

WOODLORE® SHUTTERS

Woodlore® Shutters

VALUE IN EVERY DETAIL by Norman Shutters

Woodlore® Shutters

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Effective 2012

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Woodlore® Shutters

Features and Benefits

- Built around the concept of modern convenience, Woodlore is made of composite wood harvested from well-managed forests and finished with a polypropylene coating that prevents moisture absorption and allows for easy stain removal. It **resists cupping, warping and twisting.**

- **Reinforced engineered stiles** – Stile core durability reinforced with multiple layers of wood bonded together. The result is a robust support system for shutter panels.

- **UV inhibitor** protects shutters and home décor from UV rays, prevents color fading and sun damage.

- Woodlore's **classic painted colors** harmonize brilliantly with any décor. **The beauty, durability and quality finish** of Woodlore shutters **is reasonably priced.**

- Multiple stile options are available in various sizes to accommodate different window configurations. **Astragal** or **Rabbet stiles** provide a natural light block between panels.

- A wide range of **frames with inserts**, which keep installation screws out of sight for a clean and decorative look, match any style and preference.

- Personalize shutters with **special options**. Choose from fixed louvers, hidden or offset tilt rods, café styles, bay and corner window shutters, track systems and many more.

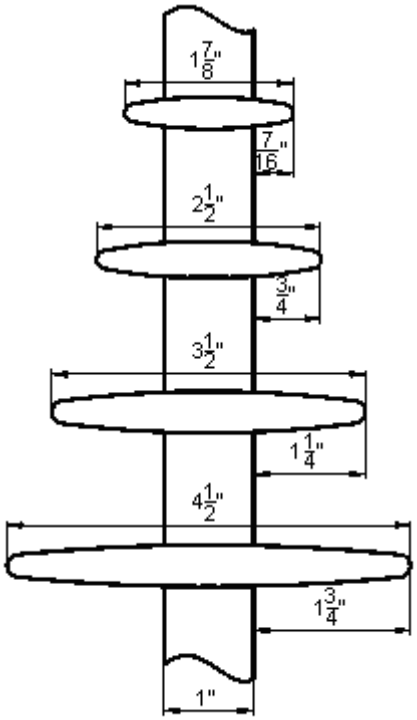
- Quick and easy on-site assembly and installation with the **pre-installed magnets and hinges**, **pre-mitered frames** and **slotted keyholes**.

- A guarantee of Norman Shutters exemplary quality with a **lifetime limited warranty on materials and workmanship.**

Woodlore® Shutters

Colors & Louvers

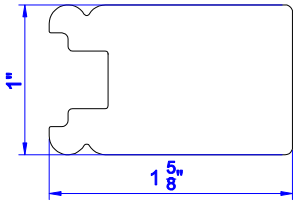
Solid Colors	
001 Pure White 003 Silk White 004 Bright White 006 Pearl 009 Creamy	
Louvers	
Elliptical	1 ⅞"* 2 ½" 3 ½" 4 ½"



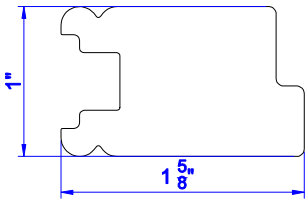
* Surcharge applies. Please see Options and Surcharges page for details.

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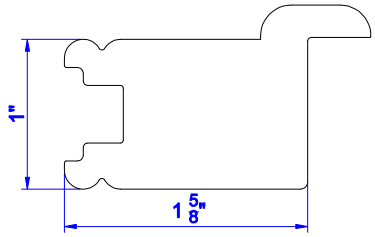
Stiles
Options



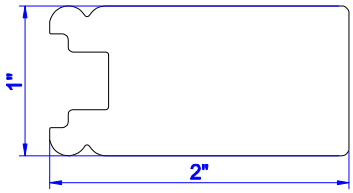
1 5/8" Butt Stile



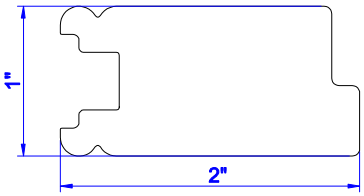
1 5/8" Rabbet Stile



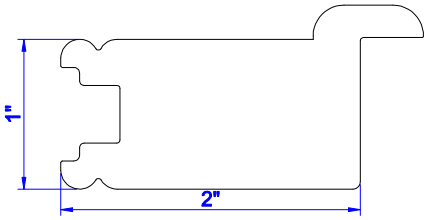
1 5/8" Astragal Stile



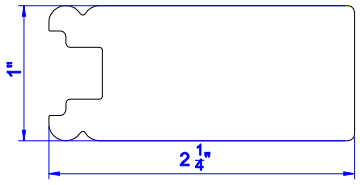
2" Butt Stile



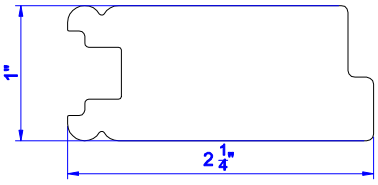
2" Rabbet Stile



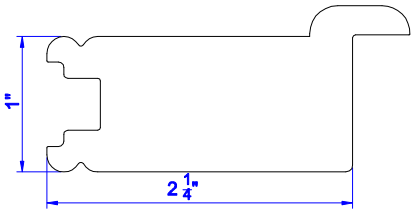
2" Astragal Stile



2 1/4" Butt Stile



2 1/4" Rabbet Stile



2 1/4" Astragal Stile

Woodlore® Shutters

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 5/8”
  - ◦ 2” (default)
- Butt stile only (Hang strip behind panel)
  - ◦ 1 5/8” (Optional for panel width ≤ 12”)
  - ◦ 2” (default)



II) Panel width ≥ 9"

Butt stile only

- ◦ 1 5/8” (Optional for panel width ≤ 12”)
- ◦ 2” (default)



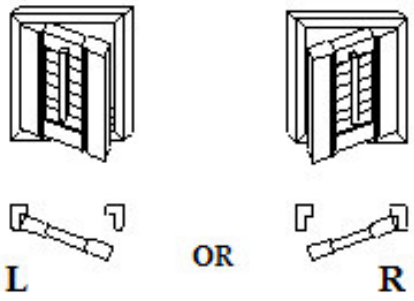
2 panels or more

- Rabbet stile
  - ○ 1 5/8” (Optional for panel width ≤ 12”)
  - ○ 2” (default)
- Astragal stile
  - ○ 1 5/8”
  - ○ 2”

