
TEXTON
Sunland Shutters
Product Manual
We Manufacture the World's Finest Shutters

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Features and Benefits

Polycore® shutter are the only fully aluminum reinforced shutters available in the world today. After nearly 12 years of research and development, a co-extrusion process was perfected that allowed us to manufacture aluminum reinforced shutter components and fabricate them into shutter panels.

All Polycore® shutters have a conveniently located tilt rod that provides easy access to light control and privacy. The self-tensioned louver pins eliminate the need for tension screws and constant adjustment. A removable pin in the two-part hinge makes removing panels from the frame effortless. A wide array of specialties and options allows the Polycore® shutter line cover virtually any window opening.

Polycore® components are finished with a state of the art baked on water borne paint. This ensures that the shutter finish will never warp, crack, chip, or peel. Polycore® shutters are moisture and UV resistant, making them impervious to the elements. Finally, the innovative aluminum core provides unprecedented strength and durability that allows our panels to be safely fabricated up to 36” wide for an unparalleled viewing area.

Our Lexwood® Premium, Advantage, and Plus shutters are made from 100% premium basswood. Each shutter is hand built utilizing a unique process that combines old world craftsmanship with cutting edge technology to offer precision design and consistent quality control. This allows Sunland Shutters to create the finest and the most elegant looking custom wood shutter on the market today.

Our selection of 20 stain colors, 21 white colors, and our custom color match service combined with a wide choice of frames, options and specialties allows these Lexwood shutter lines to match any décor and window opening.

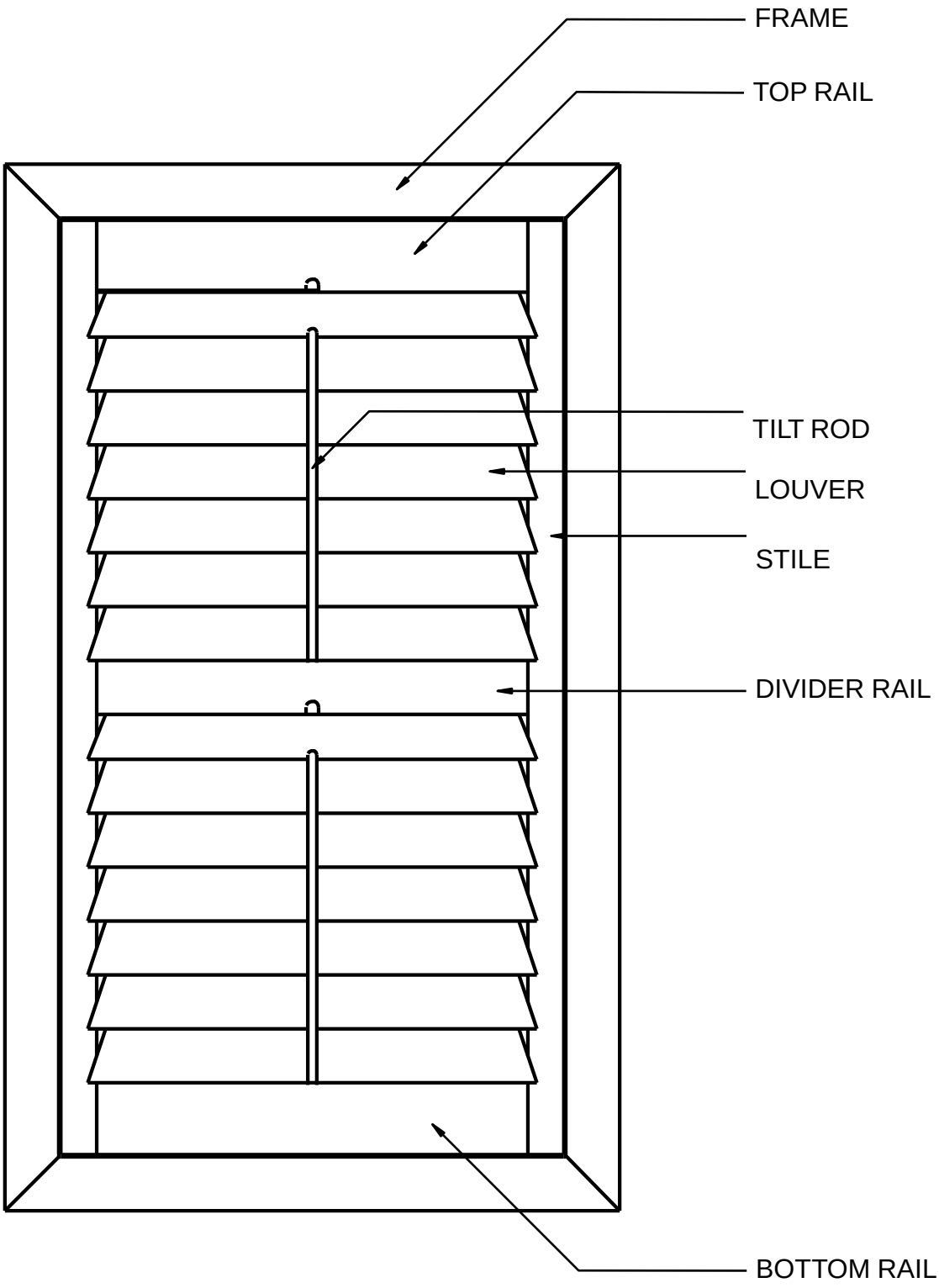
Our Lexwood® Premium, Advantage, and Plus shutters and our Polycore® shutters have received the GREENGUARD Indoor Air Quality and the coveted GREENGUARD Children & Schools certifications. This means that our shutters have passed an extensive series of tests to ensure that they meet stringent third-party standards for low chemical emissions based on established health standards.

Shutter Features Comparison

Revised: MAY 2018

	PolyCore	PolyCore Domestic	LexWood Premium	LexWood Advantage	LexWood Plus
Colors	5 Whites	3 Colors	20 Stains	21 Whites	21 Whites
Primer	UV Water Based	UV Water Based	UV Water Based	UV Water Based	Gesso
Paint/Stain	UV Water Based	UV Water Based	UV Water Based	UV Water Based	UV Water Based
Panel Width	36”	36”	36”	36”	36”
Specialties	Yes (2 wks longer)	Yes (1 wk longer)	Yes (2 wks longer)	Yes (2 wks longer)	Yes (2 wks longer)
French Doors	Yes (2 wks longer)	Yes (1 wk longer)	Yes (2 wks longer)	Yes (2 wks longer)	Yes (2 wks longer)
Sliders	Yes (2 wks longer)	Yes (1 wk longer)	Yes (2 wks longer)	Yes (2 wks longer)	Yes (2 wks longer)
Material	PVC with Co-Extruded Aluminum Cores	PVC with Co-Extruded Aluminum Cores	Premium Basswood	Premium Basswood	Premium Basswood
Louver Size	2.5”, 3.5”, & 4.5”	3.5” & 4.5”	2.5”, 3.5”, & 4.5”	2.5”, 3.5”, & 4.5”	2.5”, 3.5”, & 4.5”
Qty. of Frames	11	5	14	14	14
Double Hung	Yes	Yes	Yes	Yes	Yes
Warranty	4 Years on Finish. Limited Lifetime on Materials & Workmanship	25 Year Limited	4 Years on Finish. Limited Lifetime on Materials & Workmanship	4 Years on Finish. Limited Lifetime on Materials & Workmanship	3 Years on Finish. Limited Lifetime on Materials & Workmanship

Shutter Components

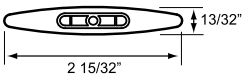


Polycore Components

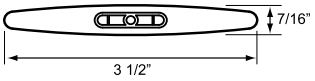
Colors Available in PolyCore Domestic
-Ultra White -Bright White -Off White

Revised: MAY 2018

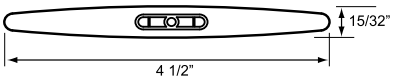
Louvers



2.5" ALUMINUM CORE LOUVER

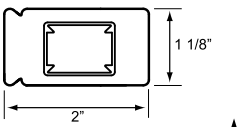


3.5" ALUMINUM CORE LOUVER ★

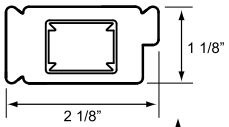


4.5" ALUMINUM CORE LOUVER ★

Stiles



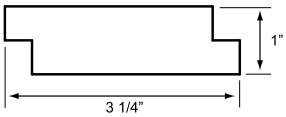
ALUMINUM REINFORCED STILE ★



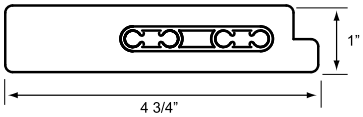
RABBITTED STILE ★

★ **Available in PolyCore Domestic**

Rails

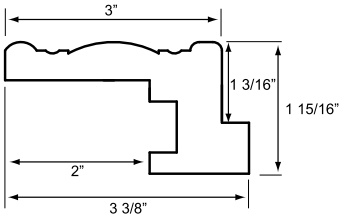


DIVIDER RAIL ★

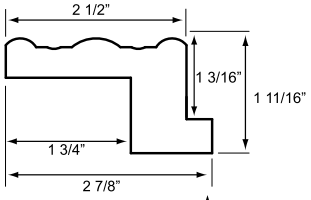


ALUMINUM REINFORCED RAIL ★

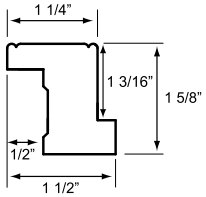
Frames



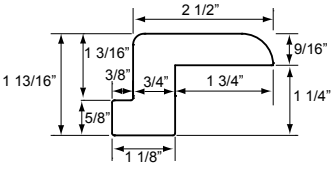
LARGE Z-FRAME ★
LGZ



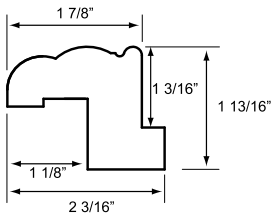
MEDIUM Z-FRAME ★
MDZ



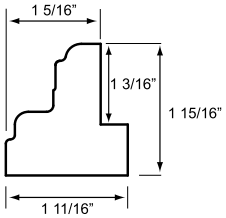
SMALL Z-FRAME
SMZ



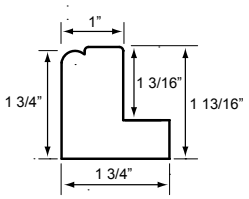
2" Flat Z-FRAME ★
2FZ



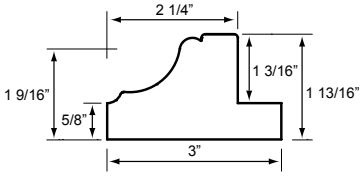
MALIBU Z-FRAME
MAZ



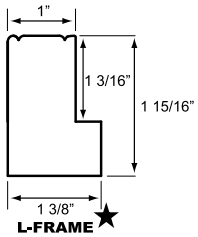
T-FRAME
TFO



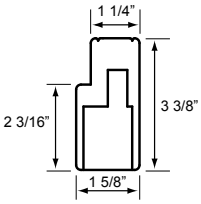
Deco Sill Frame
DSO



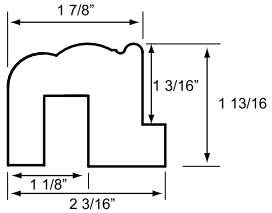
Deco Frame
DFO



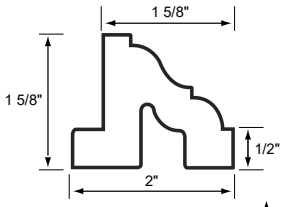
L-FRAME ★
LFI/LFO



*** LARGE L-FRAME**
LLO

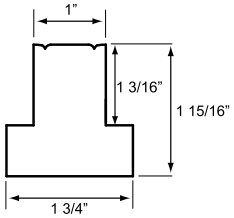


*** MALIBU FRAME O.M.**
MFO

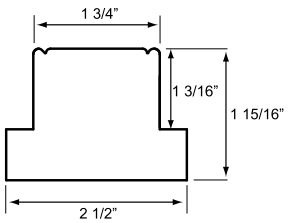


FANCY DECO-FRAME ★

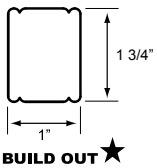
Others



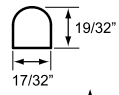
T-POST ★



LARGE T-POST ★



BUILD OUT ★
(1/4" min)



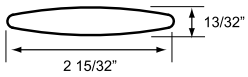
TILT ROD ★

* Surcharge refer to order reference chart

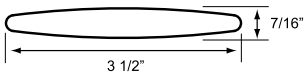
TEXTON

Lexwood Components

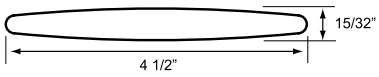
Louvers



2.5 LOUVER

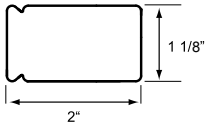


3.5 LOUVER

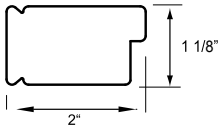


4.5 LOUVER

Stiles

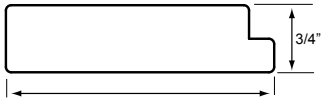


STILE

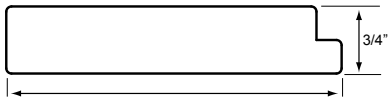


RABBETED STILE

Rails



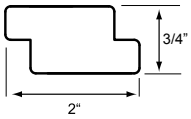
4" RAIL



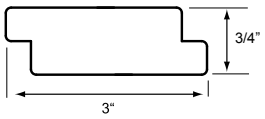
5" RAIL

6" RAIL

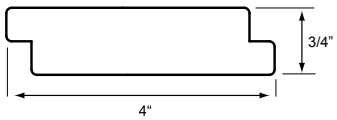
Divider Rails



2" DIVIDER RAIL

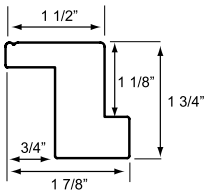


3" DIVIDER RAIL

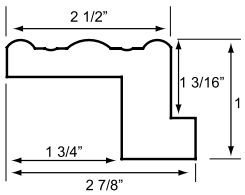


4" DIVIDER RAIL

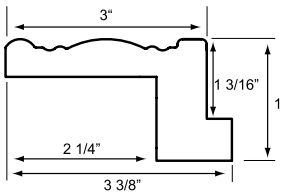
Frames



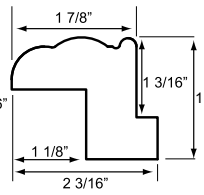
SINGLE BEADED Z-FRAME
SBZ



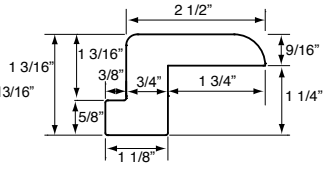
MEDIUM Z-FRAME
MDZ



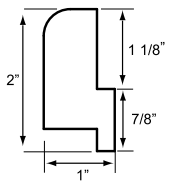
LARGE Z-FRAME
LGZ



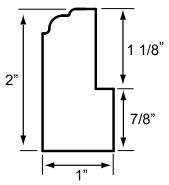
MALIBU Z-FRAME
MAZ



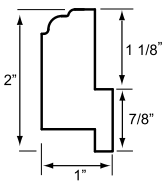
2" Flat Z-FRAME
2FZ



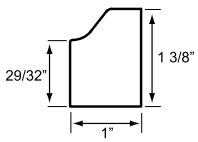
CHICAGO Z-FRAME
CZF



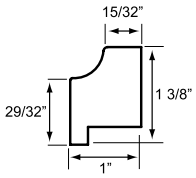
ATLANTA FLAT
AFL



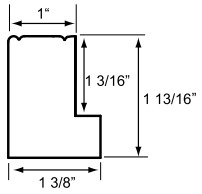
ATLANTA Z-FRAME
AZF



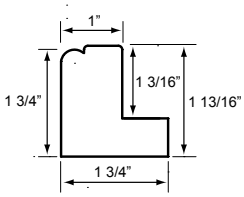
HOWE CASE FLAT
HCF



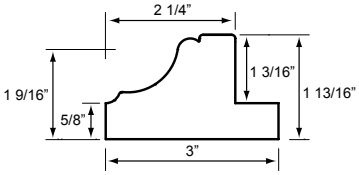
HOWE CASE
HCA



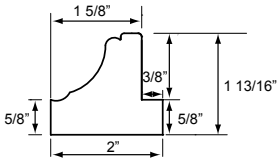
L-FRAME
LFI/LFO



Deco Sill Frame
DSO

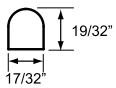


Deco Frame
DFO

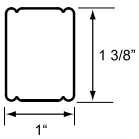


2" Deco FRAME
D2O

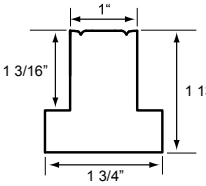
Others



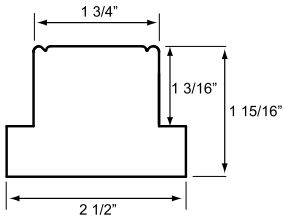
TILT ROD



BUILD OUT
(1/4" min)



T-POST



LARGE T-POST

Base

The base is used exclusively in fan top shutters. It refers to a durable aluminum (in Polycore) or wooden (in Lexwood) bottom frame that is used in wide openings to prevent panel sag. It is also commonly used to maintain a flush and uniform look when mounting a fan top shutter on top of a standard rectangular shutter.

Bi-fold Panels

Bi-fold panels are two panels that are hinged together and fold up adjacent to one another.

By-pass Panels

By-pass panels are two or more panels mounted on an overhead track system that slide past one another.

Build Out

A build out is a profile that is used to extend a frame away from the wall. Typically, it is used to move a shutter beyond an obstruction, such as protruding window sill, tiled wall, or crank handle. This profile is also used to project the shutter away from the window pane when taking louver clearance into account. The minimum thickness on both Lexwood and Polycore is 1/4”.

Butt Hinge

A butt hinge is used to connect two or more panels together in a bi-fold design. Butt hinges are surface mounted on the back to join the panels.

Divider Rail

A divider rail is sometimes placed between the top and bottom rail to add structure and integrity to the panel. The divider rail also enables the louvers in the upper section to move independently from those in the lower section.

Fascia

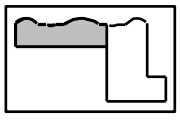
A decorative trim used to hide the track in a track system.

Filler Strip

A filler strip is a profile used to return a Z-frame back to the wall when it is necessary for the frame to not be fully recessed into the opening.

Flange

The flange is the part of the Z-frames that overlaps the wall.



Hanging Strip
A hanging strip is a simple rectangular frame piece that is typically mounted to a window opening to support the hanging of panels.

Hidden Tilt
The term Hidden Tilt refers to a hidden aluminum rod along the back of a shutter that connects and co-ordinates the movements of the louvers. With this design, there is no need for a tilt rod. This gives the front of the shutter a clean look. The shutters can still be easily opened by rotating an individual louver.

Hinges
Hinges are metal mechanisms that are attached to the stile and connect the panel to the frame. Hinges enable the panel to open and close.

Hub
The hub is responsible for giving fan top shutters their unique shape and look. It is a circular piece of material located in the center of the shutter. The louvers connect from the hub directly to the frame, creating a sunburst effect.

Louvers
Louvers are the panel components that rotate to offer control over the light and view.

N. W. F. (Net With Frame)
With this method of taking dimensions the measurements correspond to the finished size of the shutter, including the frame measured from the front of the shutter.
(Poly Domestic orders require NWF for outside mount Deco or inside mount L-Framed openings)

Net Panel
This refers to the exact size of the panel(s). No deductions are taken for hinges or clearances, even in multiple panel units, when specifying net panel. On Polycore panels the stile cap is NOT included in the height.

Opening Size
With this method of taking dimensions, the measurements correspond to the size of the window opening.

Shutter Frame

The shutter frame is a profile used to frame the shutter panels. Frames provide a square and even mounting structure for the panels, can compensate for an out of square openings, offer superb light blockage, and add a decorative trim to the window opening.

Split Rod

This refers to a divided tilt rod. Instead of one continuous tilt rod, the rod is split so that sections of louvers can operate independently of each other. This achieves the same purpose of a divider rail, without the insertion of the divider rail.

Stiles

Stiles are the vertical side pieces of a panel that are secured to the horizontal rails. The stiles hold the louvers into place and keep them evenly spaced for proper operation.

T-Post

The T-post is a vertical component that is inserted into a shutter frame to separate the individual panels and also add structural support. It is required once a shutter surpasses Sunland's maximum width (see p.12), though it can also be used for decorative purposes or to cover a window mullion.

Tilt Rod

A tilt rod is located in the center of the panel and coordinates the movement of the louvers by connecting them to one another. When opening the louvers, pull down on a louver but do not pull on the tilt rod.

Top and Bottom Rails

The rails are the horizontal components of a shutter panel assembly. They are attached to the vertical stiles and add structure to the panel. Typically, top and bottom rails will have equal heights. However, rail height can vary depending on the panel height.

Overview of Shutter Options

Component	Polycore	Polycore Domestic	Lexwood
Louver	2 1/2” 3 1/2” 4 1/2”	3 1/2” 4 1/2”	2 1/2” 3 1/2” 4 1/2”
Color	Bright White Dull White Ultra White Off White Pearl White	Ultra White Bright White Off White	Plus: 21 Standard Whites Premium: 20 Standard Stains (Refer to Lexwood Color Deck)
Hinge	Bright White Dull White Off White Bright Brass Antique Brass Nickel *Stainless Steel Oil Bronze	Bright White Off White Antique Brass Nickel *Stainless Steel Oil Bronze	Bright White Dull White Off White Bright Brass Antique Brass Nickel *Stainless Steel Oil Bronze
Frame	Large Z-frame Medium Z-frame Small Z-frame Malibu Z-frame 2" Flat Z-frame Standard 1" L-frame T-frame *Large L-frame *Malibu Frame O.M. Deco Frame Deco Sill Frame 2" Deco Frame	Large Z-frame Medium Z-frame Flat Z-frame Standard 1" L-frame 2" Fancy Deco Frame	Large Z-frame Medium Z-frame Single Beaded Z-frame Malibu Z-frame 2" Flat Z-frame Standard 1" L-frame Chicago Z-frame Atlanta Z-frame Atlanta Flat Howe Case Flat Howe Case 3" Deco Frame Deco Sill Frame 2” DECO Frame
System	Standard Shutter Specialty Track System French Door Cutout Rectangle - Oval	Standard Shutter Specialty Track System French Door Cutout Rectangle - Oval	Standard Shutter Specialty Track System French Door Cutout Rectangle - Oval

**With Surcharge*

*** Refer to component diagrams for slight dimension differences that exist in some products.*

Panel Size Limitations

A shutter panel is a fully assembled shutter that does not have a frame attached. Panels are typically mounted with a frame but can also be mounted independently.

Maximum & Minimum Panel Size

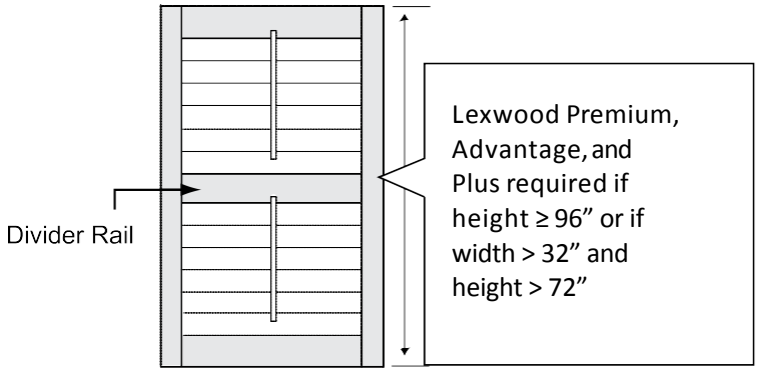
	Louver Size	PolyCORE®	LexWOOD®	
			Premium	Advantage / Plus
Maximum Panel Width	N/A	36”	36”	36”
Maximum Panel Height	N/A	144”	120”	144”
Minimum Panel Width	N/A	7”	7”	7”
Minimum Panel Height with Two Louvers	2.5” 3.5” 4.5”	9” 11” 13”	9” 11” 13”	9” 11” 13”

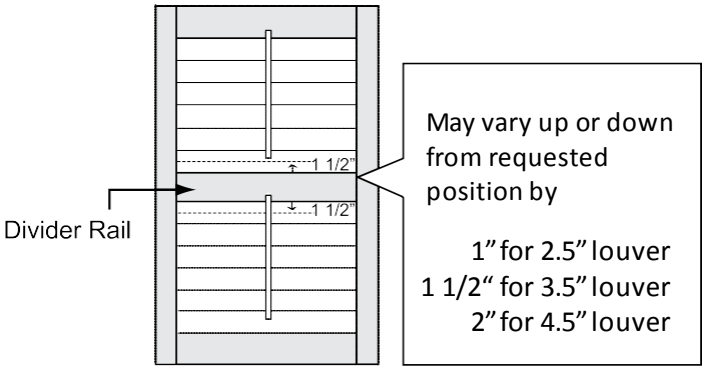
PANEL HEIGHT	HINGE QUANTITY
UNDER 48”	2
48”-72”	3
72”-96”	4
OVER 96”	5

Divider Rail Requirements & Limitations

Divider rails provide structural integrity to a shutter and also divide the top louvers from bottom louvers. Sunland shutters can build Polycore, Lexwood Premium, Lexwood Advantage and Lexwood Plus shutters up to 96” in height without a divider rail, but we recommend a divider rail for shutters over 72” in height.

We require a waiver against sagging for shutter panels that are both over **32” in width and 72”** in height or larger. Split rods are not considered as a divider rail.



