

NORMAN®

SHUTTERS. BLINDS. SHADES.



Fabricator of Automated & Custom Window Coverings

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Brightwood® Shutters

Program Reference Guide

2019

2019 Log



Effective Date	Topic	Section	Note
2019/01/01	Colors Option Louvers Options Frame Options	All except j&o	2019 updated specification
Middle of January 2019	Motorized	o	2019 updated specification
2019/01/10	Track	j 2	Add 3" louver for Open bypass
2019/02/01	Color	e,i,m,n	Add 6 new hinge colors Change color coordination chart

<u>Table of Contents</u>	<u>Page</u>
a. Features & Benefits	BW a-1
b. Colors & Louvers	BW b-1
c. Stiles	BW c-1
d. Panel Configurations	BW d-1
e. Frame Styles	BW e-1
f. General Product Specifications	BW f-1
g. Tilt Rods	BW g-1
h. Divider Rails	BW h-1
i. Hardware	BW i-1
j. Track Shutters	BW j-1
k. Special Options	BW k-1
l. Specialty Shapes	BW l-1
m. Pricing	BW m-1
n. Appendix	BW n-1
o. RF Motorized Shutter	BW o-1



Features and Benefits

- Enhance view with extremely wide panels. Up to 42" in width for each single panel to create the clean, streamlined look.
- Reinforced engineered stile-- Multiple layers of wood bonded together to reinforce durability to the core of the stile, which results in a robust support system for the shutter panel.
- Employs mortise and tenon joinery that resists shear and racking forces endured by shutters to ensure prolonged quality and durability.
- Quick and easy on-site assembly and installation with the pre-installed magnets and hinges, pre-mitered frames and slotted keyholes.
- Special panel and frame design that is custom cut to accommodate every unique windows.
- Personalize shutters with special options. Choose from fixed louvers, center or offset tilt rod, double hung panels, café shutters, track systems, French door cutout, specialty shapes and many more.
- A guarantee of Norman Shutters exemplary quality with a lifetime limited warranty on materials and workmanship.

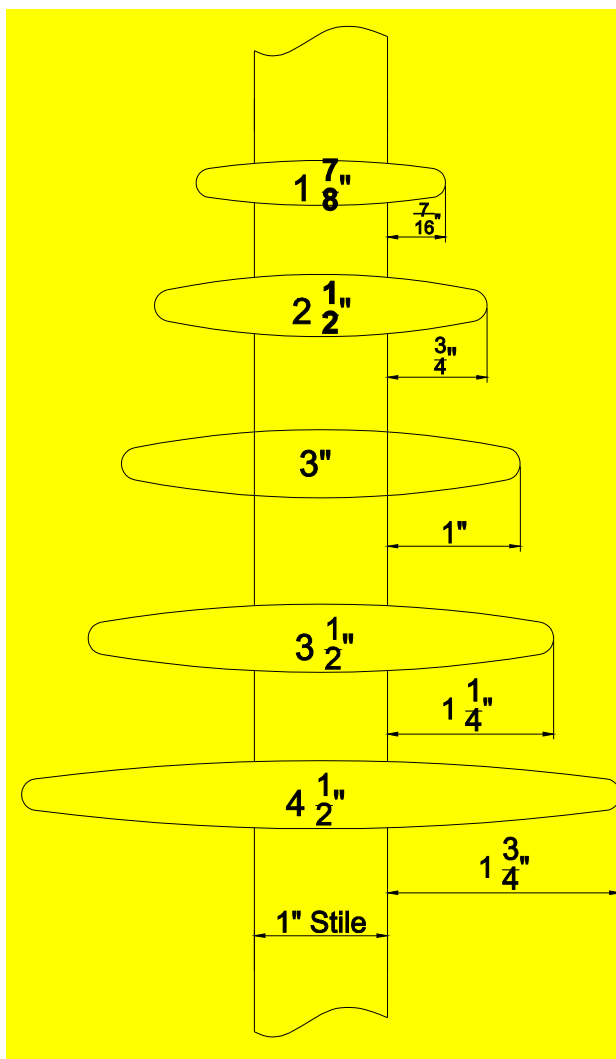


Colors & Louvers

Color ID	Color Name
001	Pure White
002	Extra White
003	Silk White
004	Bright White
006	Pearl
007	Ivory Lace
009	Creamy
012	Crisp Linen
016	Butter
019	String
030	Moondust
032	Sea Mist
042	Hall Gray
046	Ice
048	Chai
049	Stone Gray
051	Brown Gray
053	Clay
063	Decorators White
066	Winchester White 2010
073	Sky Gray
074	Element Gray
075	Storm Gray
077	Dawn
078	Cloud Blue
080	Taupe Gray
836	Classic Black

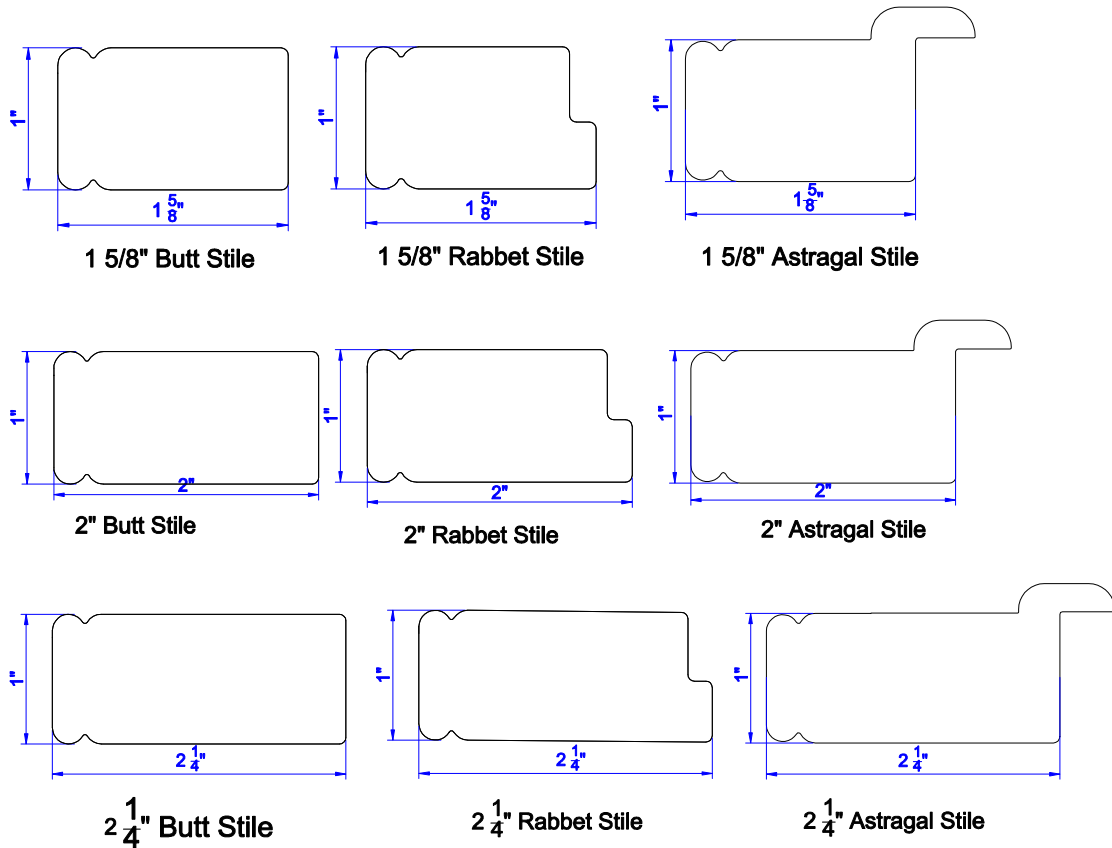
*Surcharge applies. Please see Options and Surcharges page for details. BW b-1

Louvers	
Elliptical	1 $\frac{7}{8}$ "
	2 $\frac{1}{2}$ "
	3"
	3 $\frac{1}{2}$ "
	4 $\frac{1}{2}$ "



Stiles

Options

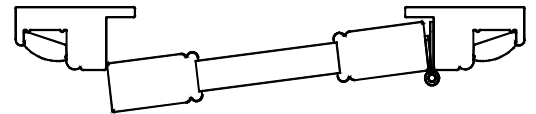
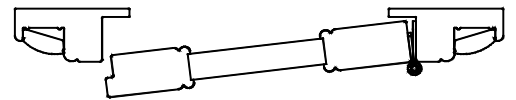


Stiles (continued)

Stile between panel closure

Single panel

- I) Panel width < 9"
 - Rabbeted stile (Deco frame, L frame, Z frame and Hang strip beside panel)
 - 1 $\frac{5}{8}$ "
 - 2" (default)
 - 2 $\frac{1}{4}$ "
 - Butt stile only (Hang strip behind panel)
 - 1 $\frac{5}{8}$ "
 - 2" (default)
 - 2 $\frac{1}{4}$ "
- II) Panel width \geq 9"
 - Butt stile only
 - 1 $\frac{5}{8}$ " (Optional for panel width \leq 12")
 - 2" (default)
 - 2 $\frac{1}{4}$ "

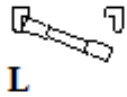


2 panels or more

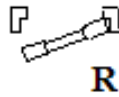
- Rabbet stile
 - 1 $\frac{5}{8}$ " (Optional for panel width \leq 12")
 - 2" (default)
- Astragal stile
 - 1 $\frac{5}{8}$ " (Optional for panel width \leq 12")
 - 2"
 - 2 $\frac{1}{4}$ "

Panel Configurations

Single Panel



L



R

OR

Two Panels



LR

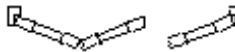
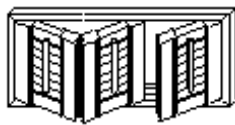


LL

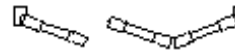


RR

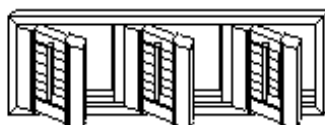
Three Panels



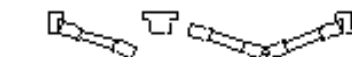
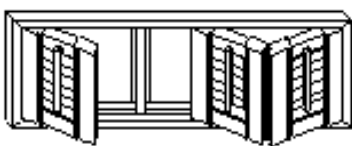
LLR



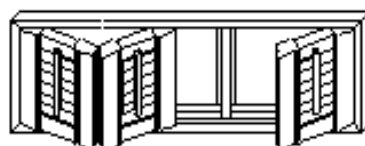
LRR



LTLTL



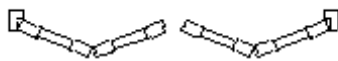
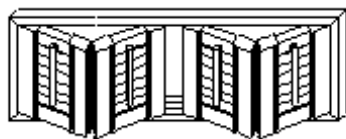
LTRR



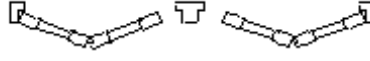
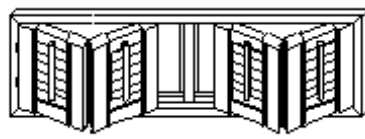
LLTR

Panel Configurations (continued)

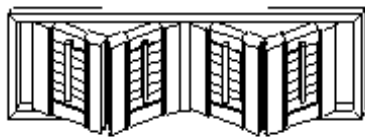
Four Panels



LLRR



LLTRR



RRTL



LTLRTR

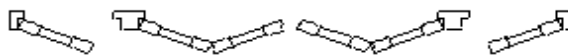
Six Panels



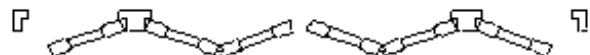
LRTLRTL



LLTLRTRR



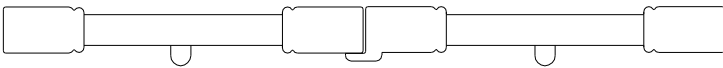
LTLLRRTR



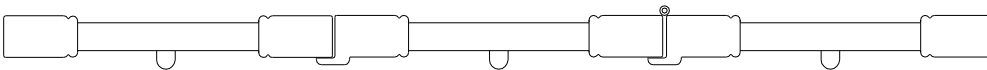
RTLLRRTL

Panel Configurations – Astragal Stile

- 2 Panels – LR



- 3 Panels - LRR



- 3 Panels – LLR

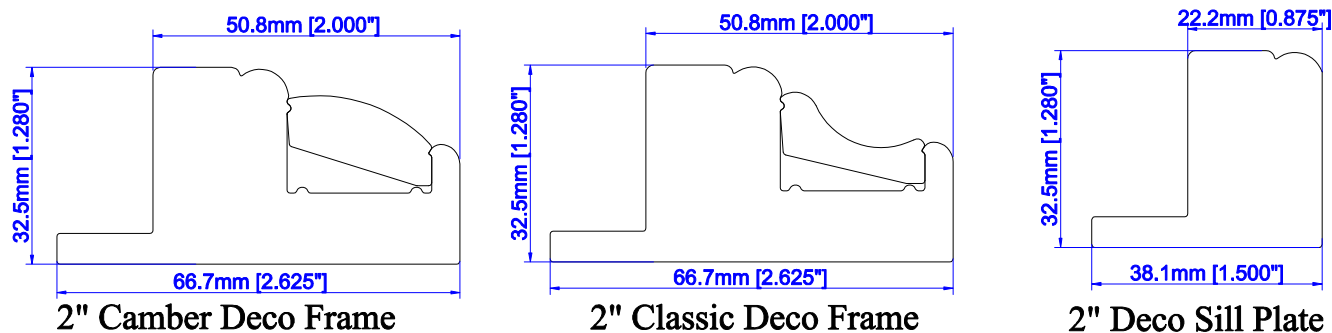
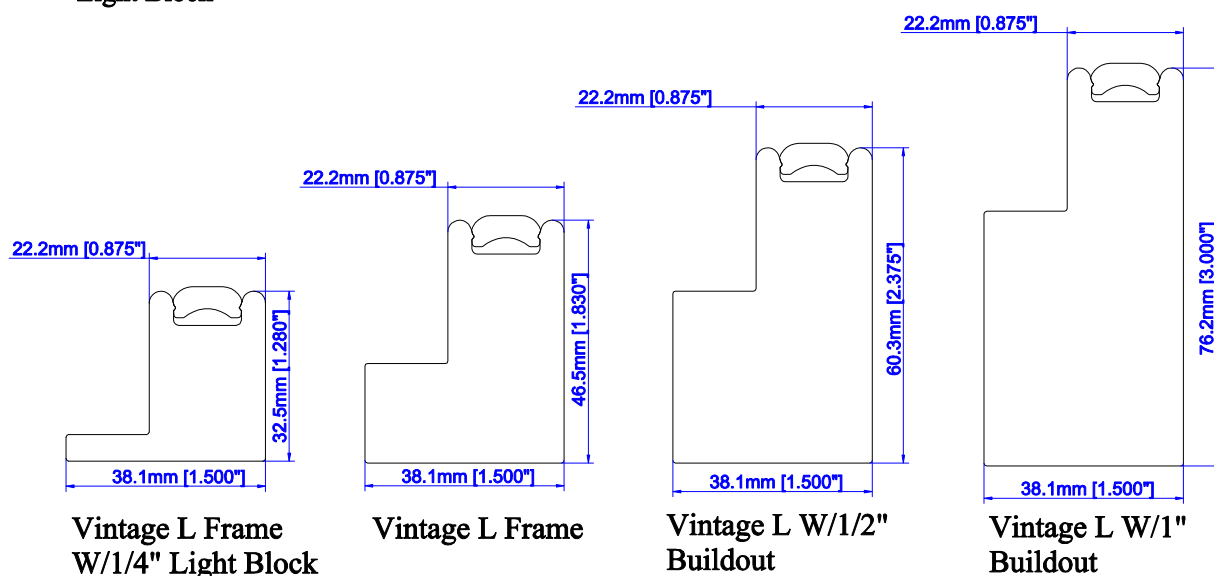
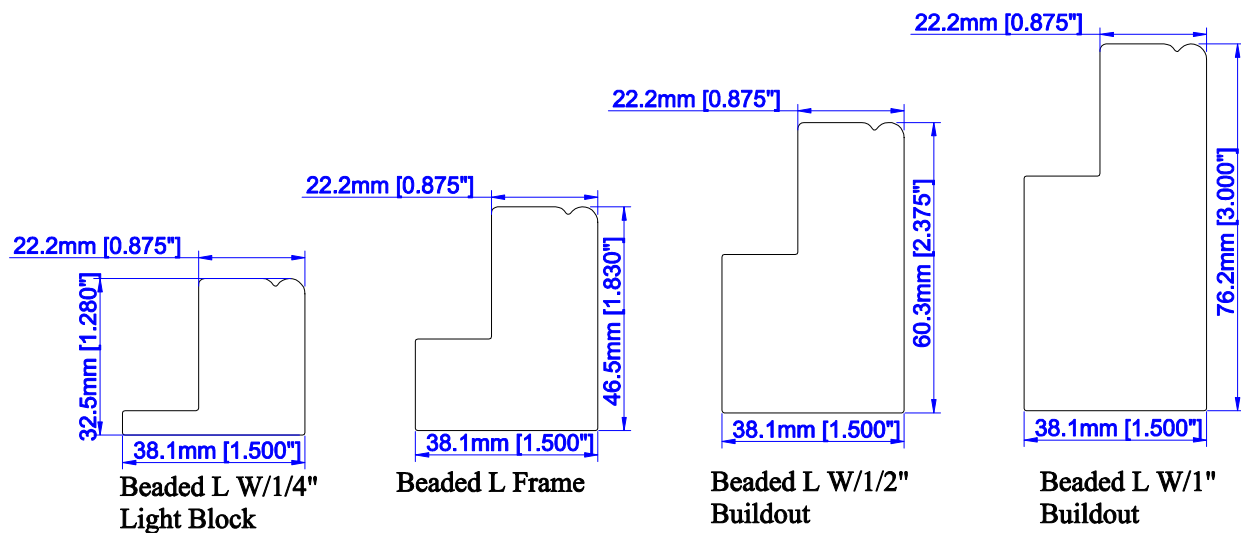


- 4 Panels - LLRR

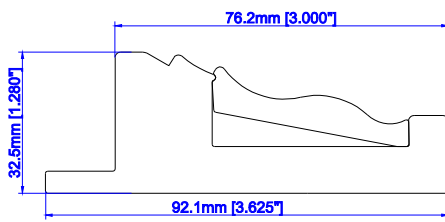


Frame Style

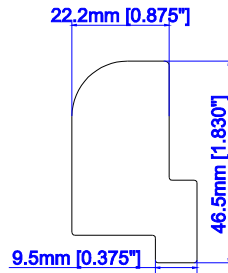
Frame material: Woodlore Plus



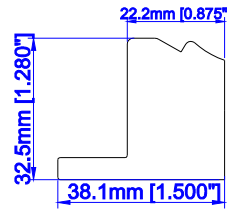
*Surcharge applies. Please see Options and Surcharges page for details.



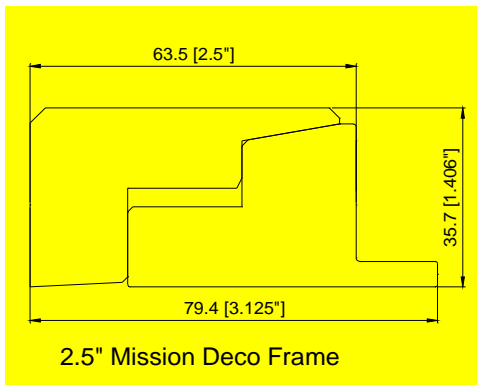
3" Ridge Deco Frame



Tilt Out Z Frame



Ridge Deco Sill Plate



2.5" Mission Deco Frame

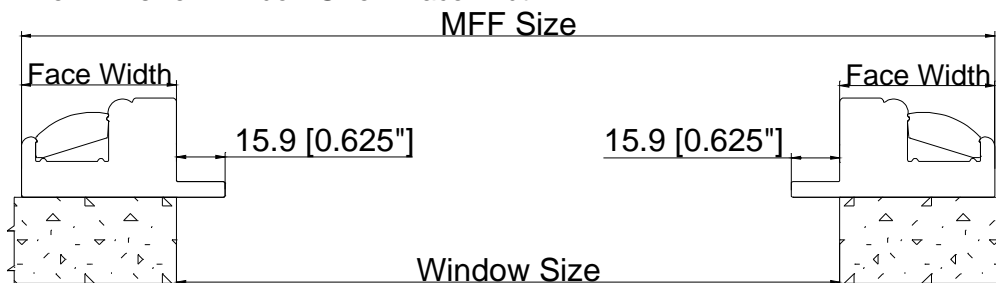
There are 2 options for the Deco frame installation when Window Size is given (Take Camber Deco frame as an example)

1. Default: light block part install into the window opening;

The window size is the exact size of the window opening;

The MFF size is the measurement of the entire shutter, including the frames;

The MFF size = Window Size + Face Width



2. Optional: light block part flush with window opening.

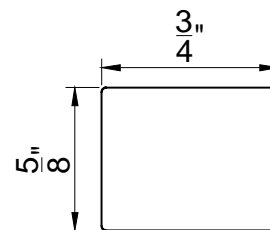
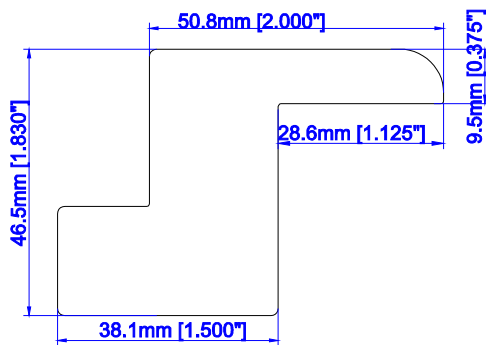
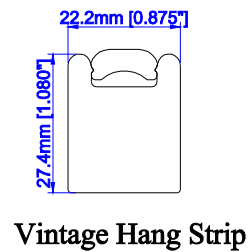
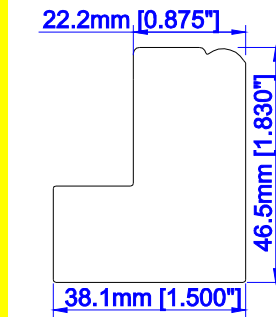
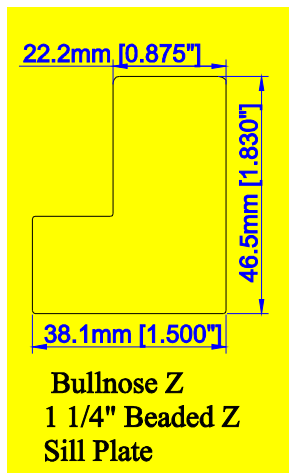
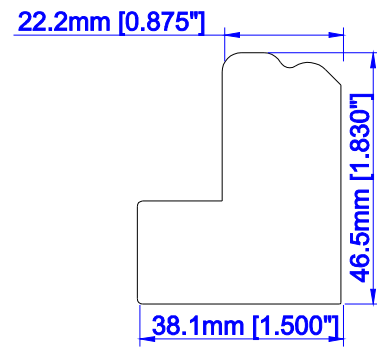
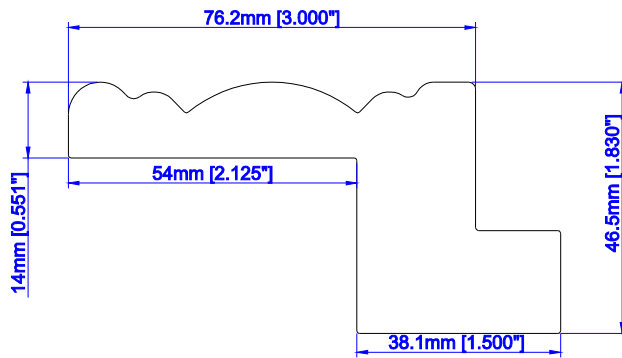
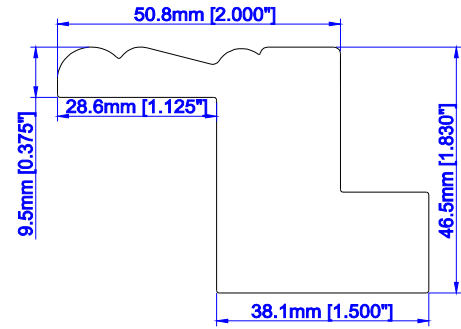
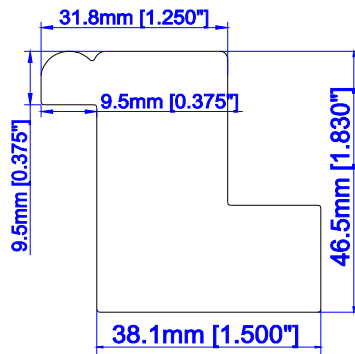
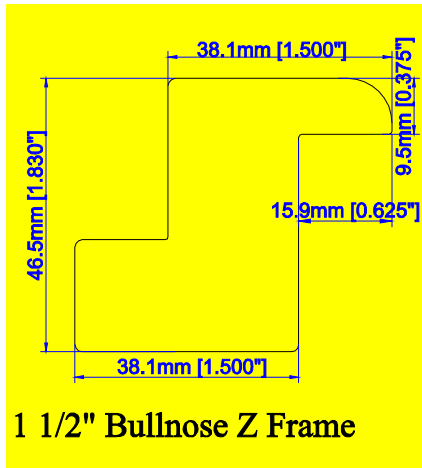
The window size is the exact size of the window opening;

The MFF size is the measurement of the entire shutter, including the frames;

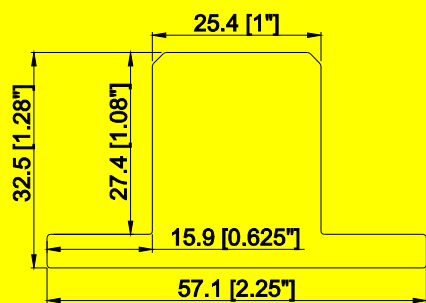
The MFF size = Window Size + Frame Back Width



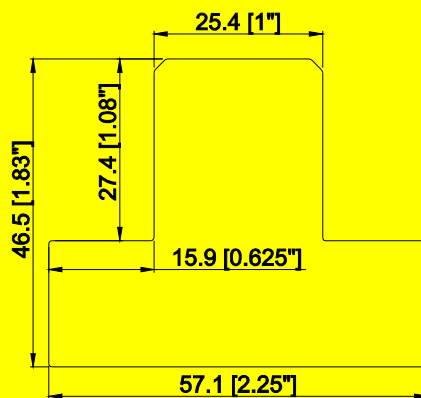
*Surcharge applies. Please see Options and Surcharges page for details.



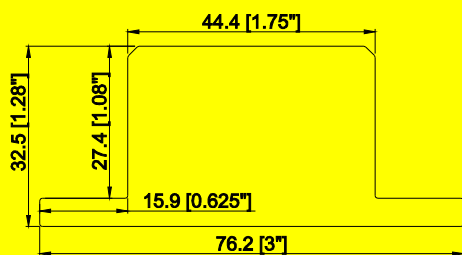
*Surcharge applies. Please see Options and Surcharges page for details.



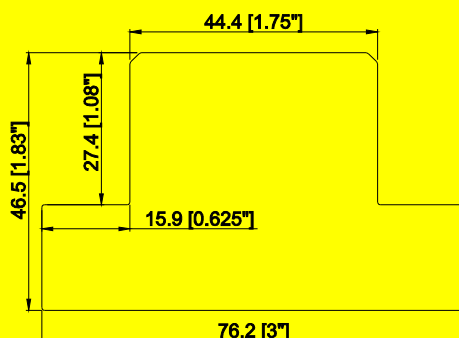
**1" Chamfer T Post W/ 1/4"
Light Block (Deco)**



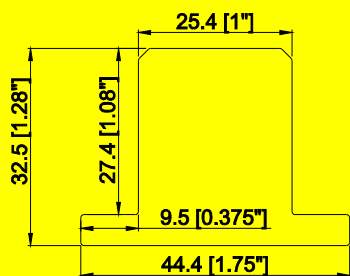
**1" Chamfer T Post W/ 3/4"
Light Block (L/Z/HS)**



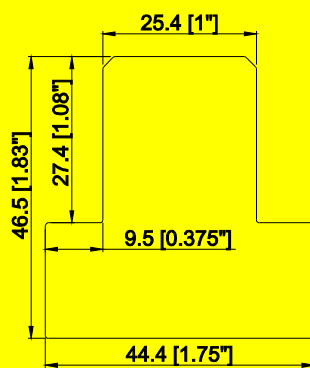
1.75" Chamfer T Post (Deco)



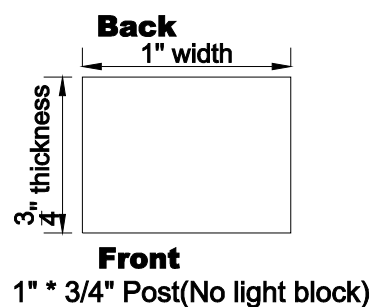
1.75" Chamfer T Post (L/Z/HS)



**1" Chamfer T Post W/ 1/4" Thick
3/8" Wide Light Block (Deco)**

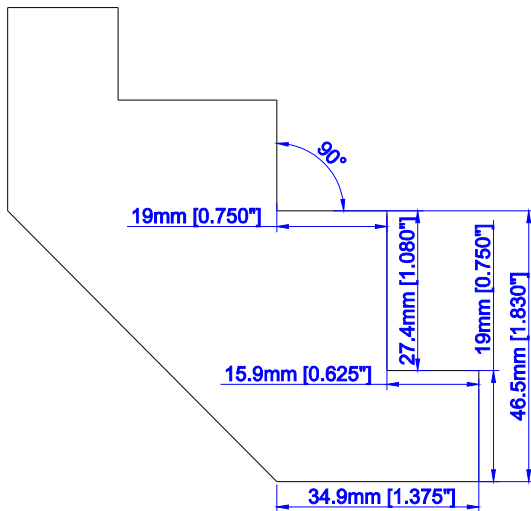


**1" Chamfer T Post W/ 3/4" Thick
3/8" Wide Light Block (L/Z/HS)**

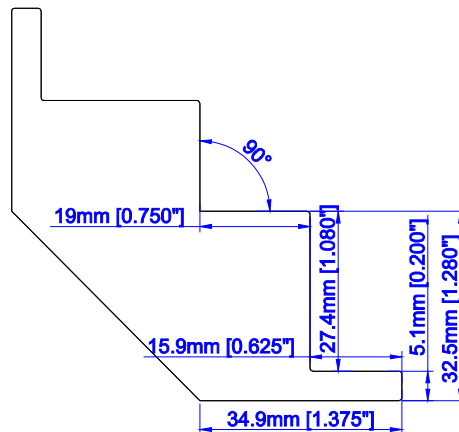


Note: The 1"x3/4" Post (No Light Block) is only available for Direct Mount. And no hardware will be supplied to install it on the existing window opening.

*Surcharge applies. Please see Options and Surcharges page for details.

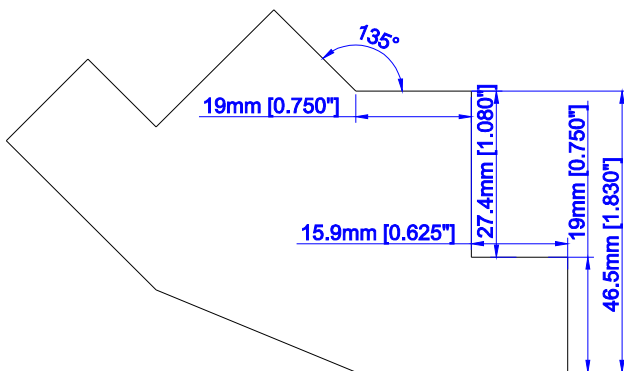


**Corner Post W/ 3/4"
Light Block (L/Z/HS)**

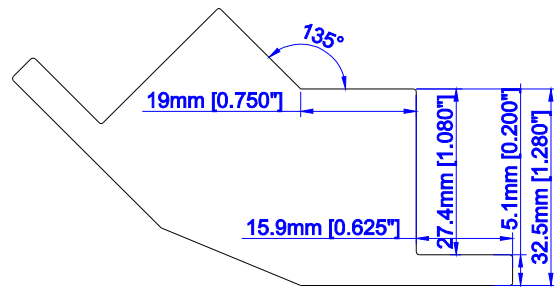


**Corner Post W/ 1/4"
Light Block (Deco)**

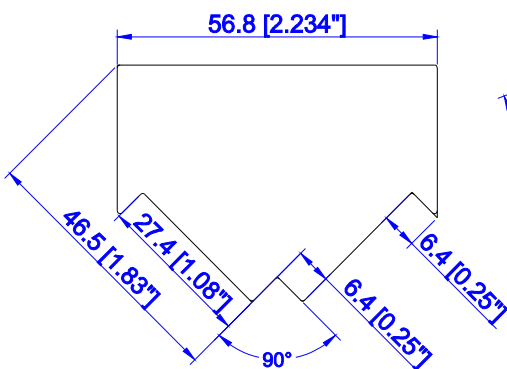
*Notch out corner post required if ordering Z Frame with solid drywall corner.



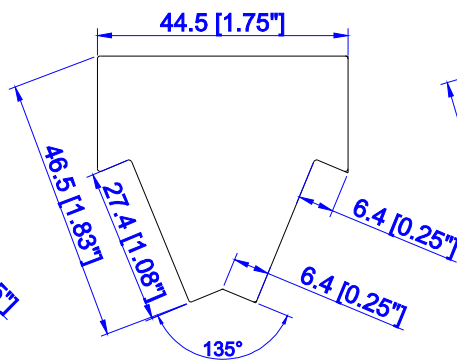
**Bay Post W/ 3/4"
Light Block (L/Z/HS)**



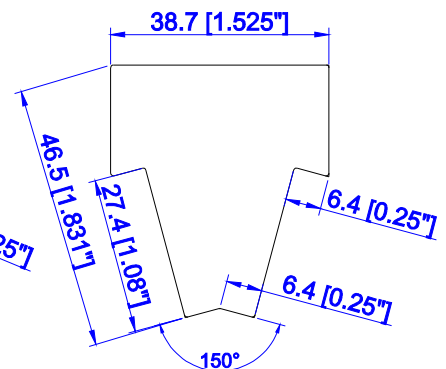
**Bay Post W/ 1/4"
Light Block (Deco)**



**Slim Fit Corner Post for
90 Degree (L/Z/HS)**

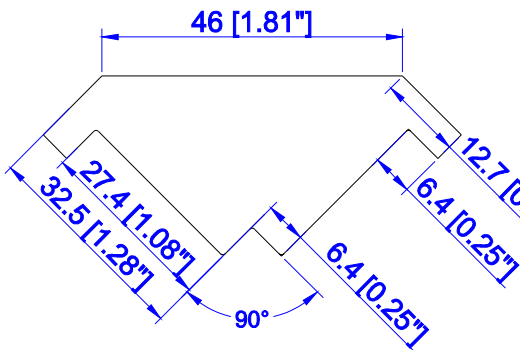


**Slim Fit Bay Post for
135 Degree (L/Z/HS)**

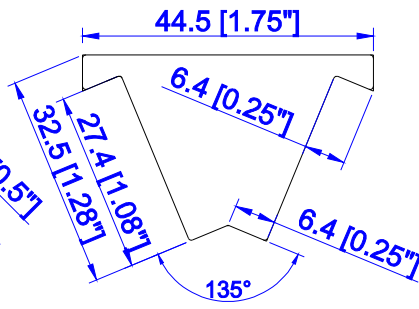


**Slim Fit Bay Post for
150 Degree (L/Z/HS)**

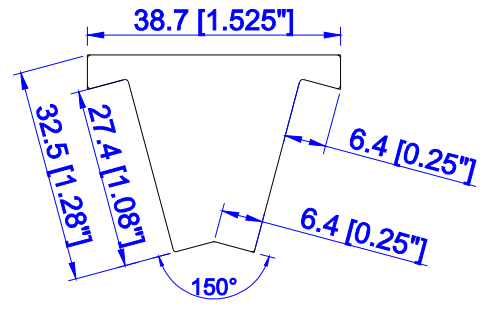
*Surcharge applies. Please see Options and Surcharges page for details.



