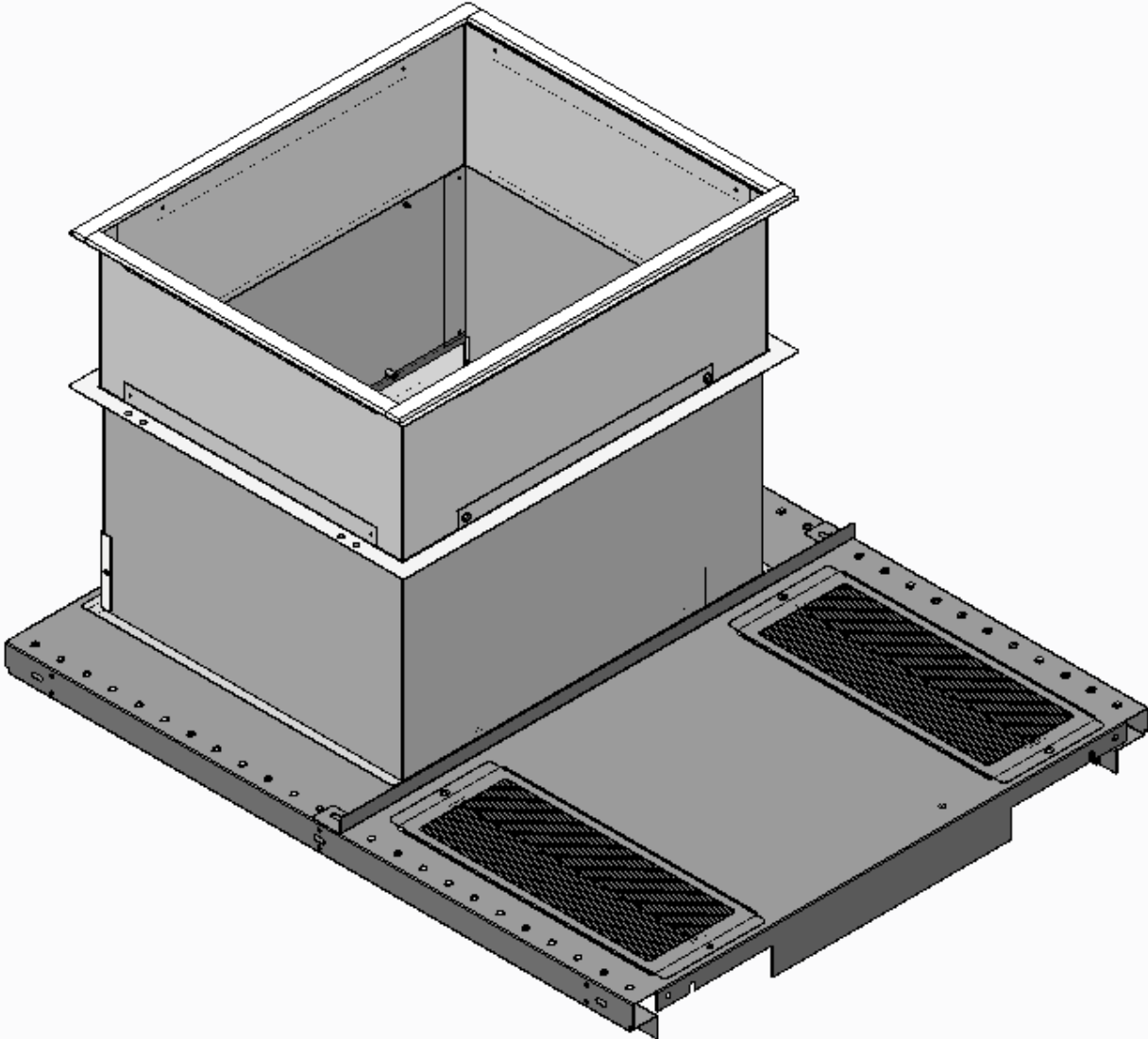


# Installation Guide

Telescopic Chimney for S-Series Enclosures  
Publication No: MN160007EN



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## About this Guide

This document describes how to install Eaton’s Telescopic Chimney (TC) on S-Series Enclosures.

