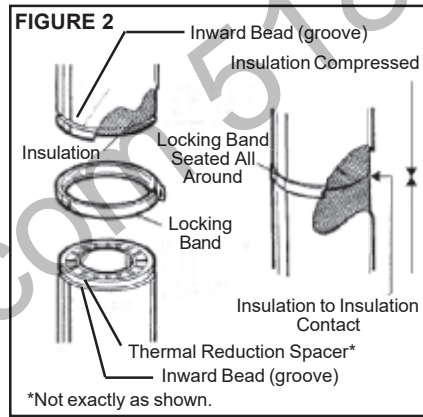
A chimney cleaning brush may also cause the joints to separate if not securely locked.

INSULATION COMPRESSION OF THE UltimateONE CHIMNEY

Before assembling chimney lengths to one another, the insulation on the inlet end (held in place with a plastic retainer) should be below the inward bead so that it can compress during assembly. The outlet end, should be full of insulation (held in place with a white paper retainer and the thermal reduction spacer) to the top of the length. Once you have assembled the lengths together install a Locking Band.

With the insulation being compressed, this will provide insulation to insulation contact (see Figure 2).

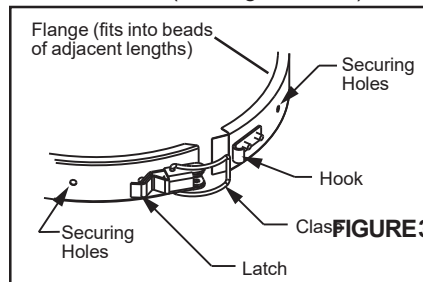
NOTE: When the insulation retainers melt or volatilize during high temperature operation, the compressed insulation will fill in.



INSTALLING THE LOCKING BAND:

NOTE: The chimney pipe and fittings must be assembled only with the Locking Bands as furnished, except as stated in step 4.

1. Engage adjacent chimney lengths until they bottom out, then simply seat the Locking Band in the bead of each chimney.
2. Engage the clasp into the hook then close the latch (see Figure 2 & 3).



3. To remove the Locking Band, open the latch and disengage the clasp from the hook.

4. At all joints forming an offset or suspended Lengths below a Roof Support, the Locking Band(s) and the joints must be fastened using two (2) #6 x 1/2" stainless steel sheet metal screws through the 2 securing holes located on each side of the latch (see Figure 3).

FRAMING DETAILS

Plan your installation carefully. Locate the chimney in a convenient place as near as possible to the appliance outlet. If possible, position the stove so that the flue outlet is centered between joists or rafters. Drop a plumb line to the center of the flue outlet and mark this center point on the ceiling. Lay out and frame in all openings ensuring the specified 2" air space clearance to combustibles is maintained. Refer to Table 1 or applicable Tables for framing dimensions and mark the appropriate cutting lines around the center point.

Make sure that the chimney will not intersect a structural member when passing through a wall, ceiling, roof or floor.

If the chimney is going to intersect a structural member, either offset the chimney or move the appliance so the structural integrity of the house will be maintained.

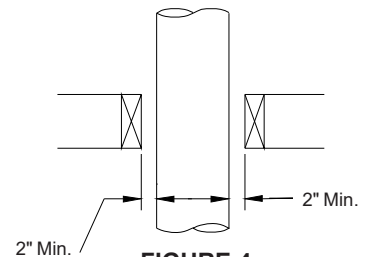


FIGURE 4

Typical Joist Framing

All openings should be square (all four sides), plumb and in perfect alignment with each other (see Figure 4).

For sloping roofs and/or ceilings, ensure that the framing dimension is measured in the horizontal plane (see Figure 5).

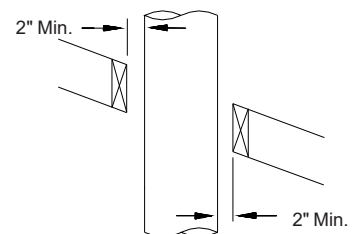


FIGURE 5

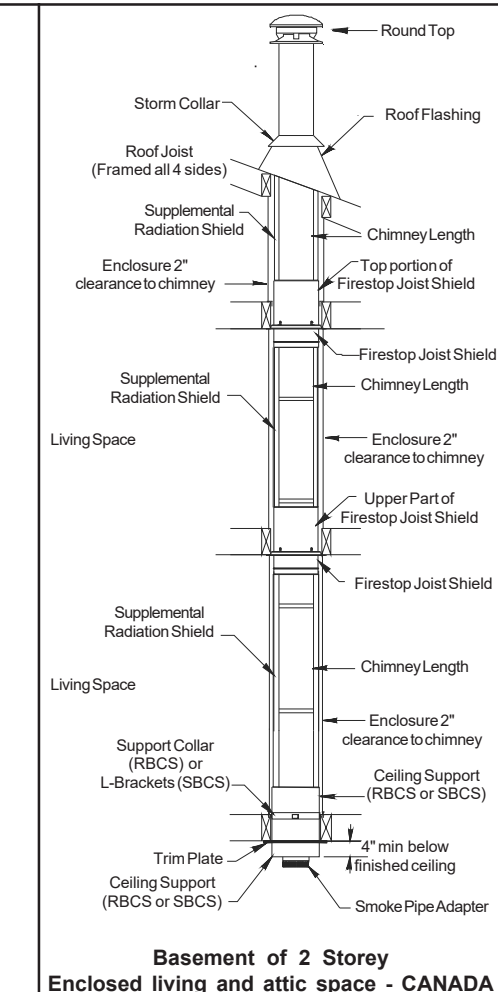
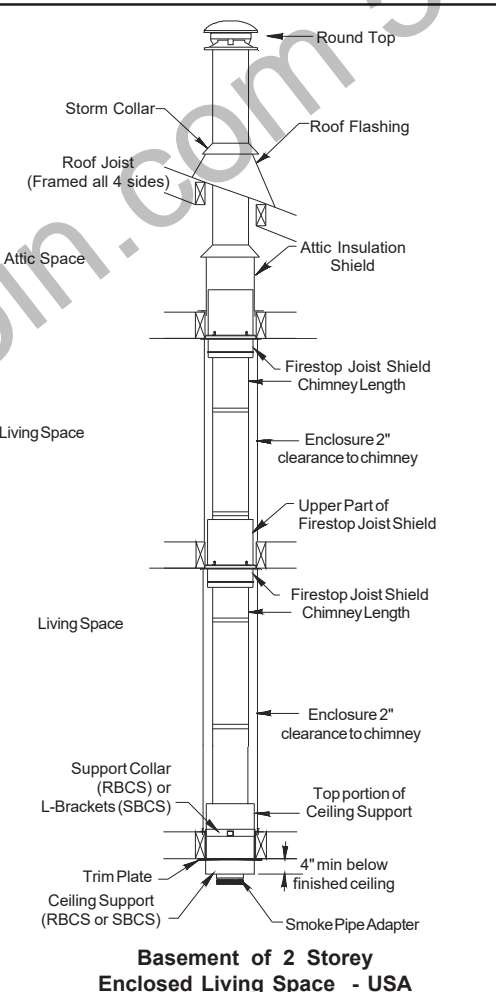
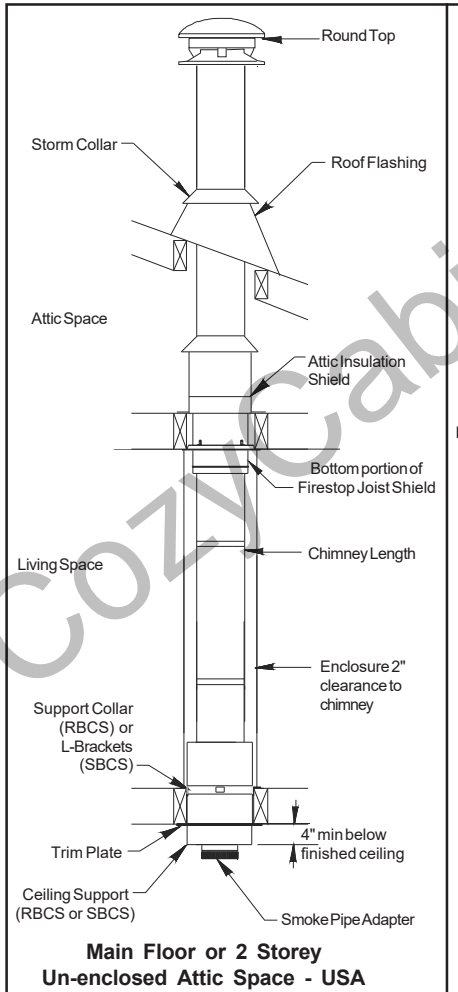
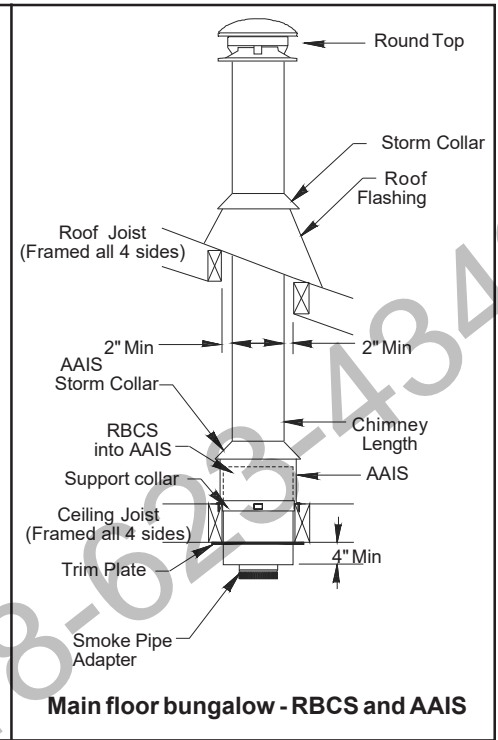
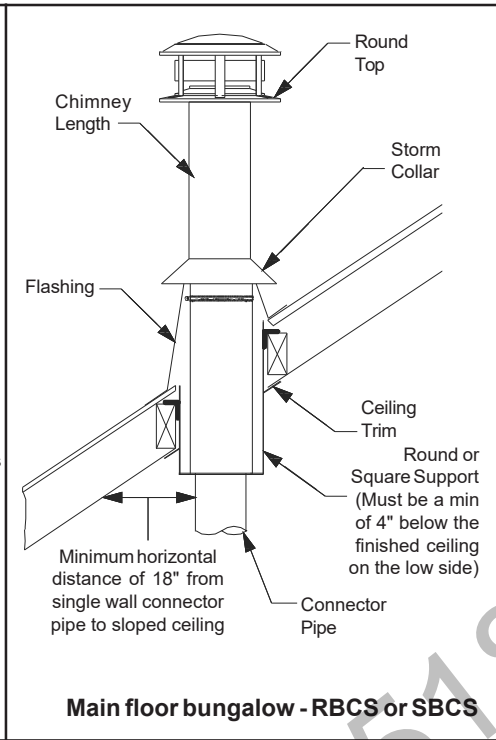
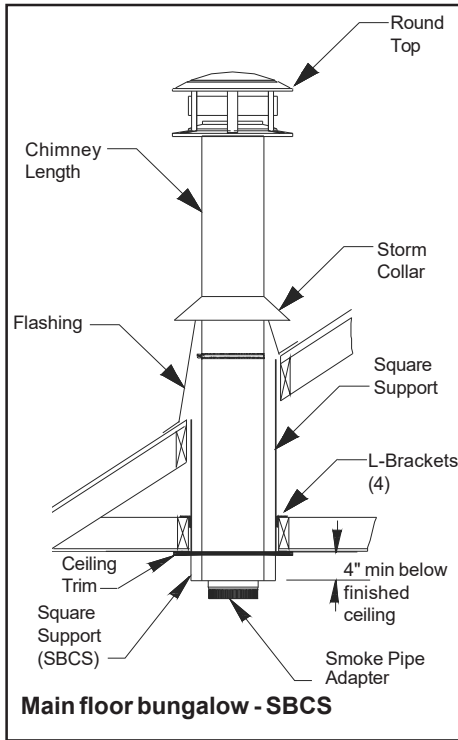
Typical Roof Joist Framing

CEILING SUPPORTS - APPLICATION

See Table 2 on the Specification Page for maximum support capacity of the UltimateONE Round (RBCS), Square (SBCS) or Square with built-in Attic Insulation Shield (SCSC) supports.

TYPES OF CEILING SUPPORT INSTALLATIONS

These Illustrations shows a variety of installations with a RBCS, SBCS and SCSC, from a main floor to multiple floors applications. See the next pages for information on each of these supports.



ATTENTION! The bottom of the RBCS, SBCS and SCSC Ceiling Supports must be installed a minimum of 4" extending into the room below the finished ceiling level.

(RBCS) ROUND CEILING / CATHEDRAL SUPPORT INSTALLATION

Round Ceiling Support (RBCS):

The Round Support (RBCS) is a reduced clearance support. The RBCS is supplied with a Support Collar, Smoke Pipe Adapter, black Ceiling Trim Plate and four (4) L-brackets, used when installed in a sloped ceiling or sloped roof. The overall height is 24 inches (610mm). An extension is available for steeper pitch application.

See Table 1 for the framing dimensions and Table 2 for the maximum supporting capacity.

Always install the RBCS so that it hangs a minimum of 4" (102mm) below the finished ceiling level including flat ceiling.

See Illustrations shown on page 7 and Figures 8, 10 and 12 for common types of ceiling support installations.

If the RBCS is installed in a cathedral/sloped ceiling, follow the instructions in the section entitled "CEILING SUPPORT - CATHEDRAL/PITCHED CEILING APPLICATIONS".

NOTE: If an attic space is immediately above a support, use the SCSC Square Ceiling Support instead as it is also an attic insulation shield. Refer to the SCSC section for more information.

NOTE: In Canada special supplemental shielding is required. See the following sections for installation procedures of these items:

- Joist Shield (JS-C)
- Supplemental Radiation Shield (RSRS & FSRS).

Installation of the RBCS:

See Table 1 for the framing dimensions and Table 2 for the maximum supporting capacity.

Cut and frame (on all 4 sides) the opening in the floor, ceiling and roof where the chimney will pass. All openings should be square (all four sides), plumb and in perfect alignment with each other. Ensure the framing dimension is measured in the horizontal plane (see Figure 4). Slide the Support Collar over the Round Support from the top or bottom making sure the four tabs are pointing upwards (see Figure 6).

Before securing the Support Collar in place measure to compensate for the thickness of the framing materials and the desired amount the Support will extend below the ceiling. The bottom of the Round Support must be installed a minimum of 4" (102mm) extending into the room below the finished ceiling level (see Figure 7b).

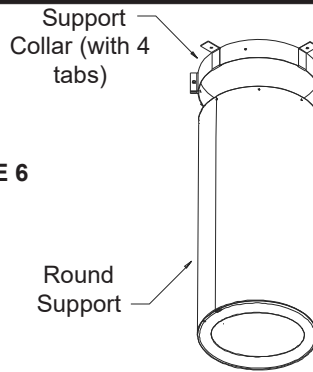


FIGURE 6

Fasten the Support Collar to the Round Support (see Figure 7a) with the four (4) self tapping sheet metal screws through pre-punched holes in the support collar and into the round support cylinder.

In a flat ceiling application the 4 L-brackets are not required and may be discarded.

Insert the Round Support either from above or below into the framed opening. If inserted from below rotate the Support so that the Support Collar tabs sit on top of the framing.

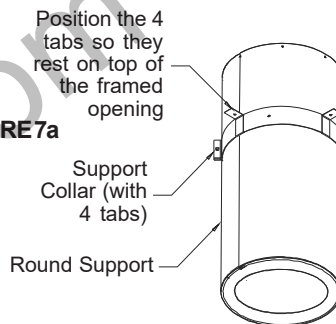


FIGURE 7a

Measure to compensate for the thickness of framing materials and desired extension down into the room (min of 4")

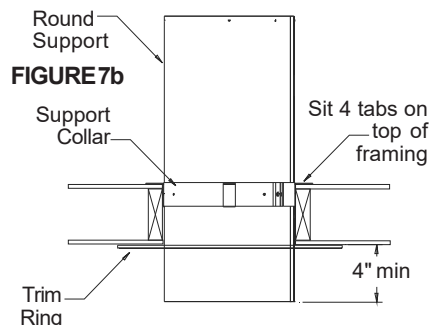


FIGURE 7b

Installation of the Round Ceiling Support - RBCS

NOTE: When the Round Ceiling / Cathedral Support is installed in a ceiling joist ensure the chimney has 2" clearance at the roof joist/truss. An optional Round Support Extension (RBCSE) is available. See CEILING / CATHEDRAL SUPPORT EXTENSION section in these instructions.

NOTE: UltimateONE is required to be enclosed when it passes through closets, storage areas, occupied spaces or any place where the surface of the chimney could be contacted by persons or combustible materials.

NOTE: When a Round Ceiling Support is installed in a ceiling with a fully open attic space immediately above as in Figure 8, install the Alternate Attic Insulation Shield (AAIS) as seen in Figure 8. See Alternate Attic Insulation Shield Section.

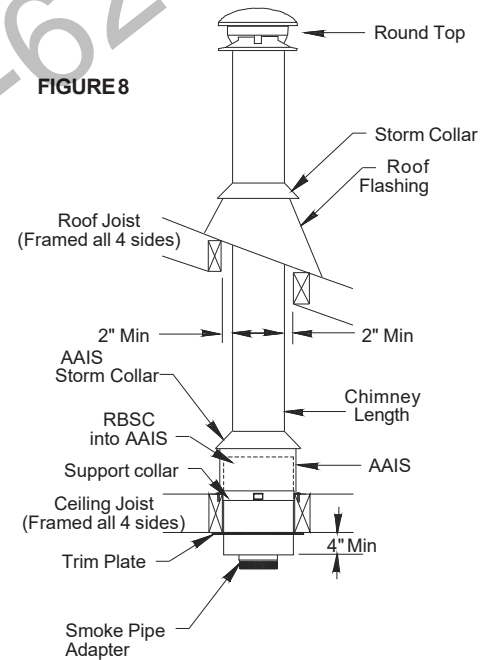


FIGURE 8

Main floor bungalow - RBCS and AAIS

In Canada, an enclosed chimney in a living space or in an attic space requires a Supplemental Radiation Shield; either Rigid (RSRS) or Flexible (FSRS). See SUPPLEMENTAL RADIATION SHIELDS (RSRS & FSRS) section.

NOTE: Supplemental Radiation Shields are not required for oil or gas burning appliances even where the chimney is enclosed.

For "Listed" Factory-built fireplaces requiring ULC-S629 listed chimneys, Supplemental Radiation Shields are required (unless the appliance manufacturers instructions state otherwise).

ATTENTION! UltimateONE must be enclosed when passing through closets, storage areas, occupied spaces or any place where the surface of the chimney could be contacted by persons or combustible materials.

WARNING! Proper Shielding must be installed at all floor and ceiling levels.

(SBCS) SQUARE CEILING / CATHEDRAL SUPPORT INSTALLATION

Square Ceiling Support (SBCS):

The Square Support (SBCS) is a reduced clearance support supplied with Smoke Pipe Adapter, two (2) black U-shaped Ceiling Trim Plate, fasteners and four (4) small L-brackets for attachment to framing members and may be adapted to sloped ceilings or roofs without framing a horizontal opening. It's overall height is also 24 inches (610mm).

To install as the primary support (above the room in which the appliance is installed) in a horizontal floor/ceiling or flat roof assembly:

1. Cut and frame (on all 4 sides) the holes in the floor / ceiling and roof where the chimney will pass. All openings should be square (all four sides), plumb and in perfect alignment with each other. **NOTE:** For sloping roofs and/or ceilings the framed opening will be rectangular. Insure that the framing dimension is measured in the horizontal plane (see Figure 9b). Refer to Table 1 for the required framing dimensions and Table 2 for the maximum supporting capacity.

NOTE: The 4 L-brackets mount on the outside of the box (at the desired elevation per Figure 9c) and will set on the top of the framed opening.

2. At the opening where the support will be installed:
 - a. Temporarily set one of the L-brackets at the midpoint location on the top of each side of the framed opening. The bracket should set on the top and extend down the front side of the framing members (see Figure 9a).

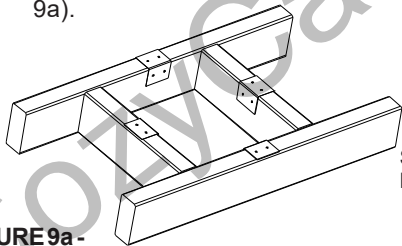


FIGURE 9a - Bracket Locations & Orientation - Centerpoint of Framed Opening

- b. Temporarily secure each bracket in place with a nail driven (only partially) through one of the pre-punched holes in the bracket down into the top side of the framed opening.

3. Place the Square Ceiling Support into the framed opening and temporarily center it, then adjust to the desired elevation - keeping in mind that the bottom of the box must extend down at

a minimum of 4" below the finished ceiling level on all sides.

4. Scribe a mark on the box along the top edge of each L-bracket. (If installing through the roof, extend the lines to the corners of the box for subsequent trimming of portions that would otherwise extend above the roof).

5. Remove the box and brackets. Using the scribed lines created previously, place a bracket on each of the outside faces of the box so that the top edge of the bend in the bracket is in alignment with the scribed line and the bracket is centered on the outside face of the box (see Figure 9c). Secure each bracket to the box (with two self-tapping, hex head screws) through the holes provided in the bracket and into the wall of the box.