Slim Fit Corner Post for 90 Degree (D)



Slim Fit Bay Post for 135 Degree (D)



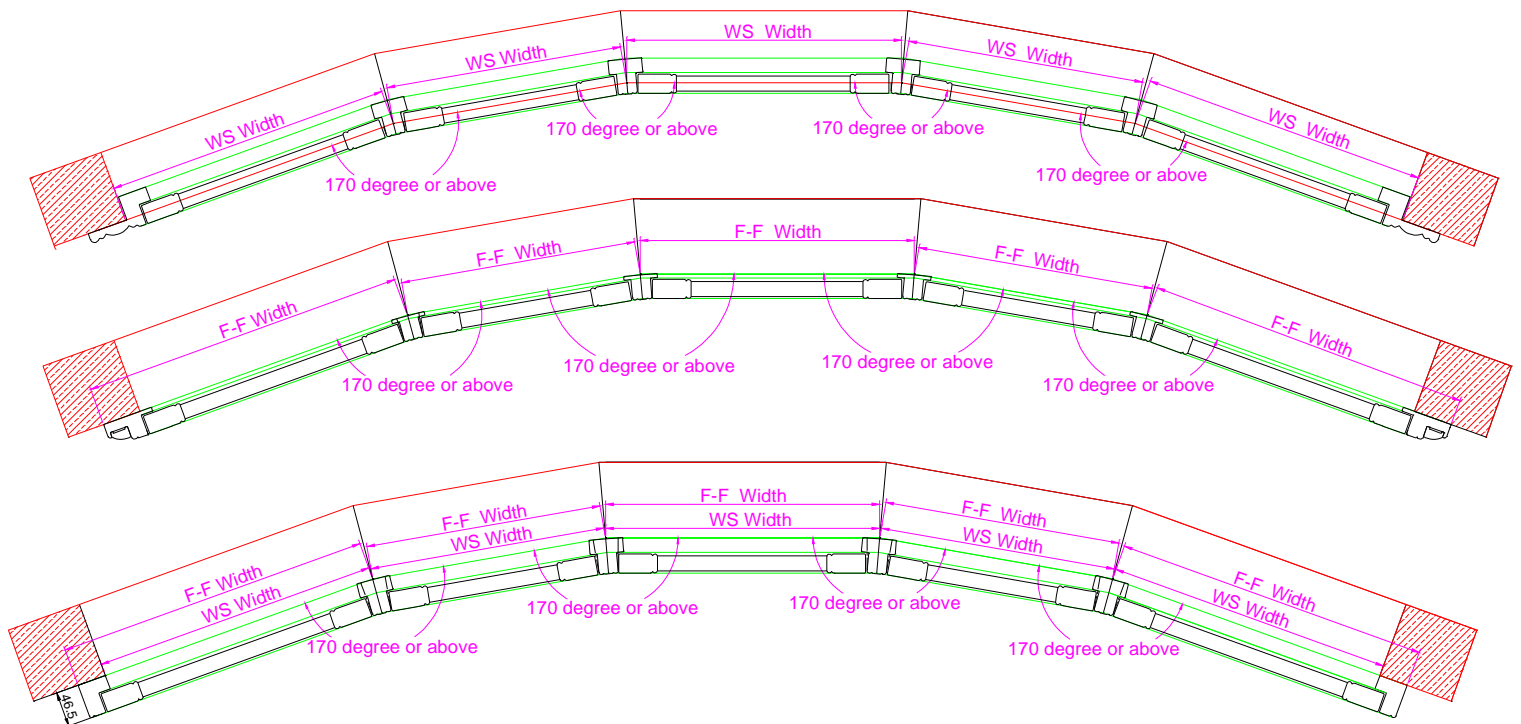
Slim Fit Bay Post for 150 Degree (D)

Also available

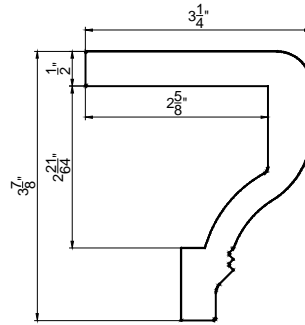
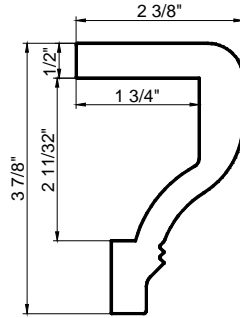
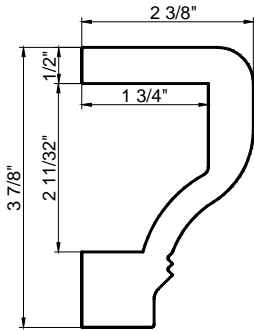
- Custom width* up to 7½" for T Posts (Made of Wood)
- Custom angle bay posts* (Made of Wood)

For bay window at 170 degree or above

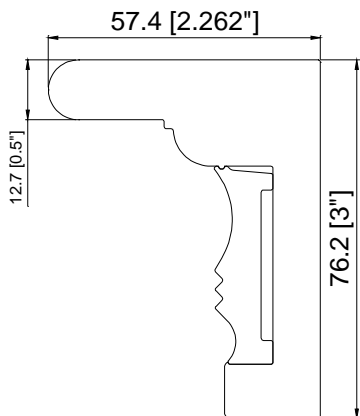
- 1" T Post with 3/8" light block will be used as Bay post;
- For Hang Strip (Behind Panel), bay post will be used.



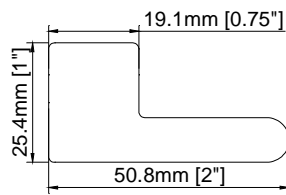
*Surcharge applies. Please see Options and Surcharges page for details.



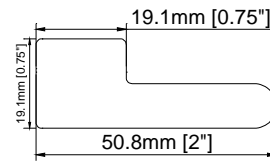
Curved Designer Sill Cap (L) Curved Designer Sill Cap (D/HS) Curved Designer Sill Cap (Z)



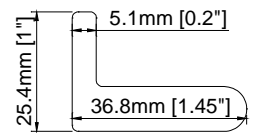
3" Deco Sill Frame



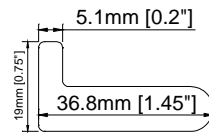
2" Sill Plate with 5/8" Light Block (L/Z)



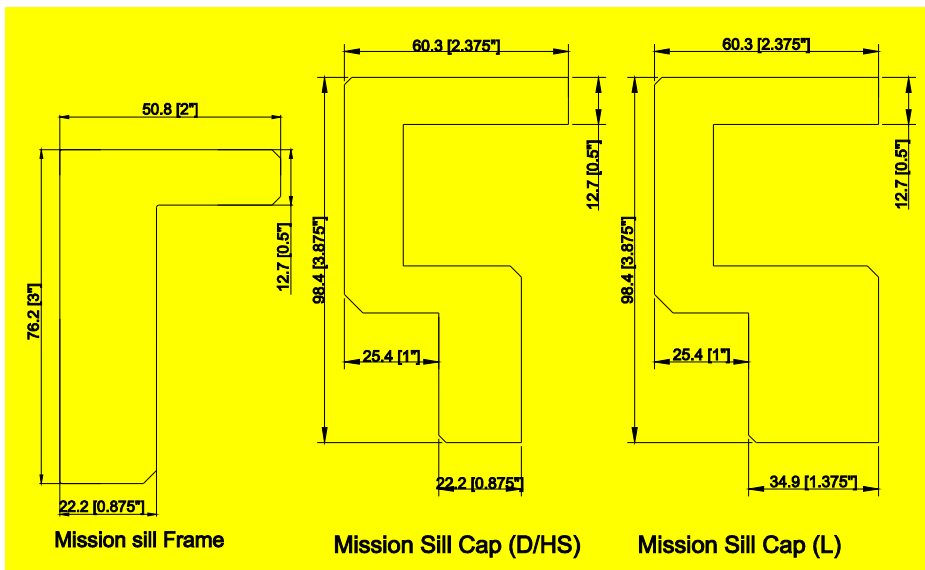
2" Sill Plate with 3/8" Light Block (L/Z)



1.5" Sill Plate with 5/8" Light Block (Deco)



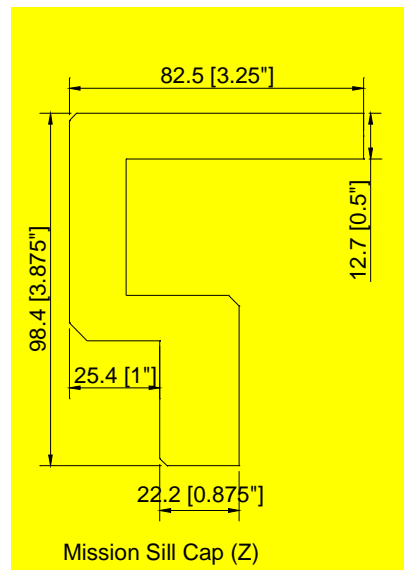
1.5" Sill Plate with 3/8" Light Block (Deco)



Mission sill Frame

Mission Sill Cap (D/HS)

Mission Sill Cap (L)

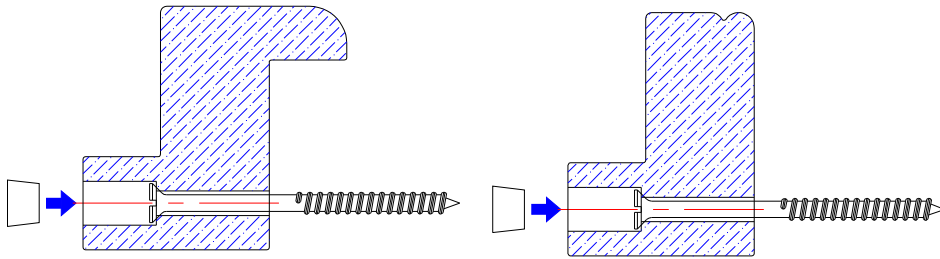


Mission Sill Cap (Z)

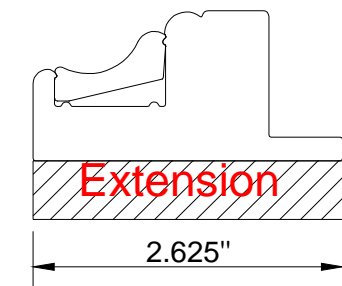
Note: For Mission Sill Cap, the extended size at each side needs to be 1" at least.

*Surcharge applies. Please see Options and Surcharges page for details.

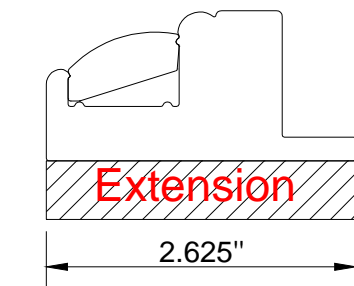
Pre-drill L Frames (Inside Mount Only) or Z frames:



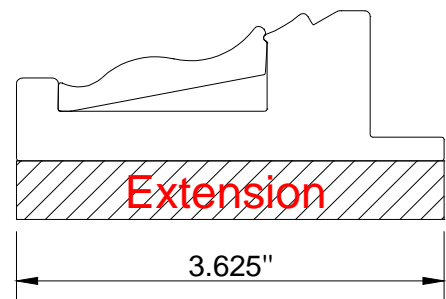
Extension for Deco Frame* (Default to have full extension):



2"Classic Deco Frame with extension



2"Camber Deco Frame with extension



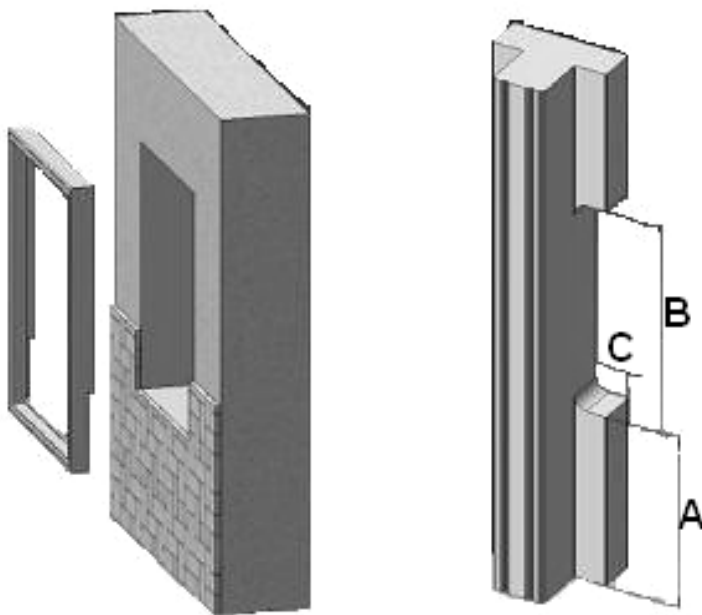
3"Ridge Deco Frame with extension

Note: When the extension thickness of the frame & T post is more than 2", the extension will not be attached with the frame and T post.

Notch out*:

- L Frame
- T Post

Specify dimensions in special instruction box.



*Surcharge applies. Please see Options and Surcharges page for details.

General Product Specifications

<u>Description</u>	<u>Minimum</u>	<u>Maximum</u>
Single Panel Width (Regular)	6"	30" for 1 7/8" louver 36" for 2 1/2" & 3" louver 42" for 3 1/2" & 4 1/2" louvers
Single Panel Width (Bi-fold)	6"	26"
Single Panel Width (Bi-fold Track)	6"	26"
Single Panel Height	10"	132"
Shutter Width (Without T Post)	N/A	4x single panel width (bifold) + frame
Shutter Width (With T Post)	N/A	Unlimited (For orders shipped by sea, frames longer than 142" will be spliced in the middle. For orders shipped by air, frames longer than 120" will be spliced in the middle.)
Shutter Height	N/A	132" + frame

Shutters without bottom supports

Brightwood Shutters will be covered by our warranty for this application, be subject to our standard specification limitation and the guidelines listed below:

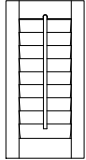
All Brightwood panel configurations:

- You must inform Norman Shutters of situations where shutters will not have bottom support when placing the initial order.
- Informing Norman Shutters when placing such orders ensures that the factory will add extra hinges to support the panel. This will reduce the probability of the panels sagging and increase shutter integrity.
- If you fail to notify Norman Shutters that the shutter will be used without bottom support, this will constitute a misapplication of the shutter. Consequently, you will be responsible for the cost of any RGA that is submitted.
- If you want a bi-fold shutter, a track must be ordered to support the panels.

Tilt Rods

Standard Tilt Rod

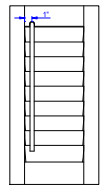
Default Location: In the middle of the panel on front side (default).



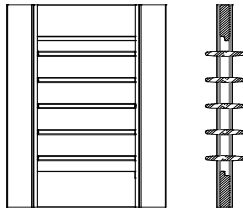
Offset Tilt Rod*

Default Location: On the front side of the panel and at 1" from the louver ends on the hinged side.

Optional location: per your request



InvisibleTilt™ *



Louver tilting system embedded within panel stile. It is not available for 1⁷/₈" louver. The tilting system is split when the number of louvers exceeds the limits as listed below:

Louver Size	Maximum Possible Louvers	Panel Height Range
2½"	24	54 3/4" – 57 1/4"
3"	19	54 1/4" – 57"
3½"	16	54 3/4" – 58"
4½"	12	54 3/4" – 60"

For even numbers of louvers, the number of louvers operated by the top and the bottom tilting system will be the same;

For odd numbers of louvers, the number of louvers operated by the bottom tilting system will be one more than the number of louvers operated by the top tilting system;

To ensure split tilt is included, always specify on the order.

Split Tilt

When customer requires the split tilt in custom position, the measurement will be as follows, please note that the louvers are in close position when measured.

Window size:

— Measure from the bottom of the window to the top of the louver

Max frame-to-frame:

— Measure from the bottom of the frame to the top of the louver.

* Surcharge applies. Please see Options and Surcharges page for details.

Divider Rails

- A divider rail is an extra rail in the middle of the panel.
- Creates two sections in the panel so louvers can be operated independently.
- Strengthens the panel and enhances structural integrity.
- Required for panel heights over 78"
- Custom Size(3"~7.875") Divider Rail is available with surcharge.

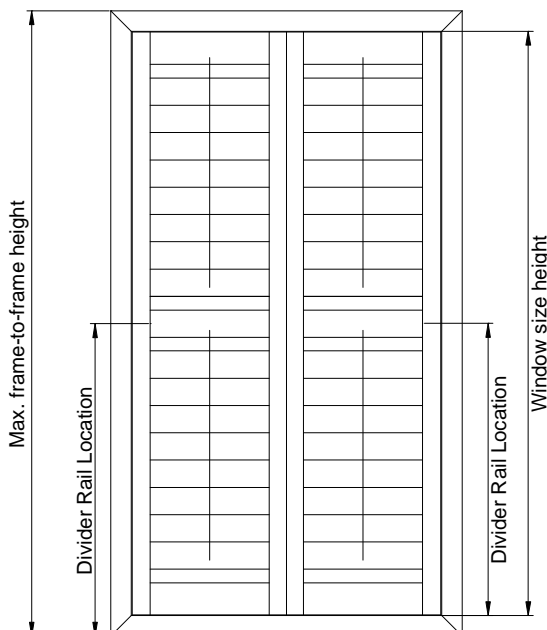
Specifications

- Standard width: 3"
- Default location: center of the panel unless specified otherwise

Measurements:

- Window size:
 - Measure from the bottom of the window to the center of the divider rail.
- Max frame-to-frame:
 - Measure from the bottom of the frame to the center of the divider rail.
- Position:
 - Per customer's specification. However, the divider rail may be adjusted to a lower or higher position, within our allowable deviation, to ensure reinforcement and aesthetics of the shutter.

When placing the order, please clearly specify if the divider rail position needs to line up with that of other shutter divider rails in the same room. Please also refer to the table below for the allowable deviation details.



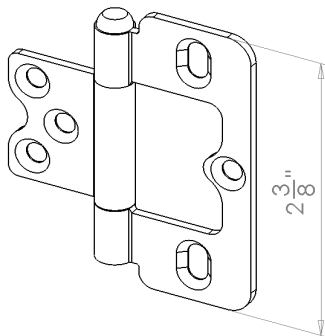
Divider rail allowable deviations

Louver Size	Allowable \pm Deviation
1 $\frac{7}{8}$ "	$\frac{3}{4}$ "
2 $\frac{1}{2}$ "	1"
3"	1 $\frac{1}{4}$ "
3 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "
4 $\frac{1}{2}$ "	2"

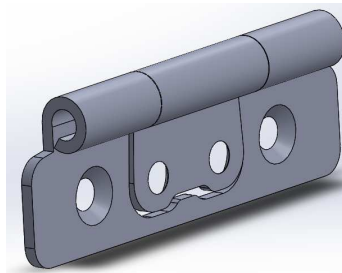
Hardware

Hinges

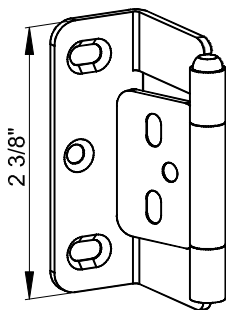
Self-Mortise Hinge



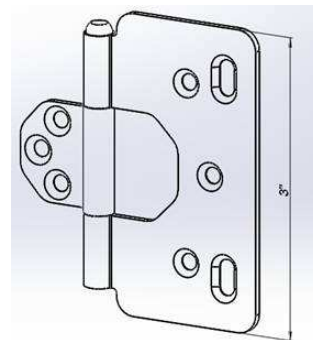
Bi-fold Hinge



L Hinge



Direct Mount 3" Hinge



Hinges are available in:

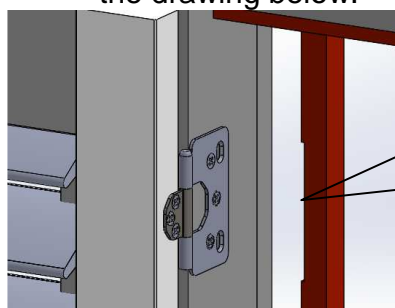
Pure White, Silk White, Bisque, Pearl, Bright Brass, Antique Brass, Black, Nickel plated, Brushed Nickel Plated and Stainless Steel, Crisp Linen, String, Sea Mist, Stone Gray, Brown Gray, Taupe Gray.

While hinge colors of Crisp Linen, String, Sea Mist, Stone Gray, Brown Gray, Taupe Gray are not available for Direct mount 3" Hinges.

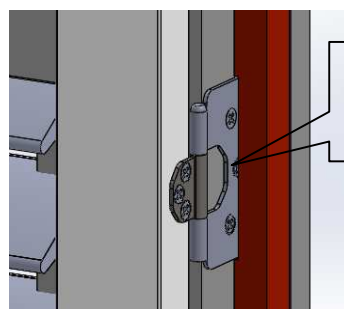
- Direct Mount 3" Hinge:
 1. The hinge position of the direct mount 3" hinge will be different from that of the 2.375" ones. For shutters used both the 2.375" and the direct mount 3" hinge, the hinge position of the 2.375" ones will match that of the direct mount 3" hinge;

* Surcharge applies. Please see Options and Surcharges page for details.

2. The hinge is only to install between the panel and the existing window. For other situation, 2.375" hinges will be used;
3. To avoid confliction, there will be cut-out for the light block of the hinged side. Please refer to the drawing below.



Cut-Out on
the light
block



Cut-Out when the
hinged is installed.

Invisible Hinge:

1. Invisible hinge is not available for multifold panels.
2. Invisible hinge is only used between the panel & frame / T post, between panel and panel will be used regular hinge.
3. Color Option: Only available for Pearl Chrome Plated.

Frame Options	Hinge	Notes
2" Camber Deco Frame	Y	/
2" Classic Deco Frame	Y	/
2.5" Mission Deco Frame	N	/
3" Ridge Deco Frame	N	/
Vintage L Frame W / 1/4" Light Block	N	/
Vintage L	N	/
Vintage L Frame w/ 1/2" Buildout	N	/
Vintage L Frame w/ 1" Buildout	N	/
Beaded L w 1/4"light block	Y	/
Beaded L	Y	/
Beaded L Frame w/ 1/2" Buildout	Y	/
Beaded L Frame w/ 1" Buildout	Y	/
Tilt out Z Frame	N	/
1.25" Beaded Z Frame	Y	/
1.5" Bullnose Z Frame	Y	/
2" Bullnose Z Frame	Y	/

* Surcharge applies. Please see Options and Surcharges page for details.

2" Bel Air Z Frame	Y	/
3" Crown Z Frame	N	/
7/8" Vintage Hang Strip	N	/
1" Chamfer T-Post w/ 1/4" Light Block(for Deco)	Y	only available with hinge on one side, for example, LTL is available, but RTL is not.
1" Chamfer T-Post w/3/4" Light Block(for L/Z/HS)	Y	
1" Chamfer T-Post w/ 1/4" thick 3/8" wide Light Block(for Deco)	Y	
1" Chamfer T-Post w/3/4" thick 3/8" wide Light Block(for L/Z/HS)	Y	
1 3/4" Chamfer T-Post w/1/4" Light Block(for Deco)	Y	available with hinge on BOTH side, for example, RTL.
1 3/4" Chamfer T-Post w/3/4" Light Block(for L/Z/HS)	Y	
Corner Post w/1/4" Light Block(for Deco)	Y	/
Corner Post w/3/4" Light Block(for L/Z/HS)	Y	/
Bay Post w/1/4" Light Block(for Deco)	Y	/
Bay Post w/3/4" Light Block(for L/Z/HS)	Y	/
Invisible Hinge Qty		
Panel Height (H)	Hinge Qty	
H<=48"	2	
48"<H<=78"	3	
78"<H<=96"	4	
96"<H<=120"	5	
H>120"	6	

Preinstallation:

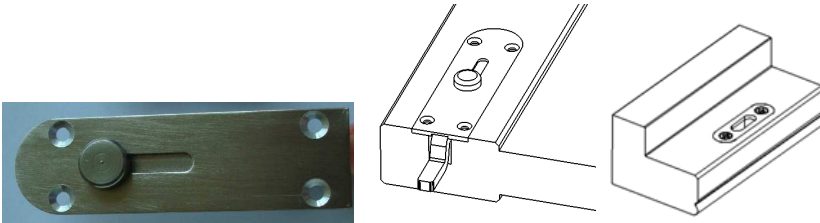
Panels and frames will be packaged individually, and the hinge is preinstalled onto the frame/post, with the screws for the other half part on the panels in the hardware box.

* Surcharge applies. Please see Options and Surcharges page for details.

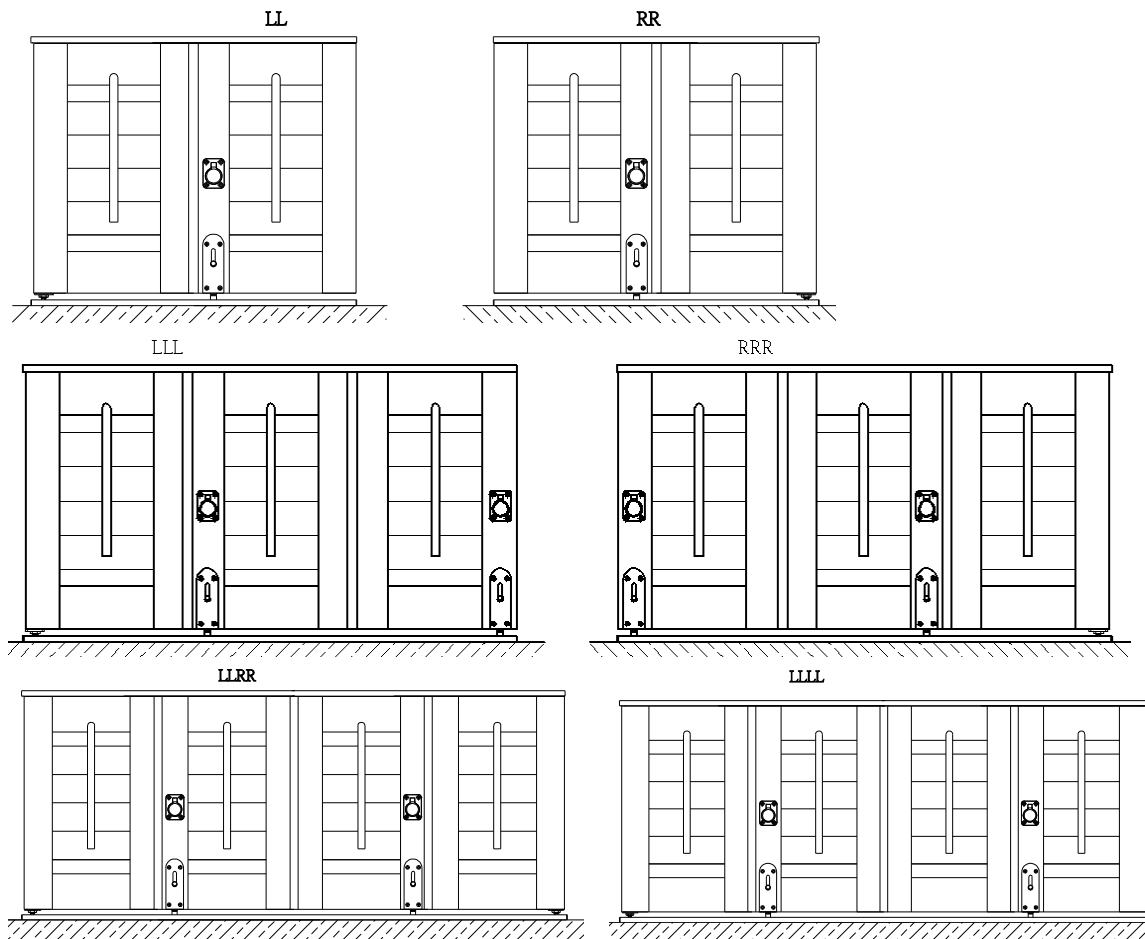
Panel Lock: (not available for 1.625" Stile)

Available Material: All

Color: Brush Nickel-Plated

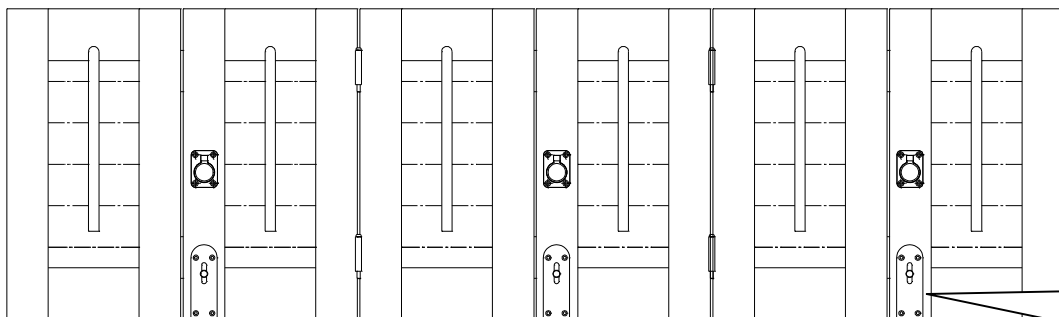
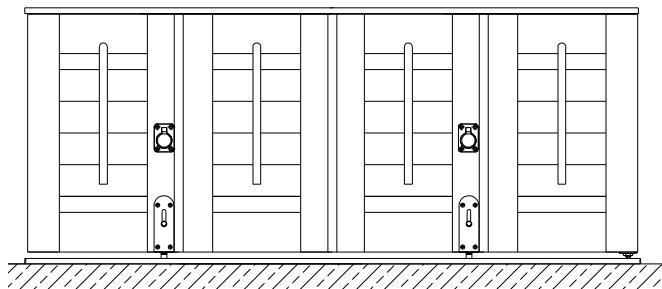


Position: (Only available on Bottom for Track Shutters with Bottom Track; For Regular, available on Top/Bottom/both Top and Bottom)



* Surcharge applies. Please see Options and Surcharges page for details.

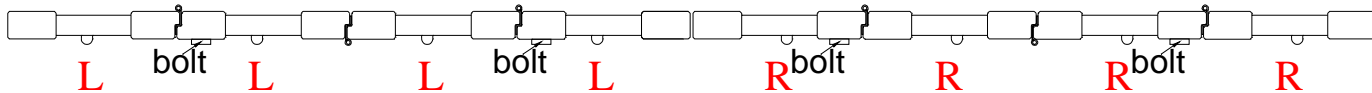
RRRR



Panel Config: FFFFFFF(R)

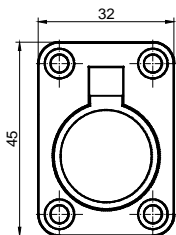
Default:
Floating panels
stacked to Right

The Panel Lock location for both track system shutters and regular shutters would be the same. The general principle is that the Panel Lock position will avoid the stile which will install the spring-loaded guide at bottom (same stile as the Wheel carrier).



Ring pull: for easy opening and closing

(Not available for 1.625" Stile)



Please note the ring pull color will match with the hinge color.
When shutter order with Invisible Hinge, the ring pull color will match with the normal hinge color.
Please see the matching chart below:

Hinge color	Pure White	Silk White	Bisque	Pearl	Black	Nickel	Brushed Nickel	Oil-Rubbed	Antique Brass	Bright Brass	Stainless Steel
Ring Pull color	White	White	Bisque	Pearl	Black	Brushed Nickel	Brushed Nickel	Black	Antique Brass	Bright Brass	Brushed Nickel

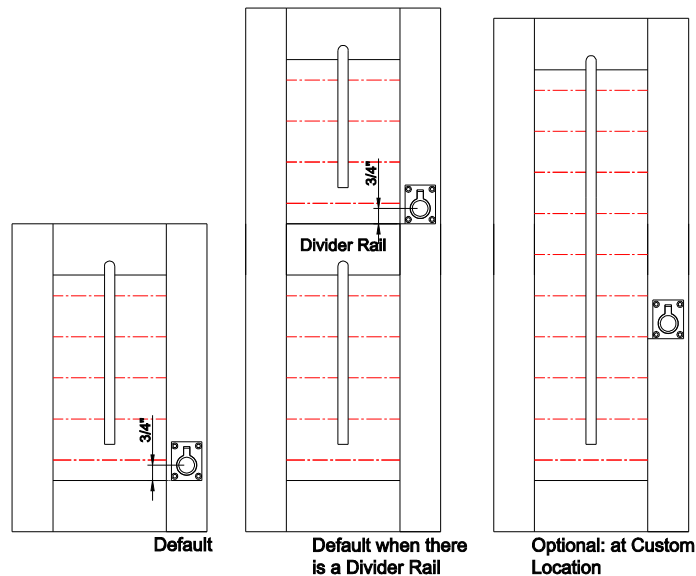
* Surcharge applies. Please see Options and Surcharges page for details.

Hinge color	Crisp Linen	String	Sea Mist	Stone Gray	Brown Gray	Taupe Gray
Ring Pull color	Bisque	Bisque	Brushed Nickel	Brushed Nickel	Brushed Nickel	Brushed Nickel

Color ID	Color Name	New Hinge color (Default)	New Ring pull color	New T post connector color	Invisible Hinge color	Direct Mount 3" Hinge color (Default)
001	Pure White	Pure White	White	Pure White	Pearl Chrome Plated	Pure White
002	Extra White	Silk White	White	Silk White		Silk White
003	Silk White	Silk White	White	Silk White		Silk White
004	Bright White	Silk White	White	Silk White		Silk White
006	Pearl	Pearl	Pearl	Pearl		Pearl
007	Ivory Lace	Bisque	Bisque	Bisque		Bisque
009	Creamy	Pearl	Pearl	Pearl		Pearl
012	Crisp Linen	Crisp Linen	Bisque	Bisque		Bisque
016	Butter	Crisp Linen	Bisque	Bisque		Bisque
019	String	String	Bisque	Bisque		Bisque
030	Moondust	Sea Mist	Brushed Nickel	Nickel Plated		Nickel Plated
032	Sea Mist	Sea Mist	Brushed Nickel	Nickel Plated		Nickel Plated
042	Hall Gray	Sea Mist	Brushed Nickel	Nickel Plated		Nickel Plated
046	Ice	Silk White	White	Silk White		Silk White
048	Chai	Nickel Plated	Brushed Nickel	Nickel Plated		Nickel Plated
049	Stone Gray	Stone Gray	Brushed Nickel	Nickel Plated		Nickel Plated
051	Brown Gray	Brown Gray	Brushed Nickel	Nickel Plated		Nickel Plated
053	Clay	Nickel Plated	Brushed Nickel	Nickel Plated		Nickel Plated
063	Decorators White	Silk White	White	Silk White		Silk White
066	Winchester White 2010	Pearl	Pearl	Pearl		Pearl
073	Sky Gray	Silk White	White	Silk White		Silk White
074	Element Gray	Sea Mist	Brushed Nickel	Nickel Plated		Nickel Plated
075	Storm Gray	Sea Mist	Brushed Nickel	Nickel Plated		Nickel Plated
077	Dawn	Silk White	White	Silk White		Silk White
078	Cloud Blue	Silk White	White	Silk White		Silk White
080	Taupe Gray	Taupe Gray	Brushed Nickel	Nickel Plated		Nickel Plated
836	Classic Black	Black	Black	Black		Black

Position: For different panel configuration, please refer to the location of Panel Lock to show on which stile the pull will be fixed.