## Intended Audience

This document is intended for personnel experienced at installing rack and enclosure equipment in a data center facility.

## Technical Support

If you encounter any problems with this installation, send an email and detailed description of the problem, as well as contact information, to Technical Support at [dc.support@eaton.com](mailto:dc.support@eaton.com).

## Contact Information

<b>Phone</b>	Call us toll free at 800.225.7348 (US Only) or 508.852.4300
<b>Mail</b>	Eaton 160 Gold Star Boulevard Worcester, MA 01606
<b>Email</b>	<a href="mailto:InfoESWorcesterMA@Eaton.com">InfoESWorcesterMA@Eaton.com</a>
<b>Web</b>	Visit us at <a href="http://www.eaton.com/wrightline">www.eaton.com/wrightline</a> and click on “Contact Us.” Simply complete and submit the form as directed on our website.

## Document History

The following table shows this document’s revision history:

Feb 2014	First Publication – Pub No. MN160007EN
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## Document Conventions

This document uses the following conventions:

- Document names and unfamiliar terms appear in *italics*, with a definition as needed.
- Links to other topics, email addresses, and Web sites are in [blue](#).
- Acronyms are defined the first time they appear, with the acronym in parentheses. For example: two rack units (2U).



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**NOTE**

*Notes* point out something of special interest to the reader in direct context or relationship to the immediate topic or step being performed.

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**IMPORTANT**

*Important* notes provide information of interest to the reader of a more global or general context.

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**CAUTION**

*Cautions* draw special attention to anything that may cause damage to equipment.

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**WARNING**

*Warnings* draw special attention to any situation that may cause severe injury, physical harm, or death, to the reader and/or person performing the task at hand.

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## Before You Begin

Before installing Eaton's Telescopic Chimney, it is recommended that you do the following:

- Read and understand the information cited in the [Safety Warnings and Precautions](#) section, found on page 1;
- Confirm that you have or can obtain the items listed in the [Tools Required](#) section, found on page 2; Best Practices and Important Notes section, found on page 2;
- Familiarize yourself with the assemblies and components described in the [Telescopic Chimney Components](#), found on page 4;
- Review the steps outlined in the [Installation Procedure](#) section, on page 5.

## Safety Warnings and Precautions



### CAUTION

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Due to the bulky size and weight of Telescopic Chimney components, and the height at which a Telescopic Chimney is installed (on top of an enclosure), and to prevent potential damage to components if dropped, installation of the Telescopic Chimney requires a minimum of two experienced installers.

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### WARNING

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Assembly and installation of the Telescopic Chimney takes place on top of an enclosure, at an approximate height of 8-11 feet. If step ladders are used during installation, installers must maintain three points of contact with the ladder at all times when climbing up or down the ladder. Failure to maintain three points of contact with the ladder may result in a fall causing serious or critical injury.

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### WARNING

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If using step ladders during installation of a Telescopic Chimney, DO NOT climb to a point higher than six feet from the ground, unless tethered to a safety harness. Also, NEVER stand on the top two steps of a step ladder, regardless of the ladder's overall height. Failure to adhere to this warning may result in a fall causing serious or critical injury.

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### WARNING

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If using a scissors lift or similar hoisting platform during installation of a Telescopic Chimney, DO NOT raise the platform's surface to a point higher than six feet from the ground, unless tethered to a safety harness. Failure to adhere to this warning may result in a fall causing serious or critical injury.

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### WARNING

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During installation, when on a ladder or raised platform, DO NOT hang onto, grab, or attempt to use the Telescopic Chimney to maintain your balance. Failure to adhere to this warning may result in a fall causing serious or critical injury.

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## Tools Required

The following tools are required when installing Eaton's Telescopic Chimney:

- Cordless power wrench-drill; preferably with an adjustable clutch.
- #2 Phillips head screwdriver or comparable socket/bit to be used with the power wrench/drill.