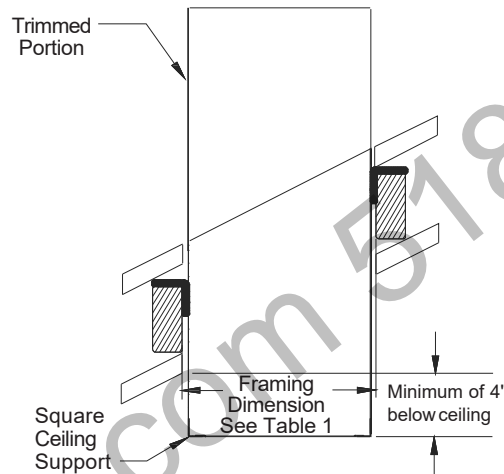


FIGURE 9b - Cross-section view Bracket Locations

Secure each bracket to the box (with two self-tapping, hex head screws) through the holes provided in the bracket and into the wall of the box.

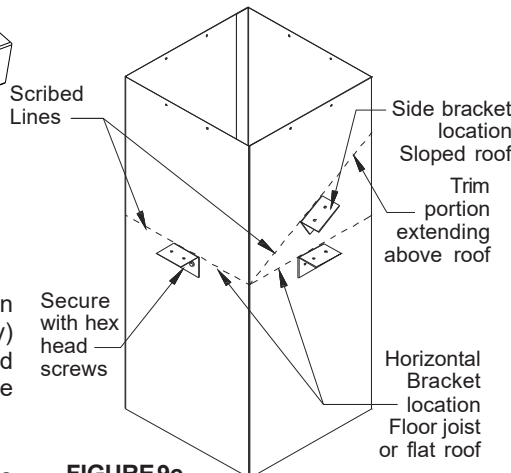


FIGURE 9c - Bracket Location on Ceiling Support

6. From the top, set the box back down into the framed opening so the L-brackets

again rest on the top surface of the framed opening and the box is now suspended in the opening. Check for proper fit, plumb and proper box extension (4" min) down through framing to or below the lowest ceiling level. Adjust as necessary.

7. If the SBCS is being installed in a flat or sloped roof, trim and remove the portion of the box above the lines that would otherwise extend above the roof.
8. Secure the brackets to the top side of the framed opening with minimum of two (2) 1/8" (3mm) shaft by 1-1/2" (38mm) long nails or wood screws per bracket.
9. At the location where the box penetrates the finished ceiling, fit the U-Shaped trim plates around the box and secure in place with small nails or screws through holes provided.

NOTE: The U-Shaped trim plates are used on opposite ends of the box to overlap and trim off the small gaps between the box and the finished ceiling material. Any small remaining gaps may be caulked and painted if desired.

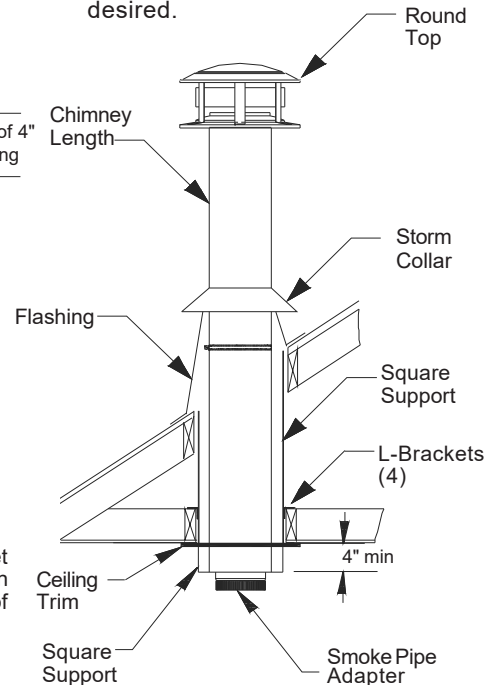


Figure 10 - SBCS installed in a flat ceiling application

The SBCS is now installed as a primary support and is ready to receive the chimney section with the Smoke Pipe Adapter in its base. See "Smoke Pipe Adapter" section.

An optional Square Support Extension (CSES) is available. See Ceiling / Cathedral Extension in the Cathedral Support section of these instructions.

ATTENTION! The Square Ceiling Support has separate L-Shaped brackets for attachment to framing members and may be adapted to sloped ceilings or roofs without framing a horizontal opening.

(SCSC) SQUARE CEILING SUPPORT WITH BUILT-IN AIS INSTALLATION

The SCSC provides a 2" clearance to combustibles and is designed to be used as an Attic Insulation Shield;

ONLY WHEN:

1. The attic space is immediately above the Ceiling Support;
2. The Ceiling Support must extend a minimum of 2" above the insulation zone requirement. Not to be less than 10 inches above the attic floor. Check with local codes for zone requirements;
3. The notched Storm Collar must be utilized.

NOTE: When the minimum height requirement cannot be attained, you must do one of the following:

- 1 - Add the optional Extension (SCSE) to the Ceiling Support with the notched Storm Collar or;
- 2 - The Ceiling Support and chimney must be enclosed below the roof line. Do not install the notched storm collar when enclosed.

Kit contains:

- 1 - Square Ceiling Support (SCSC)
- 1 - Smoke Pipe Adapter (SPA)
- 4 - Support L-Brackets
- 1 - Notched Storm Collar
- 1 - 2 piece U-shape Finishing Trim Plate

To install the SCSC:

Cut and frame (on all 4 sides) an opening in the ceiling where the chimney will pass. See Table 1 for the required framing dimensions and Table 2 for the maximum supporting capacity.

NOTE: The 4 L-brackets mount on the outside of the box at the desired elevation and will set on top of the framed opening.

1. The Ceiling Support must be installed so that it hangs a minimum of 4" (102 mm) below the finished ceiling level (see Figure 10a).
2. Secure each brackets with 2 self-tapping screws through the pre-punched holes and into the wall of the box.

3. From above, lower the box so that the brackets rest on the top of the framed opening. Secure in place with 8 - 3" spiral nails or #8 x 1-1/2" wood screws.

4. Install the Smoke Pipe Adapter on the inlet end of a Chimney Length. See Smoke Pipe Adapter section.

5. Place the first section of chimney into the Ceiling Support with the Smoke Pipe Adapter protruding through the bottom opening (see Figure 10b).

5. Wrap the notched Storm Collar snug to the chimney. Bend outward the 4 V-shape notches and position over each corners of the Ceiling Support (SCSC). See Figure 10c.

6. Continue with the installation as per the Flashing and Round Top sections. See Figure 10d.

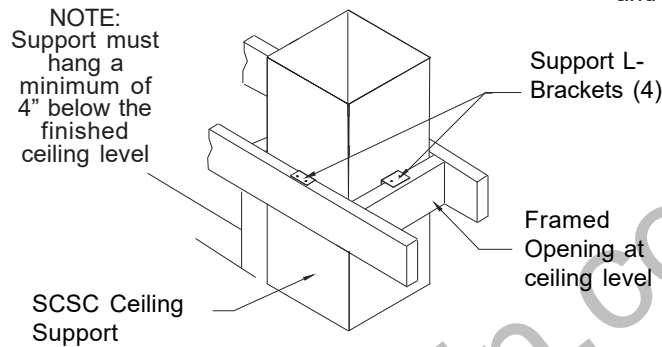


Figure 10a

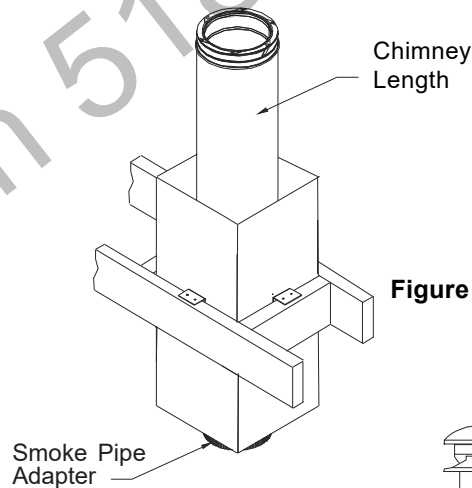


Figure 10b

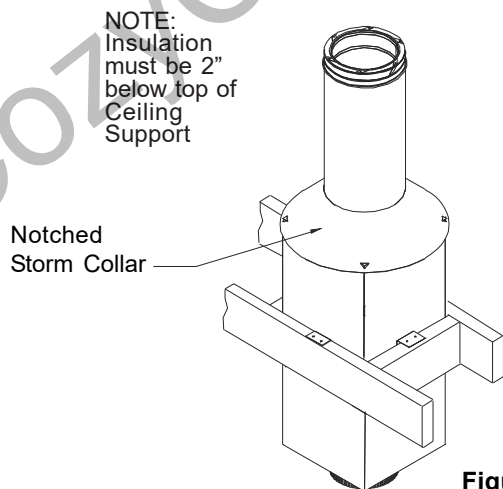


Figure 10c

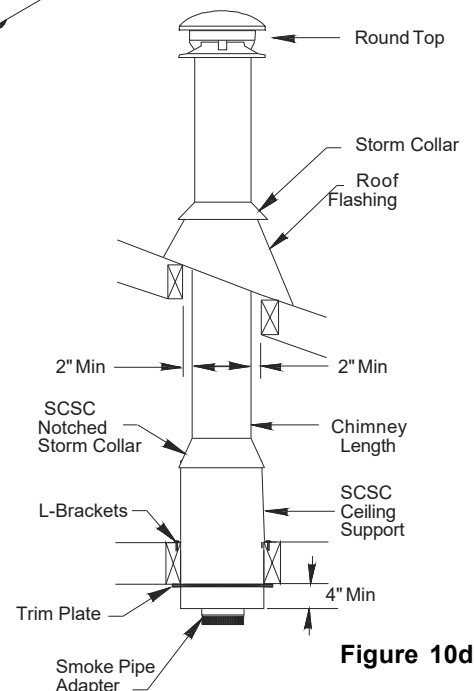


Figure 10d

SMOKE PIPE ADAPTER (SPA), JOIST SHIELDS (JS & JS-C) INSTALLATION

SMOKE PIPE ADAPTER (SPA)

The Smoke Pipe Adapter is designed to connect single wall stove pipe to UltimateONE Chimney System. The Smoke Pipe Adapter is to be placed on the inlet end of a length, with the retainer in place. The prepared length is then ready to be lowered into a support or through a wall or ceiling.

Contents (Figure 11a):

- 1 - SPA Stub: 304 Stainless steel construction painted black
- 1 - Metal Retainer: 304 Stainless steel construction

Figure 11a



HOW TO INSTALL:

1. PLACE SPA Stub (flange toward inlet end) over the inner liner on the inlet end of the chimney length until flange is snug against plastic (Figures 11b and 11c).

Inlet end of chimney length



Figure 11b

2. Ensure the SPA Stub flange is snug with plastic retainer (Figure 11c).

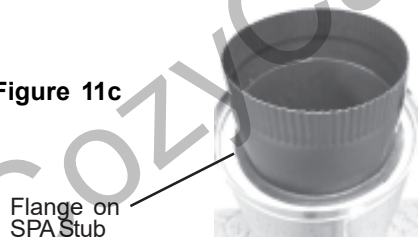
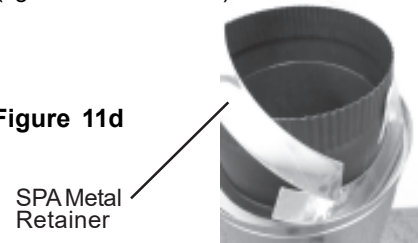


Figure 11c

3. Wrap the metal retainer around the SPA stub and under the inward bead found on the inlet end of the outer chimney casing (figures 11d and 11e).

Figure 11d



UltimateONE

4. Ensure the metal retainer overlaps the flange of the SPA stub and under the inward bead (figure 11e).

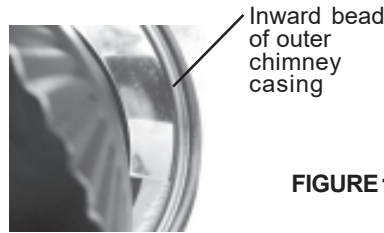


FIGURE 11e

Lower the length with the Smoke Pipe Adapter into the Ceiling Support. Make sure the SPA protrudes through the Ceiling Support opening (see Figure 12).

Continue adding chimney lengths until a height of about 2 feet below the next ceiling level is achieved.

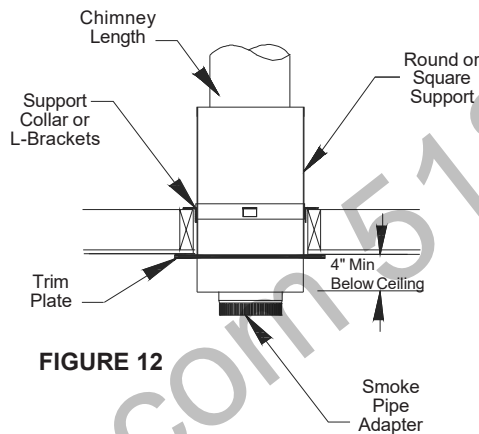


FIGURE 12

FIRESTOP JOIST SHIELD INSTALLATION (JS OR JS-C)

A Firestop Joist Shield - JS (US) or JS-C (Canada) must be installed whenever the chimney passes through a floor or ceiling from one living space to another living space or into an attic space.

It is designed to provide proper firestopping between floors and extra shielding for the joist area to keep it cooler. The overall height of the Firestop Joist Shield (JS & JS-C) is 18" of which 13 inches will shield the ceiling depth and joist area. The rest is below the ceiling level.

USA & CANADA - (JS and JS-C) :

Fully frame a level square opening (all four sides) to the dimensions found in Table 1 of the Framing Dimension Table on the Specification page.

The Firestop Joist Shield (JS or JS-C) is installed on the underside of the ceiling/floor framing, with the upper (longer) portion of the cylindrical shield pointing upward.

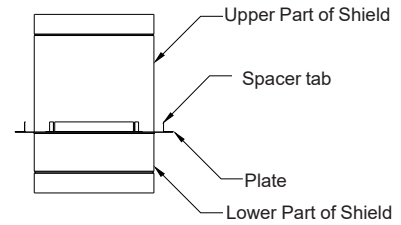


Figure 13
Firestop Joist Shield (JS and JS-C)

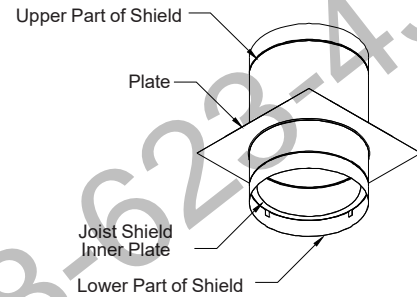


Figure 14a - Firestop Joist Shield (JS) - USA

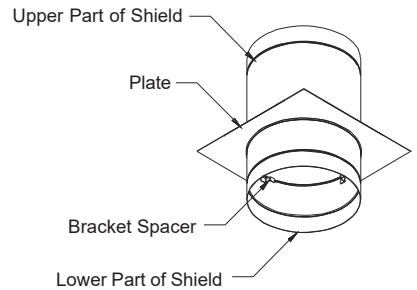


Figure 14b - Firestop Joist Shield (JS-C) - Canada

Fasten in place using 1" spiral nails or screws. Ensure no insulation or debris is within the 2" air space clearance around the chimney. This includes the air spaces between the Firestop Joist Shield (JS or JS-C) and the joist framing.

When the chimney enters an attic space, the Firestop Joist Shield (JS or JS-C) must be installed at the ceiling level and an Attic Insulation Shield installed from above. UltimateONE must be enclosed when it passes from one living space to another living space. If the chimney is enclosed in an attic space, the Attic Insulation Shield is not required but a Joist Shield (JS or JS-C) must be use.

ATTENTION! To reduce cold air infiltration into the dwelling it is permissible to install Universal Shielding Insulation (SUSI) only when the Round Ceiling Support is installed in a ceiling with a fully opened attic space immediately above and the Attic Insulation Shield (AIS) has been substituted with the Alternate Attic Insulation Shield (AAIS).

JOIST SHIELD - SUPPLEMENTAL RADIATION SHIELD INSTALLATION

ATTENTION: A Firestop Joist Shield must be installed whenever the chimney passes through a floor or ceiling from one living space to another or into an attic space.

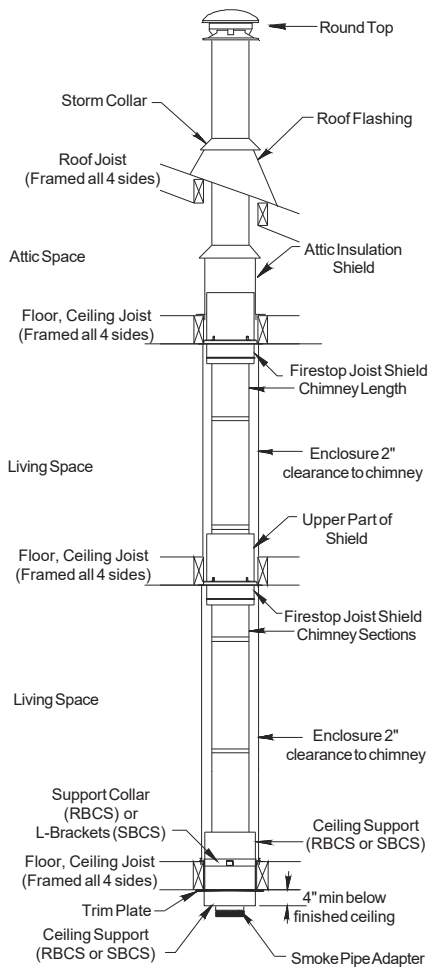


FIGURE 15
Firestop Joist Shield (JS) - USA
Basement of 2 Storey - Enclosed

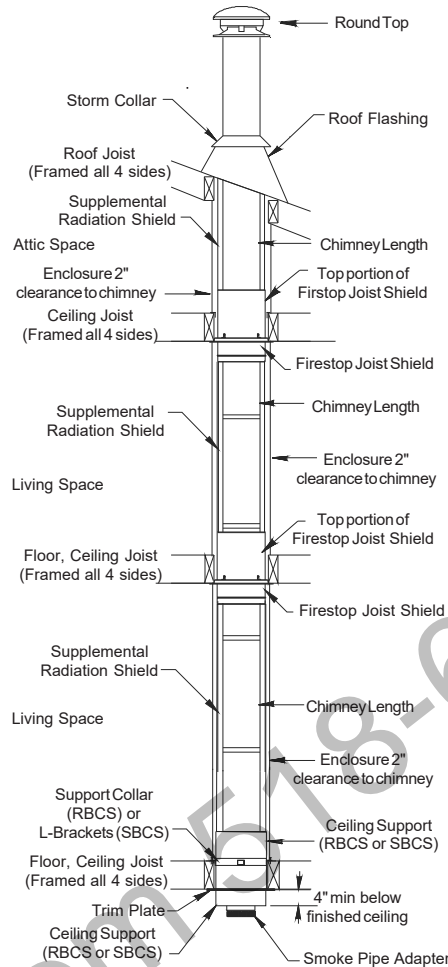


Figure 16
Firestop Joist Shield (JS-C) - Canada
Basement of 2 Storey
Enclosed living and attic space

ATTENTION: Firestop Radiation Joist Shield is installed on the underside of the ceiling/floor framing, with the upper portion of the cylindrical shield pointing upward.

UltimateONE must be enclosed when it passes from one living space to another living space.

NOTE: In Canada, an enclosed chimney requires a Supplemental Radiation Shield connecting to the Joist Shield (JS-C) and to the Attic insulation Shield.

SUPPLEMENTAL RADIATION SHIELDS (RSRS - FRS) - CANADA

In Canada, an enclosed chimney requires a Supplemental Radiation Shield; either Rigid (RSRS) or Flexible (FRS). See TO INSTALL RSRS (straight up application) and FRS (offset application).

NOTE: Supplemental Radiation Shields are not required for oil or gas burning appliances even where the chimney is enclosed.

For "Listed" Factory-built fireplaces requiring ULC-S629 listed chimneys, Supplemental Radiation Shields are required (unless the appliance manufacturers installation instructions state otherwise).

TO INSTALL - RSRS - Straight-Up:

Round Support (RBCS): From the floor above the support, place the Rigid Supplemental Radiation Shield tube (RSRS) over the first chimney length and onto the support. Secure the RSRS to the support using the self drilling screws provided. Install additional chimney lengths as required making sure you install a Firestop Joist Shield (JS-C) where the chimney penetrates the ceiling.

Square Support (SBCS): To ensure a smooth transition from the Square Support to the round Supplemental Radiation Shield, install the Shield Transition Pieces (STP) onto the Square Support. See the STP section for more information.

Install additional chimney lengths as required making sure you install a Firestop Joist Shield (JS-C) where the chimney penetrates the ceiling.

NOTE: The Firestop Joist Shield (JS-C) is installed from the bottom and secured solidly to the framing.

The RSRS is designed to slide like a telescope and adjust from 43" to 103" (see Figure 17a. Pull the RSRS up around the chimney and fasten to the flange of the Firestop Joist Shield.

Multiple RSRS may be used together if required. If the chimney is enclosed through additional floors repeat the procedure starting at the top of the JS-C and until the chimney is in the attic.

NOTE: If the chimney is to be enclosed in the attic, The Attic Insulation Shield (AIS) is not required, but a Joist Shield (JS-C) is. See Figure 16.

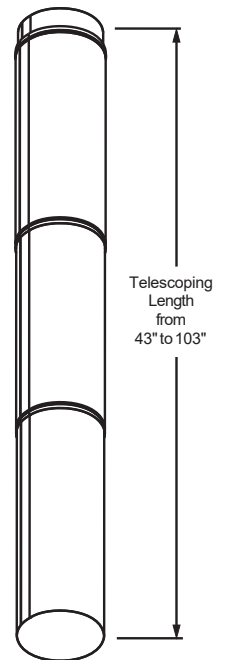


Figure 17a
Canadian Rigid Supplemental Radiation Shield (RSRS) - Enclosed Chimney

NOTE: An optional rigid Supplemental Radiation Shield is available for use with an insulated Tee (RSRST).