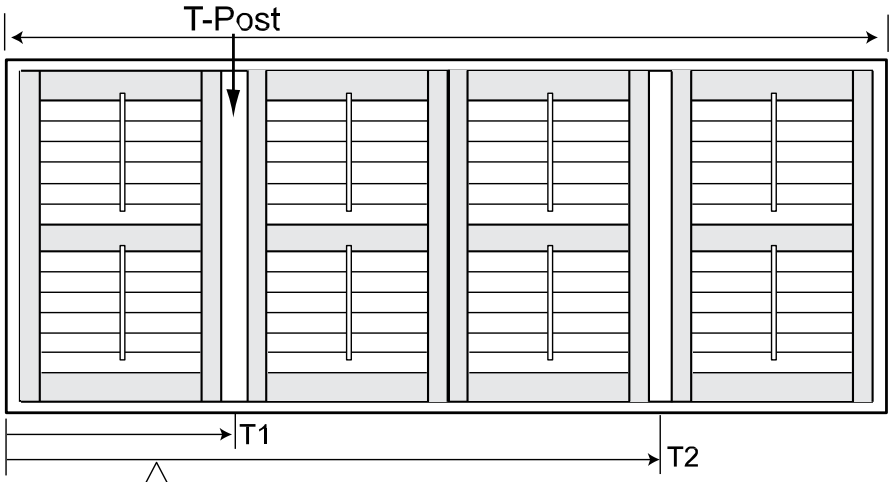


(The customer will be informed if the difference is over 1”)

Requirements & Limitations

T-Post Requirements & Limitations

T-Post are vertical frame members that divide the shutter unit into multiple sections.
T-Posts are required for total panel width greater than 84” for Polycore, and 96” for Lexwood Advantage and Lexwood Plus.



Please provide T-Post location from left to right.
ex:T1 at 24”(from left of the opening to center of the first T-Post)
T2 at 64”(from left of the opening to center of the second of the T-Post)

If not specified, T-Posts will be placed to divide shutter unit equally

T-Post waiver is required with limitations below:

Product	Panel Width	Sq-ft Limitation
PolyCORE	> 84”	≤ 44 sq-ft
LexWOOD	> 96”	≤ 68 sq-ft

T-Posts Size

T-Posts have 1” face, although on panels greater than 24” in width or 60” in length, a large T-Post will be used with a 1 3/4” face for greater stability.
When a fax order has mixed T-Post, we will default all openings to Large T-Post for consistency.

T-Post SIZE		**PANEL WIDTH**	
		less than 24”	over 24”
PANEL HEIGHT	less than 60”	1”	1 3/4”
	over 60”	1 3/4”	1 3/4”

3-Sided Shutter Limitation

We do not recommend a 3-sided shutter to be installed on a window, especially a sliding door, at the size of 66” x 78” or larger. To avoid sagging issue and/or structure failure, we highly recommend using the track system, either a bi-pass with track, a bi-fold with track, or add at least one large T-post and hinge panels to the T-post.

If you insist to order and install a 3-sided shutter beyond above limitation, we will send you a recommendation waiver and the warranty will be waived on this shutter.

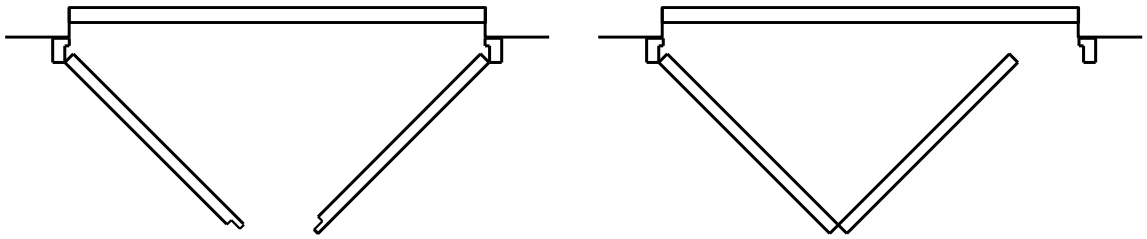
Standard Shutters

Sunland Shutters builds all panels so that the ***top rail*** and the ***bottom rail*** are as close to the ***same size*** as possible. When ordering adjacent shutters in the same room, to achieve uniform appearance (divider rails and louver numbers) you must specify that all adjacent shutters and their divider rails be built exactly the same height. If the measurements of the shutters differ slightly, apply one of the three options (keeping in mind that adjacent shutters and their divider rails must always be ordered exactly the same height):

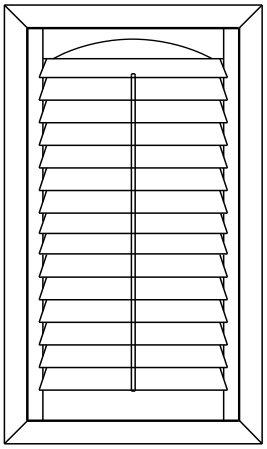
1) For outside mounts, increase the ordered height of the smaller shutters to equal the taller shutters.
2) For inside mounts with Z frames, reduce the ordered height of the taller shutters to equal the smaller shutters.
3) For inside mounts with height differences of ½" or more, change to an outside mount.

Standard rectangular shutters can consist of one or more panels hinged in a variety of configurations. Single panels can be individually hinged, or two panels may be hinged together in a bi-fold design.

All bi-fold panels are butted together and have a butterflied butt hinge attached on the back of the stiles. Maximum width for 2 panels bi-fold, 2L or 2R is 42" on Polycore, 48" on Lexwood Premium / Advantage / Plus.



Remember, because of the unprecedented panel height we recommend panels over 96" in height to have a divider rail so that louvers will not need to be hand pressed to close. Panels over 96" in height will require a divider rail to ensure structural integrity.



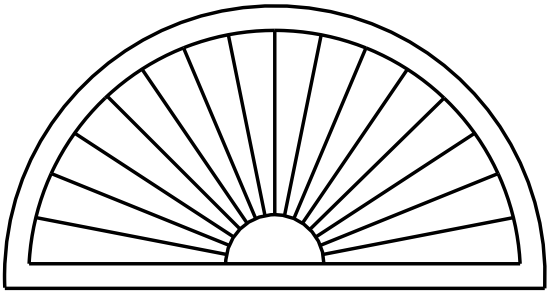
* Liberty panel is available upon request (Lexwood Premium, Advantage & Plus only) with surcharge

Fan Top Shutters

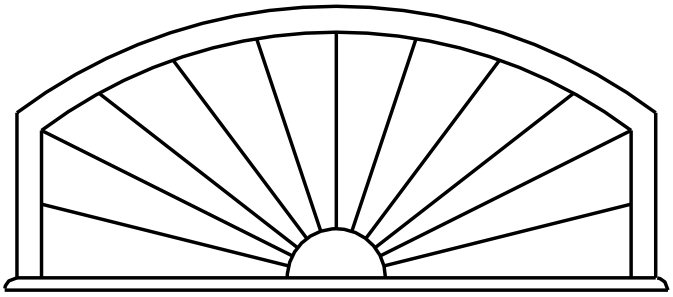
(NOT AVAILABLE: POLY DOMESTIC)

Fan top shutters show shutters in their best light. Either alone or on top of a rectangular shutter, fan top shutters provide the finishing touch to any decorating scheme. Fan top shutters are manufactured in the frame of your choice. The movable louvers are connected from the hub directly into the frame. These fan top shutters are generally attached to the opening permanently. In order for them to be removable they will need to be installed with magnets or button catches. Fan top shutters are available as a ½ circle or as an eyebrow. The bottom of the fan top shutter can be manufactured as bottom with frame or bottom with a base.

Note: The base extends past the width of the frame.

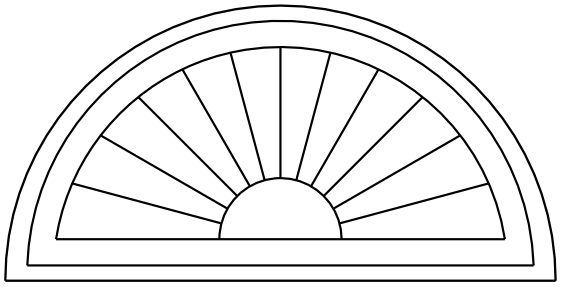


½ circle shutters as bottom with frame

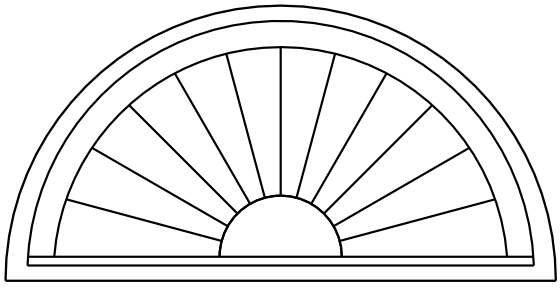


Eyebrow shutters as bottom with base

If you require a flat frame fan top shutter with a wrap around frame, it is always magnet mount and there is a surcharge.



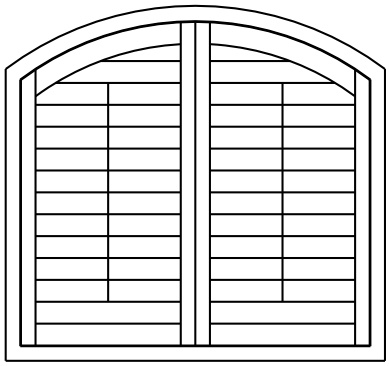
Sunburst Bottom with Frame



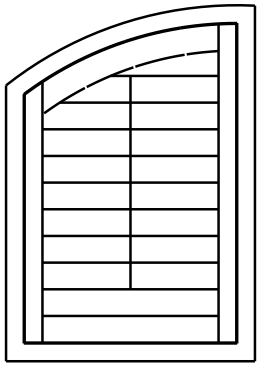
Sunburst Bottom with Base

Arch Shutters

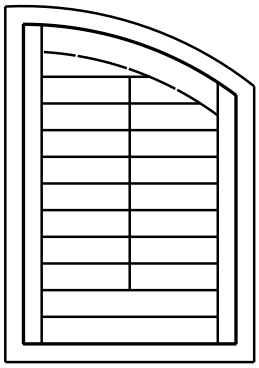
Arch shutters are another way to cover an arched opening. The shutters panels are manufactured with a curved top rail to conform to the desired opening. They are available as a full circle or an eyebrow. We provide a full frame on all arch shutters. Hidden Tilt rod cannot reach the louvers in the top arch area on a single panel arch. These unreachable louvers will be connected with a tilt rod in the back as spare operating control.



2 Panel Arch

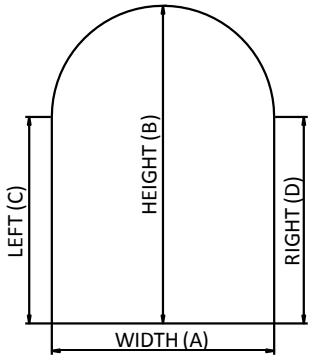


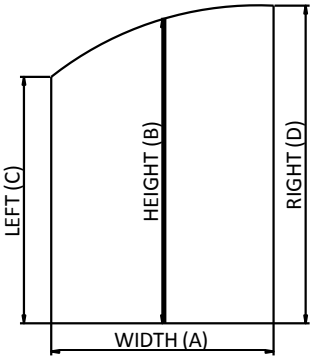
½ Arch-left



½ Arch-right

Please provide the width, overall height, and shoulder heights on each side.





Arch Shutter Template Requirement

All arch top shutter orders without template will be manufactured as half circle or continuous slope.

If the arch shutter ordered is not a half circle or continuous slope, **Cutout** template is required for manufacturing purpose. Two templates are recommended, one for Sunland Shutters and one for the dealer's records. Marked lines on templates are not acceptable to avoid mis-line determination only cutout templates should be sent.

All orders that require a template must MAILED IN with the order form (via USPS or UPS or Fed Ex) for that opening with the template attached. Sunland Shutters will not accept any order for openings requiring a template via online order or fax order.

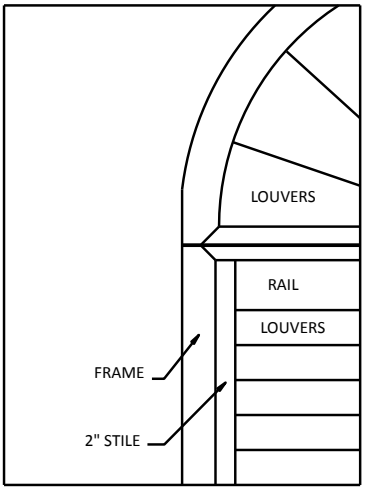
Orders that have openings requiring templates—that ENTIRE order should be submitted via PHYSICAL MAIL along with the associated templates. Order where only 1 or 2 openings require templates—the openings that DO NOT require templates should be submitted online or via fax. The 1 or 2 openings requiring templates should be submitted via PHYSICAL MAIL. Please make sure the side mark is the same on both submissions.

Mail Instruction: Sunland Shutters 5855 Obispo Ave. Long Beach, CA 90805 Attention: Design – Template

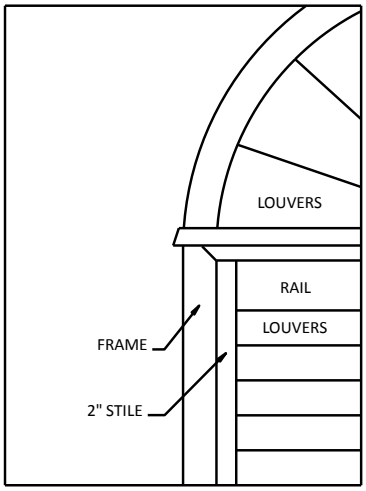
Shutter Design

Arched openings can also be covered using a standard shutter with a fan top mounted on top. There are three ways of accomplishing this: Using separate frames with a base, using separate frames without a base, and using a continuous frame. For an example of each please see the diagrams below.
***There is a surcharge for the continuous frame.**

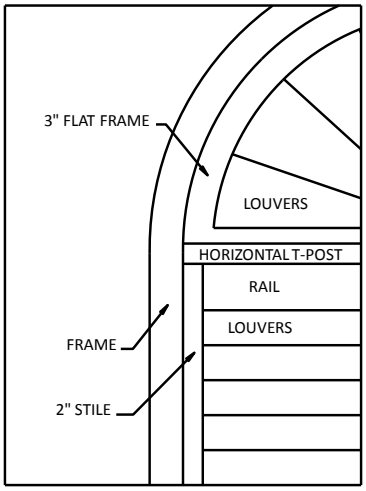
FANTOP WITH SILL CUT,
ON TOP OF SHUTTER WITH TOP SILL CUT

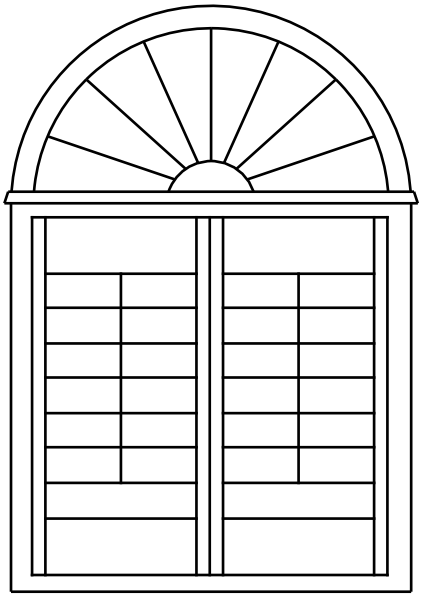


FANTOP WITH BASE,
ON TOP OF SHUTTER WITH TOP SILL CUT



CONTINUOUS FRAME WITH HORIZONTAL T-POST,
FLAT FRAME FAN TOP INSERTED ABOVE STANDARD
SHUTTER PANELS INSERTED BELOW

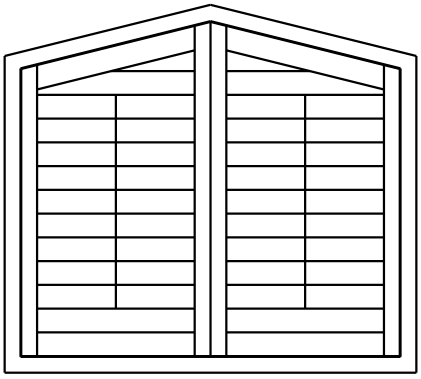




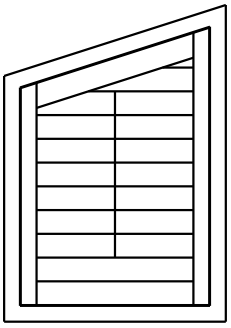
(A complete fan top shutter using separate frames with a base)

Rake Shutters

Raked top shutters, are shutters that have a straight angled top. The shutters are manufactured with an angled top rail to conform with the opening. We provide a full frame on all rake shutters.

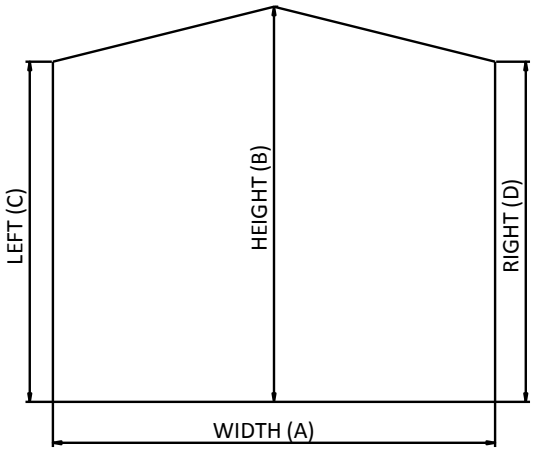


Rake

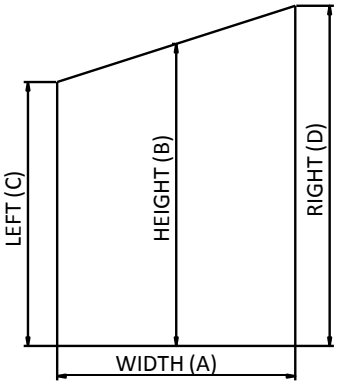


½ rake-left

Rake shutters require the same dimensions as an arched shutter.



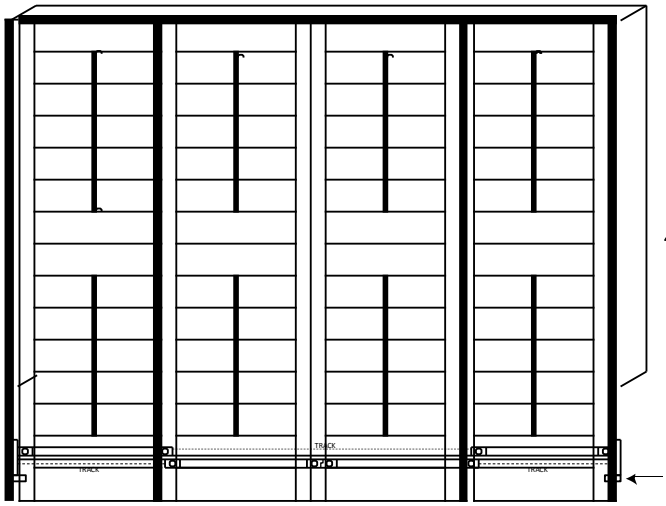
Please provide the width and the left, center, and right heights of the opening.

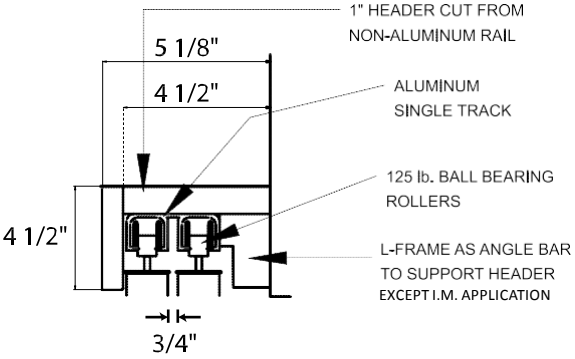


Track System *(NWF REQUIRED: POLY DOMESTIC)*

By-pass track

When two or more panels on an overhead track slide past each other, it is called a by-pass track system. Two single tracks are required so that the panels can slide past each other. When sliding past another panel, **the louvers must be closed**. If the panel width exceeds 38", two panels will be hinged together on the back with butt hinges and move as one piece. Rabbeted stile are used where the two panels meet in a center opening unit. The top fascia is 4 1/2". The rollers hold up to 125 lbs. per roller. The header and side legs are made out of 1" rail material. A 1 1/2" overlap for panels is built into all by-pass shutters. A 5/8" floor clearance is also provided. Corner fascias (return) are included on O.M. and N.W.F. order only. Bottom runner is included on all 2-way track applications. These runner pieces are meant to keep the panels apart so that the tilt rods do not interfere with the movement of the panels, as well as keep the panels together.

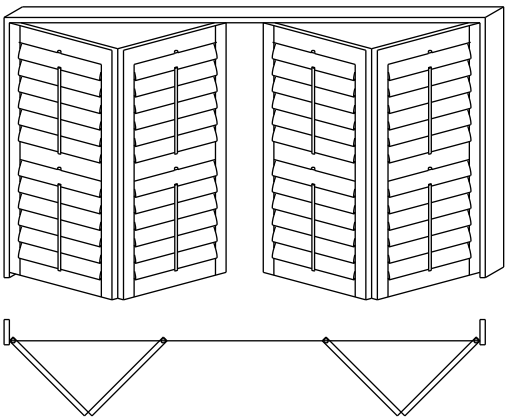


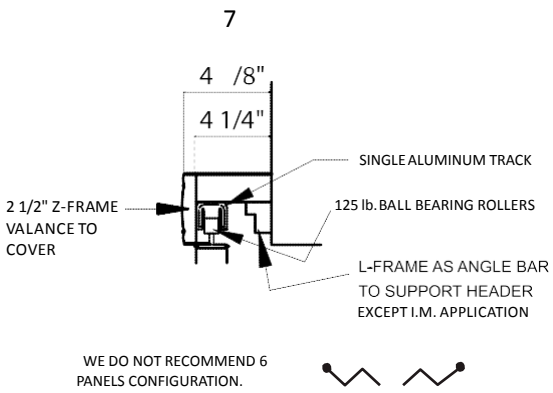


Side Fascia to Cover Side Legs
1 5/8" Side Fascia

Bi-fold track

When two or more panels are hinged together to fold up adjacent to each other, they are called bi-fold panels. A single track system is used for Bi-fold track system. Panels must be hinged together in multiples of two. The top fascia is 2 ½", the same as Medium Z-frame. The header and side legs are made of 1" rail material. A standard 1" floor clearance is also provided and cannot be modified. Corner fascias are included on O.M. and N.W.F. orders only. **Max Panel width is 24"**





All fascia over 8' (= 96") are provided in two pieces with 45 degree miter joint for both Polycore and Lexwood.

French Door *(NWF REQUIRED: POLY DOMESTIC)*

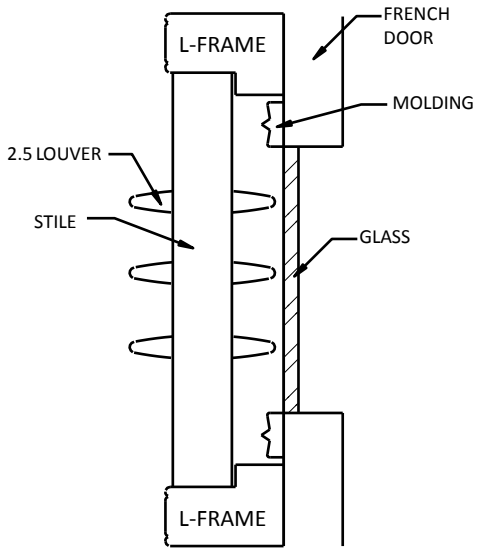
The french door cut out shutter is an excellent way to cover a difficult situation. French doors come with or without molding. If molding is present the shutter will need to be built around it to ensure error free operation. Remember, a build out is often needed for French door applications so the louvers will not come into contact with the glass. Study the diagrams below to find the application that is right for you. We recommend the L-frame as the best frame for french doors because of its appearance, mounting type, and ease of adding build out.

Build out

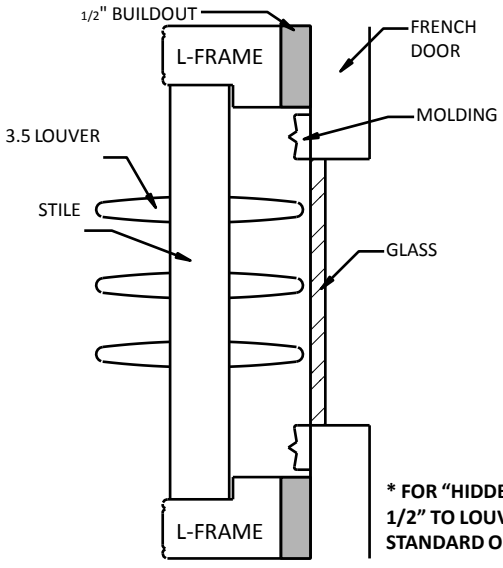
2.5 louver ⟶ no build out
3.5 louver ⟶ ½" build out
4.5 louver ⟶ 1" build out

French Door with Molding

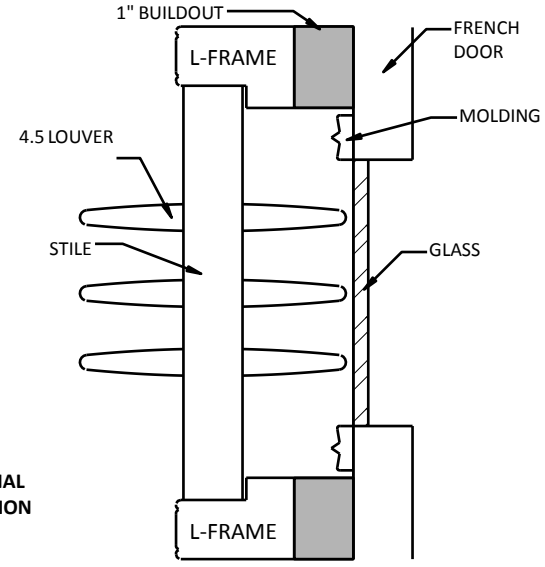
SIDE VIEW



SIDE VIEW



SIDE VIEW



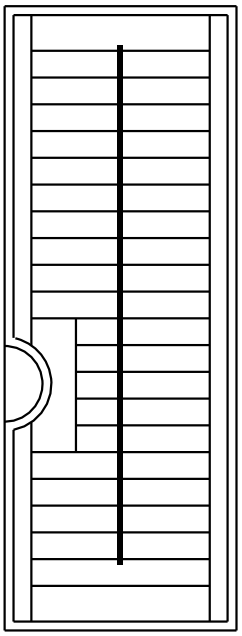
*** FOR "HIDDEN TILT" ADD AN ADDITIONAL 1/2" TO LOUVER CLEARANCE INSTALLATION STANDARD OPENING.**

French Door with Cut Out *(NWF REQUIRED: POLY DOMESTIC)*

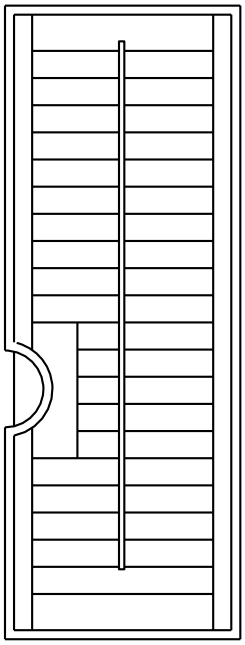
French doors occasionally come with a lever type of handle which protrudes into the glass section of the door. In these situations, the French door will need a cut out. We offer a half circle and rectangular cut out. Typically a standard 4 1/4" half circle cut out is enough to accommodate most levers, though we also offer a 5 1/4" and 6 1/4". Study the diagrams below to find your particular application.