### NOTE

If the cordless power wrench-drill and #2 Phillips head socket/bit are to be used, it is recommended that you also include a short extension for the drill. This will make it easier to achieve the angle needed to secure the Telescopic Chimney Base to the roof of the enclosure.

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- If gloves are to be used, it is recommended they be Level 3 Cut Resistant gloves.
- (Recommended) Two Folding Step Ladders (one per installer), of a height appropriate for the job to be performed; (Preferred) Scissor Lift if available and room allows.

## Best Practices and Important Notes

### Two Person Assembly and Installation Required

Due to the size and weight of individual components, and the height at which a Telescopic Chimney is installed (on top of an enclosure), and most importantly, for safety reasons, assembly and installation of a Telescopic Chimney requires a minimum of two experienced installers.

### About the Installation Procedure

The steps outlined in the [Installation Procedure](#), on page 5, were tested and validated during development and are considered to be the **BEST PRACTICE** to use when installing the Telescopic Chimney product, regardless of the various height and weight variations. As such, the installation steps are written as a TWO INSTALLER operation and instruct both installers to simultaneously lift and place the Telescopic Chimney's top component on the roof of the enclosure first, followed by the Telescopic Chimney's base component. Lifting and placing each component separately minimizes the amount of weight both installers must handle in one hand while climbing a ladder using their free hand. Safety rules require installers to have both feet and one hand on the ladder at all times when climbing up or down the ladder. Once both components are positioned on the roof of the enclosure, assembly and attachment of the Telescopic Chimney can be performed along with the final telescopic adjustments needed to abut the top component to the ceiling and secure it in place.

## Telescopic Chimney (TC) Assembly Kit Numbers

The following table lists each Telescopic Chimney assembly kit, by number, and identifies the height range supported by each.

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**i** **NOTE** Height Range is measured from the top (roof) of the enclosure surface to the surface of the drop ceiling directly above the enclosure.

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TC Assembly Kit Number	Height Range	
	Inches	Centimeter
ETN-EXTTC1219	12 - 19	30.48 - 48.26
ETN-EXTTC1728	17 - 28	43.18 – 71.12
ETN-EXTTC2645	26 - 45	66.04 – 114.30
ETN-EXTTC4376	43 - 76	109.22 – 193.04

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**i** **NOTE** All Telescopic Chimney assembly kits consist of a base component, a top component, and the hardware necessary to assemble and install the chimney on the roof of an enclosure. See, [Telescopic Chimney Components](#), on page 4, for subcomponent details.  
Telescopic Chimneys are 23 inches (58.42 cm) wide by 19.5 (49.53 cm) long with adjustable heights ranging from 12 inches (30.48 cm) to 76 inches (193.04 cm), depending upon the assembly kit, as shown in the table above.

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**i** **NOTE** Before a Telescopic Chimney can be installed on the roof of an enclosure, the enclosure must be equipped with an enclosure top panel that supports the opening and attachment points for securing the chimney to the enclosure.  
If the target enclosure does not have the appropriate top panel installed, refer to the Paramount Installation Guide for installation instructions, or contact your service or sales support person for assistance.

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**i** **NOTE** In addition to the proper enclosure top panel assembly, specific types of doors must also be installed to provide the proper airflow in support of the Telescopic Chimney.  
For the Paramount enclosure, the following door types must be installed to support the Telescopic Chimney solution:  
If the target enclosure does not have the appropriate door type installed, refer to the Paramount Installation Guide for installation instructions, or contact your service or sales support person for assistance.

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## Telescopic Chimney Components

Figure 1 identifies the components comprising the Telescopic Chimney assembly.