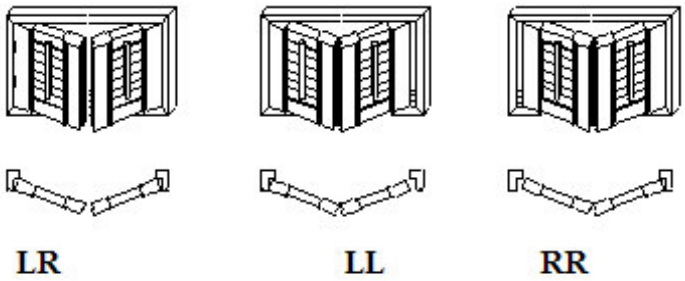
Woodlore® Shutters

Panel Configurations

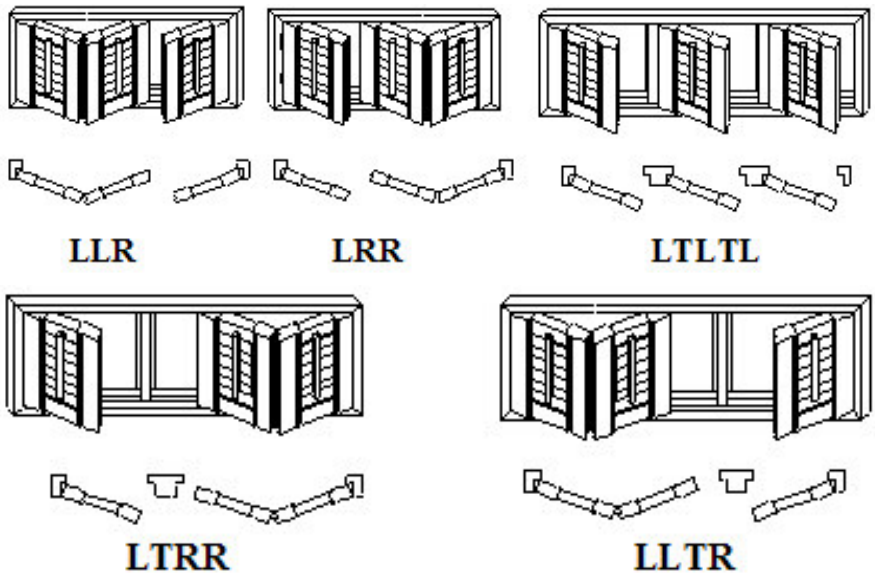
Single Panel



Two Panels



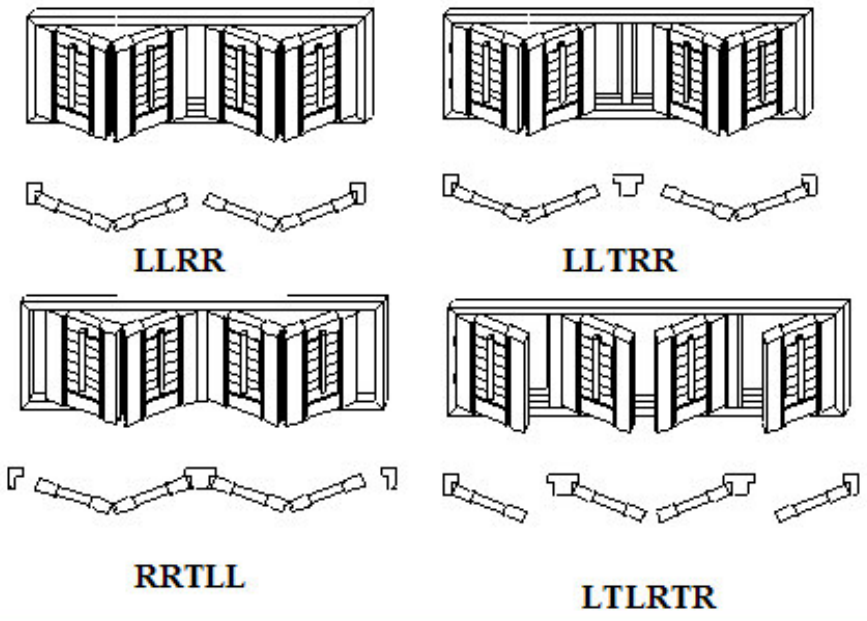
Three Panels



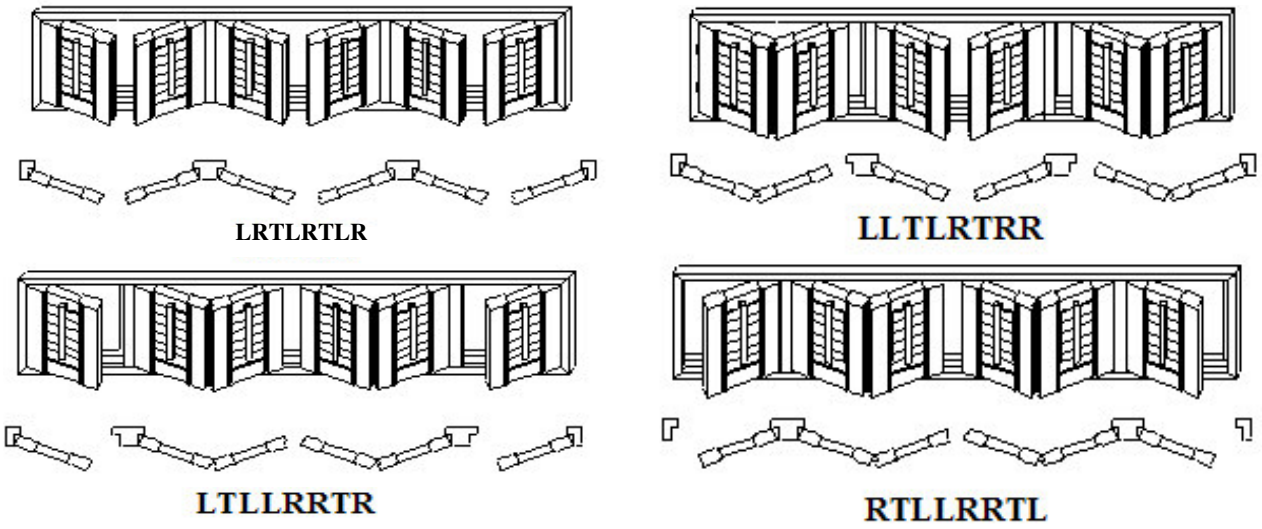
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Panel Configurations (continued)

Four Panels



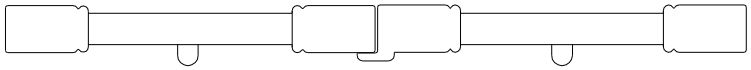
Six Panels



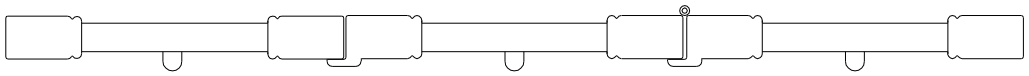
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Panel Configurations – Astragal Stile