Continue installing chimney sections up through the roof opening. Lower a RSRS tube through the roof opening and adjust it so it can be attached to the upper part of the JS-C Firestop Joist Shield.

Adjust the length of the RSRS so it terminates just above the roof opening and under the flashing.

Fasten all sections of the RSRS to each other. Each section telescopes from 43" to 103".

STP AND SUPPLEMENTAL RADIATION SHIELD INSTALLATION

UNIVERSAL SHIELD TRANSITION PIECE -(STP)

The 4 Shield Transition Pieces are used only with the Square Ceiling Support (SBCS) to accommodate a round Supplemental Shield, either rigid or flexible. These are easy to install. See Figures 17b to 17d.

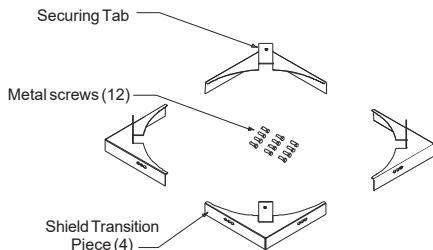


Figure 17b
4 Shield Transition Pieces (STP)

Contents:

- Shield Transition Pieces (4)
- Hex #8 x 1/2" sheet metal screws (12)

How to Install:

1. Position one (1) Shield Transition Piece on each corner of the Square Ceiling Support (SBCS) (Figure 17c).

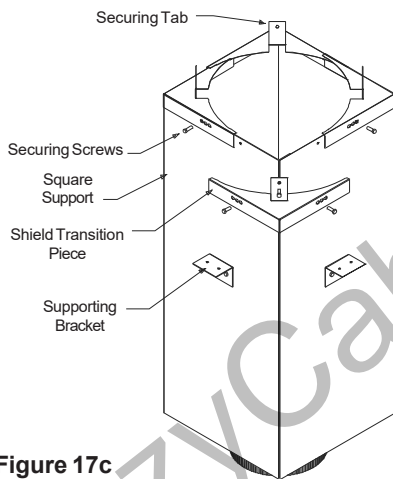


Figure 17c
STP on SBCS Square Ceiling Support

2. Secure in place through the appropriate holes in the Shield Transition Piece (STP) matching the holes in the Square Support (SBCS). See Figure 17c.

3. The 4 Securing Tabs can be bent to accommodate the diameter of the Supplemental Radiation Shield.

4. Position the Supplemental Radiation Shield over the opening of the Square Support. Make sure the Securing Tabs are on the outside of the Supplemental Shield.

5. Secure the Securing Tabs to the Supplemental Shield (Figure 17d).
UltimateONE

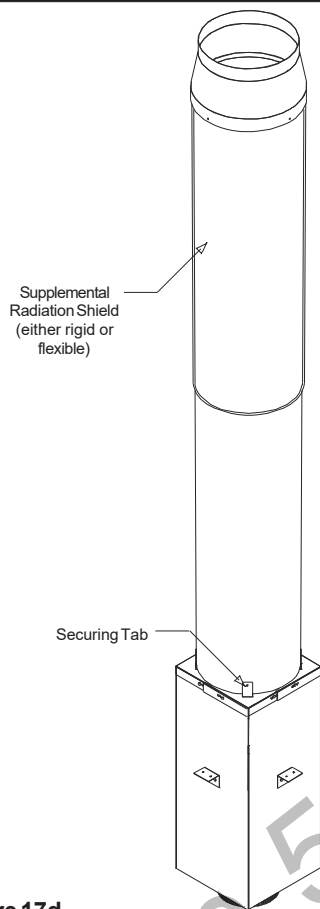


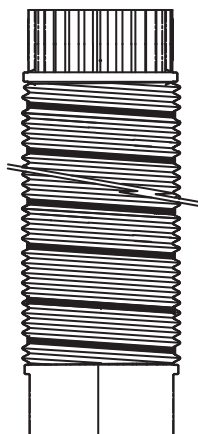
Figure 17d
Supplemental Radiation Shield & STP

TO INSTALL -FSRS -Offset:

Place the bottom half of a Flexible Supplemental Radiation Shield (FSRS) over the first chimney length coming through the floor.

The connector ring fits to the Round Support. Secure through the support and into the FSRS connector ring with self tapping screws (supplied). If a Square Support is used, you can convert from square to round with the Shield Transition Pieces (STP). See previous section.

Figure 17e
- Canadian Flexible Supplemental Radiation Shield (FSRS) - Enclosed Used with Round (RBCS) or Square (SBCS) Ceiling Support



Install a Joist Shield (JS-C) where the chimney penetrates the ceiling. Fasten the top portion of the FSRS to the flange protruding below the Firestop Joist Shield.

Install additional chimney lengths and offsets as required and any chimney lengths through the floor and into the attic.

Pull the top half of the FSRS down over the top offset. Each half of the flexible duct is compressed and will stretch from 26" to 78") (see Figure 17e).

Pull the bottom half of the FSRS up over the bottom elbow in the same manner. Secure the two halves together at a convenient location between the elbows.

If the offset is close to the top or bottom of the enclosure you may need to compress one half of the FSRS or attach an extra length to the other half.

Install an offset support on a vertical length above the offset. See Offset Section in these instructions.

Cut an opening in the FSRS to accommodate the straps to pass through. The offset support may also be secured to the roof if necessary.

NOTE: If the chimney is to be enclosed in the attic, The Attic Insulation Shield (AIS) is not required but the Joist Shield (JS-C) must be used (see Figure 16). See Figure 18 if the attic is enclosed immediately above a Ceiling Support (RBCS or SBCS).

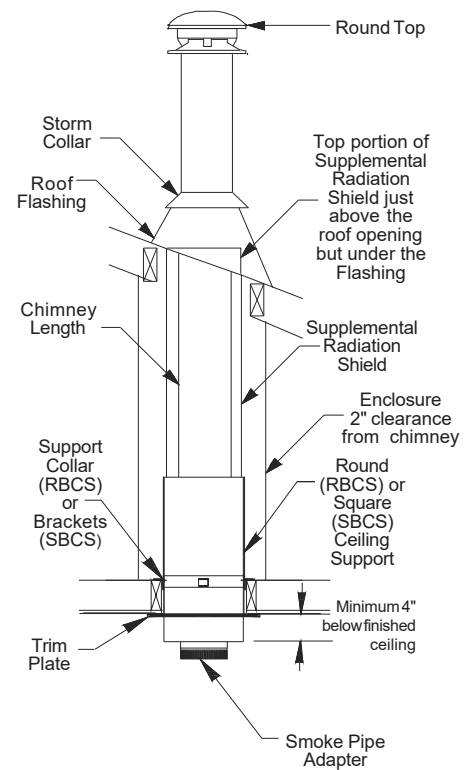


Figure 18 - CANADA - Enclosed Attic Supplemental Radiation Shield (RSRS or FSRS)

ATTENTION! In Canada, if the chimney within the attic space is to be enclosed install a Supplemental Radiation Shield instead of the Attic Insulation Shield (AIS).

ATTIC INSULATION SHIELDS (AIS & AAIS) INSTALLATION

ATTIC INSULATION SHIELDS

The function of the Attic Insulation Shield is to keep insulation from making contact with the chimney. Certain insulations made of cellulose fiber (old newspapers, processed wood) may ignite and smolder due to heat trapped by contact with the chimney. When this smoldering fire reaches wood framing, a fire may result. However, even without a flame, a smoldering fire may create noxious gases and cause property damage.

The vertical height of the Attic Insulation Shield above the attic construction material should accommodate the amount of insulation as required by the National and Local Building Codes.

Two types of Attic Insulation Shields are available - an Attic Insulation Shield (AIS) and an Alternate Attic Insulation Shield (AAIS).

Attic Insulation Shield (AIS) Installation

The Attic Insulation Shield is shipped pre-assembled at a height of 11 inches but telescopes to allow for a depth of insulation up to 18-1/2".

The opening must be fully framed on all 4 sides at 2 inches air space clearance to combustibles as per the Framing Dimensions in Table 1.

The Attic Insulation Shield is designed to adjust for a variety of attic heights. It is preferable to position the shield as high as the attic will allow to provide shielding from insulation.

Slide the upper (telescoping) shield up as high as possible (keeping a minimum of 1" overlap), and secure to the lower fixed shield using the sheet metal screws provided through the pre-punched holes (see Figure 19).

Position the base of the Attic Insulation Shield on top of the framed opening. Insert the notched spacer tabs within the framed opening until fully seated.

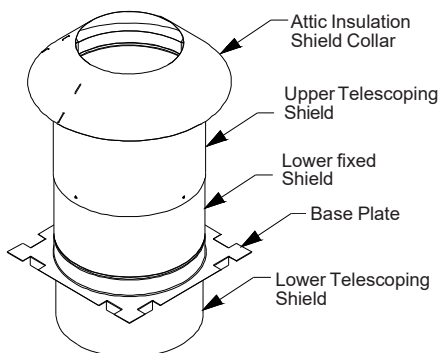


Figure 19 - Attic Insulation Shield (AIS)

Secure the base to the framing with at least 2 nails or screws per side.

The lower telescoping portion of the AIS provides supplemental joist shielding. Insure it is properly extended down through this area.

After the chimney section has been installed through the Attic Insulation Shield, install the Attic Insulation Shield Collar around the pipe and lower to meet the top spacer brackets (see Figure 19). Fasten the Collar by sliding the tabs through the appropriate slots and bend tabs backward to secure collar in place.

NOTE: If the chimney in the attic space is enclosed the AIS is not required. A Firestop Radiation Shield is required. In Canada, a Supplemental Radiation Shield may also be required.

Caution - Risk of fire!

If the chimney within the attic space is to be enclosed, the AIS must be left out or removed. Do not enclose the Attic Insulation Shield in combustible construction. If at a later date, the chimney is to be enclosed in combustible construction in the attic area, remove this insulation shield (by removing the fasteners at the base) before doing so. When enclosing, maintain the minimum 2" airspace clearance to combustibles. A Firestop Joist Shield must be installed from the living space into an enclosed attic area. See Figures 16 (Canada) & 20 (USA).

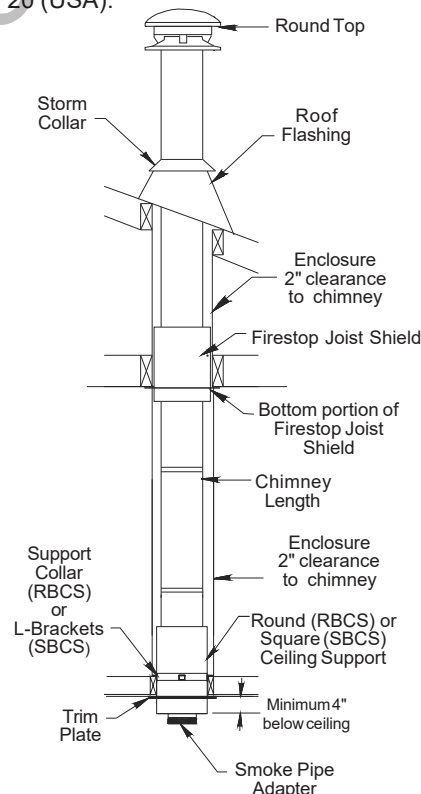


Figure 20 - USA - Enclosed Living and Attic Space

NOTE: In the USA - When the chimney is enclosed in the attic area from a living space a Firestop Joist Shield (JS) must be installed into the attic (see Figure 20).

CANADA ONLY

NOTE: When the chimney is to be enclosed in the attic space a Supplemental Radiation Shield must be installed (see Figure 18). Do not install the Attic Insulation Shield. If the attic space is above a living space a Radiation Joist Shield (JS-C) must be installed from below (see Figure 16).

Alternate Attic Insulation Shield- (AAIS)-For use only with Round Ceiling Support (RBCS)

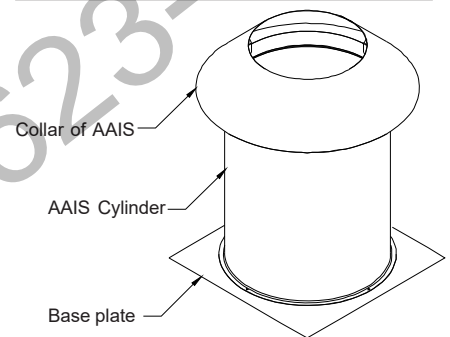


Figure 21 - AAIS

A FULLY OPEN ATTIC SPACE IMMEDIATELY ABOVE THE ROUND CEILING SUPPORT:

When a Round Ceiling Support is installed in a ceiling with a fully open attic space immediately above, it is permissible to substitute the Attic Insulation Shield (AIS) with the Alternate Attic Insulation Shield (AAIS). See Figures 21 & 22a. This will permit adding Supplemental Universal Shielding Insulation (SUSI) into this shield to reduce air infiltration into the dwelling. To install, place the Alternate Attic Insulation Shield over the Round Ceiling Support positioning the base plate on the framed opening around the Round Support. Nail the base plate to the framing with 1 nail at each corner.

After the chimney section has been installed through the AAIS, install the Alternate Attic Insulation Shield Collar around the pipe and lower to meet the top spacer brackets (see Figure 21). Fasten the Collar by sliding the tabs through the appropriate slots and bend tabs backward to secure in place.

ATTENTION! In the US, if the chimney within the attic space is to be enclosed install a Firestop Joist Shield (JS) instead of the Attic Insulation Shield (AIS).

ATTIC INSULATION SHIELDS INSTALLATION - ELBOW INSTALLATION

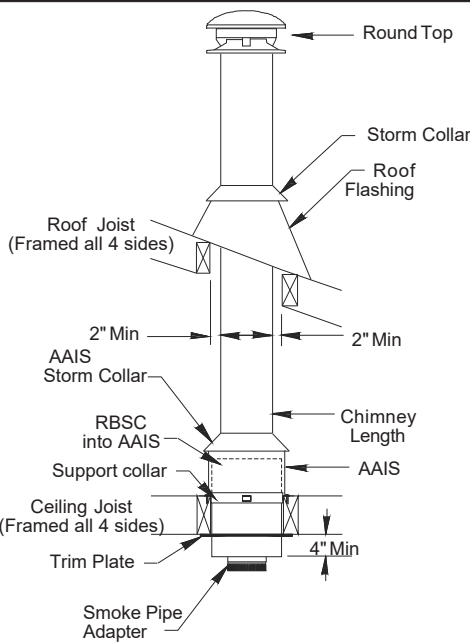


Figure 22a - Alternate Attic Insulation Shield (AAIS) Opened Attic Immediately above RBSC

Another alternative method would be to use the SCSC Square Ceiling Support which provides a 2" clearance to combustibles and is designed to be used as an Attic Insulation Shield with the supplied notched storm collar. The SCSC can only be used when an attic space is immediately above the ceiling support. See the SCSC Ceiling Support section and Figure 22b below.

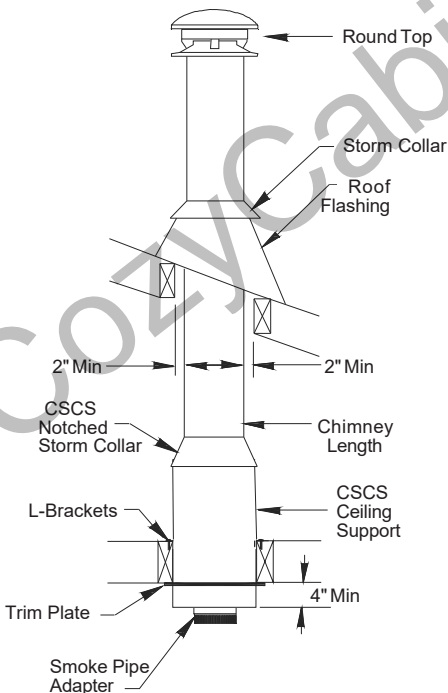


Figure 22b - Square Ceiling Support (SCSC) Opened Attic Immediately above

UltimateONE

ELBOW INSTALLATION (EL)

When necessary to offset the chimney in order to pass through an upstairs closet or to clear a joist or other obstruction, the use of 15° or 30° insulated elbows is recommended. Elbows rotate 360 degrees to provide the exact orientation required. Elbows may be used at the same 2" airspace clearance as chimney sections.

Two pair (four) of 15° or 30° elbows may be used. The maximum permissible angle for installations is 30 degrees. The maximum length of chimney allowed between elbows is 8 feet.

NOTE: In Canada, 45° insulated elbow are permissible and available.

NOTE: In Canada, a Supplemental Radiation Shield must be installed when the chimney is enclosed within living spaces and when enclosed in an attic space (see Figure 24). See the section entitled "Supplemental Radiation Shield" for more information. See Figure 23 for an enclosed Offset Chimney in the USA.

During installation provide supplementary support for the offset section to avoid undue stress on connected elbows.

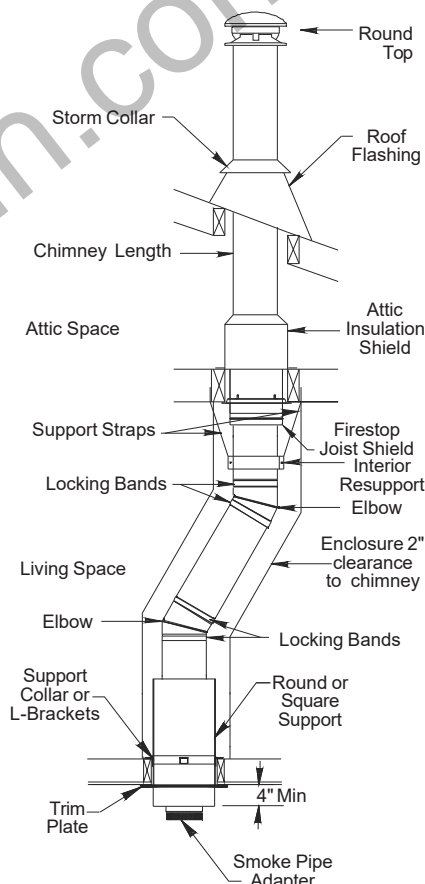


FIGURE 23 Installation of offset - Enclosed - USA

Never install an elbow in a joist area. Chimney sections must be vertical when passing through framed joist areas.

The vertical run of chimney above an offset must be supported using an Interior Resupport Assembly. The Interior Resupport Assembly (Figure 26) is designed to provide support above an offset/elbow and an additional 18 ft (5.5m) of re-support to the main support system. It must be installed immediately above the upper elbow of an offset.

TO INSTALL:

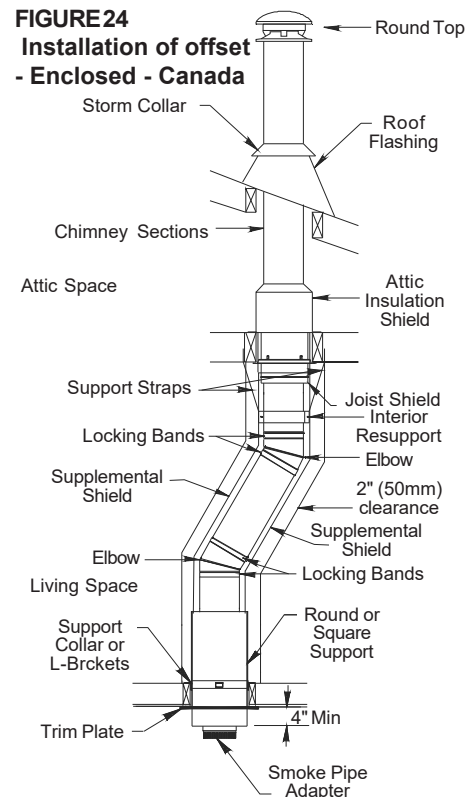
Install the insulated elbow on the chimney length below. Align the elbow in the direction required for the offset. Secure the elbow to the chimney length with the supplied Locking Band.

Place the required length(s) of chimney on the elbow. An Adjustable Length may be use between elbows to allow an exact distance if desired. Secure to the elbow with supplied Locking Band.

Attach upper elbow to the chimney length, then rotate it to orient the outlet of the elbow to the vertical position. Secure elbow to the chimney length with the supplied Locking Band.

NOTE: At all joints forming an offset, the locking band and the joint must be fastened using two (2) #6 x 1/2" stainless steel sheet metal screws through the securing holes located on each side of the locking band latch (see Figure 3 and Offset Chart 1).

FIGURE 24 Installation of offset - Enclosed - Canada



ATTENTION! The Attic Insulation Shield (AIS) will allow for a depth of insulation up to 18-1/2 inches while the Alternate Attic Insulation Shield (AAIS) will allow up to 16-1/2 inches.

ATTENTION: Use the SCSC Square Ceiling Support with built-in AIS is used when an open attic space is immediately above the ceiling support.

OFFSET SUPPORT (UIRA) AND ADJUSTABLE LENGTH (AL)

Each offset must be supported with an Interior Resupport, either with the supplied Offset Support or the Universal Interior Resupport (Fig. 26).

Place the two halves of the UIRA as shown in Fig. 25. Insert flat head bolts through the holes marked with the diameter of the chimney being installed. The flat head of the bolt should be oriented opposite the direction the formed tabs are pointed. Secure the center bolt with washers and nut.

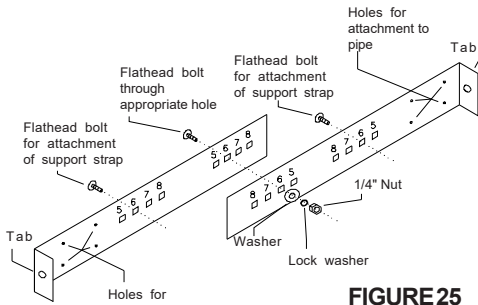


FIGURE 25

Universal Interior Resupport - Part Band

Form the UIRA Band into a circle as shown in Fig. 26 and loosely connect tabs using the nut and bolt indicated.