* Surcharge applies. Please see Options and Surcharges page for details.

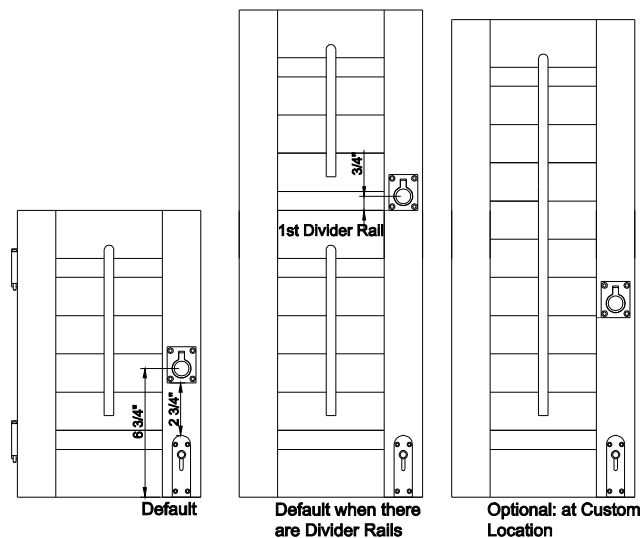


Position:

- A. Above Bottom Rail (Default)
- B. Above 1st Divider Rail (Default when there are Divider Rails)
- C. Custom Location

If both Panel Lock & ring pull are specified, the distance between them is 2 3/4", and the ring pull location is 6 3/4" from the bottom of panel.

When there is no mid rail, ring pull will be just on the top of Panel Lock (2 3/4" above Panel Lock) as default location; if there are mid rails, bottom of ring pull lines up with top of the 1st mid rail as default location.



Position:

- A. 2 3/4" Above Panel Lock (Default when both Ring Pull and Panel Lock are specified)
- B. Above 1st Divider Rail (Default when there are Divider Rails)
- C. Custom Location

Measurements:

- Window size:
 - Measure from the bottom of the window to the center of the ring pull.
- Max frame-to-frame:
 - Measure from the bottom of the frame to the center of the ring pull.

* Surcharge applies. Please see Options and Surcharges page for details.

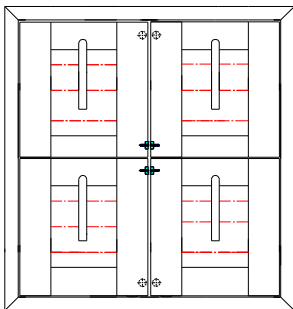
Side Magnet: Available for Butt, rabbet and Astragal stile



Side Magnets will be applied in following situation:

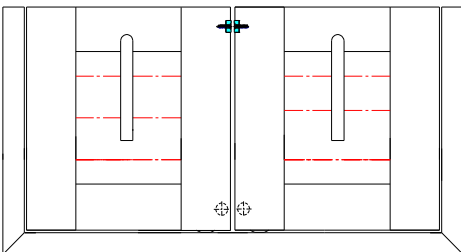
1. Double Hung shutter but without horizontal T post:

Side magnets will be applied to the meeting stiles of the L and R panel. (Default)



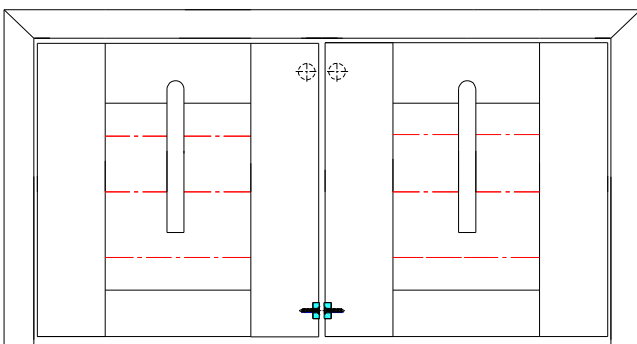
2. Café Shutter

Side magnets will be applied to the meeting stiles of the L and R panel. (Default)



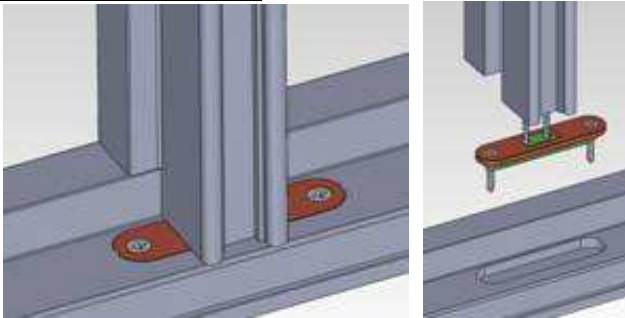
3. No frame or light block or L-shape striker plate on either top or bottom, or if larger than standard top or bottom gap is requested.

Side magnets will be applied to the meeting stiles of the L and R panel. (Optional)



* Surcharge applies. Please see Options and Surcharges page for details.

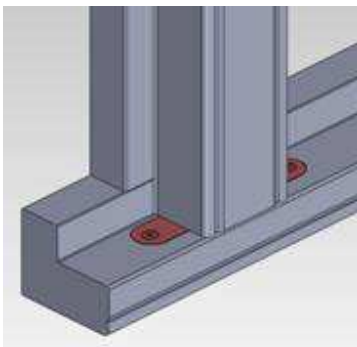
T-Post Connector



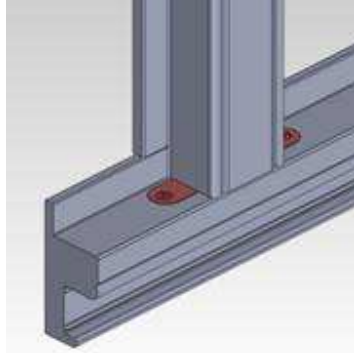
- Available colors: Pure White; White; Pearl; Bisque; Black; Nickel-Plated.
- Available for all types of T Posts (custom-width T posts excluded).

T Post Connector can be used with the following Frames.

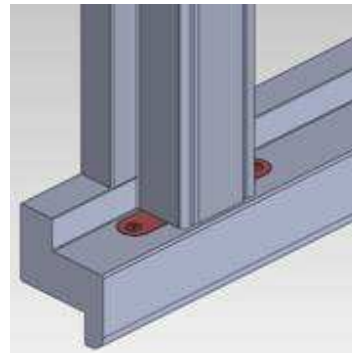
L Frame:



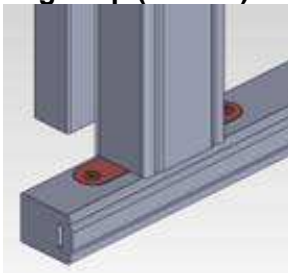
Deco Frame:



Z Frame:



Hang Strip (Beside)



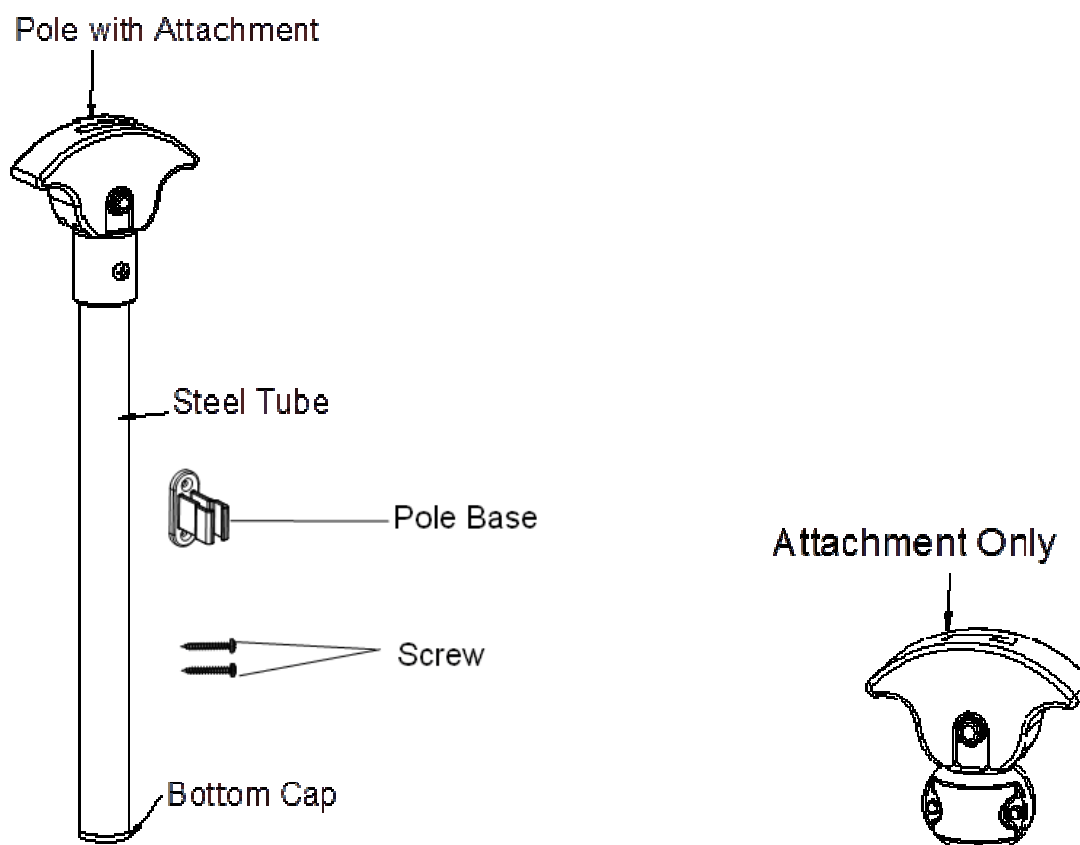
Note:

1. For Horizontal T Post, Hang Strip (Behind) and shutter with 1.5"/2" Sill, T Post connector is not available and T Post will be installed by screws instead;
2. If there is a panel lock which may interfere with the T-Post connector, all the T-Posts for the entire shutter will be installed with screws and the frames to be pre-drilled, even in cases where the panel lock may only interfere with one T-Post;
3. The screw color is nickel-plated regardless of the color of the T Post connector;
4. T post connectors can only be installed on a straight piece, and screws will be used instead for T Post installed on a curved or raked piece.

* Surcharge applies. Please see Options and Surcharges page for details.

Optional Poles:

1. Terminology



Component

NO.	Name	Note
1	Pole with Attachment	Steel tube, Pole Base and Bottom Cap included *Surcharge applies.
2	Attachment only	<ul style="list-style-type: none"> • Compatible with extension poles found in most home improvement stores. • Screw thread (3/4") and thread pitch (1/5") *Surcharge applies.

2. Available Pole Length

Two lengths available:

- 32"

- 43"

* Surcharge applies. Please see Options and Surcharges page for details.

2016 Track Shutters—Bypass

Brightwood
by Norman®

Guidelines and Specs:

<u>Description</u>	<u>Minimum</u>	<u>Maximum</u>		
		1 $\frac{7}{8}$ "	2 $\frac{1}{2}$ " , 3"	3 $\frac{1}{2}$ " ; 4 $\frac{1}{2}$ "
Single-Panel Width (Wood)	6"	30"	36"	42"
Single-Panel Height	10"	132"	132"	132"

Outside Mount

Max frame-to-frame width: window width + 3"

Max frame-to-frame height: window height + 4 $\frac{1}{2}$ "

Semi-Inside Mount

Max frame-to-frame width: window width - $\frac{1}{8}$ "

Max frame-to-frame height: window height + 1 $\frac{3}{8}$ "

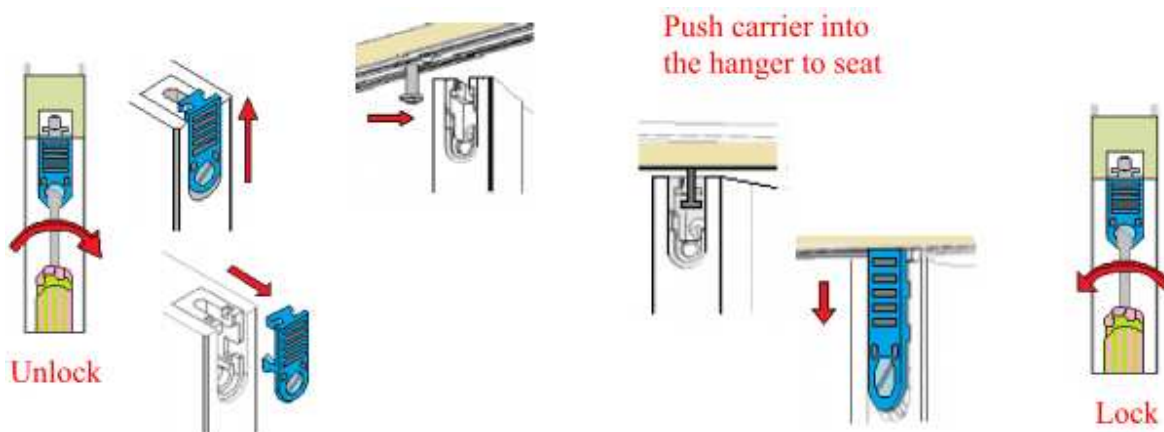
Inside Mount

Max frame-to-frame width: window width - $\frac{1}{8}$ "

Max frame-to-frame height: window height - $\frac{1}{8}$ "

Carriers are in the Track / Hangers are in the Panel:

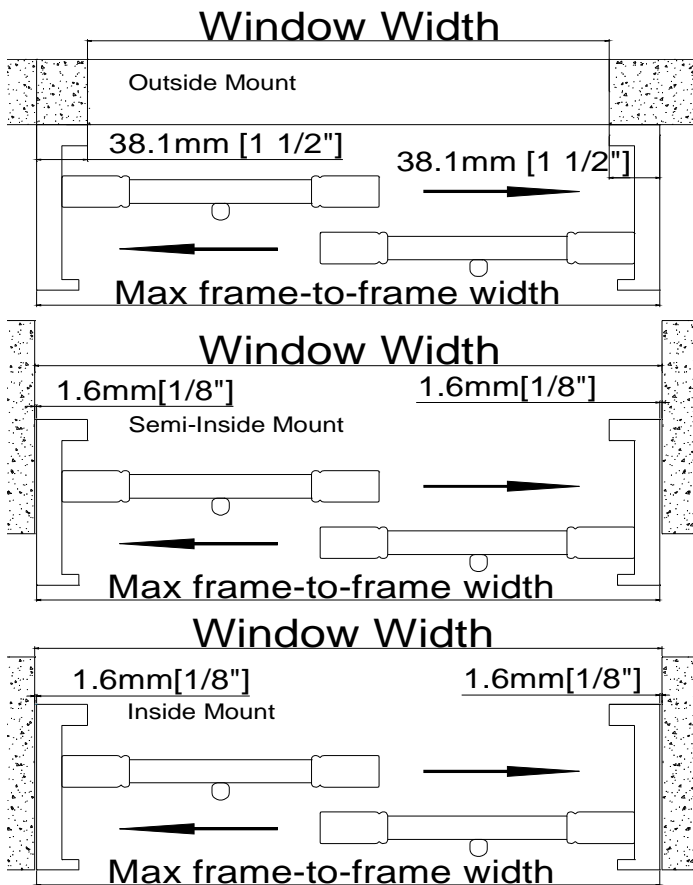
Adjustments to panel alignment are made by turning the Carrier Bolt with the wrench included in the Hardware Box



2016 Track Shutters—Bypass

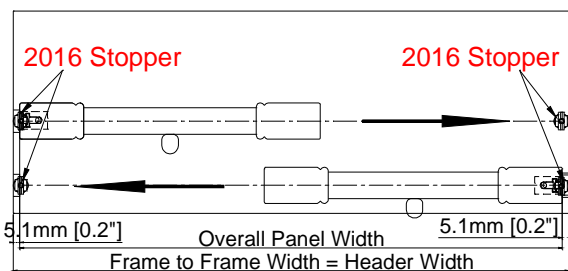
Brightwood
by Norman®

Top View

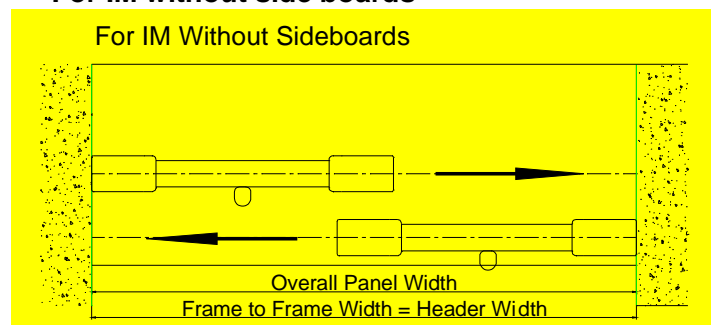


Size Definition

For Semi-Inside/OM without side boards



For IM without side boards



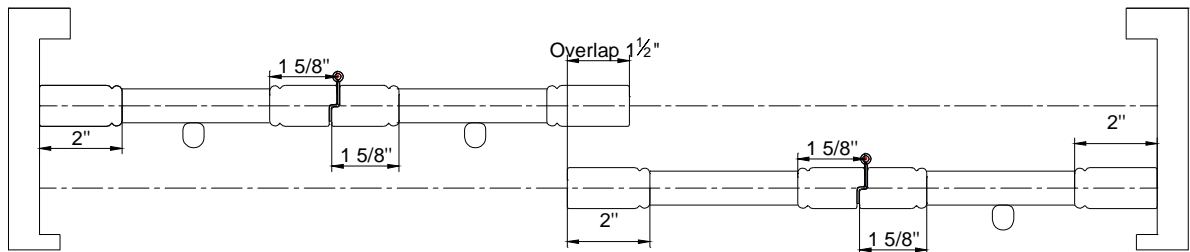
Note: For Semi-Inside/OM bypass without side boards but with fascia return, 2016 Stopper will be supplied.

2016 Track Shutters—Bypass

Brightwood
by Norman®

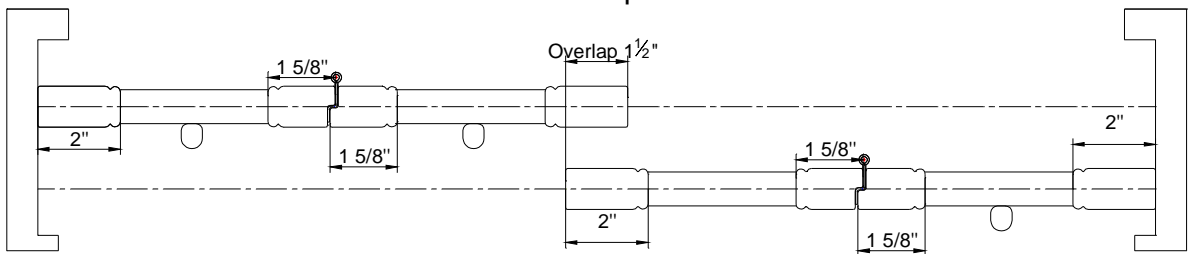
Top View

Combi - joined Panels (optional)

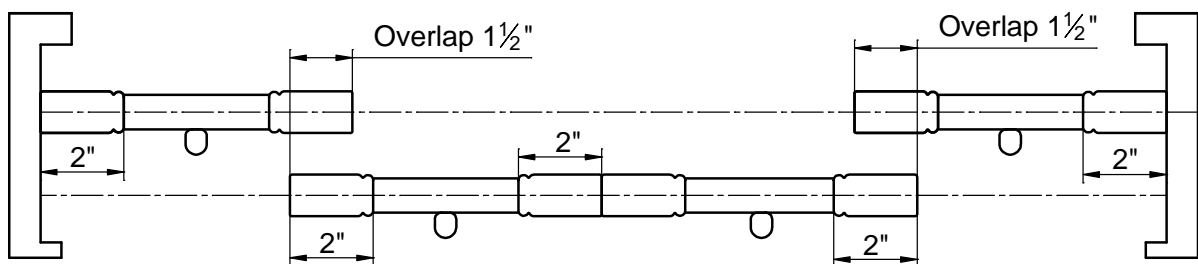


For shutters with 4 or more panels, please select “side open” or “center open”

Side Open



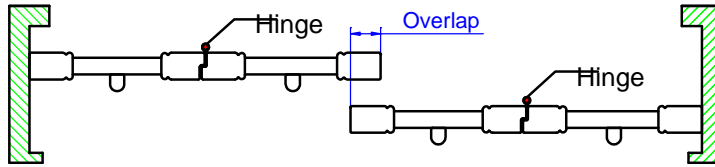
Center Open



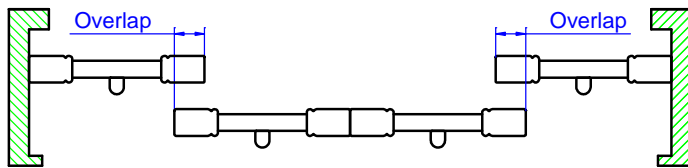
2016 Track Shutters—Bypass

Brightwood[™]
by Norman[®]

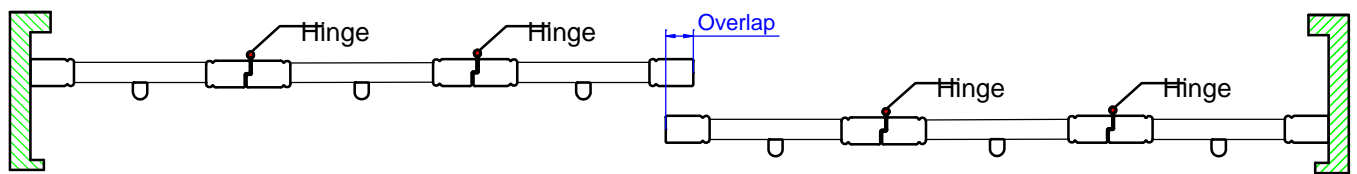
4 panels side open w/Rabbit stile



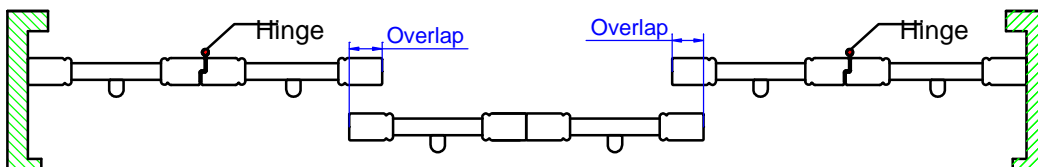
4 panels center open w/Rabbit stile



6 panels side open w/Rabbit stile



6 panels center open w/Rabbit stile



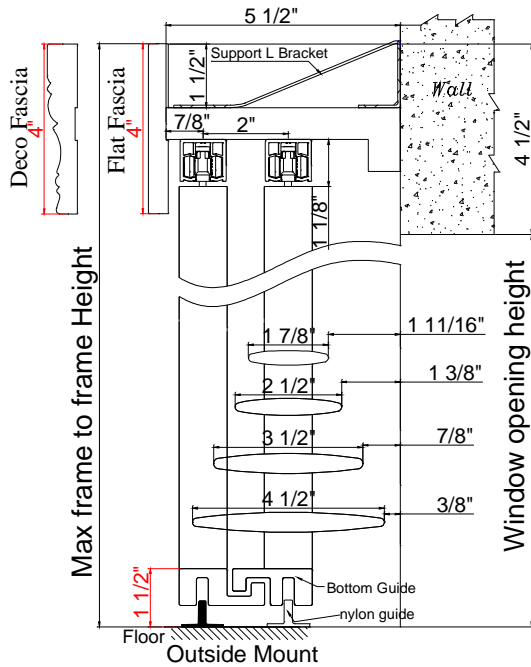
Stile: Only 2", 2 1/4" butt and rabbit stiles are available,
1 5/8" rabbit stile only used for combi-joined panels.
Center stile is not available.

2016 Track Shutters—Bypass

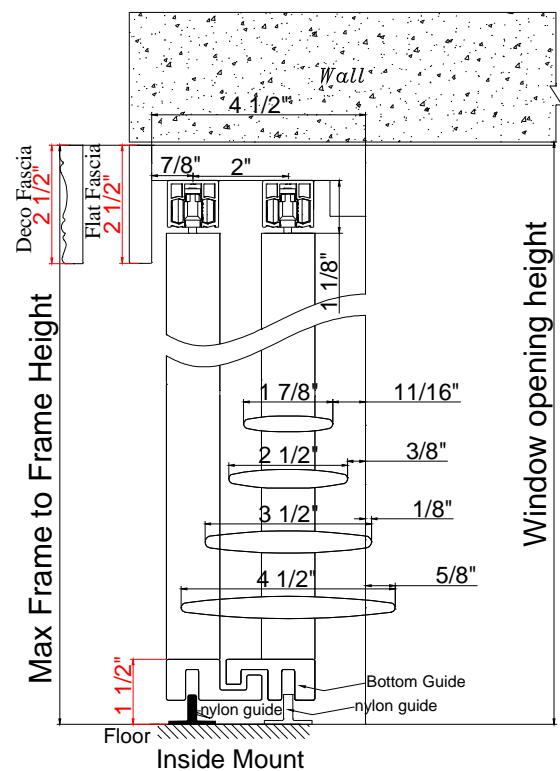
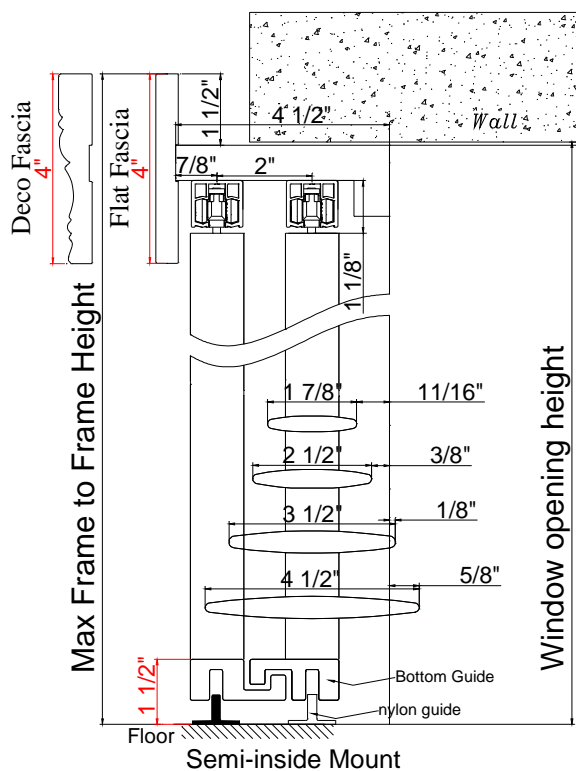
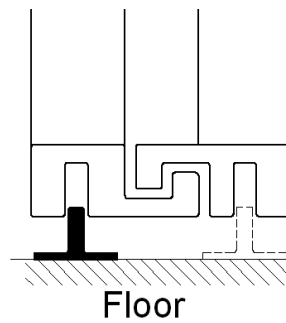
Brightwood
by Norman®

Mounting Options (Closed Bypass)

Side View



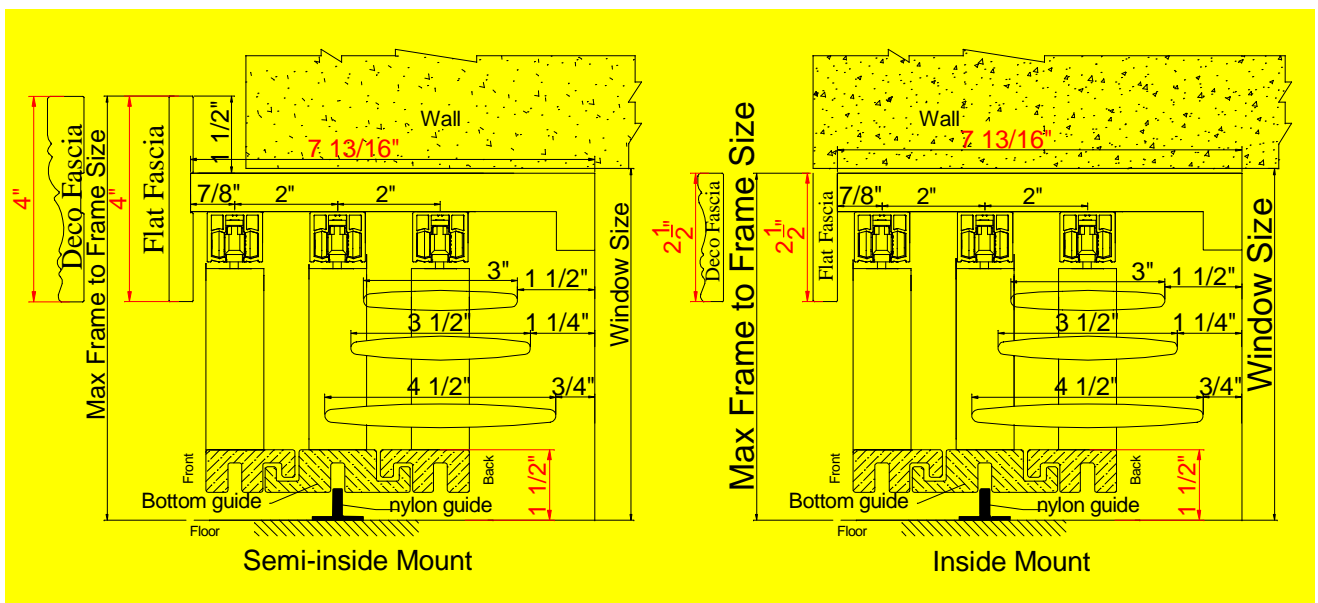
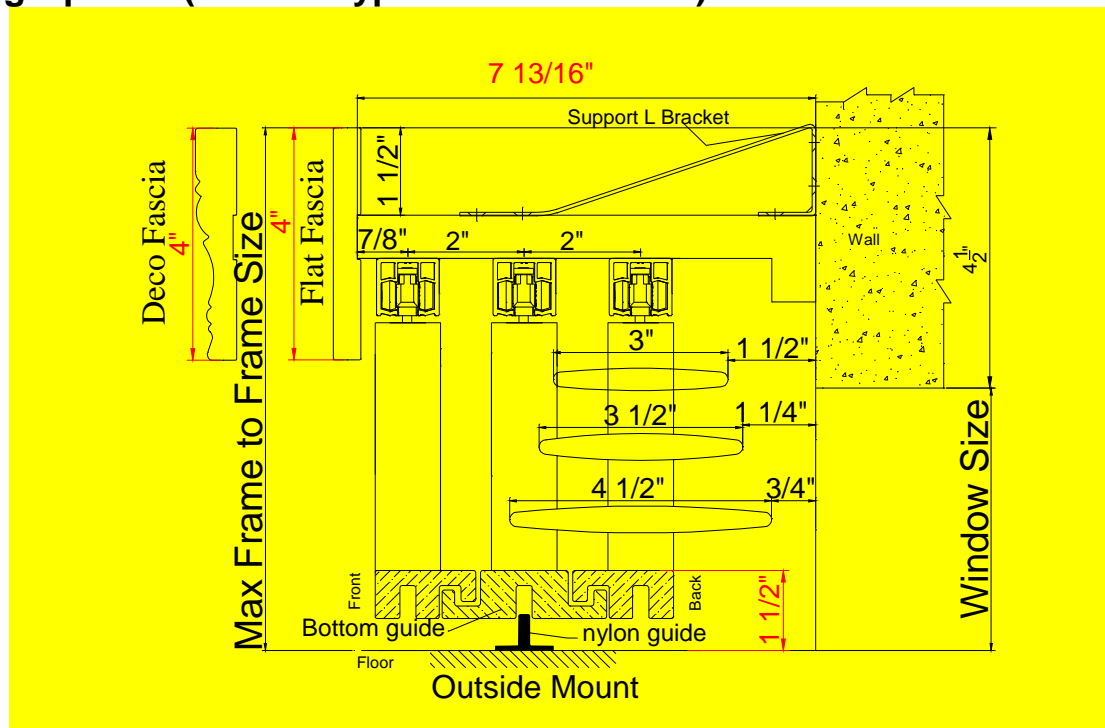
Bottom Guide