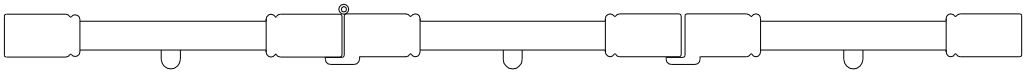
- 2 Panels – LR



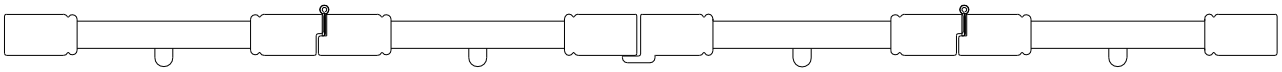
- 3 Panels - LRR



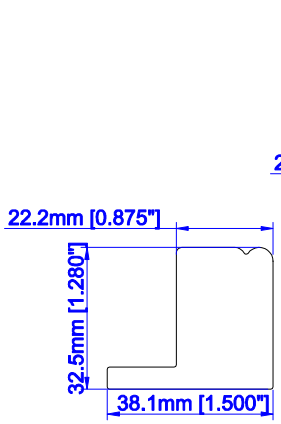
- 3 Panels – LLR



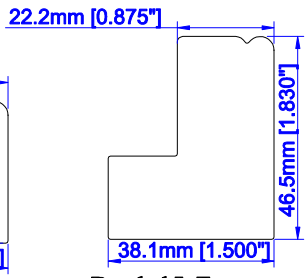
- 4 Panels - LLRR



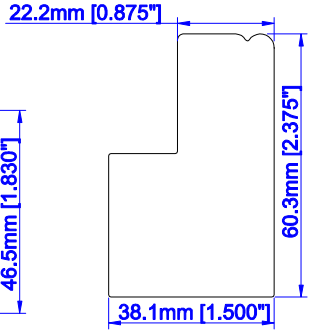
Frame Styles



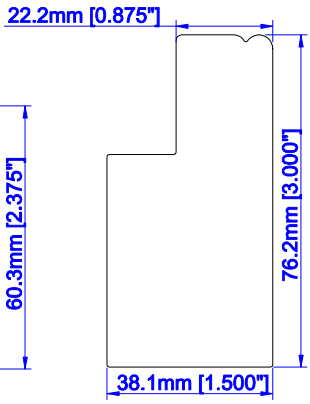
Beaded L W/1/4" Light Block



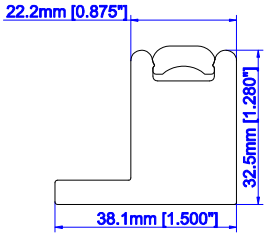
Beaded L Frame



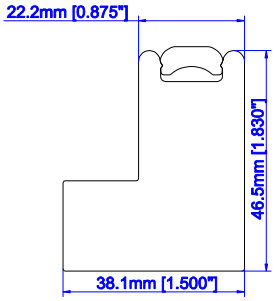
Beaded L W/1/2" Buildout



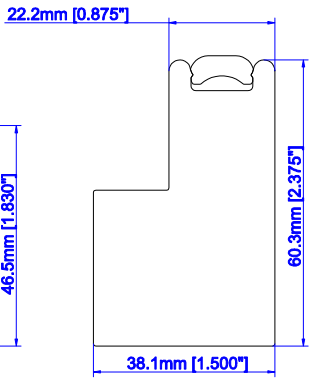
Beaded L W/1" Buildout



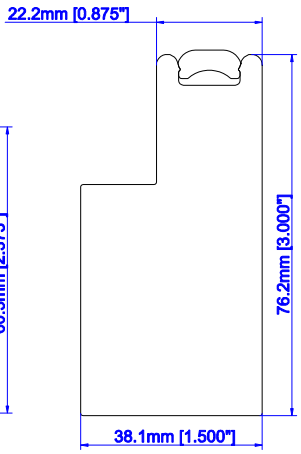
Vintage L Frame W/1/4" Light Block



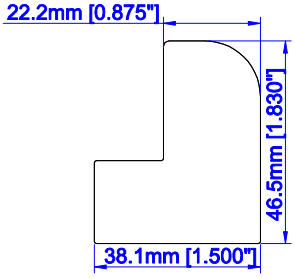
Vintage L Frame



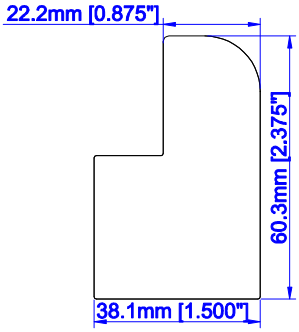
Vintage L W/1/2" Buildout



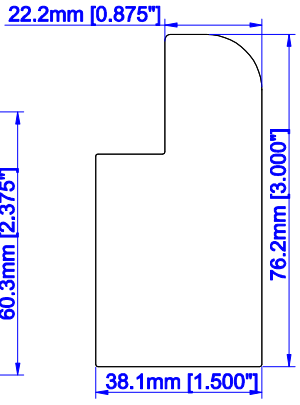
Vintage L W/1" Buildout



Bullnose L

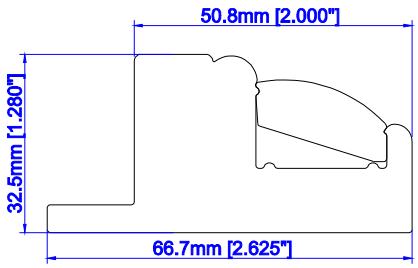


Bullnose L Frame W/ 1/2" Buildout

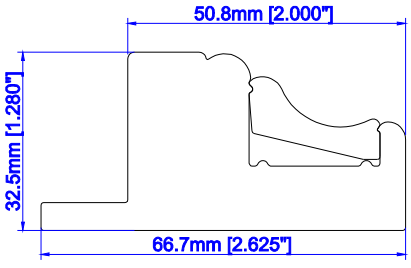


Bullnose L Frame W/ 1" Buildout

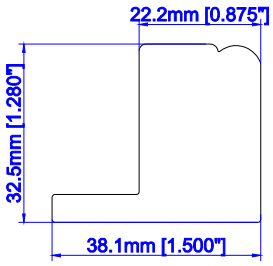
Frame Styles



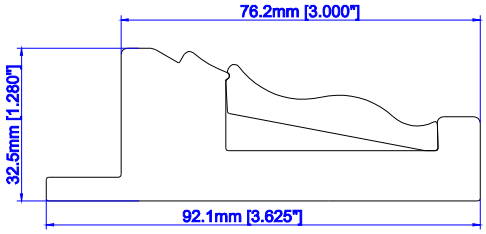
2" Camber Deco Frame



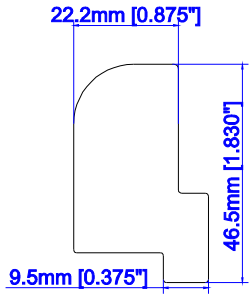
2" Classic Deco Frame



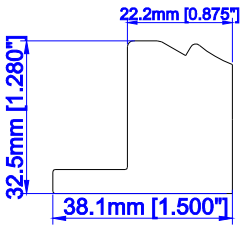
2" Deco Sill Plate



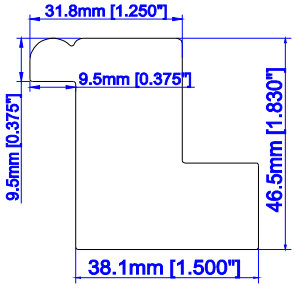
3" Ridge Deco Frame



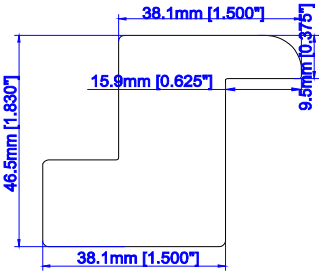
Tilt Out Z Frame



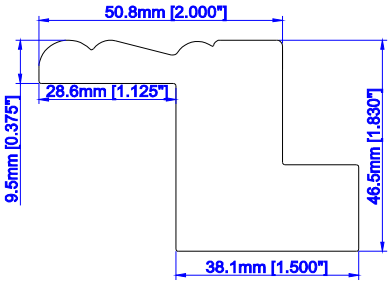
Ridge Deco Sill Plate



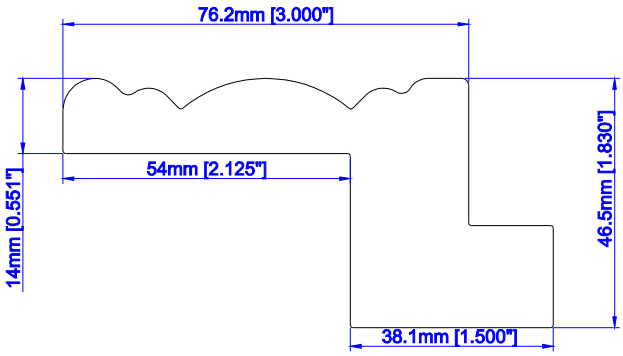
1 1/4" Beaded Z Frame



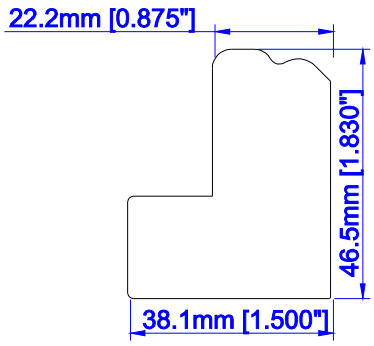
1 1/2" Bullnose Z Frame



2" Bel Air Z Frame

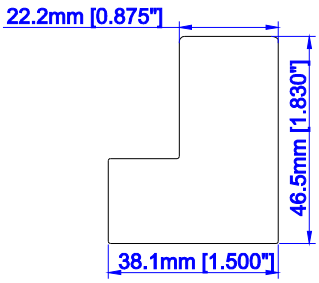


3" Crown Z Frame

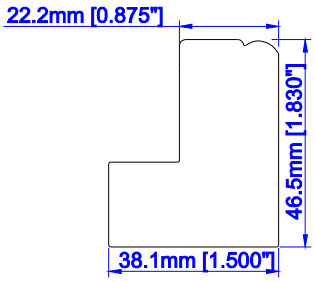


3" Crown Z Sill Plate

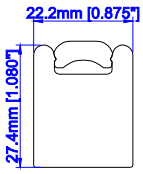
Frame Styles



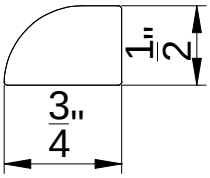
1 1/2" Bullnose Z
1 1/4" Beaded Z
Sill Plate



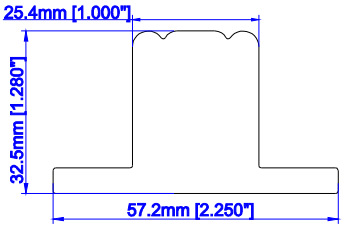
2" Bel Air Z Sill Plate



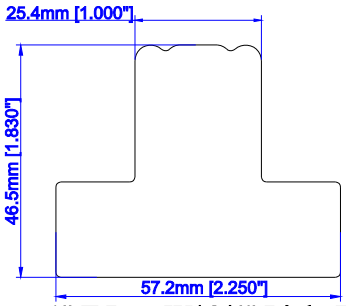
Vintage Hang Strip



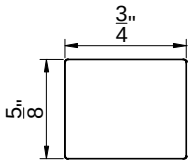
Quarter Round

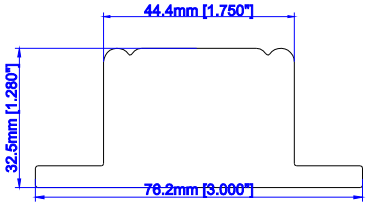


1" T Post W/ 1/4" Light Block (Deco)

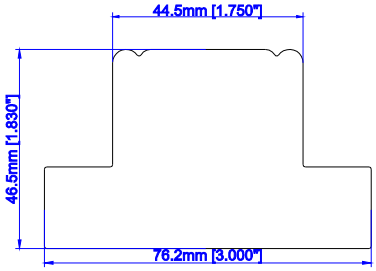


1" T Post W/ 3/4" Light Block (L/Z/HS)



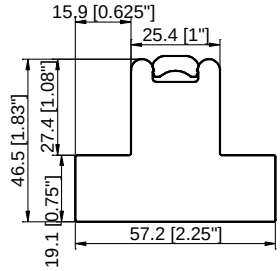


1 3/4" T Post W/ 1/4" Light Block (Deco)

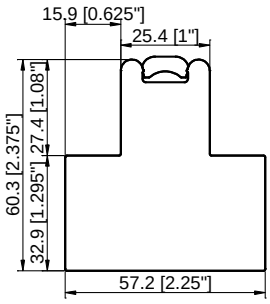


1 3/4" T Post W/ 3/4" Light Block (L/Z/HS)

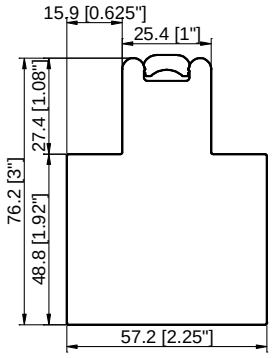
T-Post with Insert will be available after 10th August, 2015.



1" T Post with Insert w/ 3/4" Light Block

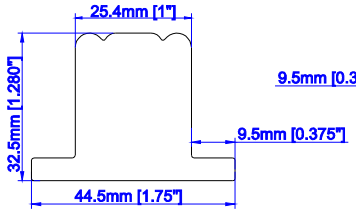


1" T Post with Insert w/ 1 5/16" Light Block

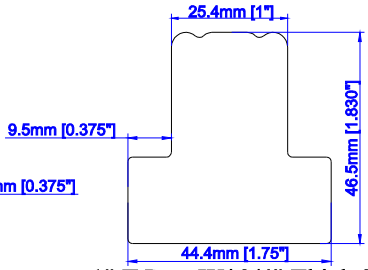


1" T Post with Insert w/ 1 15/16" Light Block

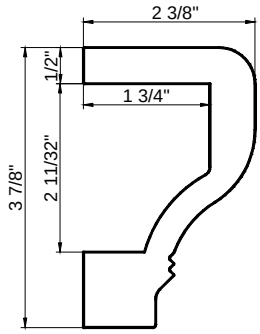
Frame Styles



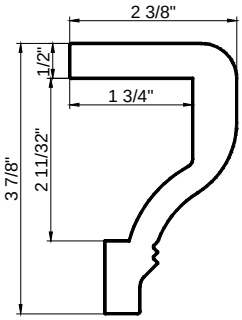
1" T Post W/ 1/4"Thick 3/8"Wide Light Block (Deco)



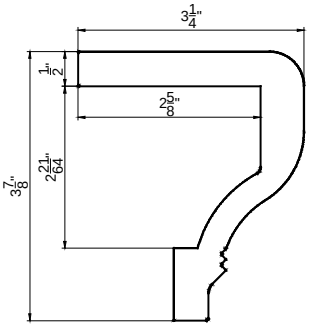
1" T Post W/ 3/4" Thick 3/8" Wide Light Block (L/Z/HS)



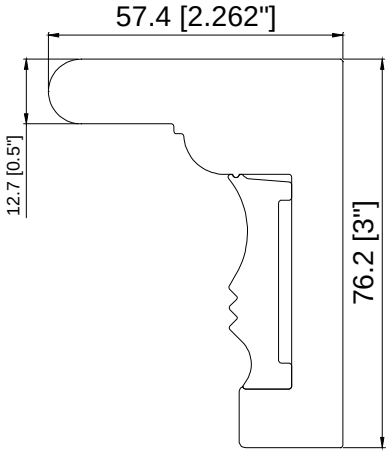
Curved Designer Sill Cap (L)



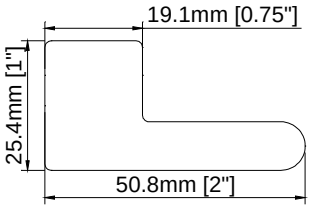
Curved Designer Sill Cap (D/HS)



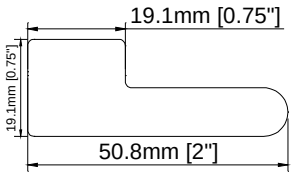
Curved Designer Sill Cap (Z)



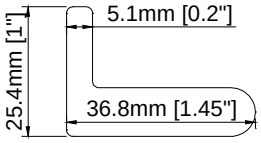
3" Deco Sill Frame



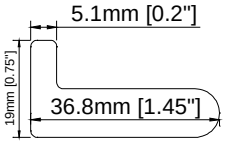
2" Sill Plate with 5/8" Light Block (Z)



