

# Model TLC

# Installation Instructions

## All-Fuel Chimney - 5" to 8"

Factory-Built Type HT Insulated Chimney - Tested to UL103

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**PLEASE READ AND UNDERSTAND THE REQUIREMENTS BEFORE PROCEEDING**

### Type of Appliances

Your Model TLC chimney is intended for venting gas, liquid, or solid fuel-fired, residential-type appliances and building heating appliances or as defined in NFPA 211, in which the maximum continuous flue gas temperatures do not exceed 1000°F. It has been tested and approved to withstand temperatures of up to 2100°F for three 10-minute intervals.

### Pre-Installation Guidelines

If you choose to have your product installed by others, we recommend these products be installed by professionals who are certified by NFI (National Fireplace Institute) or equivalent.

Your Model TLC chimney and connecting stovepipe diameter should be sized in accordance with the appliance manufacturer's recommendations.

Plan the installation of your appliance and chimney in such a way that both your chimney and your stovepipe run as short and straight as possible. By having too long and/or multiple-bend installations, you can reduce system

draft that can affect the operation and/or performance of your appliance and/or chimney system. The chimney should be located within the building in order 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.

Sections of the Model TLC chimney that pass through accessible areas of the building, such as through 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 to avoid personal contact and damage to the chimney. The chase may be fabricated using standard building materials. Drywall mounted on 2" x 4" studs is typically used in this situation. The space between the outer wall of the chimney and the enclosure must be at least a minimum of 2 inches.

**MAINTAIN A 2-INCH MINIMUM AIRSPACE CLEARANCE BETWEEN INSULATED CHIMNEY SECTIONS AND COMBUSTIBLE MATERIALS.**

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**WARNING: A MAJOR CAUSE OF CHIMNEY-RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIRSPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS CHIMNEY BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.**

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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. Keep these instructions in a safe place for future reference.

**Contents**

Type of Appliances .....1

Pre-Installation Guidelines ..... 1 & 3

Tools .....4

Framing Details .....4

Installation Procedures .....4

    Ceiling Support Installation .....4

    Stovepipe Adapter Installation .....5

    Attic Insulation Shield Installation .....5

    Firestop Radiation Shield Installation .....6

    Elbow Installation .....6

    Adjustable Wall Support Installation .....7

    Adjustable Intermediate Wall Support Installation .....12

    Cathedral Ceiling Support Installation .....12

    Roof Support Installation .....13

    Rafter Radiation Shield Installation .....13

    Roof Flashing Installation .....13

    Roof Guy Installation .....15

Maintenance and Cleaning of Chimney .....15

    Creosote and Soot - Formation and Need for Removal .....15

    Chimney Fires and What To Do About Them .....16

Chart 1 - Offset Chimney Installation .....17

Chart 2 - Chimney Height Above the Roof .....18

Chart 3 - Connector Pipe Clearance Below Cathedral Support .....19

Replacement Parts List .....20

Limited Lifetime Warranty .....21

    Model TLC Chimney & Venting Products .....21

    Limitations .....21

    Warranty Coverage .....21

    Claim Procedure .....21

Installation Information Form .....24

**WARNING: DO NOT PLACE ANY INSULATING MATERIALS OR RUN ANY ELECTRICAL WIRING WITHIN THE REQUIRED AIR CLEARANCE SPACE SURROUNDING THE CHIMNEY.**

Before beginning the installation, ensure that you obtain any necessary building permits, and that your installation will conform with all federal and municipal building code requirements.

**CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA.**

The National Fire Protection Association Standard 211 states: Factory-built chimneys that pass through floors of buildings requiring the protection of vertical opening shall be enclosed with approved walls having a fire-resistance rating of not less than one hour where such chimneys are located in a building less than four stories in height, and not less than two hours where such chimneys are located in a building four or more stories in height.

**WEAR SAFETY GLOVES WHEN HANDLING SHEET METAL PARTS WITH SHARP EDGES.**

The chimney must extend not less than 3 feet above the highest point where it passes through the roof of a building and not less than 2 feet above any portion of the building within 10 feet (Figure 1). See **Chart 2 - Chimney Height Above the Roof** on page 17 of these instructions. The use of **Locking Bands** at all chimney joints is

required for added safety, stability when exposed to high winds, and as a precaution against accidental unlocking of lengths when the system is inspected and swept.

The ideal location for your chimney system 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, the installation of the chimney within the building is strongly recommended.

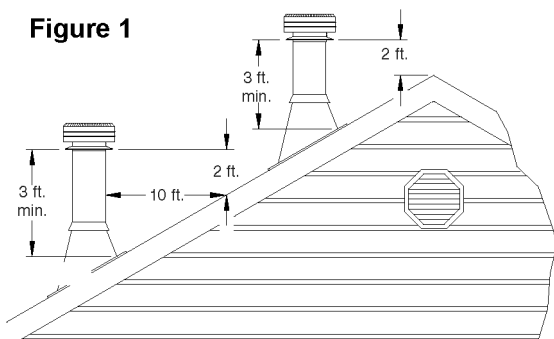
If the chimney must be installed on an exterior wall, it is recommended that the chimney be enclosed below the roof line to protect the chimney from cold outdoor temperatures; this may help reduce condensation, creosote formation, and enhance draft. Provide an access door by the tee cap for chimney inspection and cleaning. The exterior enclosure may be insulated, maintaining the required minimum airspace clearance of 2 inches to any part of the chimney. Consult local building codes for cold-climate application.

Do not install the chimney directly at the outlet of the appliance. Interconnecting stovepipe is required, unless the appliance is specifically approved for that type of installation.

Use only with an appliance listed by a recognized testing authority, such as Underwriters Laboratories, Inc. or Intertek Testing Services.

The flue diameter of gas or oil-fired appliance should comply with the appropriate NFPA or ANSI Installation Codes, NFPA 54, ANSIZ223.1, and NFPA31.

**Figure 1**



**YOUR CHIMNEY HAS BEEN TESTED AND LISTED, USING ALL OF THE SUPPORTS, SHIELDS, ETC., DESCRIBED HEREIN. 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.**

**Tools**

Your Model TLC chimney system is designed for installation using standard building materials and procedures. The following tools/equipment may be required, as well as some others, depending on the location and structure in which the chimney is to be installed.

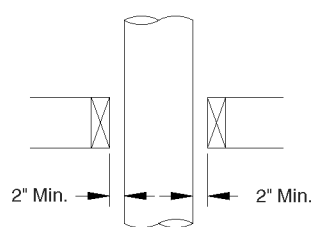
- Safety Gloves
- Safety Goggles
- Hammer and Nails
- Tin Snips
- Tape Measure
- Screwdriver and Pliers
- Plumb Line and Level
- Square
- Keyhole Saw or Power Jigsaw
- Caulking Gun

**Framing Details**

Plan your installation carefully. If possible, position the stove so that the flue outlet is 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-inch clearance to combustibles is maintained. Refer to Table 1 for framing dimensions, and mark the appropriate cutting lines around the center point. All openings should be square (all four sides), plumb, and in perfect alignment with each other (except for the inside "finished" surface of your wall (Figure 2).

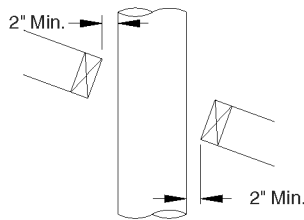
For sloping roofs, ensure that the framing dimension is measured in the horizontal plane (Figure 3).

**Figure 2**



**Typical Joist Framing**

**Figure 3**



**Typical Roof Joist Framing**

| Chimney Flue Diameter | Framing Dimensions (in inches)                                  |                         |                   |
|-----------------------|---|-------------------------|-------------------|
|                       | Ceiling Support*  | Wall (Support) Thimble* | All Other Framing |
| 5"                    | 12 <sup>3</sup> / <sub>8</sub> x 12 <sup>3</sup> / <sub>8</sub> | 14 x 14                 | 11 x 11           |
| 6"                    | 12 <sup>3</sup> / <sub>8</sub> x 12 <sup>3</sup> / <sub>8</sub> | 14 x 14                 | 12 x 12           |
| 7"                    | 13 <sup>3</sup> / <sub>8</sub> x 13 <sup>3</sup> / <sub>8</sub> | 14 x 14                 | 13 x 13           |
| 8"                    | 14 <sup>3</sup> / <sub>8</sub> x 14 <sup>3</sup> / <sub>8</sub> | 14 x 14                 | 14 x 14           |

\* When cutting the inside "finished" surface of your wall or ceiling, cut a "round hole" to the framing dimension.

**Installation Procedures**

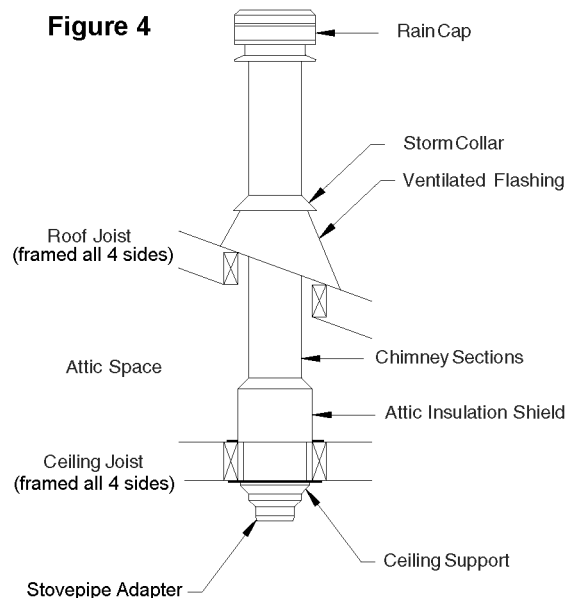
**Ceiling Support (TLCCSB) Installation**

To complete a proper ceiling support installation, the following parts will or may be required.

- **Ceiling Support:** Required when supporting a chimney through a flat level ceiling. Also acts as a firestop.
- **Attic Insulation Shield:** Required where a chimney passes from a lower living space into an unoccupied attic space.
- **Firestop Radiation Shield:** Required where a chimney passes from a lower living space into an upper living space or occupied attic space.
- **Roof Flashing Assembly (including Storm Collar):** Required when the chimney penetrates a roof.
- **Rafter Radiation Shield:** Required when the chimney is enclosed immediately below the roof.
- **Suitable Lengths of Chimney:** The chimney diameter (ID) should be sized to suit the appliance.
- **Elbow Kit:** To avoid cutting of joists and clear other obstructions. Kit includes 2 elbows, 1 offset support, and 4 locking bands.
- **Rain Cap:** Deluxe model.