Attach the UIRA band to the Support Straps using 2 flat head bolts (1 per strap) and nuts. The bolt should pass through the holes of the band corresponding to the pipe diameter.

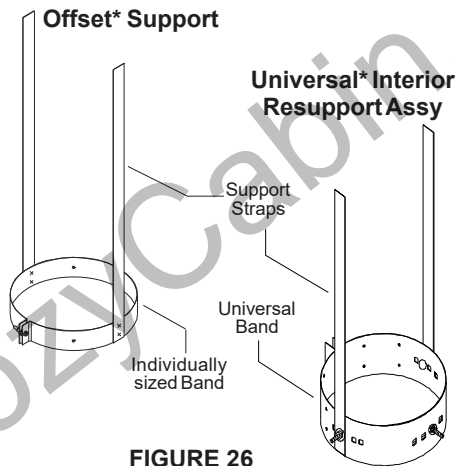


FIGURE 26

*Note: The Offset Support is supplied with each Elbow Kits - 2 straps are riveted to the support band and pre-assembled at the plant to specific diameters. The UIRA is universal in diameter and the 2 straps are bolted to the Universal Band. UIRA is available separately.

Determine the location at which the assembly will be installed. (Make sure the structure to which the straps will be attached is structurally sound and capable of providing adequate support for the weight of the pipe).

Place assembly around the length of pipe and tighten tabs with the nut and bolt referenced in Fig 25.

Secure length of pipe to assembly by using two 1/8" x 1/2" stainless steel screws (provided) through two of the small attachment holes of the Universal Band (see Figure 25).

Attach Support Straps to structure with screws or nails through top or sides of framing members (see Figure 27).

Add lengths of pipe as needed.

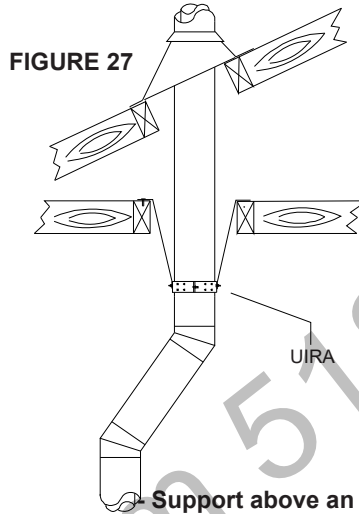


FIGURE 27

ADJUSTABLE LENGTH (AL)

An Adjustable Length (AL) is installed between other components to establish an exact finished length, where a standard length cannot be utilized. The AL has an overall length of 18" and has an installed length that adjusts from 6-1/2" to 17" (Figure 28a).

NOTE: Adjustable Lengths are not designed to sustain heavy loads. Install Adjustable Length only in offset portions of system or near the top - if exact termination height is desired.

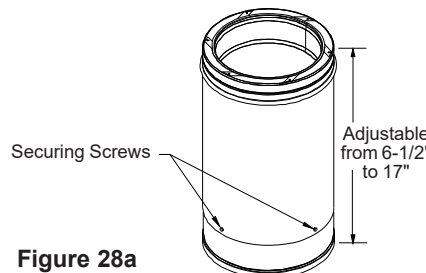
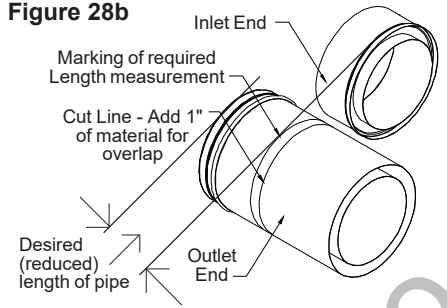


Figure 28a

TO ADJUST LESS THAN 2 INCHES:

1. Remove the four (4) securing screws holding the two halves together.
2. Remove the inlet end of the Adjustable Length (smaller of the two).
3. Remove some insulation to move the inlet end of the length to the desired length while still maintaining contact between the insulation and the inlet end of the pipe.

Figure 28b



4. Re-assemble the inlet end to the outlet end of the pipe. Re-install the four (4) securing screws into new holes to secure the two parts of the length together.

TO ADJUST MORE THAN 2 INCHES:

Follow the two first steps in the previous section.

1. Using the inlet end of the assembly to gauge the desired length of the pipe, mark the outer tube of the outlet end (larger end) flush with the slip fit end of the female pipe (see figure 28b).

2. Cut both the inner and outer tubes of the outlet end of the pipe 1" longer than the mark on the tube made in the previous step. This will allow for the minimum of 1" overlap between the male and inlet end of the pipe.

Follow Steps 3 and 4 in the previous section.

WALL SUPPORT (WSP)

As previously mentioned, the ideal location for your chimney system is within the building envelope. A Wall Support installation is required when the above mentioned location is not possible and the system must be installed on an outside wall. Follow the following steps all the way through the Wall Thimble (Interior and Exterior) portion.

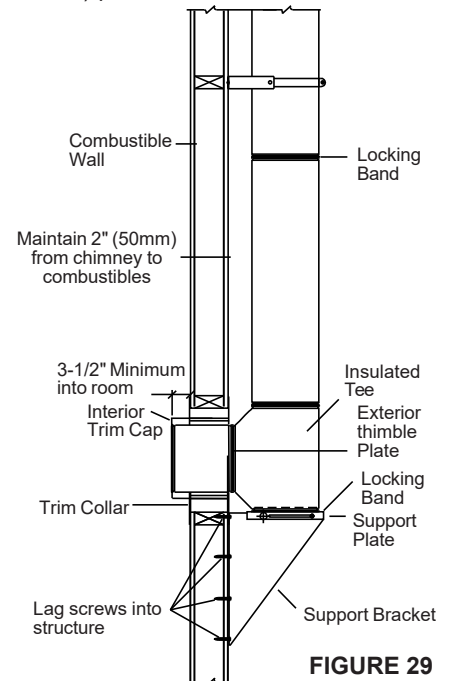


FIGURE 29

ATTENTION! See Chart 1 to view your combination for an Offset.

ATTENTION! An Adjustable Length is ideal between elbows to achieve a specific offset distance.

ATTENTION! A 30° Elbow may not be combined with a 15° to make a 45° offset.

WALL SUPPORT (WSP) & INSULATED WALL THIMBLE (IWT)

The maximum chimney height above a Wall Support (WSP) is indicated in Table 2 on the Specification page, all of which must be above the support.

The Wall Support allows an adjustability from 2" to 6" of clearance between the chimney and the vertical wall to fit your installation. For clearances from the wall between 2" and 6", calculate the appropriate height reduction required. Pemserts are factory installed on both side brackets and the support plate (see Figure 29 & 30).

TO INSTALL:

Determine the location where the chimney will pass through the wall. The chimney should pass through the wall, centered between two studs. The Wall Support has been designed for 16" on center framing member spacing. Determine the center line of the lateral connection (horizontal length through the wall) and frame in your opening to the framing dimensions specified in Table 1 of the Technical Specification page.

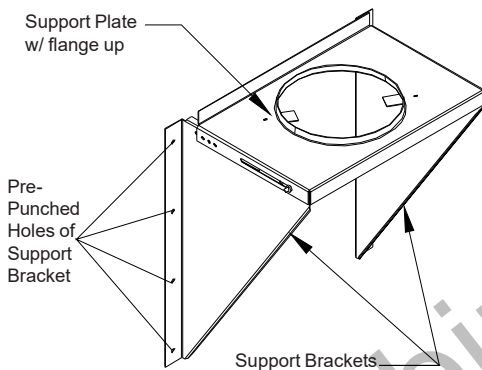


FIGURE 30 - Front view of Wall Support

For a non-combustible wall (concrete block or poured foundation) the Insulated Wall Thimble is not required. The opening in a non-combustible wall would require an opening 1/8" greater than the outside diameter of the chimney. As an option a Decorative Sleeve (DS9) is also available.

ATTENTION: Install the exterior portion of the Insulated Wall Thimble before installing the Wall Support. The Insulated Wall Thimble is a two (2) piece design that includes an insulated exterior portion and an interior Trim Cap with finishing trim collar.

The Exterior portion of the Wall Thimble has been pre-insulated at the factory. Do not remove this insulation. This portion will accommodate a wall thickness up to 12" (305mm).

UltimateONE

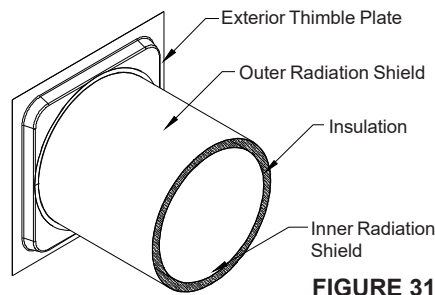


FIGURE 31

1. Install and center the exterior portion of the Insulated Wall Thimble (plate and cylinder) in the framed opening. Secure the flange of the Wall Thimble to the outside wall using at least 4 #8 x 1-1/2" wood screws. Be sure to seal the perimeter of the exterior plate where it meets the wall by using a non-hardening waterproof sealant.

2. Assemble the 2 side brackets (point of triangle facing down) to the support plate (flange up) by inserting the threaded studs (pemserts) into the oblong slots and selected holes. Install keeps nuts on threaded studs until snug, do not tighten at this time as adjustments may be required.

3. Position the Wall Support so the center line of the Insulated Tee (once installed) lines up with the centerline of the Insulated Wall Thimble.

4. Ensure framing structure (vertical studs) are at 16" O.C. to secure support brackets.

5. Ensure that the Wall Support is level.

6. Using the pre-drilled holes of the support brackets as a template, drill 4 holes for each bracket. Secure the Support Brackets to the wall by installing four (4) 1/4" x 2" lag bolts for each side (Figures 30 and 32).

7. Attach an appropriate insulated chimney length to the Insulated Tee branch.

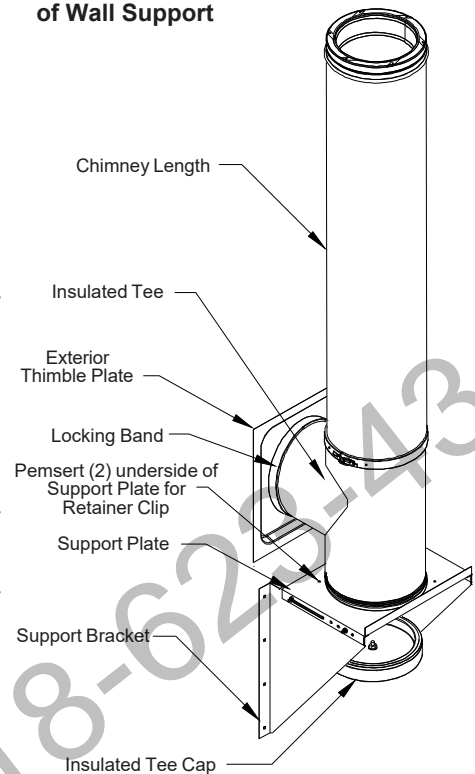
NOTE: The Chimney Length used to penetrate through the wall must extend at least 3-1/2" into the room.

8. Secure in place with the supplied Locking Band.

9. Ensure the latch of the Locking Band is facing down to prevent any water from collecting into the Locking Band.

10. Slide the assembly (Insulated Tee and lateral connection) through the Insulated Wall Thimble opening.

FIGURE 32 - Front view of Wall Support

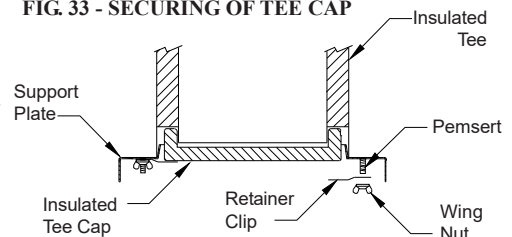


11. Position the Insulated Tee Assembly onto the Support Plate.

12. Prior to tightening all fasteners of the Support Plate ensure the Insulated Tee assembly is plumb and level and sitting flush on the base plate and all clearances have been met (see Figures 30 and 32).

13. Use a non-hardening high-temperature sealant (500°F) to seal around the exterior portion of the horizontal chimney length where it enters the Exterior Wall Thimble Plate or through a concrete wall.

FIG. 33 - SECURING OF TEE CAP



14. Attach the two (2) retainer clips to the pemserts located on the bottom of the support plate with the 2 supplied wing nuts. Insert and secure the Tee Cap with the retainer clips (see Figure 33).

15. Chimney Lengths above the Tee are stacked and secured with Locking Bands.

16. Allow an access to the base of the Tee to facilitate inspection and cleaning of the chimney system.

CAUTION! The Chimney Length used to penetrate through the wall must extend at least 3-1/2" into the room.

CAUTION! The use of exterior chimney increases operating problems such as low draft, high rate of creosote accumulation, poor start-up and prone to down-drafting.

INSULATED WALL THIMBLE (IWT) AND EXTENDED WALL SUPPORT (EWS)

17. A minimum clearance of 12" (305mm) is recommended below the Insulated Tee to provide access for inspection and cleaning.

18. To ensure chimney stability above the wall support, Wall Bands must be used every 8 feet (2.4m) above the support.

INSULATED WALL THIMBLE-Interior

19. Install the Smoke Pipe Adapter into the inlet end of the horizontal chimney length as per the Smoke Pipe Adapter section on page 11.

Remember the chimney pipe length selected must extend at least 3-1/2" (86mm) beyond the finished wall and must be centered in the wall opening. To reduce cold air infiltration it is permissible to add SUSI insulation between the corner voids and the insulated cylinder of the thimble and in the gap between the chimney and the insulated cylinder.

20. Slide the Thimble Trim Cap over the protruding insulated chimney length and the outer radiation shield until flush to the Smoke Pipe Adapter. The Thimble Trim Cap is 9" in length and should overlap the exterior Wall Thimble portion a minimum of 1". The Thimble Trim Cap must project into the room a minimum of 3-1/2". Ensure the Smoke Pipe Adapter protrudes through the Thimble Trim Cap opening. Install the Thimble Trim Collar over the Trim Cap and fasten to the wall with supplied black wood screws (4). See Figures 34 & 35.

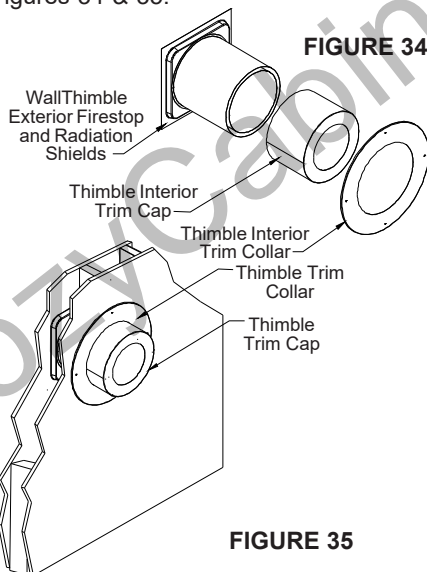


FIGURE 35

If necessary, inverting the brackets (with the points of the support triangles facing up) can be accomplished by inserting 4 truss head screws (2 per sides) through the oblong slots and holes of the support side brackets and the support plate (Figure 36). Secure with keps nuts. In this mode, the range of adjustability is limited to 5" from the wall.

INVERTED BRACKETS

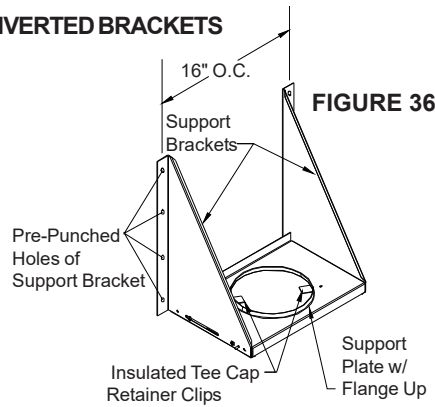


FIGURE 36

21. In earthquake zones, drill through the lower end of the tee and install at least three (3) stainless steel sheet metal screws through the support plate flange.

EXTENDED WALL SUPPORT (EWS)

The Extended Wall Support (Figure 39) allows for an adjustment up to 12 inches from a vertical wall to pass by a 12" overhang. It is designed to support up to 28 feet of chimney above the Insulated Tee (see Table 2).

The Support Band is shipped pre-assembled for use on a 6" diameter UltimateONE. For 7" and 8" diameters relocate the elevator bolts accordingly. Form the band into a circle and loosely connect both tabs using the supplied 2" bolt.

1. Attach the lower support arms to the support band using 2 flat head bolts (1 per side) and nuts. Place the support band at the desired distance from the wall using the slots on the lower support arms.

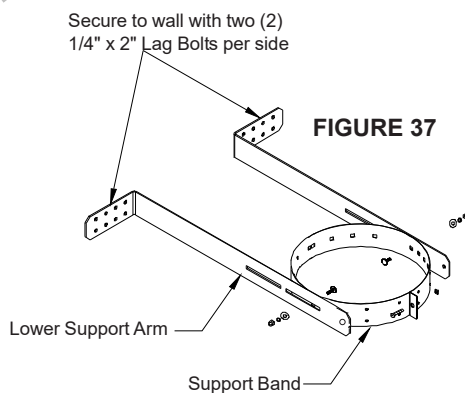


FIGURE 37

2. Determine the location at which the assembly will be installed. Make sure the wall to which the Lower and Upper Arm Brackets will be attached is structurally sound, capable of providing adequate anchoring capacity for lag bolts and bearing the weight of the pipe.

3. Attach an appropriate insulated chimney length to the horizontal branch of the Insulated Tee.

NOTE: The Chimney Length used to penetrate through the wall must extend at least 3-1/2" into the room.

4. Secure in place with the supplied Locking Band. Ensure the latch of the Locking Band is facing down to prevent any water from collecting into the Locking Band. From outside, slide the assembly (Chimney Length installed on the Tee Branch) through the Wall Thimble ensuring the male coupling on the Tee is facing upward. The Wall Thimble will assist in supporting the assembly until you are ready to install the Extended Wall Support.

5. The Lower and Upper Support Arms and brackets should be installed on the first vertical chimney length above the Insulated Tee (see Figure 38). Tighten the Support Band locking bolt just enough to hold the Extended Wall Support in place.

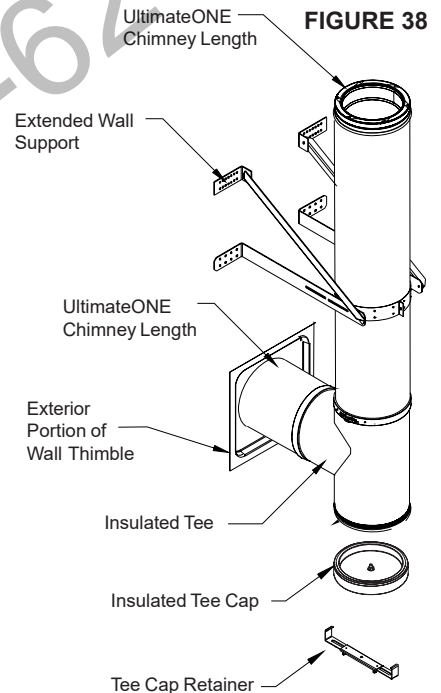


FIGURE 38

6. Install the Lower Support Arms on the external wall by using two (2) 1/4" x 2" lag bolts (see Figure 37). Attach the Upper Support Arms and Brackets to the Lower Support Arms with nuts and bolts through holes at ends. Install the Upper Support Arm Brackets on the external wall using four (4) 1/4" x 2" lag bolts (see Figure 39). NOTE: Ensure all lag bolts are anchored to structural members; not just to the wall sheathing.

7. Adjust as necessary to ensure everything is positioned correctly, then secure the support band around the pipe by tightening the securing bolt (from step 5), then using two 1/8" x 1/2" stainless steel screws through two of the small securing holes on the Support Band (see Figure 39). Seal screws with silicone sealant.

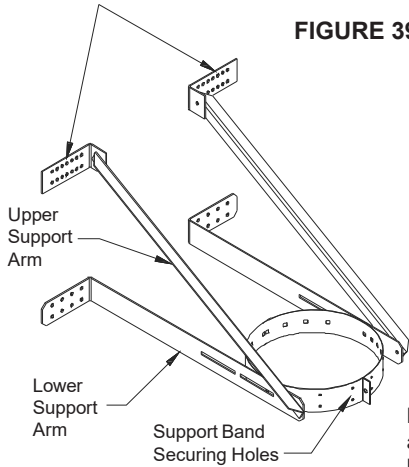
ATTENTION: It is permissible to add Universal Insulation Shielding (SUSI) in the corner voids between the round shield and the framed opening.

ATTENTION: In a Wall Support application the chimney must extend into the room at least 3-1/2" .

UNIVERSAL WALL / RE-SUPPORT (EWS)

Upper Support Arm Brackets Secure to wall with four (4) 1/4" x 2" Lag Bolts per side

FIGURE 39



It can also be used in conjunction with the Wall Band.

TO INSTALL

1. Place the two halves of the UWRS Band as shown in Figure 41. Insert flat head bolts through the holes marked with the diameter of the chimney being installed. The flat head of the bolt should be oriented opposite the direction the formed tabs are pointed.

8. Secure the Insulated Tee Cap with the Universal Tee Cap Retainer Kit. This kit contains a series of sliding brackets with slots in the brackets to accommodate different diameters. It is used when the Insulated Tee is supported by the Extended Wall Support or the Wall/Resupport.