Half Circle Cut Out:

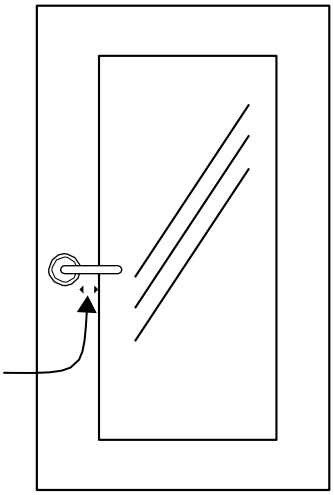
Cut out plate



Recessed cut out plate when there is limited amount of space between handle & glass

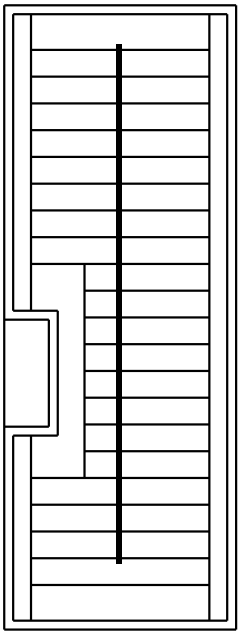


Space between handle base and glass is less than 1 1/2"

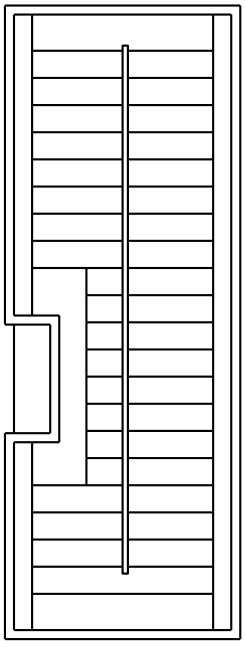


Rectangular Cut Out:

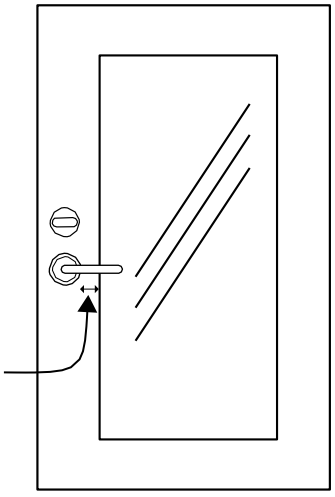
Cut out plate



Recessed cut out plate when there is limited amount of space between handle & glass



Space between handle base and glass is less than 1 1/2"

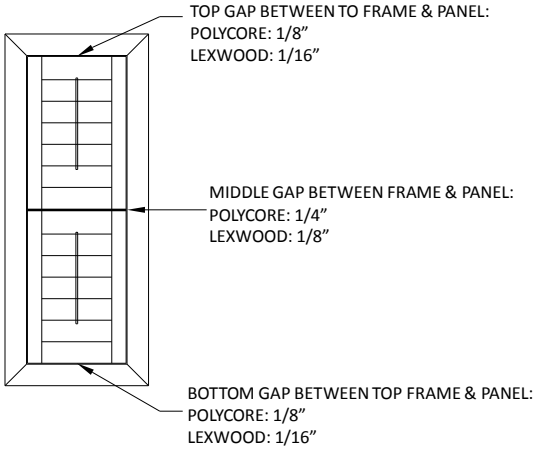


The cut out plate is 1/2" thick. Custom cut outs are available (such as an oval) with a surcharge.

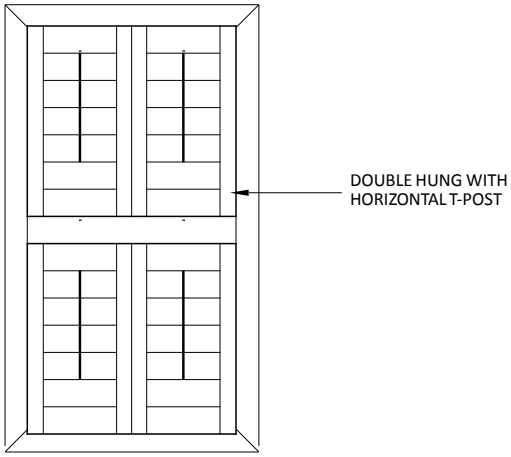
Double Hung

Double hung is when there is continuous frame and multiple panels vertically hinged to it. Customers to decide where the break point locates vertically and to be made with or without a horizontal T-post. A standard double hung has top and bottom panel tiers, operate individually and does not have a horizontal T-post. A double hung with horizontal T-post shutter comes with a horizontal T-post that goes across top and bottom panel tiers. You can choose either a 1" standard T-post or a 1 ¾" large T-post.

Double hung shutters must be designed the panel height greater than the panel width due to leverage factor. We highly recommend a bifold (2L2R) double hung shutter with 4-sided frame and should be ordered with a height dimension more than the width to avoid sagging. There is a surcharge for double hung shutters.



STANDARD DOUBLE HUNG

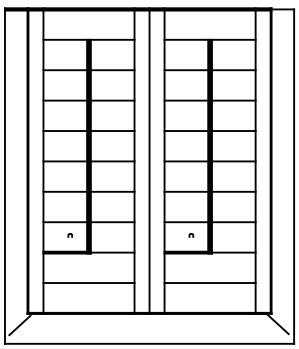


DOUBLE HUNG WITH HORIZONTAL T-POST
(MUST REQUEST UPON ORDER)

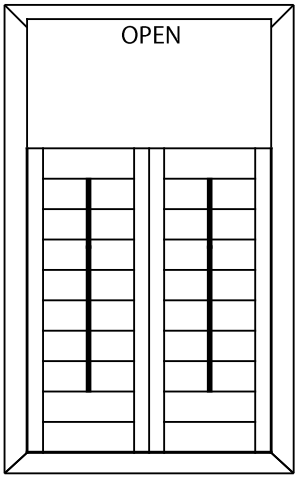
Café Style

Café Style is a standard panel configuration in which a window opening has shutters on the bottom half, and the top half is left open. The café style shutter can have either an (1) inverted three-sided frame (top will have a smooth finish) or a (2) four-sided frame with the top section open **(with a surcharge)**.

(1)



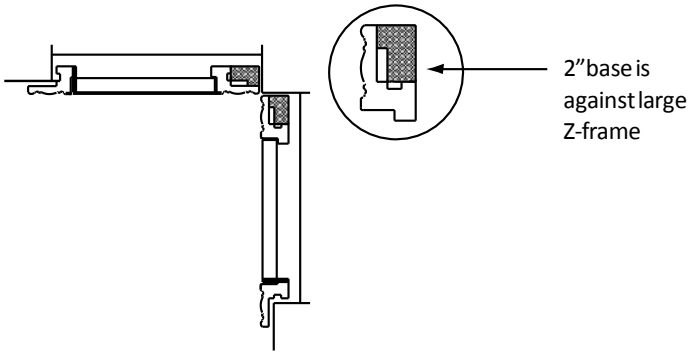
(2)



Corner Windows *(NWF REQUIRED: POLY DOMESTIC)*

There are two ways to install shutters on corner windows. The most popular frame is the large Z-frame.

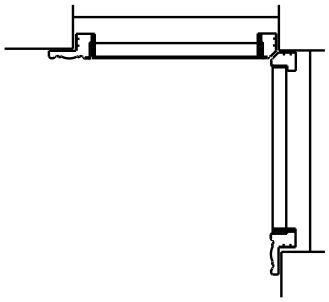
Measure the width of each opening. The factory will take a deduction for the frame and will provide a filler strip to support the back of the frame.



Corner window with frame cut

Measure the width of each opening. The frames will be miter cut in our factory so that the corners of the two will meet. We do not recommend the Malibu Z-frame for this application.

There is an additional charge for the miter cut.



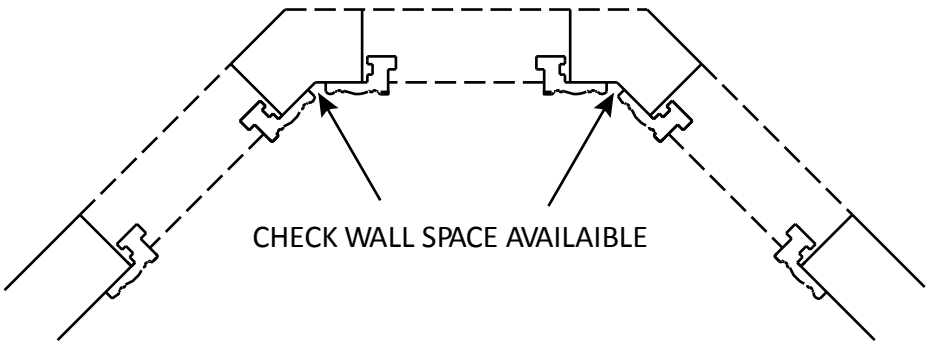
Bay Windows *(NWF REQUIRED: POLY DOMESTIC)*

Bay windows present interesting options for shutter installations. Choosing the proper installation provides the best insurance against unforeseen problems.

From experience we have learned that walls at the top of bay or bow windows are rarely plumb and parallel with those at the bottom. As a result, the best and easiest installation is a semi-inside mounted Z-frame. The return flange allows for most out of plumb openings.

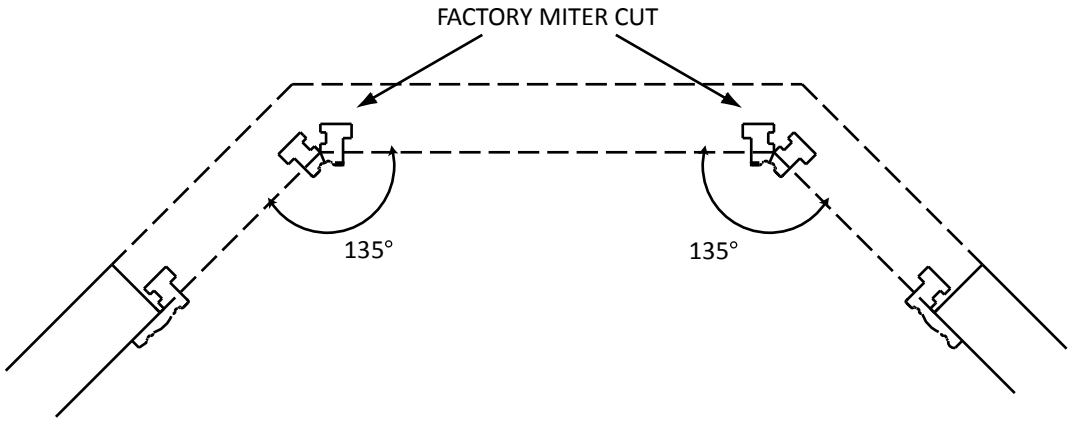
If wall space is available, bay windows can be framed just like a normal window opening.

Bay window with Z-frame semi-inside mount

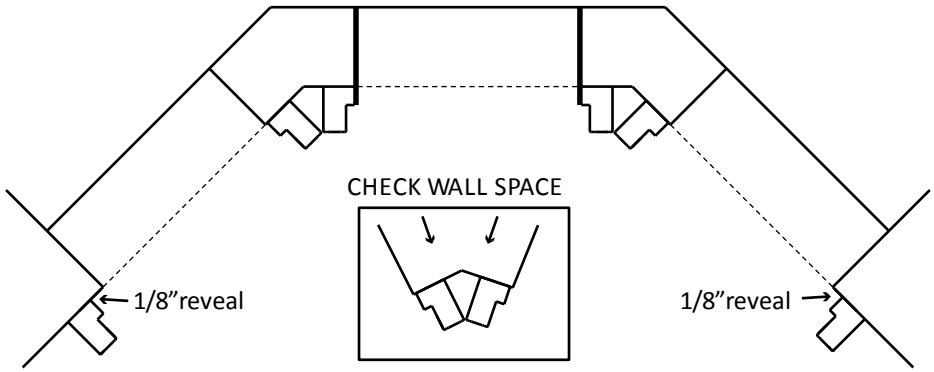


Bay window with Z-frame semi inside mount mitre cut

If there is not enough wall space for a standard Z-frame semi inside mount as on the previous page, the shutter can be made with a standard factory miter cut at 135° to reduce the size of the flange for easy installation.



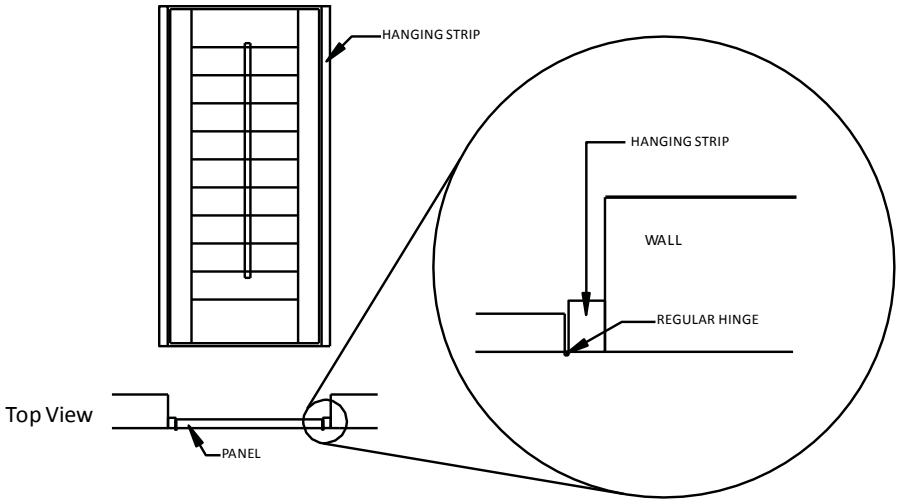
Outside mount bay windows look great with shutters. While uneven walls are more easily accommodated with inside mount Z-frames, outside mount frames are a viable option when space limitations preclude inside mount frame clearances. For a clean design we recommend that the sills be surrounded with a four side frame and notched on the job. A four sided frame could also sit on top of the sill.



Hanging Strip *(NWF REQUIRED: POLY DOMESTIC)*

Side Mount Hanging Strip *(NOT OFFERED: POLY DOMESTIC)*

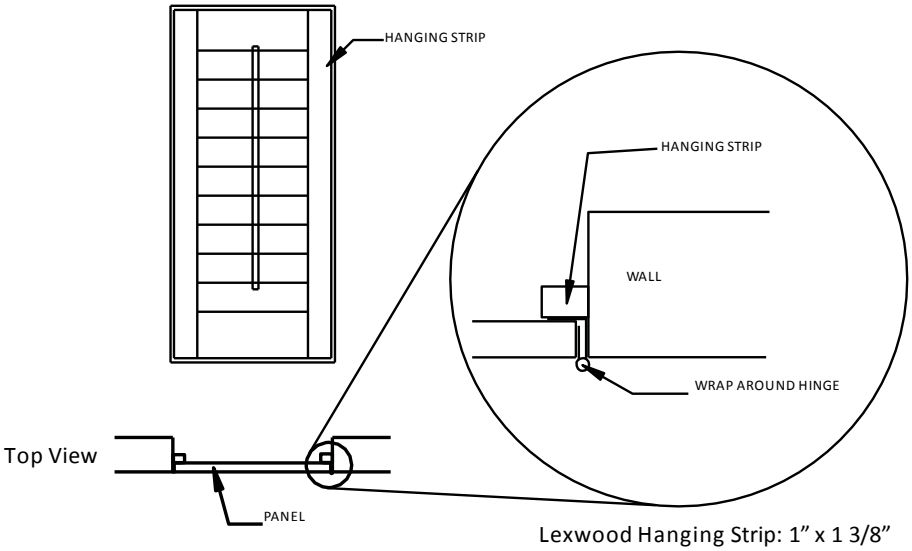
Shutters mounted with a hanging strip on the side use the standard non-mortised hinge. The factory will provide a hanging strip for both sides and a light block for the top and the bottom. For each panel, two magnets and a regular hinge are included. (The hinges are attached to the panel at the factory, however hanging strips, light blocks, and magnets come separately)



Lexwood Hanging Strip: 1" x 1 3/8"
Polycore Hanging Strip: 1" x 1 3/4"

Rear Mount Hanging Strip *(AVAILABLE: POLY DOMESTIC)*

Shutters mounted with a hanging strip behind use the non-mortise **wrap around hinge** and factory deductions are once again the same as a direct mount shutter. The factory will provide a hanging strip for both sides and a light block for the top and bottom. For each panel, two magnets and a wrap around hinge are included. (The hinges are attached to the panel at the factory, however hanging strips, light blocks, and magnets come separately)

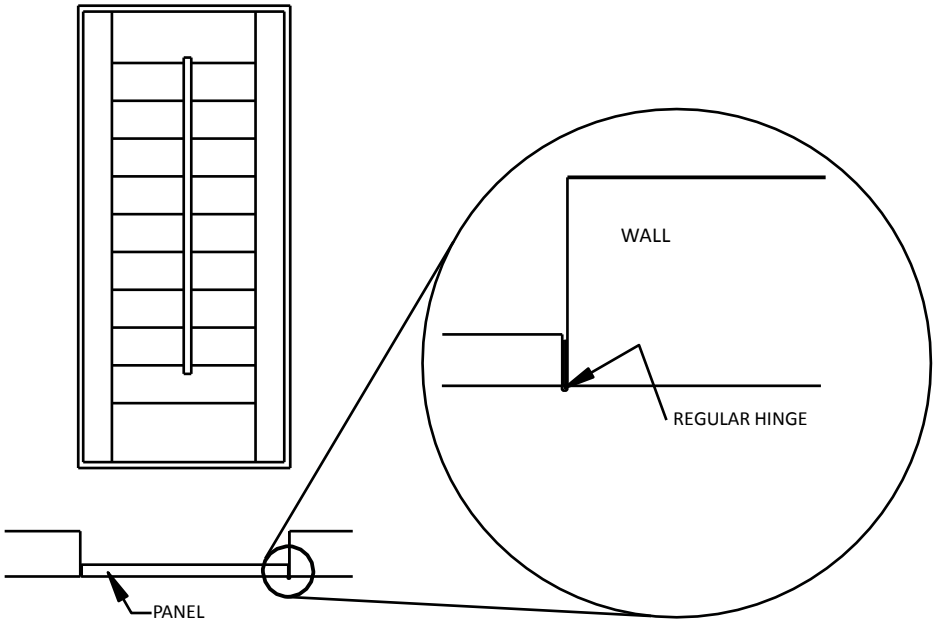


Lexwood Hanging Strip: 1" x 1 3/8"
Polycore Hanging Strip: 1" x 1 3/4"

Direct Mount Shutters *(NWF REQUIRED: POLY DOMESTIC)*

(PANEL ONLY)

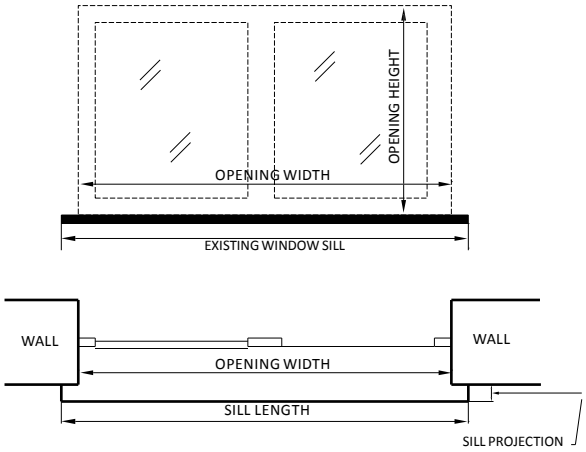
Direct mount shutters are hinged to jam with no frame or hanging strip. If you order a direct mount shutter with opening dimensions, the factory will deduct 1/4” for Polycore and 1/8” for Lexwood from the height and 3/16” in width for both. Multiple panels will have a 1/4” deduction on width. Magnets and light blocks for four sides are not attached.

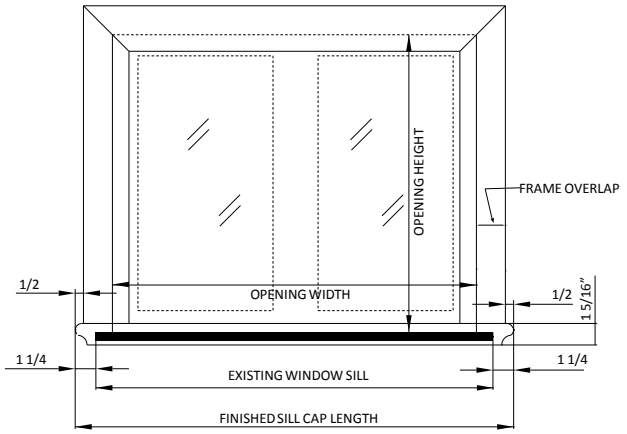


* Please remember that our Polycore stile cap is not included in the Net Panel size measurement. The stile cap acts as the bottom margin.

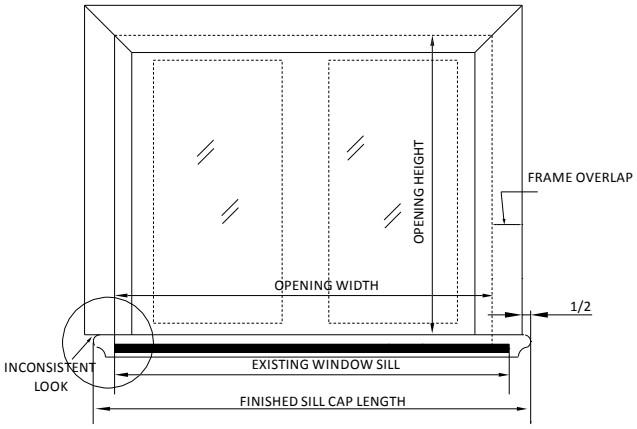
Sill Cap *(IMPORT ONLY - NOT AVAILABLE: POLY DOMESTIC)*

Sill cap is designed to cover the existing widow sill to give a shutter a consistent look. This application is only available on Lexwood shutters. When you choose this application, must be aware of following situations: We default the finished sill cap length 1 ¼" wider than the existing window sill each side. (There is a surcharge for sill cap).

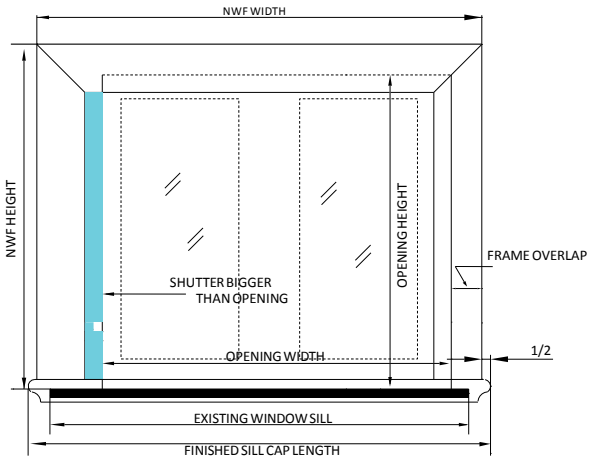




When you order with opening size, please make sure the finished shutter frame will stay winthin the finished sill cap. Please see right side illustration for example. It is very important to make sure the finished sill cap is long enough to meet the frame. We build still cap base on your provided window still length. Please advise if you need additional length on the sill cap.
Right side - shutter frame is perfectly within the sill cap. Left side - shutter frame extends past the sill cap that creates a drop. In this case, you would need to request extra length to avoid the drop. Please advise upon order.



When you order with NWF size, please make sure not only the sill cap fits existing window sill, the shutter has to fit the window opening, too. Please see right side illustration for example. It is very important make sure the shutter will fit the window opening not only line up with the sill cap. NWF height is from top of existing window sill to top of shutter frame.
Right side - shutter frame is perfectly semi-inside mounted in the window opening and it also falls within the sill cap. Left side - sill cap fits the existing window sill perfectly, but the shutter is too wide to fit in the window opening.