The Model TLC ceiling support will support up to 50 feet of chimney sections, all of which must be installed above the support. Figures 4 and 6 show the two most common types of ceiling support installation. Frame (all four sides) a level square opening to the dimensions specified in the **Framing Dimensions** (Table 1).

**Figure 4**



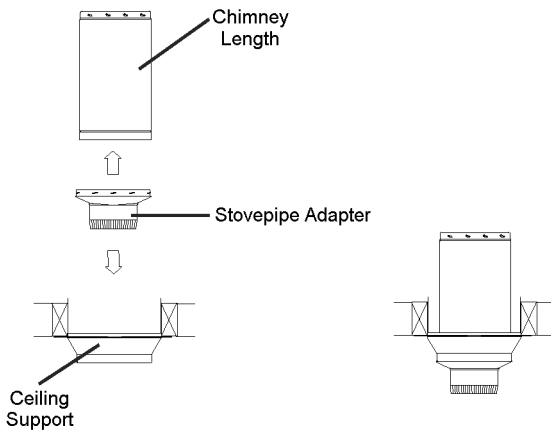
**Single-Story Installation**

Slide the trim ring onto the ceiling support, and slide the assembly into the framed opening from below. Ensure that the finishing ring is flush with the underside of the ceiling and the assembly is level and plumb. Secure the ceiling support in place, using at least three 8-penny (2½") nails through each of the four straps or through the twelve prepunched holes in the support. You may substitute, in lieu of nails, twelve #8 x 2" wood screws.

**Stovepipe Adapter Installation**

The stovepipe adapter is installed by twist-locking it to the bottom end of the chimney section that enters the ceiling support. Lower the assembly down into the ceiling support so that the stovepipe adapter sleeve is protruding through the support and into the living space.

**Figure 5**



The crimped end (stub) of the stovepipe adapter is intended to fit inside the flue pipe from a solid-fuel appliance, thus preventing condensate drips at the chimney connection. Install interconnecting flue pipe by following the appliance manufacturer’s installation instructions and appropriate building code requirements, keeping in mind that the flue pipe run should be as short and straight as practical. Generally, for a wood-burning appliance installation, an 18-inch minimum clearance to combustibles must be maintained for a single-wall flue pipe.

Install additional chimney sections and lock together by turning clockwise until the two sections lock together tightly. Install required locking bands. Continue adding chimney lengths until a height of about 2 feet below the next ceiling level is achieved.

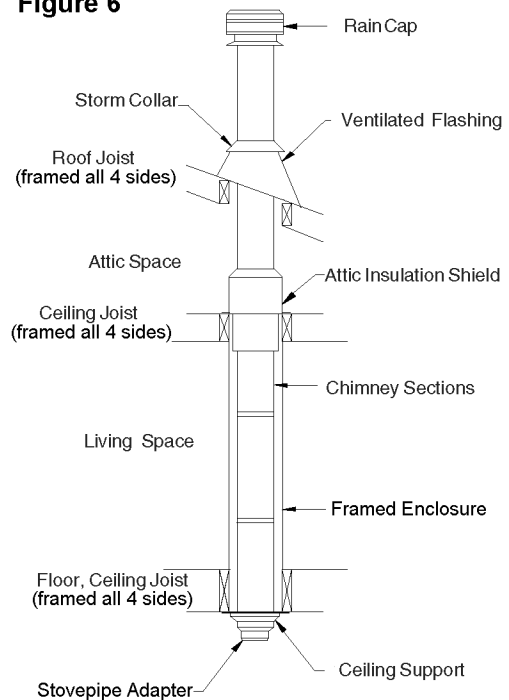
**Attic Insulation Shield Installation**

An attic insulation shield must be installed where the chimney enters an attic space. (It also acts as a firestop when properly framed.) An attic insulation shield should keep insulation from coming into contact with the chimney and will allow a depth of insulation of 10 inches plus the depth of the ceiling joist. Where height restrictions will not permit the use of the attic insulation shield, an enclosure from the attic joist to the roof joist will be sufficient. All chimney enclosures must maintain the required minimum airspace clearance of 2 inches to the chimney. When enclosing the chimney below the roof line, a rafter radiation shield at the roof level and a firestop radiation shield at the ceiling level must be installed.

**Table 2**

| Chimney Flue Diameter | Framing Dimensions for Attic Insulation Shield |
|-----------------------|--|
|                       | inches   |
| 5"                    | 11 x 11  |
| 6"                    | 12 x 12  |
| 7"                    | 13 x 13  |
| 8"                    | 14 x 14  |

**Figure 6**



**Two-Story Main Floor Installation**

## Installation Instructions

## Model TLC All-Fuel Chimney

For proper installation, the attic opening must be fully framed at 2 inches of clearance to the chimney pipe with framing material of the same dimension as the ceiling joists, per Table 2 (**Framing Dimensions for Attic Insulation Shield**). The tabs on the plate of the attic insulation shield are inserted in the framed opening around the chimney. Nail the attic insulation shield base to the framing dimensions with at least two per side, using 2d 1" spiral nails or 1" x #8 wood screws.

When an attic insulation shield is required above the ceiling support into an attic as shown in Figure 4, ensure that the base of the shield is flush with the top of the joist framing, and nail in place. The telescoping portion of the attic insulation shield will eliminate the need to trim the bottom, when installed immediately above the ceiling support. When fully extended, the attic insulation shield will provide joist shielding when installed in a two-story main floor application (Figure 6).

If insulation is blown in and adheres to the chimney pipe, it must be brushed off to eliminate any possible contact of this material with the chimney surface.

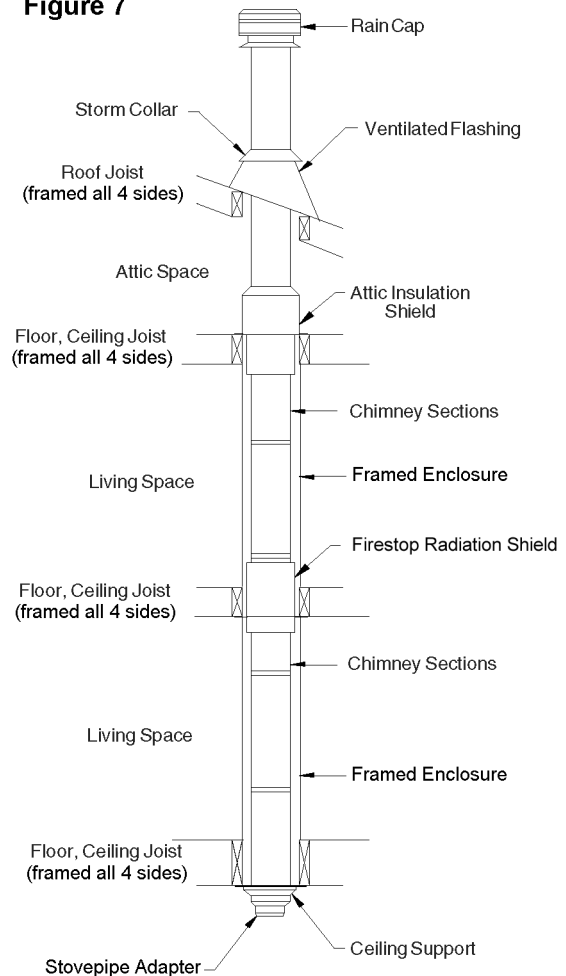
### Firestop Radiation Shield Installation

A firestop radiation shield must be installed where the chimney passes from one living space to another living space, as shown in Figure 7. It is designed to provide proper firestopping between floors and to keep direct radiation from the chimney away from the joist framing.

Install the firestop radiation shield from below the joist framing, and nail in place using 1" spiral nails. Ensure no insulation is within the 2-inch airspace clearance around the chimney. This includes the airspaces between the firestop radiation shield and the joist framing.

When the chimney is enclosed in the attic area, a firestop radiation shield must be installed at the ceiling level. If the base of the firestop radiation shield does not fit flush with the ceiling frame, measure the distance that the base is sitting below the framing, and trim that amount off the top of the firestop radiation shield before securing into place.

Figure 7



### Two-Story Basement Installation

### Elbow Installation

One pair of (two) 15° or 30° elbows may be used in an interior installation to provide an offset, in order to avoid cutting of joists and to clear other obstructions. Each elbow support will support 15 feet of chimney, and the maximum length of chimney allowed between elbows is 6 feet.

See Chart 1 - Offset chimney Installation on page 16 in these instructions for details.

The female end of the elbows are **not** embossed; this ensures that proper alignment of the chimney system is maintained. Locking bands must be installed at all chimney joints, forming an offset.

Install the insulated offset elbow on the vertical chimney length, and position the elbow in the required direction. Fasten the elbow to the chimney length with the supplied locking band.

## Model TLC All-Fuel Chimney - 5" to 8"

## Installation Instructions

Place the required offset chimney length(s) as per the **Offset Chimney Installation** chart for appropriate length(s). Turn it clockwise to lock it in place and fasten in place with the supplied locking band.

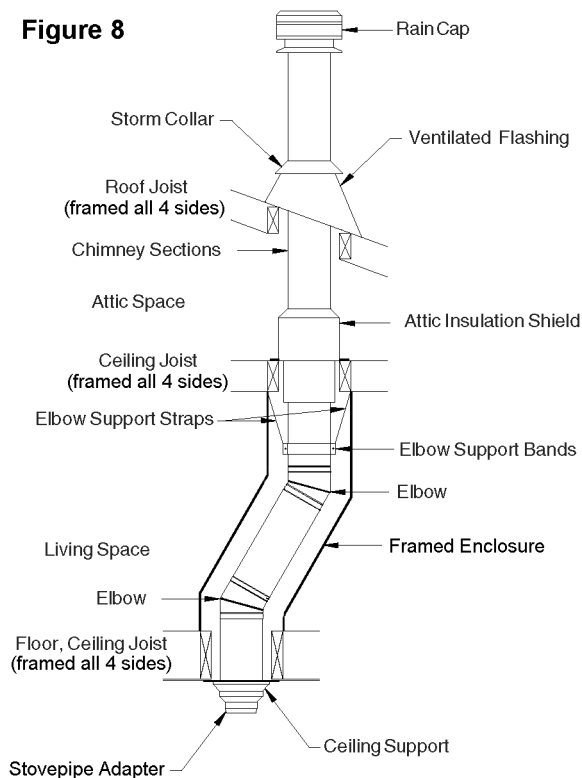
Install the remaining offset elbow to turn the chimney back to the vertical position and fasten in place with the supplied locking band.