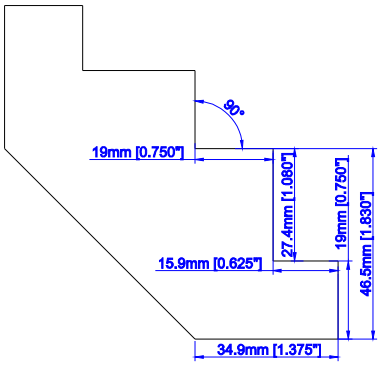
2" Sill Plate with 3/8" Light Block (Z)



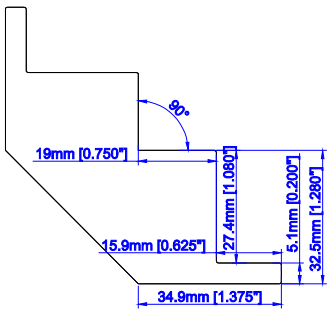
1.5" Sill Plate with 5/8" Light Block (Deco)



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

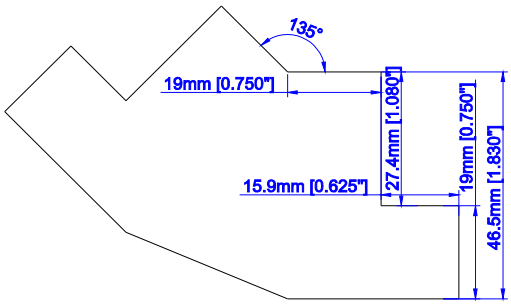


Corner Post W/ 3/4" Light Block (L/Z/HS)

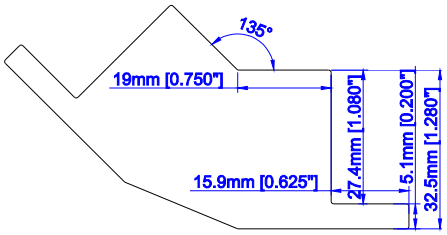


Corner Post W/ 1/4" Light Block (Deco)

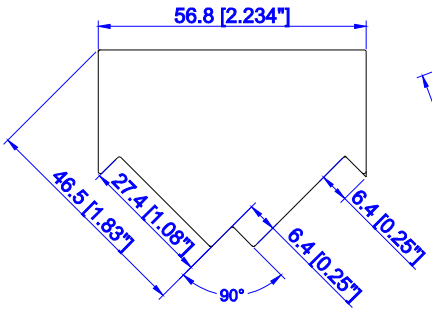
Frame Styles



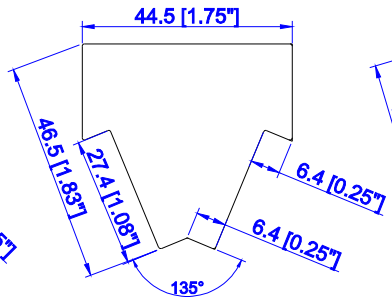
Bay Post W/ 3/4"
Light Block (L/Z/HS)



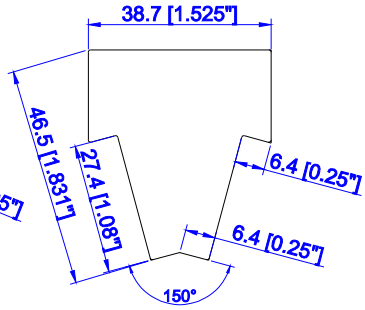
Bay Post W/ 1/4"
Light Block (Deco)



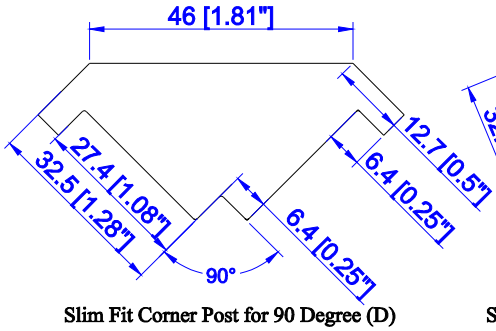
Slim Fit Corner Post for
90 Degree (L/Z/HS)



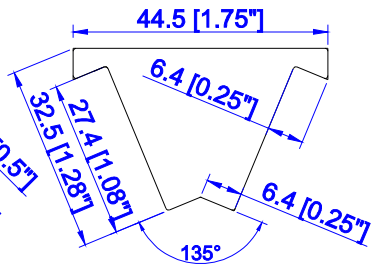
Slim Fit Bay Post for
135 Degree (L/Z/HS)



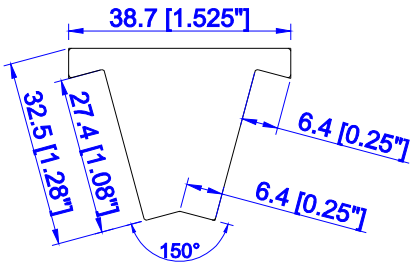
Slim Fit Bay Post for
150 Degree (L/Z/HS)



Slim Fit Corner Post for 90 Degree (D)



Slim Fit Bay Post for 135 Degree (D)

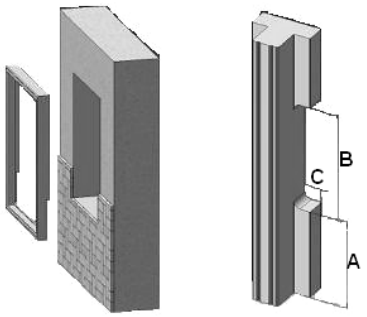


Slim Fit Bay Post for 150 Degree (D)

Notch out*:

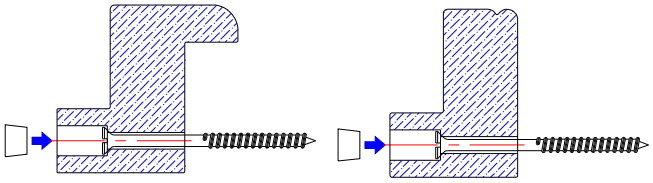
- o L Frame
- o T Post

Specify dimensions in special instruction box.

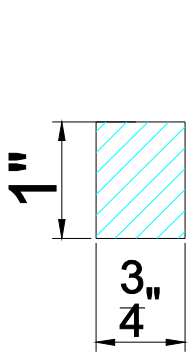


Frame Styles

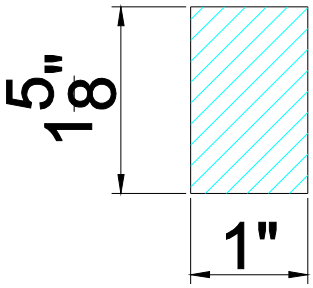
Pre-drill L or Z Frames:



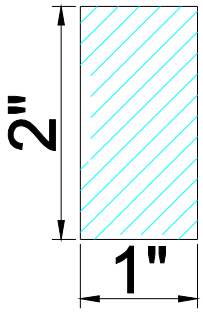
Batten Frame (For French Door Type E/F)



For 1 7/8" & 2 1/2" Louver



For 3 1/2" Louver



For 4 1/2" Louver

Woodlore® Shutters

General Product Specifications

Description	Minimum	Maximum
Single Panel Width (Regular)	6"	30" for 2½ “, 3½”, 4½ “ louver; 24” for 1 ⅞” louver
Single Panel Width (Bifold)	6"	24"
Single Panel Width (Bifold Track)	6"	24"
Single Panel Height	10"	133"
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	133" + frame

Shutters without bottom supports

Woodlore Shutters without bottom supports may sag and deform, including situations below:

1. Shutters with bottom gap over 0.1”;
2. Shutters with no frame or no existing sill at the bottom to support the panel.

Therefore, we strongly discourage the use of shutters for this application. We will continue to manufacture these shutters; however, they will not be covered under our warranty and will be subject to the guidelines listed below:

All Woodlore panel configurations:

- You must inform NWF of situations where shutters will not have bottom support when placing the initial order.

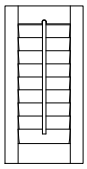
- Informing Norman Shutters when placing such orders ensures that the factory will add extra hinges to support the panel. This will reduce the probability of the panels sagging and increase shutter integrity. You must release Norman Shutters from liability in these situations.

- 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.

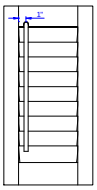
- If you want a bifold shutter, a track must be ordered to support the panels. Without a track, Norman Shutters will not manufacture the order even with liability waived.

Tilt Rods

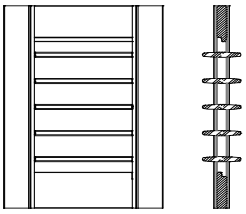
Standard Tilt Rod
Default Location: In the middle of the panel on front side (default).



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 $1^{7}/_{8}$” 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”
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.

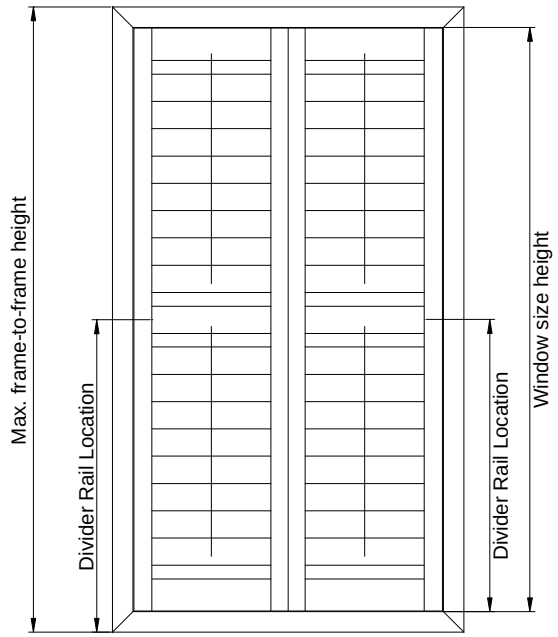
Woodlore® Shutters

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 74”.

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.