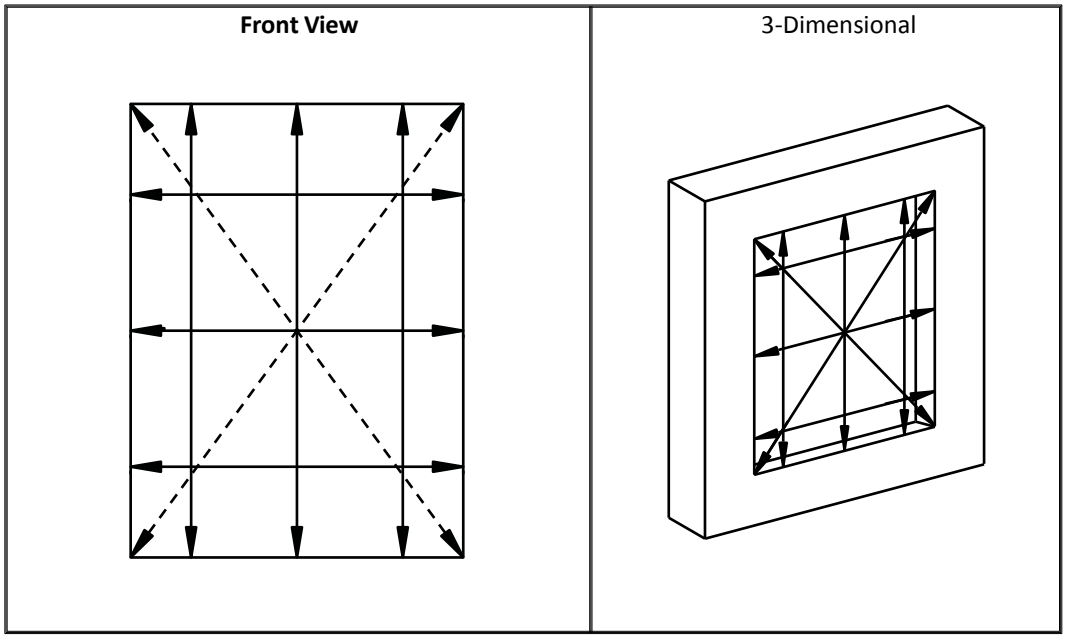
Measuring Instructions

Always take care when measuring plantation shutters and be sure to look for any obstruction that may interfere with the operation of the panels or louvers. Please refer to our louver clearance diagrams for further clarification (pages 32-33).

Measurement for shutters can be taken in two distinct ways. The first and most common is referred to as “opening size”. Opening size dimensions are literally the measurements (width and height) of the window opening. Because of variations in window construction, when measuring for width and height always measure in three places. The width should be measured along the top, middle, and bottom. The height should be measured on the left, center, and right. When ordering a shutter with an inside or semi- inside mount, please use the smallest of the measurements. For outside mount shutters, use the largest.

When an order with opening size dimensions is processed the factory will automatically take the necessary deductions. These deductions may be found on our reference chart for the various frames that are available. This chart is also found on our web site (www.sunlandshuters.com). **Inside mount applications require diagonal measurements to check if the opening is square**. If the two diagonal measurements differ by 1/2” or more, we recommend an outside mount.

Opening Size Measurements

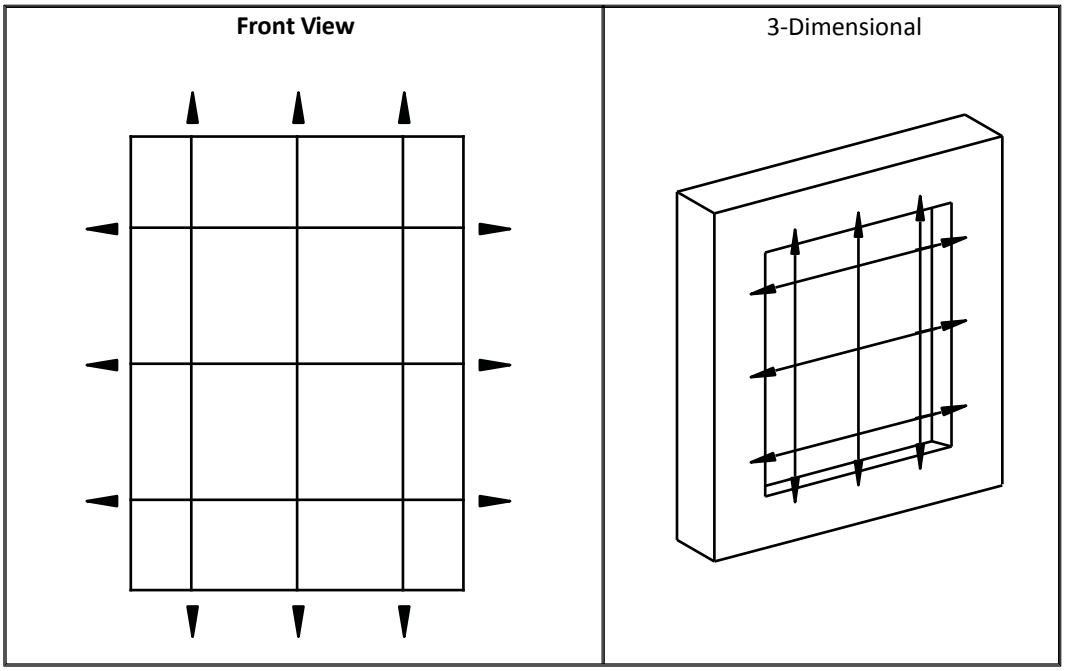


Measuring Instructions

The other way to take measurements is “net with frame” (NWF), also known as finished size. When ordering a shutter with NWF dimensions the factory will build the shutter unit (panels and frames) to your exact width and height specifications to the outside edge of the frame. NWF dimensions are normally reserved for individuals with fairly advanced knowledge, as the face of the frame will need to be added to the opening size measurement. For frame dimensions, please see Frame Specification section in this manual (pages 6-7).

It is important that exact measurements are taken before ordering. Once the order is confirmed, the order may not be cancelled. Orders are only accepted on the Sunland Shutters order form or through our online order system, both can be found on our web site at www.sunlandshutters.com.

Net With Frame (NWF) Measurements



Divider Rails

Divider rails are an integral part of shutter design. Divider rails provide structural integrity to a shutter and also divide the top louvers from bottom louvers. Sunland shutters can build Polycore, Lexwood Premium, Lexwood Advantage and Lexwood Plus shutters up to 96” in height without a divider rail, but we recommend a divider rail for shutters over 72” in height.

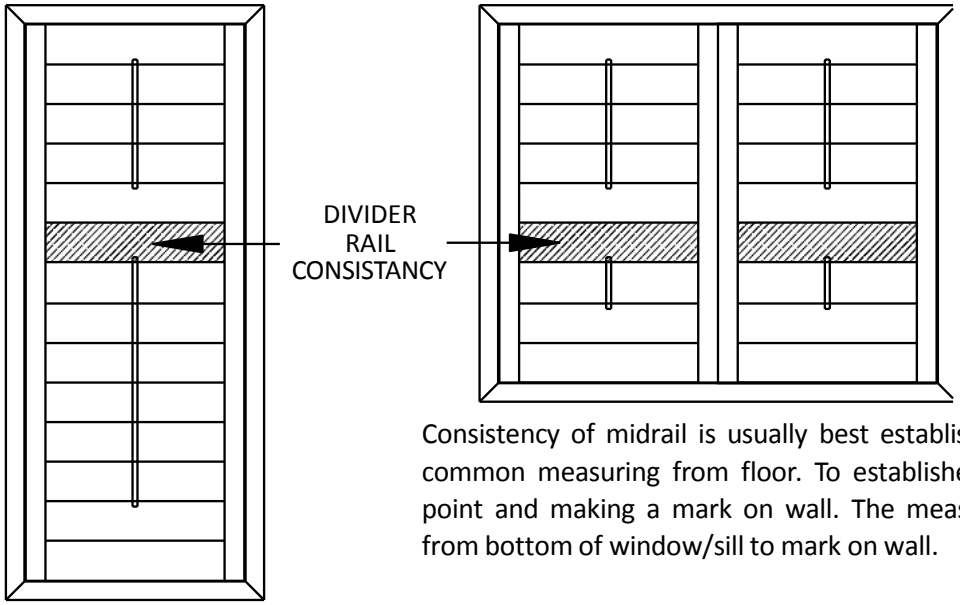
We require a waiver against sagging for shutter panels that are both over 32” in width and 72” in height or larger. Split rods are not considered as a divider rail.

Divider rails are measured from the bottom up. Measure from the bottom of the opening/sill when ordering with opening size, or bottom of the shutter frame when ordering with NWF size to the center line of the desired divider rail location.

Divider rail locations will vary depending on louver size, and panel height. Therefore divider rails may vary up or down by as much as 1”.

To achieve a uniform appearance (divider rails and louver numbers) on adjacent shutters, you must specify that all adjacent shutters and their divider rails be built exactly the same height. If the height measurements of the shutters differ slightly, apply one of the three options (keeping in mind that adjacent shutter and their divider rails must always be ordered exactly the same height):

1. For outside mounts, increase the ordered height of the smaller shutter to equal the taller shutters.
2. For inside mounts with Z frames, reduce the ordered height of the taller shutter to equal the smaller shutter.
3. For inside mounts with height differences of 1/2” or more, change to outside mount.

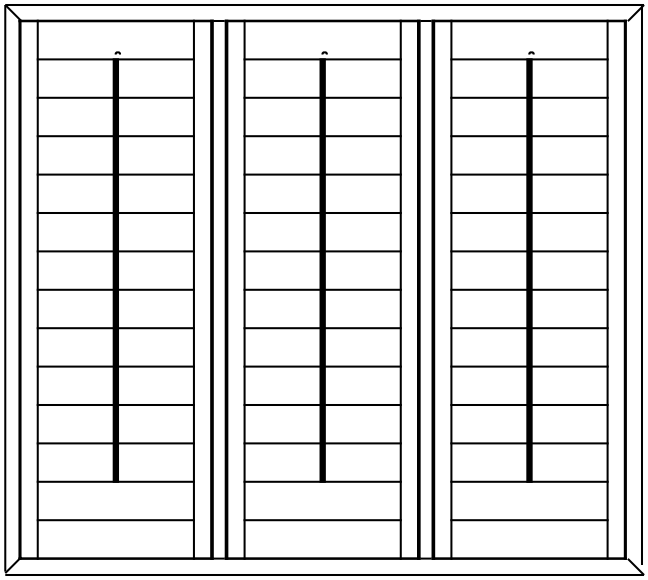


Consistency of midrail is usually best established with a common measuring from floor. To established mid- rail point and making a mark on wall. The measurement is from bottom of window/sill to mark on wall.

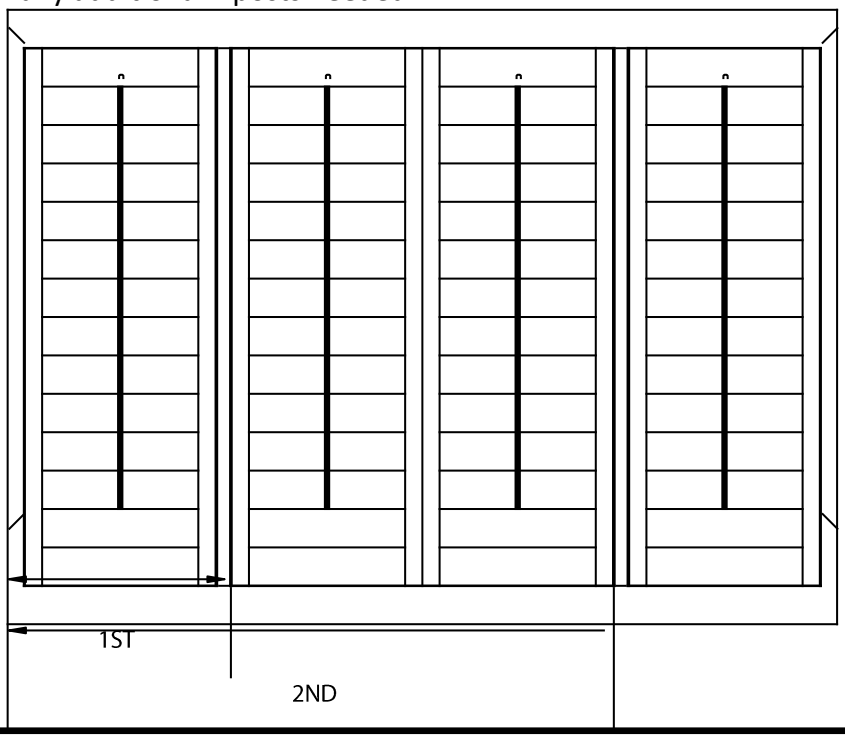
Measuring Information

T-Post

T-posts are 1” vertical frame components. T-posts give added strength to wider openings. They are inserted vertically into shutter frames to separate shutter sections. This allows for placement of additional panels within the same opening. The large T-posts (1 3/4” face) are used when panels exceed 24” in width or 60” in height. T-post placement is usually evenly placed within the frame. When ordering a shutter with a T-post, if not indicated, it will be placed so that all sections are the same width.



To order unequal T-post placement when ordering with opening size, always measure from the left point of your overall width to the center of the first vertical mullion. Then measure from the left point of your overall width to the center of the second vertical mullion. (Same logic applies to order with NWF size. First T-Post is always from the left edge of the frame to the center of the desired T-Post location) Repeat for any additional T-posts needed.

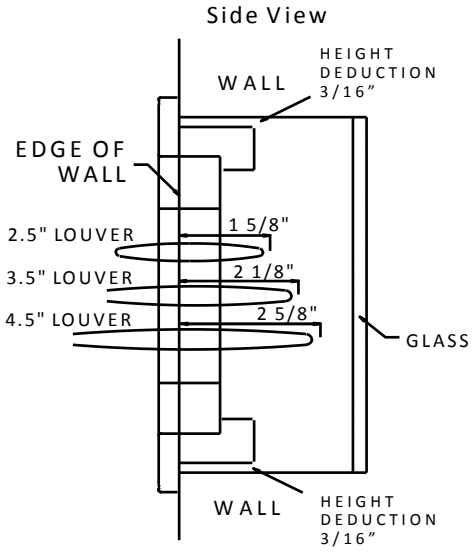


Polycore and Lexwood Louver Clearance Diagrams

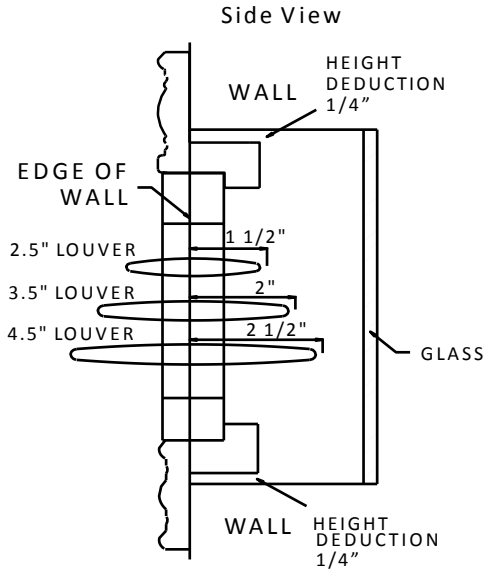
The following diagrams outline the amount of clearance needed so that the louvers will be able to function without coming into contact with the window pane. If there is not enough clearance available you will need to either change the louver size or order the shutter with a build out. Please take these into account when measuring your opening. These dimensions apply to both Polycore and Lexwood frames.

The following diagrams are referring to the minimum clearance numbers.

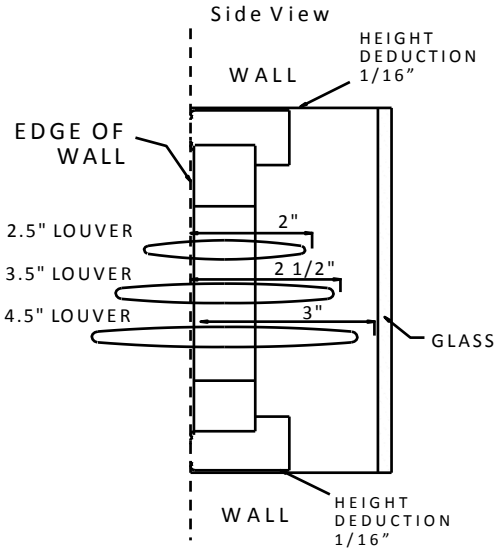
Small Z-frame / Single Beaded Z-frame
(Frame Code: SMZ) / (Frame Code: SBZ)



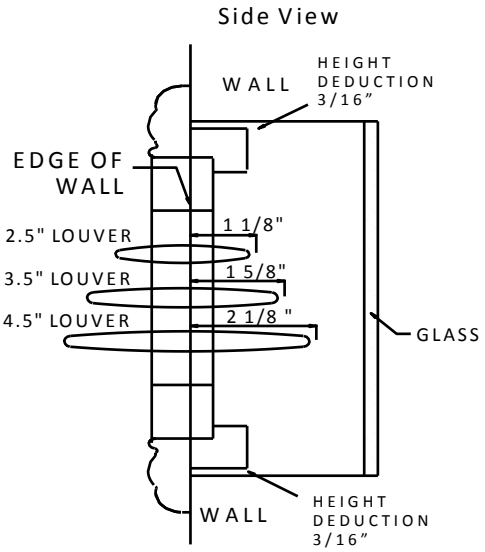
Large Z-frame / Medium Z-frame
(Frame Code: LGZ) / (Frame Code: MDZ)



L-frame Inside Mount
(Frame Code: LFI)



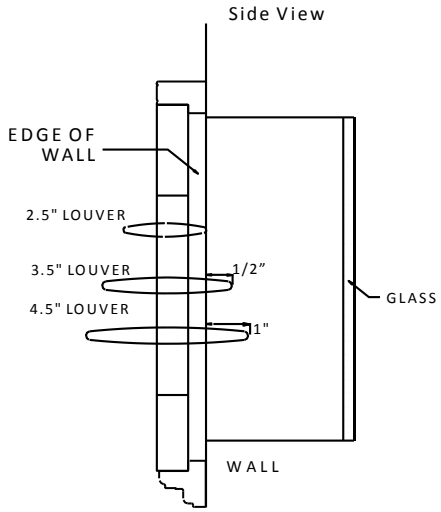
Malibu Z-frame
(Frame Code: LGZ)



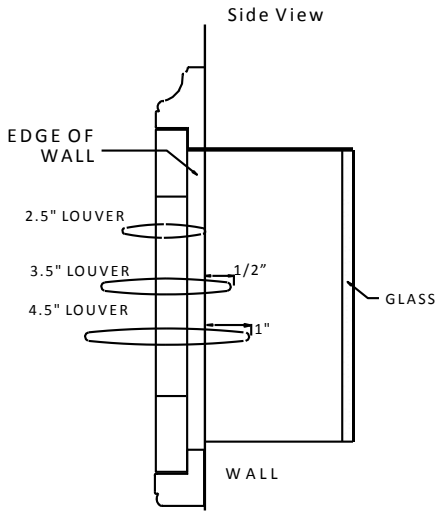
* For "Hidden Tilt" add an additional 1/2" to louver clearance Installation – Standard Opening

Measuring Information

L-frame O.M / T-frame
(Frame Code: LFO / TFO)



Deco frame / Deco sill frame O.M.
2" Deco frame / Fancy Deco frame
(Frame Code: DFO / DSO / D2O/ DCO)



Please refer to the chart below to determine the louver clearance needed.

To check to see if buildout is needed lookup the required minimum window depth in the chart. Subtract your actual measured window depth. If the answer is larger than zero, then you need that thickness of buildout.

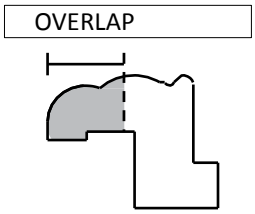
For example: A LFO shutter with 4.5" louvers with an actual window depth of ½". 1" – ½" = ½".

Frame Type		Min. Window Depth for all 3 Louver Sizes (hidden tilt add an addition 1/2")		
		2.5 Louver	3.5 Louver	4.5 Louver
Semi-I.M.	LGZ	1 1/2	2	2 1/2
	MDZ	1 1/2	2	2 1/2
	MAZ	1 1/8	1 5/8	2 1/8
	SMZ	1 5/8	2 1/8	2 5/8
	SBZ	1 5/8	2 1/8	2 5/8
	2FZ	1 1/2	2	2 1/2
I.M.	LFI	2	2 1/2	3
O.M.	LFO	0	1/2	1
	TFO	0	1/2	1
	DFO	0	1/2	1
	DSO	0	1/2	1
	D2O	0	1/2	1
	MFO	0	1/2	1
	LLO	-1 1/2	-1	- 1

Frame Overlap Table

This table shows how much frame will overlap the drywall. Please see the drawing below for an example.

Overlap for Malibu Z-frame (MAZ)

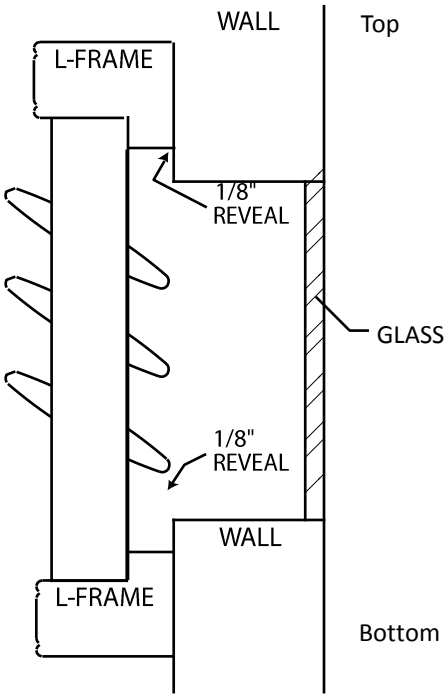


	Frame Type	Amount of Overlap on the Wall (Each Side)
Polycore	LGZ	1 3/4”
	MDZ	1 1/2”
	SMZ	5/16”
	MAZ	1”
	2FZ	1 1/2”
	LFO	1 1/2”
	LLO	1 3/4”
	TFO	1 3/4”
	MFO	2 1/4”
	FFO	1 1/2”
	DFO	3 1/4”
	DSO	2”
	D2O	2 1/8”
Lexwood	LGZ	2”
	MDZ	1 1/2”
	SBZ	9/16”
	MAZ	1”
	2FZ	1 1/2”
	LFO	1 1/2”
	DFO	3 1/4”
	DSO	2”
	D2O	2 1/8”

Measuring Instructions - Outside Mount

This section gives a brief walkthrough for the most common mounting and application types.

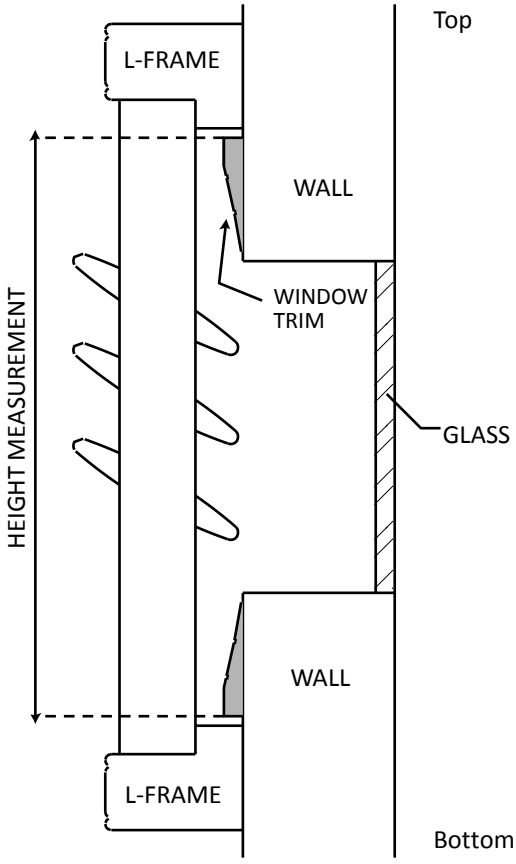
SIDE VIEW



L-frame Outside Mount

1. Measure the inside width and height in three places, record the largest measurements.
2. Check for louver clearance.
3. Specify L-frame Outside Mount (Frame Code: LFO) for frame type.
4. Factory will make appropriate additions.

SIDE VIEW

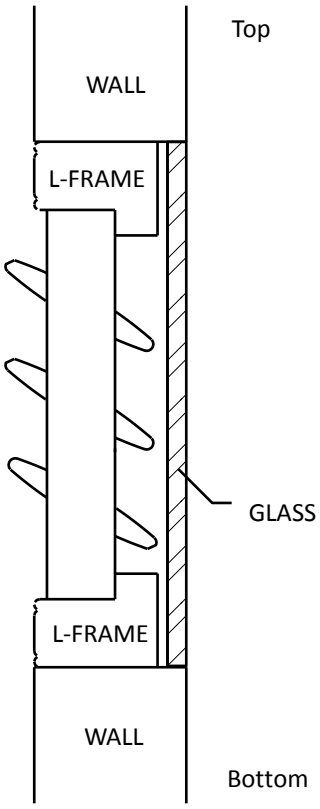


L-frame Outside Mount Around Trim or Moulding

1. Measure the outside width and height to the edge of the trim in three places, record the largest measurements.
2. Check for louver clearance.
3. Specify L-frame Outside Mount (Frame Code: LFO) for frame type.
4. Factory will make appropriate additions.

Measuring Instructions - Inside Mount

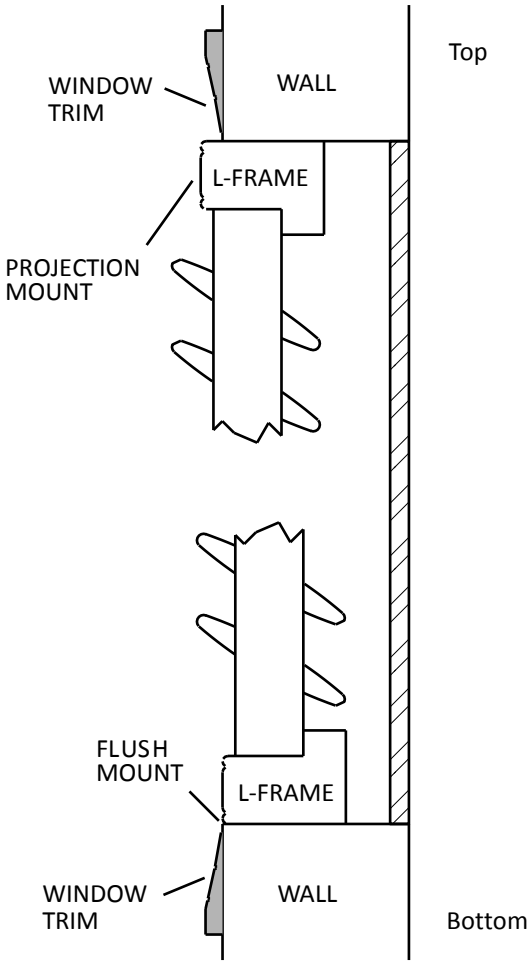
SIDE VIEW



L-frame Inside Mount

1. Measure the inside width and height in three places, record the smallest measurements.
2. Check for frame.
3. Specify L-frame Inside Mount (Frame Code: LFI) for frame type.
4. Verify depth amount of window box for louver clearance.