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

Install an elbow support just above the highest elbow. Attach the support band to the chimney with four of the nuts and bolts, and then install the four stainless steel sheet metal screws through the prepunched holes. Attach the support straps to the support band assembly, and nail the support straps to the framing using 6d 2" nails or #8 x 1½" wood screws. See Figure 8.

**Never install an elbow in a joist area. Chimney sections must pass vertically through framed joist areas.**

**Figure 8**



**Offset (Elbow) Installation**

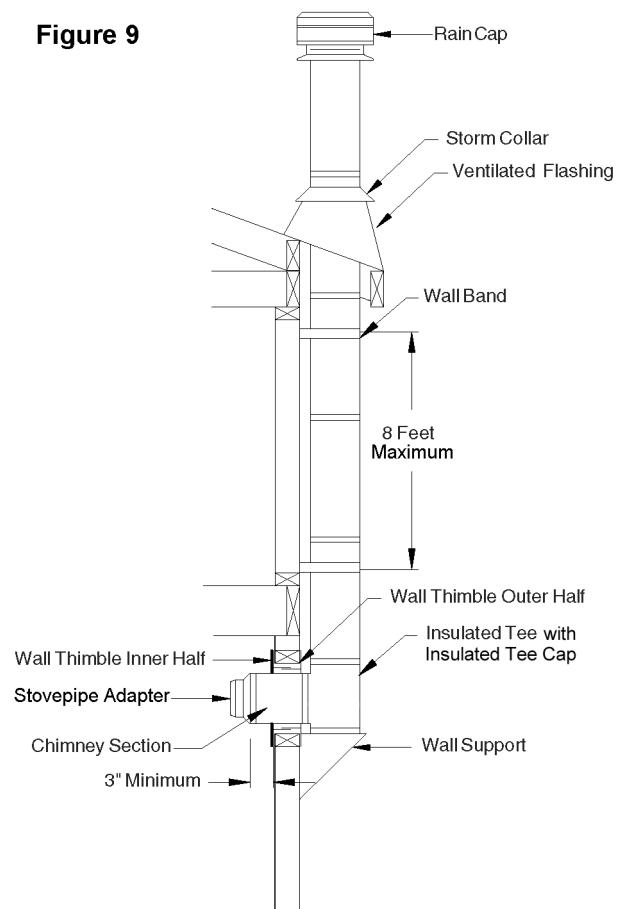
### **Adjustable Wall Support Installation**

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.

To complete a proper wall support installation, the following parts will or may be required.

- **Wall Support:** Intended for a through-the-wall installation where the chimney has a horizontal connection.
- **Stovepipe Adapter:** Transition from chimney to flue pipe.
- **Insulated Tee with Insulated Tee Cap:** Allowing a horizontal connection to the chimney.
- **Roof Flashing Assembly:** Required when the chimney penetrates a roof or a roof overhang.
- **Rafter Radiation Shield:** Required when the chimney is enclosed immediately below the roof.
- **Wall Band:** Required to provide lateral support to chimney.
- **Suitable Lengths of Chimney:** The chimney diameter should be sized to suit the appliance.
- **Chimney Length:** Appropriate length for connection to tee branch.
- **Wall Thimble:** Required to pass through a combustible wall. It also acts as a firestop.
- **Rain Cap:** Deluxe model.

**Figure 9**



**Adjustable Wall Support Installation**

# Installation Instructions

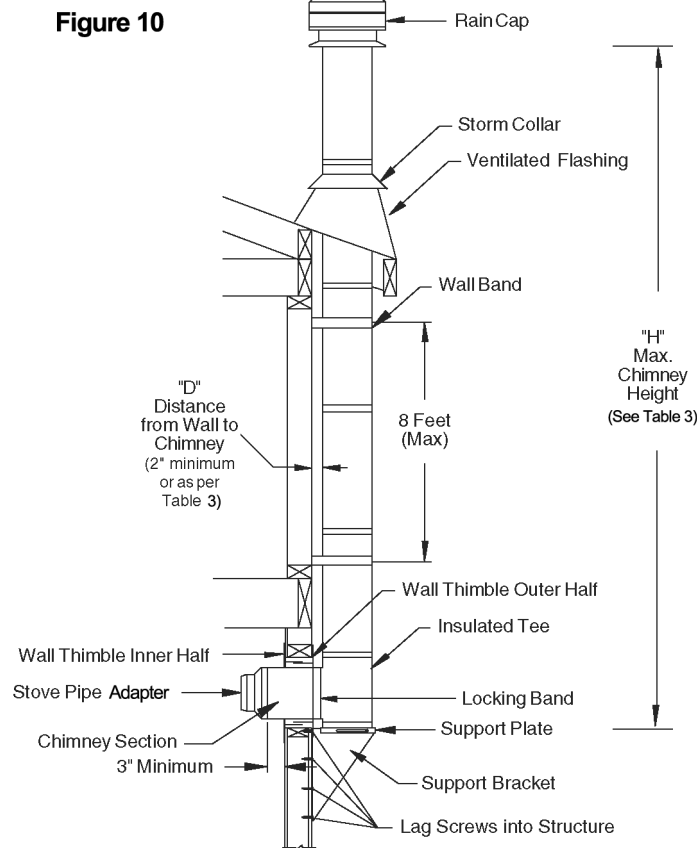
# Model TLC All-Fuel Chimney

The maximum chimney height above a wall support is indicated in Table 3 and illustrated in Figure 10, all of which must be above the support.

**Table 3**

| D (inches)<br>Distance from<br>Wall to Chimney | Wall Support Chimney Height Chart |                  |                  |                  |
|--|-----------------------------------|------------------|------------------|------------------|
|  | 5" ID<br>Chimney                  | 6" ID<br>Chimney | 7" ID<br>Chimney | 8" ID<br>Chimney |
| 2  | 74                                | 63               | 56               | 49               |
| 2.5  | 73                                | 62               | 55               | 48               |
| 3  | 71                                | 60               | 53               | 47               |
| 3.5  | 69                                | 59               | 51               | 46               |
| 4  | 66                                | 56               | 49               | 44               |
| 4.5  | 62                                | 53               | 46               | 42               |
| 5  | 58                                | 50               | 43               | 39               |
| 5.5  | 52                                | 45               | 38               | 35               |
| 6  | 45                                | 39               | 34               | 30               |

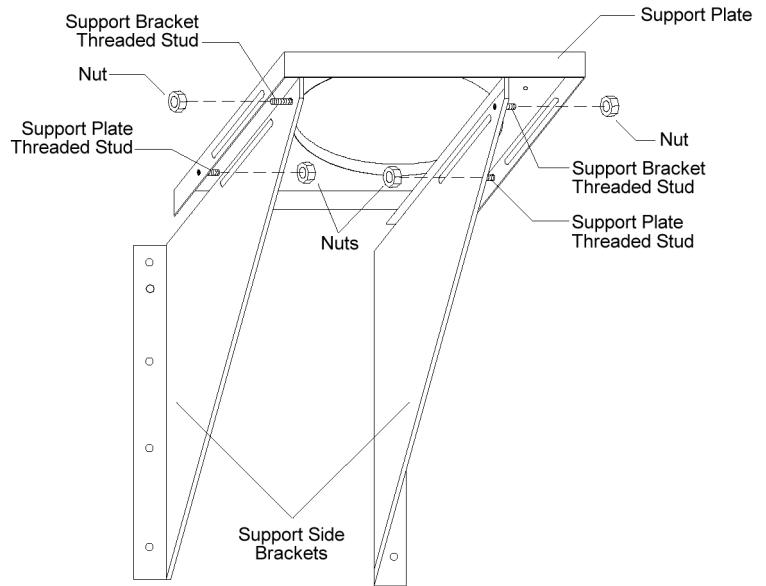
D - Distance from wall to the chimney  
 H - Height of chimney in feet  
 See Figure 10 also



See Table 3 for maximum chimney heights based on chimney diameter and distance from wall.

The wall support will allow for an adjustment of 2" to 6" from a vertical wall. Threaded studs are factory-installed on both side brackets and the support plate for fast and easy assembly. See Figure 11.

**Figure 11**



**Underside View of Threaded Studs and Nuts**

Ensure that the wall support brackets are bolted securely to the wall.

The following steps will assist you in the installation of the wall thimble and of the wall support. Figure 10 shows a typical wall support installation through a combustible wall.

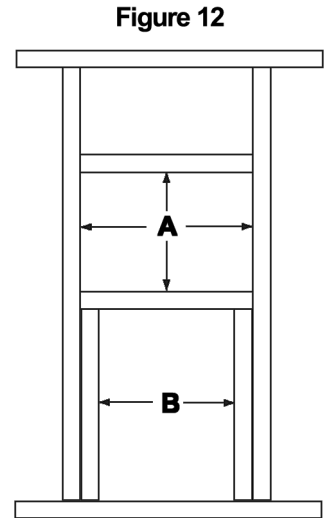
1. Determine the centerline of the horizontal connection (chimney length through the wall), and frame an opening to the dimensions for the wall thimble in a combustible wall. See Table 4 Section A and Figure 12(A).
  - Use a stud finder to roughly locate the wall studs. Mark the outline of the hole and drill a pilot hole in its center.
  - Break out part of the wall covering within the outline to confirm that the hole will be centered between studs and that no electrical wires could be cut by the saw.
2. For a noncombustible wall (concrete block or poured foundation), cut a hole  $\frac{3}{16}$ " greater in diameter than the outside diameter of the chimney as per Table 4.