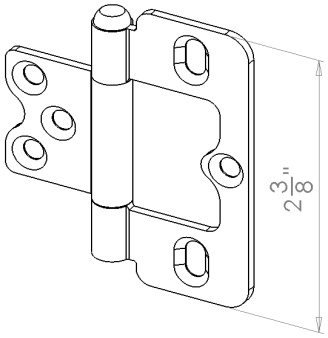
Divider rail allowable deviations

Louver Size	Allowable ± Deviation
1⅞"	¾"
2½"	1"
3½"	1½"
4½"	2"

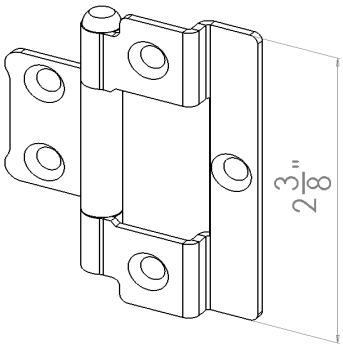
Hardware

Hinges

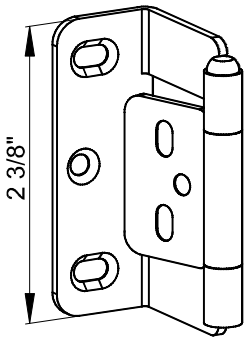
Self-Mortise Hinge



Bi-fold Hinge



L Hinge



Hinges are available in:
Pure White, Silk White, Bisque, Pearl, Bright Brass, Antique Brass, Black, Nickel plated, Brushed Nickel Plated and Stainless Steel*

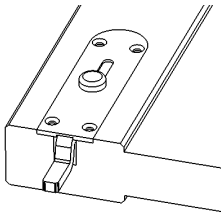
* Surcharge applies. Please see Options and Surcharges page for details.

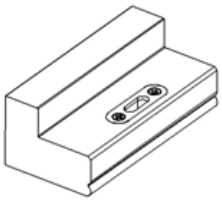
Panel Lock: **(not available for 1.625" Stile)**

Available Material: All

Color: Brush Nickel-Plated

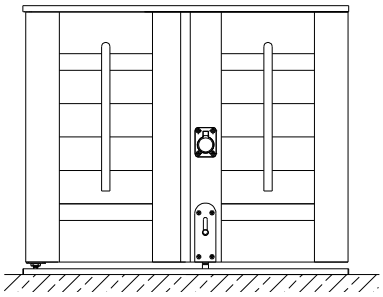




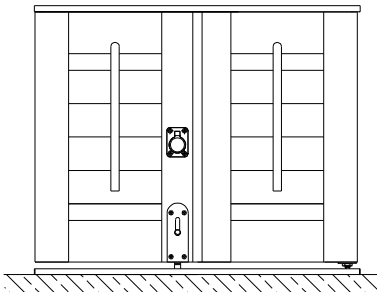


Position: **(Only available on Bottom for Track Shutters with Bottom Track; For Regular, available on Top/Bottom/both Top and Bottom)**

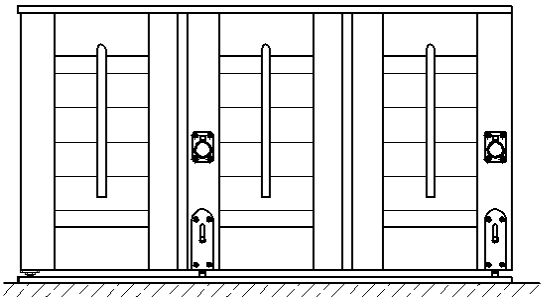
LL



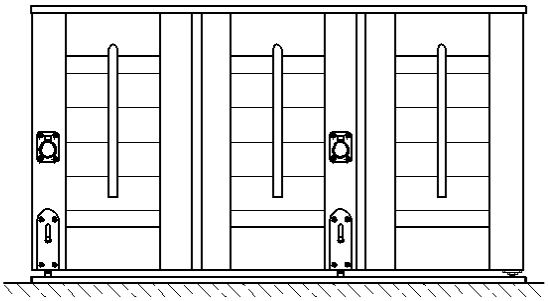
RR



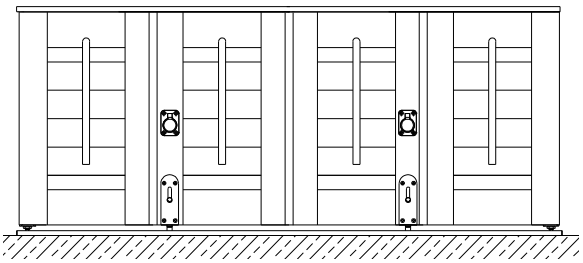
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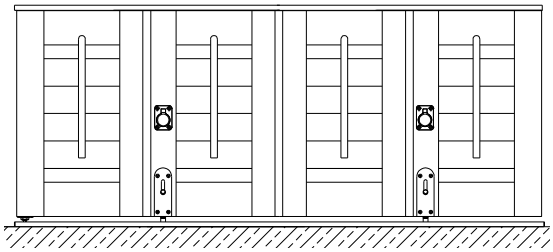
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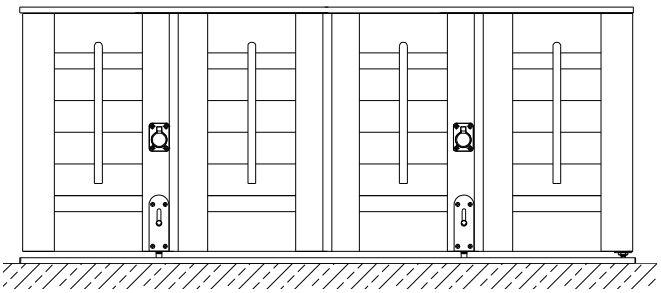
LLRR

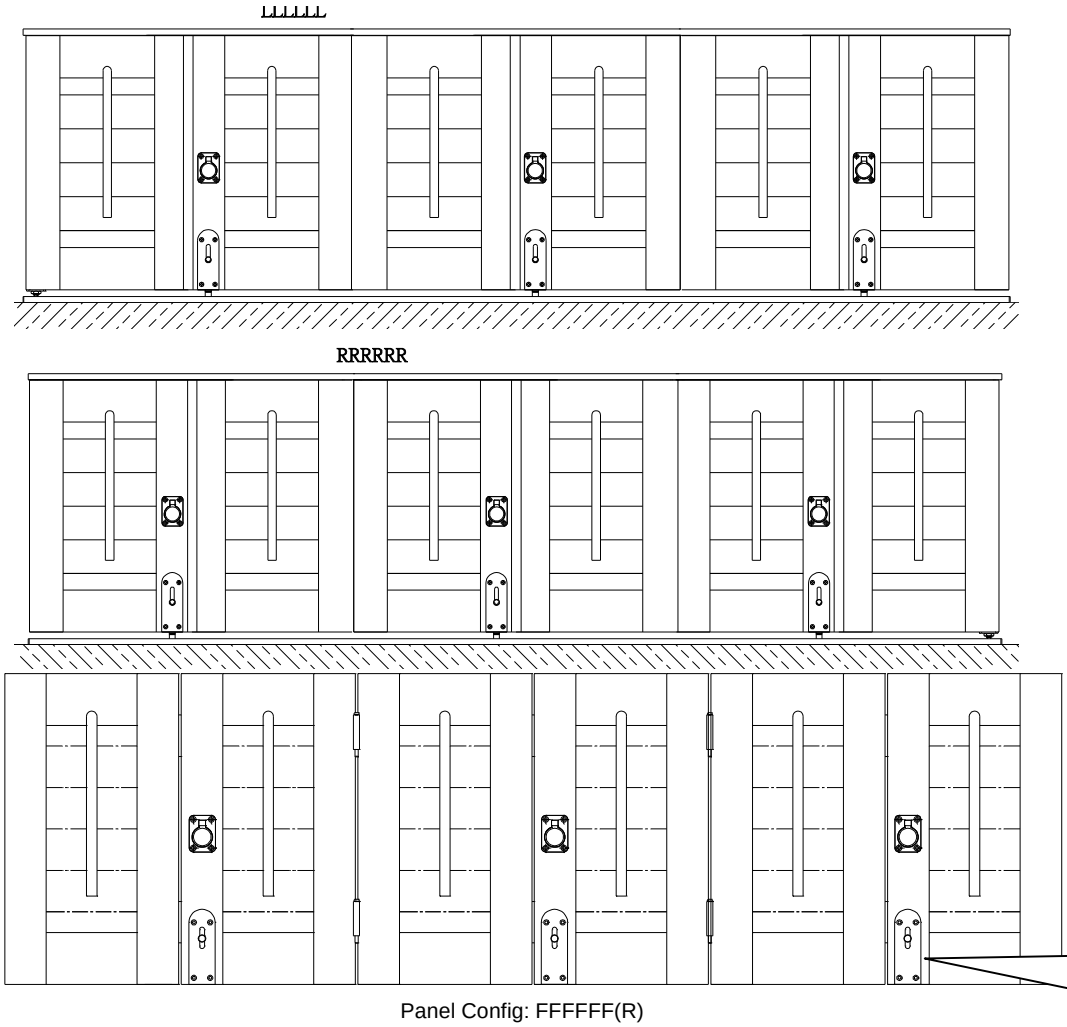


LLLL



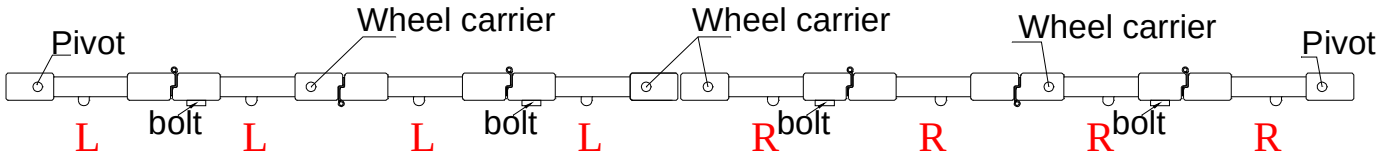
RRRR





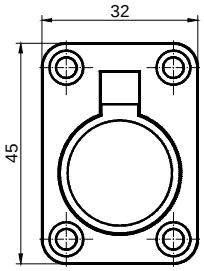
Panel Config: FFFFFF(R)

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)