SIDE VIEW



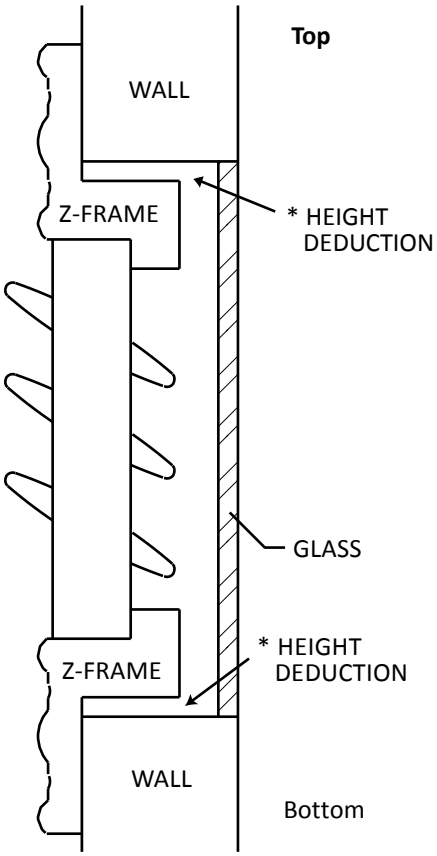
L-frame Inside Mount with Trim or Moulding

1. Measure inside width and height in three places, use the smallest measurement.
2. Check for frame and louver clearance .
3. Specify L-frame Inside Mount (Frame Code: LFI) for frame type.

* Depending on the height and style of the trim or moulding the shutter can be installed with a **projection mount**(the frame flush with the trim) or a **flush mount** (the frame flush with the wall) as shown.

Measuring Instructions - Semi Inside Mount

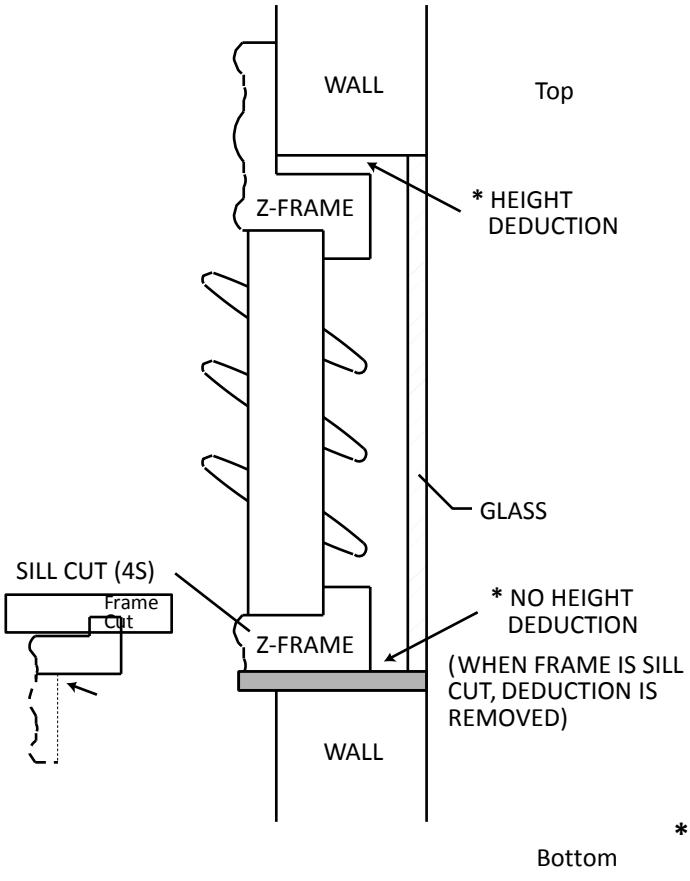
SIDE VIEW



Z-frame Semi Inside Mount

1. Measure the inside width and height in three places, record the smallest measurement.
2. Check for louver clearance.
3. Specify the appropriate size Z-frame (Frame Code: LGZ for Large Z-frame, MDZ for Medium Z-frame, SMZ for Small Z-frame, SBZ for Single Beaded Z-frame, MAZ for Malibu Z-frame).

SIDE VIEW



Z-frame inside mount <u>on sill</u> *(4S)*

1. Measure the inside width and height in three places, record the smallest measurement.
2. Check for louver clearance.
3. Specify the appropriate size Z-frame (Frame Code: LGZ for Large Z-frame, MDZ for Medium Z-frame, SMZ for Small Z-frame, SBZ for Single Beaded Z-frame, MAZ for Malibu Z-frame.)
4. Record 4S (4 sided frame with a sill cut) for frame sides. Please see the order reference chart for more frame side options.

*** Height Deduction: 1/4" for Large and Medium Z-frames**
3/16" for Small, Single Beaded, and Malibu Z-frames

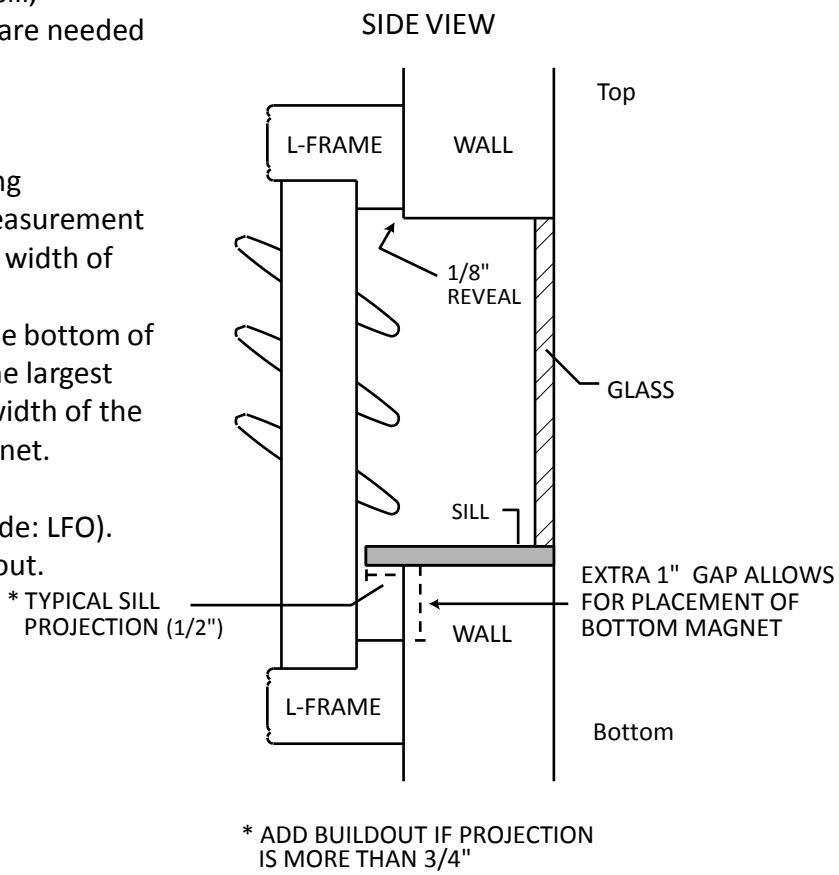
Measuring Instructions - Special Cases

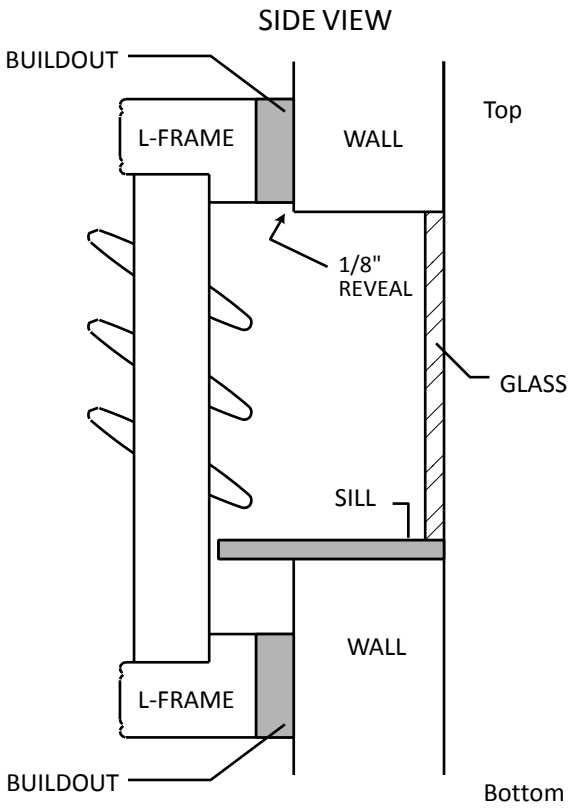
Revised: MAY 2018

L-Frame Outside Mount Around a Sill

With this mounting application the shutter will need to be ordered larger than the window opening to guarantee the shutter will clear the window sill, therefore NWF (Net with Frame) dimensions are needed to ensure proper fit.

1. Measure the width of the sill or the opening (whichever is wider), record the largest measurement and add 3” to the width to account for the width of the frame.
2. Measure the height in three places from the bottom of the sill to the top of the opening, record the largest measure ment and add 4” to account for width of the frame and allow room for the bottom magnet.
3. Check for louver clearance.
4. Specify L-Frame Outside Mount (Frame Code: LFO).
5. If sill projects more than 3/4”, order build out.





Adding build out to L-Frame

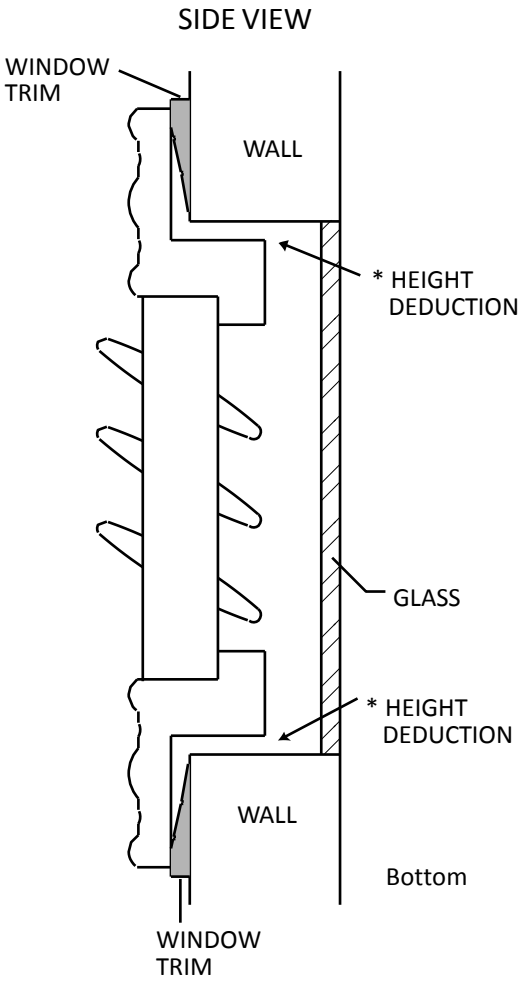
When a window sill protrudes into a room more than 3/4”, a build out will be necessary so that the shutter panel can clear the window sill.

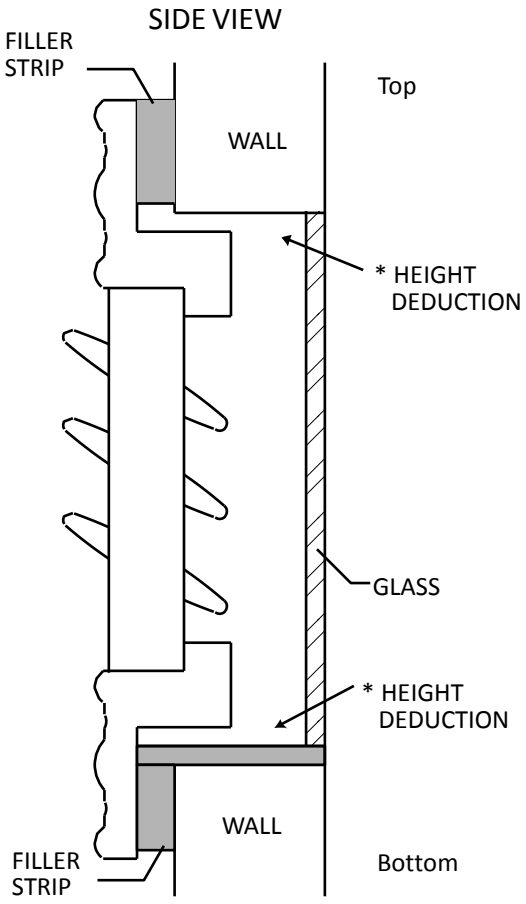
There is a surcharge to have the build out attached to the frame.

Measuring Instructions - Special Cases

Z-frame semi inside mount with <u>trimmed opening</u>

1. Measure inside width and height in three places, use the smallest measurement.
2. Check for louver clearance.
3. Specify the appropriate size Z-frame (Frame Code: LGZ for Large Z-frame, MDZ for Medium Z-frame, SMZ for Small Z-frame, SBZ for Single Beaded Z-frame, MAZ for Malibu Z-frame). some Z frames will blend nicely with existing trims.





Z-frame semi inside mount <u>with sill and filler strip</u>

Although somewhat unusual, a filler strip can be used so that a Z-frame can be mounted on a window opening with a protruding sill without the need for a sill cut. A filler strip is used to return a Z frame to the wall on both sides and the top to hide the protruding frame.

There is a surcharge for the filler strips.

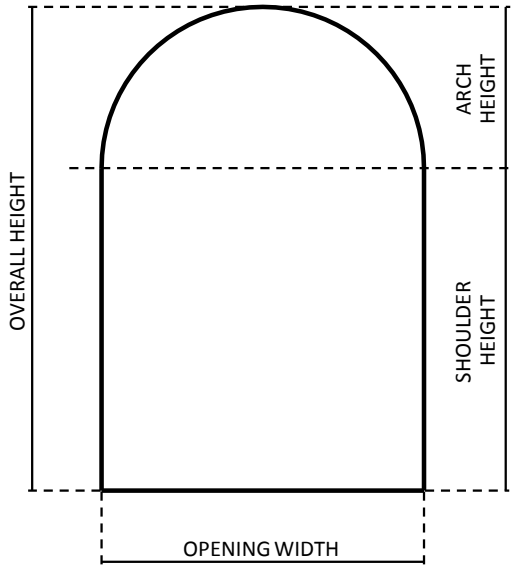
*** Height Deduction: 1/4" for Large and Medium Z-frames**
3/16" for Small, Single Beaded, and Malibu Z-frames

Measuring Instructions - Specialty Shapes

Revised: MAY 2018

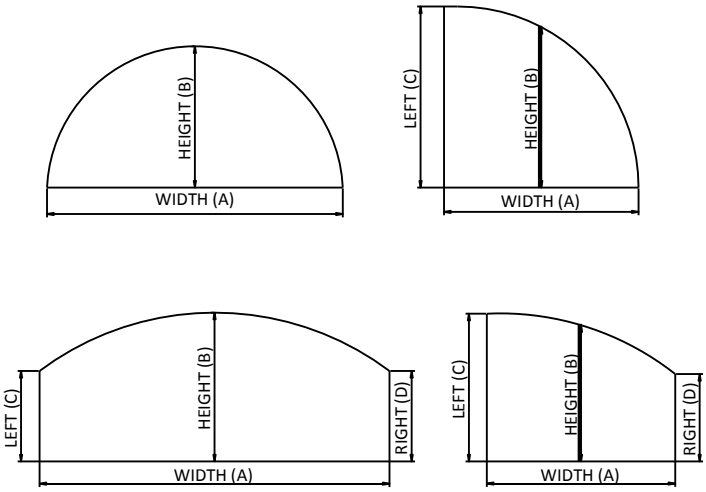
Arch Top Panels

Measuring for arch top panels requires determining the shoulder height on each side of the opening. The shoulder height measurement is the highest point on each side that is not part of the radius. These measurements vary from side to side, if they vary more than 1/8", establish a medium with level, mark these points, and make a template of the arched opening.



Fan Top Shutters

For ½ circle fan top shutters please provide the width at the bottom of the opening along with the height in the center. For eyebrow fan top shutters, you must also provide the shoulder height (C/D) on each side.



Height (B) is measured from the midpoint of width (A).

Arch Shutter Template Requirement

All arch top shutter order without template will be manufactured as half circle or continuous slope.

If the arch shutter ordered is not a half circle or continuous slope, **Cutout** template is required for manufacturing purpose. Two templates are recommended, one for Sunland Shutters and one for the dealer's records. Marked lines on templates are not acceptable to avoid mis-line determination only cutout templates should be sent.

All orders that require a template must MAILED IN with the order form (via USPS or UPS or Fed Ex) for that opening with the template attached. Sunland Shutters will not accept any order for openings requiring a template via online order or fax order.

Orders that have openings requiring templates—that ENTIRE order should be submitted via PHYSICAL MAIL along with the associated templates. Order where only 1 or 2 openings require templates—the openings that DO NOT require templates should be submitted online or via fax. The 1 or 2 openings requiring templates should be submitted via PHYSICAL MAIL. Please make sure the side mark is the same on both submissions.

Mail Instruction: Sunland Shutters 5855 Obispo Ave. Long Beach, CA 90805 Attention: Design – Template

Track System Measuring Instructions

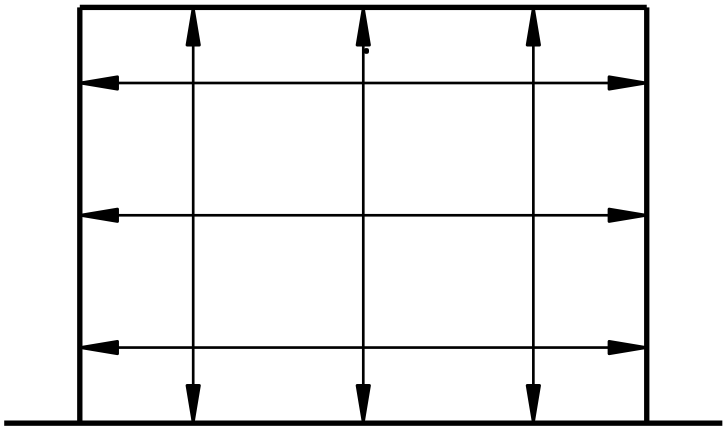
By-pass and Bi-fold track systems

Inside Mount

1. Measure inside width and height in three places, use the smallest measurement
2. Check for louver clearance
3. Specify by-pass or bi-fold
4. Specify panel configuration
5. Specify IM on order form

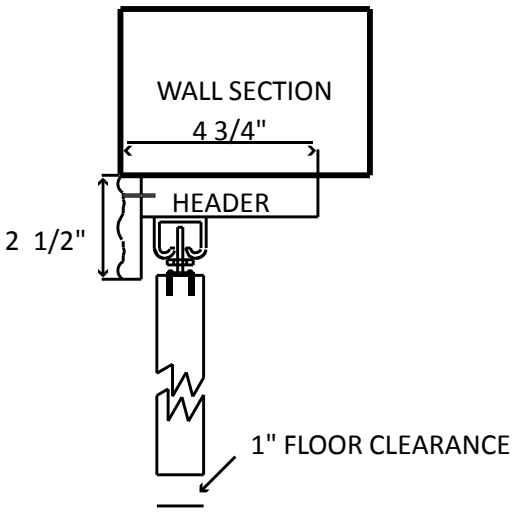
(NWF REQUIRED: POLY DOMESTIC)

Front View

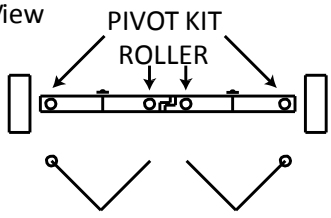


Bi-fold

Side View

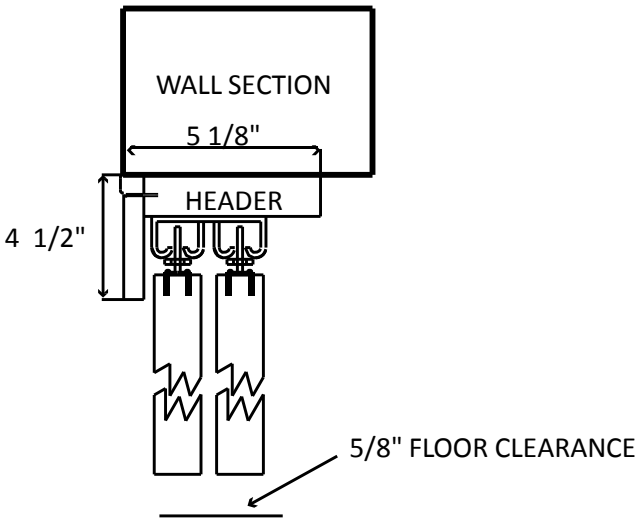


Top View

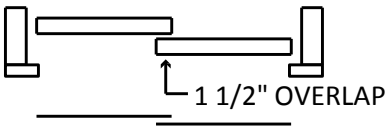


By-pass

Side View



Top View



All fascia over 8’ (= 96”) are provided in two pieces with 45 degree miter joint for both Polycore and Lexwood.

Track System Measuring Instructions

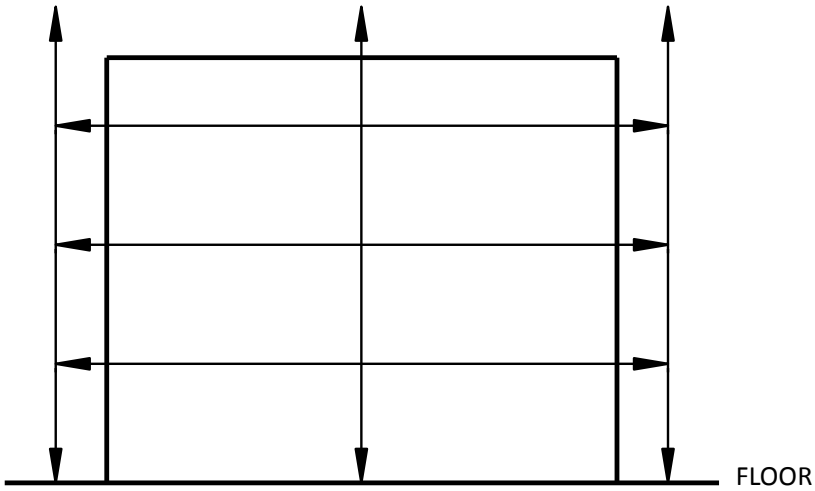
Revised: MAY 2018

Outside Mounts

1. Measure inside width in three places, record the largest measurement.
2. Measure inside height in three places, record the largest measurement
3. Check for louver clearance
4. Specify by-pass or bi-fold
5. Specify OM, factory will make necessary additions

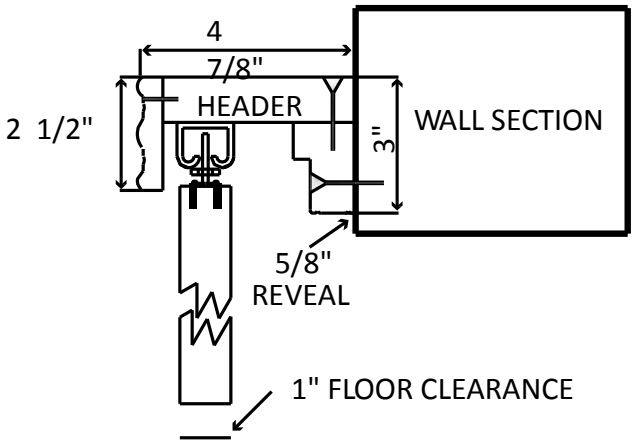
(NWF REQUIRED: POLY DOMESTIC)

Front View

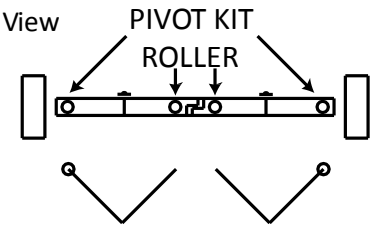


Bi-fold

Side View

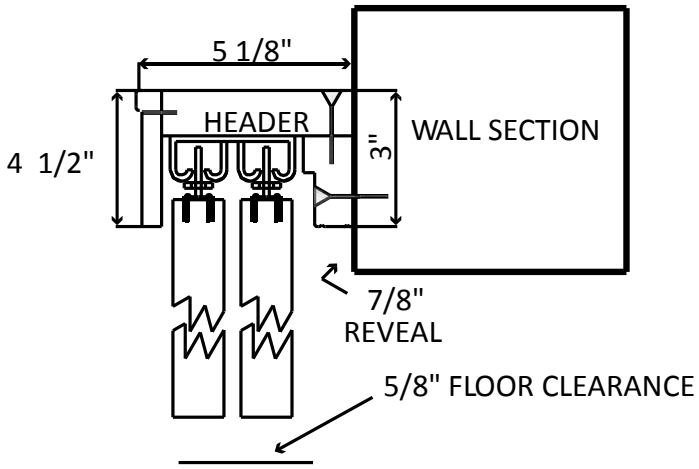


Top View

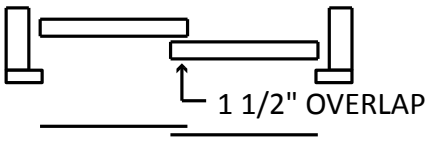


By-pass

Side View



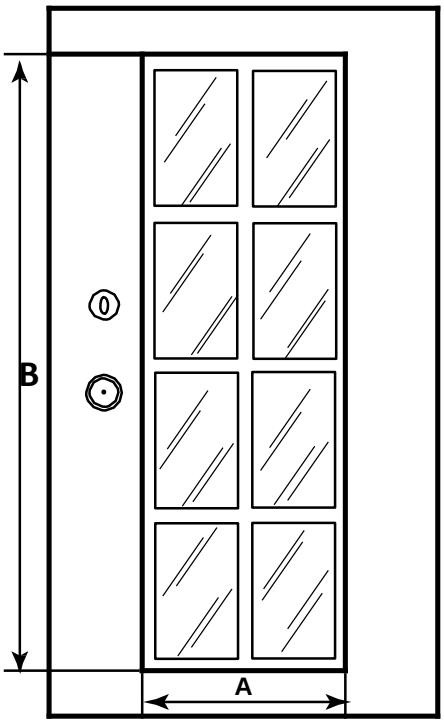
Top View



All track systems are three-sided frames
Floor clearance on by-pass system is 5/8”, unless specified otherwise.
Floor clearance on bi-fold systems is 1” and cannot be changed.
All fascia over 8’ (= 96”) are provided in two pieces with 45 degree miter joint for both Polycore and Lexwood.