# Model TLC All-Fuel Chimney - 5" to 8"

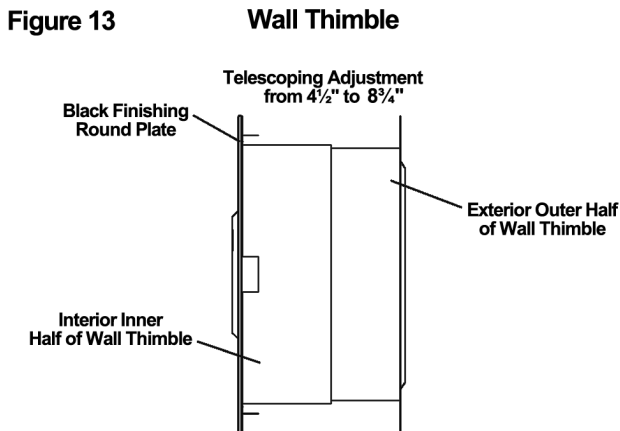
# Installation Instructions

| Section | Framing Dimensions                                  | Chimney Size                     |                                  |                                  |                                   |
|---------|---|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
|         |   | 5"                               | 6"                               | 7"                               | 8"                                |
| A       | Minimum Round Hole Diameter for Noncombustible Wall | 7 <sup>3</sup> / <sub>16</sub> " | 8 <sup>3</sup> / <sub>16</sub> " | 9 <sup>3</sup> / <sub>16</sub> " | 10 <sup>3</sup> / <sub>16</sub> " |
|         | Minimum Framed Opening for Combustible Wall         | 14" x 14"                        | 14" x 14"                        | 14" x 14"                        | 14" x 14"                         |
| B       | Support Brackets                                    | 9 <sup>1</sup> / <sub>4</sub> "  | 9 <sup>1</sup> / <sub>4</sub> "  | 10 <sup>1</sup> / <sub>4</sub> " | 11 <sup>1</sup> / <sub>4</sub> "  |
|         | Minimum Framed Opening for Bracing                  |                                  |                                  |                                  |                                   |



- After framing in your opening to the dimensions specified to the Framing Tables 1 or 4, install the outer half (with the unfinished square plate) of the wall thimble into the outside wall opening. Secure in place using appropriate fasteners through the prepunched holes.

threaded studs into the oblong slots. See Figures 11 and 14. Install the supplied nuts on the threaded studs until snug. Do not tighten at this time, as adjustments may be required. Set aside and prepare the support bracing to secure the side brackets as per Framing Dimensions Table 4 Section B and Figure 12(B).

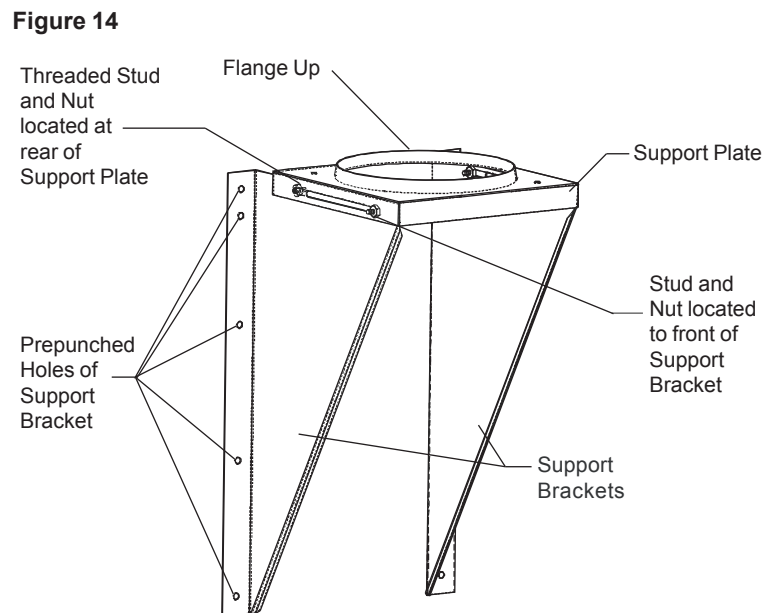


thimble into the inside wall opening, ensuring that the shield slides over the shield of the outer half. Once in place and flush against the wall, install the black finishing trim plate onto the wall surface and fasten in place with appropriate fasteners through the four prepunched holes.

**Note:** To stop cold air infiltration into the dwelling, you can install the optional Universal Shielding Insulation (TLCSI) into the wall thimble. See separate installation instructions packaged with the Universal Shielding Insulation.

- Assemble the two side brackets of the Wall Support (point of angle facing down) to the support plate (flange up and threaded stud toward the wall) by inserting the

Two options are described hereafter for the installation of the wall support and the insulated tee assembly. Follow Method A if inserting an assembled insulated chimney length and insulated tee into the wall thimble prior to the wall support. Follow Method B if securing the wall support to the wall prior to the insulated tee and the insulated chimney length.



Front View of Wall Support Assembly

## Installation Instructions

## Model TLC All-Fuel Chimney - 5" to 8"

### METHOD A

6. Install an appropriate Insulated chimney length such as a one foot (or longer if required, not to exceed 24 inches) to the horizontal branch of the insulated tee. Lock securely into the tee branch by twisting clockwise. A locking band must then be installed to secure the connection. Make sure the nut and bolt are facing down to prevent any water from collecting in the locking band. The tee branch extension must protrude a minimum of 3" into the room.

**THE CHIMNEY MUST EXTEND AT LEAST 3 INCHES THROUGH THE WALL INTO THE LIVING SPACE WHERE THE STOVEPIPE CONNECTOR WILL BE ATTACHED TO THE CHIMNEY BRANCH.**

7. From outside the building, 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 provide support until you are ready to install the wall support assembly.
8. Place the assembled wall support against the wall (support plate flange up) directly below the insulated tee. Slide the wall support up to the bottom of the insulated tee, ensuring that the flange on the top of the support plate is inserted into the female coupler.
9. Prior to securing, ensure that the insulated tee assembly is plumb and level and sitting flush on the support plate. Secure to the wall through the prepunched holes located on each side of the wall support brackets, using (8) #14 x 1 1/2" hex head lag screws or #10 x 2" wood screws. Make sure they go into solid bracing as per requirements in Table 4 Section B and Figure 12(B), below the prepared wall thimble opening. You can drill 5/32" pilot holes. For concrete block or poured foundation, use suitable fasteners. NOTE: For 5" to 7" diameters a choice of two (2) uppermost mounting holes are available.
10. Position the support plate the desired distance from the wall, as per the limits shown in Table 3 and Figure 10. Tighten the 4 nuts onto the threaded studs. Proceed to Step 14.

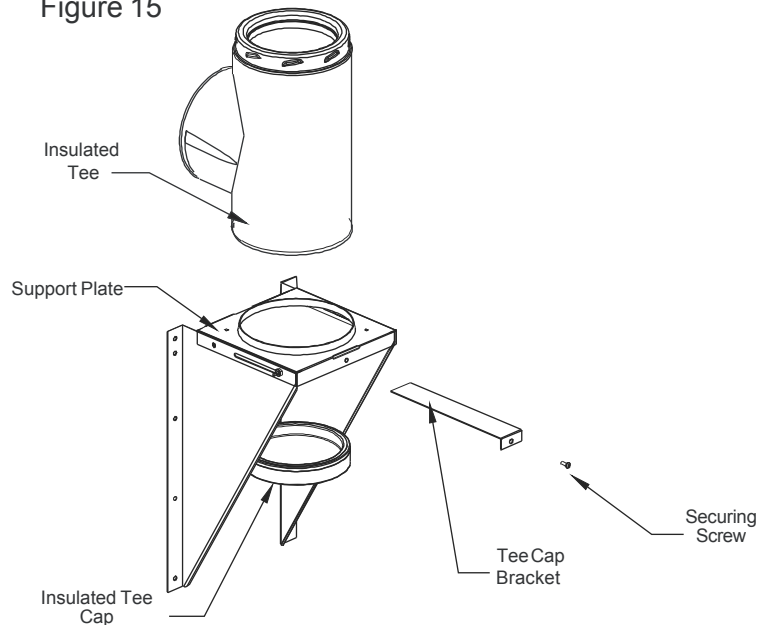
### METHOD B

11. Ensure that the wall support is level and secure to the wall through the prepunched holes located on the sides of each of the support brackets, using (8) #14 x 1 1/2" hex head lag screws or #10 x 1 1/2" wood screws. You can drill 5/32" pilot holes for the lag screws. Make sure they go into solid bracing as per requirements in Table 4 Section B and Figure 12 (B)

below the prepared Wall Thimble opening. For concrete block or poured foundation use suitable fasteners. NOTE: For 5" to 7" diameters a choice of two (2) uppermost mounting holes are available.

12. Place the insulated tee on the support plate, ensuring that the male coupler of the tee is facing up and the flange on the top of the support plate slides into the female coupler. See Figures 15 and 16.

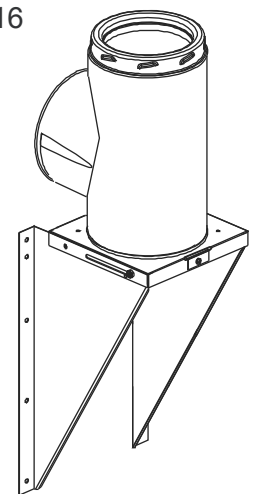
Figure 15



**Explosion View - Wall Support, Insulated Tee and Tee Cap, Tee Cap Bracket, and securing Screw**

13. From inside the building, for an extension of the insulated tee, slide an appropriate insulated chimney length through the wall thimble to the horizontal branch of the insulated tee. Lock securely by twisting clockwise. A locking band must then be installed to secure the connection. Make sure the nut and bolt are facing down to prevent any water from collecting in the locking band. The tee branch must protrude a minimum of 3" into the room. Use a longer length if this is not met (not to exceed 24 inches).

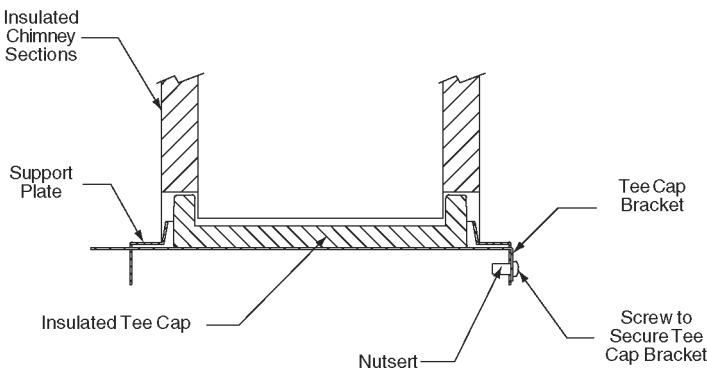
Figure 16



**Assembled Wall Support with Tee Cap Secured in Place**

14. Use a nonhardening, high-temperature sealant (500°F) to seal around the horizontal chimney length where it enters through the exterior of the wall thimble or the concrete wall.
15. Insert and install the insulated tee cap into the bottom of the support plate opening. To secure, slide the tee cap bracket into the slot located at the front and rear of the support plate. Make sure the tee cap bracket is beneath the tee cap and the other end exiting through the slot at the back of the support plate. Secure in place by threading the securing screw into the nutsert located on the front of the support plate. See Figures 15, 16 and 17.