2016 Track Shutters—Bypass

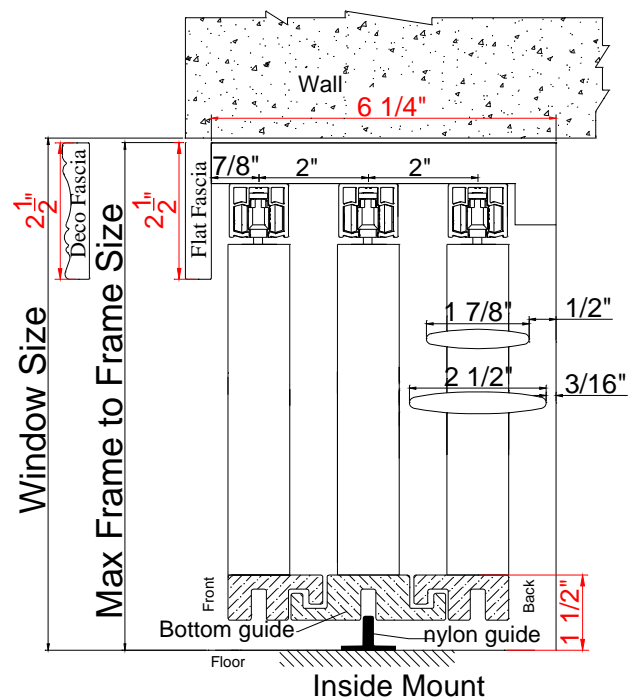
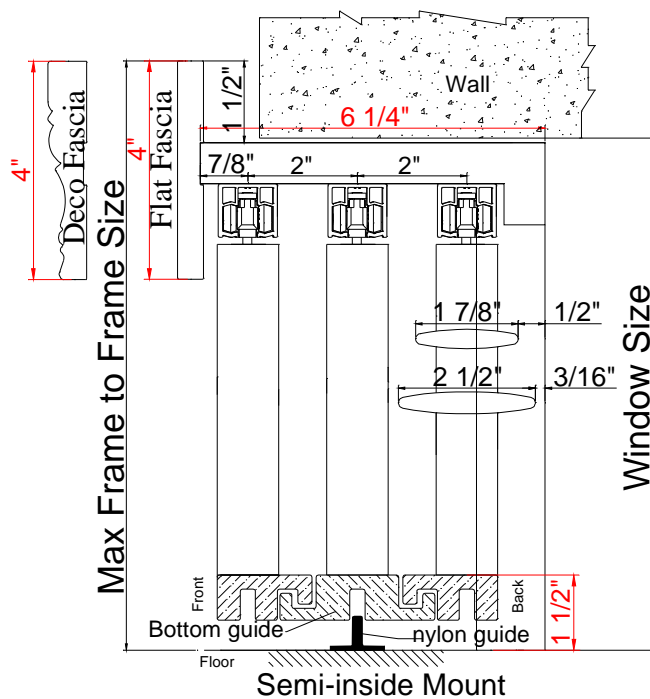
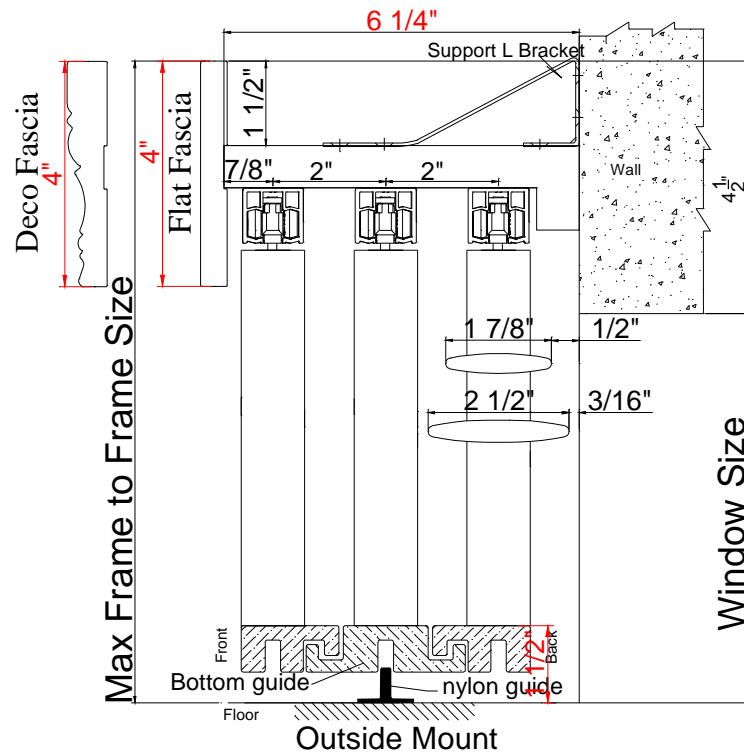
Brightwood
by Norman[®]

Mounting Options (Closed Bypass with 3 Tracks):



2016 Track Shutters—Bypass

Brightwood
by Norman®



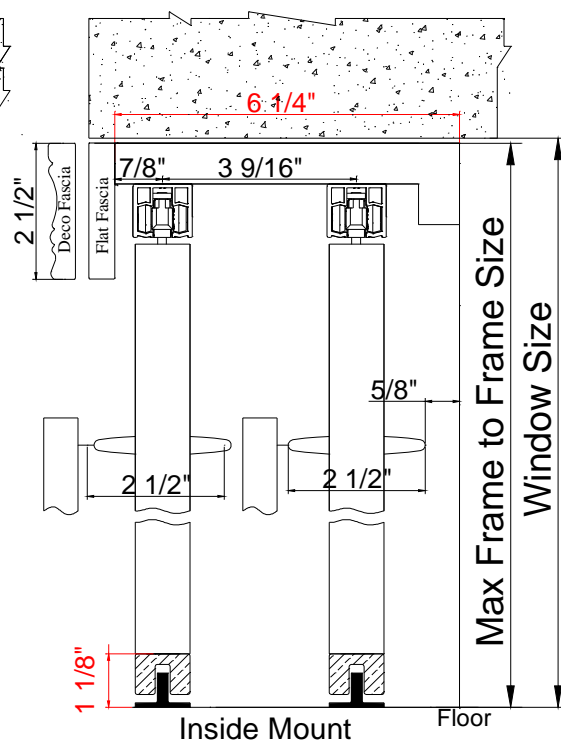
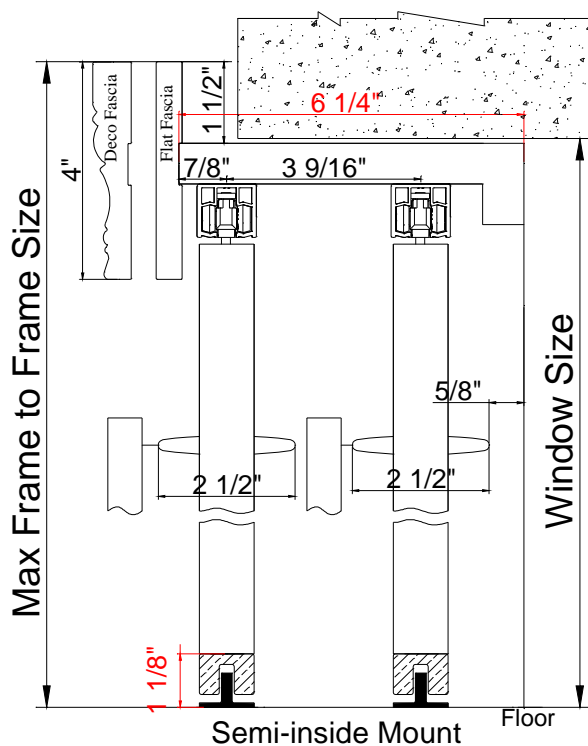
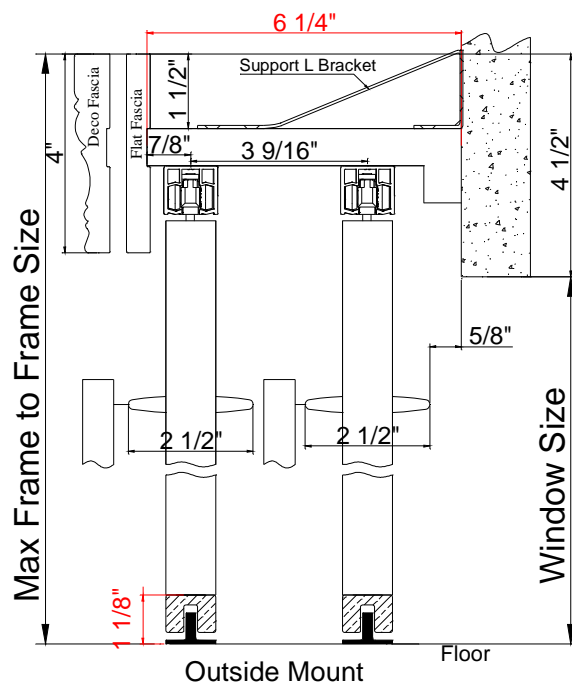
2016 Track Shutters—Bypass

Brightwood
by Norman®

Mounting Options (Opened Bypass)

Only available in 2 ½", 3" and 3 ½" louver sizes

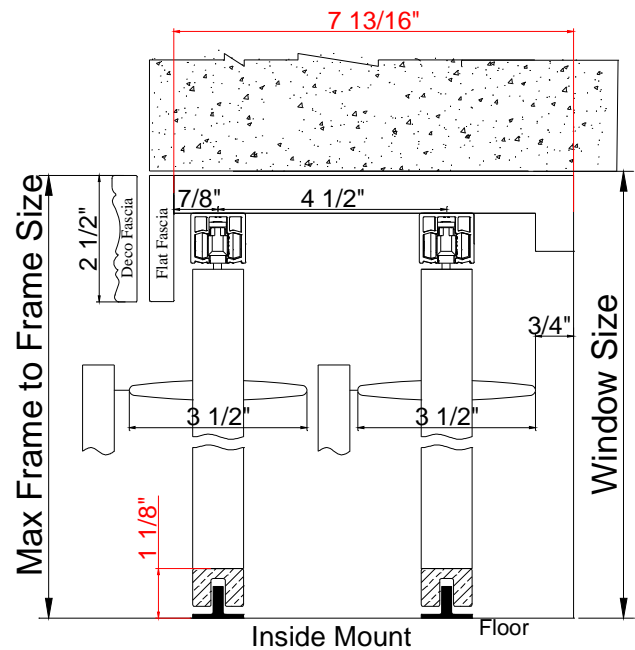
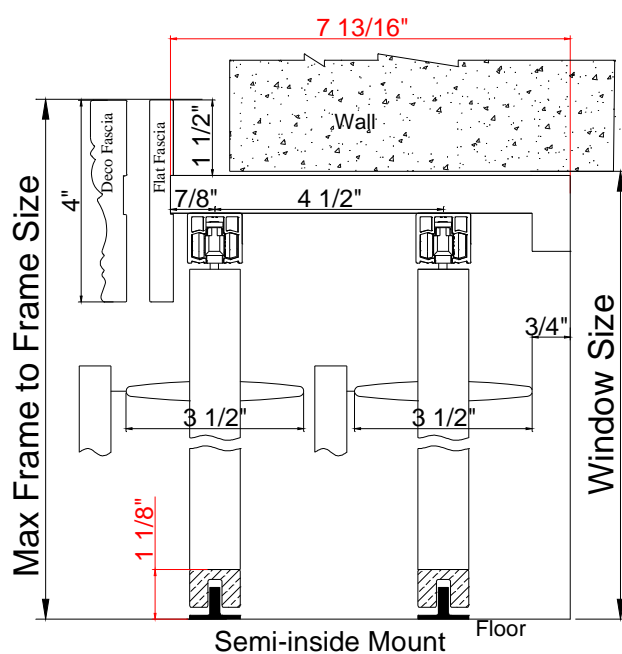
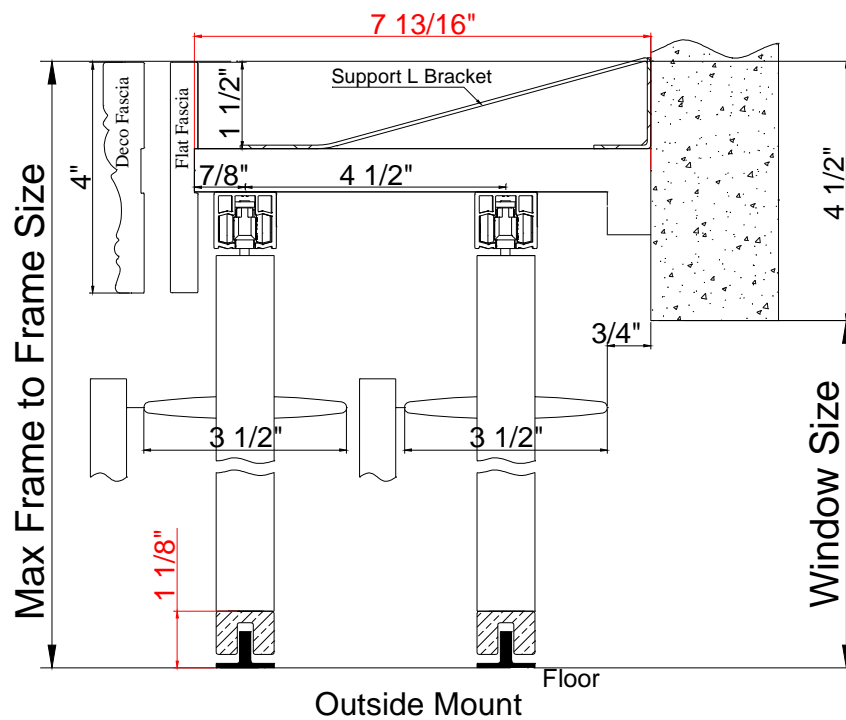
2 ½" Louver



2016 Track Shutters—Bypass

Brightwood
by Norman®

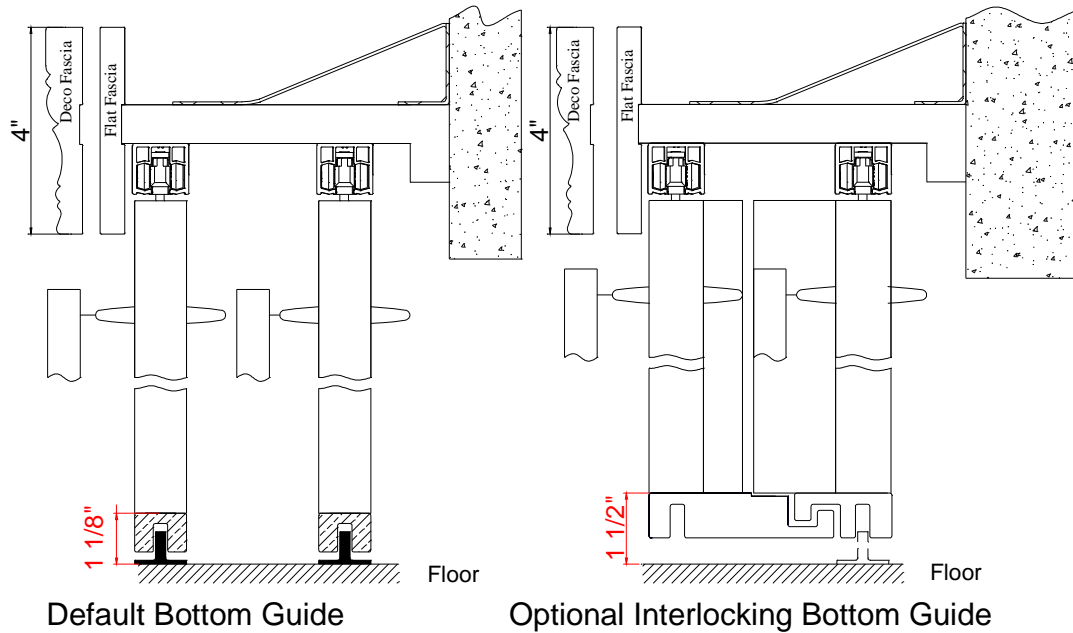
3" / 3 1/2" Louver



2016 Track Shutters—Bypass

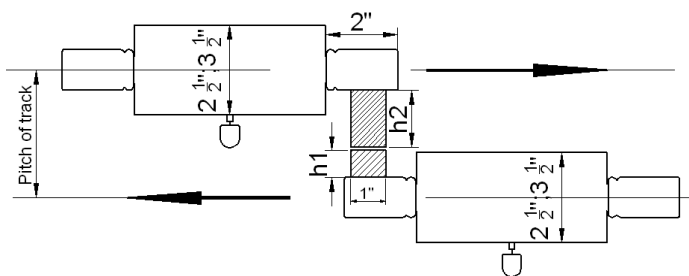
Brightwood
by Norman®

Open By Pass: has 2 kinds of bottom guide

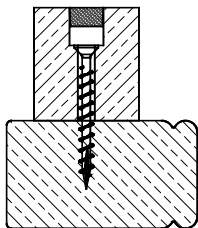


Opened Bypass

Top View



Note: The light block for open bypass will be changed to use screws with wood plugs instead of current dowels.



Separation of track

Louver	U shape bottom guide		Interlocking bottom guide	
	Regular Tilt Rod	Invisible tilt	Regular Tilt Rod	Invisible tilt
2.5"	3 9/16"	2 3/4"	3 9/16"	3 9/16"
3" / 3.5"	4 1/2"	3 5/8"	4 1/2"	4 1/2"

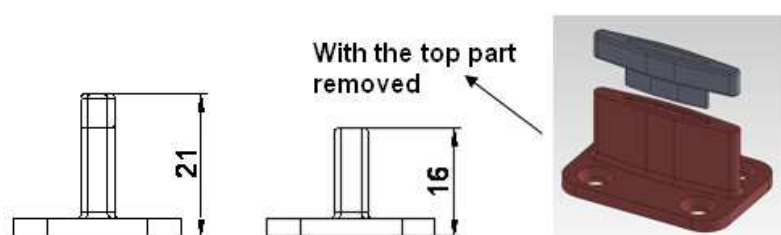
2016 Track Shutters—Bypass

Brightwood
by Norman®

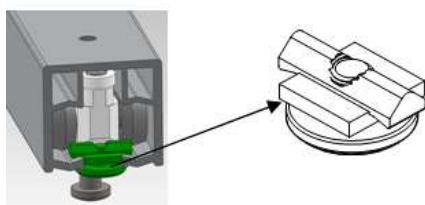
Light block thickness for panel

Louver		U shape bottom guide		Interlocking bottom guide	
		Regular Tilt Rod	Invisible tilt	Regular Tilt Rod	Invisible tilt
2.5"	h1	3/4"	3/4"	3/4"	3/4"
	h2	1 9/16"	3/4"	1 9/16"	1 9/16"
3" / 3.5"	h1	1 3/16"	1 3/16"	1 3/16"	1 3/16"
	h2	1 15/16"	1 3/16"	1 15/16"	1 15/16"

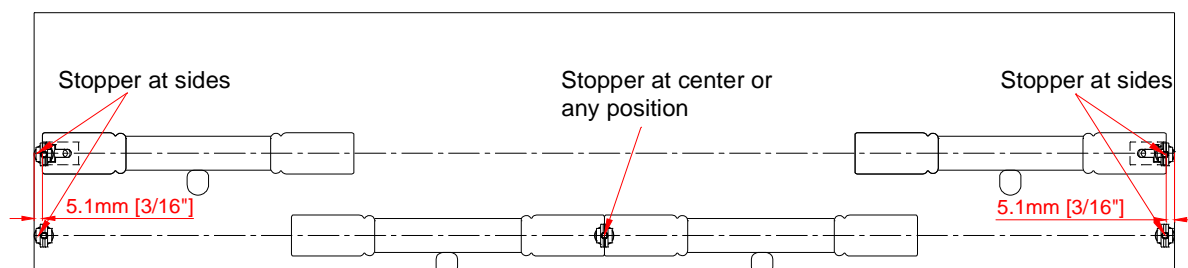
Nylon Guide: The nylon guide is composed by 2 parts and will be supplied as a whole set by default (bottom part 16mm and top part 5mm), please remove the top part if necessary.



The 2016 Stopper



For outside mount/semi-inside mount bypass without side boards but with fascia returns, the 2016 Stopper will be supplied by default. The gap between the fascia return and the panel is 5mm each side. The 2016 stopper can also be used in the center or any position of the top track as an option. Please see drawing below to show the gap.



2016 Track Shutters—Bypass



Track Shutters Framing Materials

Framing	Size			Pc(s)
L Shape Header	Header (Closed Bypass)	Header (Opened Bypass)	Supporting Strip	
(2 in 1)	$\frac{3}{4}" \times 5\frac{1}{2}"^*$ (Default for Outside Mount; Optional for Semi-Inside and Inside Mount)	$\frac{3}{4}" \times 6\frac{1}{4}"^*$ (2½" Louver)	$\frac{3}{4}" \times \frac{3}{4}"$	
Header with Supporting Strip	$\frac{3}{4}" \times 4\frac{1}{2}"^*$ (Default for Semi-Inside and Inside Mount; Optional for Outside Mount)	$\frac{3}{4}" \times 7\frac{13}{16}"^*$ (3½" Louver)		
	Custom * ≤ 8"	Custom * ≤ 8"		
U Shape Side Frame	Side Frame (Closed Bypass)	Side Frame (Opened Bypass)	Supporting Strip	Side Fascia
(3 in 1)	$\frac{3}{4}" \times 5\frac{7}{8}"^*$ (Default for Outside Mount; Optional for Semi-Inside and Inside Mount)	$\frac{3}{4}" \times 6\frac{5}{8}"^*$ (2½" Louver)	$\frac{3}{4}" \times \frac{3}{4}"$	$\frac{3}{8}" \times 1\frac{1}{4}"$
Side Frame with Supporting Strip & Side Fascia	$\frac{3}{4}" \times 4\frac{7}{8}"^*$ (Default for Semi-Inside and Inside Mount; Optional for Outside Mount)	$\frac{3}{4}" \times 8\frac{1}{4}"^*$ (3½" Louver)		
	Custom * ≤ 8"	Custom * ≤ 8"		
Top Fascia (Plain/Deco)	4" (Semi-inside and Outside Mount)			1 pc
	$\frac{1}{2}" \times 2\frac{1}{2}"$ (Inside Mount)			
Top Fascia Return	4" (Semi-inside and Outside Mount)			2 pcs
	N/A (Inside Mount)			

Note:

- When the header size is $4\frac{1}{2}"^*$, $5\frac{1}{2}"^*$, $6\frac{1}{4}"^*$ or $7\frac{13}{16}"^*$, the L Shape header and the U Shape Side Frame will be sent integrally. That is:
 1. The header and the supporting strip will be sent integrally as L Shape Header;
 2. The side frame, supporting strip and the side fascia will be sent integrally as U Shape Side Frame.
- For any custom header sizes other than $4\frac{1}{2}"^*$, $5\frac{1}{2}"^*$, $6\frac{1}{4}"^*$ or $7\frac{13}{16}"^*$, the L Shape Header and the U Shape Side Frame will be sent separately. That is:
 1. The header and the supporting strip will be sent separately for L Shape Header;
 2. The side frame, supporting strip and the side fascia will be sent separately for U Shape Side Frame.

2016 Track Shutters—Bypass



Hardware Box

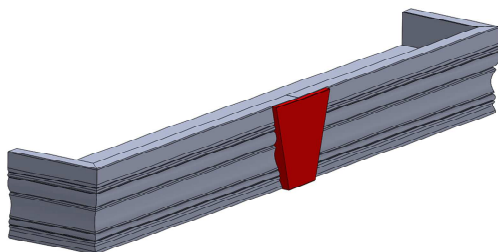
Hardware Box
Part
Wrench
Nylon Guide
$\frac{3}{4}$ " screws for Nylon Guide
Support L Bracket (based on the length of header)
$2 \frac{1}{2}$ " screws for support L bracket
$\frac{3}{4}$ " screws for support L bracket

Keystone for Fascia of the Track Shutter

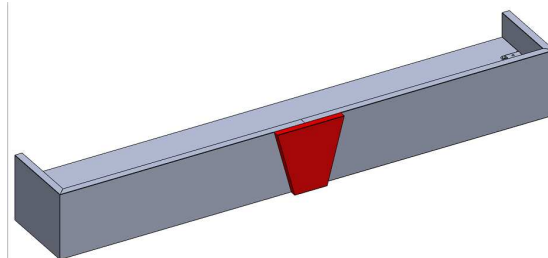
When fascia length exceeds the limitation and needs to split, keystone design fascia will be supplied without surcharge for track shutters.

For fascia length within the split limitation, keystone can also be supplied as an option with surcharge.

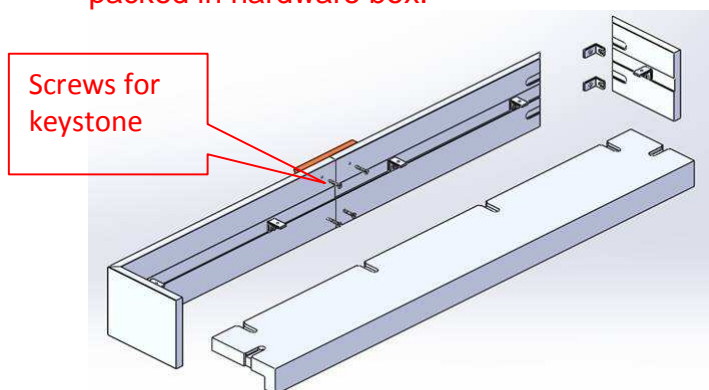
For Deco Fascia:



For Plain Fascia:



The keystone will be installed by screws. We will pre-drill the screw holes and the screws will be packed in hardware box.



2016 Track Shutters—Bypass

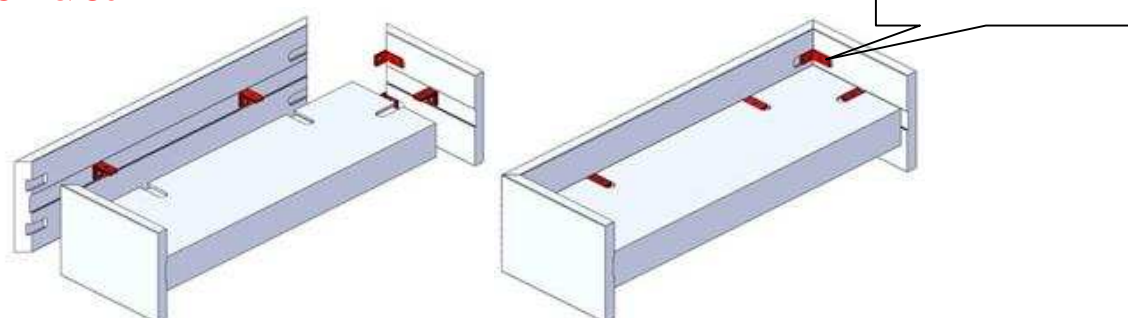
Brightwood[™]
by Norman[®]

Plastic L Bracket to Connect the Header, Fascia & Fascia Returns

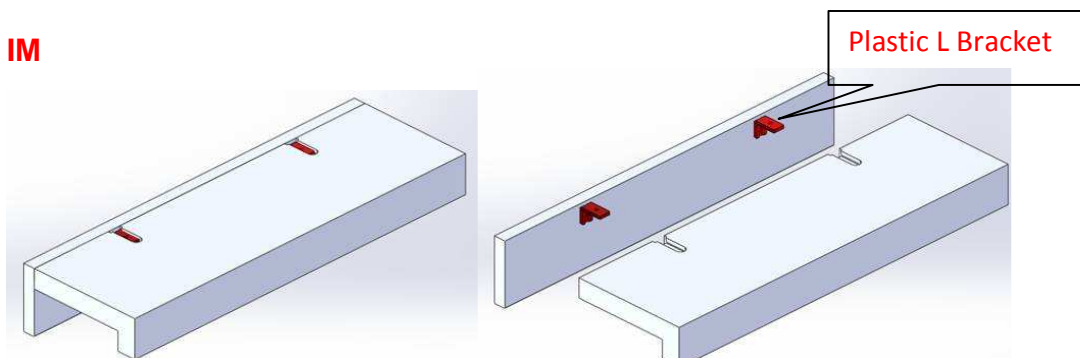


L Bracket will be used to connect the header, fascia and fascia returns for Bypass shutter. This applies for Inside Mount, Semi-Inside Mount & Outside Mount.

OM & Semi-IM



IM



Bi-fold 180[™]

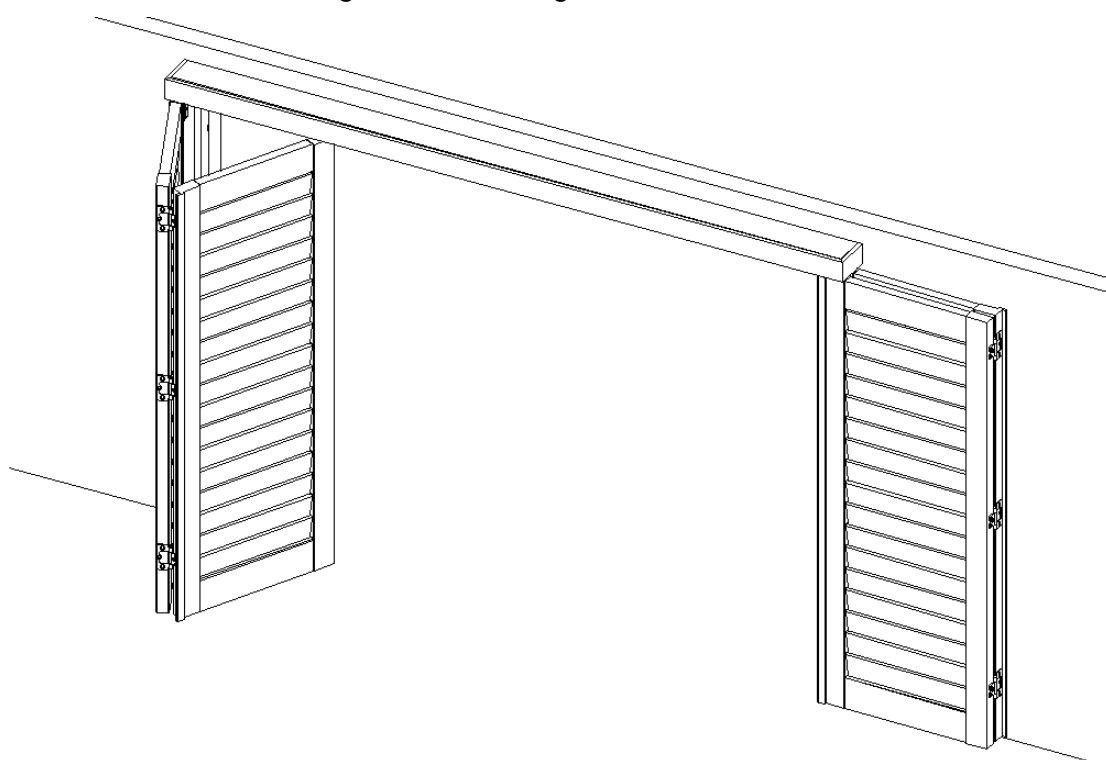
Guidelines

<u>Description</u>	<u>Minimum</u>	<u>Maximum</u>
Single-Panel Width (Bi-fold Track)	6"	26"
Single-Panel Width (LLL/RRR)	6"	20"
Single-Panel Height	10"	132"

Outside Mount

Max frame-to-frame width: window width + 3 1/2"

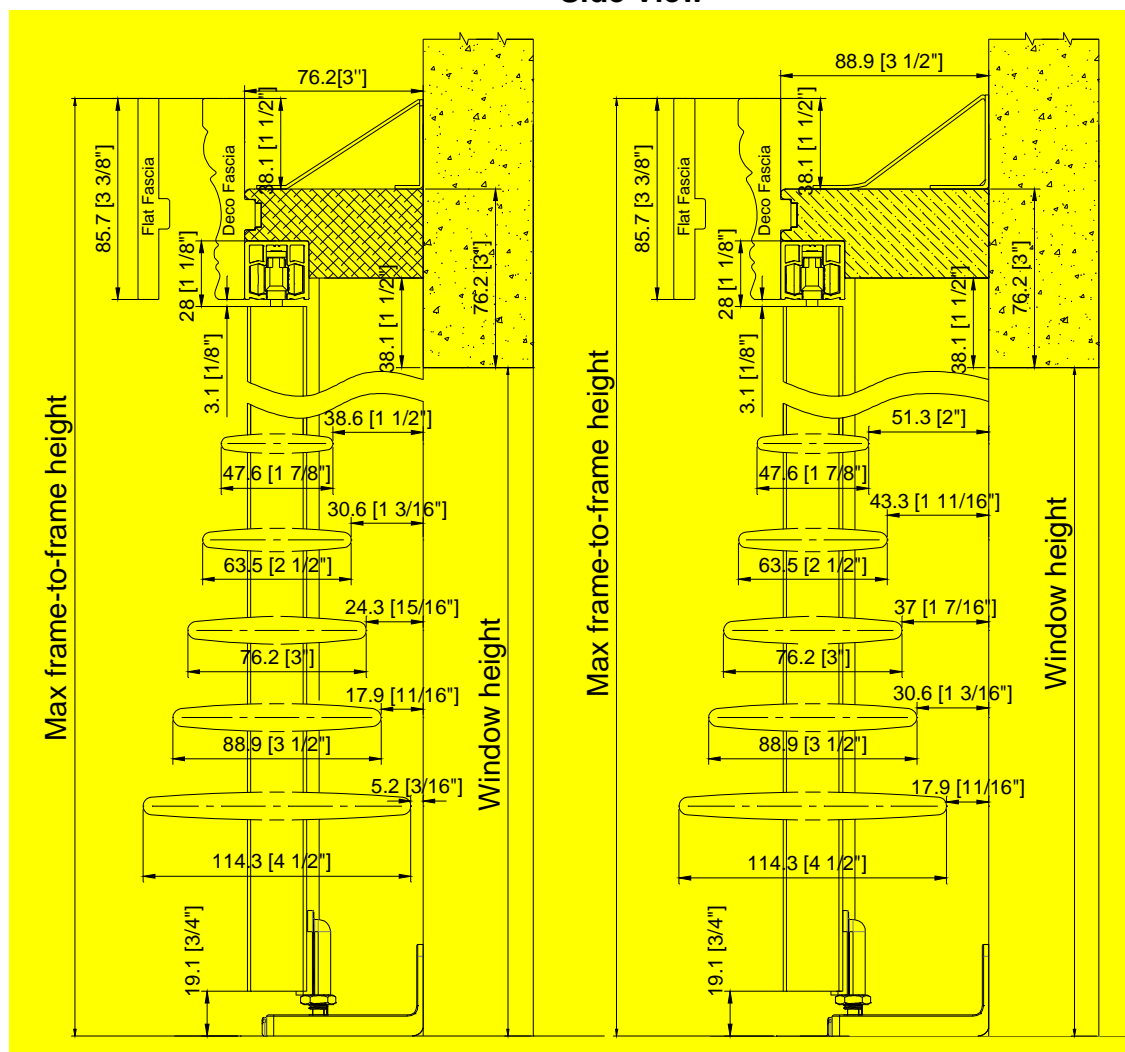
Max frame-to-frame height: window height + 4 1/2"



- Track is pre-installed on the header; standard 1 track only.