French Door Measuring Instructions

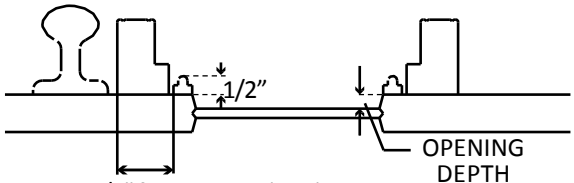
(NWF REQUIRED: POLY DOMESTIC)



When measuring for French doors, the trim strips used to hold the glass panels in place are considered part of the opening.

1. Measure the width in three places, use the largest measurement and add 3” to the width if you use L-frame, or add 4” if you use Deco Sill frame.
2. Measure the height in three places, use the largest measurement and add 3” to the height if you use L-frame, or add 4” for Deco Sill frame.
3. Check for louver clearance, build out is generally required
4. Specify 4 sided frame, NWF.

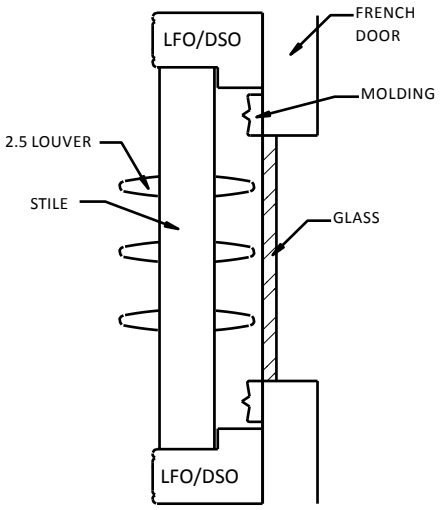
Ideally there is 1-1/2” of mounting surface between the opening and the base of the handle for L-frame, or at least 2” of mounting surface for Deco Sill frame. The trim normally does not project more than ½”. Also consider the opening depth when selecting a louver size (refer to Clearance Diagrams).



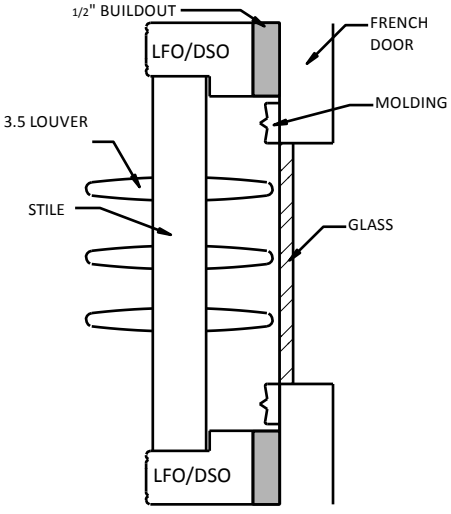
1 1/2” for L-Frame (LFO)
2” for Deco Sill Frame (DSO)

Always remember to check for louver clearance

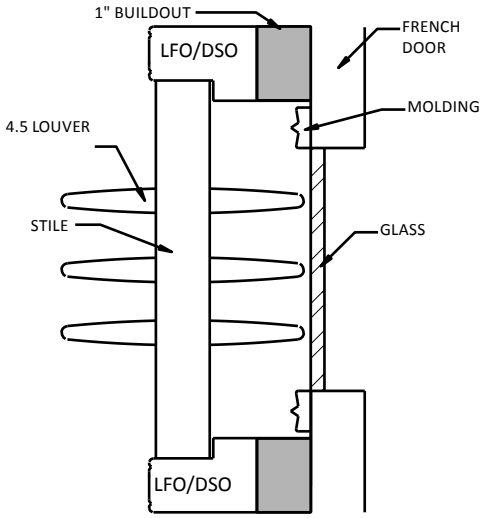
* SIDE VIEW



SIDE VIEW



SIDE VIEW



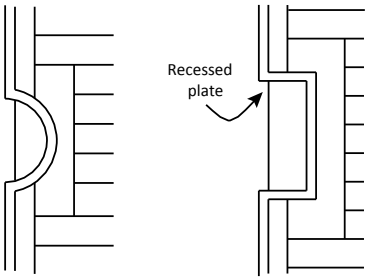
*WARNING:
In this type of application, the magnets will hit molding/casing using standard L-frame and/or Deco Sill frame.

French Door Measuring Instructions

Revised: MAY 2018

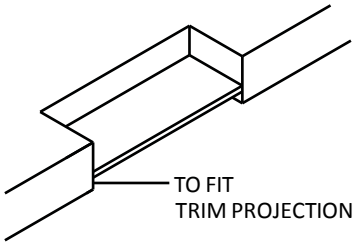
(NWF REQUIRED: POLY DOMESTIC)

In the event there is not enough mounting space, using a cut out is the best solution. The cut out plate can be recessed when the mounting surface is less than 1-1/2" and the plate can be raised to avoid the trim projection.



HALF CIRCLE CUT OUT WITH STANDARD 4 1/4", 5 1/4", OR 6 1/4" RADIUS

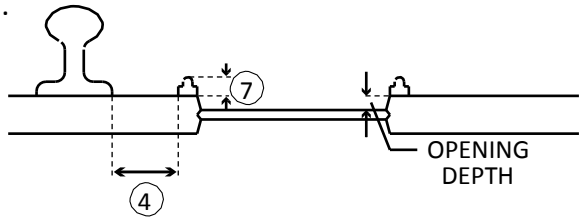
TRIM PROJECTION PLATE INSIDE OF THE CUT OUT WILL BE RAISED TO AVOID TRIM



French Doors with Knob or Lever handle only, (Half Circle Cut Out) using L-frame/Deco Sill frame

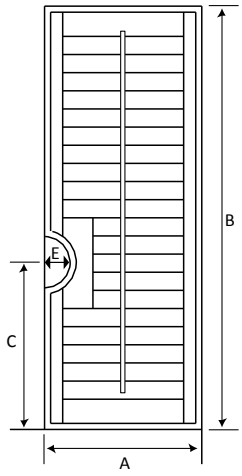
When measuring for French doors, the trim strips used to hold the glass panels in place are considered part of the opening.

1. Measure the width of the opening in three places, use the largest measurement and add 3" to width if you use L-frame, or add 4" if you use Deco Sill frame. This will be (A).
2. Measure the height in three places, use the largest measurement and add 3" to height if you use L-frame,or add 4" for Deco Sill frame. This will be (B).
3. Measure from the center of the lever handle to the bottom of the opening and add 1 1/2" for LFO or add 2" for DSO. This will be (C).
4. Measure from the opening to the base of the handle and subtract this amount from 1 1/2" for LFO or 2" for DSO. This will be (D).
5. Measure the length of the lever handle (E), and select the proper radius for the half circle cut out.
6. Check the louver clearance, build out is generally required, specify build out.
7. Measure trim projection and specify on order form.

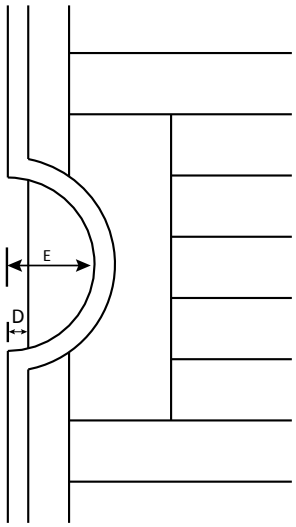


* Please note this instruction is for an NWF form.

1A



1B



French Door Measuring Instructions

(NWF REQUIRED: POLY DOMESTIC)

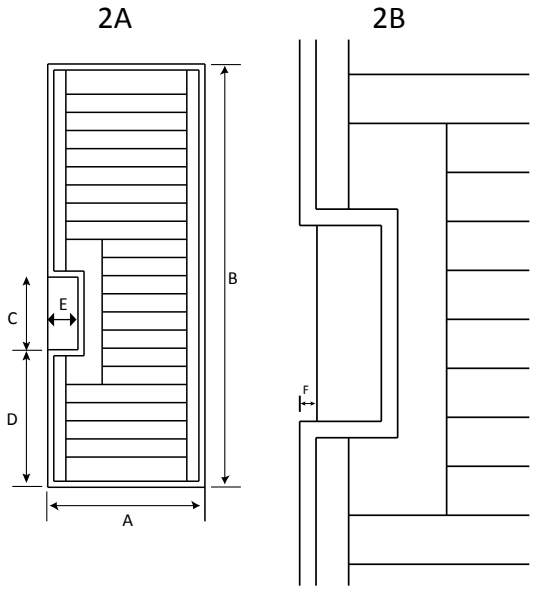
French Doors with Knob or Lever handle and dead bolt lock, (Rectangular Cut Out) using L frame/ Deco Sill frame

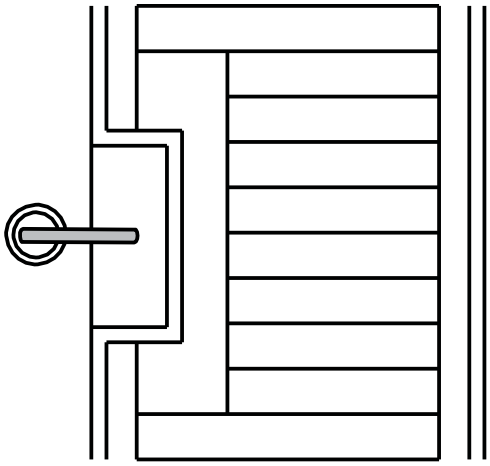
When measuring for French doors, the trim strips used to hold the glass panels in place are considered part of the opening.

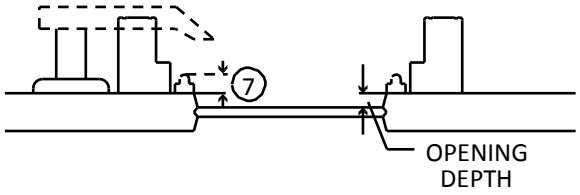
* Please note this instruction is for an NWF form.

1. Measure the width of the opening in three places, use the largest measurement and add 3” to width if you use L-frame, or add 4” if you use Deco Sill frame. This will be (A).
2. Measure the height of the opening in three places, use the largest measurement and add 3” to height if you use L-frame, or add 4” if you use Deco Sill frame. This will be (B).
3. Measure about 1” up from the top of the dead bolt base to the bottom of the handle base and add handle length or add 2” if it’s a door knob, and this will be (C). Al- ways round up (C) to the nearest 1/2”.
4. Measure from the bottom of opening to the bottom of the handle base and deduct handle length then add 1 1/2” for LFO or add 2” for DSO. This will be (D). For door knob doors, measure from the bottom of the opening to the bottom of the door knob base and deduct 2” then add 1 1/2” for LFO or 2” for DSO. This will be (D)
5. Measure the length of the lever handle and determine the cut out width. This will be (E).

   Note: (E) must always be a whole number.
6. Measure from the opening to the base of the handle and subtract this amount from 1 1/2” for LFO or 2” for DSO. This will be (F).
7. Check for louver clearance (build out is generally required) and specify build out.
8. Measure trim projection and specify on order form.







Corner Window Measuring Instructions

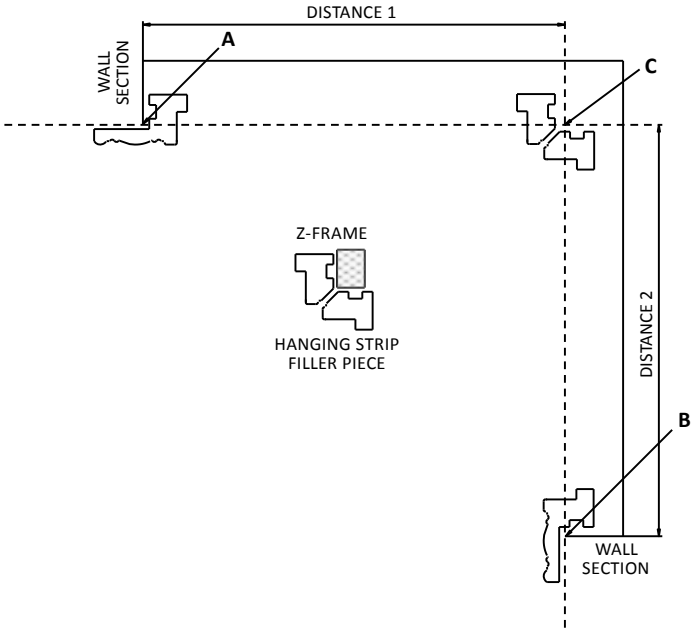
(NWF REQUIRED: POLY DOMESTIC)

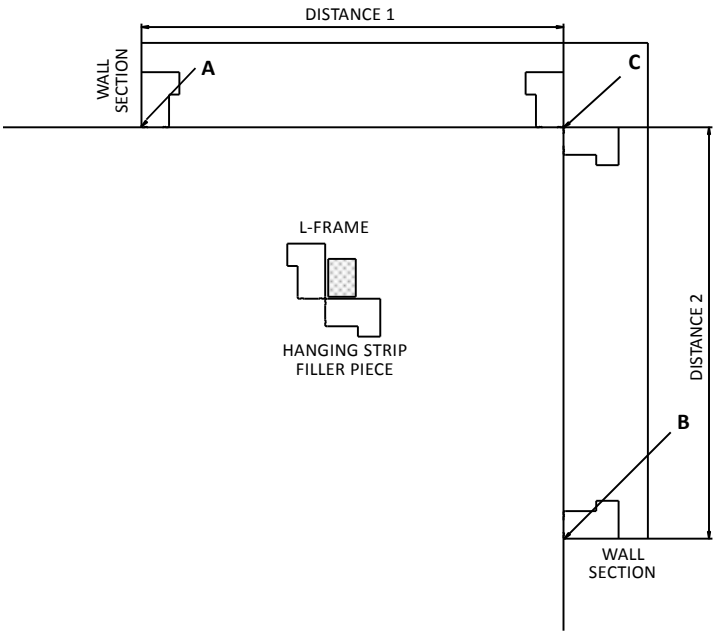
Corner Windows

Inside Mounts – using Z frame

1. Establish point C by using a straight edge
2. Measure inside width of distance 1 (A to C), and inside distance 2 (B to C)
3. Measure the height of three places, use the smallest height measurement
4. If frame is to be mounted on the sill, ask for sill cut (4S), order opening size
5. Ask for one piece of hanging strip for center, the length of opening

***Note - This configuration is not recommended with a Malibu Z-frame.**



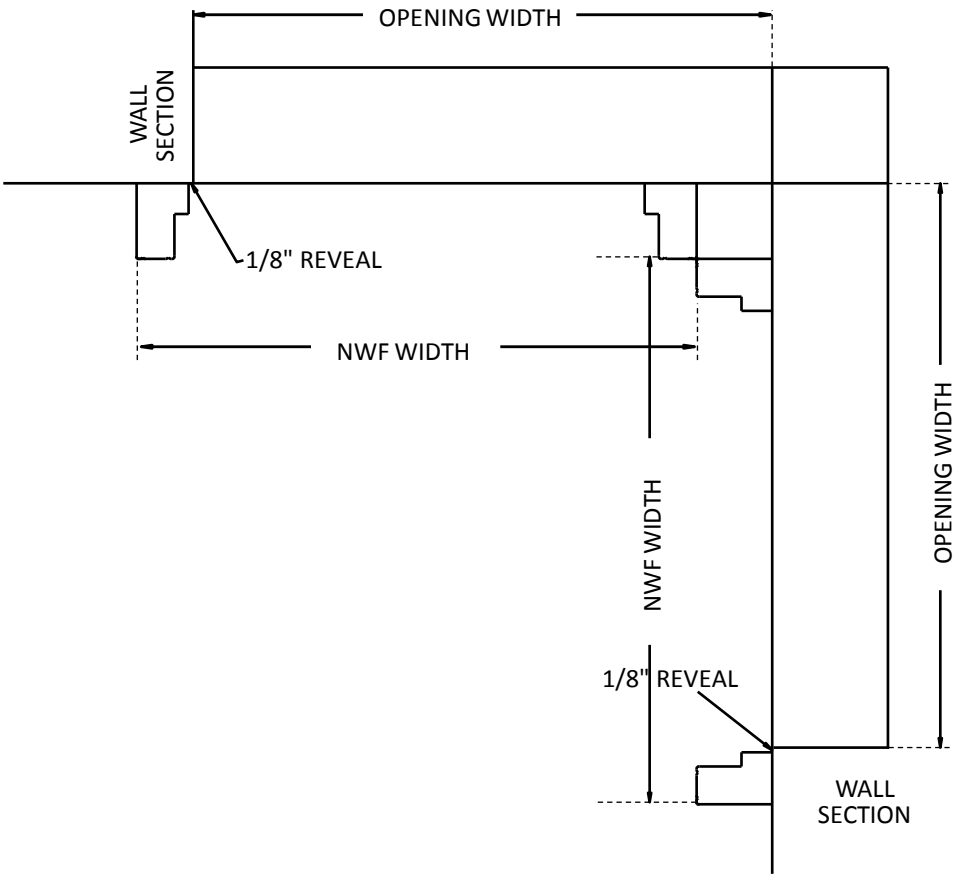


Corner Window Measuring Instructions

(NWF REQUIRED: POLY DOMESTIC)

Outside Mounts

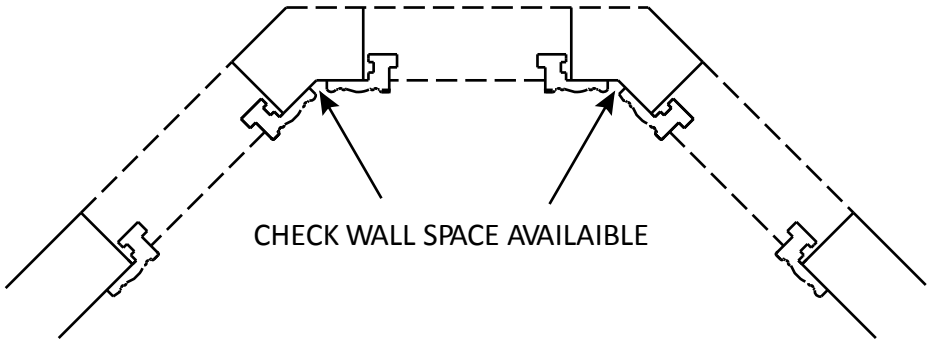
1. NWF width measurements for each opening that meet at the corner will require both a deduction for the L frame projection, as well as an additional 1/8” reveal for the area will cover on the wall.
2. Make additions or deductions to the width for the L frame selected
3. Measure the height in three places, use the largest measurement
4. Check for louver clearance
5. Specify LFO with 3 or 4 sides, order NWF



(NWF REQUIRED: POLY DOMESTIC)

Semi-Inside Mounts – using Z-frame

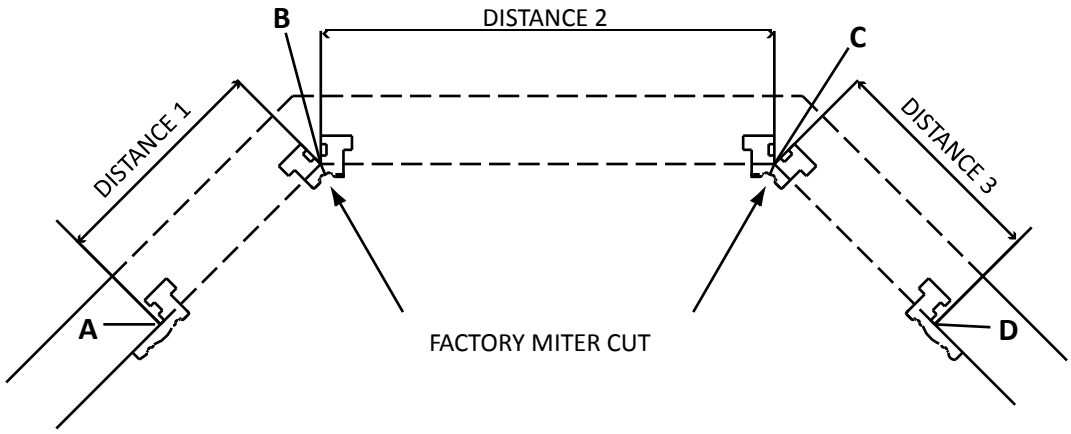
If there are intermediate wall sections, simply measure each opening as you would for semi-inside mount Z-frames, making sure there is enough room for the Z-frame selected to overlap the walls.



When there are open corners:

1. Establish points B and C by using a straight edge
2. Measure inside width of distant 1 (A to B), distant 2 (B to C), and distant 3 (C to D)
3. Measure the height in three places, use the smallest height measurement
4. Check for louver clearance
5. If the frame is to mounted on the sill, ask for sill cut (4S), order as opening size
6. The factory will miter-cut each inside frame to 135 angle, unless you supply a template with actual angle. Templates are more accurate.

There is an additional charge for miter-cuts.

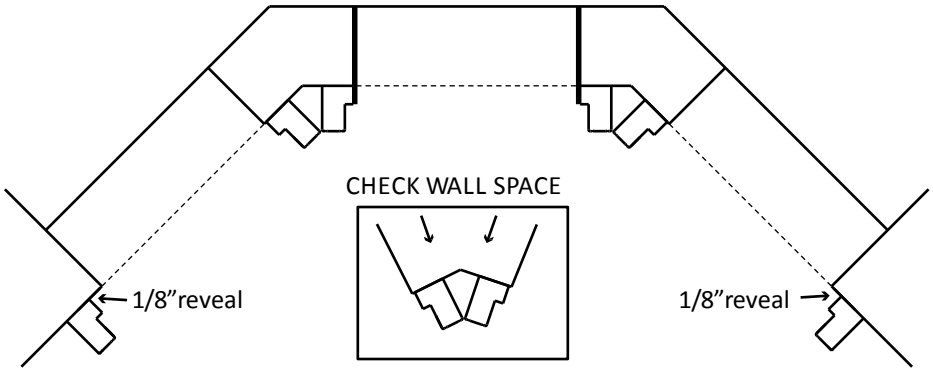


Bay Window Measuring Instructions

(NWF REQUIRED: POLY DOMESTIC)

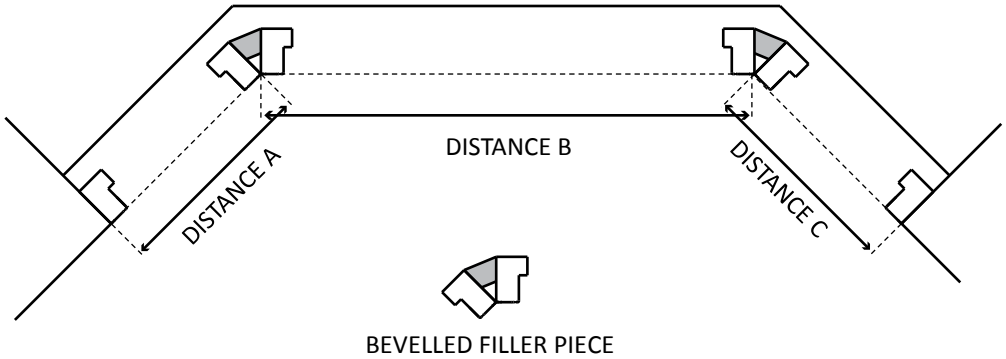
Outside Mounts using L-frame

Once again if there are intermediate wall sections, simply measure each opening as you would for an outside mounted frame, making sure there is enough wall space for your angle butted L-frames.



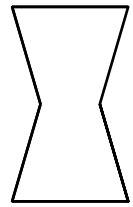
When there are open corners, start by measuring the center opening. Use a piece for frame and mark the outside of each side frame. This is your center window width. Butt a second piece of frame to each side frame. Mark the outside of each frame. Then mark outside frame (far left and far right) allowing a ¼" reveal. If you only have one piece of frame, be careful to allow for the frame projection, which effectively makes each width smaller. A custom beveled filler piece will be provided with surcharge.

1. Record distance A as width of opening # 1
2. Record distance B as width of opening # 2
3. Record distance C as width of opening # 3
4. Measure height of opening in three places, use largest measurement and add 3" to height. If there is a sill, and you wish to go around it, measure from bottom of sill and add 4" to the height.
5. Check for louver clearance.
6. Specify LFO with 4 sided frame, order NWF.