**NOTE** Callouts within a figure are specific to the illustration in which they appear.

### Component Identification

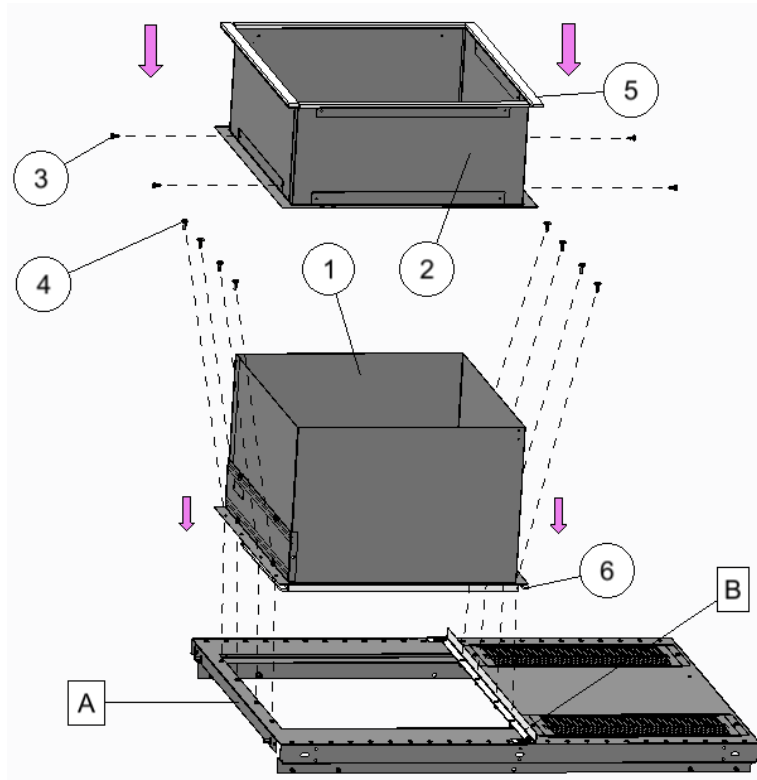
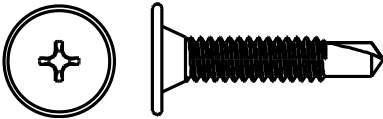
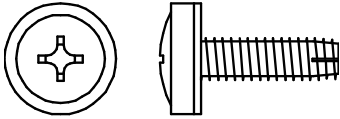


Figure 1: Telescopic Chimney Components

A	<p>Enclosure Top Panel</p> <p><b>NOTE</b></p> <p>The enclosure top panel is not part of the Telescopic Chimney installation kit. It is included in all illustrations for reference only.</p>	<p>B</p> <p>Stiffener Flange. <u>Factory installed.</u> Use as leverage- pivot point during chimney install, if necessary</p>
1	<p>Telescopic Chimney Base</p>	<p>2</p> <p>Telescopic Chimney Top</p>
3	<p>Screw, #10-24 x 1" Long, Thread Cut, Drill Point, Phillips, Steel Coated (100329) Qty. 4</p> 	<p>4</p> <p>Screw, #10-32 x 5/8" Phillips, Thread Forming, w/Nylon Washer (87422) Qty. 8</p> 
5	<p>Gasket, 0.75 x 0.25" Thick, Acrylic ADH. <u>Factory Installed.</u></p>	<p>6</p> <p>Gasket, 0.5 x 0.12" Thick, Acrylic, ADH. <u>Factory Installed.</u></p>