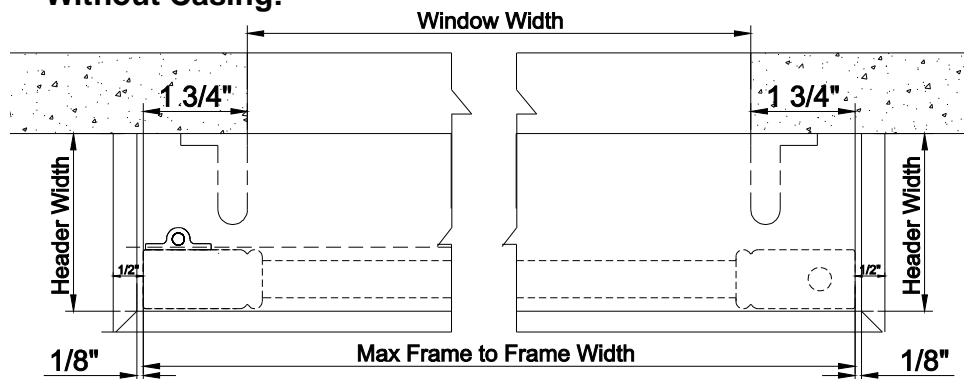
Mounting Options: Outside Mount only

Side View



Top View

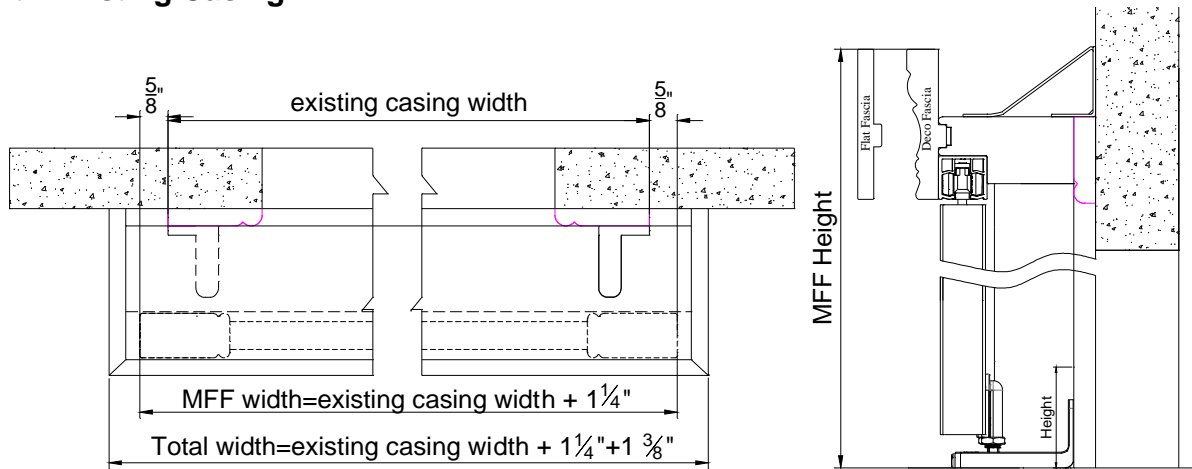
Without Casing:



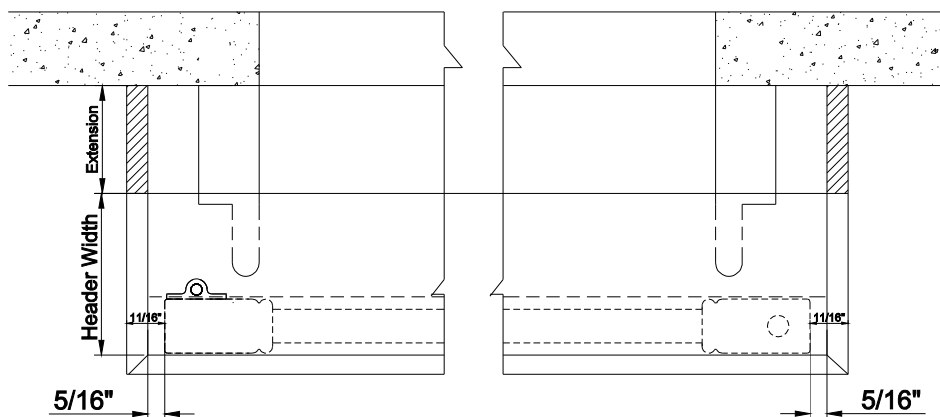
Note:

- ◇ Fascia return will protrude the panel about 1/2" for each side.
- ◇ The header will protrude the panel about 1/8" for each side.
- ◇ Header, light blocks, and bottom pivot bracket(s) must be installed on a flat surface.

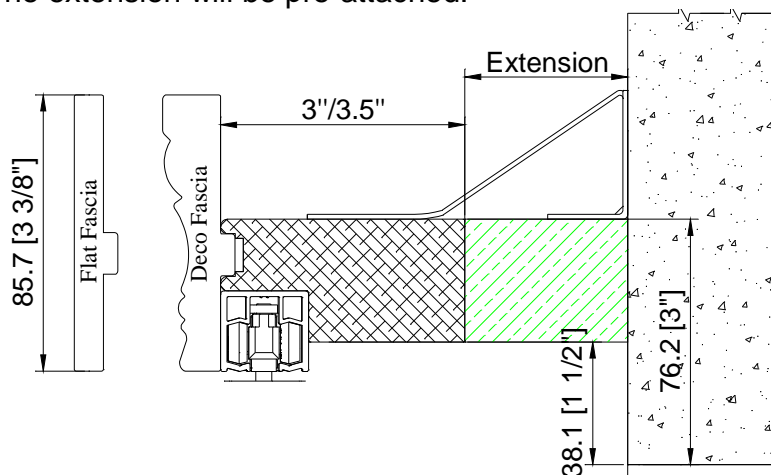
With Existing Casing:



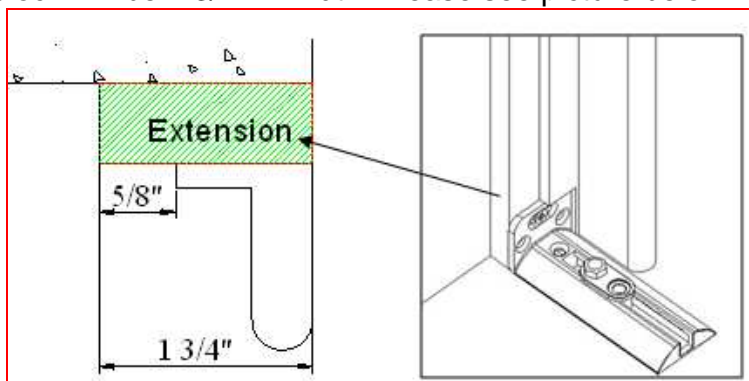
- ✧ Header Extension: Optional
- ✧ Custom extension up to 2" for Header
- ✧ When extension is needed, the header will protrude the panel 5/16" for each side and the fascia return will protrude the panel 11/16" for each side.



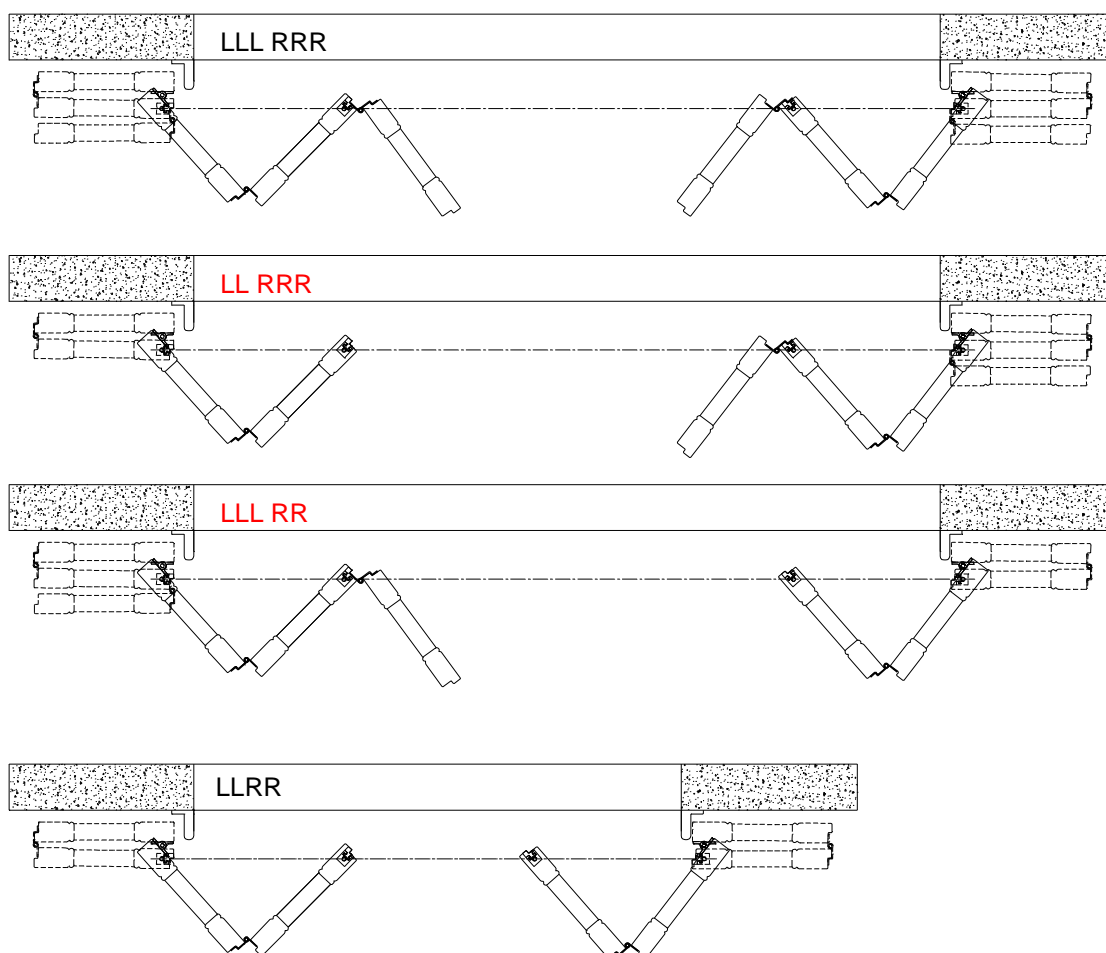
The extension will be pre-attached.

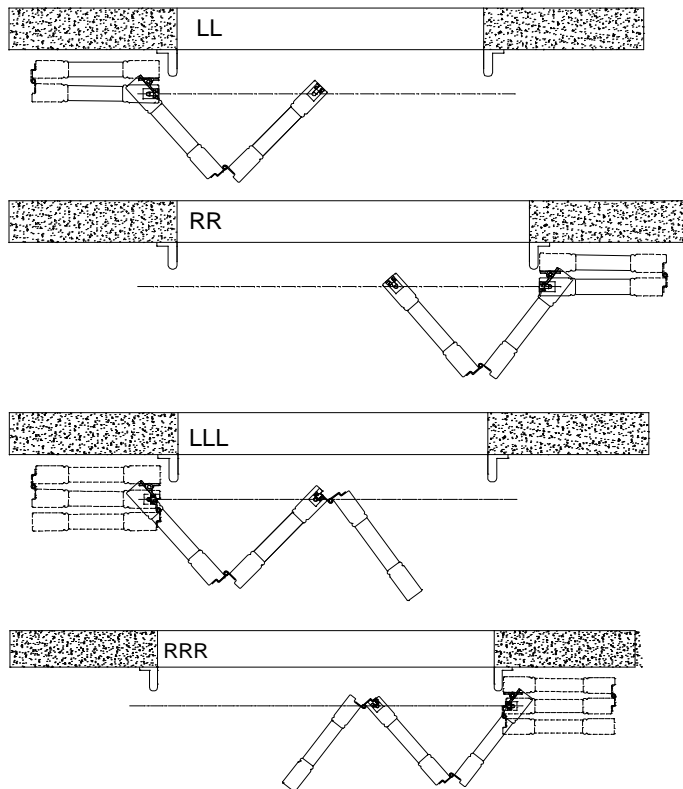


For 180 Bi-fold, if Bottom Pivot L Bracket is required, the extension for the L shape light block will be $1\frac{3}{4}$ " in width. Please see picture below:



Panel Configuration : Only 2", 2 1/4" rabbet and butt stiles are available. Center stile is not available.





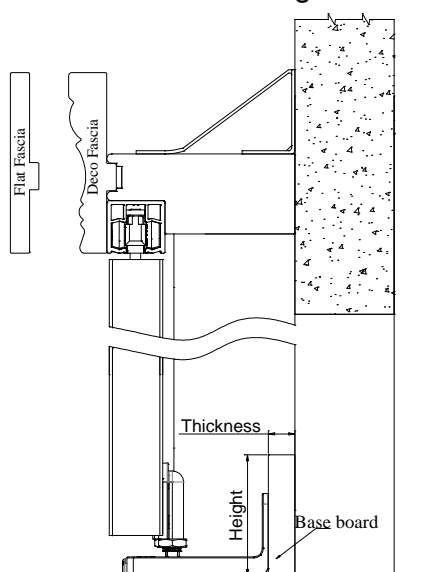
Notes:

If there is no baseboard to the wall, 3" header can be used.

If there is baseboard to the wall, then it should be as below:

1. If base board thickness is less or equal to 5/8", 3 1/2" header can be used.
2. If base board thickness is over 5/8", it is suggest using the 3" header with build out. And the build out thickness=base board thickness-1/8".

Please see the drawing below:



180° Bi-fold Track Shutters Framing Materials

Type	Header Dimension	Top Fascia Dimension	L Shape Light Block Strip Dimension
Header & Top Fascia & Light Block Strip	3"	3 3/8"	1 9/16"
	3 1/2"		2 1/16"

180° Bi-fold Track Shutters Hardware Box

Parts
Wrench
Hinge Pin
Support L Bracket (based on the length of header)
2 ½ " screws for support L bracket
¾ " screws for support L bracket
Bottom Pivot Bracket
1 ½ " screws for bottom pivot bracket
2 ½ " screws for Frame with predrilled screw holes

Bi-fold 90[™]

Guidelines and Specs:

<u>Description</u>	<u>Minimum</u>	<u>Maximum</u>
Single-Panel Width (Bi-fold Track)	6"	26"
Single-Panel Width (Multifold track up to 4 panels)	6"	20"
Single-Panel Height	10"	132"

Outside Mount

Max frame-to-frame width: window width + 3 1/2"

Max frame-to-frame height: window height + 4 1/2"

Semi-Inside Mount

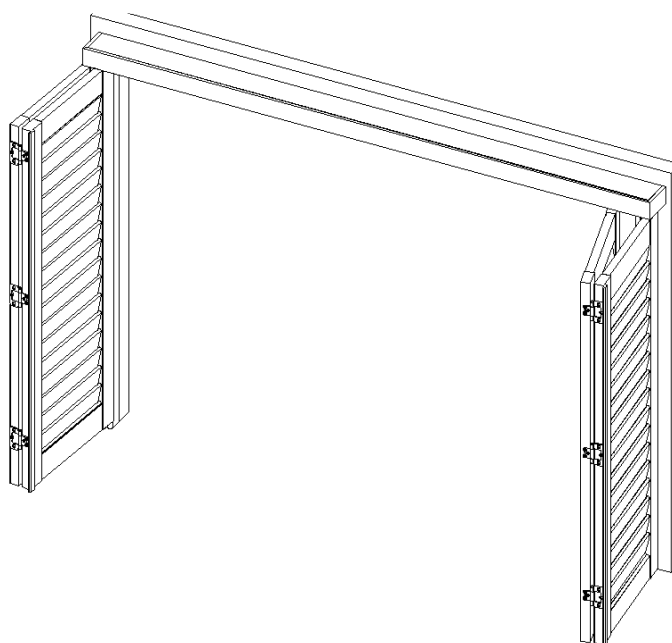
Max frame-to-frame width: window width - 1/8"

Max frame-to-frame height: window height + 1 3/8"

Inside Mount

Max frame-to-frame width: window width - 1/8"

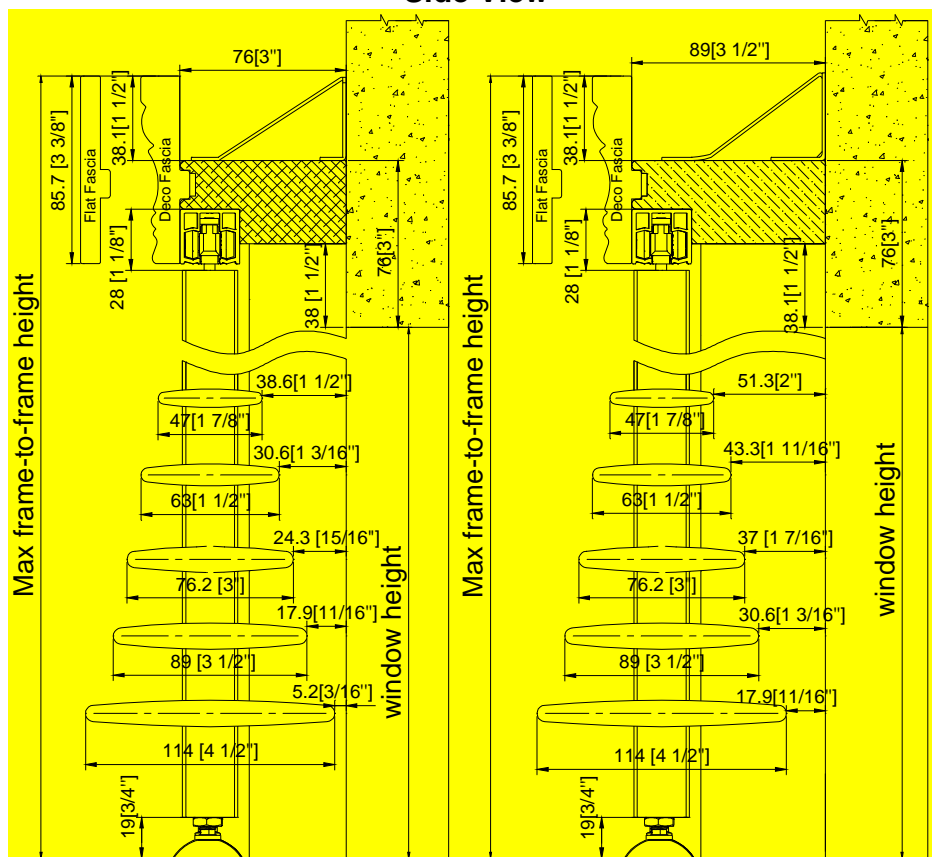
Max frame-to-frame height: window height - 1/8"



Track is pre-installed on the header; standard 1 track only.

Mounting Options: Outside Mount

Side View

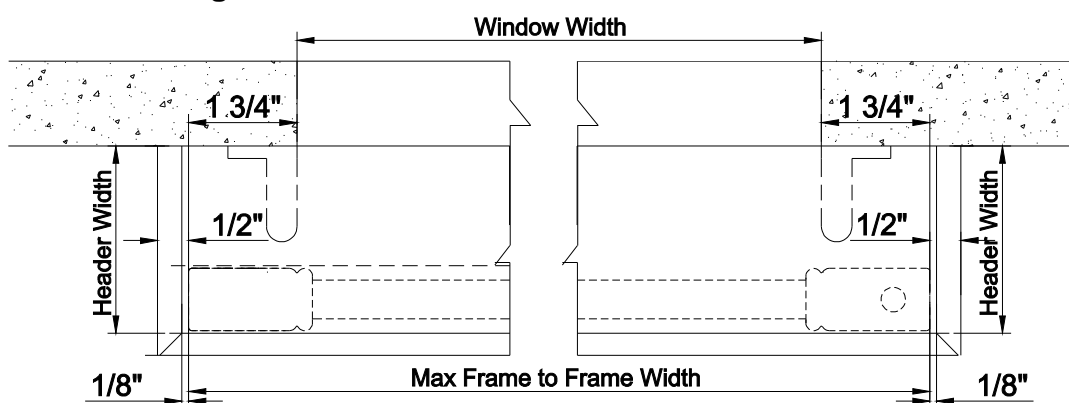


Top View

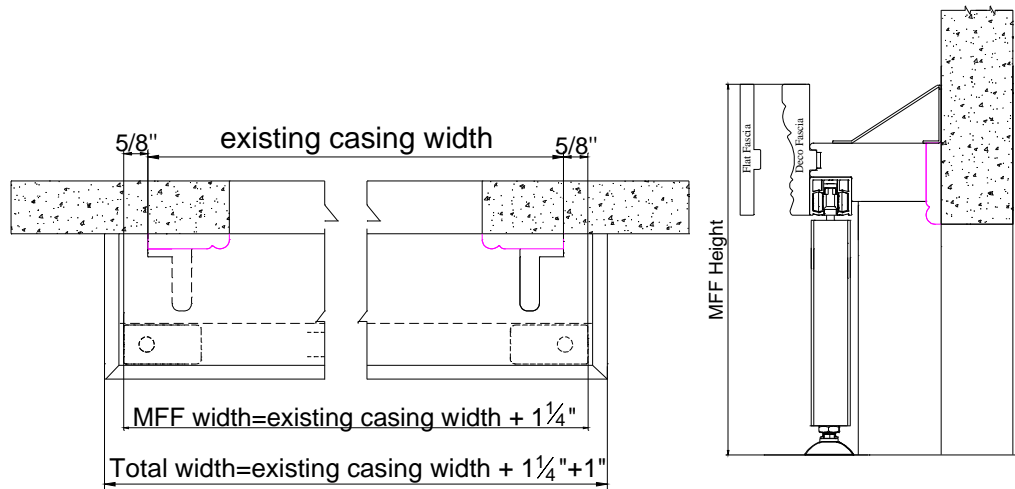
Without Casing:

Note:

- ◇ Fascia return will protrude the panel about 1/2" for each side.
- ◇ The header will protrude the panel about 1/8" for each side.
- ◇ Header, light blocks, and bottom pivot bracket(s) must be installed on a flat surface.

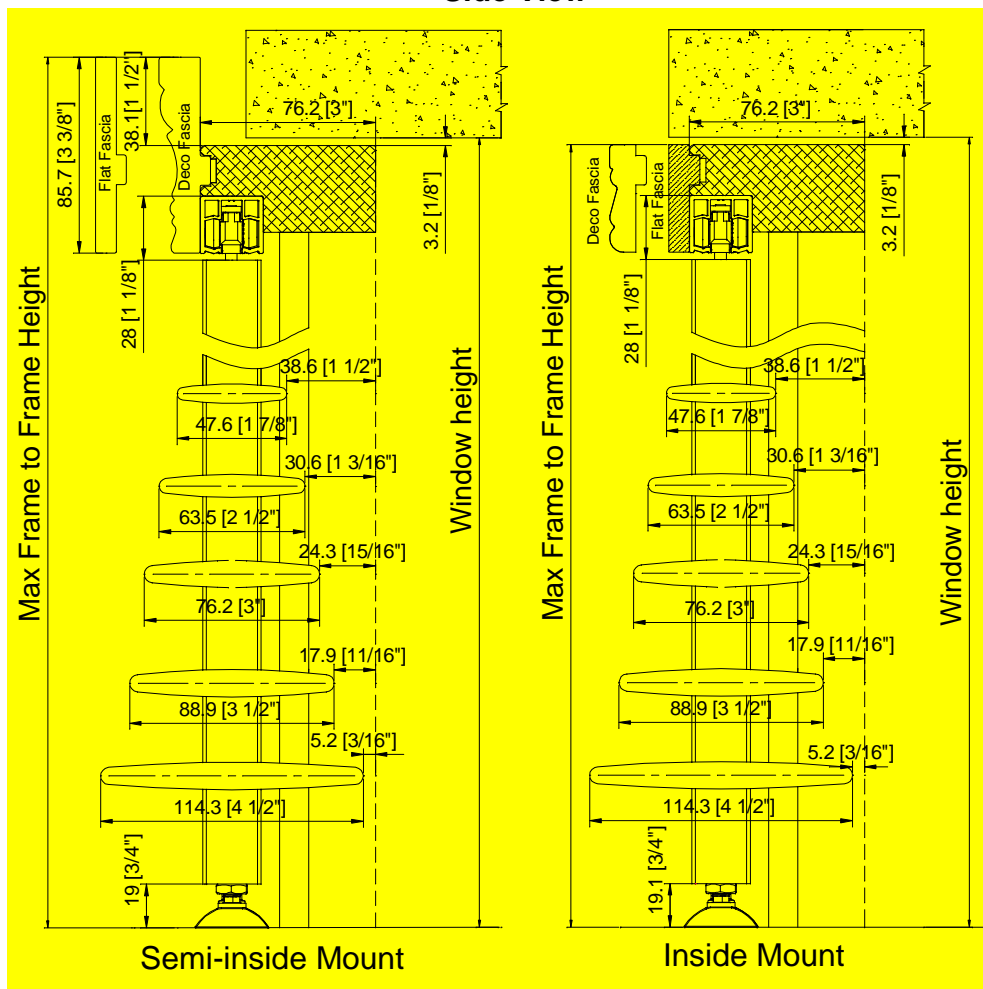


With Existing Casing:

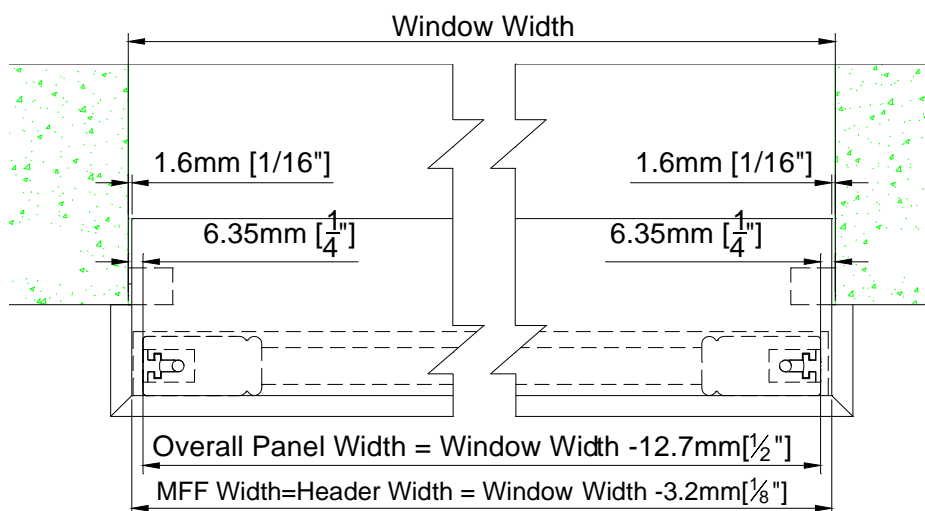


Semi-Inside/Inside Mount

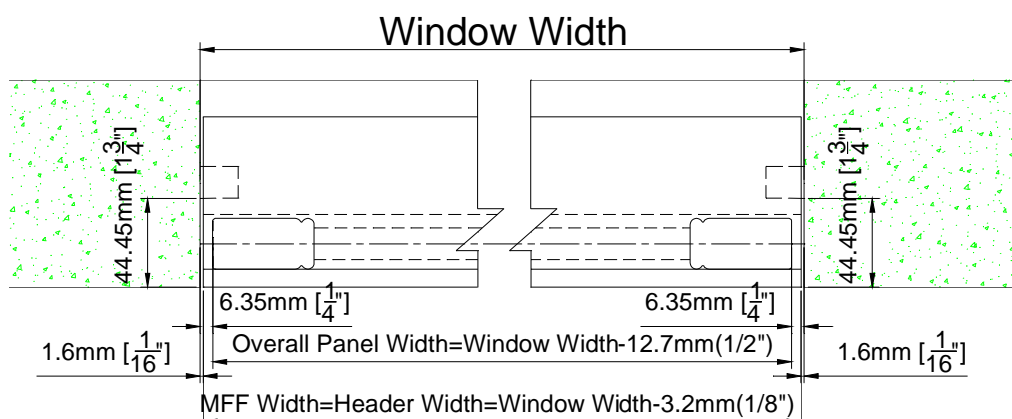
Side View



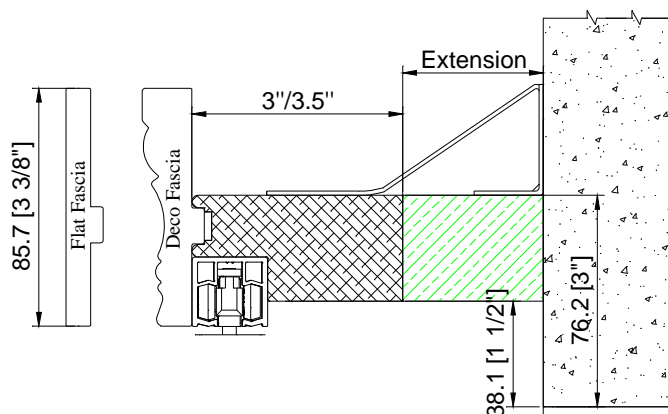
Semi-Inside Mount Top View



Inside Mount Top View

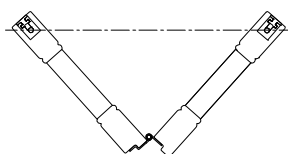


- ✧ Header Extension: Optional.
- ✧ Custom extension up to 2" for Header
- ✧ The extension will be pre-attached.

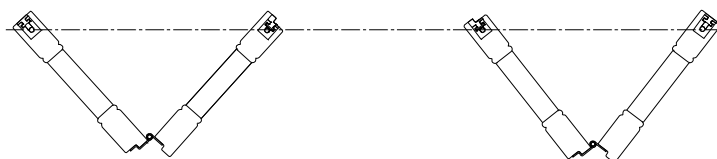


Panel Configuration : Only 2", 2 1/4" rabbet and butt stiles are available. Center stile is not available.

LL or RR



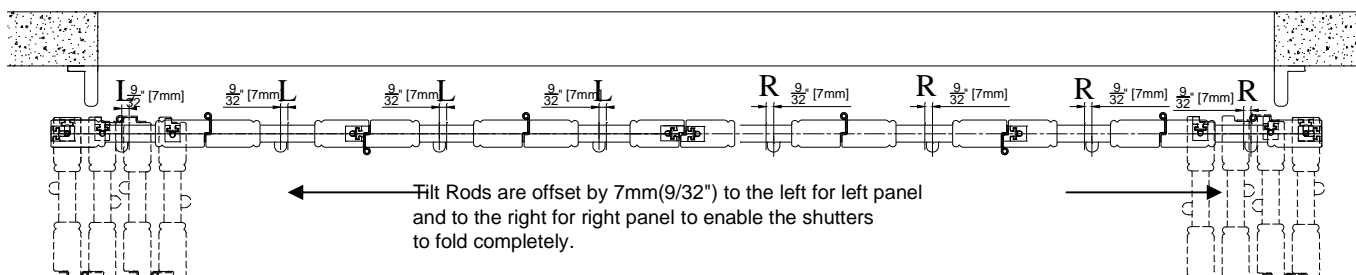
LLRR



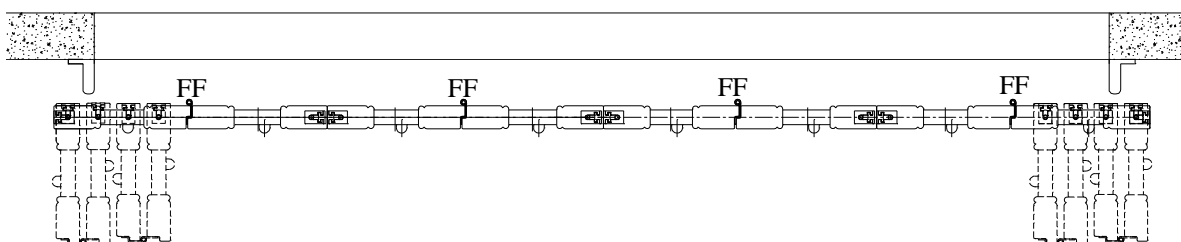
90° Multi-Fold Track Shutters (Wood only)

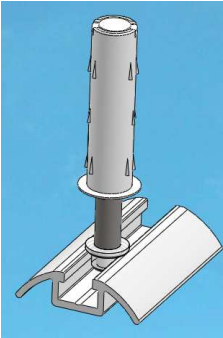
Maximum single panel width for multi-fold is 20"

Panel Configuration: LLLL, RRRR, or LLLLRRRR



90° Floating Panels

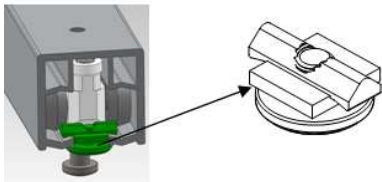




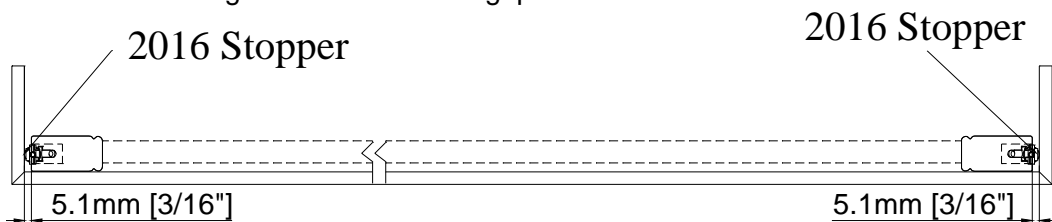
- Two or four panels can be hinged together, fold and slide to either direction
- Application comes with wheel carrier, spring loaded guide and floor track
- Can be used on large window

Note: For 90° Floating Panels outside mount/semi-inside mount without side boards but with fascia return, the 2016 Stopper will be supplied by default. The gap between the fascia return and the panel is 5mm each side. The 2016 stopper can also be used in the center or any position of the top track as an option.

2016 Stopper

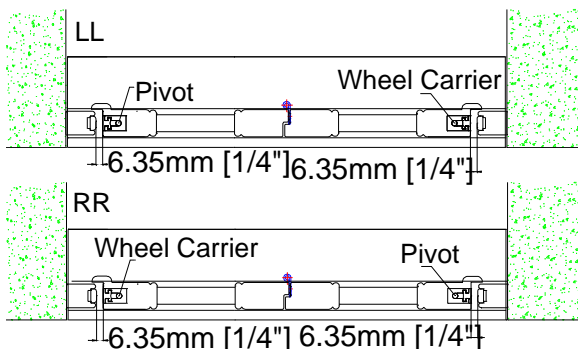


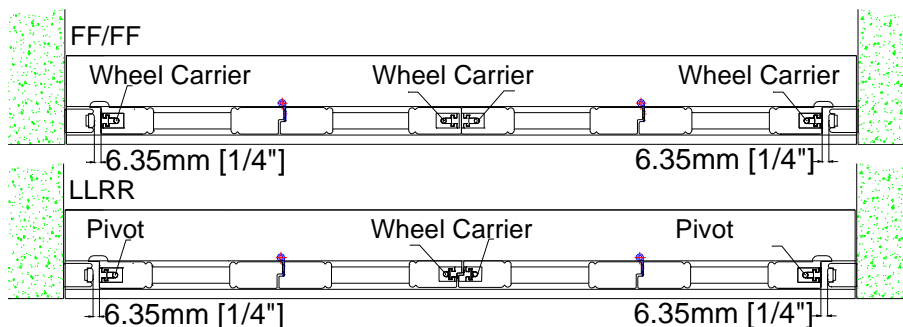
Please see drawing below to show the gap.



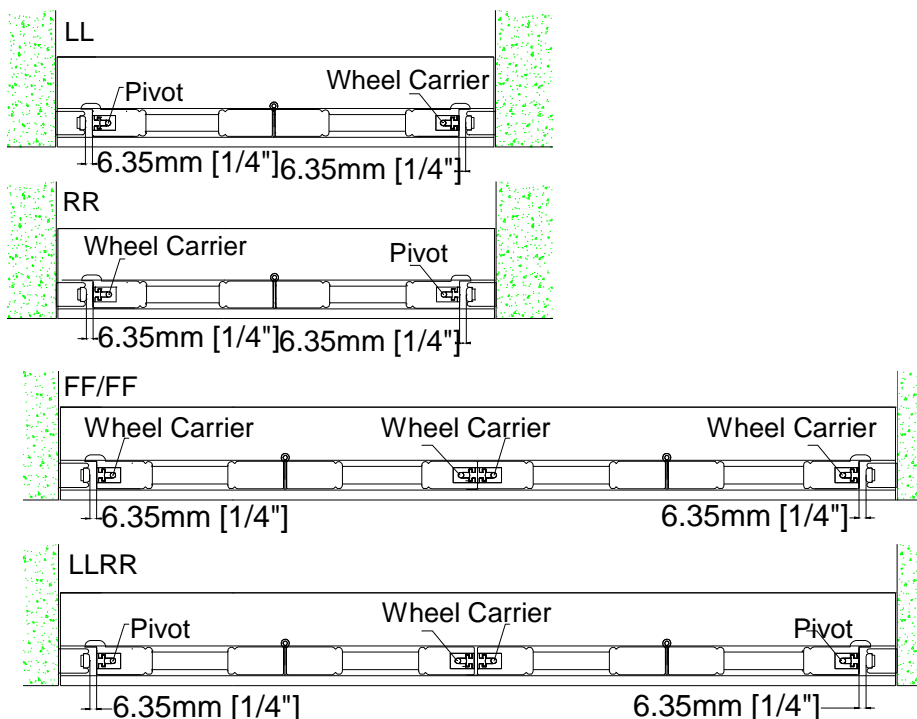
2. When rabbet stile required, the meeting stile of unhinged stile will be butt stile by default.