**Figure 17**



**Securing of Insulated Tee Cap**

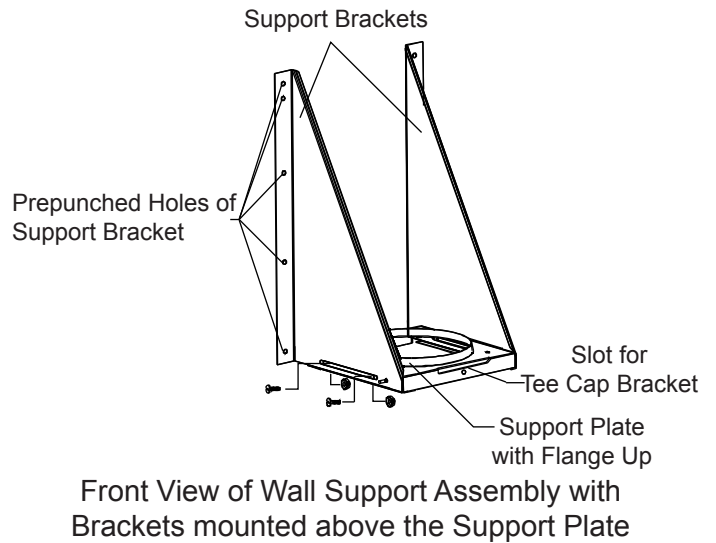
**Warning:** The insulated tee cap must be installed and secured in place. Failure to install could cause fire, injury or death.

**Note:** If ground clearance does not permit the installation of the wall support with the support bracket facing down, it is permissible to invert these brackets. Inverting the brackets (brackets mounted above the support plate) can be accomplished by rotating the support plate so that the threaded stud faces toward the front and securing each side with (2) #8 x 3/4" bolts (not supplied) through the oblong slots of the support side brackets and the support plate as per Figures 18 and 19. Secure with nuts. In this position, the range of adjustability is limited to 5" from the wall (see Table 3). Install the insulated tee cap as per step 15.

16. Chimney lengths above the insulated tee are simply stacked on and locked with a 1/8 clockwise turn.
17. For lateral stability of the chimney above the wall support, a wall band must be installed along an outside wall. Install the first wall band midway up the

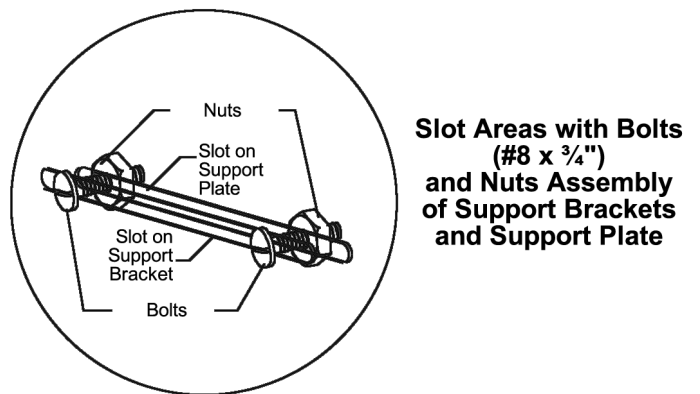
first chimney length above the insulated tee and any additional wall band to be installed at 8-foot intervals above this point. Secure the wall band bracket to the wall using 2 6d (2") spiral nails or #8 x 2" wood screws through the predrilled holes. See Figure 20. For concrete or brick veneer walls use suitable masonry fasteners or other anchoring systems.

**Figure 18**



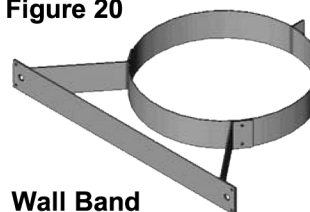
**Front View of Wall Support Assembly with Brackets mounted above the Support Plate**

**Figure 19**



**Slot Areas with Bolts (#8 x 3/4") and Nuts Assembly of Support Brackets and Support Plate**

**Figure 20**



**Wall Band**

## Installation Instructions

## Model TLC All-Fuel Chimney - 5" to 8"

18. Fasten the wall band securely around the chimney with the supplied nut and bolt. 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.
19. If the chimney penetrates an eave or overhang (soffit) cut an opening with 2" clearance all around. To find the exact spot where the chimney will pass through the eaves, drop a plumb line from the underside of the eaves to the outer edge of the leveled chimney. Mark 5 or 6 points to give an outline of the hole. Remember that the hole will need 2" clearance to the chimney surface. Install an attic insulation shield if space permits on the underside of the overhang. If it is not possible, the overhang area can be enclosed and a rafter radiation shield installed at the roof level and a finishing plate on the underside of the soffit. If the attic is open to the overhang, close off the access with suitable building materials, ensuring that a 2" airspace clearance is maintained. From above, install the roof flashing and storm collar by following the roof flashing section in these instructions. If the overhang is not deep enough to allow the chimney to be fully installed within the overhang, it will be necessary to cut into it.  
Ensure that a 2" airspace clearance all around the chimney is respected.  
Framing and flashing the sides of the opening will be required. Install a wall band at this level.

**Note:** Interior chimneys installed with a wall support must use firestop joist shield in place of wall bands if extending through floor/ceiling penetrations and an attic insulation shield when passing through an unoccupied attic space.

### **Adjustable Intermediate Wall Support Installation**

If the total chimney height exceeds the wall support limitations, an Adjustable Intermediate Wall Support (TLCIWS) must be installed. Use of an adjustable intermediate wall support will support an additional 38 feet of chimney. Slide the assembled Intermediate wall support over the protruding length of chimney. Fasten the Intermediate wall support to the wall, using four ¼" by 2" wood screws through the prepunched slots in each bracket. Install the draw band around the protruding chimney length securely against the support plate. Install four stainless steel sheet metal screws firmly into the outer casing of the chimney through the prepunched holes in the draw band. Cover the heads of the screws with a nonhardening, waterproof caulking.

### **Cathedral Ceiling Support (TLCCSS) Installation**

To complete a proper cathedral ceiling support installation, the following parts are required.

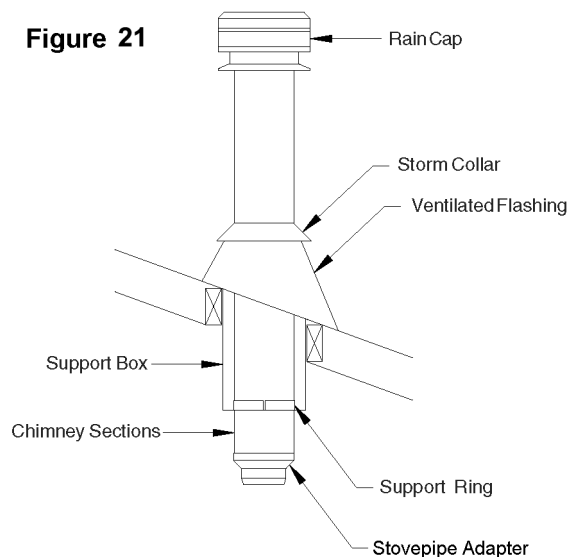
- **Cathedral Ceiling Support:** For sloped or angled ceiling. Also acts as a firestop.
- **Roof Flashing Assembly:** Required when the chimney penetrates a roof.
- **Suitable Lengths of Chimney:** The chimney diameter should be sized to suit the appliance.
- **Rain Cap:** Deluxe model.

The Model TLC Cathedral Ceiling Support will support a total of 38 feet of chimney, of which 15 feet of chimney can be suspended below the support. All chimney joints must be secured with locking bands.

After framing in your opening to the dimensions specified in the **Framing Details** section, slide the cathedral support box into joist opening. Once the box is at the desired level, ensure the box is level, and nail the box to the framing using four 2" spiral nails or #8 x 1½" wood screws per side. The excess material sticking above the roof can either be trimmed off before attaching the box to the framing, or, after it is installed, the corners can be cut and the excess material folded down onto the roof deck.

Install the support ring on the chimney length at the desired position by tightening the draw band bolt and by screwing four stainless steel sheet metal screws through the support ring and into the outer casing. Lower the chimney length down through the opening in the bottom of the support so that the support ring makes contact with the bottom of the support box (Figure 21).

**Note:** The male coupler of each chimney length must be up.



**Cathedral Ceiling Support Installation**

## Model TLC All-Fuel Chimney - 5" to 8"

## Installation Instructions

The bottom chimney length(s) must protrude into the living space so that proper clearances are maintained from the stovepipe connector to the lower side of the ceiling. For proper clearances, refer to **Chart 3 - Connector Pipe Clearance Below Cathedral Support** on page 18 of these instructions.

Install additional chimney sections and lock together by turning clockwise until the two sections lock together tightly. Continue in this manner until the required height above the roof is achieved.

Chimney sections (15 feet maximum) installed below the cathedral ceiling support are locked together from below by turning clockwise until locked together, with each joint being secured by a locking band. These lengths can be painted to match the connector pipe by simply painting with a high-temperature, heat-resistant paint. To improve adhesion to the Model TLC chimney, degrease, clean, and prime before painting. Follow the paint manufacturer's instructions.

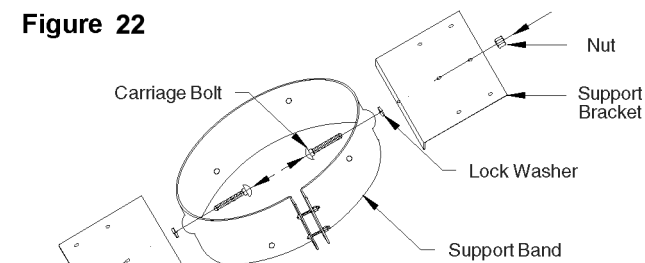
### **Roof Support Installation**

The roof support may be used on a roof, and any roof pitch. It may 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 roof support will support a total height of 50 feet of chimney sections. All chimney sections must be secured with locking bands.

Attach the support brackets to the support band with the 1/2" nuts, bolts and lock washers. The lock washer is placed between the band and support bracket to provide proper spacing as shown in Figure 22.

**Figure 22**



**Roof Support Assembly**

Slide the roof support down over the chimney section until its brackets rest on the roof or floor. Tighten the collar around the chimney with the nuts and bolts supplied, then secure the collar by screwing the six supplied sheet metal screws through the holes in the collar and into the chimney.

Center the chimney in the joist or rafter opening. Ensure that the 2-inch required airspace clearance is met. Nail or screw the support to the roof or floor, using the 12 x 3 1/2" spiral nails supplied or twelve #8 x 1 1/4" wood screws.