NOTE: In some applications extending below the tee may be necessary. When doing so, the metal retainer found on the inlet end of the tee will need to be relocated to the inlet end of the extension below the tee. Check with local authorities for any restrictions.

UNIVERSAL WALL CHANNEL (WC)

The use of one or more Wall Channels will simplify the installation of the Extended Wall Support, Wall Band or Universal Wall Re-Support when framing members are not within range. It is 26 inches in length to allow for 24" on center construction.

Locate the vertical framing members and determine the correct elevation for the Wall Channel(s) based upon the accessory being installed. Secure the Wall Channel(s) in place using a minimum of four (4) 1/4" x 2" lag bolt.

Determine the correct location on the Wall Channel for the Wall Band, Extended Wall Support or Universal Wall Re-Support. Simply bolt these components to the Wall Channel with elevator bolts.

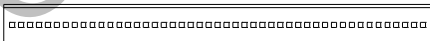


FIGURE 40 - WALL CHANNEL

Universal Wall Support / Re-Support (UWRS)

The Universal Wall Support/Re-Support Assembly may be used as a primary support or as a re-support used above an offset in an installation run along a wall. It provides both lateral and vertical support. See Table 1 for the maximum support capacity.

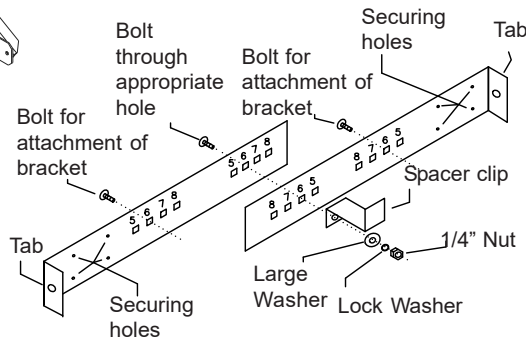
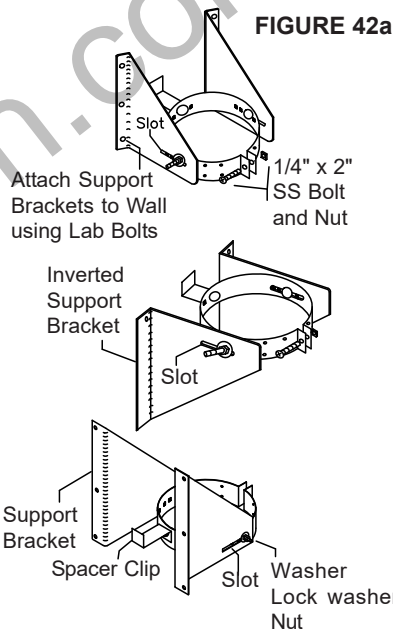


FIGURE 41 - Support Band

2. Place Spacer Clip on the bolt used in the middle of the assembly and secure with washers and nut (see Figure 42a).

3. Form Band into a circle and loosely connect tabs using nut and bolt (see Figure 42a).



4. Place Band between the brackets with Spacer Clip and Tabs oriented as shown in Figure 41.

5. Attach Band to Wall Brackets using 2 flat head bolts (1 per side) and nuts. Bolts should pass through holes corresponding to the pipe diameter and through slots on the brackets as shown in Figure 42a.

6. Determine the location at which the assembly will be installed. Make sure the wall to which the brackets will be attached is structurally sound, capable of providing adequate anchoring capacity for lag bolts and bearing the weight of the pipe.

7. Using the pre-drilled holes of the brackets as a template level and drill 3 holes for each bracket.

8. Secure brackets to wall using 1/4" x 2" lag bolts.

9. Place length of pipe within the assembly and tighten the tabs using the 1/4" x 2" bolt to secure the pipe within the band (see Figure 42b).

10. Secure length of pipe to assembly by using two 1/8" x 1/2" stainless steel screws through two of the small securing holes of the Universal Band (see Figure 41). Seal screws with silicone sealant.

11. If using a Tee, make sure the Tee Cap is installed and secured with the Tee Cap Retainer as shown in Figure 42b).

12. The Universal Wall Support/Re-Support can also be used as an Offset Support in an installation run along a wall (see Figure 43).

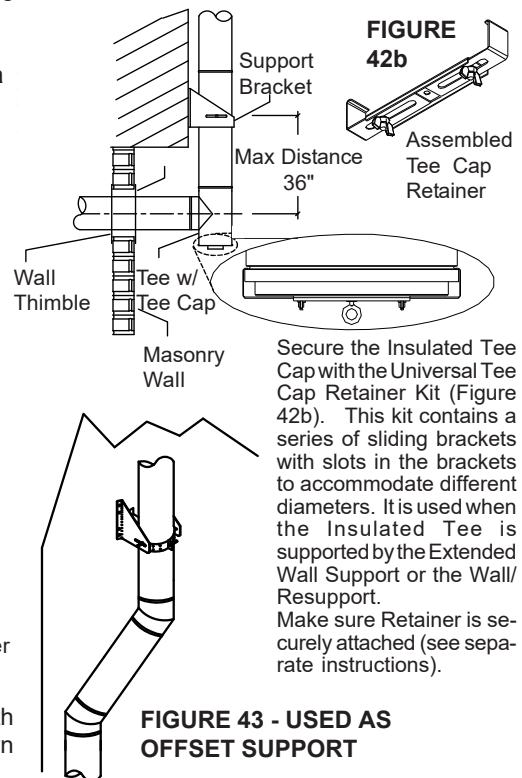


FIGURE 43 - USED AS OFFSET SUPPORT

Universal Adjustable Wall Band

1. Place the two halves of the UWRS Band as shown in Figure 44. Insert the flat head bolt through the middle set of holes in the band halves marked with the corresponding pipe diameter of the chimney being installed.

NOTE! Choose the right Wall Support for your application.

ATTENTION! If stud locations do not line up use the Universal Wall Channel to securely fasten a Wall Support or Wall Band.

WALL BANDS (UWB, WB)

The bolt should pass through the band halves with the tabs oriented outward as per Figure 44.

2. Place the Spacer Clip on the bolt used in the middle of the assembly and secure with washers and nut (see Figure 44).

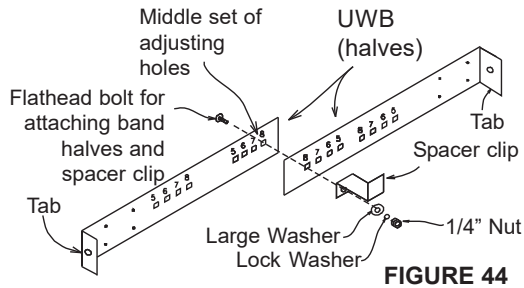


FIGURE 44

3. Form the Band into a circle and loosely connect tabs using the 1/4" x 2" nut and bolt as per Figure 45a.

4. Place the Band between the left and right brackets with the Spacer Clip and Tabs oriented as shown in Figure 45b.

5. Attach the band to the wall brackets using 2 flat head bolts (1 per bracket) and nuts. The bolts should pass through the holes corresponding to the pipe diameter and through the slots of the brackets. These slots allow for horizontal adjustment of the pipe from the wall (see Figure 45b).

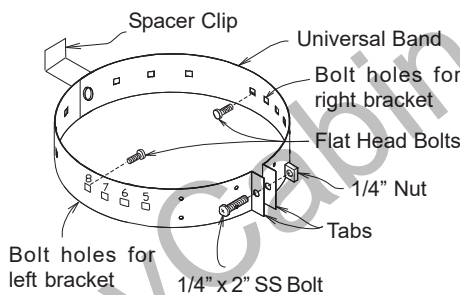


FIGURE 45a

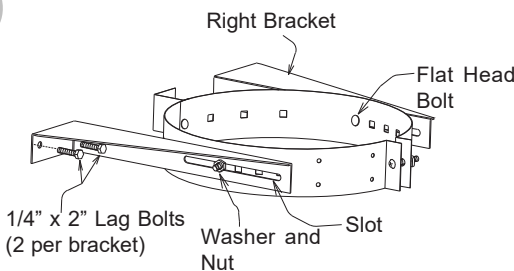


FIGURE 45b

CAUTION: Ensure lag bolts are fastened into a structural member and not only the wall sheathing.

ATTENTION! Refer to the Maximum Support Capacity Table for maximum chimney height for support selection.

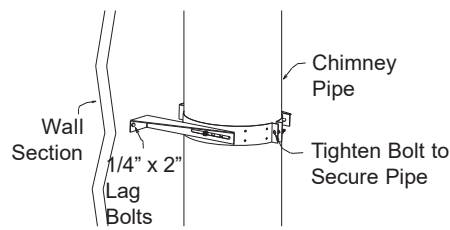


FIGURE 45c

6. Determine the location at which the assembly will be installed. (Make sure the wall to which the brackets will be attached is structurally sound, capable of providing adequate anchoring capacity for lag bolts).

7. Level the brackets and drill pilot holes in the wall using the mounting holes in the brackets as a template. Drill 2 holes in the wall for each bracket.

8. Secure brackets to wall using 1/4" x 2" lag bolts (see Figure 45c).

9. Place length of pipe within the assembly and tighten the tabs using the 1/4" x 2" bolt referenced in Step 3 to secure the pipe within the band (see Figure 45c).

STANDARD WALL BAND (WB)

The Standard Wall Band (Figure 46) provides the required 2" (50mm) minimum clearance. For lateral stability of the chimney above the Wall Support, a Wall Band must be installed along an outside wall.

Where horizontal adjustability is needed, a Universal Wall Band can be used. For more detailed instructions see the Universal Wall Band section, Steps 1 through 9 and Figures 44 through 45c.

1. To ensure chimney stability above the wall support, Wall Bands must be used every 8 feet (2.4m) above the support. For systems shorter than 8', at least one Wall Band must be installed.

2. Secure the Wall Band bracket to the wall using two (2) 6d (2") spiral nails or #8 x 2" wood screws through the pre-drilled holes (see Figure 46). For concrete or brick veneer walls, use suitable masonry fasteners or other anchoring systems.

3. Check for clearances and plumb as you fasten the Wall Bands to the wall. Use a level against the chimney sections at each support stage to keep the assembly plumb.

Fasten the Wall Band securely around the chimney with the supplied nut and bolt to secure the chimney length within the band.

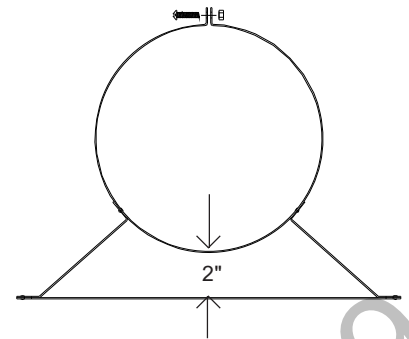


FIGURE 46 - Standard Wall Band

NOTE: If the chimney penetrates an overhang (soffit), cut an opening with 2" clearance all around and install a Joist Shield (JS or JS-C) on the under side of the overhang. If the attic is open to the overhang, close off the access with suitable building materials ensuring a 2" (50mm) air space is maintained.

From above, install a roof flashing and storm collar by following the Roof Flashing installation section. If the overhang is not deep enough to allow the chimney to be fully installed within the overhang, it will be necessary to cut away a portion of the overhang. Ensure that a 2" (50mm) clearance all around the chimney is maintained. Framing and flashing of the sides of the opening will be required. Install a Wall Band at this level.

The use of the Extended Wall Support allows for an adjustment up to 12 inches from a vertical wall to pass by a 12" overhang.

CATHEDRAL PITCHED CEILING APPLICATION

CEILING/CATHEDRAL SUPPORT - PITCHED CEILING OR ROOF APPLICATION

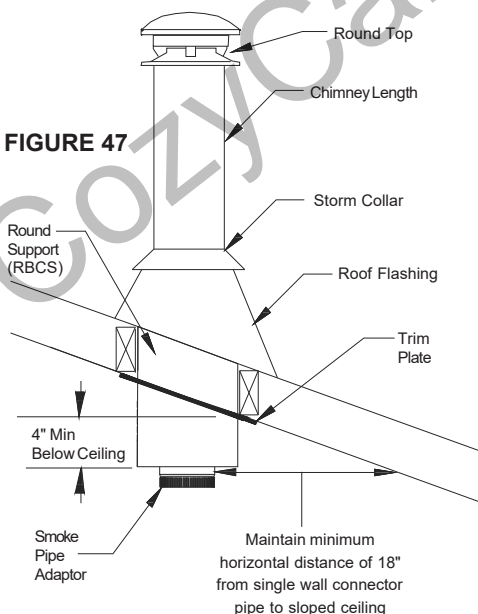
The Round (RBCS) or Square Ceiling / Cathedral (SBCS) Supports (Figures 47 and 48) are also suitable for steep pitched cathedral ceilings, vaulted ceilings or an attic with greater than average insulation depth. It provides a finished appearance at the ceiling level. Refer to Table 1 for the required framing dimensions and Table 2 for the maximum supporting capacity of the selected support.

The basic steps necessary to install a round or square ceiling support in a cathedral or pitched ceiling or roof application are similar to the installation for a horizontal framed opening except it is being installed in a framed opening that is sloped. As such the framing members must all be oriented so their exposed faces (through which the box will extend) need to be vertical - as shown in Figures 47 and 48.

1. Cut and frame (on all 4 sides) the opening in the ceiling or roof where the chimney will pass. The opening will be rectangular but still must be plumb and in perfect alignment with each other. Insure the framing dimension is measured in the horizontal plane (see Figure 5).

2. At the opening where the support will be installed:

- a. Temporarily set one of the L-brackets at the midpoint location on the top of each side of the framed opening. The bracket should set on the top and extend down the front side of the framing members (see Figure 9a).



Round Support (RBCS) - Pitched Ceiling

UltimateONE

- b. Temporarily secure each bracket in place with a nail driven (only partially) through one of the pre-punched holes in the bracket down into the top side of the framed opening.

NOTE: The Support Collar supplied with the Round support will not be used. The 4 L-Brackets will be used instead.

3. Place the Square or round Ceiling Support into the framed opening and temporarily center it, then adjust to the desired elevation - keeping in mind the bottom of the box must extend down at least 4" below the finished ceiling level on the low side (Figures 47 and 48).

4. Scribe a mark on the support along the top edge of each L-bracket. (If installing through the roof, extend the lines to the corners of the box (or edges of round support) for subsequent trimming of portions that would otherwise extend above the roof).

5. Remove the support and brackets. Using the scribed lines created previously, place a bracket on each of the outside faces of the support so that the top edge of the bend in the bracket is in alignment with the scribed line and the bracket is centered on the outside face of the support (see Figure 9c). Secure each bracket to the support (with two self-tapping, hex head screws) through the holes provided in the bracket and into the wall of the support.

6. From the top, set the support back down into the framed opening so the L-brackets again rest on the top surface of the framed opening and the support is now suspended in the opening. Check for proper fit, plumb and proper support extension down through the framing and meets the minimum 4" clearance below the lowest ceiling level. Adjust as necessary.

7. Remove the portion of the support above the lines that would otherwise extend above the roof.

8. Secure the brackets to the top side of the framed opening with a minimum of two (2) 1/8" (3mm) shaft by 1-1/2" (38mm) long nails or wood screws per bracket.

9. At the location where the box penetrates the finished ceiling, fit the U-Shaped trim plates (SBCS)

around the box and secure in place with small nails or screws through holes provided.

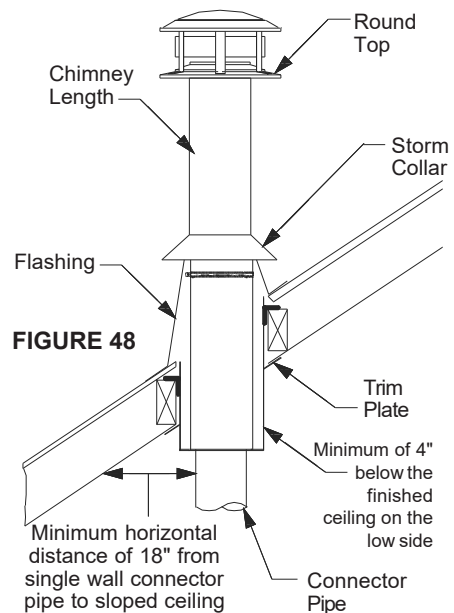
NOTE: The U-Shaped trim plates are used on opposite ends of the SBCS to overlap and trim pff the small gaps between the box and the finished ceiling material. Any small remaining gaps may be caulked and painted if desired.

Using the template supplied with the RBCS mark the round trim plate to the pitch of the roof and remove excess material. Fit the prepared trim plate around the support and against the ceiling and secure in place with small nails or screws through holes provided.

The support is now installed as a primary support and is ready to receive the chimney length with the Smoke Pipe Adapter in its base.

Lower the length with the Smoke Pipe Adapter in the Ceiling Support. Make sure the SPA protrudes through the Ceiling Support opening.

See the "Smoke Pipe Adapter" section and Figures 11a to 11e.



Cathedral Square Support (SBCS)

NOTE: When installing the Ceiling / Cathedral Support in a sloped ceiling or roof application, trim off the excess material sticking above the roof.

CATHEDRAL CEILING SUPPORT EXTENSIONS, UNIVERSAL ROOF SUPPORT

CEILING SUPPORT EXTENSIONS

NOTE: Steep pitched cathedral ceilings or attics with greater than average insulation depth, may require the use of a support extension, Round (RBCSE) or Square (CSES).

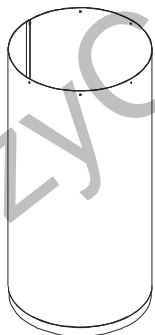
This extension adapts directly to the top end of the primary support and allows an extra 24" of extension. It is attached to the support using eight (8) self tapping, hex head, sheet metal screws provided.

To install:

1. Align the parts and insert the bottom end of the extension (end with backer plates extending down along the bottom inside edge) completely down into the upper end of the main support (until it bottoms out) and edge to edge contact is achieved.
2. Use eight (8) screws (provided) - 2 per side to secure the main support to the extension by placing them through the pre-punched holes in the upper end of the main support and using the self-tapping feature to drive through and secure the support to the backer plates on the support extension.

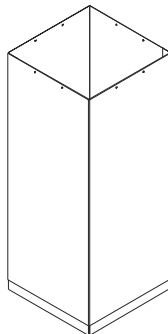
The extended support is now ready for installation. Install in the same manner as if it were a 48" tall (continuous) support.

Complete installation of the Flashing, Storm Collar and Round Top found under their sections in these instructions.



Round Support Extension (RBCSE)

Square Support Extension (CSES)

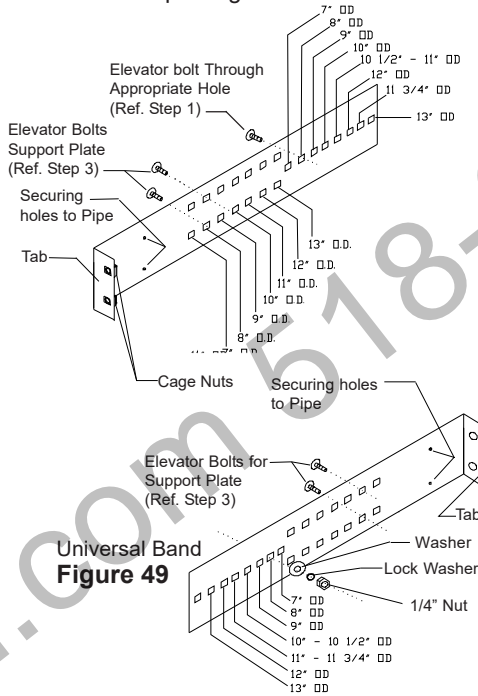


ROOF SUPPORT (URSA)

The Universal Roof Support Assembly (URSA) is designed to provide support

above a roof, adjust to any roof pitch, and permit the chimney to hang into the room. It may also be used above an offset to support the offset or as a supplementary support when the chimney height exceeds that of the primary support.

The Universal Roof Support Assembly (URSA) accommodates all diameters and supports up to 30' (9.0m) of chimney of which a maximum of 20' (6.9m) may be suspended beneath it. All joints and Locking Bands of suspended chimney must be fastened using two (2) #6x1/2" sheet metal screws through the 2 securing holes located on each side of the latch as per Figure 3.



Universal Band
Figure 49

1. Place the two halves of the URSA Band as shown in Figure 49. Insert elevator bolt through the hole in the single row of holes identified with the outside diameter of the chimney being installed, (Ex. - for an 8" OD chimney, place the elevator bolt through the holes identified for 8" OD). The flat head of the bolt should be oriented opposite the direction the formed tabs are pointed. Secure the center bolt with washers and nut (see Figure 49). NOTE: On smaller diameter the excess band material can be cut off.

2. Form the Band into a circle and loosely connect both tabs using the supplied 2" bolts into the 2 cage nuts (see Figure 50).

3. Attach the Support Plates to the band with elevator bolts, washers and nuts (2 sets per plate). The bolts should pass through the holes in the band corresponding to the pipe outside diameter and be secured loosely (see Figure 51). NOTE: 2 sets per Support Plate.

4. Place assembly around the length of pipe and loosely tighten the tabs with the screw and nut referenced in Step 2. Move the assembly to the desired height location on the pipe. Firmly tighten bolt and nut to secure the band around the pipe.

5. Secure URSA to the length of pipe by using four (4) 1/8" x 1/2" stainless steel self-tapping screws (provided) through the 2 securing holes found closest to the tabs on the band (see Figure 49).

6. The URSA is mounted directly on the roof sheathing with its Support Plate resting over rafters or a framed opening to form a solid base. Frame a rectangular roof opening to ensure a good distribution of weight load. Be sure to allow for a minimum of 2" airspace clearance to combustibles as shown in Figure 52. Refer to Table 1 for the required framing dimensions and Table 2 for the maximum supporting capacity.