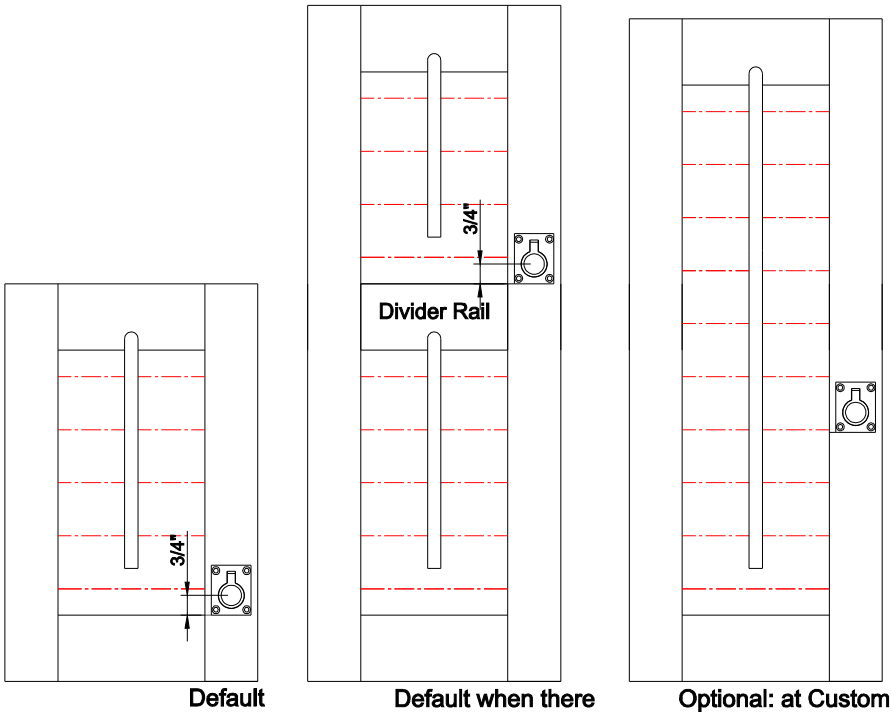


Please note the ring pull finish will match with the hinge finish.

Please see the matching chart below:

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

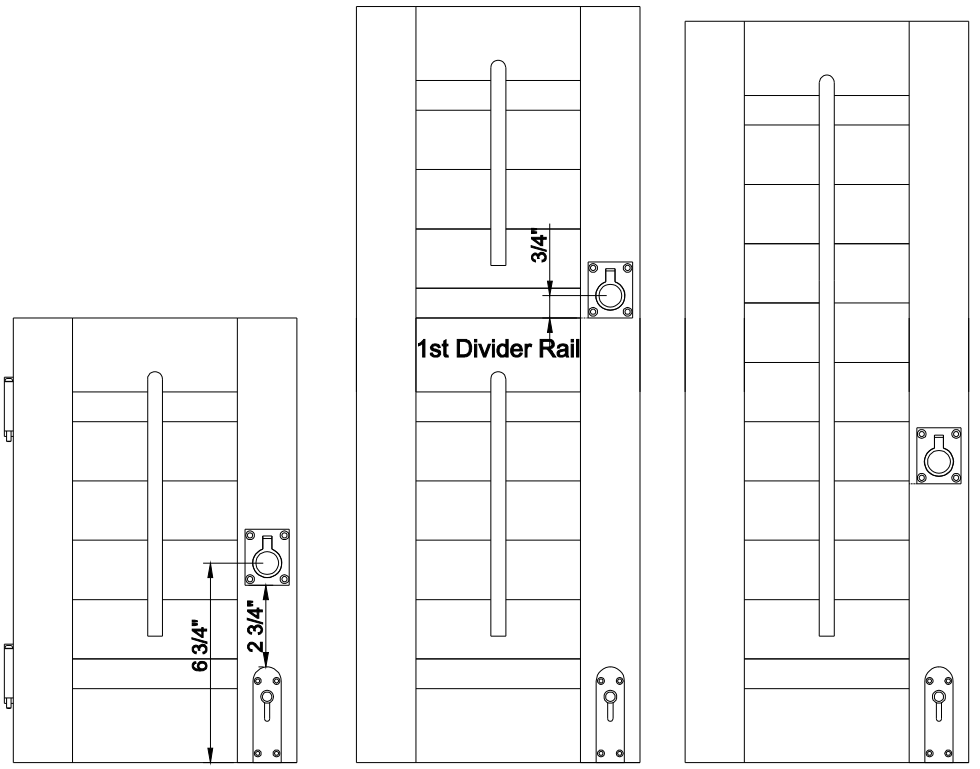
Position: For different panel configuration, please refer to the location of Panel Lock to show on which stile the pull will be fixed.



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.



Default | Default when there are Divider Rails | Optional: at Custom 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.

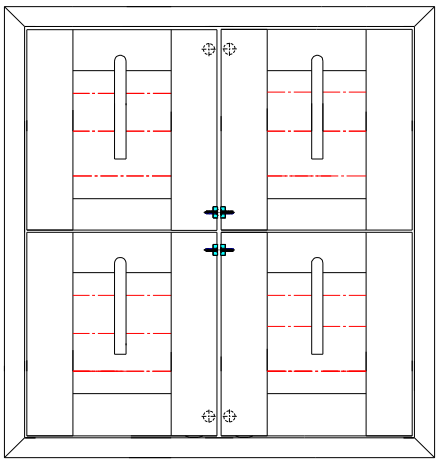
Side Magnet: Available for Butt, rabbet and Astragal stile



Side Magnets will be applied in following situation:

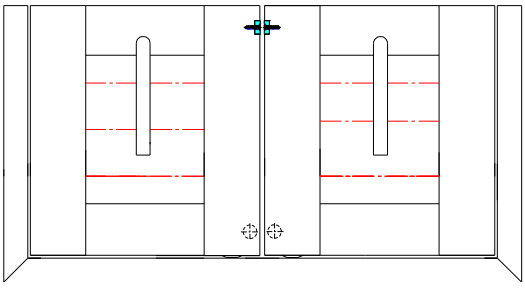
1. Double Hung shutter but without horizontal T post:

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



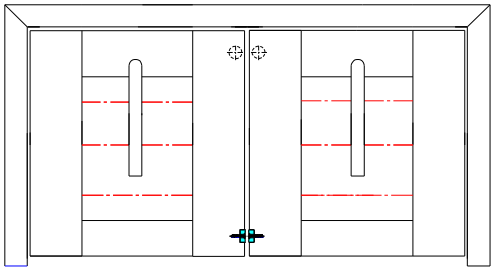
2. Café Shutter

   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)



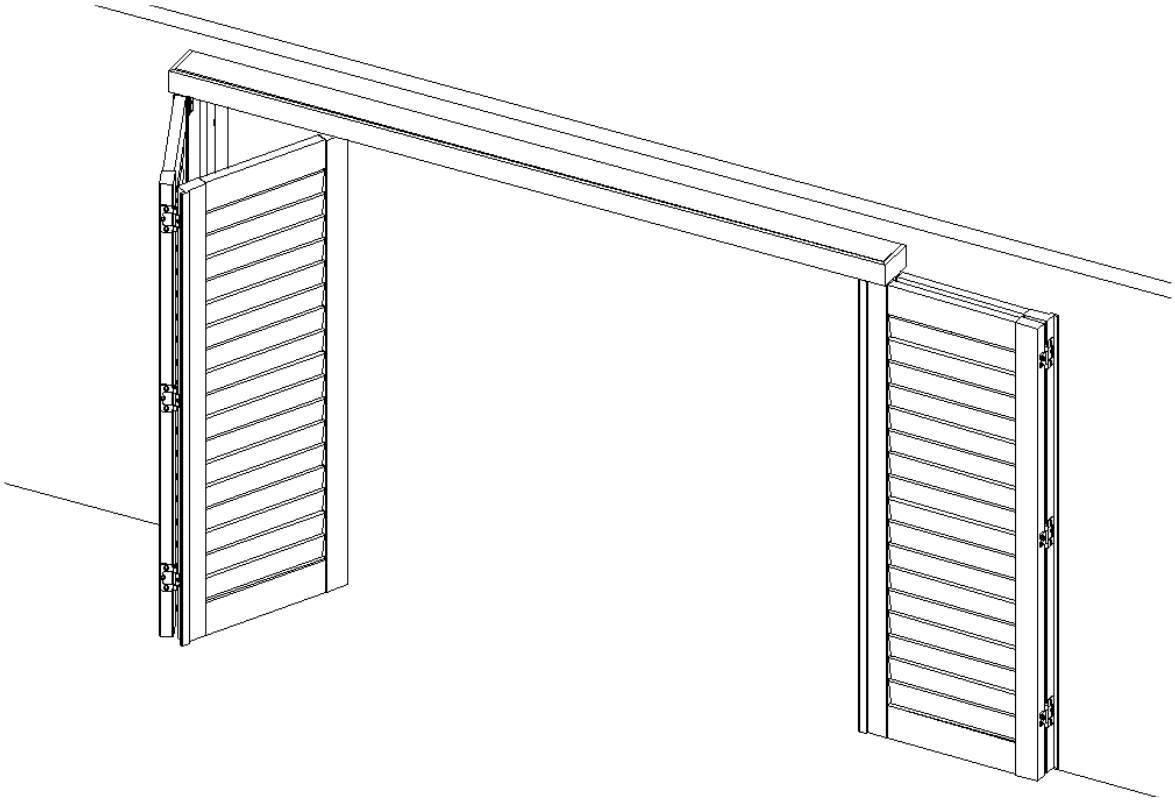
Woodlore® Shutters

Bi-fold 180™

Guidelines and Specs:

Description	Minimum	Maximum		
		1 ¼”	1⅞"	2½" ; 3½" ; 4½"
Single-Panel Width (Bi-fold Track)	6"	N/A	24”	24”
Single-Panel Width (LLL/RRR)	N/A	N/A	N/A	N/A
Single-Panel Height	10"	N/A	133"	133"