Install additional chimney sections and lock together by turning clockwise until the two sections lock together tightly. Continue in this manner until the desired height is achieved.

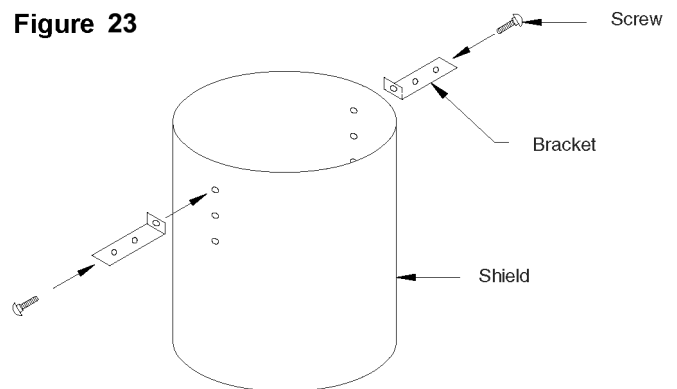
**Note:** The male coupler of each chimney length must be up.

### **Rafter Radiation Shield Installation**

A rafter radiation shield must be installed where the chimney is enclosed immediately below the roof line as shown in Figure 26. An example of this is when the attic space of a house is being used as living space (i.e., bedroom, guestroom, etc.). It must also be installed when height restrictions will not allow the use of the attic insulation shield, and the chimney has been enclosed

Attach the support brackets to the shield (through one of the three prepunched holes), such that once the shield is installed the shield protects both the upper and lower parts of the roof joist framing. Rotate the support brackets to align with the pitch of the roof while allowing the

**Figure 23**



**Rafter Radiation Shield Assembly**

### **Roof Flashing Installation**

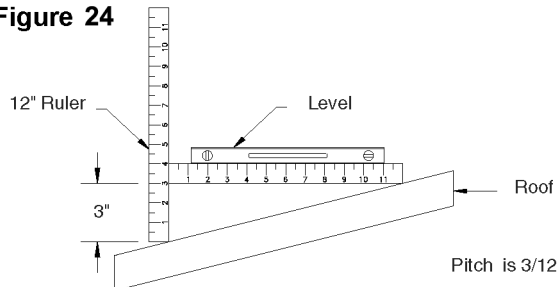
Ensure that you have the proper roof flashing by checking your roof pitch, using a level and two rulers (Figure 24) or by using a roof pitch card.

The TLCF6 Roof Flashing is for roof pitches from 0/12 to 6/12.

The TLCF12 Roof Flashing is for roof pitches from 6/12 to 12/12.

The TLCFF is for a flat roof pitch of 0/12 .

**Figure 24**



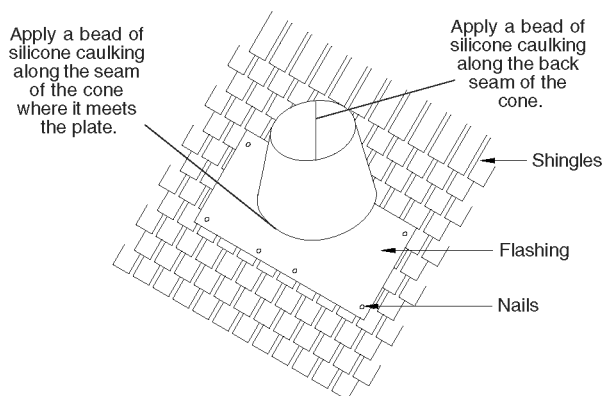
**Roof Pitch Calculation**

Once you have marked and located the area where the chimney will come through the roof, position and prepare the roof area. This includes removing shingles, shingle nails, and cutting roofing material. Be sure to allow for a 2-inch clearance to the chimney on all four (4) sides. This is done before extending the chimney above the roof. Do not nail the flashing to the roof yet, as adjustments may be required.

**Note:** Slide the top edge (nearest the roof peak) of the flashing under the roof shingles. At least half of the flashing should be UNDER the shingles and the bottom edge OVER the shingles to provide a watershed. Trimming off the shingles may be necessary around the cone of the flashing for a better fit. For an existing roof application, lower a chimney length into the flashing opening, and twist-lock in place. Ensure that the chimney is level and plumb before nailing the flashing to the roof.

Nail the flashing to the roof deck (also under the shingles) along the upper edge and down each side with twelve nails and neoprene washers, or cover the nails with a suitable nonhardening, waterproof caulking. Seal the shingles to the plate in the same manner. As a precaution, you may apply a bead of caulking along all seams of the flashing.

**Figure 25**

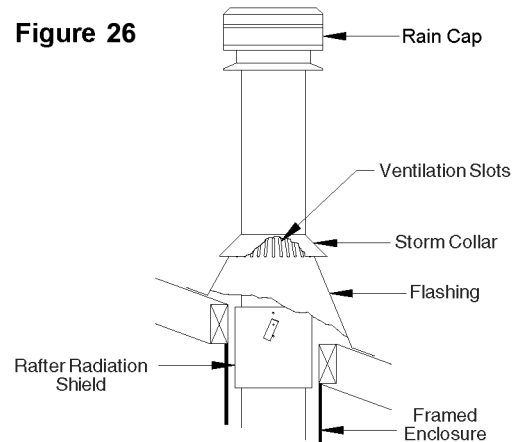


**Roof Flashing Installation**

Wrap the storm collar around the chimney above the flashing. Secure the ends together loosely with the nut and bolt supplied.

Apply a nonhardening, high-temperature silicone caulking just above the top of the Flashing cone on the chimney casing. Slide the collar down the chimney until it contacts the flashing and the caulking. Tighten the nut and bolt, and apply additional caulking above the storm collar as required. After the installation, check to ensure that the ventilation slots are not obstructed. See Figure 26.

**Figure 26**



**Storm Collar/Flashing Installation**

On metal or steep roofs, it is recommended that a chimney cricket fabricated from heavy sheet metal be installed. This will protect the chimney and the flashing by routing the snow load and ice around the chimney. This is not a supplied item. Contact a sheet metal fabrication shop in your area for your custom chimney cricket.

**Warning: Do not block the ventilation slots on the flashing.**

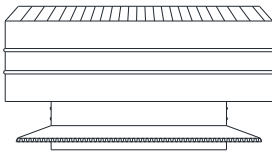
The flashing and storm collar may be painted to match the roof shingles. This will extend its life and improve the appearance. The chimney may be painted also with a HEAT-RESISTANT paint. To improve adhesion to the Model TLC chimney, degrease, clean, and prime before painting. Follow the paint manufacturer's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

Continue adding chimney lengths until the proper height is achieved. See Figure 1. Install locking bands at all chimney joints. Install the rain cap, and lock it in place by turning clockwise until tight.

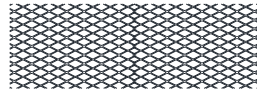
### Deluxe Rain Cap (TLCC) & Spark Arrester (TLCSA)

The use of the Deluxe Rain Cap serves many functions. It prevents the entry of rain, snow and debris into the chimney opening. It minimizes the effect that wind and air turbulence have on chimney draft and provides an aesthetically pleasing termination for the chimney.

Place the Deluxe Rain Cap over the installed chimney and twist in place by turning clockwise until snug.



**Deluxe Rain Cap**



**Spark Arrester**

Use a Spark Arrester if you have a shingle roof or live in a forested area. This will prevent the escape of sparks and burning materials from the chimney.

**ATTENTION: Sharp edges! Wear safety gloves when handling spark Arrester!**

Roll-up the Spark Arrester and insert into the bottom of the Deluxe Rain Cap. Spread out the spark Arrester so that it is snug to the interior and against the 4 brackets. Secure the Spark Arrester to the brackets with wire (not supplied).

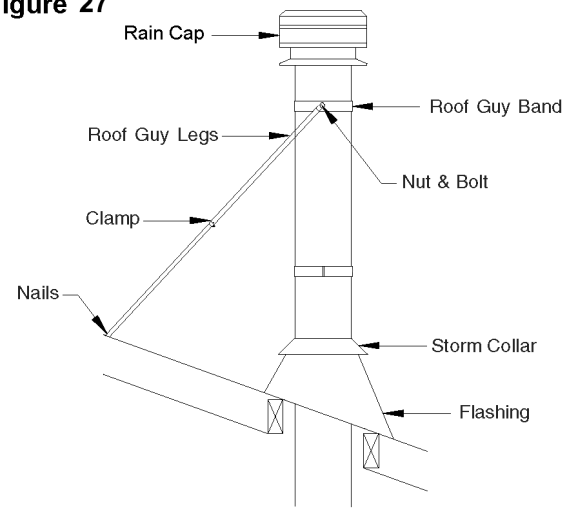
Burning wood and coal produces creosote, soot, and fly ash which tend to collect in chimney flue and on termination parts causing reduced flow of gases through the chimney. Check Rain Cap weekly for excessive accumulation of these normal combustion products and clean as necessary. If the Spark Arrester becomes clogged with creosote, it should be cleaned or replaced.

### Roof Guy (TLCRGK) Installation

If the chimney extends 5 feet or more above the roof deck, roof guys are required. The roof guy kit, containing telescopic legs and a draw band, is suitable for this application. The draw band must be clamped around the chimney and the two legs lagged to the roof into the rafters and not just the roof sheathing. Position the band approximately two-thirds of the way up the chimney height. The preferred location for the band is next to a chimney joint, immediately above or below a locking band.

The two telescopic legs should form an angle of about 60° to give support to the chimney in all directions. Keep ends equal distance from the chimney and, same elevation on the high side of the sloped roof. Seal the roof with a suitable non hardening, waterproof caulking. After the legs are attached to the chimney and band, tighten the clamps on the legs to fix the position of the telescopic legs (see Fig 27). See separate installation instructions packaged with the RGK.

**Figure 27**



**Roof Guy Installation**

## **Maintenance and Cleaning of Chimney**

### **Creosote and Soot - Formation and Need for Removal**

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

How you burn wood in your stove or fireplace directly affect the formation of creosote. Use more dry kindling and paper first to warm up the chimney to a temperature between 350°F 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 into 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 stovepipe or a probe thermometer for double-wall stovepipe.

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 a relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote creates a chimney fire with extremely high temperatures.

With a new installation, the chimney should be inspected frequently (every two weeks) to determine the rate of creosote formation. When familiar with the appliance and chimney characteristics, the chimney should be inspected at least once every two months during the heating season to determine if a creosote or soot build-up has occurred. Check spark arrestor screens at least every two to four weeks.