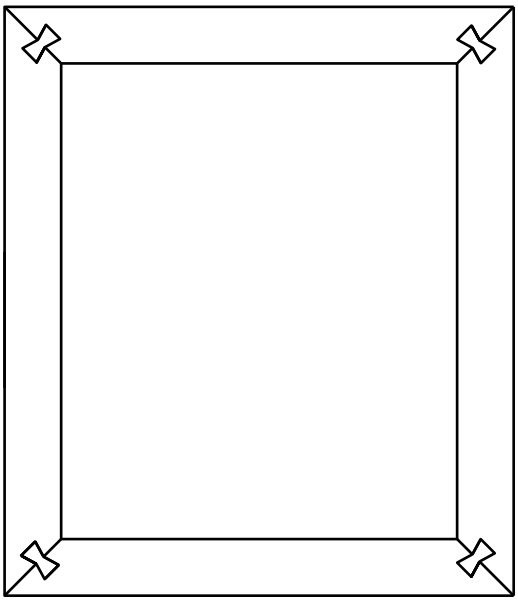


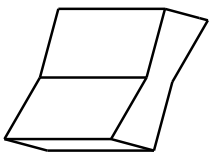
Frame Assembly

If you received the shutter disassembled, you will first have to assemble the frame. All frames are routed to accept a Hoffmann Key. Position the four frame pieces face down according to how they are marked being sure to use an installation mat to avoid damage to the face of the frame. Insert the Hoffman Keys into the routed out frames. Gently tap in the keys with a small rubber mallet until the face of the frame is even. The next step would be to attach any T-posts that may be included through the pre-drilled holes in the T-post holes in the frame.

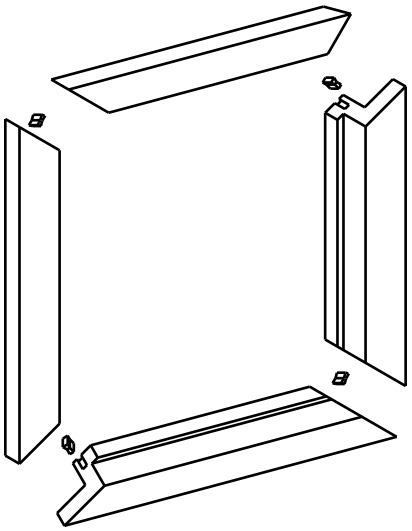


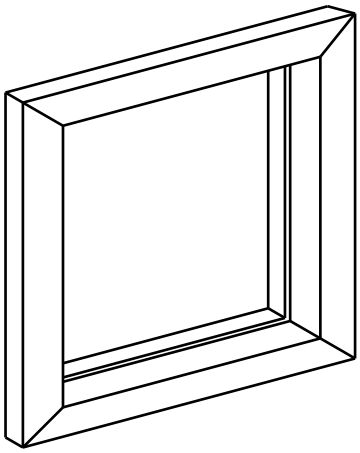
HOFFMANN KEY





HOFFMANN KEY

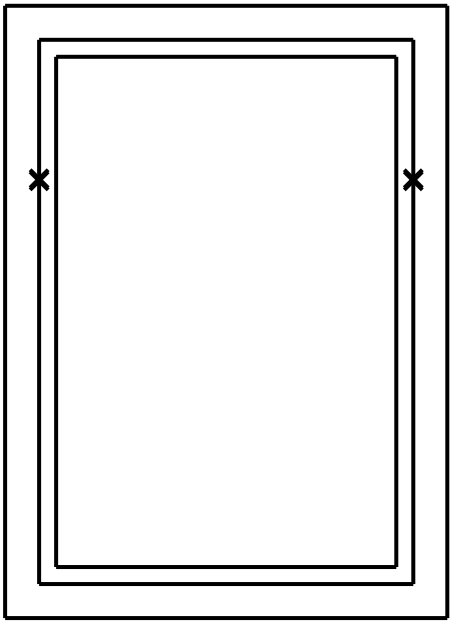




Frame Installation

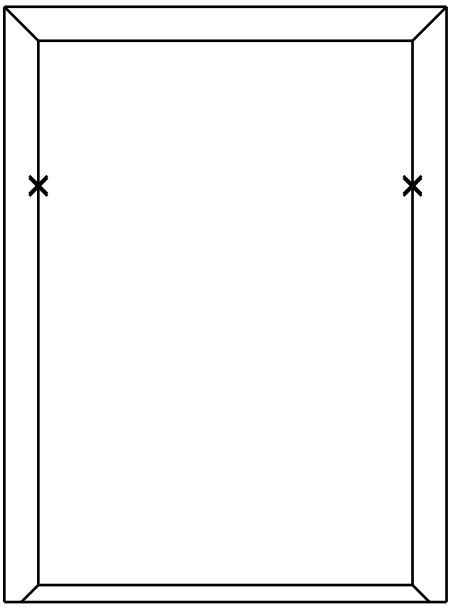
On an outside mount, where the frame is to be mounted around the opening, determine where the outside edges of the frame are to be located. With the frames in position, secure the left or right side of the frame just above the top hinge using a nail or screw. Using a level on top of the frame, next secure the other side in the frame.

= Nail/Screw



On inside mounts, place the frame inside the opening making sure there is enough clearance for the louver size selected. With the frame in position, secure the left or right side of the frame just above top hinge using a nail or screw, being sure to center the frame from side to side.

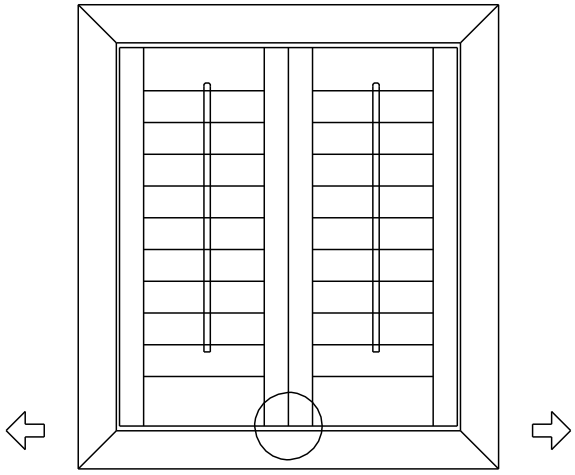
= Nail/Screw



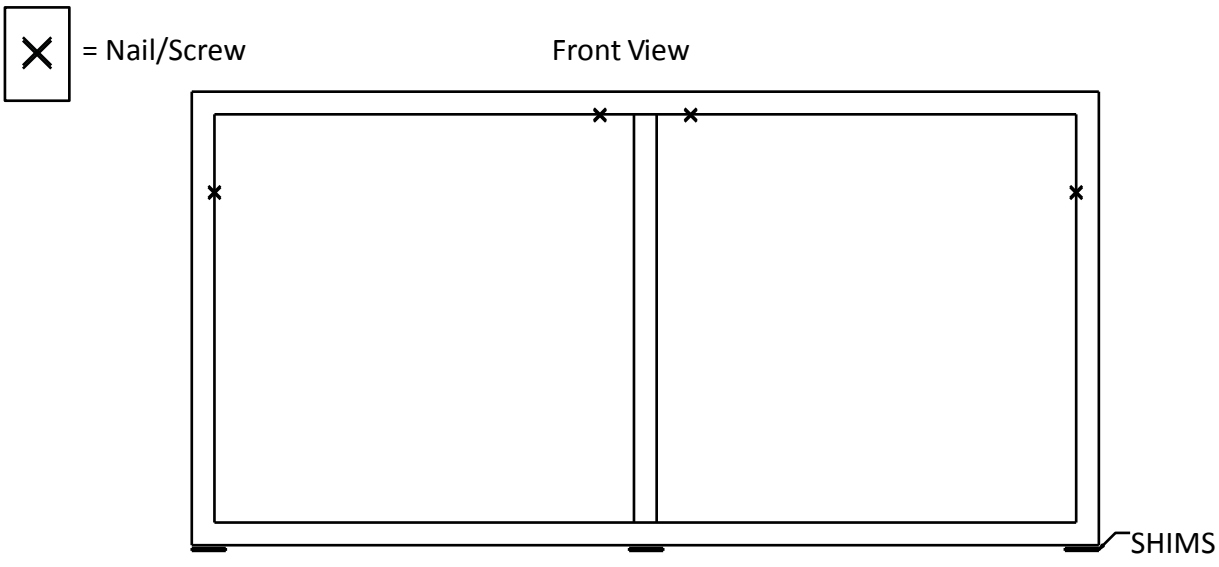
Panel Installation

The next step is to insert the panels in the appropriate locations. All hinges have been attached to the panels and frame, so the only thing that will be necessary is to gently tap in the hinge pins with a rubber mallet. The hinge pins should go in without much problem if the panels are in the right positions. If one pin seems to be tight, just loosen one part of the hinge with a small Phillips screw driver allowing the pin to slide into the other, and re-tighten the hinge screws.

Once the panels are inserted, close the panels and move the bottom of the frame left or right to align the panels. Once the panels are aligned, and all the margins are even, open one panel and secure the side of the frame just above the lowest hinge. Continue attaching the frame with nails or screws just above every hinge. On wider shutters it will be necessary to secure the top and bottom frames as well.



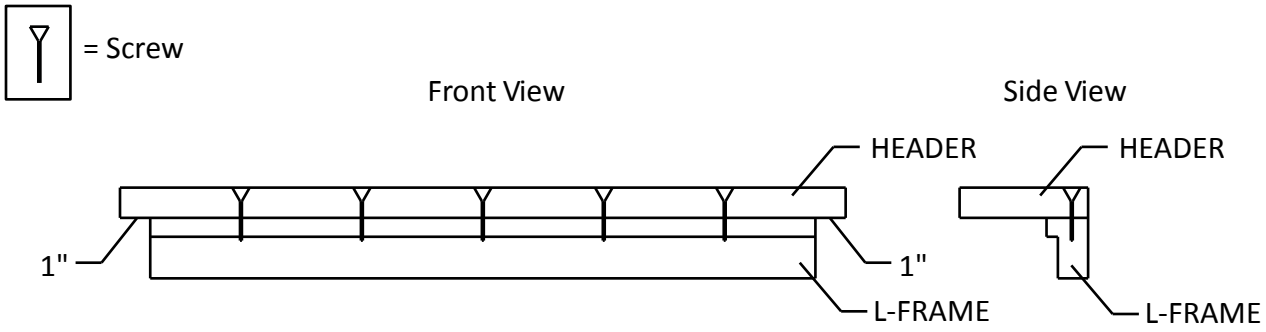
On inside mounts, if the frame has a T-post it may be necessary to place a shim under each T-post and each side of the frame before securing the sides, this way if the T-post needs to be moved down for adjustments you will have the room.



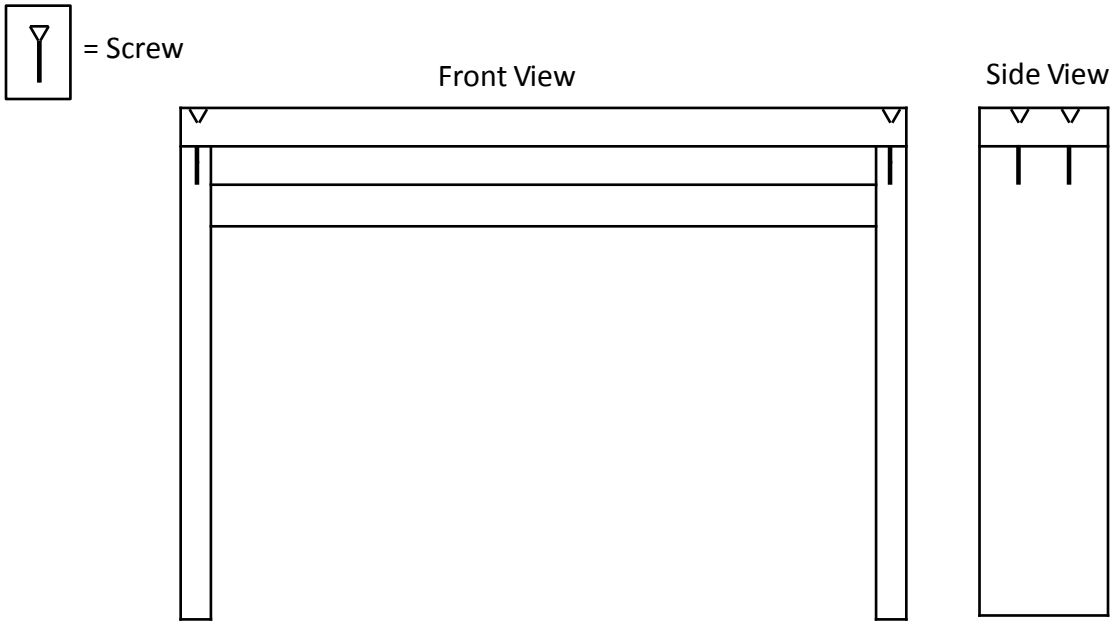
Track System Installation

The frame for the tracking system consists of: a header with two side legs, a mounting piece (L-frame), the track(s), two leg trim pieces, and a fascia piece with returns (on outside mounts).

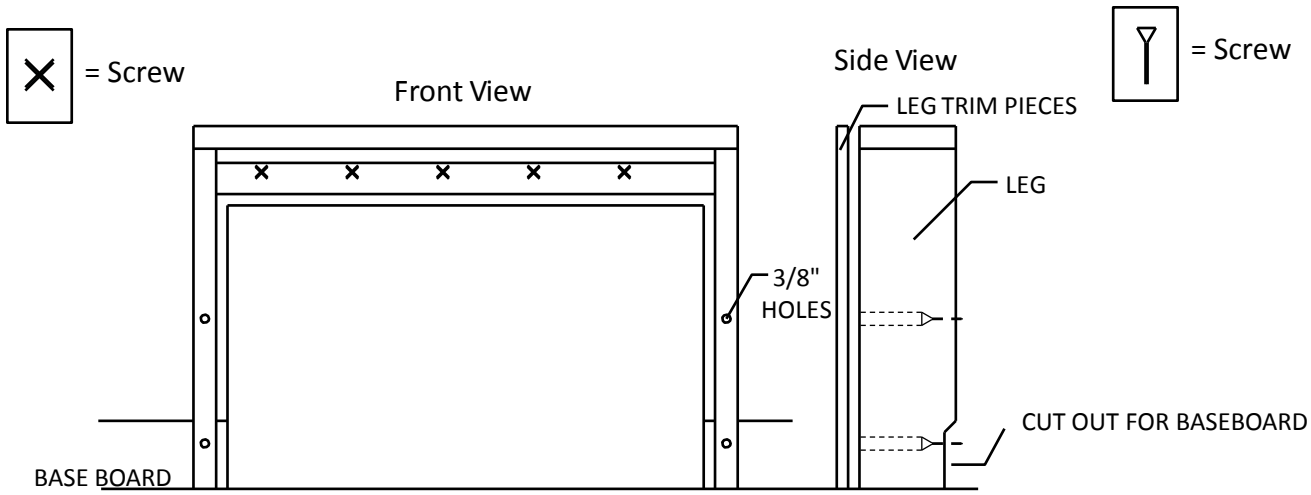
The first step is to attach the L-frame mounting piece to the header. Center the L-frame piece as shown in the drawing, leaving 1” on each side. This can be accomplished by screwing down through the top to the header into the L-frame.



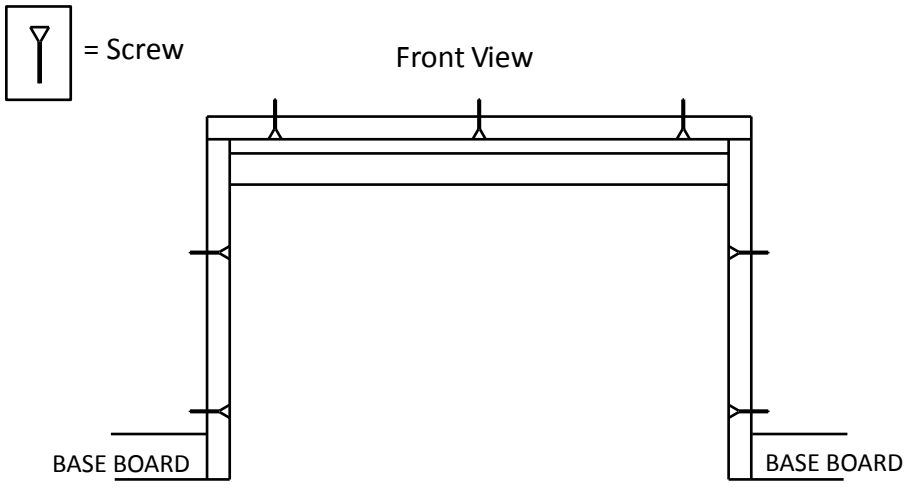
Next, attach the track to the header. If the track is the double bi-pass track, be sure to move the track back next to the L-frame. Once the track is attached insert the wheel hangers, and/or top pivot bracket(s) into the track. The next step is to secure the two legs to the header. The header is to be mounted on the top of the both legs. Screw down through the top of the header into the legs using 3” screws.



If the installation is outside mount, you will secure the frame to the wall through the L frame as shown below. If there is baseboard you may want to scribe out the backs of the two legs before assembly. The legs can be secured to the wall by drilling a 3/8” hole 2/3 of the way through the leg, and then securing the leg with an installation screw. The leg trim pieces can be attached to the face of the legs using a small brad.

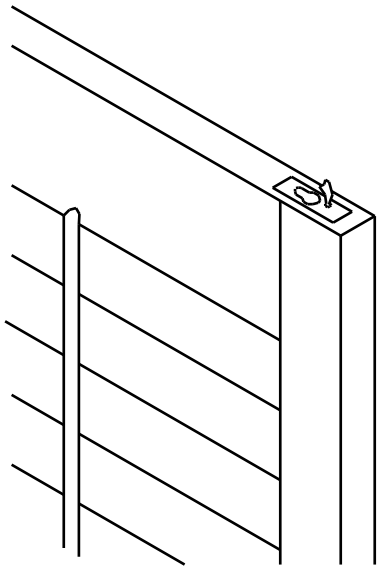


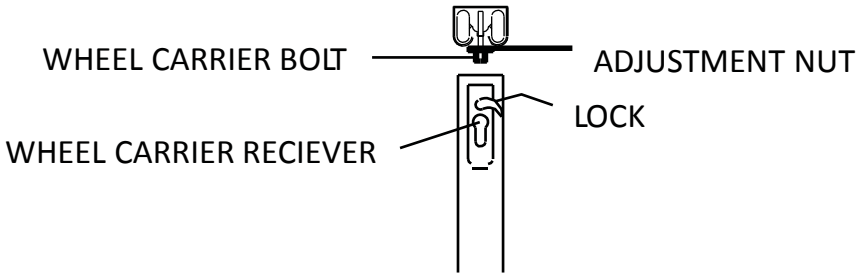
On an inside mount, you will have to remove the base board where it returns into the opening. Save the removed pieces as you may have to cut them and replace them behind the legs. Once this is done insert the frame into the opening and secure it, making sure the header is level.



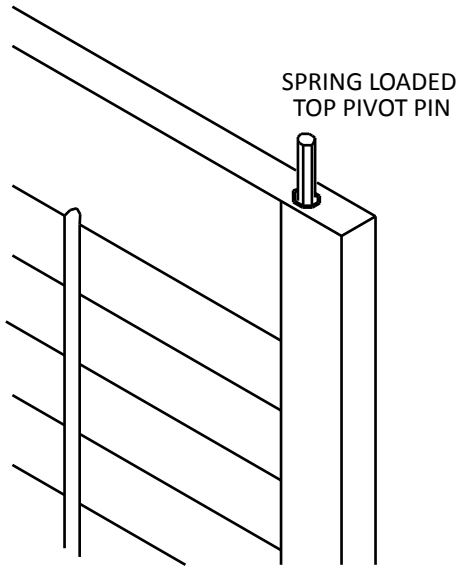
Track System Installation

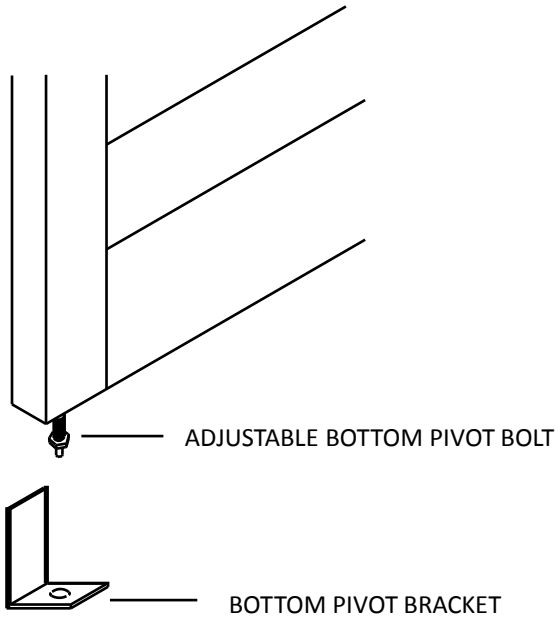
Once the frame is securely installed the panels can be attached. Fasten the wheel carrier bolts into the wheel carrier receivers at the top of each panel and lock them in place. If the panels are to be connected in pairs, simply slide the hinge pins provided into the hinges.





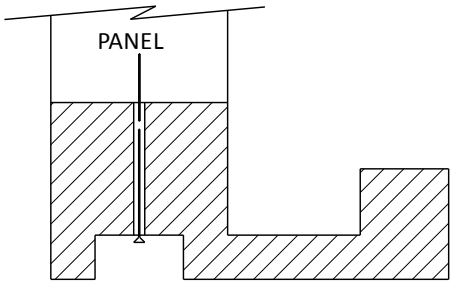
On Bi-fold systems you will need to attach the bottom pivot bracket(s) either to the side leg or the floor. Mount the bottom pivot into the bottom pivot bracket, and then push the spring loaded top pivot into the top pivot bracket.



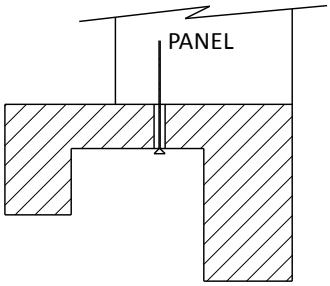


Once all the panels are attached, use the panel adjustment nut to raise or lower the panels as needed. Attach the fascias using brads.

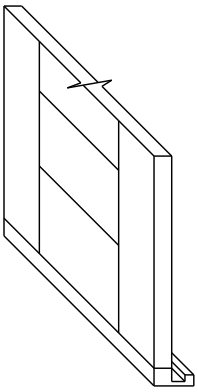
2-WAY BIPASS BOTTOM RUNNERS INSTALL INSTRUCTION



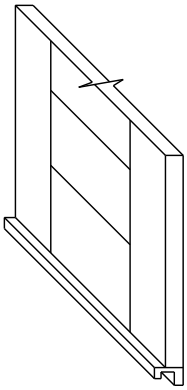
BIPASS RUNNER BOTTOM



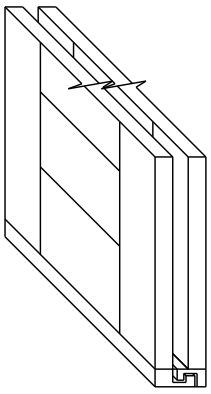
BIPASS RUNNER TOP



WITH PANELS ON THE FLOOR, ATTACH THE FRONT BOTTOM RUNNER TO ONE PANEL AS SHOWN USING 2" SCREWS.



NEXT, ATTACH THE BACK BOTTOM RUNNER TO THE OTHER PANEL AS SHOWN USING 2” SCREWS.

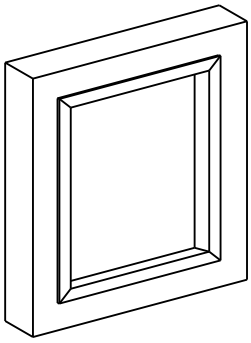


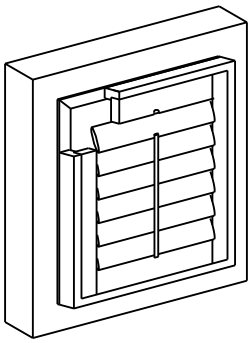
WITH THE BOTTOM RUNNERS ATTACHED, INSTALL THE BACK PANEL INTO THE TRACK FIRST AND THE FRONT PANEL SECOND.

Types of Windows & Applications

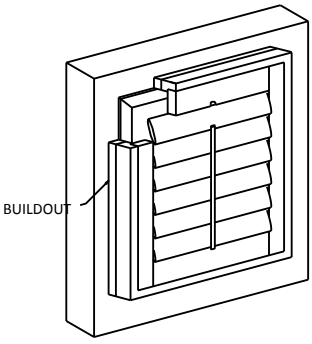
Each and every window opening presents its own unique set of challenges and options when it comes to shutter design. For an idea of what is available to you by opening type please use the following pages as a reference.