7. Center the assembly in the opening. Adjust Plates to the pitch of the roof and tighten the nuts (see Figures 51 & 52).

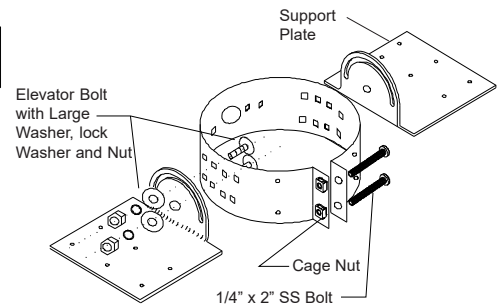


Figure 50

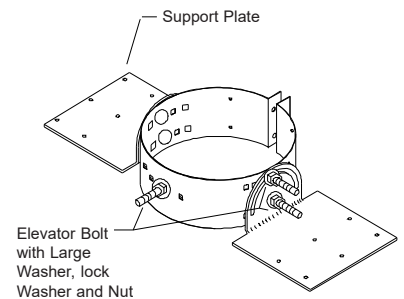


Figure 51

8. Install six wood screws (#10 x 2-1/2") per plate with the innermost going into rafters or headers.

9. Add additional lengths of pipe as necessary, above and/or below.

10. Complete installation of the Flashing, Storm Collar and Round Top found under their sections in these instructions.

NOTE: Support Extensions may be required for an attic with greater than average insulation depth.

ATTENTION! The Universal Roof Support will support up to 30' of chimney of which a maximum of 20' may be suspended beneath it.

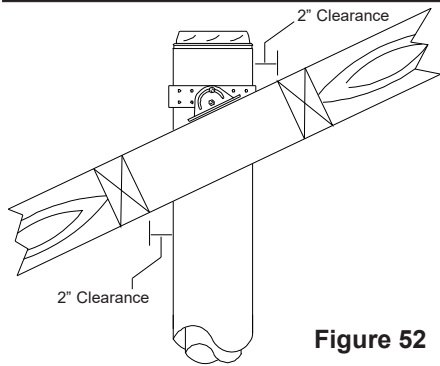
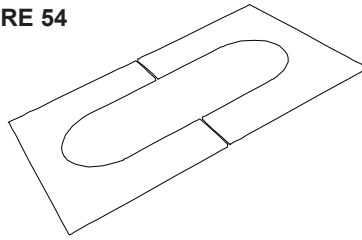


Figure 52

The Roof Support allows the UltimateONE chimney to extend down into the room below the level of the ceiling. Frame an opening for the 2 inch airspace clearance from the outside of the chimney to the framing.

FIGURE 54



See Roof Support section for more information on how to install the Roof Support.

SMOKE PIPE ADAPTER

See the Smoke Pipe Adapter section and Figures 11a to 11e.

ROOF FLASHINGS:

When the chimney is installed in an enclosed attic and/or chase application a vented flashing is required. A variety of Flashings are available to cover various roof pitches. For corrugated and clay tile roofs, a Rubber Boot Flashing Kit (see separate installation instructions) and Dead Soft Flashings are available including non-vented Flashings.

Roof Pitch Calculation

Pitch is 3/12

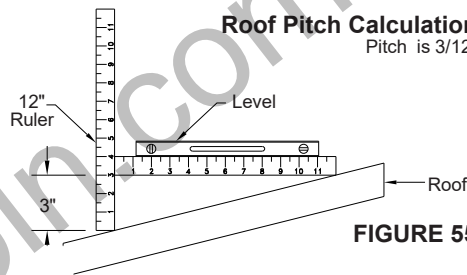


FIGURE 55

Ensure that the proper roof flashing has been selected by checking roof pitch using a level and two rulers (see Fig. 55) or by using a roof pitch card.

Frame a RECTANGULAR opening to suit the pitch of the roof and ensure that a 2" (50mm) minimum clearance is maintained to combustibles.

In new construction, slide a Roof Flashing Assembly suitable to your roof pitch over the chimney.

On an existing roof, center and install the flashing before extending the chimney above the roof. Do not nail the flashing to the roof yet.

NOTE: Prepare roof area by removing shingle nails and cutting roofing material allowing 2" clearance to the chimney. Slide the top edge (nearest the roof peak) of the flashing under the roofing shingles.

ATTENTION! The vents in the Flashings are required to be fully open in an enclosed attic or chase application.

NOTE: It is acceptable for the vents to be closed off with aluminum tape in a fully open attic space.

At least half of the flashing sides should be UNDER the shingles and the lower end OVER the shingles to provide a watershed. Trimming off the shingles may be necessary around the flashing cone for a better fit. Ensure that the chimney is level and plumb before nailing flashing to the roof. Nail flashing to the roof deck (under the shingles) along the upper edge and down each side with 12 nails with neoprene washers or cover the nails with a suitable non hardening waterproof caulking. Seal the shingles to the plate in the same manner. As a precaution, apply a bead of caulking along all seams of the flashing above the roof as per Figure 56.

Wrap the Storm Collar around the chimney Length. Insert tabs into the slots and bend tabs backward to secure collar in place.

Apply 1/4" bead of suitable caulking just above the top of the flashing cone on the chimney casing. Slide the storm collar downward through the applied caulking and into position to ensure a waterproof joint. Apply additional caulking above the storm collar as required.

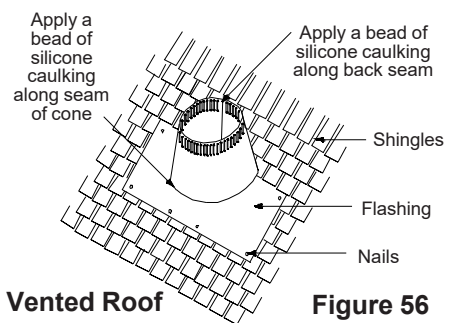


Figure 56

Vented Roof Flashing

NOTE: In regions of the country where significant amounts of snow or ice accumulate on the roof, it is recommended that a Snow Splitter be installed. This will help protect the chimney and roof flashing from damages caused by sliding snow or ice by diverting it around the roof flashing and the chimney. See separate instructions packaged with the Snow Splitter (U1-SS) for more information.

TRIM PLATE CEILING SPACER (USA ONLY)

The Trim Plate Ceiling Spacer (figures 53a & 53b) is intended to be used below the ceiling in conjunction with an Attic Insulation Shield for an open flat ceiling when the chimney system is supported with a Roof Support. The Roof Support allows the UltimateONE chimney to extend down into the room below the level of the ceiling.

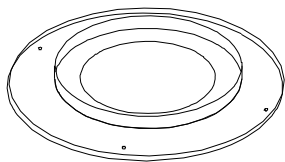


FIGURE 53a -Trim Plate Ceiling Spacer

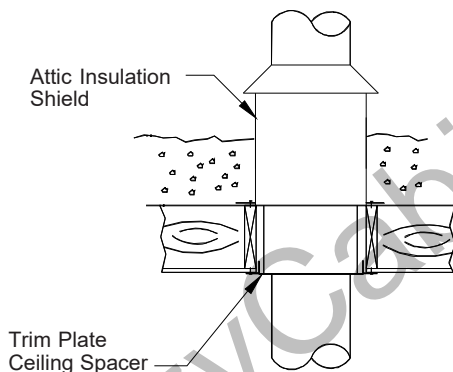


FIGURE 53b

The Trim Plate Ceiling Spacer must be the correct size for the chimney. It is installed from below and secured to the ceiling.

Frame a level square opening for 2 inches air space clearance from the outside of the chimney to the framing.

ADJUSTABLE PITCHED PLATE (USA ONLY)

An Adjustable Pitched Ceiling Plate provides firestopping and a finished appearance for the ceiling opening when the chimney system is supported with a Roof Support. UltimateONE

CAUTION! When positioning the Universal Roof Support onto the roof, maintain a 2" (50mm) air space clearance to combustibles.

ATTENTION! A Rubber Boot Flashing Kit is available for metal or clay tiled roofs.

ROOF SHIELD & HEAVY DUTY UNIVERSAL ROOF BRACE KIT (HDURBK)

The flashing and storm collar should be painted to match the roof shingles. This will extend its life and improve the appearance. The chimney may also be painted with a HEAT RESISTANT paint. To improve adhesion to the UltimateONE chimney, degrease, clean, prime before painting. Follow the paint manufacturer's instructions.

Continue adding chimney lengths until the proper height is achieved. Install the Round Top as per the instructions under the Round Top section.

CANADA - (Enclosed Attic):

ATTENTION! In Canada when the chimney is enclosed in the attic one of the following specially ventilated Canadian Flashings must be installed (AF6-C or AF12-C).

ROOF SHIELD

UltimateONE chimneys require a Roof Shield to protect combustible framing and decking where the chimney passes through a flat or low pitch roof. This four part shield is shipped with the flat roof flashing (TF) and the Canadian Adjustable Flashing (0/12 to 6/12). Frame the appropriate size opening as follows:
 12" x 12" for 6" diameter;
 13" x 13" for 7" diameter;
 14" x 14" for 8" diameter.

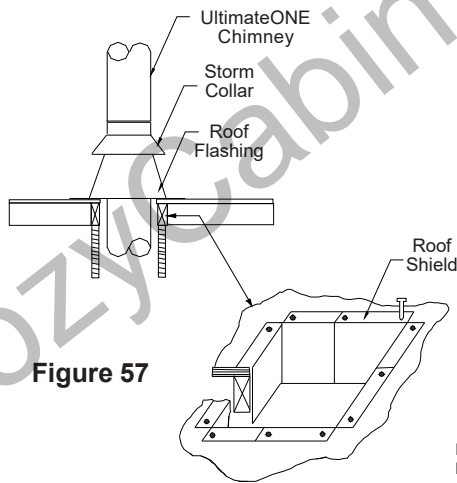


Figure 57

Nail the four parts of the roof shield into the opening from the top (as shown in Figure 57).

NOTE: The Roof Shield is **NOT** required when using adjustable flashings on roof slopes greater than 2/12, and is **NOT** required when the roof structure is non-combustible (steel or concrete).

HEAVY DUTY UNIVERSAL ROOF BRACE KIT (HDURBK)

The HDURBK will provide lateral support to the chimney above the roof line. It is required when the chimney extends 5 feet (1600mm) or more above the roof penetration. (see Figure 65).

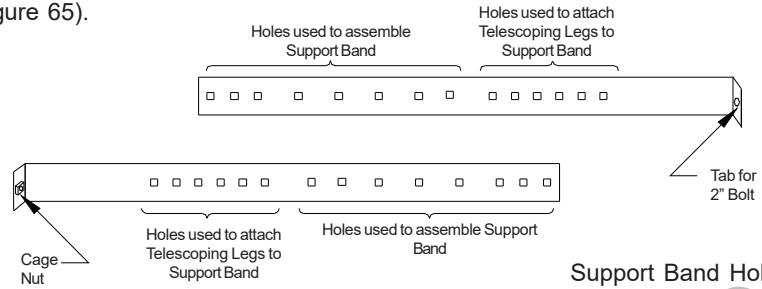


Figure 58
Support Band Holes Identifier

To Install:

- Measure the outside (OD) diameter of your chimney.
- The Band is formed from 2 halves of single row of holes (see Figures 58 and 59), select the hole in each half that corresponds to the outside diameter identified with the chimney being installed. Place the two halves together. Insert an elevator bolt through the chosen holes (Ex - for a 10" OD chimney, place the elevator bolt through the holes identified for 10" OD). The elevator bolt should be oriented as shown in Figure 60. Secure the center bolt with washers and 1/4" flanged nut (see Figure 60). NOTE: On smaller diameter chimneys, the excess band material can be cut off.

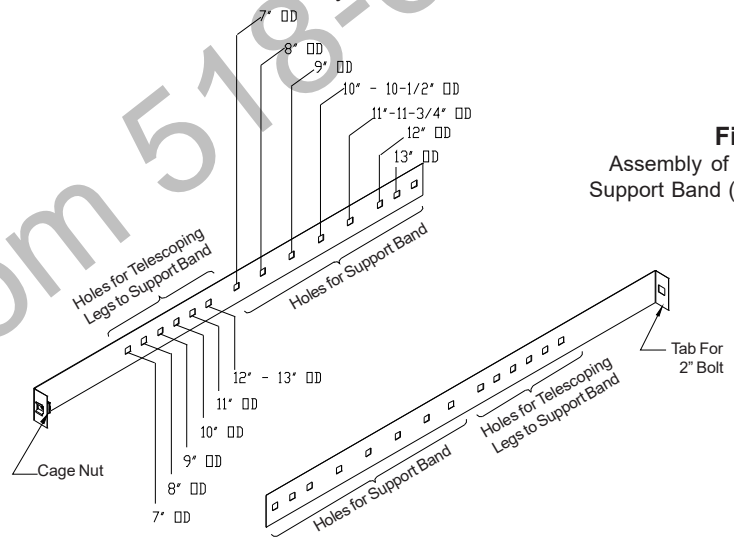


Figure 59
Assembly of Universal Support Band (2 Halves)

- Form the band into a circle (see Figure 61) and loosely connect tabs using the supplied 2" bolt into the cage nut located on one of the two formed tabs.
- Select the hole in each half that corresponds to the OD of the chimney. Insert an elevator bolt in each of the holes (1 per side).
- Position the Support Band approximately two thirds of the way up the chimney height (see Figure 64). The preferred location is next to a joint, immediately above or below a Locking Band. Secure Support Band by tightening the 2" bolt. NOTE: Only one chimney joint should be above a Roof Brace Kit. An additional Roof Brace Kit may be required for taller systems.

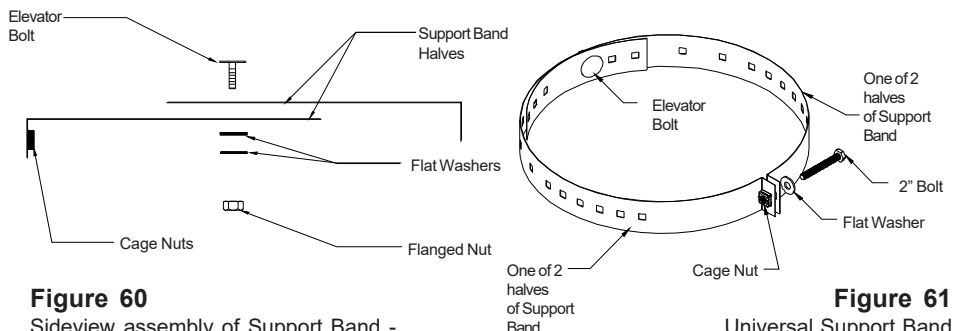


Figure 60
Sideview assembly of Support Band - Elevator Bolt, Washers and Nut

Figure 61
Universal Support Band formed into a circle

ATTENTION! Chimney systems 5 feet or more above the roof line requires a Universal Roof Brace Kit.

ATTENTION! Self tapping sheet metal screws will secure both inner and outer tubes together for added security.

HEAVY DUTY UNIVERSAL ROOF BRACE KIT (HDURBK), ROUND TOP

Preparation of Telescoping Legs:

- F. Assemble the telescoping tubes by inserting the smaller diameter into the larger one. Tighten the bolt (securing screw) which locks the two tubes together very firmly (see Figure 63). Repeat for the other telescoping leg assembly.
- G. Place a flat washer on the elevator bolts and attach the top portion of each of the telescoping legs to the 2 elevator bolts on the Support Band with washer and flanged nut (see Figure 62). NOTE: Top portion of each leg can be bent at an angle.
- H. Attach the other end of each telescoping leg assembly to an Angle Bracket using one (1) 1/4-20 X 1" bolt and nut (see Figure 64).

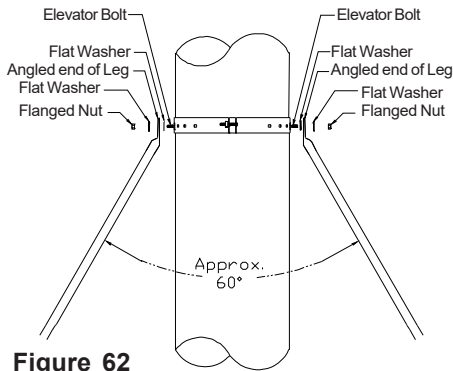


Figure 62
Assembly of Legs to Support Band

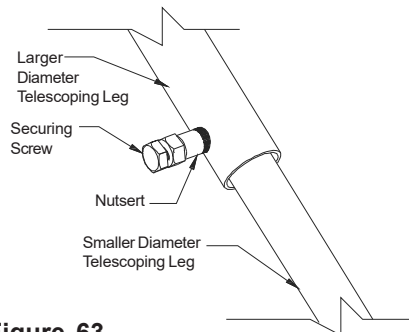


Figure 63
Assembly of Legs with Securing Screw

- I. Determine the location of the two Angle Brackets on the roof structure. Ensure the fasteners are into rafters or framing and not just roof sheathing. Secure the Angle Brackets to the roof structure using two (2) 1/4 X 2" lag screws per brackets (see Figure 64 & 65). Apply a thin layer of caulking under the angle bracket (before securing in place) as well as over the lag screw heads.

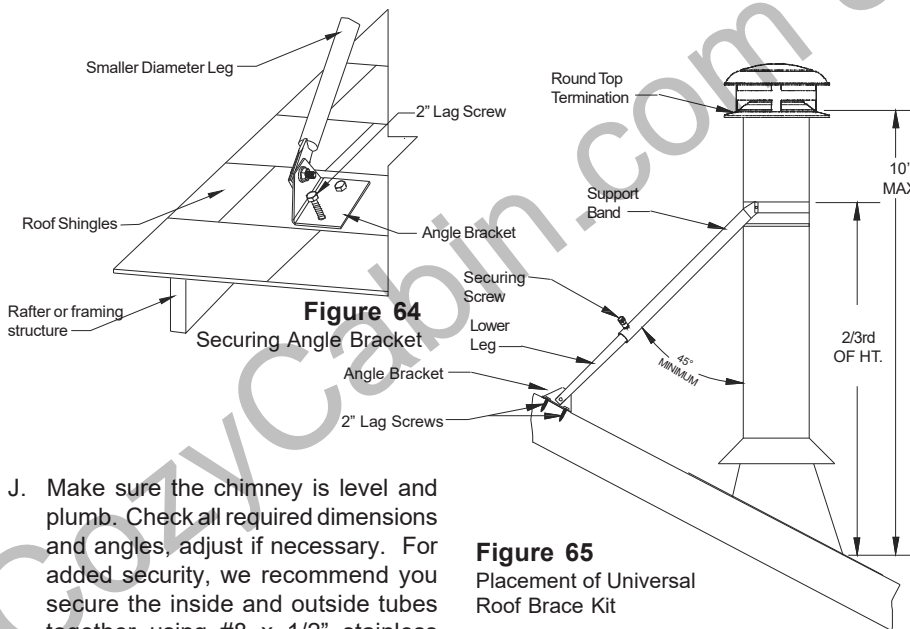


Figure 65
Placement of Universal Roof Brace Kit

- J. Make sure the chimney is level and plumb. Check all required dimensions and angles, adjust if necessary. For added security, we recommend you secure the inside and outside tubes together using #8 x 1/2" stainless steel self tapping screw to permanently lock them in place.

- K. The two telescoping legs should form an angle of about 60° to give support to the chimney in all directions. The angle of the telescoping legs should be approximately 45° from vertical when fastened to the roof (see Figures 62 & 65).

NOTE: Do periodic inspections of all fasteners including the securing screw as high winds can cause the chimney system above the roof to vibrate and in time loosen some of the fasteners.

ROUND TOP TERMINATION (CT)

1. Place CT Round Top over an installed chimney Length so the three legs slide down over the outside of the chimney (see Figure 66a).

Figure 66a



2. Press down on the lower skirt so the Round Top sits snugly on top edge of the chimney (see Figure 66b).

Figure 66b



3. Wrap the Cinch Band around the Length and all legs to rest evenly on the turned-out flanges (see Figure 66c).

Figure 66c



4. Engage the clasp into the hook then close the latch (see Figure 66d).

To remove the CT Round Top, simply open the latch and disengage the clasp from the hook and slide the Round Top off the Length.

Figure 66d



NOTE: Telescoping legs should form an angle of 60° to provide support to the chimney in all directions.

ATTENTION! Do periodic inspections of all fasteners above the roof as winds can cause vibration and in time loosen fasteners

SPARK ARRESTER (USA) & CATHEDRAL INSULATION SHIELD (CISS)

SPARKARRESTER(USA)

Use the Spark Arrester if you have a shingle roof or live in a forested area. If the chimney is used for venting a gas appliance, use a spark arrester to keep birds out.

The Spark Arrester is pre-formed which allows for the Spark Arrester to slip over the dome of the Round Top. The pre-formed Spark Arrester is made of flexible expanded metal mesh.

1. Wearing safety gloves, place the pre-formed Spark Arrester directly over the dome and skirt of the Round Top (see Figure 67a).

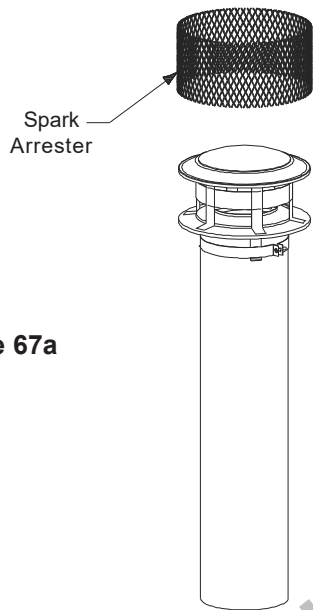


Figure 67a

2. Ensure the flanged end of the Spark Arrester is on top of the dome and the bottom folded edge overlaps the skirt (see Figure 67b).