If creosote or soot has accumulated, it should be removed to reduce the risk of a chimney fire. Depending on the rate of build-up (as little as  $\frac{1}{16}$ "") and as you learn what is going on in the chimney, you can adjust your cleaning schedule accordingly. Every chimney flue and flue pipe should be inspected annually and cleaned as often as necessary to keep the chimney and flue pipe free from dangerous accumulation of combustible deposits.

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 rain cap by simply using the twist-lock feature.

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. The tee cap (if so equipped) can be removed by turning counter-clockwise to clean from the bottom. Be sure to replace the tee cap and rain cap when you are finished cleaning the chimney

To reduce corrosion in the chimney where coal is burned, the system must be thoroughly cleaned within 48 hours of shutting down the appliance for the season, and all soot should be removed from the chimney system. Ensure that only low sulphur content coal (1% or less), such as anthracite, is burned.

If a chemical cleaner is used to assist in the cleaning of your Model TLC chimney, make sure it is a product that is noncorrosive. 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 Model TLC is not intended or designed for use as a combustion or fire chamber. It is very easy to overfire your wood-burning 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. The following materials should not be burned in your wood-burning appliance: pressure-treated lumber, railroad ties, salt-water driftwood, or plastic. Burning such materials may lead to severe corrosion of the appliance and the chimney system.

If you see your appliance or the stovepipe 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.

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-style 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. 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.

**WARNING:**

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

### Chart 1 - OFFSET CHIMNEY INSTALLATION

These charts have three columns for elbow angle required to achieve your desired offset. The first column (**Offset**) is the horizontal measurement, at the chimney centerline, of the offset needed to get around an obstacle. The second column (**Height**) is the height of the assembled offset elbow to the top of the return elbow. Column 3 shows the appropriate **Lengths Required**.

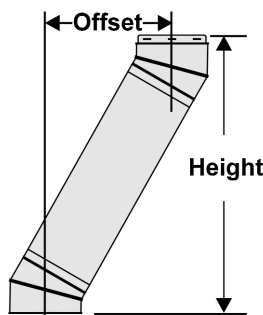
1. Determine the distance of the offset required.
2. On the chart, find the predetermined distance required for the elbow kit under the corresponding chimney diameter.
3. After finding the offset, follow across the chart to find the specified height and appropriate chimney lengths required under their corresponding diameters.

**Notes:**

- Model TLC chimneys are limited to offsets not exceeding 30°. Combining offsets for greater angle is not permitted.
- Never install an elbow in a joist area. Chimney sections must pass vertically through framed joists area.
- Locking bands must be used at all chimney joints.
- Elbow support will support 15 feet of chimney, and the maximum length of chimney allowed between elbows is 6 feet.
- All measurements are in inches.
- Offset tolerances ± one inch.

| 15° Elbow Offset Chart (inches) |        |        |        |        |        |        |        |                  |     |     |     |     |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|------------------|-----|-----|-----|-----|
| Offset                          |        |        |        | Height |        |        |        | Lengths Required |     |     |     |     |
| 5"                              | 6"     | 7"     | 8"     | 5"     | 6"     | 7"     | 8"     | 6"               | 12" | 18" | 24" | 36" |
| 1 1/2                           | 1 1/8  | 1 1/8  | 1 1/4  | 9      | 10     | 10 1/4 | 10 3/8 | -                | -   | -   | -   | -   |
| 2 1/8                           | 2 3/8  | 2 3/8  | 2 1/2  | 13 1/2 | 14 1/4 | 15     | 15 5/8 | 1                | -   | -   | -   | -   |
| 4                               | 4      | 4      | 4 1/8  | 19 1/8 | 20 1/2 | 20 3/4 | 21     | -                | 1   | -   | -   | -   |
| 5 1/2                           | 5 1/2  | 5 1/2  | 5 5/8  | 25     | 26 1/4 | 26 1/2 | 26 3/4 | -                | -   | 1   | -   | -   |
| 7 1/2                           | 7      | 7      | 7 1/8  | 30 1/2 | 32     | 32 1/4 | 32 1/2 | -                | -   | -   | 1   | -   |
| 8 3/8                           | 8 3/8  | 8 3/8  | 8 3/8  | 36 1/2 | 36 3/4 | 37     | 37 1/4 | 1                | -   | -   | 1   | -   |
| 10 1/8                          | 10 1/4 | 10 1/4 | 10 1/4 | 42     | 43 5/8 | 44     | 44 1/8 | -                | -   | -   | -   | 1   |
| 11 1/4                          | 11 3/8 | 11 1/2 | 11 1/2 | 48 1/4 | 48 3/8 | 48 5/8 | 48 7/8 | 1                | -   | -   | -   | 1   |
| 12 3/4                          | 13     | 13     | 13     | 54     | 54 1/8 | 54 3/8 | 54 5/8 | -                | 1   | -   | -   | 1   |
| 14 3/8                          | 14 1/2 | 14 1/2 | 14 5/8 | 59 3/4 | 60     | 60 1/8 | 60 3/8 | -                | -   | 1   | -   | 1   |
| 16                              | 16 1/8 | 16 1/8 | 16 1/8 | 65 1/2 | 65 3/4 | 66     | 66 1/4 | -                | -   | -   | 1   | 1   |
| -                               | 17 3/8 | 17 3/8 | 17 3/8 | -      | 70 1/2 | 70 3/4 | 71     | 1                | -   | -   | 1   | 1   |
| 19                              | 19     | 19     | 19     | 76 1/4 | 76 1/4 | 76 1/2 | 76 3/4 | -                | 1   | -   | 1   | 1   |
| 20                              | -      | -      | -      | 76     | -      | -      | -      | -                | -   | -   | -   | 2   |

| 30° Elbow Offset Chart (inches) |        |        |        |        |        |        |        |                  |     |     |     |     |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|------------------|-----|-----|-----|-----|
| Offset                          |        |        |        | Height |        |        |        | Lengths Required |     |     |     |     |
| 5"                              | 6"     | 7"     | 8"     | 5"     | 6"     | 7"     | 8"     | 6"               | 12" | 18" | 24" | 36" |
| 3                               | 2 3/4  | 3 1/8  | 3 1/2  | 10     | 11 5/8 | 13     | 14 1/2 | -                | -   | -   | -   | -   |
| 5 1/4                           | 5 1/4  | 5 5/8  | 6      | 14     | 15 7/8 | 17 1/4 | 18 3/8 | 1                | -   | -   | -   | -   |
| 9                               | 8 1/4  | 8 5/8  | 9      | 19 1/4 | 21     | 22 3/8 | 24     | -                | 1   | -   | -   | -   |
| 11 1/4                          | 11 1/4 | 11 5/8 | 12     | 24 1/2 | 26 1/4 | 27 5/8 | 29 1/8 | -                | -   | 1   | -   | -   |
| 14 1/4                          | 14 1/4 | 14 5/8 | 15     | 29 3/4 | 31 3/8 | 32 7/8 | 32 3/8 | -                | -   | -   | 1   | -   |
| 16                              | 16 5/8 | 17     | 17 1/8 | 34 1/8 | 35 5/8 | 37     | 38 1/2 | 1                | -   | -   | 1   | -   |
| 20                              | 20 1/4 | 20 5/8 | 21     | 39 3/4 | 41 7/8 | 43 1/4 | 44 3/4 | -                | -   | -   | -   | 1   |
| 21 7/8                          | 22 5/8 | 23     | 23 1/2 | 44 1/2 | 46     | 47 1/2 | 49     | 1                | -   | -   | -   | 1   |
| 23 7/8                          | 25 5/8 | 26     | 26 1/2 | 50 1/8 | 51 1/4 | 52 5/8 | 54 1/8 | -                | 1   | -   | -   | 1   |
| 27 1/8                          | 28 5/8 | 29     | 29 1/2 | 55 1/8 | 56 3/8 | 57 3/8 | 59 3/8 | -                | -   | 1   | -   | 1   |
| 30 3/8                          | 31 5/8 | 32     | 32     | 60 5/8 | 61 5/8 | 63     | 64 1/2 | -                | -   | -   | 1   | 1   |
| -                               | 34 1/8 | 34 1/2 | 35     | -      | 65 7/8 | 67 1/4 | 68 3/4 | 1                | -   | -   | 1   | 1   |
| 37                              | 37 1/8 | 37 1/2 | 38     | 69 3/8 | 71     | 72 1/2 | 74     | -                | 1   | -   | 1   | 1   |
| 42                              | -      | -      | -      | 70     | -      | -      | -      | -                | -   | -   | -   | 2   |



**Chart 2 - CHIMNEY HEIGHT ABOVE THE ROOF**

**Requirement #1:** The code requires that the chimney must extend at least 3 feet above the highest point of the roof that it penetrates.

**Requirement #2:** The chimney must also be 2 feet above any roof, wall, or other obstruction within a horizontal distance of 10 feet.

The following chart is provided to assist you in determining the minimum chimney height required 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.