TRIMMED OPENING

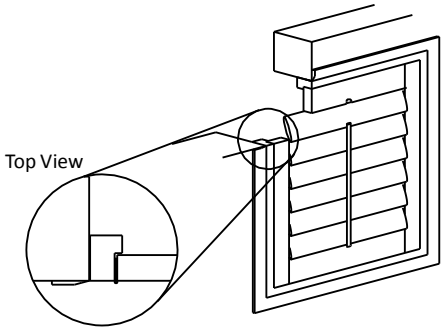




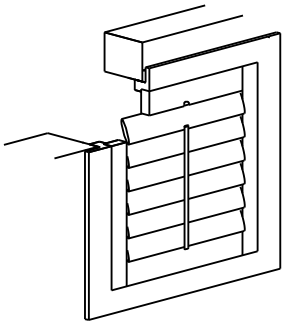
L-FRAME
ON THE TRIM OUTSIDE MOUNT



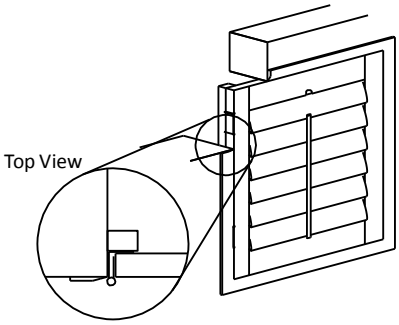
L-FRAME
AROUND TRIM
OUTSIDE MOUNT



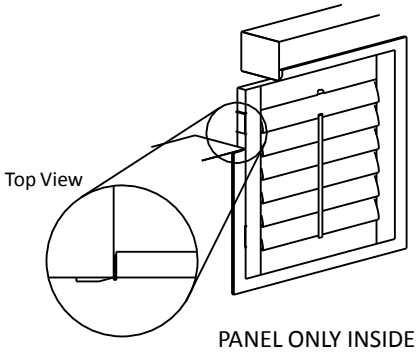
L-FRAME
INSIDE MOUNT



Z-FRAME ON TRIM SEMI-INSIDE MOUNT



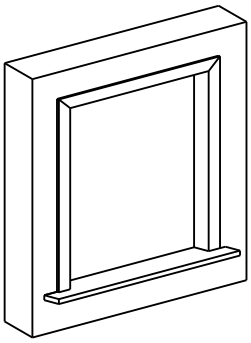
REAR MOUNT
HANGING STRIP

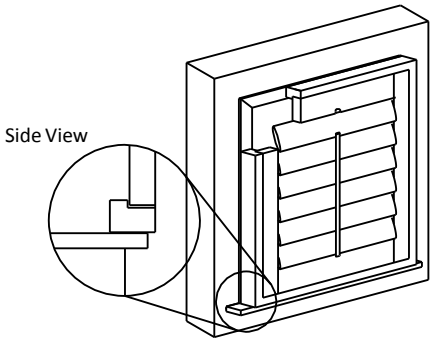


PANEL ONLY INSIDE MOUNT

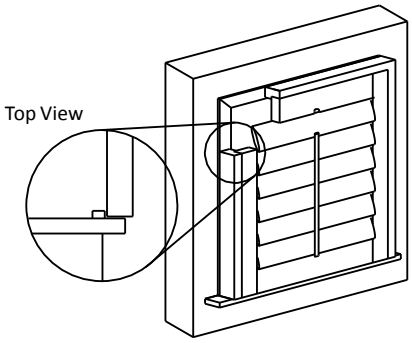
Types of Windows & Applications

TRIMMED OPENING WITH SILL

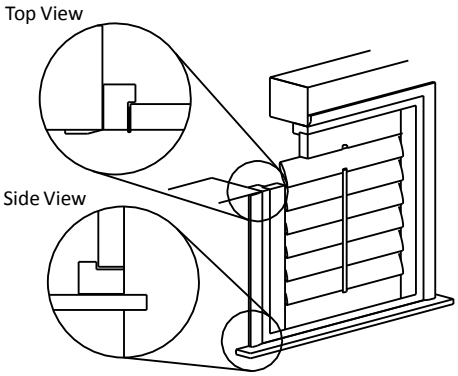




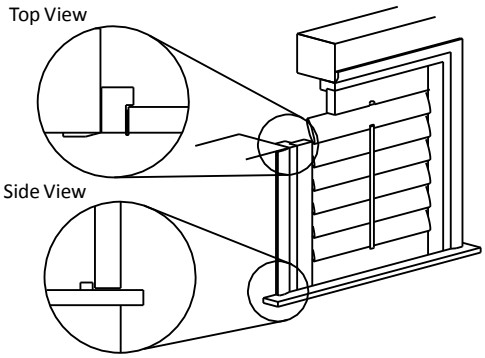
L-FRAME
ON THE TRIM OUTSIDE MOUNT



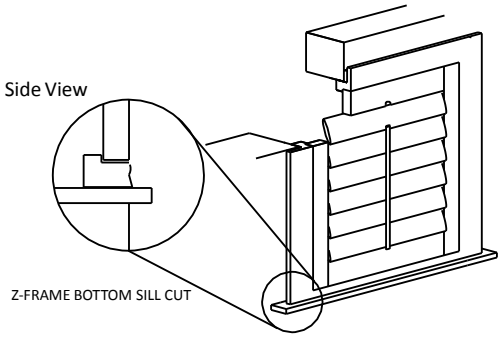
3 SIDED L-FRAME
AROUND TRIM OUTSIDE MOUNT



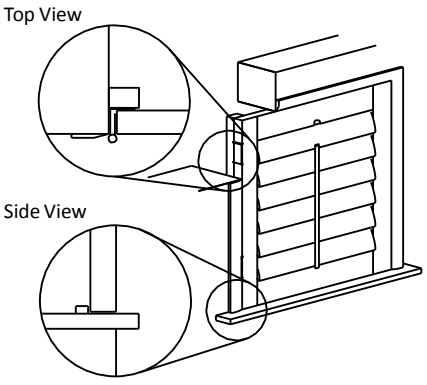
L-FRAME
INSIDE MOUNT



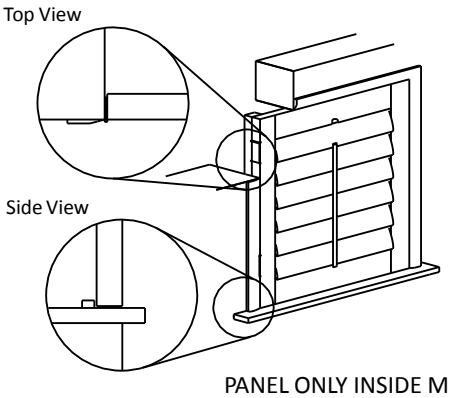
3 SIDED L-FRAME
INSIDE MOUNT



Z-FRAME WITH BOTTOM SILL CUT
SEMI INSIDE MOUNT



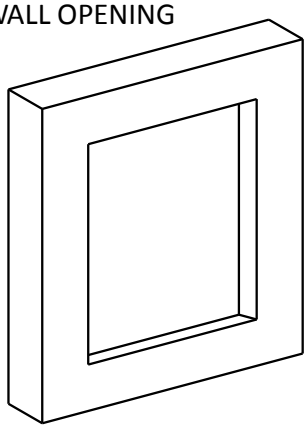
REAR MOUNT
HANGING STRIP

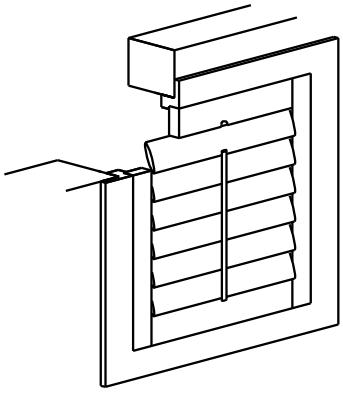


PANEL ONLY INSIDE MOUNT

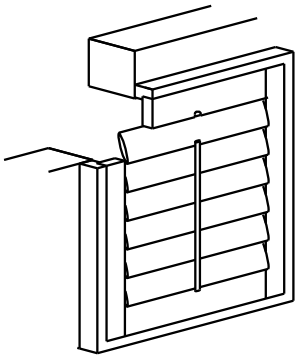
Types of Windows & Applications

DRYWALL OPENING

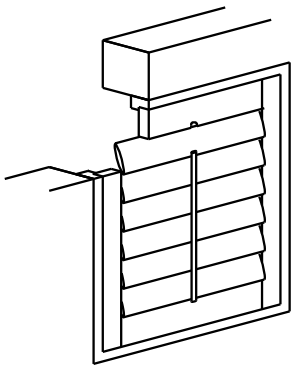




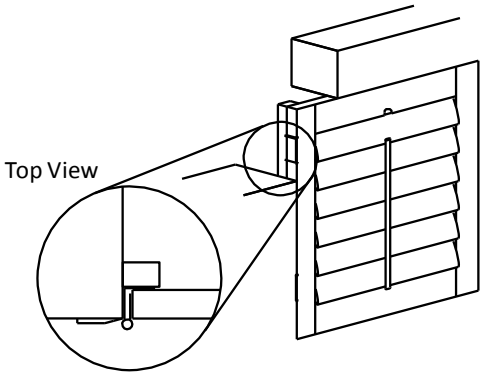
Z-FRAME SEMI-INSIDE MOUNT



L-FRAME
OUTSIDE MOUNT



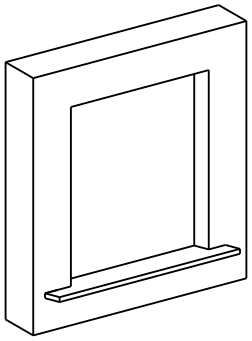
L-FRAME
INSIDE MOUNT

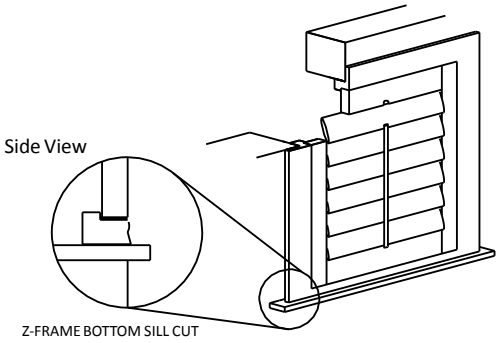


REAR MOUNT
HANGING STRIP

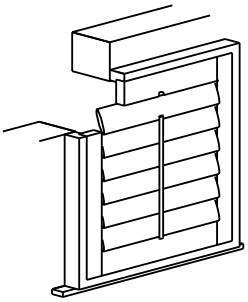
Types of Windows & Applications

DRYWALL OPENING WITH SILL

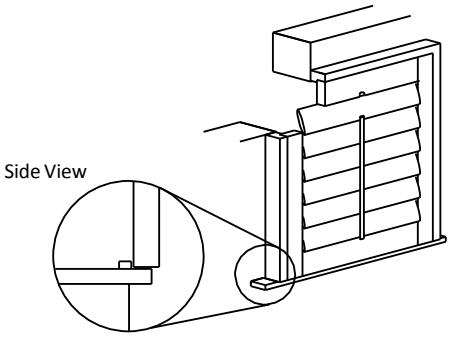




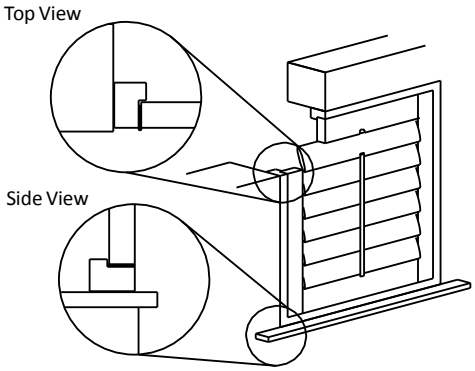
Z-FRAME WITH
BOTTOM SILL CUT,
SEMI-INSIDE MOUNT



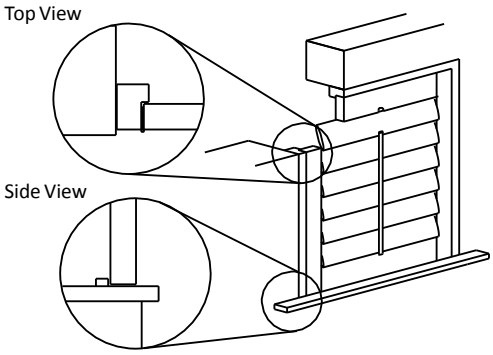
4 SIDED L-FRAME
OUTSIDE MOUNT



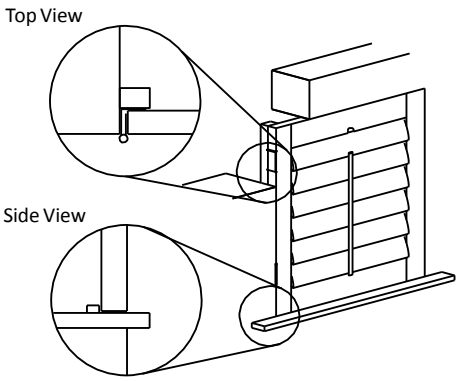
3 SIDED L-FRAME
OUTSIDE MOUNT



L-FRAME
INSIDE MOUNT



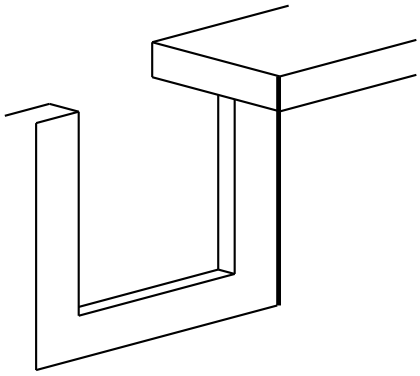
3 SIDED L-FRAME
INSIDE MOUNT

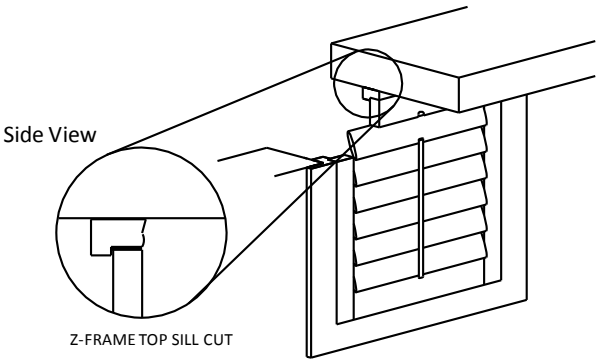


REAR MOUNT HANGING
HANGING STRIP

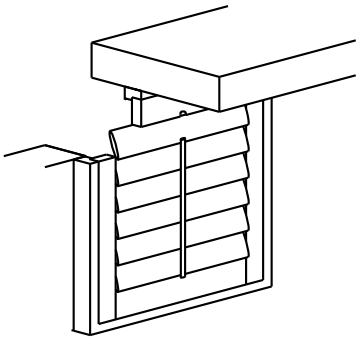
Types of Windows & Applications

DRYWALL OPENING

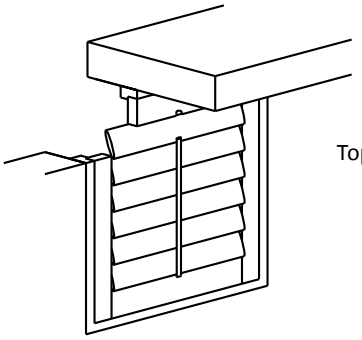




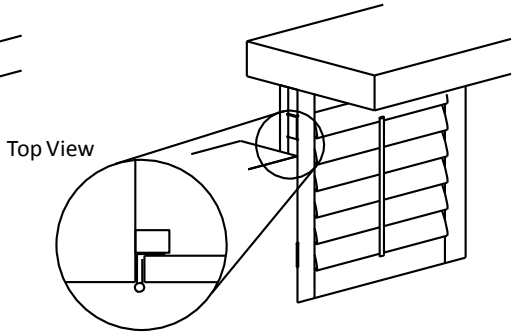
Z-FRAME SEMI-INSIDE MOUNT



L-FRAME
OUTSIDE MOUNT



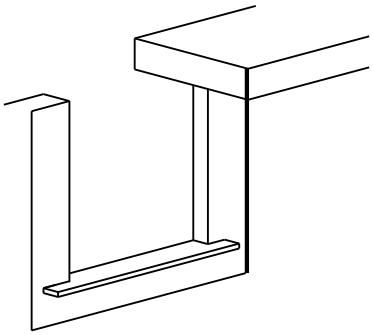
L-FRAME
INSIDE MOUNT

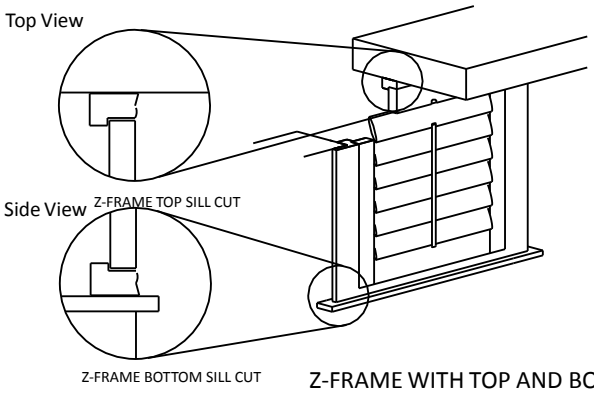


REAR MOUNT
HANGING STRIP

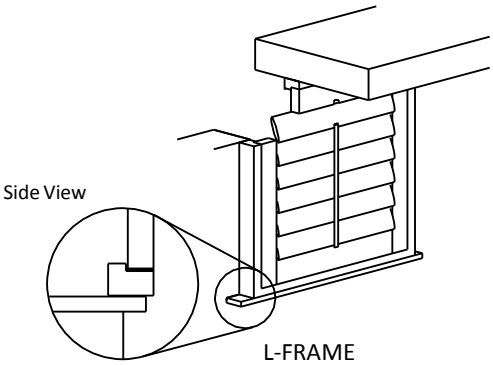
Types of Windows & Applications

TRIMMED OPENING WITH SILL

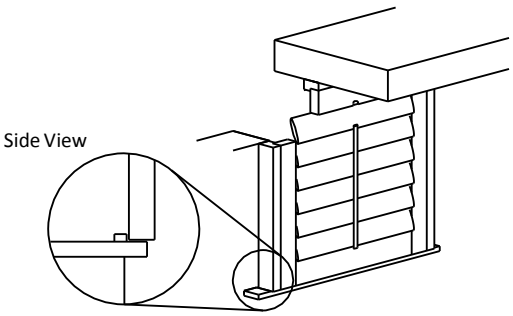




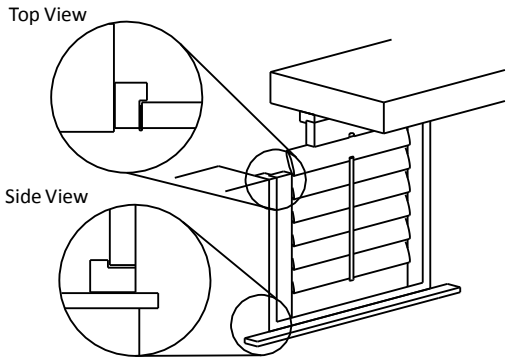
Z-FRAME WITH TOP AND BOTTOM SILL CUT
SEMI-INSIDE MOUNT



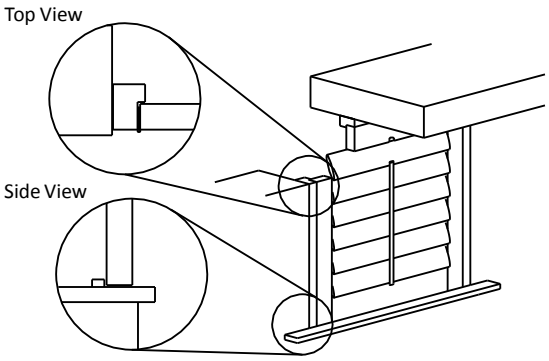
L-FRAME
OUTSIDE MOUNT



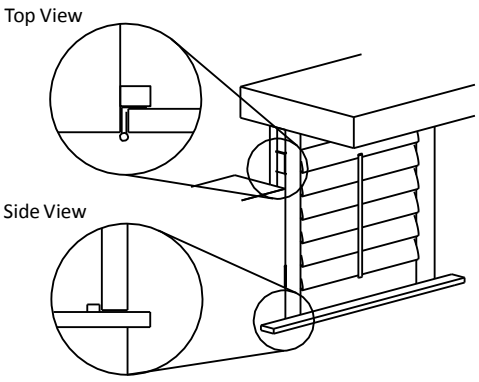
3 SIDED L-FRAME
OUTSIDE MOUNT



L-FRAME
INSIDE MOUNT



3 SIDED L-FRAME
INSIDE MOUNT



REAR MOUNT
HANGING STRIP

TEXTON
WWW.TEXTON.COM

Sunland Shutters

ORDER REFERENCE CHART

Tel: 800-442-1540 Fax: 972-276-5104

Form Revision Date: MAY 2018

APPLICATION

STANDARD SHUTTER

MOUNTING	SEMI-INSIDE MOUNT					I.M	O.M								SIDE-MOUNT HANGING STRIP	REAR-MOUNT HANGING STRIP	CASING FRAME* (N.W.F. ONLY)				
FRAME CODE	MAZ	LGZ	MDZ	SMZ	SBZ	LFI	LFO	LLO	TFO	MFO	DFO	DSO	D2O	FFO	SRH	RWH	CZF	AZF	*AFL	*HCF	*HCA
PolyCORE®	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓					
LexWOOD®	✓	✓	✓		✓	✓	✓				✓	✓	✓		✓	✓	✓	✓	✓	✓	✓

ARCH / RAKE SHUTTER

MOUNTING	SEMI-INSIDE MOUNT					I.M	O.M					CASING FRAME* (N.W.F. ONLY)				
FRAME CODE	MAZ	LGZ	MDZ	SMZ	SBZ	LFI	LFO	TFO	DFO	DSO	FFO	CZF	AZF	*AFL	*HCF	*HCA
PolyCORE®	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓					
LexWOOD®	✓	✓	✓		✓	✓	✓		✓	✓		✓	✓	✓	✓	✓

FAN TOP SHUTTER

MOUNTING	SEMI-INSIDE MOUNT					I.M	O.M
FRAME CODE	MAZ	LGZ	MDZ	SMZ	SBZ	FFI	FFO
PolyCORE®	✓	✓	✓	✓		✓	✓
LexWOOD®	✓	✓	✓		✓	✓	✓

FRENCH DOOR SHUTTER

	N.W.F. ONLY			
FRAME CODE	LFO	DSO	AFL	HCF
PolyCORE®	✓	✓		✓
LexWOOD®	✓	✓	✓	✓

SHUTTER & HINGE COLORS

LexWOOD®

STOCK PAINT	FACTORY HINGE COLOR
WH101	BRI
WH102	BRI
WH103	BRI
WH104	BRI
WH105	DUL
WH106	DUL
WH107	DUL
WH108	DUL
WH109	DUL
WH110	OFF
WH111	OFF
WH112	OFF
WH113	OFF
WH114	OFF
WH115	OFF
WH116	OFF
WH117	OFF
WH118	OFF
WH119	OFF
WH120	OFF

STOCK STAIN	FACTORY HINGE COLOR
ST401	BBS
ST402	BBS
ST403	BBS
ST404	BBS
ST405	ABS
ST406	ABS
ST407	ABS
ST501	BBS
ST502	ABS
ST503	BBS
ST504	BBS
ST505	ABS
ST506	ABS
ST507	ABS
ST601	BBS
ST602	BBS
ST603	BBS
ST604	ABS
ST605	ABS
ST606	ABS

PolyCORE®

SHUTTER COLOR CODE	FACTORY HINGE COLOR
ULT	ULT
BRI	BRI
DUL	DUL
PRL	PRL
OFF	OFF

HINGE COLOR

*STAINLESS STAPLE **$2**/PANEL.
*WRAP AROUND HINGES ONLY AVAILABLE IN **BRI. OFF. ABS. BBS.** AND **OLB.**

BRI --- Bright White
DUL -- Dull White
OFF -- Off White
NIC --- Nickel
BBS -- Bright Brass
ABS -- Antique Brass
OLB -- Oil Bronze

STA -- Stainless ($2 / each)

* PLEASE REFER TO COLOR PACK FOR COLOR SELECTION.

FRAME SIDES

FRAME SIDE CODE		
4	4 Sided	
4S	4 Sided With Sill	
4ST	4 Sided With Sill Cut On Top	
4STB	4 Sided With Sill Cut On Top And Bottom	
T3	3 Sided No Bottom	
2	2 Sided (Left And Right)	
U	3 Sided No Top	Cafe Style
US	3 Sided No Top With Sill Cut	

* **ALL SILL CUTS DO NOT APPLY TO L-FRAME**

Shutter square footage calculation:
Round up width and height to the nearest inch, for Inside Mount or NWF. For Outside Mount or Semi-Inside Mount, round up width and height to the nearest inch, and then add 3" for each.
IM or NWF:
(round up width x round up height)/144=sq.ft.
OM or SIM:
(round up width + 3") x
(round up height + 3")/144=sq.ft.

FRAME CODES

	DIMENSION TYPE & OVERALL DEDUCTION	
	OPENING	N.W.F
SEMI-INSIDE MOUNT		
MAZ = Malibu Z	-3/8"	0
LGZ = Large Z	-1/2"	0
MDZ = Medium Z	-1/2"	0
SMZ = Small Z	-3/8"	0
SBZ = Single Beaded Z	-3/8"	0
INSIDE MOUNT		
LFI = L Frame I.M.	-1/8"	0
FFI = Flat Frame I.M.	-1/8"	0
OUTSIDE MOUNT		
DFO = Decorate Fame O.M.	+6 1/2"	0
DSO = Decorate Sill Frame	+4"	0
LFO = L Frame O.M.	+3"	0
*LLO = Large L Frame O.M.	+3 1/2"	0
TFO = T Frame O.M.	+3 5/8"	0
*MFO = Malibu Frame O.M.	+4 1/2"	0
FFO = Fancy Deco Frame O.M.	+4"	0
D2O = 2" Deco Frame O.M.	+4 1/4"	0
SIDE MOUNT HANGING STRIP		
SRH = S.M. Regular Hinge		
REAR MOUNT HANGING STRIP		
RWH = R.M. Wrap Around Hinge		

* $1.00/sq.ft. Extra Charge

	OPENING	N.W.F
CZF = Chicago Z Frame	-3/8"	0
AZF = Atlanta Z Frame	-3/8"	0
AFL = Atlanta Flat	N/A	0
HCF = Howe Case Flat	N/A	0
HCA = Howe Case	N/A	0

TERMS AND CONDITIONS

1. Cancellations before job completion are subject to deposit forfeiture and other applicable costs. **2**. Cancellations after job completion cannot be accepted and the full amount of the sale is due and payable. **3**. Time of production is calculated from date of deposit and all pertinent information has been received. **4**. This contract is subject to final office approval. **5**. A deposit is required on all contracts and the balance is due and payable upon delivery and/or installation. **6**. All parties executing this contract represent that they have the authority to do same for themselves or their principals. **7**. All parties agree that all legal and/or collection fees pertaining to this contract or amendments to same will be paid by the prevailing party. **8**. In the event of partial installation, buyer agrees to pay for all products that are installed and complete. **9**. Upon installation customer has 7 days to notify Sunland Shutters in writing of any nonconforming product.