Optional (Hang Strip for Inside Mount Only)





Note: When Butt/rabbit Stile is required, the stile next to the hang strip will be astragal stile.



90 Degree Bi Fold Track Shutters Framing Materials

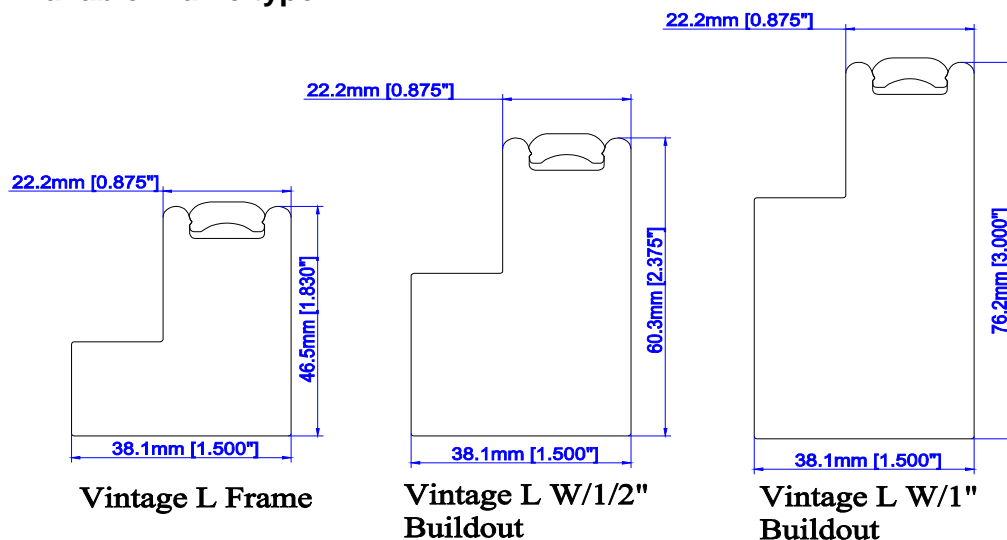
Type		Header Dimension	Top Fascia Dimension	Light Block Strip Dimension	Hang Strip Dimension
Header & Top Fascia & Light Block Strip	OM	3"	3 3/8"	1 9/16"	
		3 1/2"		2 1/16"	
	Semi-IM	3"	1 7/8"	5/8"x3/4"	1.08"x0.875"
	IM	3"		5/8"x3/4"	

Note: It will be L shape light block strip for outside mount.

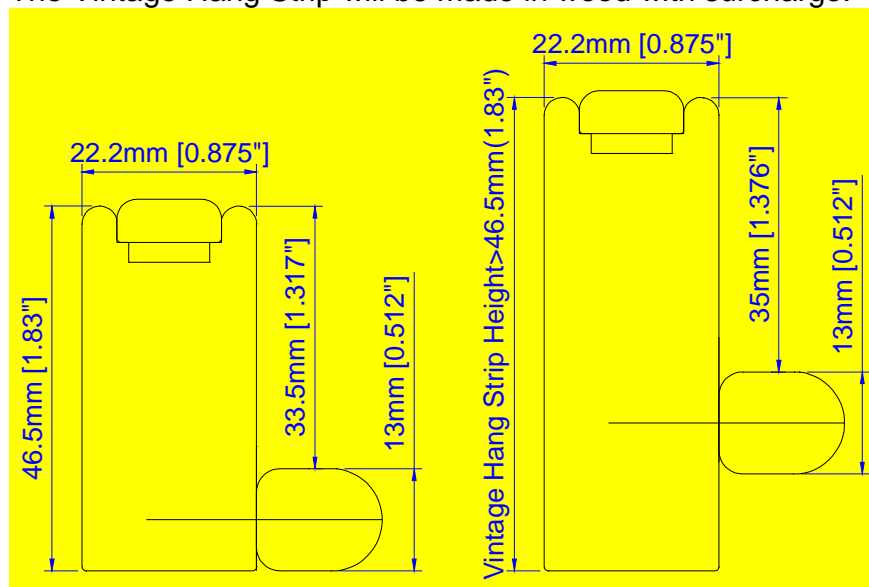
Frame Hinged Bifold

Available Stile: Rabbet Stile Only

Available Frame type

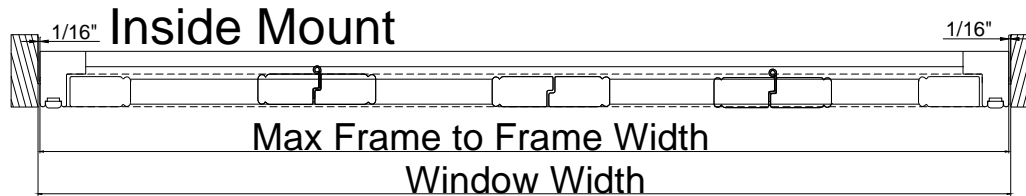
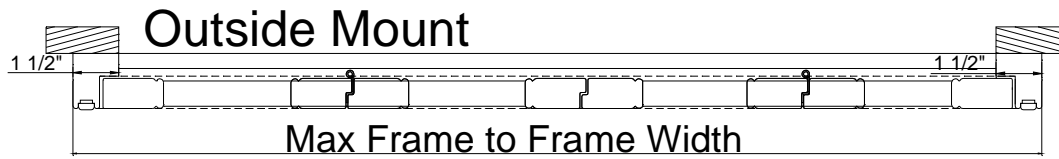


Vintage Hang Strip with 13mm light block: For single direction shutter with even panel qty, the frame on the unhinged side will be Vintage Hang Strip with 13mm [0.512"] light block, the height of the Vintage Hang Strip will match with that of the hinged side frame. The Vintage Hang Strip will be made in wood with surcharge.



Top View

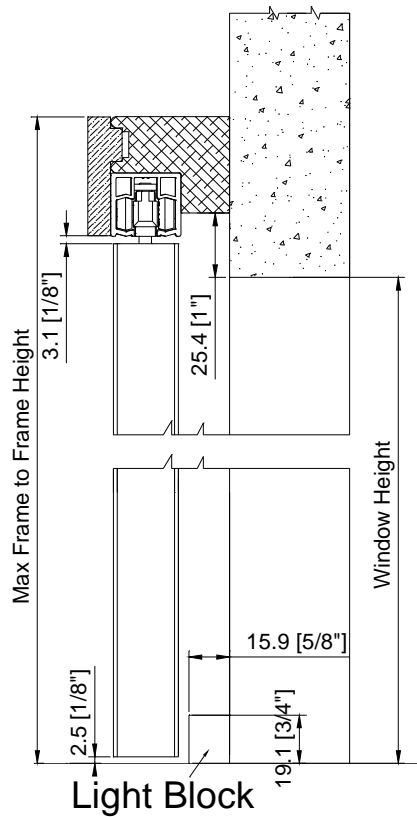
Hinged at Left or Right with wheel assembly at top;



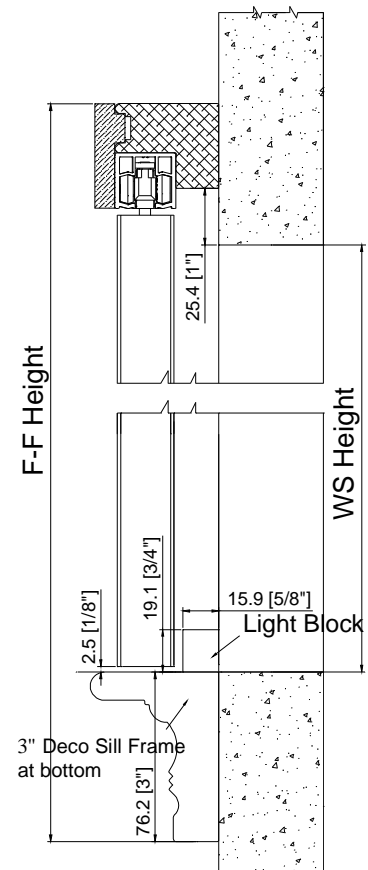
Side View

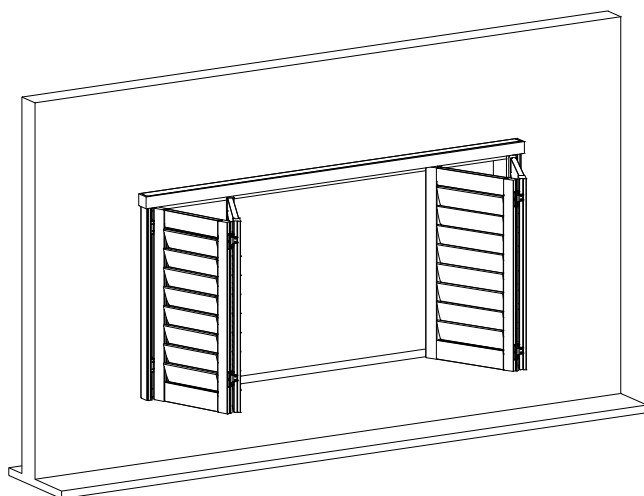
Outside Mount

3-Sides + bottom light block



3-Sides + 3" Deco Sill Frame

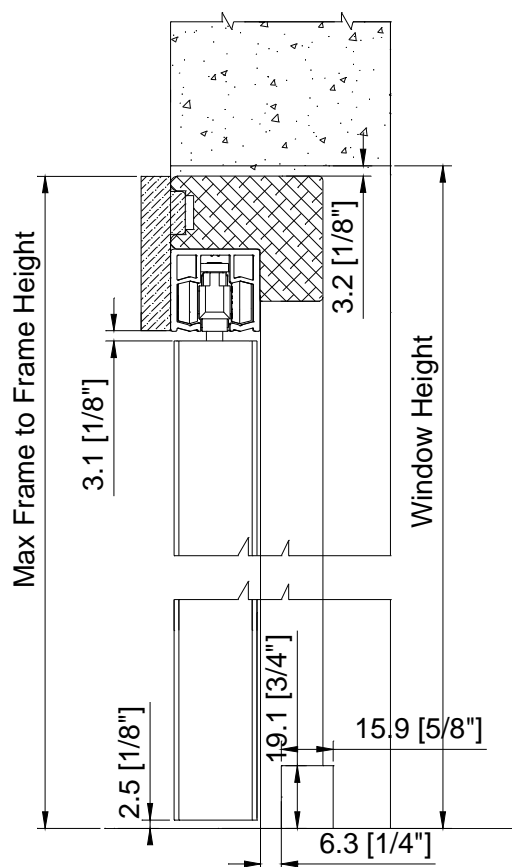
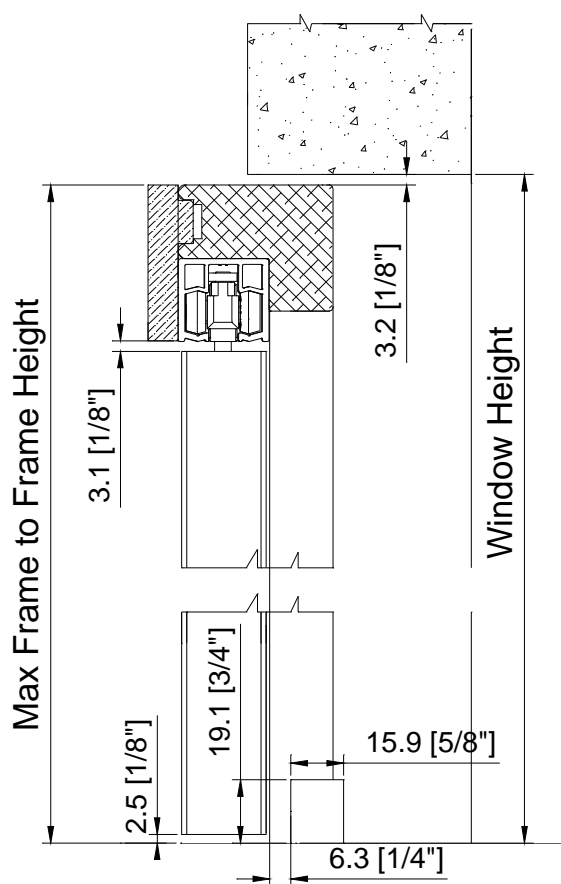


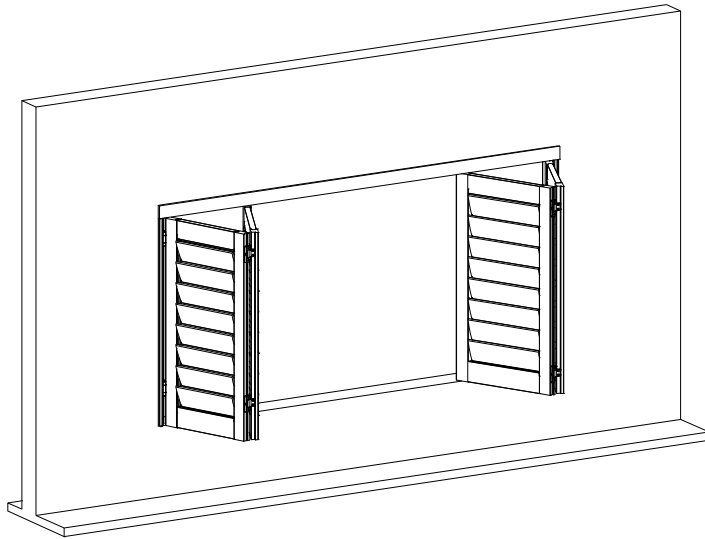


Note: For OM Frame Hinged Bifold shutter not to use as a door, if there is no existing sill at the bottom of the window opening, it is recommended to have the 3" Deco Sill Frame at the bottom.

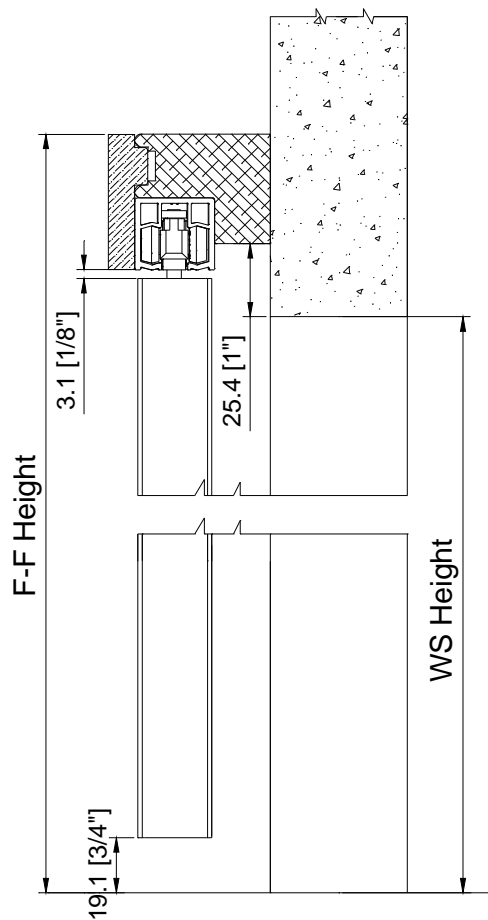
Semi-Inside

Inside Mount

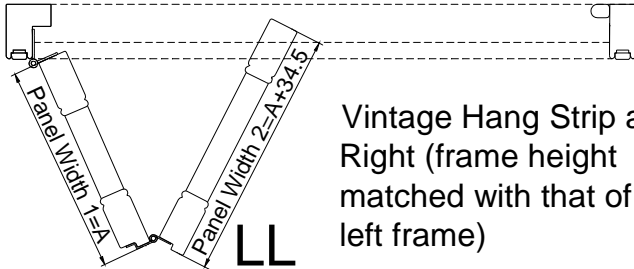




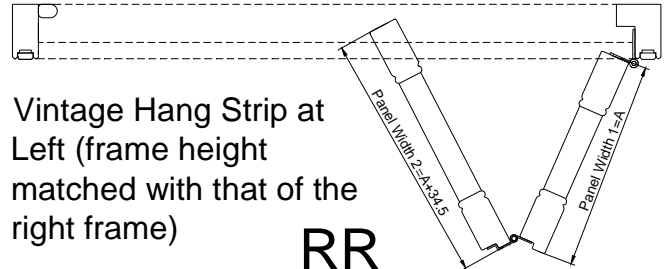
For frame hinged bifold track shutter used as door, the bottom gap will be 19mm by default. Please specify “Used As Door” on the order form.



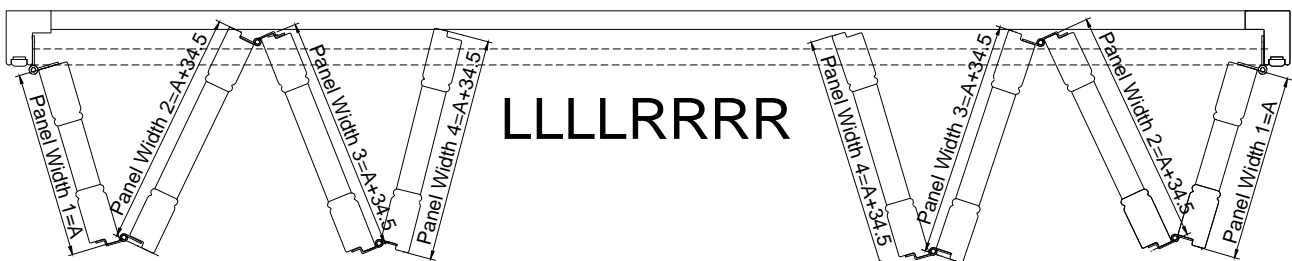
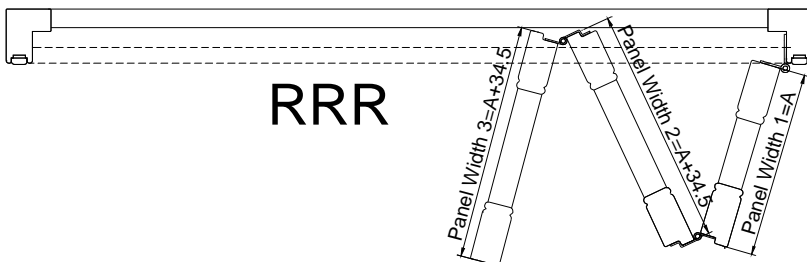
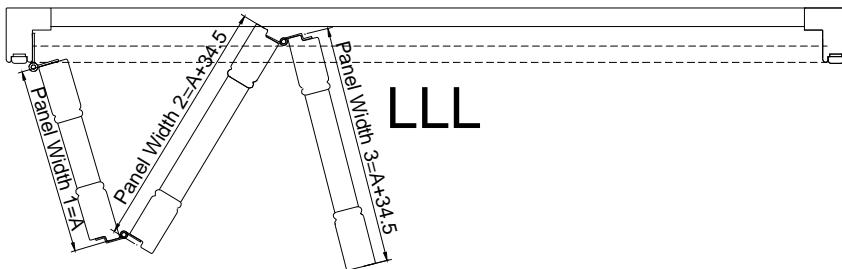
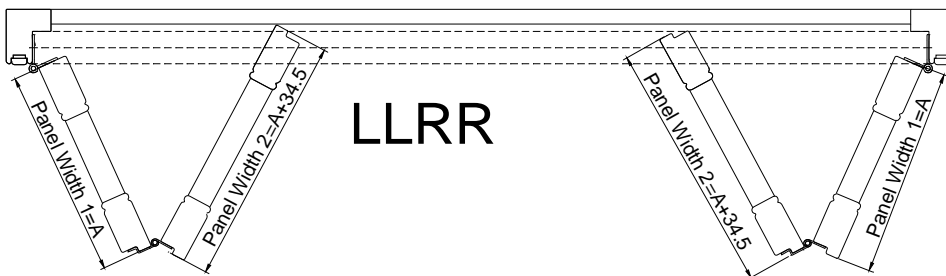
Panel Configuration (uneven panel width)

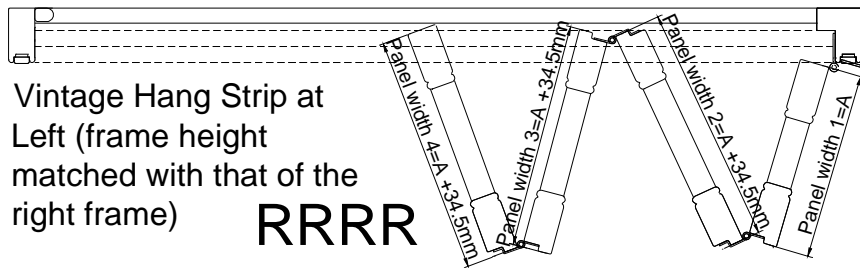
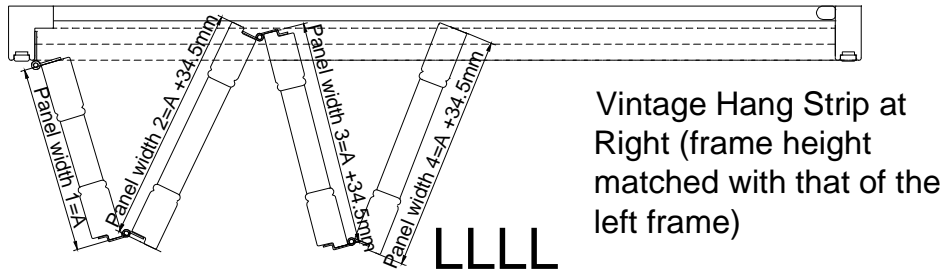


Vintage Hang Strip at
Right (frame height
matched with that of the
left frame)



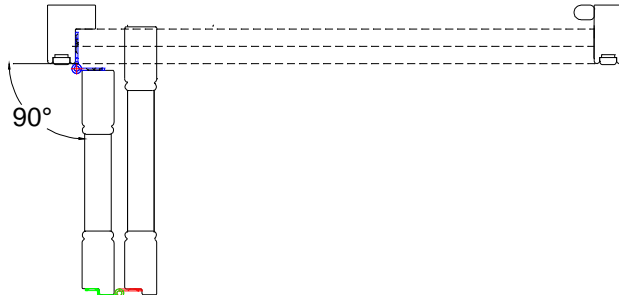
Vintage Hang Strip at
Left (frame height
matched with that of the
right frame)





Notes:

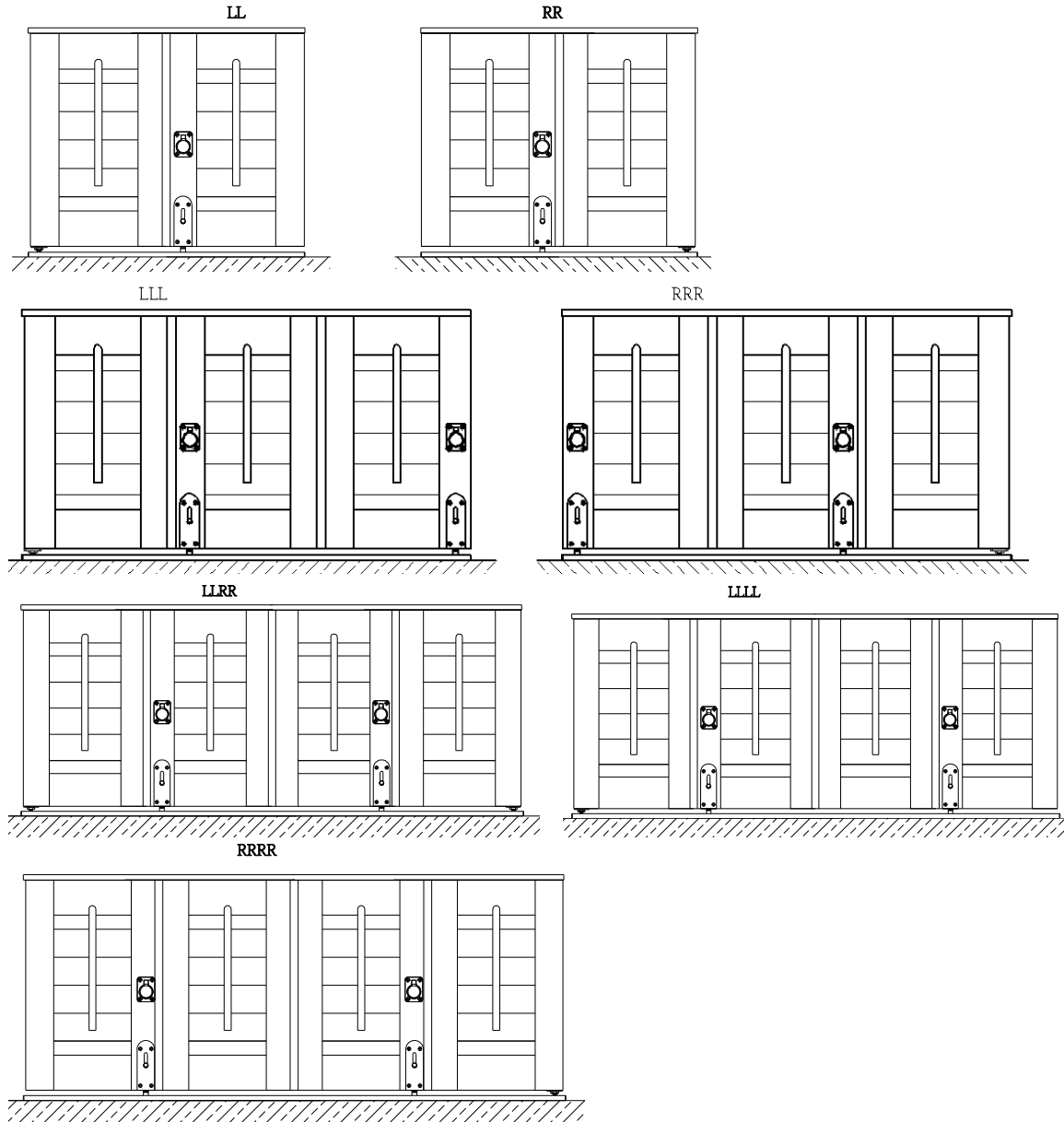
1. Only available for 3-Sides + bottom light block or 3-Sides + 3" Deco Sill Frame (4-sides is not available); Panels can be folded and open at 90 degree;



2. Frames available: Only Vintage L Frame
 - 1) For top frame, the insert will be replaced by top fascia;
 - 2) Top track will be pre-attached to the top frame;
 - 3) Frame will be pre-drilled with screw holes same as regular shutters.

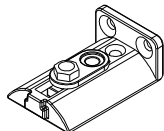
Ring Pull: The ring pull will be provided as an option; and for frame hinged bi-fold, the ring pull will be supplied as default; Customer need specify ring pull location on the order form. Ring pull location is measured from the floor to center of the ring pull in height direction. Ring pull color will match the hinge color.

Please refer to below drawing of ring pull position for all shutter type:

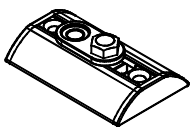


Bottom Pivot Bracket for 90 degree bifold:

For 90° Bifold Track Shutter, there will be 2 types of Bottom Pivot Brackets available.

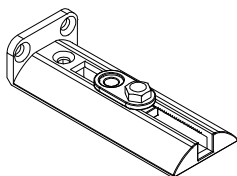


For Inside Mount, Bottom Pivot L Bracket will be supplied as default;



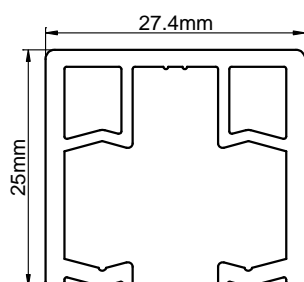
For Semi-Inside or Outside Mount, bottom pivot bracket will be supplied as default.

For 180° Bifold Track Shutter, 81mm Bottom Pivot L Bracket will be supplied as default.

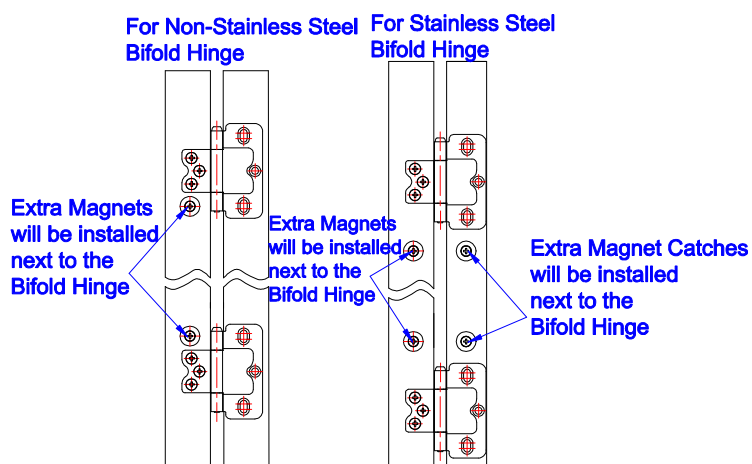


Track Dimension:

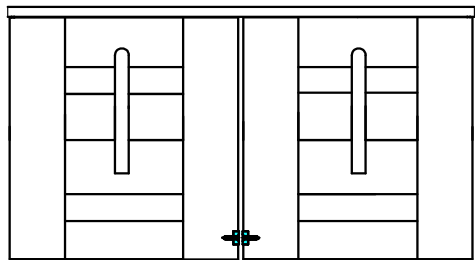
Top Track



Extra Magnets will be supplied for Bifold hinges: (only for the most top and bottom hinges)



Side Magnet: applied to the meeting stiles of LR panels



Extra magnet and Side Magnet:

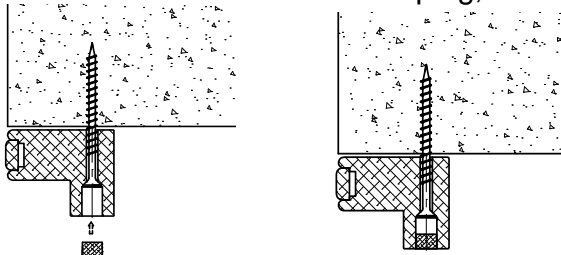


90° Bi Fold Track Shutters Hardware Box

Parts
Wrench
Hinge Pin
Support L Bracket (based on the length of header)
2 ½ " screws for support L bracket
¾ " screws for support L bracket
Bottom Pivot Bracket
38.1mm screws for bottom pivot bracket
63.5mm screws for Frame with Predrilled holes

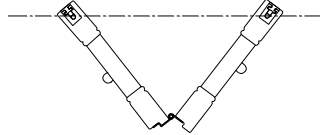
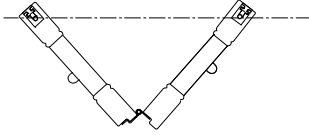
Notes:

1. for all bifold track shutter Outside Mount, the header will be pre-drilled with screw holes in the insert and screws will be supplied by default;
2. for all bifold track shutter Inside/Semi-Inside Mount, the header will be pre-drilled with holes for screws and wood plug, screws and wood plug will be supplied by default

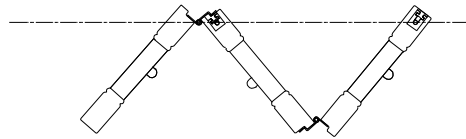
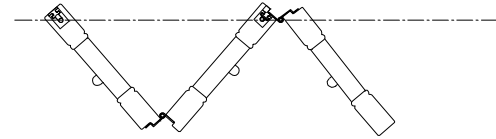


90 Degree Bifold Track & Floating Panels Hanger Location:

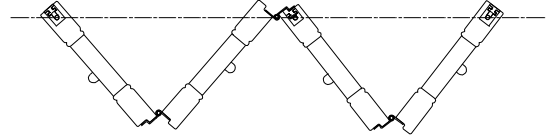
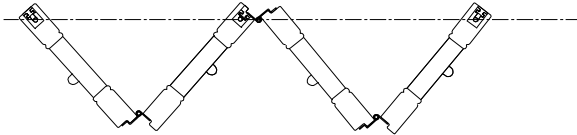
LL/RR/LLRR



LLL/RRR/LLLRRR

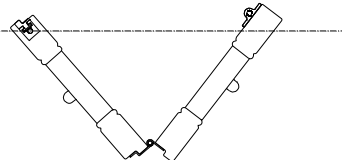
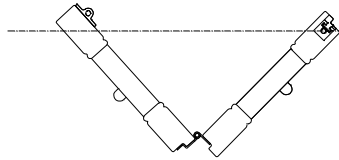


LLLL/RRRR/LLLLRRRR

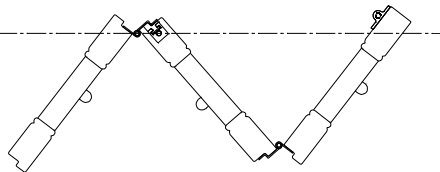
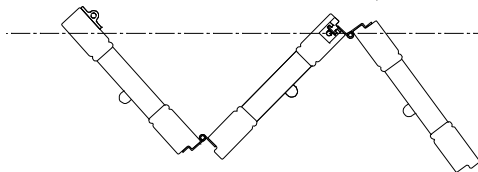


180 Degree Bifold Track Panel Hanger Location:

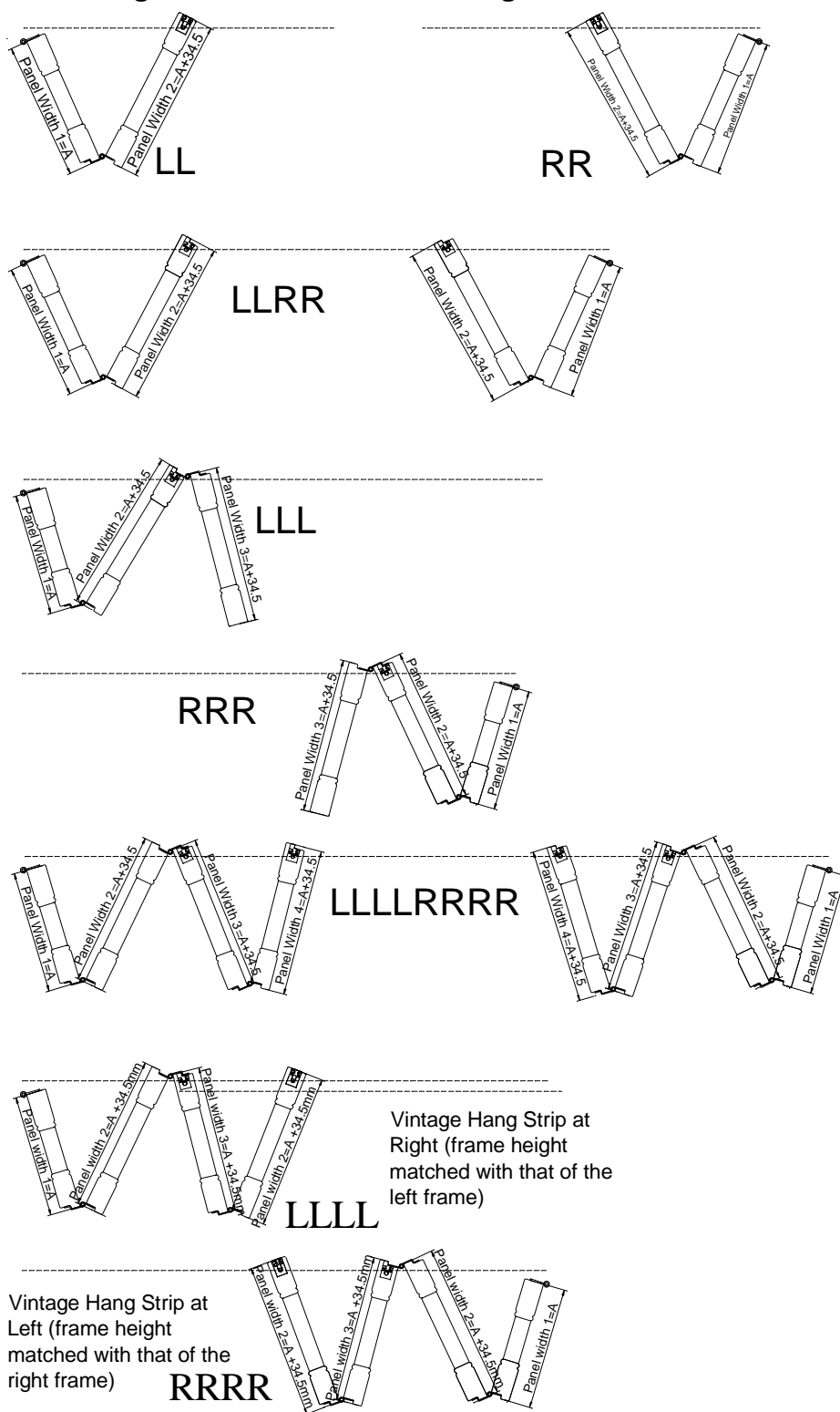
LL/RR/LLRR



LLL/RRR/LLLRRR



Frame Hinged Bifold Track Panel Hanger Location:

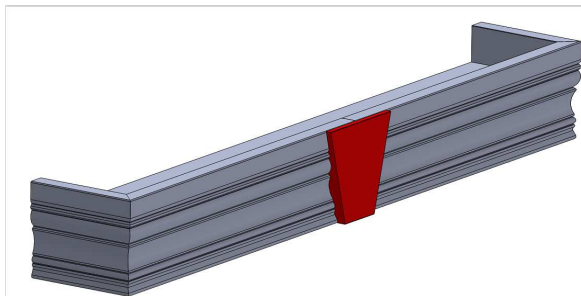


Keystone for Fascia of the Track Shutter

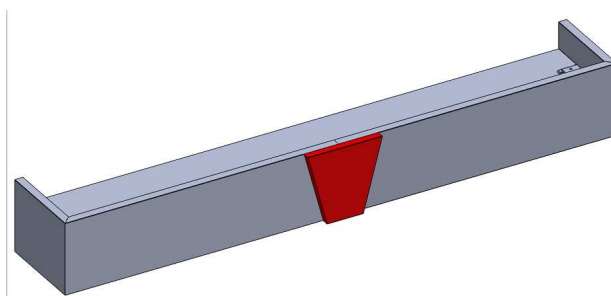
When fascia length exceeds the limitation and needs to split, keystone design fascia will be supplied without surcharge for track shutters.