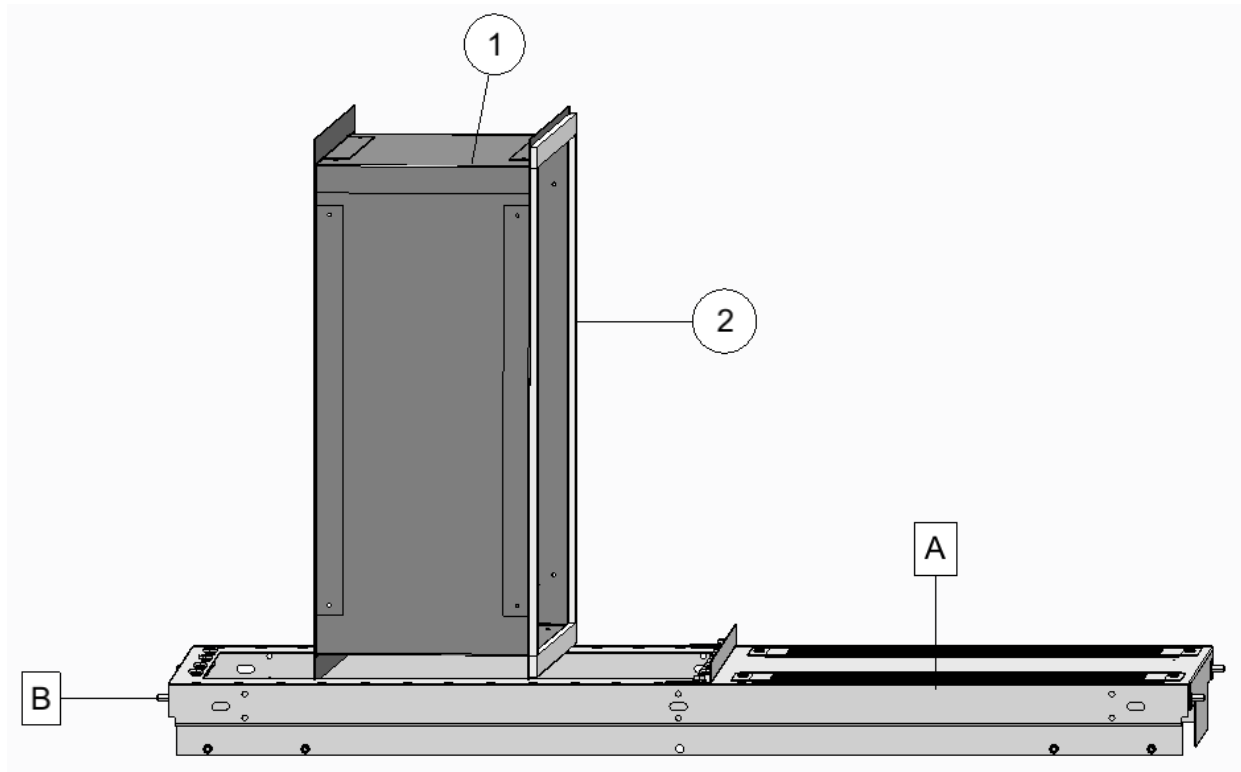


## Installation Procedure

The following steps describe how to install a Telescopic Chimney on top of an enclosure.

**i NOTE** Throughout this procedure, letter and number callouts within a figure are specific to the illustration in which they appear.

### Step 1: Lift and Place Telescopic Chimney Top on Roof of Enclosure



**Figure 2: Lift and Place Telescopic Chimney Top on Roof of Enclosure**

Using TWO people, one on each side, lift and place the Chimney Top (1) on the roof of the enclosure (A/B), as shown in [Figure 2](#).