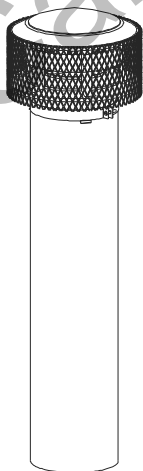


Figure 67b

If clogged: If the Spark Arrester becomes clogged with creosote, it should be cleaned or replaced. Remove Round Top by removing the cinch band. Lightly tap away (from the outside of the Spark Arrester) any creosote residue. If necessary use a soft

bristle brush for assistance. If the Spark Arrester is to be removed from the Round Top, release the bottom edge of the Spark Arrester from the skirt edge and raise the Spark Arrester from the Round Top.

SPECIFIC USE COMPONENTS

CATHEDRAL INSULATION SHIELD (CISS) WITH U1 CHIMNEY

The CISS is designed to be used when the chimney extends through a pitched ceiling. It can be adjusted to meet any angle and provides a 2" clearance to combustibles. The overall height of the CISS is 24".

The trim Plate also acts as a firestop and can be adjusted to accommodate any angle.

An Extension is also available and must be used if a greater coverage is required to bring the CISS to the roof level.

It is permissible to have insulation touching the outside of the CISS.

CANADA:

In Canada, the CISS is used with certified factory-built fireplaces listed to ULC-S610 or chimney installations listed to ULC-S604.

USA:

In the USA, the CISS is used either with factory-built fireplaces listed to UL 127 and stove installations listed with a UL 103 Type HT chimney.

Contents:

- 1 - Insulation Shield
- 1 - Trim plate (2 U shape pieces)
- 4 - Support Brackets
- 2 - Hardware Packages (sheet metal screws and black screws)

Install:

1. Cut and frame the opening (on all 4 sides) as per the dimensions in Table 3.
2. Position and secure the support brackets (2 per sides) on the Insulation Shield to the pitch of the roof with supplied sheet metal screws (2 per brackets).
3. Install the Insulation Shield and secure to the framed opening from above with appropriate screws (not supplied). See Figure 68.
4. If the Insulation Shield extends above the roof, cut it flush with the top of the roof.
5. Attach the two Trim Plates to the ceiling with the supplied screws.

NOTE: The Insulation Shield must protrude below the finished ceiling a minimum of 1" into the room (see Figure 68).

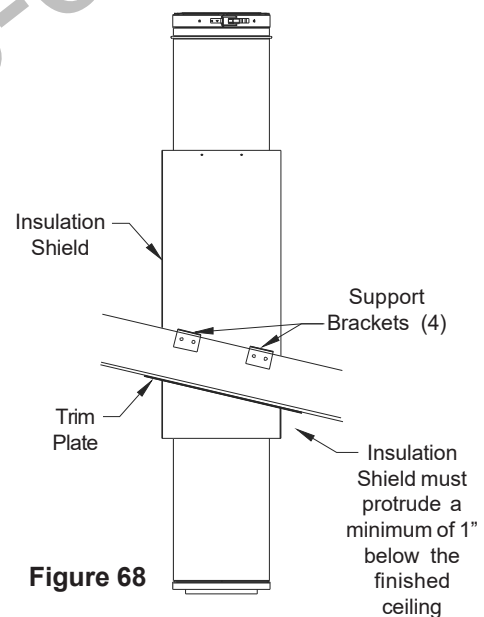


Figure 68

TABLE 3 - Required Framed Opening

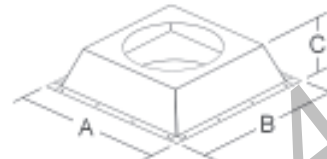
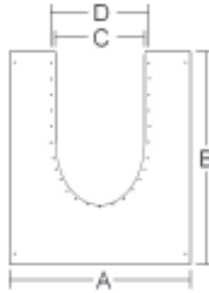
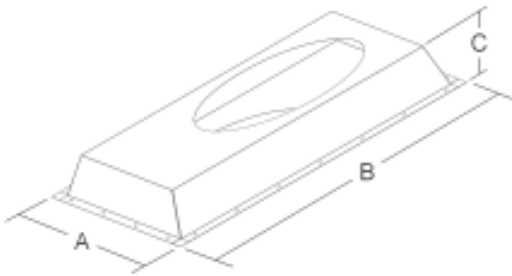
Roof Pitch	Opening Required		
	6"	7"	8"
0/12	12-3/8" X 12-1/8"	13-3/8" X 13-1/8"	14-3/8" X 14-1/8"
3/12	12-3/8" X 12-7/16"	13-3/8" X 13-7/16"	14-3/8" X 14-1/2"
4/12	12-3/8" X 12-11/16"	13-3/8" X 13-3/4"	14-3/8" X 14-13/16"
5/12	12-3/8" X 13-1/16"	13-3/8" X 14-1/8"	14-3/8" X 15-1/4"
7/12	12-3/8" X 13-15/16"	13-3/8" X 15-1/8"	14-3/8" X 16-1/4"
8/12	12-3/8" X 14-1/2"	13-3/8" X 15-11/16"	14-3/8" X 16-7/8"
9/12	12-3/8" X 15-1/16"	13-3/8" X 16-5/16"	14-3/8" X 17-9/16"
12/12	12" X 17-1/16"	13-3/8" X 18-7/16"	14-3/8" X 19-7/8"

ATTENTION! Check Spark Arrester at least every 2 to 4 weeks to ensure Spark Arrester does not become clogged.

INSULATED WALL PLUG & INSULATED CHASE PLUG (JSC7WC / JSC7CP)

The Insulated Wall Plug and Chase Plug are used on factory-built fireplaces when the chimney passes through a wall at an angle or through the ceiling of a chase. They are designed and manufactured to maintain the thermal envelope of the house.

FRAMING AND DIMENSION TABLE												
Chimney Diameter	WALL PLUG				TRIM PLATE (WALL PLUG)				CHASE PLUG			
	Dimension			Framing Size	Dimension				Dimension		Framing Size	
	A	B	C		A	B	C	D	A	B		C
6" & 7"	17"	34"	4"	32-3/8" x 15-1/8"	17"	20"	8-3/8"	9-3/8"	17"	17"	4"	15" x 15"



INSULATED WALL PLUG (JSC7WC)

The Insulated Wall Plug has been designed for use when a chimney passes through a wall at an angle. It provides a 2" air space clearance to combustible materials surrounding the chimney.

The Insulated Wall Plug will accommodate UltimateOne 6" and 7" chimney pipe (OD of 8" and 9").

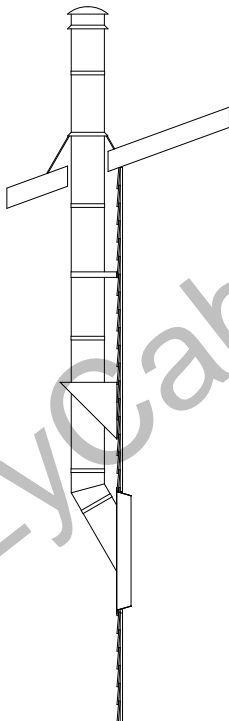


FIGURE 1

Trim Plate:

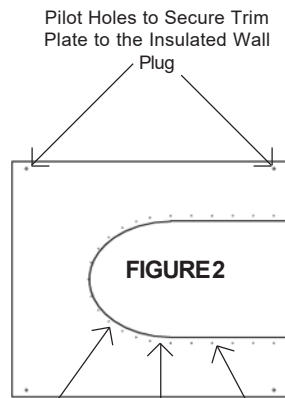
The included Trim Plate is to eliminate the gap found on the Wall Plug in some applications.

NOTE: The trim plate is required only when:

- A - The chimney diameter is 6" on a 30° or 45° angle.
- B - The chimney diameter is 7" on a 45° angle.

4. Position one of the Trim Plates below the chimney section on the exterior of the Wall Plug. Slide the Trim Plate up until flush with the chimney section. Secure to Wall Plug using the provided self-tapping sheet metal screws. Secure the top Trim Plate in the same manner as the bottom one. Apply a silicone sealant to weatherproof around the chimney length and the Wall Plug.

NOTE: When installing 7" diameter (9" OD) pipe at a 45° angle it is necessary to cut the trim plate to allow the pipe to pass through. Dimples are provided as a guideline for cutting the trim plate. Cut the trim plate along the dimples (see Figure 2).



Dimples to outline the required cut for a 7" diameter chimney when used with a 45° angle

INSULATED CHASE PLUG (JSC7CP)

The Insulated Chase Plug is designed and manufactured to maintain the thermal envelope of the house. It is installed from the bottom side of a 15" square opening using 8-2" spiral nails.

Whenever the Insulated Chase Plug is used, the chimney must be enclosed immediately above the joist in which it is installed such as in a chase application (see Figure 3).

NOTE: A Trim Plate is provided when a 6" chimney is used to close off the gap in the Chase Plug.

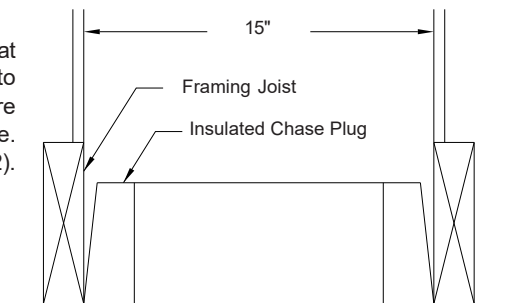


FIGURE 3

To Install:

Wall Plug:

1. Frame your opening to the Framing Size found in the Framing Table above.

2. Fasten the Wall Plug to the structure of the building with the flat section facing the exterior of the building (see Figure 1).

3. Install a chimney section through the Insulated Wall Plug. Continue with the installation of the offset and the Universal Wall Support (UWRS).

ANCHOR PLATE (AP)

MODEL ULTIMATEONE ANCHOR PLATE

INSTALLATION INSTRUCTIONS FOR MASONRY AND CERTIFIED FACTORY-BUILT FIREPLACES

NOTE: It is of the utmost importance that this chimney be installed in accordance with these instructions. Certification of the chimney is void if the installation instructions are not followed. The UltimateONE chimney requires 2" (50mm) clearance (air space) to combustible material.

Refer to the following sections in these instructions to complete your installation to a masonry fireplace:

- Technical Specification
- Pre-Installation Guidelines
- UltimateONE Joint Security
- Framing Details
- Anchor Plate
- Attic Insulation Shields
- Firestop / Joist Shield
- Elbow Installation
- Roof Support
- Roof Flashing
- Roof Brace Kit
- Round Top Termination

Model UltimateONE Anchor Plate provides a connection from a masonry fireplace to a Selkirk Model UltimateONE chimney. The following steps describe the installation of this part (component) and the above mentioned sections of these instructions are to be followed. The Anchor Plate comes complete in one piece.

1. Mount four (4) 1/4" diameter bolts, 3" long securely into the top of the masonry fireplace around the outlet opening. Use the 4 holes on the anchor plate as a template to locate the placement of these bolts.
2. Apply a bed of mortar approximately 3/4" in depth and 3" in width completely around the fireplace opening. Make sure the threaded ends of the bolts protrude a minimum of 1" above the bed of mortar.
3. While the mortar is still damp, place and level the Anchor Plate over the extended studs. Secure using a washer and nut for each bolt.
4. Check the Anchor Plate for levelness and allow mortar to set.
5. Position a Length of UltimateONE chimney on the Anchor Plate and secure in place with the Locking Band.
6. Follow the instructions for each chimney components.

"LISTED" FACTORY-BUILT FIREPLACES

The Anchor Plate can be used for adapting the UltimateONE chimney to a "Listed" Factory-Built Fireplace certified for use with UltimateONE. **Use UltimateONE only on Factory-Built Fireplaces Listed for use with UltimateONE or fireplaces that permit any ULC-S629 Listed Chimney.** For Listed Factory-Built fireplaces requiring a S629 Listed chimney, the radiation shield (Supplementary Radiation Shield) is required (unless the appliance manufacturer's instructions state otherwise).

NOTE: It is of the utmost importance that the Anchor Plate be installed in accordance with the manufacturers installation instructions accompanying the "Listed" Factory-Built Fireplace.

ATTENTION! UltimateONE chimney requires 2" (50mm) clearance (air space) to combustible materials.

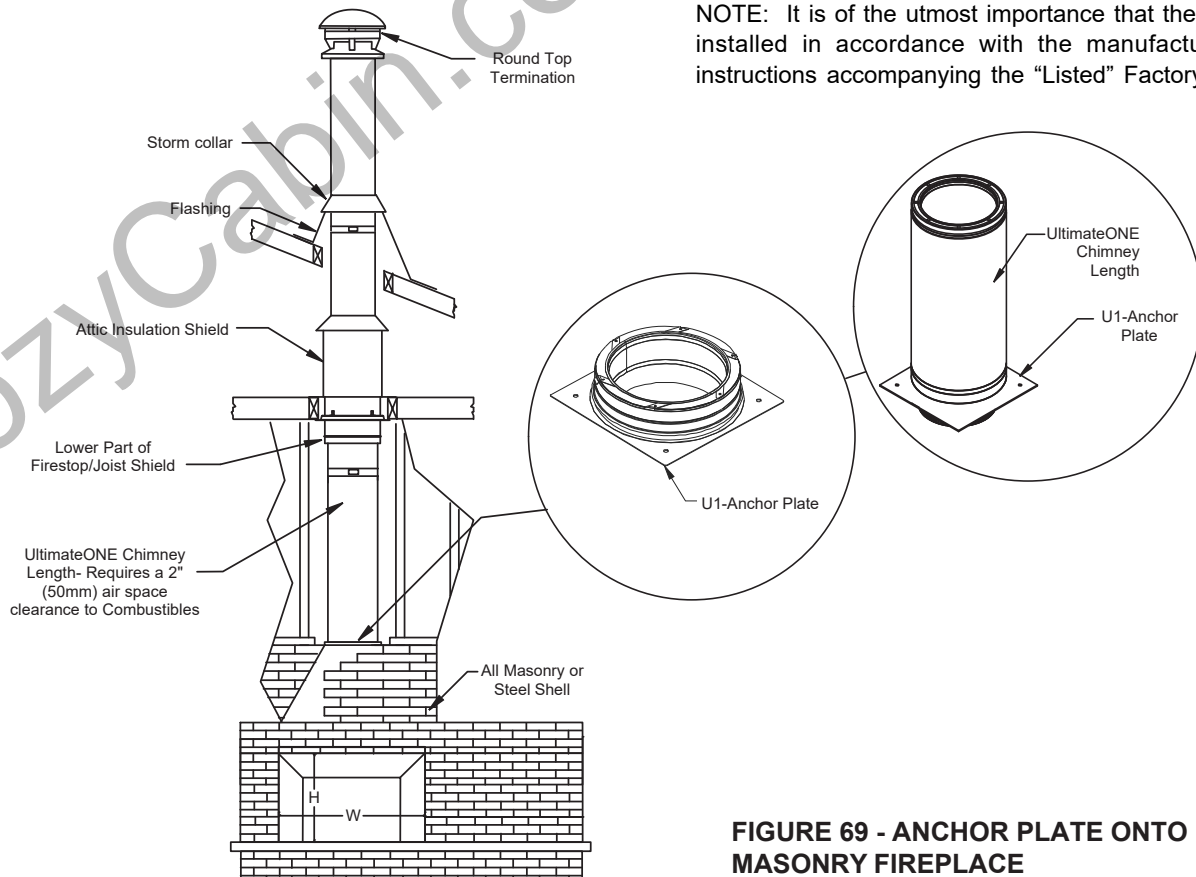


FIGURE 69 - ANCHOR PLATE ONTO MASONRY FIREPLACE

MAINTENANCE AND CLEANING OF THE CHIMNEY

The need for chimney maintenance depends on the kind of appliance and how it is operated. Gas and oil-burning appliances need very little, but wood-burning appliances may need a great deal of chimney maintenance.

How you burn wood in your stove or fireplace directly affects the formation of creosote. Use more dry kindling and paper first to warm up the chimney system to a temperature between 350° to 500° F. Burn hot, bright fires and fire each load hot. It is important to load your appliance properly and to avoid smoldering fires. Fast, effective start-ups are important, as is the moisture content of the wood being burned. If your wood is not completely seasoned, split your wood in smaller pieces instead of larger ones. Ideally, the moisture content of your firewood should be between 18 to 22%. A good investment in assisting you in monitoring your system is a surface thermometer for single wall stove pipe or a probe thermometer for double wall stove pipe. Ensure only low sulphur content coal (1% or less) such as anthracite is burned.

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 accumulates on the flue lining. When ignited, this creosote can create a chimney fire with extremely high temperatures.

With a new installation, the chimney should be inspected frequently (every 2 wks) to determine the rate of creosote formation. When familiar with the appliance and chimney characteristics, the chimney should be inspected at least once every 2 months during the heating season to determine if a creosote or soot build-up has occurred. Check spark arrester screens at least every 2 to 4 weeks. If the spark arrester becomes clogged with creosote, it should be cleaned or replaced.

If creosote or soot has accumulated, it should be removed to reduce the risk of chimney fire. Depending on the rate of buildup (as little as 1/16") and as you learn what is going on in the chimney, you can adjust your cleaning schedule accordingly. Every chimney flue and flue pipe shall be inspected annually and UltimateONE

cleaned as often as may be necessary to keep the chimney and flue pipe free from dangerous accumulation of combustible. Chimney and flue pipe are particularly susceptible to off-season condensation. The incomplete combustion of wood produces acids which, when combined with moisture, are corrosive. During the heating season, corrosion tends not to occur because the heat in the system evaporates the condensation of any water vapour that may be formed.

Warm, moist air during the summer months passes slowly through the heating system. It makes any remaining ash or creosote moist and soggy. Corrosion of steel occurs where these deposits remain.

Off-season corrosion can be reduced considerably if the system is thoroughly cleaned after the last fire of the heating season. Where coal is burned, the system must be thoroughly cleaned within 48 hours of shutting down the system for the season and all soot be removed from the chimney system. This should be the most careful cleaning the system receives all year. Air inlets should be closed and sealed if necessary to prevent the constant flow of air through the system.

Contact a professional certified chimney sweep for chimney cleaning services and advice if you have any doubts about your ability to clean your chimney system or if the task is too large. To visually inspect the chimney, remove the Round Top by releasing the latch and disengage the clasp from the hook from the securing band. If an Insulated Tee is installed, remove the Tee Cap retainer. This will permit the insertion of a flashlight for inspection and a properly sized plastic chimney cleaning brush. A metal brush may scratch the liner and lead to premature corrosion.

Be sure to replace the Round Top Termination and the Tee Cap when you are finished inspecting and cleaning the chimney.

If chemical cleaner is used to assist in cleaning your chimney, make sure it is a product which is non corrosive. Selkirk will assume no liability for damage resulting from the use of chemical cleaners. It does not replace the need for a mechanical cleaning. The optimal method for cleaning a chimney is by a mechanical brushing of the chimney in

conjunction with a complete evaluation of the system by a certified chimney sweep.

CHIMNEY FIRES AND WHAT TO DO ABOUT THEM

Your UltimateONE 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 stove 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 the top, you are either overfiring or there is a chimney fire. The following materials should not be burned in your woodburning appliance: pressure treated lumber, rail road ties, salt water driftwood or plastic. Burning such materials may lead to severe corrosion of the appliance and the chimney system.

If the fire in your appliance 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 certified wood technician or certified chimney sweep 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 dangerous 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.

ATTENTION! With a new installation, the chimney should be inspected frequently to determine the rate of creosote formation.

CAUTION! Ideally moisture content of your firewood should be between 18 to 22%.

KNOWING WHAT AND HOW TO BURN

BURN ONLY SEASONED FIREWOOD!

Wood burns completely only at very high temperatures with enough oxygen present. The fuel, heat, and oxygen have to mix together in the same place at the same time. Although all stages of burning wood actually occur at the same time, it will burn in 3 stages: boiling off the water, vaporizing wood gases and burning the charcoal.

Wood burning appliances will burn best with clean, well seasoned dry firewood with an ideal moisture content of 18% to 22%. The denser or heavier the wood when dry, the greater its heat value. Seasoned firewood is essential for an optimum performance. Seasoned wood will burn hot, emit less smoke and create less creosote.

Un-seasoned wood when burned, must release water stored within the wood. This cools the fire, creates creosote and hampers a complete burn. Be careful of wood advertised as seasoned. You may want to invest in a moisture meter.

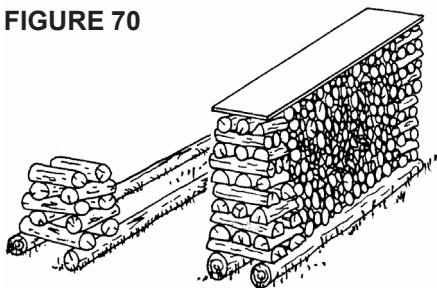
Signs of seasoned firewood are:

- Dark colored; wood darkens with age;
- Cracks in the end grain; radiating from the center of the log like bicycle spokes;
- Light in weight; which indicates low moisture content - but hardwood will weigh more than softwood;
- Sound; hit 2 pieces together, wet will have a dull "thud" sound where as dry will ring like a bat hitting a baseball;
- Easily peeled or broken bark; no green should show under the bark;
- Burn some; if it hisses, then it is to wet.

The time it takes to season wood varies from 6 to 18 months. Hardwood dries slower than softwood and some may take well over a year to dry. To speed-up drying:

- Cut to length;
- Split in a variety of sizes no larger than 6" exposing the wet interior and increasing the surface area of each piece;
- Stack loosely in a crisscross pattern to get good air circulation;

FIGURE 70



- Store above ground at least a foot and away from buildings in a sunny, well ventilated area;
- Cover the top to keep rain and dew off the wood;
- Leave sides open to breezes; for air circulation.