For fascia length within the split limitation, keystone can also be supplied as an option with surcharge.

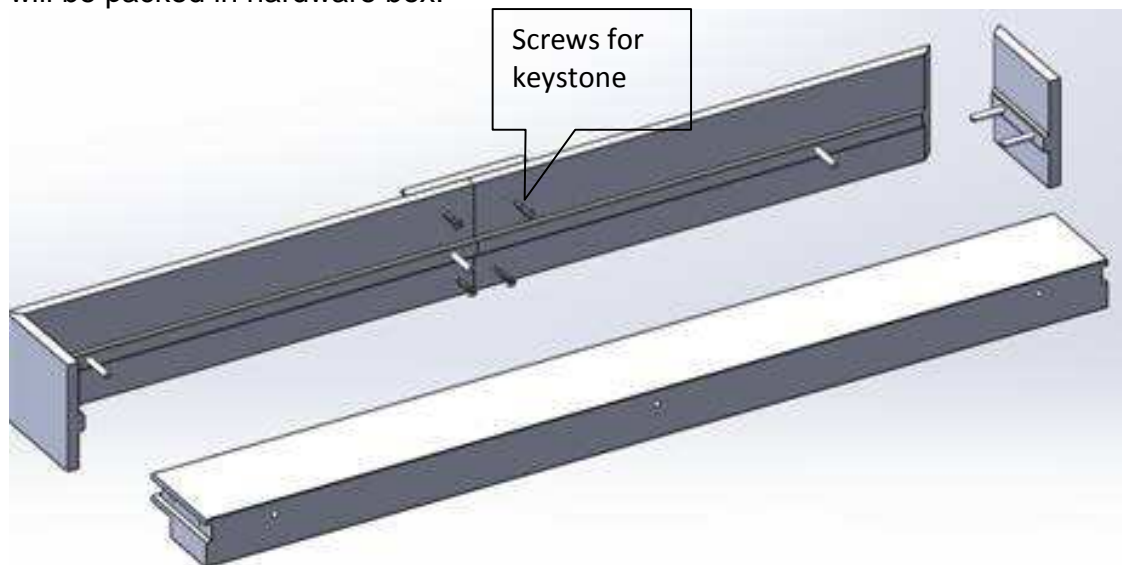
For Deco Fascia:



For Flat Fascia:



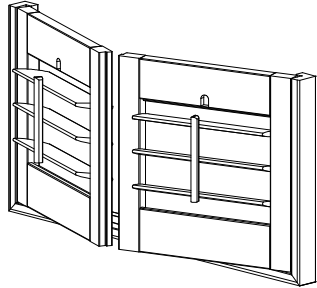
The keystone will be installed by screws. We will pre-drill the screw holes and the screws will be packed in hardware box.



Special Options

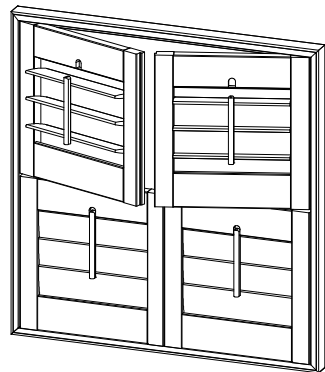
Café* Shutters

- The top of the panel requires a special finish. Please indicate “café shutter” when placing orders.
- The shutter does not come with recessed magnet on top.

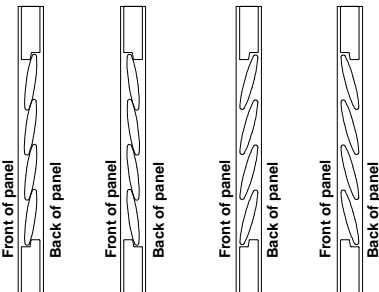
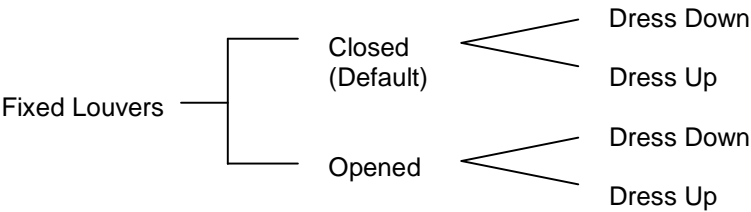


Double-Hung* Shutters

- For total number of panels, please include panels in both rows.
- The default location for the division point is the center unless specified otherwise.
- Horizontal T Post can be added for increased structural integrity.
- Warranty needs to be waived for the horizontal T post length exceeds 48”.



Fixed Louvers



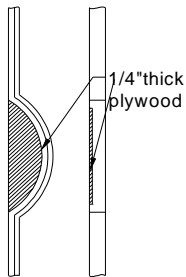
* Surcharge applies. See Options & Surcharge for details

French Door Contour Collection*

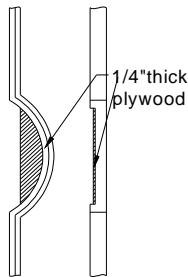
- Flush and offset cutout options are available in both curved and square French door cutout.
 - Offset cutout is a good option for French Door with molding around the glass.
- All French door cutouts are only available in L frame except Type E and F. The batten is placed behind the Type E/F panel to block light.

Louver size	Batten Width	Batten thickness
1 7/8" & 2 1/2"	3/4"	1"
3" & 3 1/2"	3/4"	1 3/8"
4 1/2"	3/4"	1 7/8"

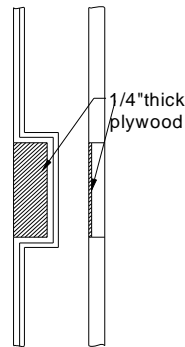
- For measurement details please refer to forms section.
- French Door cutouts with Arch/Quarter Arch at the top are also available except Type E and F



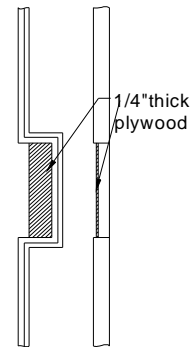
Type A



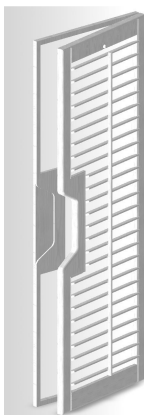
Type B



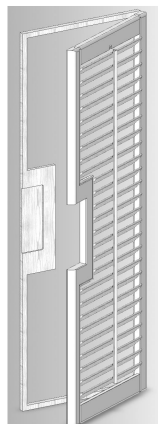
Type C



Type D



Type E



Type F

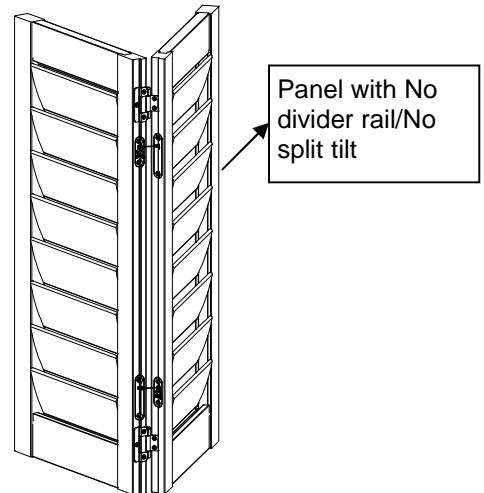
* Surcharge applies. See Options & Surcharge for details

Auto Tilt[™] (Patented) *

- Available in Bifold or Multi-fold panel configuration
- Available with Invisible Tilt Only
- Available in 2" Butt, Astragal and Rabbet Stile
- Minimum Louver Qty (Please see below for details)
- Ring pulls included. For ring pull location, please refer to the ring pull section.
- Available in January 2017

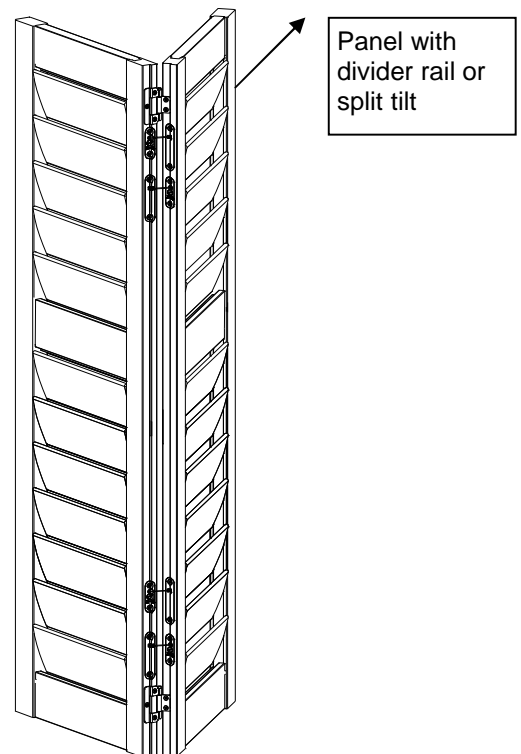
When there is only one louver section (no divider rail/no split tilt)

Louver Size	Rail Size	Minimum Louver qty
2.5"	<4.25"	6
	>=4.25"	4
3"	<3.75"	5
	>=3.75"	4
3.5"	2.75"~6.5"	4
4.5"	2.75"~6.5"	3



When there is more than one louver sections (with divider rail/ split tilt)

Louver Size	Rail Size	Minimum Louver qty
2.5"	<4.25"	5
	>=4.25"	4
3"	2.75"~6.5"	4
3.5"	2.75"~6.5"	3
4.5"	2.75"~6.5"	3



* Surcharge applies. See Options & Surcharge for details

Special Options (continued)

Custom Colors

Available in Brightwood shutters.

Option (Color Code)	Sample Size	Confirmation Process
Custom Solid (C01)	At least 4" x 4" on a clean, flat surface such as wood or cardboard	All orders require customer's confirmation via actual swatch in the mail before production. Additional shipping and handling fee applies.

Note:

- 1) All custom colors will only be finished with the standard gloss used on all Norman products.
- 2) Please note that we will only be able to match the tone instead of the texture or finish of the sample you submit.
- 3) Only one dispute is allowed during the color confirmation process.
- 4) Customer may waive confirmation to shorten production lead time. Norman[®] will not be responsible for any color variation afterwards.

Disclaimer:

Benjamin Moore, Benjamin Moore Classic Colors, Sherwin Williams ColorSnap and Sherwin Williams Designer Expressions are registered trademarks or trademarks of their respective owners. All other trademarks mentioned herein are the property of Norman International, Inc. and/or its affiliates in the U.S. and certain other countries. Reference herein to the commercial products or service of others by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement.

* Surcharge applies. See Options & Surcharge for details

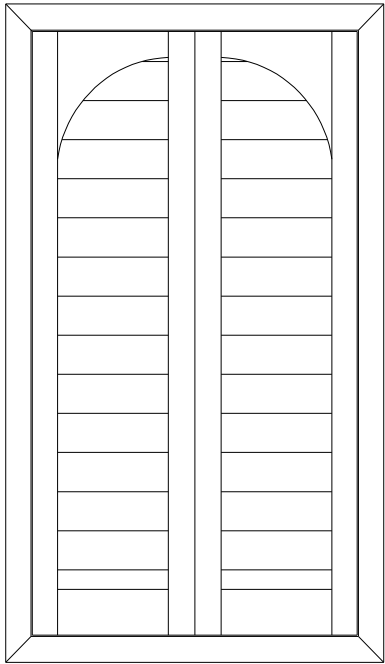
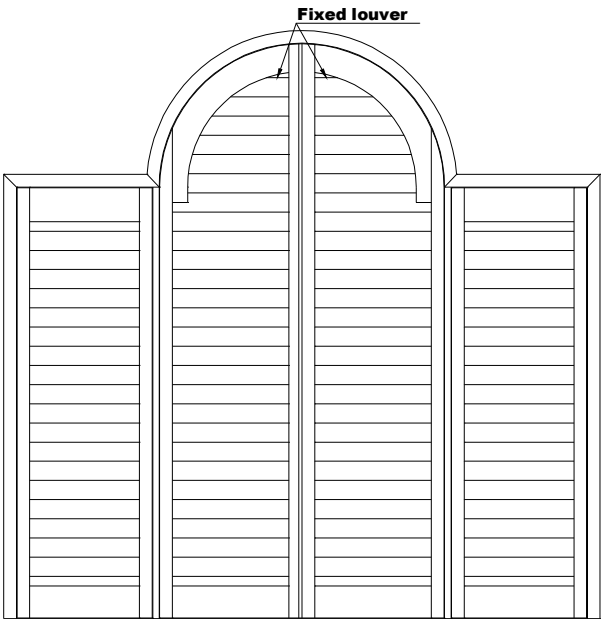
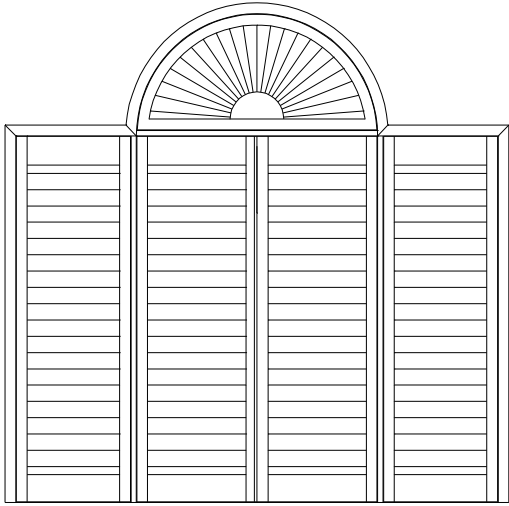
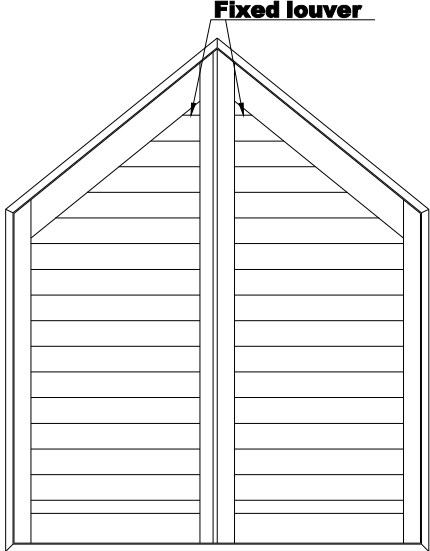
Specialties

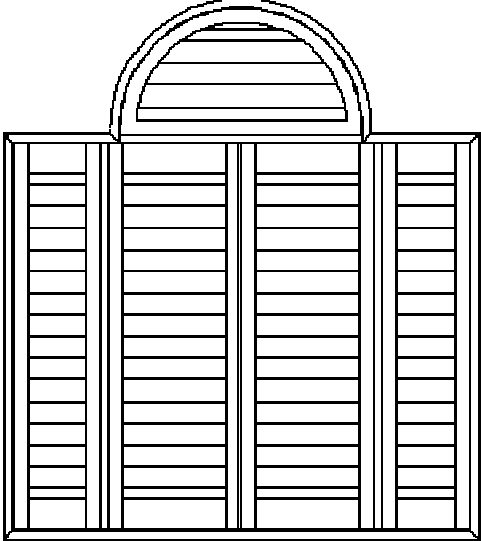
Specialty Shutters*

Specialty shutters are made of premium solid wood, finished to match the beauty of all Norman shutters. Templates are required if it is an imperfect specialty. Delivery time is 8 weeks from the order confirmation date for all specialty shutters. Please refer to Specialties and Template Requirement sections for details.

- * All frames for specialty shutters will be made as solid frames (not with an insert). However, if there is a regular shutter below a specialty shutter and the frames for both shutters are separated by a divider strip, then the top frame will be made as a solid frame but the bottom frames will be made as regular frames with inserts. If the top frames and the side frames are not separated by a divider strip, both side frames and the bottom frames will be made as solid frames.

Arch Windows	Special Shapes
<div data-bbox="225 1016 368 1144"></div> <div data-bbox="225 1160 376 1211">Quarter Round Sunburst</div> <div data-bbox="459 1016 762 1160"></div> <div data-bbox="544 1182 659 1234">Half Round Sunburst</div> <div data-bbox="172 1294 437 1384"></div> <div data-bbox="217 1417 411 1469">Elongated Eyebrow Sunburst</div> <div data-bbox="475 1294 807 1384"></div> <div data-bbox="579 1417 671 1469">Eyebrow Sunburst</div>	<div data-bbox="879 1016 1007 1167"></div> <div data-bbox="879 1182 1058 1234">Louvered Arch w/ Center Tilt Rod</div> <div data-bbox="1174 1016 1331 1167"></div> <div data-bbox="1174 1182 1331 1211">Circle Sunburst</div> <div data-bbox="879 1272 1038 1413"></div> <div data-bbox="879 1417 1062 1447">Hexagon Sunburst</div> <div data-bbox="1190 1272 1445 1435"></div> <div data-bbox="1278 1440 1361 1469">Triangle</div>
Angle Top	
<div data-bbox="485 1599 600 1760"></div> <div data-bbox="504 1794 608 1823">Angle Top</div> <div data-bbox="1110 1576 1166 1760"></div> <div data-bbox="1026 1794 1337 1845">*Top louver of angle top might be fixed as shown above</div>	

<p>Louver Arch in a Rectangle</p>	<p>Arch Top Picture Window with horizontal louvers</p>
	
<p>Arch Top Picture Window with Sunburst</p>	<p>Peak</p>
	

Standard unit with horizontal arch center	
 A technical line drawing of a window or door unit. It features a central rectangular opening with horizontal slats. Above this opening is a semi-circular arch, also filled with horizontal slats. The entire unit is framed by a double-line border. The drawing is positioned on the left side of the table's main body.	

Pricing

1) By Max Frame-to-Frame Measurement:							
Regular Shutter							
Inside and Outside Mount		Width	x	Height	/ 144	x	\$/sq ft
Track Shutter**							
Inside		Width	x	Height	/ 144	x	\$/sq ft
Semi-Inside and Outside Mount		Width	x	(Height-1½")	/ 144	x	\$/sq ft
2) By Net Panel Measurement:							
		Width	x	Height	/ 144	x	\$/sq ft
3) By Window Size:							
2" Camber Deco Frame 2" Classic Deco Frame	4-sided	(Width+4")	x	(Height+4")	/ 144	x	\$/sq ft
	3-sided with Sill Plate	(Width+4")	x	(Height+4")	/ 144	x	\$/sq ft
	3-sided	(Width+4")	x	(Height+2")	/ 144	x	\$/sq ft
	2 sided with Sill Plate	(Width+4")	x	(Height+2")	/ 144	x	\$/sq ft
	2-sided	(Width+4")	x	(Height)	/ 144	x	\$/sq ft
3" Ridge Deco Frame	4-sided	(Width+6")	x	(Height+6")	/ 144	x	\$/sq ft
	3-sided with Sill Plate	(Width+6")	x	(Height+6")	/ 144	x	\$/sq ft
	3-sided	(Width+6")	x	(Height+3")	/ 144	x	\$/sq ft
	2-sided with Sill Plate	(Width+6")	x	(Height+3")	/ 144	x	\$/sq ft
	2-sided	(Width+6")	x	(Height)	/ 144	x	\$/sq ft
2.5" Mission deco frame	4-sided	(Width+5")	x	(Height+5")	/ 144	x	\$/sq ft
	3-sided	(Width+5")	x	(Height+2.5")	/ 144	x	\$/sq ft
	2-sided	(Width+5")	x	(Height)	/ 144	x	\$/sq ft
3" Crown Z Frame	4-sided	(Width+4 ½")	x	(Height+4½")	/ 144	x	\$/sq ft
	3-sided with Sill Plate	(Width+4 ½")	x	(Height+4½")	/ 144	x	\$/sq ft
	3-sided	(Width+4 ½")	x	(Height+2¼")	/ 144	x	\$/sq ft
	2-sided with Sill Plate	(Width+4 ½")	x	(Height+2¼")	/ 144	x	\$/sq ft
	2-sided	(Width+4 ½")	x	(Height)	/ 144	x	\$/sq ft

Pricing

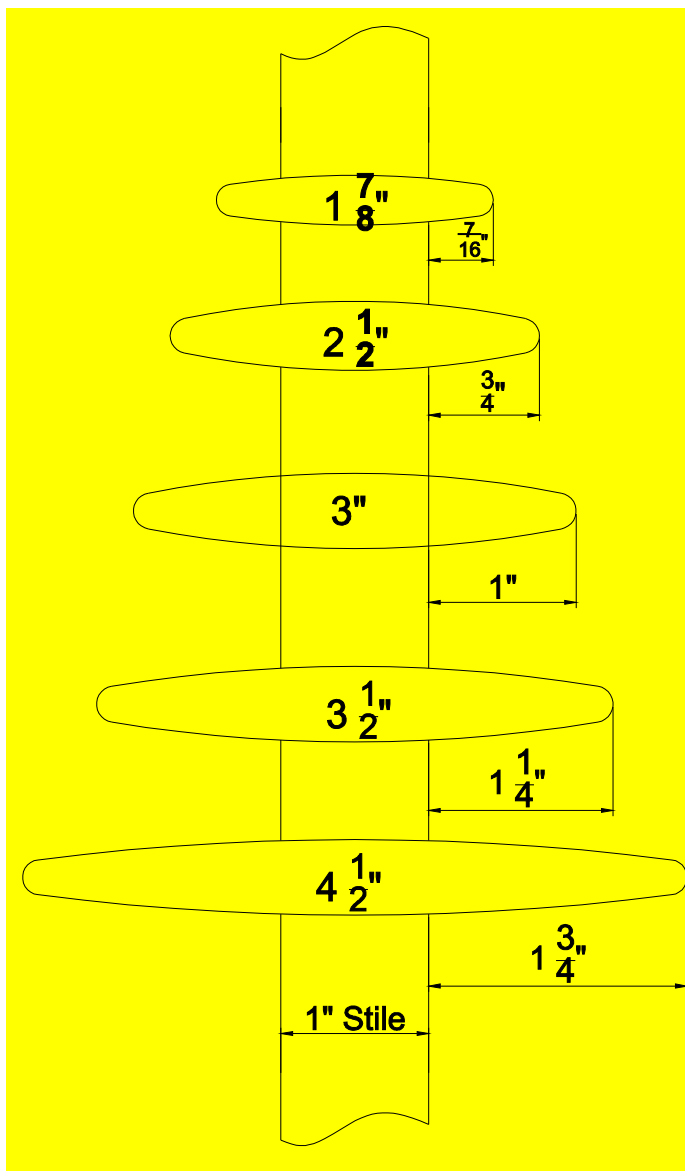
2" Bel Air Z Frame 2" Bullnose Z Frame	4-sided	(Width+2 ½")	x	(Height+2½")	/ 144	x	\$/sq ft
	3-sided with Sill Plate	(Width+2 ½")	x	(Height+2½")	/ 144	x	\$/sq ft
	3-sided	(Width+2 ½")	x	(Height+1¼")	/ 144	x	\$/sq ft
	2-sided with Sill Plate	(Width+2 ½")	x	(Height+1¼")	/ 144	x	\$/sq ft
	2-sided	(Width+2 ½")	x	(Height)	/ 144	x	\$/sq ft
1 1/2" Bullnose Z Frame 1 ¼ " Beaded Z Frame/ Bullnose Tilt Out Z Frame	4-sided	(Width+2")	x	(Height+2")	/ 144	x	\$/sq ft
	3-sided with Sill Plate (N/A w/ Tilt out Z)	(Width+2")	x	(Height+2")	/ 144	x	\$/sq ft
	3-sided	(Width+2")	x	(Height+1")	/ 144	x	\$/sq ft
	2-sided with Sill Plate (N/A w/ Tilt out Z)	(Width+2")	x	(Height+1")	/ 144	x	\$/sq ft
	2-sided	(Width+2")	x	(Height)	/ 144	x	\$/sq ft
Vintage Hang Strip	Inside	Width	x	Height	/ 144	x	\$/sq ft
	Outside 4-sided	(Width+3")	x	(Height+3")	/ 144	x	\$/sq ft
	Outside 3-sided	(Width+3")	x	(Height+1½")	/ 144	x	\$/sq ft
	Outside 2-sided	(Width+3")	x	(Height)	/ 144	x	\$/sq ft
Vintage L Frame/ Beaded L Frame	Outside 4-sided	(Width+3")	x	(Height+3")	/ 144	x	\$/sq ft
	Outside 3-sided	(Width+3")	x	(Height+1½")	/ 144	x	\$/sq ft
	Outside 2-sided	(Width+3")	x	(Height)	/ 144	x	\$/sq ft
Track Shutter**							
Inside and Semi-Inside Mount		Width	x	Height	/144	x	\$/sq ft
Outside Mount		(Width+3")	x	(Height+3")	/144	x	\$/sq ft

Appendix

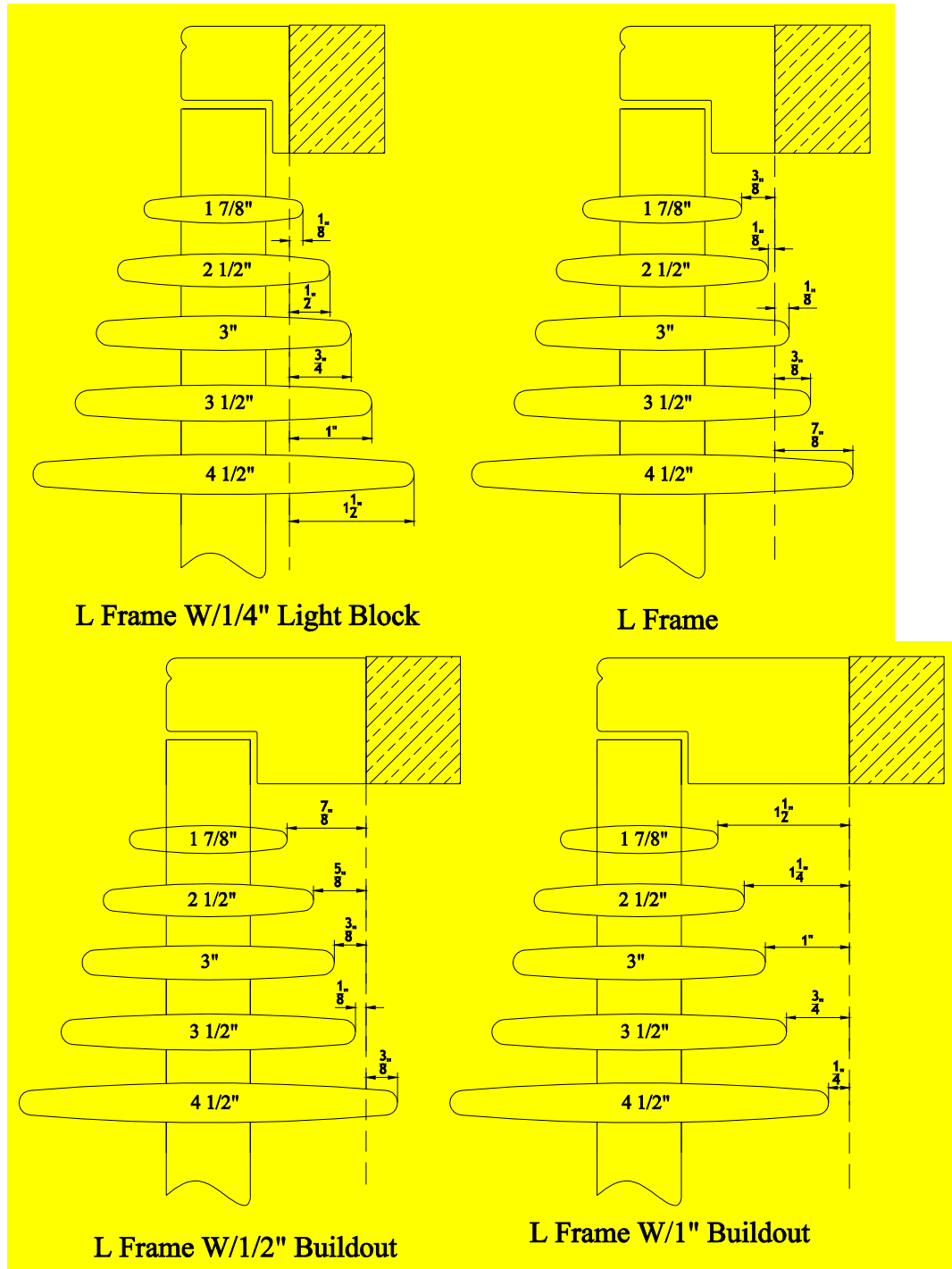
Color Coordination Chart

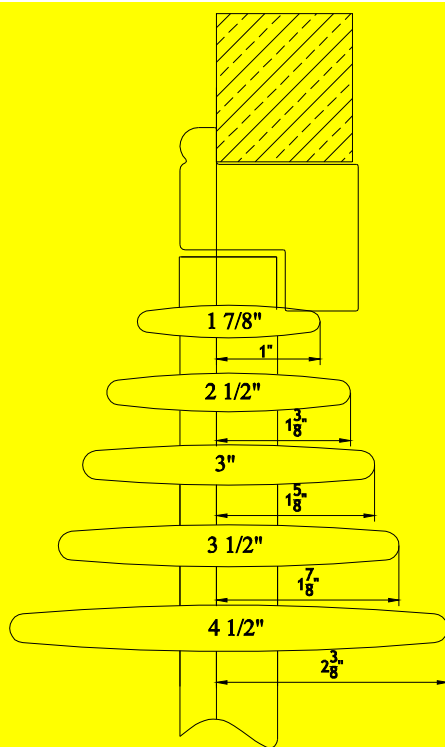
Color ID	Color Name	New Hinge color (Default)	New Ring pull color	New T post connector color	Top Track color (Default)
001	Pure White	Pure White	White	Pure White	White
002	Extra White	Silk White	White	Silk White	White
003	Silk White	Silk White	White	Silk White	White
004	Bright White	Silk White	White	Silk White	White
006	Pearl	Pearl	Pearl	Pearl	White
007	Ivory Lace	Bisque	Bisque	Bisque	White
009	Creamy	Pearl	Pearl	Pearl	White
012	Crisp Linen	Crisp Linen	Bisque	Bisque	White
016	Butter	Crisp Linen	Bisque	Bisque	White
019	String	String	Bisque	Bisque	White
030	Moondust	Sea Mist	Brushed Nickel	Nickel Plated	Anodised Silver
032	Sea Mist	Sea Mist	Brushed Nickel	Nickel Plated	Anodised Silver
042	Hall Gray	Sea Mist	Brushed Nickel	Nickel Plated	Anodised Silver
046	Ice	Silk White	White	Silk White	White
048	Chai	Nickel Plated	Brushed Nickel	Nickel Plated	Anodised Silver
049	Stone Gray	Stone Gray	Brushed Nickel	Nickel Plated	Anodised Silver
051	Brown Gray	Brown Gray	Brushed Nickel	Nickel Plated	Anodised Silver
053	Clay	Nickel Plated	Brushed Nickel	Nickel Plated	Anodised Silver
063	Decorators White	Silk White	White	Silk White	White
066	Winchester White 2010	Pearl	Pearl	Pearl	White
073	Sky Gray	Silk White	White	Silk White	Anodised Silver
074	Element Gray	Sea Mist	Brushed Nickel	Nickel Plated	Anodised Silver
075	Storm Gray	Sea Mist	Brushed Nickel	Nickel Plated	Anodised Silver
077	Dawn	Silk White	White	Silk White	White
078	Cloud Blue	Silk White	White	Silk White	White
080	Taupe Gray	Taupe Gray	Brushed Nickel	Nickel Plated	Anodised Silver
836	Classic Black	Black	Black	Black	Anodised Silver