**i NOTE**

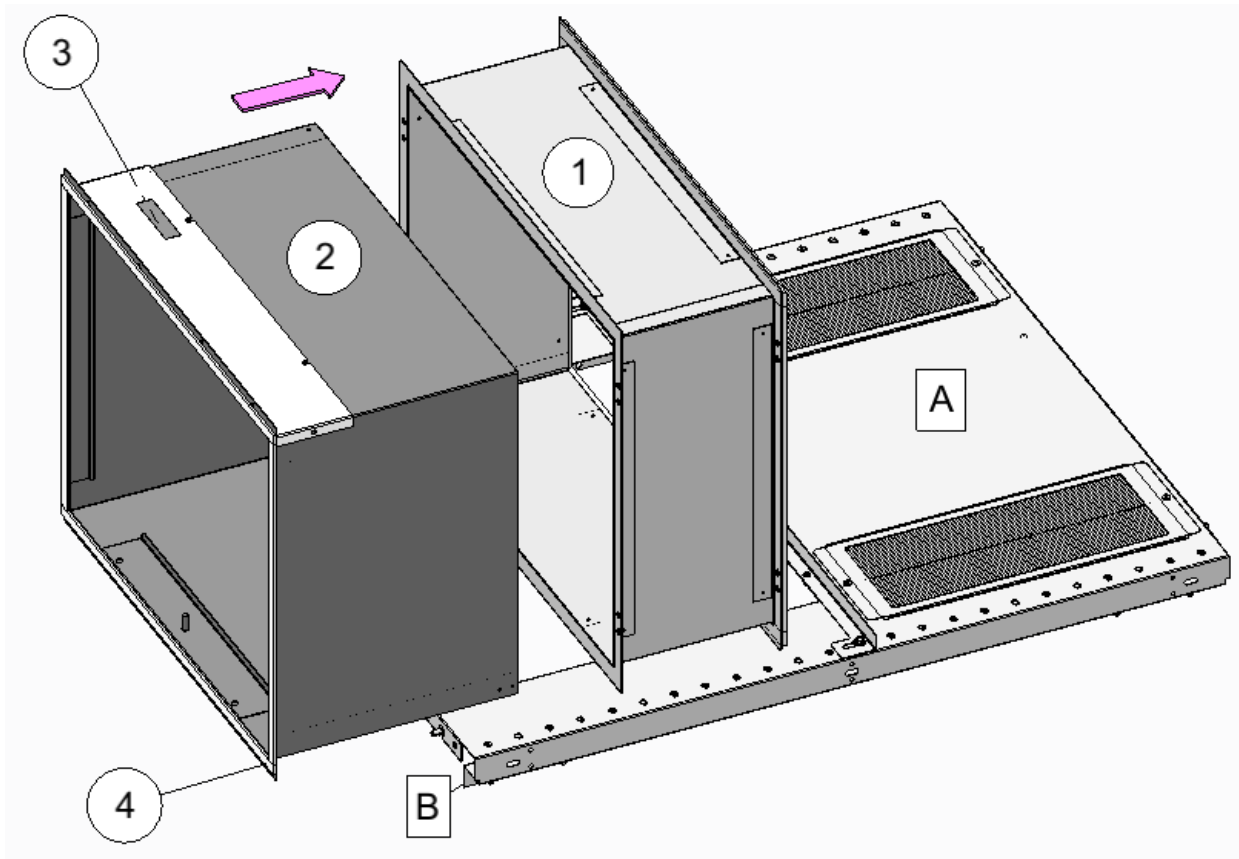
For proper positioning, the gasket material (2) adhered to the top of the Chimney Top (1) should be facing the FRONT of the enclosure (A). The bottom of the Chimney Top has no gasket material and should be facing the REAR (B).

**i NOTE**

It is recommended that the Telescopic Chimney Top be placed on the roof of the enclosure first. This will prevent the outside from being scratched when the base and top are combined in the following step.

<b>A</b>	Enclosure Top Panel (FRONT)
<b>B</b>	Enclosure Top Panel (REAR)
<b>1</b>	Telescopic Chimney Top
<b>2</b>	Gasket adhesive material attached to the top of the Telescopic Chimney Top

## Step 2: Lift and Slide Telescopic Chimney Base Inside Chimney Top



**Figure 3: Slide Chimney Base Inside Chimney Top**

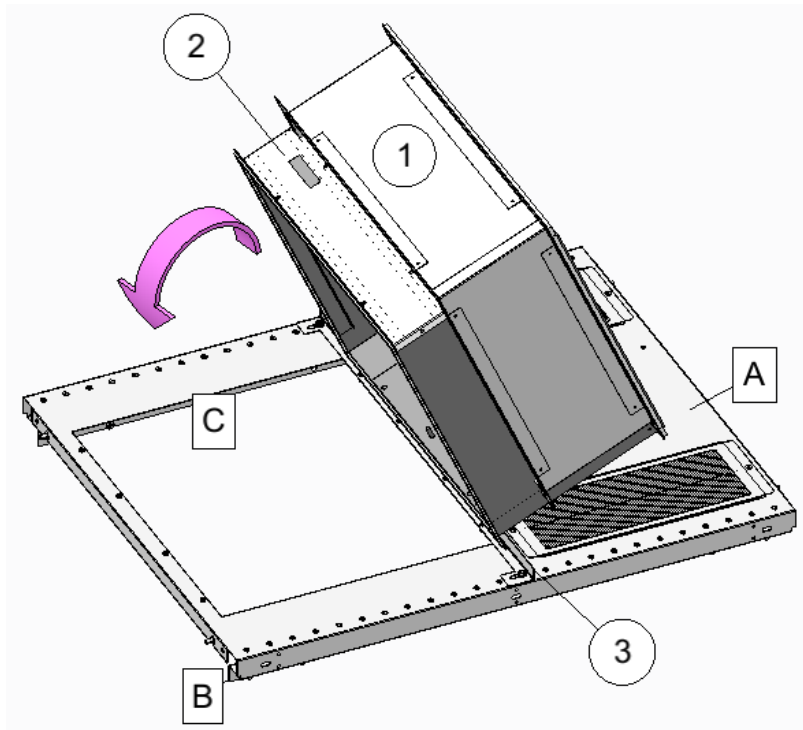
Using TWO people, one on each side, lift the Chimney Base (2) to the roof of the enclosure and slide it inside the Chimney Top (1), as far as it will go. See [Figure 3](#).