AVOID BURNING "green", "unseasoned" "wet" wood. Heat is wasted as it must first dry and evaporate the moisture content in the firewood. As the water evaporates it will form into creosote which will then condense in the relatively cool firebox and chimney and will not permit a clean hot burn.

FUELS TO AVOID:

Do not burn saltwater driftwood, treated wood, wax logs, coals, garbage, plastics or rubber. Fuel other than firewood may burn excessively hot leading to damages to the chimney system and become a serious fire hazard.

BUILDING A FIRE

No matter what method you will use to build a fire, review the hints and warnings below to ensure proper fire starting.

Read the supplied Owner's Manual of the appliance for important detailed information on how to operate the appliance and to start and build a fire.

Fully open the combustion air control. You may also open an adjacent window during the first 5 to 10 minutes if additional air is needed.

Make certain the chimney is drafting upward. Some chimneys will need to be primed or warmed up before they will draw sufficiently to start a fire. This could depend on too short of a chimney; quantity of offsets; a cold outside chimney; appliance is located in the basement; local geography or nearby obstructions.

Do not light a kindling fire until the chimney begins drawing, repeat the procedure below as often as necessary if the initial attempt is unsuccessful.

Prepare the kindling. Open the combustion air control. Roll up some newspaper, light it and place it near the flue area until the chimney begins to draw. Once a draft has been established, start a kindling fire.

TO BUILD A KINDLING FIRE - Read the supplied Owner's Manual of the appliance for important detailed information on how to operate the appliance and to start and build a fire.

Use plenty of crumpled newspaper and dry, finely split kindling. Place 4 to 5 crumpled sheets of newspaper (balled up fairly tight) in the firebox behind the andirons.

Place 10 to 15 pieces of small kindling on and behind the paper so that the combustion air reaches the newspaper and to ensure a proper temperature has been reached.

Add 3 or 4 small pieces of dry firewood to the kindling.

Open the air control fully, light the newspaper and close the door without latching.

Once there is a hot kindling fire and the chimney is producing a strong draft, close and latch the door.

When the flames from the kindling diminish, add several small pieces of firewood 3" to 4" in diameter, stacked on and behind the burning kindling.

It is advisable to wait for the fire to be reduced to hot embers before re-loading.

Before re-loading open the combustion air control fully. The door should also be opened slowly.

Contact a local hearth dealer in your area for expert advice and helpful information.

WARNING:
DO NOT USE FUEL MATERIALS CORROSIVE TO THE CHIMNEY LINER SUCH AS DRIFTWOOD, PLASTICS, CHEMICALLY TREATED WOOD, ETC.

ATTENTION! Burn only seasoned firewood for optimum performance.

ATTENTION: Read the Owner's Manual supplied with the appliance.

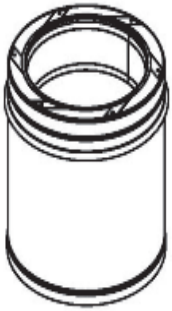
REPLACEMENT PARTS LIST

DESCRIPTION	PART N ^o .	DESCRIPTION	PART N ^o .
48" Chimney Length	*U1-48	Anchor Plate	*U1-AP
36" Chimney Length	*U1-36	Flashing Assembly 0/6-6/12 Canada Enclosed Attic	*U1-AF6-C
24" Chimney Length	*U1-24	Flashing Assembly 7/12-12/12 Canada Enclosed Attic	*U1-AF12-C
18" Chimney Length	*U1-18	Un-Vented Flashing Assembly 0/12 - 2/12	*U1-UVTF
12" Chimney Length	*U1-12	Un-Vented Flashing Assembly 2/12 - 6/12	*U1-UVAF6
9" Chimney Length	*U1-9	Un-Vented Flashing Assembly 7/12 - 12/12	*U1-UVAF12
6" Chimney Length	*U1-6	Flashing Assembly 12/12 - 24/12	*TAF-24
Adjustable Length - 18"	*U1-AL18	Flashing Assembly 24/12 - 36/112	*TAF-36
Locking Band	*U1-LB	Dead Soft Flashing 2/12 - 12/12	*T-AF6D
Insulated Tee/Insulated Tee Cap	*U1-IT	Universal Rubber Boot Flashing Kit	URBAK
Insulated Tee Cap	*U1-ITC	Universal Metal Roof Flashing Kit	URFK
15° Insulated Elbow Kit	*U1-EL15K	Storm Collar - Canada Only	*U1-SC-C
30° Insulated Elbow Kit	*U1-EL30K	Storm Collar	*/T-SC
45° Insulated Elbow Kit	*U1-EL45K	Snow Splitter	U1-SS
Round Ceiling Support	*U1-RBCS	Heavy Duty Roof Brace Kit	HDURBK
Extension Round Support	*U1-RBCSE	Universal Wall Channel	WC
Square Ceiling Support	*U1-SBCS	Round Top	U1-CT
Extension Square Support	*U1-SBCSE	Spark Arrester	*T-USA
Square Support / AIS	*U1-SCSC	Adjustable Pitched Ceiling Plate 0/12 - 6/12 Pitch Ceiling	*T-PCPAJ
Extension Square Support / AIS	*U1-SCSE	Adjustable Pitched Ceiling Plate 6/12 - 12/12 Pitch Ceiling	*T-PCPAJ2
Wall Support Package	*SO-WSP	Finishing Collar	*T-FC
Universal Extended Wall Support	EWS	Cleanout Tee - Stainless	*CF-CA
Universal Wall Support	U1-UWRSA	Cleanout Tee Cap - Stainless	*U1-STC
Wall Band	*U1-WB	Universal Shielding Insulation	SUSI
Universal Wall Band	U1-UWB	Cathedral Insulation Shield	*CISS
Universal Interior Resupport	U1-UIRA	Shield Transition Piece	STP
Universal Roof Support Assembly	U1-URSA	Insulated Wall Plug	JSC7WC
Radiation/Joist Shield	*U1-JS	Insulated Chase Plug	JSC7CP
Radiation/Joist Shield Canada	*U1-JS-C		
Attic Insulation Shield	*U1-AIS		
Alternate Attic Insulation Shield	*U1-AAIS		
Supplemental Radiation Shields:			
Rigid	*U1-RSRS		
Flexible	*U1-FSRS		
Rigid Tee	*U1-RSRST		
Insulated Wall Thimble	*U1-IWT		
Decorator Sleeve	*U1-DS9		
Smoke Pipe Adapter	*U1-SPA		

* Asterisk specify chimney diameter (6", 7", 8").

REPLACEMENT PARTS

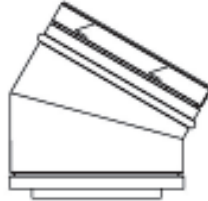
Contact Customer Service Department at the telephone number found on the cover page for information on replacement parts.



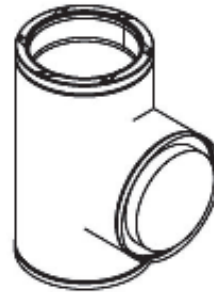
XU1 - yy



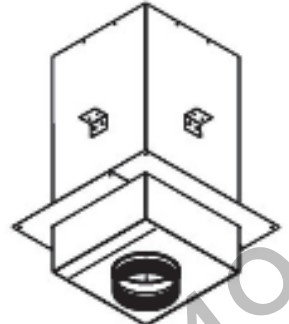
XU1 - AL



XU1 - ELvv



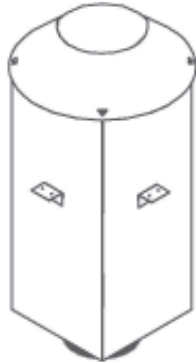
XU1 - IT



XU1 - SBCS



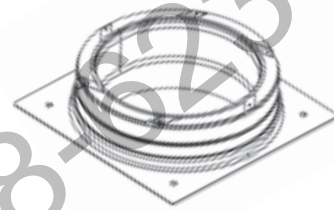
XU1 - RBCS



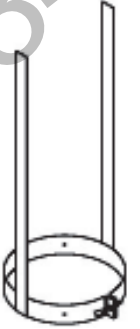
XU1 - SCSC



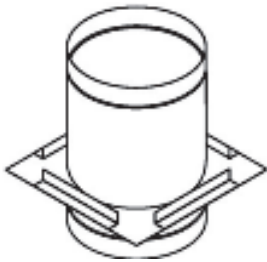
XU1 - SPA



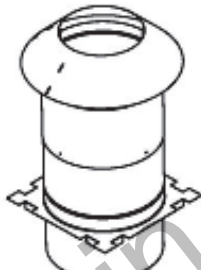
XU1 - AP



U1 - UIRA



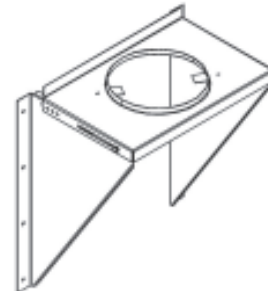
XU1 - JS / JSC



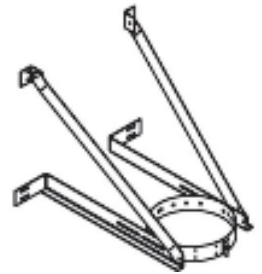
XU1 - AIS



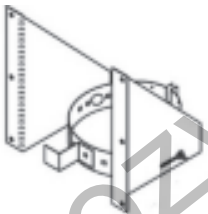
XU1 - AAIS



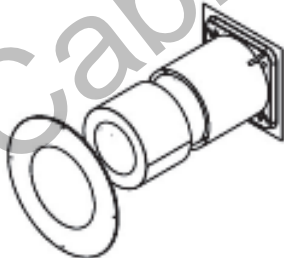
XU1 - WSP



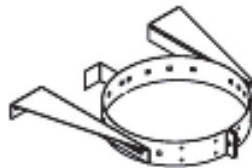
U1 - EWS



U1 - UWRSA



XU1 - IWT



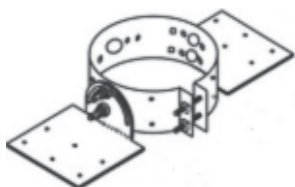
U1 - UWB



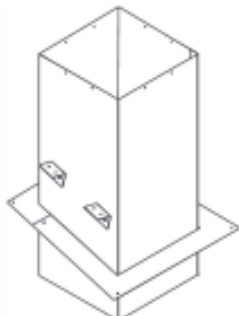
XU1 - WB



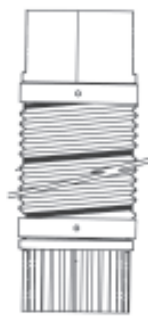
XU1 - CT



U1 - URSA



XU1 - CISS



XU1 - FSRs



XU1 - ITC



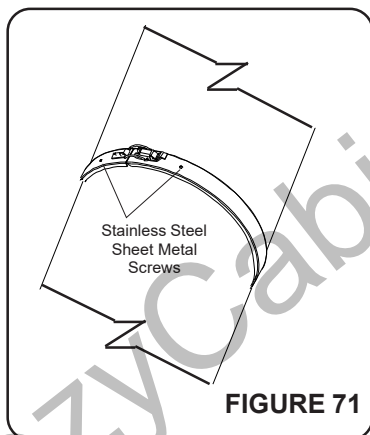
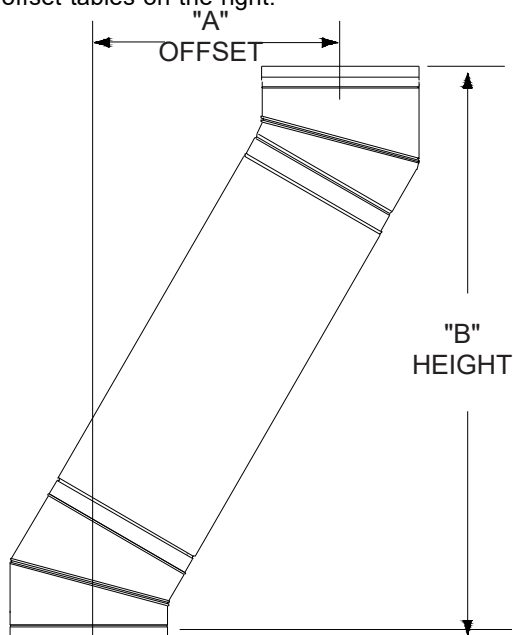
U1 - UTCR

LEGEND: X = DIAMETER (6, 7 OR 8) - YY = LENGTH (06, 09, 12, 18, 24, 36) - VV = ANGLE

OFFSET CHIMNEY INSTALLATION - CHART 1

The need to install a chimney offset must be used when it becomes necessary to offset the chimney in order to clear a joist or an obstacle. The three (3) charts below will assist you in selecting the proper combination of elbow angle and chimney length(s) that will provide the necessary degree of offset within an available height.

To determine the parts required for your installation refer to the drawing below and the offset tables on the right.



CHIMNEY OFFSET CHARTS

NOTE:

- UltimateONE chimney is limited to offsets not exceeding 30 degrees when installed in the US. Combining offsets for greater angle is not permitted.
- Two pairs of (four) 15° or 30° elbows may be used per interior installation.
- Locking bands must be used at each joints. For added security on multiple lengths forming an offset, fasten the joints using two (2) #6 x 1/2" stainless steel sheet metal screws through the pre-punched holes in the locking bands (see diagram on the left).
- Never install an elbow in a joist area. Chimney sections must pass vertically through framed joist areas.
- Elbow support will support 18 feet of chimney and the maximum length of chimney allowed between elbows is 8 feet.

CHIMNEY LENGTHS	6" DIAMETER		7" DIAMETER		8" DIAMETER	
	A	B	A	B	A	B
NONE	1-1/2"	11-1/2"	1-1/2"	11-3/4"	1-5/8"	12"
6"	3"	16-7/8"	3"	17-1/8"	3"	17-3/8"
9"	3-3/4"	19-3/4"	3-3/4"	20"	3-3/4"	20-1/4"
12"	4-1/2"	22-5/8"	4-1/2"	22-7/8"	4-5/8"	23-1/8"
18"	6"	28-3/8"	6-1/8"	28-5/8"	6-1/8"	28-7/8"
24"	7-5/8"	34-1/4"	7-5/8"	34-1/2"	7-5/8"	34-3/4"
36"	10-3/4"	45-3/4"	10-3/4"	46-1/8"	10-3/4"	46-3/8"
48"	13-7/8"	57-3/8"	13-7/8"	57-5/8"	13-7/8"	57-7/8"
24" + 12"	10-5/8"	45-3/8"	10-5/8"	45-5/8"	10-5/8"	45-7/8"
36" + 12"	13-3/4"	56-7/8"	13-3/4"	57-1/8"	15-3/8"	57-3/8"
36" + 36"	19-7/8"	80-1/8"	20"	80-3/8"	20"	80-5/8"
48" + 12"	16-7/8"	68-1/2"	16-7/8"	68-3/4"	16-7/8"	69"
48" + 24"	19-7/8"	80-1/8"	20"	80-3/8"	20"	80-5/8"
48" + 36"	23"	91-5/8"	23-1/8"	92"	23-1/8"	92-1/4"
48"+48"	26-1/8"	103-1/4"	26-1/8"	103-1/2"	26-1/4"	103-3/4"

CHIMNEY LENGTHS	6" DIAMETER		7" DIAMETER		8" DIAMETER	
	A	B	A	B	A	B
NONE	3-3/8"	12-1/2"	3-1/2"	13"	3-5/8"	13-1/2"
6"	6-1/8"	17-1/4"	6-1/4"	17-1/8"	6-3/8"	18-1/4"
9"	7-5/8"	19-7/8"	7-3/4"	20"	7-7/8"	20-7/8"
12"	9-1/8"	22-3/8"	9-1/4"	22-7/8"	9-3/8"	23-3/8"
18"	12-1/8"	27-5/8"	12-1/4"	28-5/8"	12-3/8"	28-5/8"
24"	15-1/8"	32-7/8"	15-1/4"	34-1/2"	15-3/8"	33-7/8"
36"	21-1/8"	46-1/4"	21-1/4"	46-1/8"	21-3/8"	44-1/4"
48"	27-1/8"	53-5/8"	27-1/4"	57-5/8"	27-3/8"	54-5/8"
24" + 12"	20-7/8"	42-3/4"	21"	43-1/4"	21-1/8"	43-3/4"
36" + 12"	26-7/8"	53-1/8"	27"	53-5/8"	27-1/8"	54-1/8"
36" + 36"	38-7/8"	73-7/8"	39"	74-3/8"	39-1/8"	74-7/8"
48" + 12"	32-7/8"	63-1/2"	33"	64"	33-1/8"	64-1/2"
48" + 24"	38-7/8"	73-7/8"	39"	74-3/8"	39-1/8"	74-7/8"
48" + 36"	44-7/8"	84-3/8"	45"	84-7/8"	45-1/8"	85-3/8"
48"+48"	50-7/8"	94-3/4"	51"	95-1/4"	51-1/8"	95-3/4"

CHIMNEY LENGTHS	6" DIAMETER		7" DIAMETER		8" DIAMETER	
	A	B	A	B	A	B
NONE	6"	14-5/8"	6-1/8"	14-7/8"	6-1/4"	15-1/4"
6"	9-7/8"	18-1/2"	10"	18-7/8"	10-1/4"	19-1/8"
9"	12"	20-5/8"	12-1/8"	21"	12-3/8"	21-1/4"
12"	14-1/8"	22-3/4"	14-1/4"	23-1/8"	14-1/2"	23-3/8"
18"	18-3/8"	27"	18-1/2"	27-3/8"	18-5/8"	27-5/8"
24"	22-5/8"	31-1/4"	22-3/4"	31-5/8"	22-7/8"	31-7/8"
36"	31-1/8"	39-3/4"	31-1/4"	40-1/8"	31-3/8"	40-3/8"
48"	39-5/8"	48-1/4"	39-3/4"	48-1/2"	39-7/8"	48-7/8"
24" + 12"	30-3/4"	39-3/8"	30-7/8"	39-3/4"	31"	40"
36" + 12"	39-1/4"	47-7/8"	39-3/8"	48-1/4"	39-1/2"	48-1/2"
36" + 36"	56-1/8"	64-7/8"	56-3/8"	65-1/4"	56-1/2"	65-1/2"
48" + 12"	47-3/4"	56-3/8"	47-7/8"	56-3/4"	48"	57"
48" + 24"	56-1/8"	64-7/8"	56-3/8"	65-1/4"	56-1/2"	65-1/2"
48" + 36"	64-5/8"	73-3/8"	64-3/4"	73-3/4"	65"	74"
48"+48"	73-1/8"	81-7/8"	73-1/4"	82-1/4"	73-3/8"	82-1/2"

All measurements in these charts are in inches. Construction tolerances ± one inch.

NOTE: The 45° Elbow Kits are available and installed only in Canada.

CHART 2 - CHIMNEY HEIGHT ABOVE THE ROOF

REQUIREMENT # 1 : The code requires that the chimney must extend at least 3 feet (900mm) above the highest point of the roof that it penetrates.

REQUIREMENT # 2 : The chimney must also be 2 feet (609mm) above any roof, wall or other obstruction within a horizontal distance of 10 feet (3m).

The following Chart is to assist you in determining the minimum chimney height you will require above the roof. You may need to add to this height as nearby buildings, trees and other parts of the house roof could interfere with airflow over and around the top of the chimney and affect its performance. If you think a nearby obstacle could affect draft, you might want to install one or more additional lengths.

DISTANCE FROM PEAK	PITCH OF ROOF											
	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
CHIMNEY HEIGHT ABOVE ROOF In Inches - (Formula: D (Distance from Peak) X P (Pitch) + 24 = Chimney Height)												
10 FT	*36	44	54	64	74	84	94	104	114	124	134	144
9 FT	*36	42	51	60	69	78	87	96	105	114	123	132
8 FT	*36	40	48	56	64	72	80	88	96	104	112	120
7 FT	*36	38	45	52	59	66	73	80	87	94	101	108
6 FT	*36	36	42	48	54	60	66	72	78	84	90	96
5 FT	*36	*36	39	44	49	54	59	64	69	74	79	84
4 FT	*36	*36	36	40	44	48	52	56	60	64	68	72
3 FT	*36	*36	*36	36	39	42	45	48	51	54	57	60
2 FT	*36	*36	*36	*36	*36	36	38	40	42	44	46	48
1 FT	*36	*36	*36	*36	*36	*36	*36	*36	*36	*36	*36	36

Formula: $D \times P + 24 = \text{Chimney Height}$ (D: Distance from Peak; P: Roof Pitch)

All measurements are in inches

* Defaulted to 36" to meet requirement #1. Both requirements (#1 and #2) must be met.

- If the chimney extends 5 feet or more above the roof, a Roof Brace Kit is required.

INSTALLATION INFORMATION

Leave with homeowner. Homeowner: Keep in a safe place for future reference.

PRODUCT INFO

CHIMNEY MODEL : **UltimateONE**

FLUE SIZE _____

TOTAL HEIGHT _____

INSIDE INSTALLATION OUTSIDE INSTALLATION

CONNECTED TO (type of appliance):

- WOOD BURNING APPLIANCE
- BOILER
- FURNACE
- LISTED FACTORY-BUILT FIREPLACE
- OTHER (specify) _____

LOCATION OF APPLIANCE:

- BASEMENT
- MAIN FLOOR
- OTHER (specify) _____

INSTALLATION DATE: _____

DEALER INFO

DEALER NAME: _____

Address: _____

City: _____

Province/State: _____

TECHNICIAN INFO

TECHNICIAN NAME: _____

Address: _____

City: _____

Province/State: _____