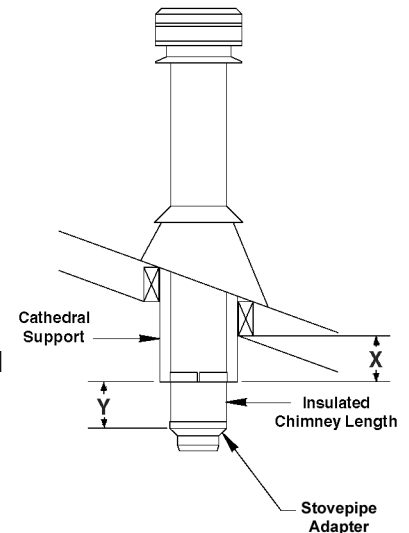
| Distance from Peak | Pitch of Roof                      |      |      |      |      |      |      |      |      |       |       |       |
|--------------------|------------------------------------|------|------|------|------|------|------|------|------|-------|-------|-------|
|                    | 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 (inches) |      |      |      |      |      |      |      |      |       |       |       |
| 10 feet            | 36*                                | 44   | 54   | 64   | 74   | 84   | 94   | 104  | 114  | 124   | 134   | 144   |
| 9 feet             | 36*                                | 42   | 51   | 60   | 69   | 78   | 87   | 96   | 105  | 114   | 123   | 132   |
| 8 feet             | 36*                                | 40   | 48   | 56   | 64   | 72   | 80   | 88   | 96   | 104   | 112   | 120   |
| 7 feet             | 36*                                | 38   | 45   | 52   | 59   | 66   | 73   | 80   | 87   | 94    | 101   | 108   |
| 6 feet             | 36*                                | 36   | 42   | 48   | 54   | 60   | 66   | 72   | 78   | 84    | 90    | 96    |
| 5 feet             | 36*                                | 36*  | 39   | 44   | 49   | 54   | 59   | 64   | 69   | 74    | 79    | 84    |
| 4 feet             | 36*                                | 36*  | 36   | 40   | 44   | 48   | 52   | 56   | 60   | 64    | 68    | 72    |
| 3 feet             | 36*                                | 36*  | 36*  | 36   | 39   | 42   | 45   | 48   | 51   | 54    | 57    | 60    |
| 2 feet             | 36*                                | 36*  | 36*  | 36*  | 36*  | 36   | 38   | 40   | 42   | 44    | 46    | 48    |
| 1 foot             | 36*                                | 36*  | 36*  | 36*  | 36*  | 36*  | 36*  | 36*  | 36*  | 36*   | 36*   | 36    |

**\*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 universal roof guy kit is required.

### Chart 3 - CONNECTOR PIPE CLEARANCE BELOW CATHEDRAL SUPPORT

- Identify the type of connector pipe you will be installing.  
 Single-wall stovepipe, which requires an 18-inch clearance to combustibles, or  
 Double-wall stovepipe, which requires a 6-inch clearance to combustibles.
- Determine the amount of the exposed cathedral support that will be projecting into the room, as per the "X" in the diagram to the right.
- Select the pitch of your sloped ceiling from the chart below.
- Select the measurement from the chart below, where the pitch of the sloped ceiling column intersects with the exposed cathedral row selection. This will determine the measurement of insulated chimney required below the cathedral support, as per the "Y" in the diagram to the right. The minimum of insulated chimney below the cathedral support is 1 inch. This minimum is required for stability of the system.



| Connector Pipe Clearance Requirements from Sloped Ceiling |                                   |   |      |      |      |      |      |      |      |      |       |       |       |
|---|-----------------------------------|---|------|------|------|------|------|------|------|------|-------|-------|-------|
| Exposed Cathedral Support into Room                       |                                   | Pitch of Sloped Ceiling                                       |      |      |      |      |      |      |      |      |       |       |       |
|   |                                   | 1/12  | 2/12 | 3/12 | 4/12 | 5/12 | 6/12 | 7/12 | 8/12 | 9/12 | 10/12 | 11/12 | 12/12 |
| Single-Wall Stovepipe <sup>1</sup>                        | "X" measurement                   | "Y" measurement - Insulated Chimney Length into Room (inches) |      |      |      |      |      |      |      |      |       |       |       |
|   | Box flush to ceiling on lower end | 1.5   | 3    | 4.5  | 6    | 8    | 9    | 10.5 | 12   | 13.5 | 15    | 16.5  | 18    |
|   | Box 1" into the room              | 1   | 2    | 3.5  | 5    | 7    | 8    | 9.5  | 11   | 12.5 | 14    | 15.5  | 17    |
|   | Box 2" into the room              | 1   | 1    | 2.5  | 4    | 6    | 7    | 8.5  | 10   | 11.5 | 13    | 14.5  | 16    |
|   | Box 3" into the room              | 1   | 1    | 1.5  | 3    | 5    | 6    | 7.5  | 9    | 10.5 | 12    | 13.5  | 15    |
| Double-Wall Stovepipe <sup>2</sup>                        | "X" measurement                   | "Y" measurement - Insulated Chimney Length into Room (inches) |      |      |      |      |      |      |      |      |       |       |       |
|   | Box flush to ceiling on lower end | 1   | 1    | 1.5  | 2    | 2.5  | 3    | 3.5  | 4    | 4.5  | 5     | 5.5   | 6     |
|   | Box 1" into the room              | 1   | 1    | 1    | 1    | 1.5  | 2    | 2.5  | 3    | 3.5  | 4     | 4.5   | 5     |
|   | Box 2" into the room              | 1   | 1    | 1    | 1    | 1    | 1    | 1.5  | 2    | 2.5  | 3     | 3.5   | 4     |
|   | Box 3" into the room              | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1.5  | 2     | 2.5   | 3     |

<sup>1</sup>Single-Wall Stovepipe requires an 18-inch clearance from any combustible materials.

<sup>2</sup>Double-Wall Stovepipe requires a 6-inch clearance from any combustible materials.

**Replacement Parts List**

| <b>Description</b>                   | <b>Model TLC Part Number</b> |
|--------------------------------------|------------------------------|
| 48" Chimney Length                   | *TLC48                       |
| 36" Chimney Length                   | *TLC36                       |
| 24" Chimney Length                   | *TLC24                       |
| 18" Chimney Length                   | *TLC18                       |
| 12" Chimney Length                   | *TLC12                       |
| 6" Chimney Length                    | *TLC6                        |
| Tee with Plug                        | *TLCT                        |
| Insulated Tee Plug                   | *TLCITP                      |
| 15° Elbow Kit                        | *TLCEK15                     |
| 30° Elbow Kit                        | *TLCEK30                     |
| Ceiling Support                      | *TLCCSB                      |
| Adjustable Wall Support              | *TLCAWS                      |
| Adjustable Intermediate Wall Support | *TLCAWS                      |
| Cathedral Ceiling Support            | *TLCCS                       |
| Roof Support                         | *TLCRS                       |
| Elbow Support                        | *TLCES                       |
| Locking Band                         | *TLCLB                       |

| <b>Description</b>        | <b>Model TLC Part Number</b> |
|---------------------------|------------------------------|
| Stovepipe Adapter         | *TLCSPA                      |
| Wall Thimble              | *TLCWT                       |
| Trim Collar               | *TLCTC                       |
| Wall Band                 | *TLCWB                       |
| Adjustable Ceiling Plate  | *TLCACP                      |
| Universal Roof Guy Kit    | *TLCRGK                      |
| Adapter Plate             | *TLCAP                       |
| Firestop Radiation Shield | *TLCFRS                      |
| Attic Insulation Shield   | *TLCAIS                      |
| Rafter Radiation Shield   | *TLCRRS                      |
| Finishing Plate           | *TLCP                        |
| Deluxe Rain Cap           | *TLCC                        |
| Spark Arrestor            | *TLCSA                       |
| Flat Roof Flashing        | *TLCCFF                      |
| 1/12-6/12 Roof Flashing   | *TL CFG                      |
| 6/12-12/12 Roof Flashing  | *TL CF12                     |
| Storm Collar              | *TLCSC                       |

**\*Specify chimney size.**

**Model TLC chimney and components are listed to UL103HT.**

## Limited Lifetime Warranty

### Model TLC Chimney & Venting Products

Hart & Cooley, Inc. ("Hart & Cooley," "we," "us," "our", "its") warrants its products to be free from defects in material and workmanship for as long as the original consumer owns the system. For products installed after January 1, 2000, for a period of ten (10) years from the original installation, we will provide replacement product with a similar or like quality of available product, **free of charge**, excluding any installation costs. From the eleventh (11<sup>th</sup>) through fifteenth (15<sup>th</sup>) years, we will provide replacement product to the original consumer at a cost of 75% off the published list price in effect on the date the claim is received, excluding any installation costs. At expiration of the fifteen- (15) year term, we will provide replacement product to the original consumer at a cost of 50% off the published list price in effect on the date the claim is received, excluding any installation costs.

### Limitations

- Products must be installed for their intended purpose and in accordance with current Hart & Cooley, Inc. instructions.
- Products must be connected to an appliance listed with an accredited testing laboratory.

### WARNING

**Failure to install Hart & Cooley products according to the manufacturer's instructions will void all applicable warranties and may result in fire, carbon monoxide poisoning or death. See our installation instructions for complete installation procedures.**

### Warranty Coverage

This warranty covers any substantial defects in material and workmanship in normal use that are found to exist in any of the insulated chimney sections or component parts of your chimney, with the exception stated below.

#### THIS WARRANTY DOES NOT COVER:

1. Any nonstainless base tee unit mounted or connected to an Insulated Chimney system.
2. **Costs (labor or otherwise) associated with either removing a previously installed product, installing a replacement product, transportation or return of a product, or transportation of replacement product. Due to the wide variance in installation practices and other conditions beyond our control, we do not guarantee or in any way warrant the installation of Chimney and Venting products.**
3. Damage to the finish of products caused by the use of improper solvents/chemicals or improper cleaning methods.
4. Damage resulting from failure to reasonably clean, care for, or maintain products in accordance with our installation instructions/recommendations.
5. Damage to products, appliance or structure on or resulting from improper installation or repair, misuse or abuse, including but not limited to excessive or improper operating conditions, or alteration or adjustment other than in conformity with our installation instructions and specifications, whether performed by a contractor, service company, technician, or you.
6. Any products that have been moved from their original installation site.
7. Damage caused by burning driftwood, garbage, or any other prohibitive material that has been burned in the appliance served by the chimney.
8. Damage that results from accidents, such as fire, flood, high winds, acts of God, or any other contingency beyond our control.

### Claim Procedure

If you believe that a product is defective, notify us in writing at the following location:

Hart & Cooley, Inc.  
ATTN: Warranty Claims Department  
5030 Corporate Exchange Blvd. SE  
Grand Rapids, MI 49512  
616.656.8200 *phone*  
616.656.6399 *fax*

Notification should include a description of the product, model and serial number (if applicable) and a description of the product defect. Upon receipt of a written claim under this limited warranty and evidence of the date of purchase or installation, at our option and sole discretion, we will provide replacement product with similar or like quality of available Hart & Cooley product, excluding any installation costs. Hart & Cooley, Inc. reserves the right to inspect or investigate any warranty claims prior to determining whether to provide replacement product. If, as determined by Hart & Cooley, Inc., repair or replacement of the product is not commercially practical or cannot be completed in a timely manner, we may refund the purchase price paid for the product, prorated to the terms of this warranty, upon verification by providing a copy of your invoice or receipt of bill of sale.

**NOTES**

# INSTALLATION INFORMATION FORM

*Keep in a safe place for future reference.*

Chimney Model: \_\_\_\_\_

Type of Appliance: \_\_\_\_\_

Installation Date: \_\_\_\_\_

Description of Installation (chimney and stovepipe configuration): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## *PURCHASED FROM*

Dealer Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State/Zip: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

## *INSTALLED BY*

Technician Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State/Zip: \_\_\_\_\_

Telephone Number: \_\_\_\_\_



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