### **i** NOTE

For proper positioning, the gasket material (4) adhered to the bottom of the Chimney Base should be facing the REAR of the enclosure (B) and the Blanking Panel with Logo (3) should be facing upward.

<b>A</b>	Enclosure Top Panel (FRONT)
<b>B</b>	Enclosure Top Panel (REAR)
<b>1</b>	Telescopic Chimney Top
<b>2</b>	Telescopic Chimney Base
<b>3</b>	Blanking Panel with Logo
<b>4</b>	Gasket adhesive material attached to the bottom of the Telescopic Chimney Base

### Step 3: Stand Chimney Base and Top Upright and Place Over Enclosure Opening



**Figure 4: Stand Chimney Base and Top Upright**

Using TWO people, one on each side, slide the Chimney Base (2) and Chimney Top (1) towards the FRONT of the enclosure (A). Then tilt the unit forwards towards the REAR of the enclosure (B), as shown in [Figure 4](#).

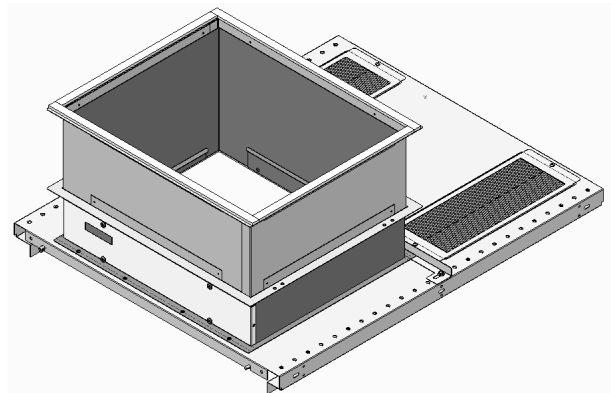
**NOTE**

For heavier and taller chimneys, use the Stiffener Flange (3), located at the top-center of the enclosure, as a leverage-pivoting point when standing the Telescopic Chimney components upright.

Position the Chimney Base (2) and Chimney Top (1) over the opening in the roof of the enclosure (C).

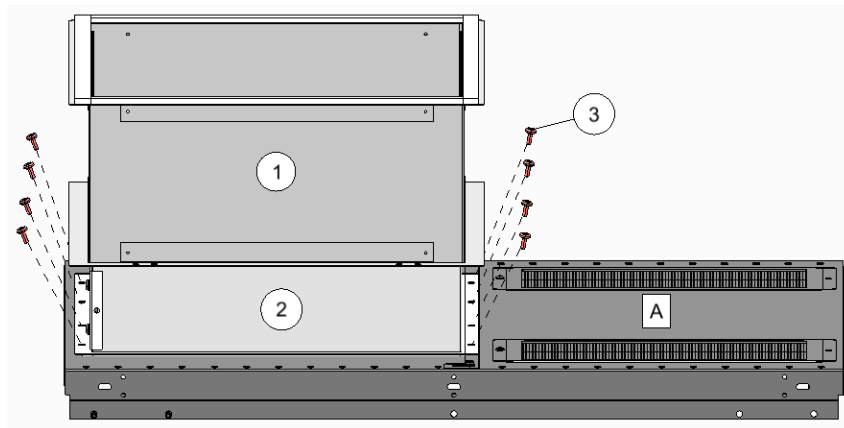
Align the screw holes along the front and rear of the base with the screw holes along the edges of the enclosure opening. When complete, the unit should look similar to the illustration shown in [Figure 5](#).