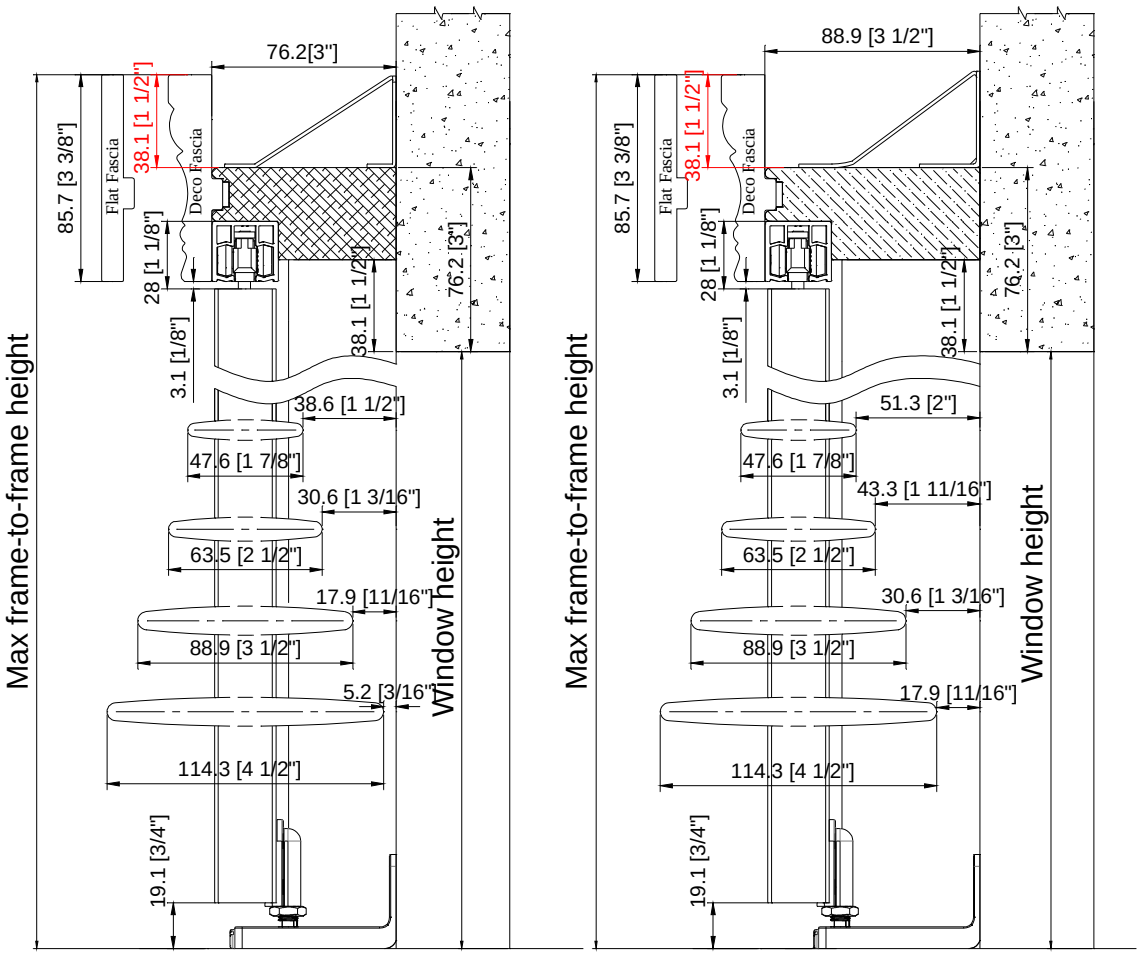
Outside Mount
Max frame-to-frame width: window width + 3 1/2”
Max frame-to-frame height: window height + 4 1/2”



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

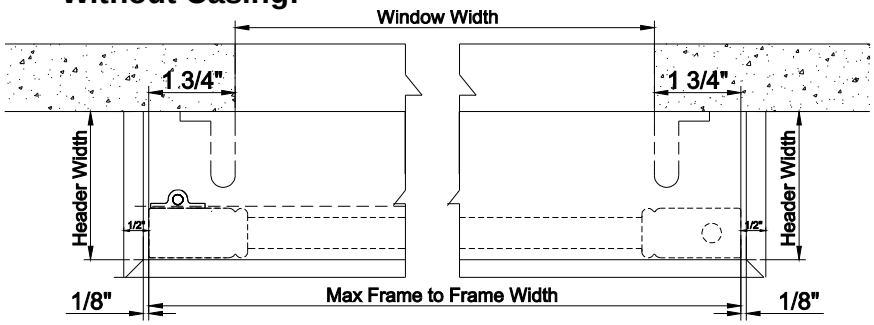
Mounting Options: Outside Mount only

Side View



Top View

Without Casing:



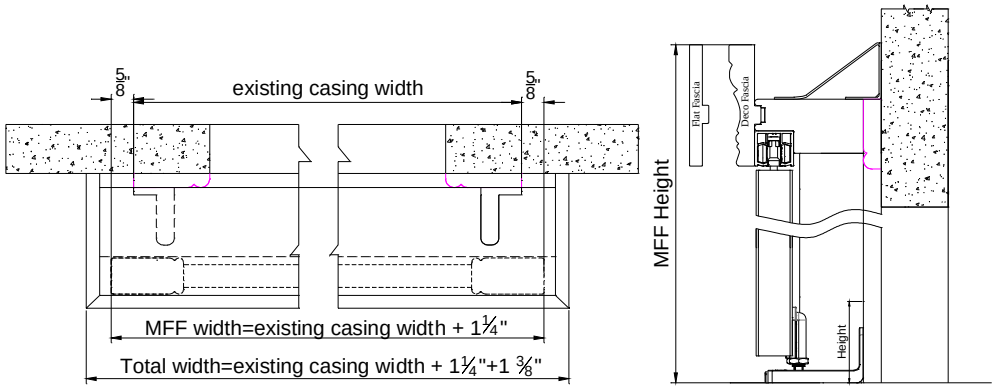
Note:

◇ Fascia return will protrude the panel about 1/2” for each side.

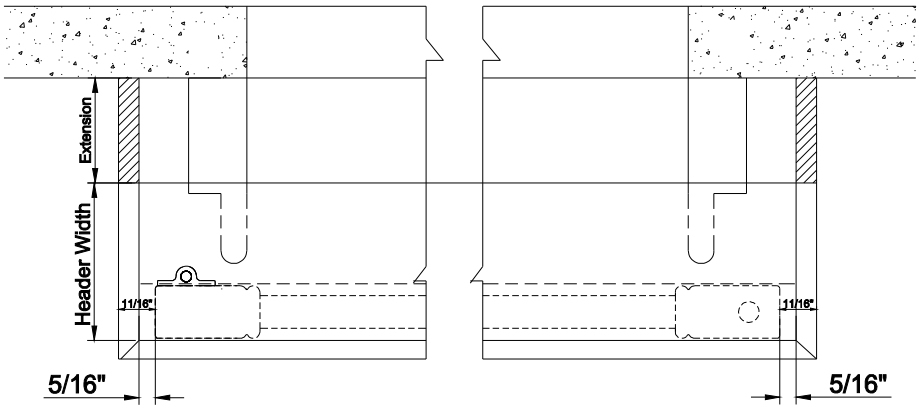
◇ The header will protrude the panel about 1/8” for each side.

◇ Header, light blocks, and bottom pivot bracket(s) must be installed on a flat surface.

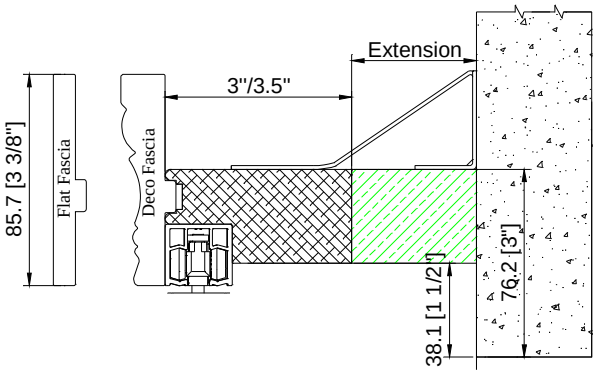
With Existing Casing:



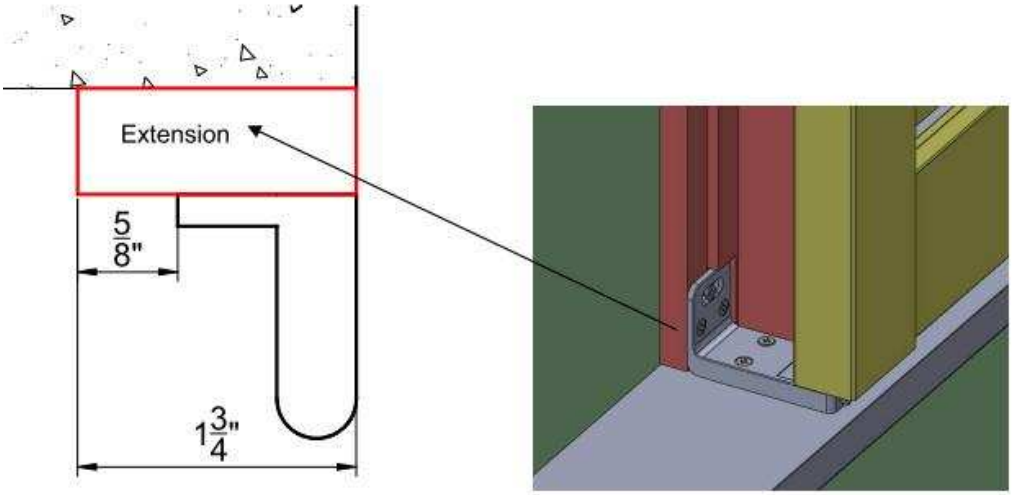
- ✧ Header Extension: Optional
- ✧ Custom extension up to 2” for Header
- ✧ When extension is needed, the header will protrude the panel 5/16” for each side and the fascia return will protrude the panel 11/16” for each side.