Louver Depth Clearance

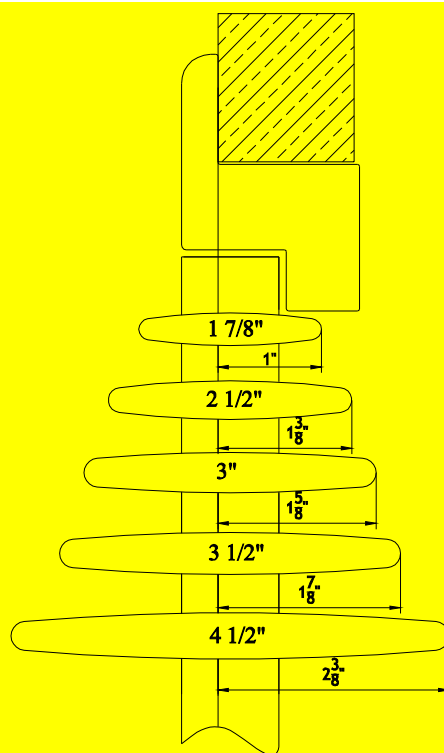


Louver Depth Clearance for Specific Frames

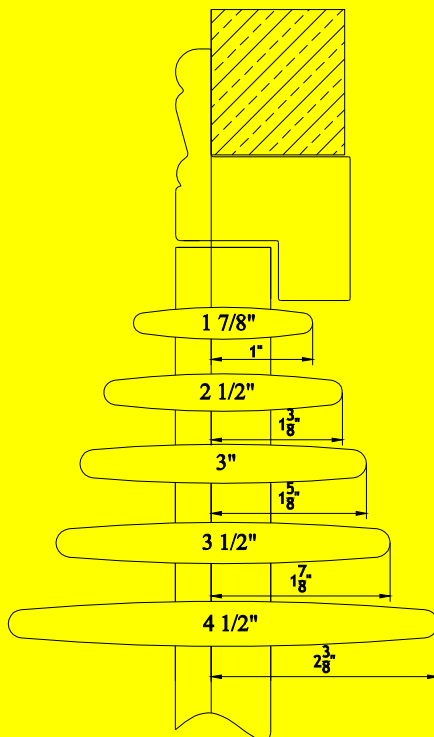




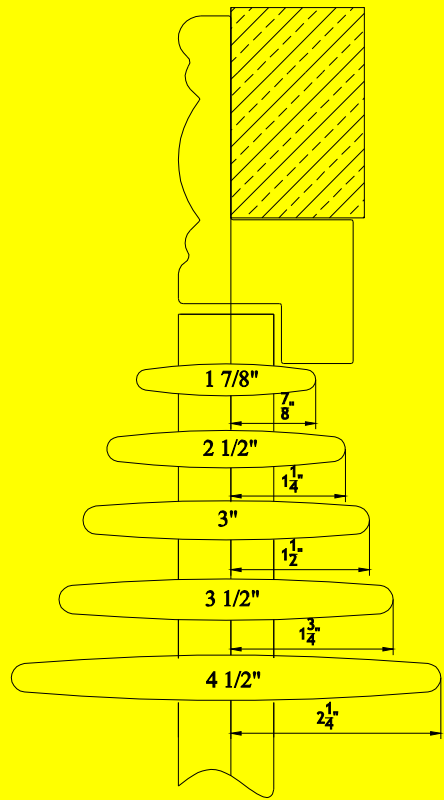
1 1/4" Beaded Z Frame



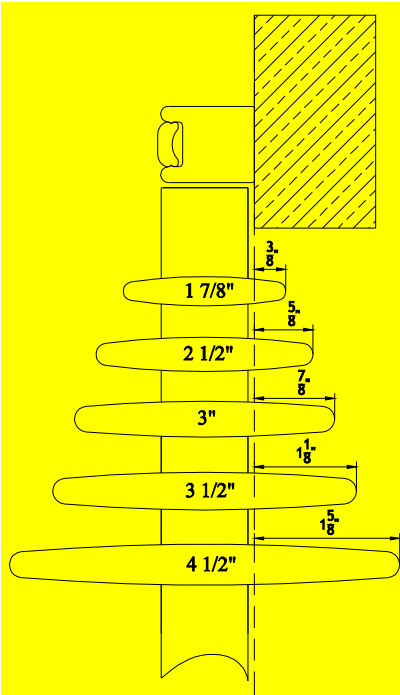
2" Bullnose Z Frame



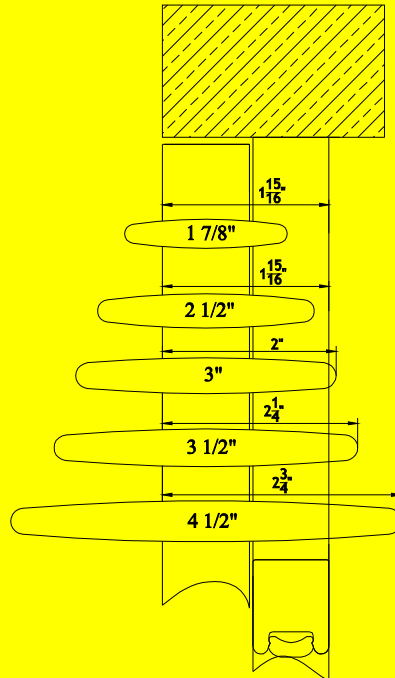
2" Bel Air Z Frame



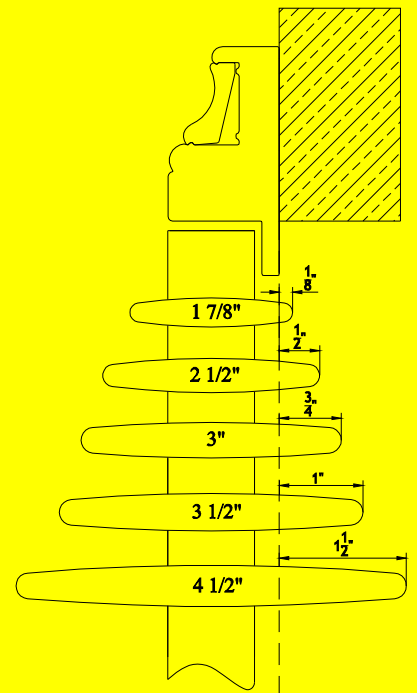
3" Crown Z Frame



Hang Strip (Beside the panel)



Hang Strip (Behind the panel)



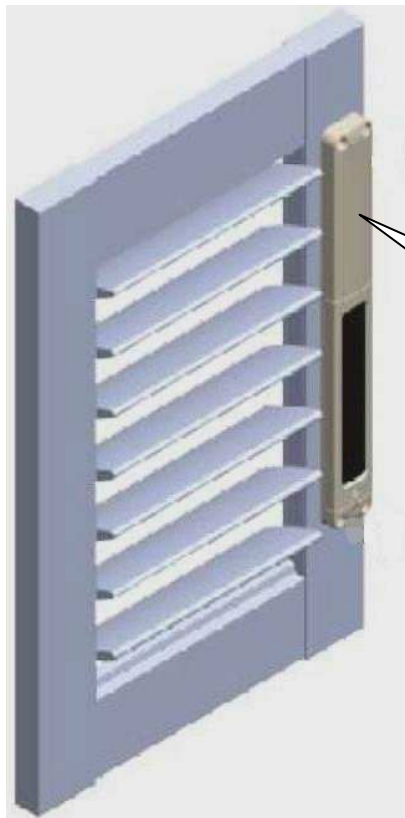
Deco Frame

New PerfectTilt RF

The new PerfectTilt RF has many exciting features & benefits.

- iPhone and iPad control with hub (optional)
- Quick response to tilt commands
- 8 pre-programmed louver positions and one custom position with remote. Over 30 custom louver positions with Dial.
- Louvers can be tilted by hand, remote or app (via hub) without neither the need for flipping switches nor the risk of damage because of incorrect switch settings.
- Two long-lasting rechargeable 18650 Lithium-ion batteries per module unit last up to 1 year on a single charge via USB port
- High efficiency solar panel included for extending battery charge
- Water repellant module units
- Built-in jam protection for child and pet safety

Parts and Names:



PerfectTilt G4
Module




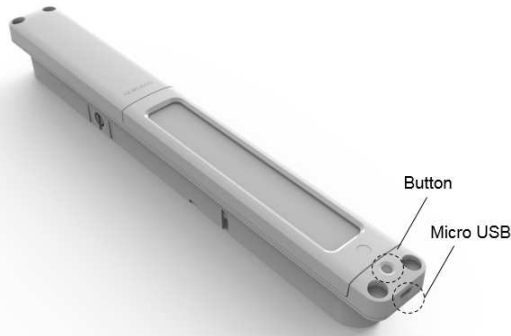
Norman Dial (Remote)



Specifications:

Shutter Type	All types except bi-fold double hung or panel with gap at bottom over 0.1" (no support on bottom)	
Specialty Shutter Shape	All shapes except shapes without a vertical stile in the middle (for example, eyebrow, elongated eyebrow, half-round sunburst without horizontal louvers)	
Tilt System	Invisible Tilt only, the tilting system will not split unless specified	
Stile Width	2.25" stile only	
Louver	2.5", 3", 3.5", 4.5" Elliptical louver	
Panel Size Limit	Min. Panel Height	
	With lined up Motors	With Staggered motors (which is default for 180 degree bifold track shutters; and optional for other types of shutters)
	18"	Louver space not less than 26", so at least 13 louvers for 2.5" louver; 11 louvers for 3" louver; 9 louvers for 3.5" louver; 7 louvers for 4.5" louver.
	Max. Panel Height without divider rail: 78" Min. Panel Width Limit: 8 11/16" Max Width Limit: same as regular non-motorized shutters	

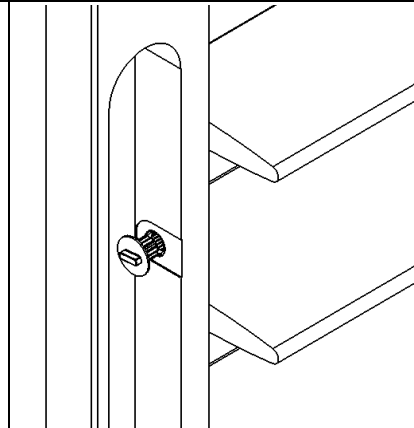
Components:

Items	Drawing
<p>Norman Dial (Remote) and Docking: Radio Frequency; Battery: 2x CR2032</p> <p>Dimensions : 68mm diameter x 34mm</p> <p>Distance of transmission (control): 100 meters without shelter</p> <p>Default color ring's color: black</p> <p>Optional color ring's colors: White, Gray, Brone, Red</p>	
<p>Module</p> <p>Model: PerfectTilt G4</p> <p>Module color is White for shutter colors Pure White, Silk White & Pearl;</p> <p>Module color will be match shutter colors except Pure White, Silk White & Pearl.</p> <p>Dimensions : 332.5 x 38.5 x 36.8 mm</p> <p>One for each louver section,</p> <p>2X long-lasting rechargeable 18650 lithium-ion batteries built-in, charge PerfectTilt G4 Module by Micro USB interface with 5V.1A power bank or adaptor.</p>	
<p>Micro USB cable (Optional)</p> <p>Color: White</p> <p>For charging PerfectTilt G4 Module.</p>	

Slotted Point Driver

One for each louver section.

Connect the Easy Tilt and the Module; when fit the slotted point driver into the stile, make sure the angle is the same as that of the louvers.



Norman Hub

Color: Black

Dimensions: 94mm diameter x 27.8mm

Micro USB cable

Color: Black

Connect the Smart phone and the Norman hub, all shutters assigning to the remote can be controlled by APP via Norman hub.

Note: It will be available in March 2019.



Repeater

Color: black

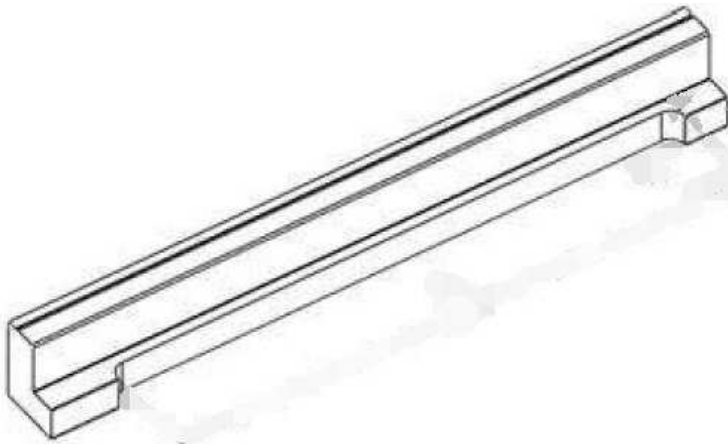
Plug Repeater into the enclosed Power Adapter and then plug into home power supply.

It is recommended to deploy each room with a repeater; If the distance is more than 10 meters, add one more repeater.



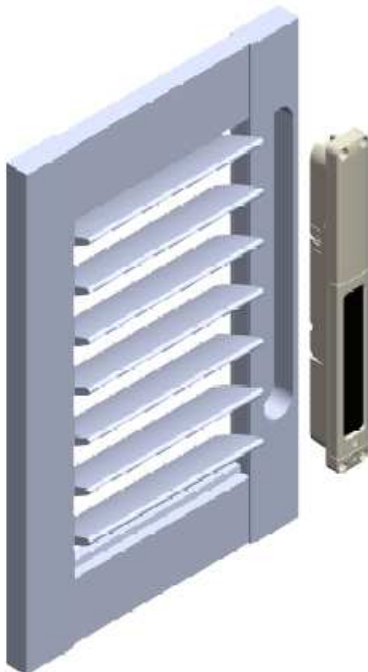
✧ Frame Cut-Out

For single panel or configuration similar to single panel with frame, the module location will conflict with the light block of the frame, so there will be cut-out on the light block of the frame to stop the conflict, the length for the cut-out would be 335mm



Clearance:

The module will protrude 15.5mm (5/8") from the back of the stile, please allow 17mm (11/16") clearance for the module.



E.g.: Below is the situation **not available** for the module unless enough build-out is added to the frame.

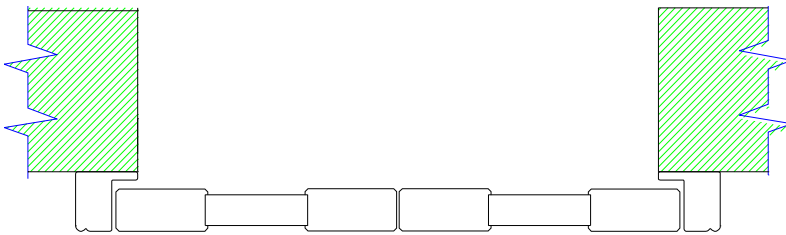
Hang Strip OM: beside the panels

When module is on the left/right most stiles, the protrusion part will conflict with the wall.

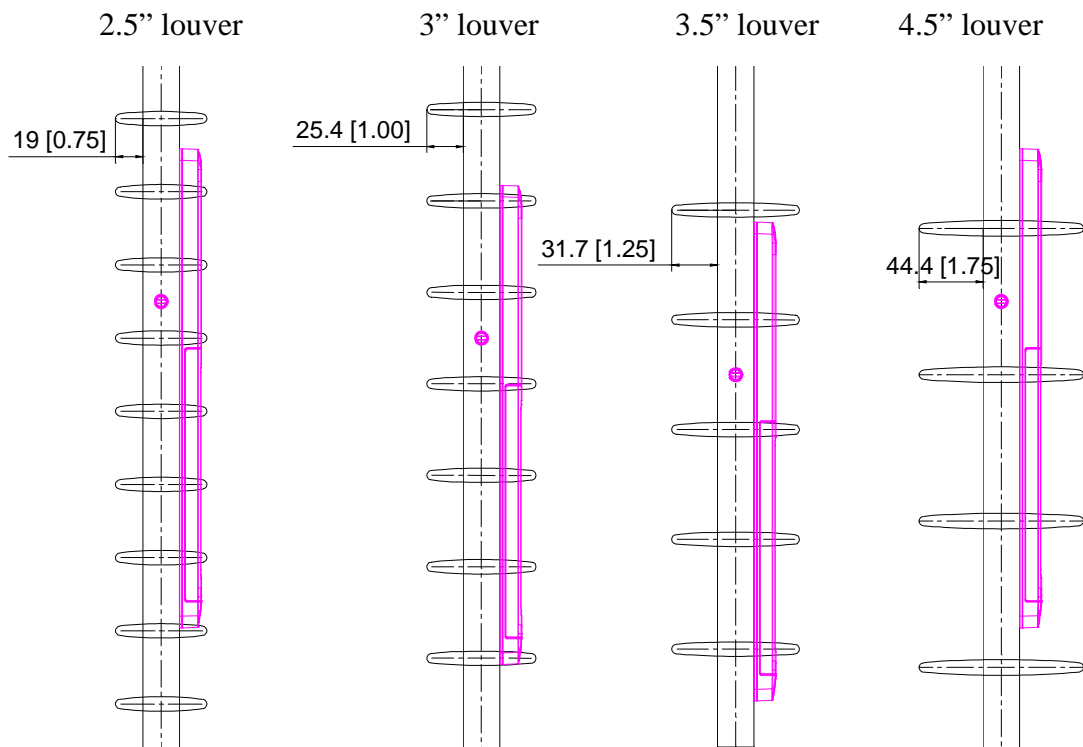


L Frame with light block thickness less than 3/4" OM:

When module is on the left/right most stiles, the protrusion part will conflict with the wall.

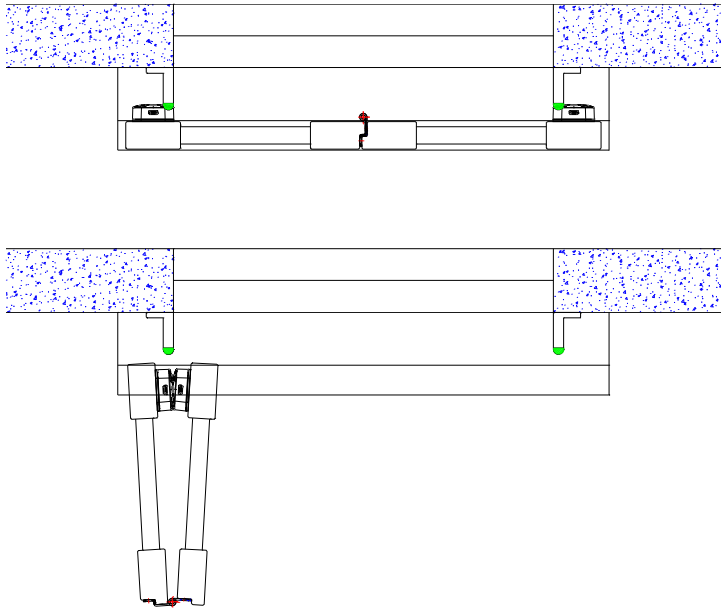


Side view for module in panel with different louver types



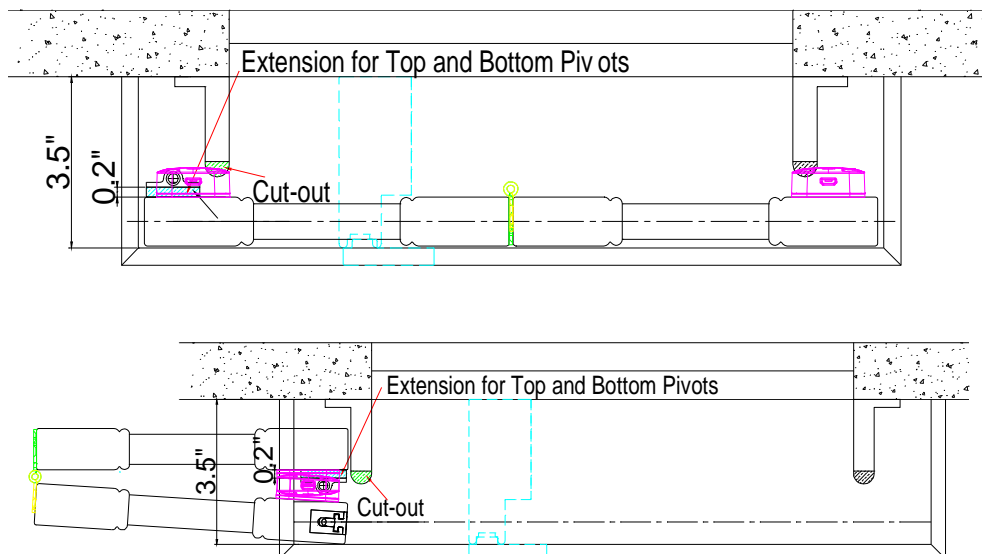
For Motorized 90° Bifold Track Shutter:

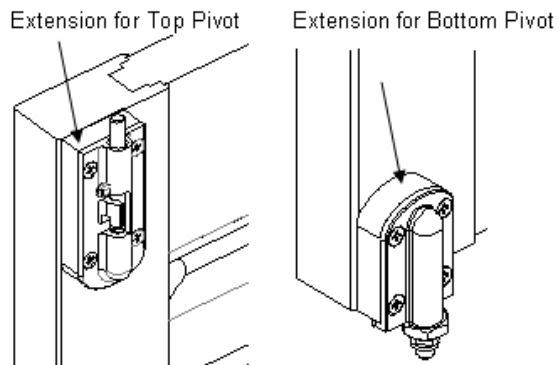
- 1) Both 3" and 3.5" Header are available;
- 2) The L Shape Light Block will be cut out 1/4" to avoid the conflict with the module;



For Motorized 180° Bifold Track Shutter:

- 1) The default header width is 3.5"; The min. Header width is 3.25"; so for 3" header, 1/4" extension is required;
- 2) The L Shape Light Block will be cut out to avoid the conflict with the module; 0.2" extension is necessary for installation of the top and bottom pivots;

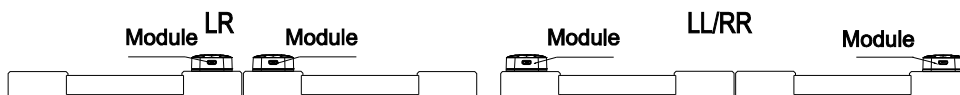




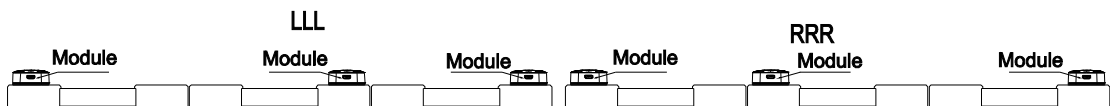
Module Location: (Easy Tilt will be on the same side as the module)

For regular shutter and bi-fold Application (Except for bifold track):

- 1) Single Panel: Module will be on the un-hinge stile
- 2) 2 Panels: LL, LR, RR



- 3) 3 Panels: LLL/RRR

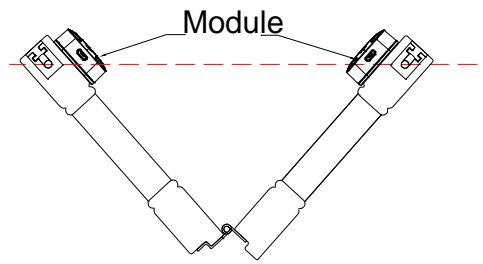


- 4) 4 Panels: LLRR/LLLL/RRRR

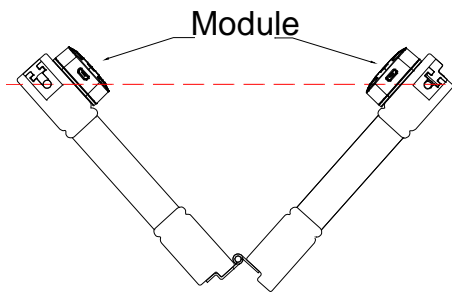


For 90° Bifold Track:

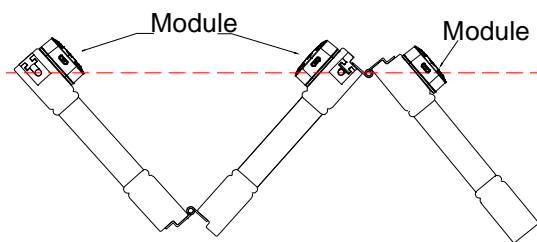
LL/RR



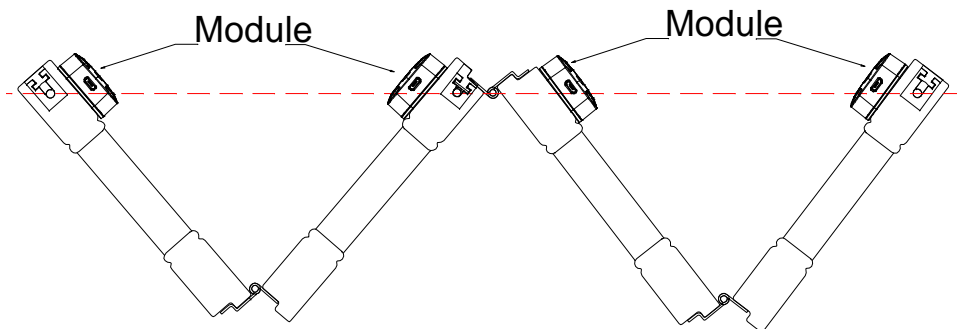
LLRR



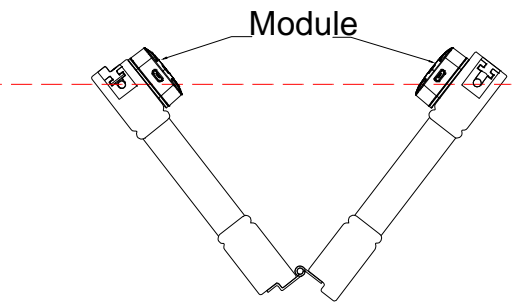
LLL



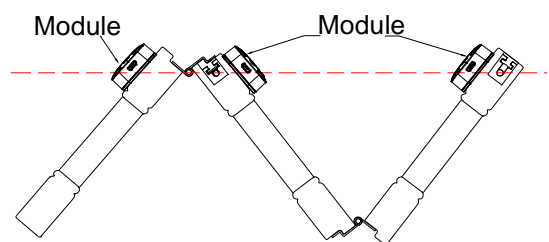
LLLL

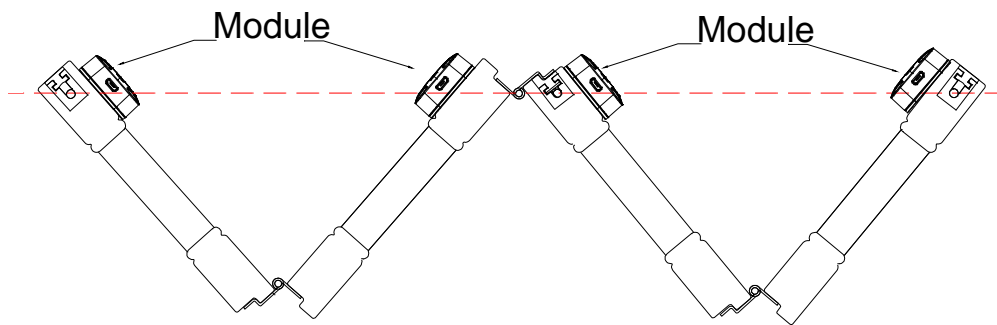


RRRR



RRR





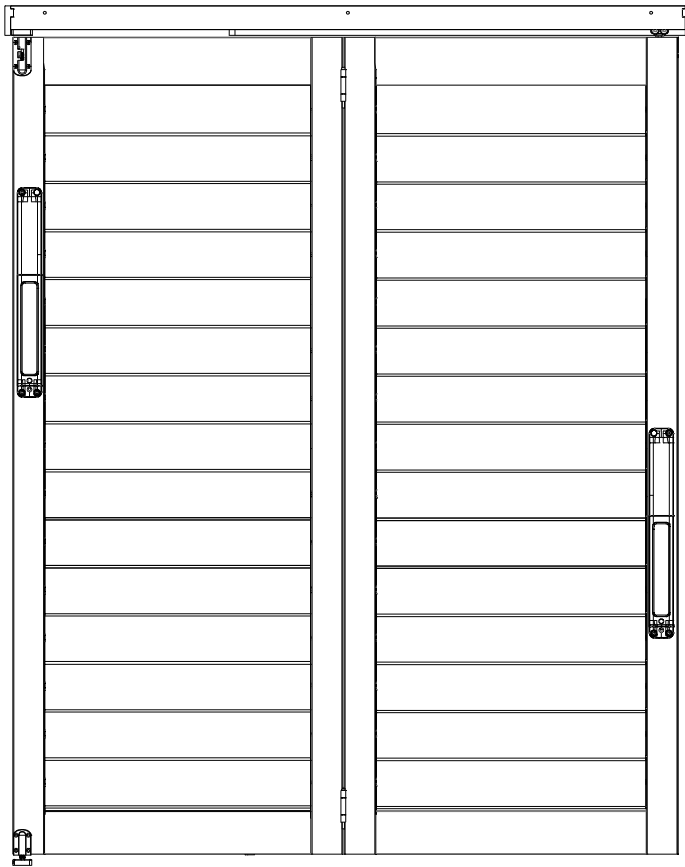
Special Note on Bi-fold or Multi-fold Configurations

Please be aware that in bi-fold or multi-fold configurations, the motorization modules will touch each other when the panels are folded together, so the panels can't be able to stack together as tightly as that of the non-motorized shutters.

Additionally, before folding the bi-fold or multi-fold panels together, please ensure that the louvers are returned to a completely closed position (either up or down) to prevent louver damage when folding panels.

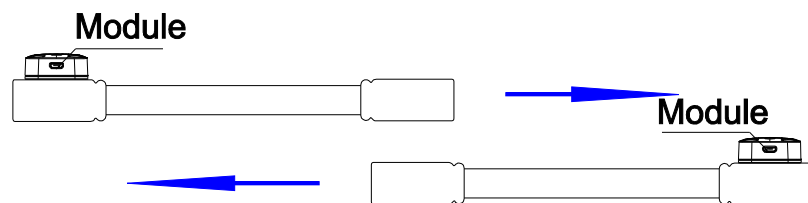
For better fold, it is optional to have the modules staggered for bi-fold/multi-fold shutters.

However, for 180° bifold track shutter, the modules can only be staggered.

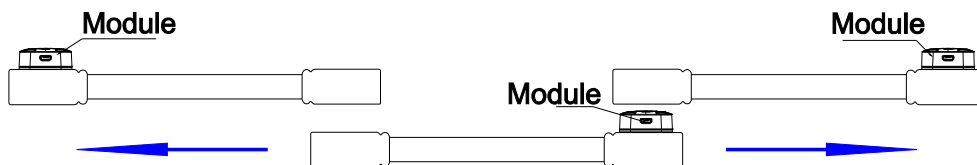


For By-Pass Application

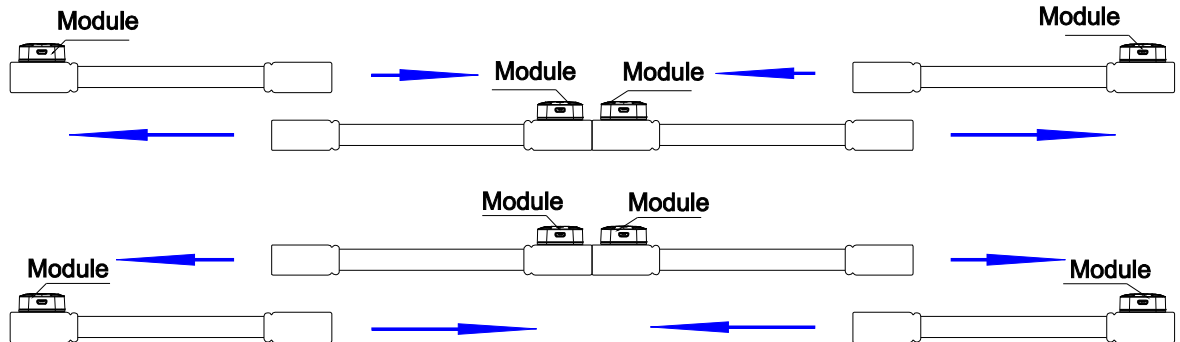
2 panels side open



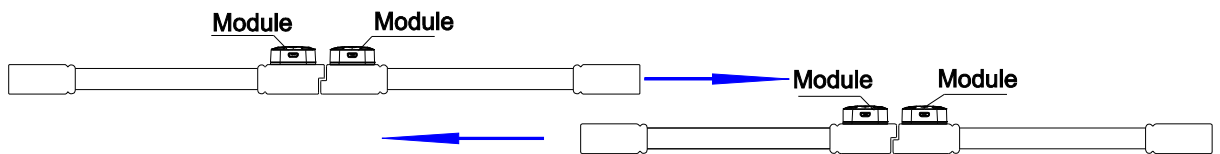
3 panels center open (not available for Open Bypass)



4 panels center open



4 panels side open

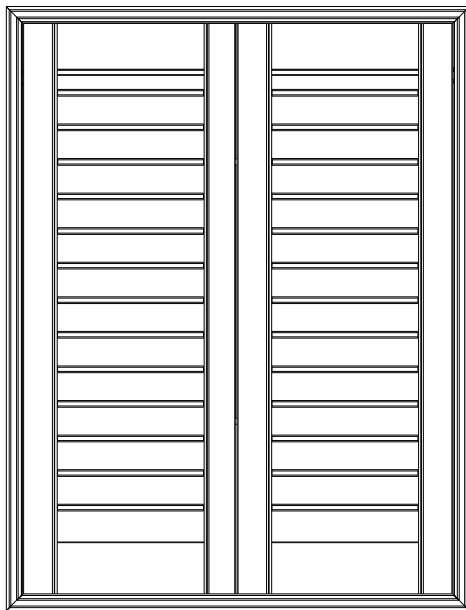


For Special Shape Application:

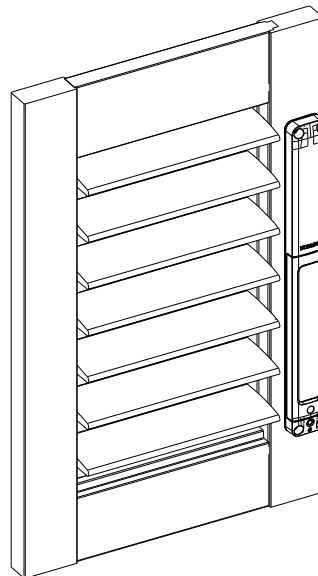
Module location will be the same as the Invisible Tilt location.

SHUTTER LOOK FROM FRONT AND BACK

The front side of the shutter



The back side of the shutter



- * No Receiver / Louver Cap
- * Invisible tilt only

- *The light block would be cut out along the module.