<b>A</b>	Enclosure Top Panel (FRONT)
<b>B</b>	Enclosure Top Panel (REAR)
<b>C</b>	Enclosure Top Panel Opening
<b>1</b>	Telescopic Chimney Top
<b>2</b>	Telescopic Chimney Base
<b>3</b>	Stiffener Flange



**Figure 5: Position Chimney Base and Top Over Enclosure Opening**

#### Step 4: Secure Chimney Base to Roof of Enclosure



**Figure 6: Secure Chimney Base to Roof of Enclosure**

Using TWO people, one on each side, have one person slide and hold the Chimney Top (1) upward while the other person secures the Chimney Base (2) to the roof of the enclosure (A).

To secure the Chimney Base to the roof of the enclosure, use eight, #10-32 x 5/8" Phillips, Thread Forming, w/Nylon Washer, screws (87422).

Refer to item (3) in [Figure 6](#).

<b>A</b>	Enclosure Top Panel (FRONT)
<b>1</b>	Telescopic Chimney Top
<b>2</b>	Telescopic Chimney Base
<b>3</b>	Screw, #10-32 x 5/8" Phillips, Thread Forming, w/Nylon Washer, screws (87422).

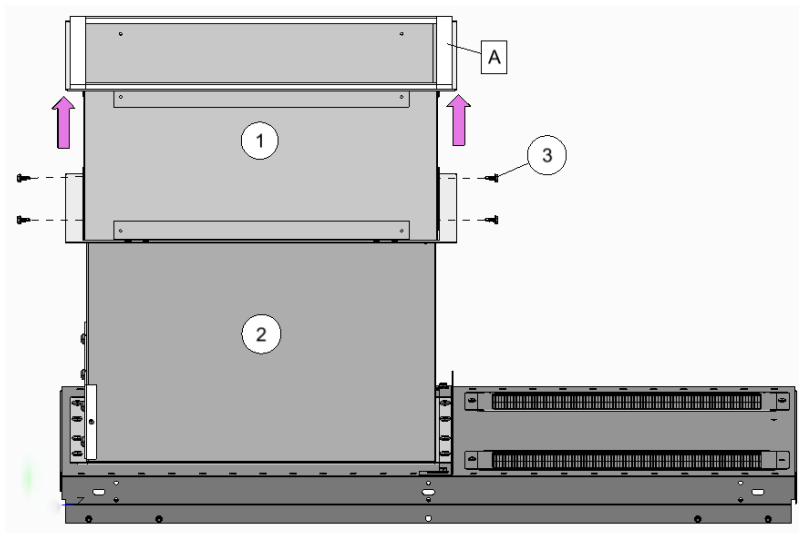
#### Step 5: Abut Chimney Top to Ceiling and Secure in Place

Using TWO people, one on each side, have one person slide the Chimney Top (1) upward until the gasket material (A) firmly abuts the ceiling, while the other person secures the Chimney Top (1) to the Chimney Base (2).

To secure the Chimney Top (1) to the Chimney Base (2), use four, #10-24 x 1" Long, Thread Cut, Drill Point, Phillips, Steel Coated, screws (100329).

Refer to item (3) in [Figure 7](#).

**Procedure Complete**



**Figure 7: Abut Chimney Top to Ceiling and Secure in Place**

<b>A</b>	Gasket, 0.75 x 0.25" Thick, Acrylic ADH. <u>Factory Installed.</u>
<b>1</b>	Telescopic Chimney Top
<b>2</b>	Telescopic Chimney Base
<b>3</b>	Screw, #10-24 x 1" Long, Thread Cut, Drill Point, Phillips, Steel Coated, screws (100329).

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