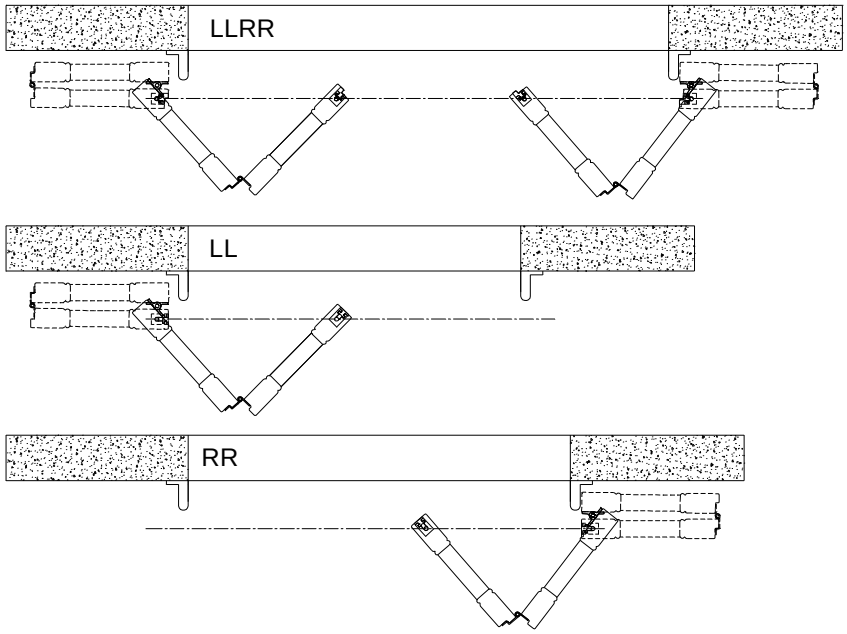
- ✧ The extension will be pre-attached.



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



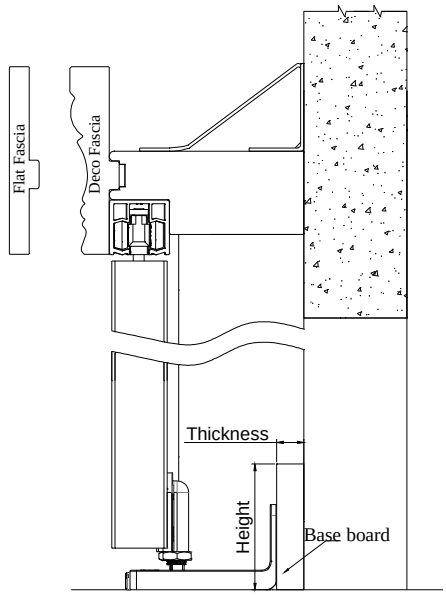
Panel Configuration：Only 2”, 2 1/4” rabbet and butt stiles are available. Center stile is not available.



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:



180^0 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"

180^0 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

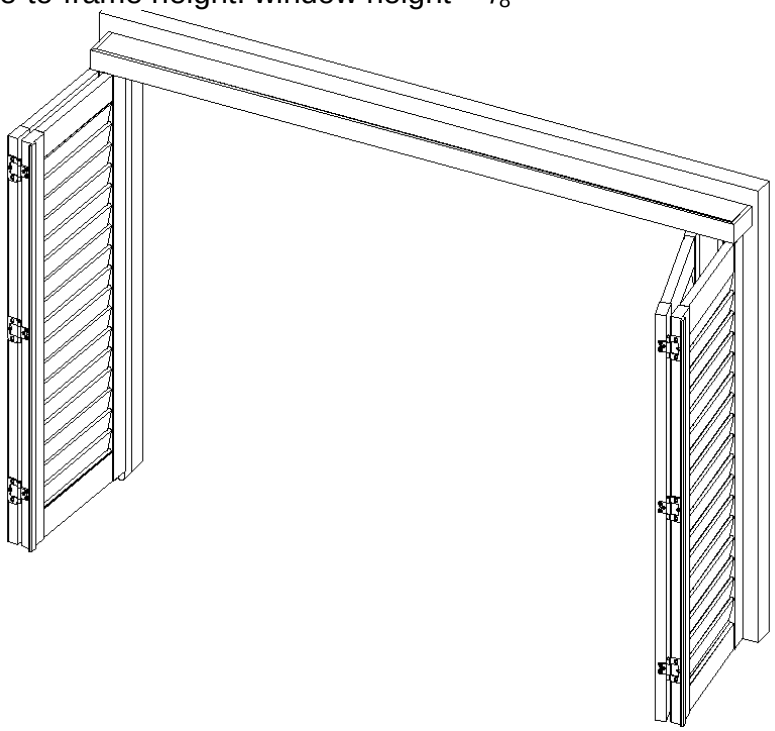
Woodlore® Shutters

Bi-fold 90

Guidelines and Specs:

Description	Minimum	Maximum		
		1 ¼"	1⅞"	2½" ; 3½" ; 4½"
Single-Panel Width (Bi-fold Track)	6"	N/A	24"	24"
Single-Panel Width (Multifold track up to 4 panels)	N/A	N/A	N/A	N/A
Single-Panel Height	10"	N/A	133"	133"

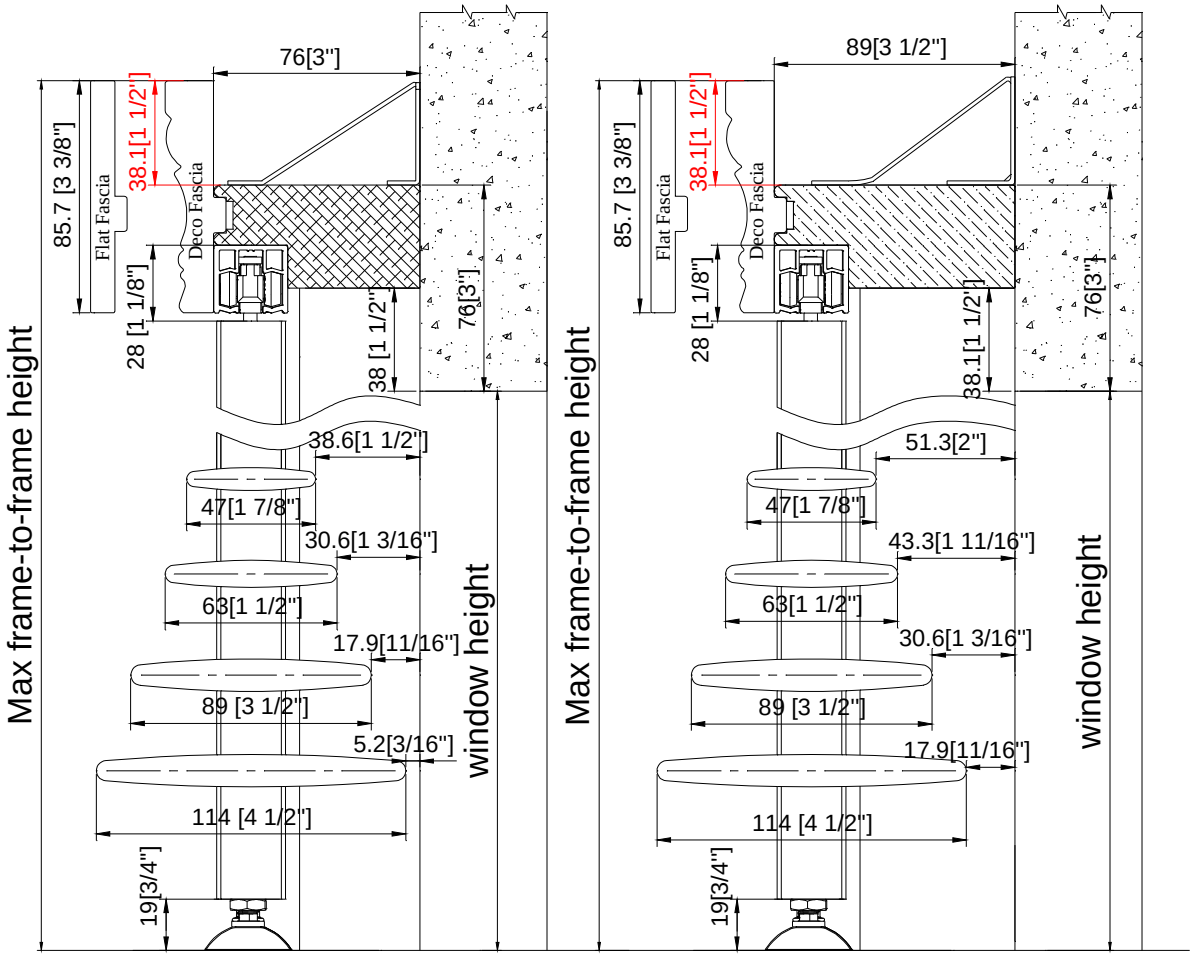
Outside Mount
Max frame-to-frame width: window width + 3 1/2"
Max frame-to-frame height: window height + 4 1/2"
Semi-Inside Mount
Max frame-to-frame width: window width - $^{1}/_{8}$"
Max frame-to-frame height: window height + 1 $^{3}/_{8}$"
Inside Mount
Max frame-to-frame width: window width - $^{1}/_{8}$"
Max frame-to-frame height: window height - $^{1}/_{8}$"



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

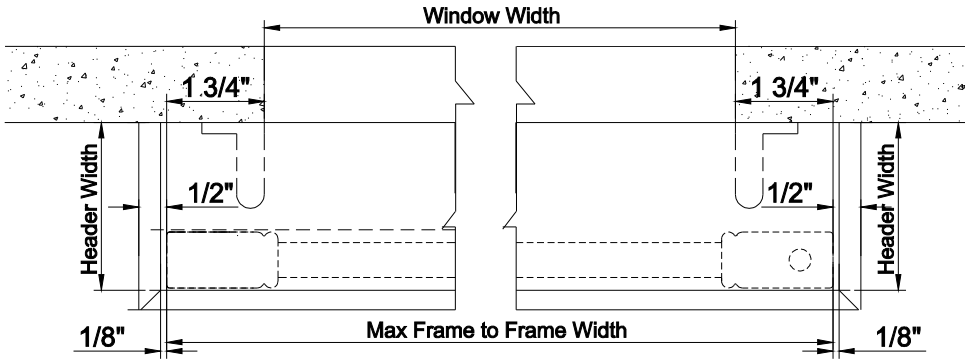
Mounting Options: Outside Mount

Side View



Top View

Without Casing:



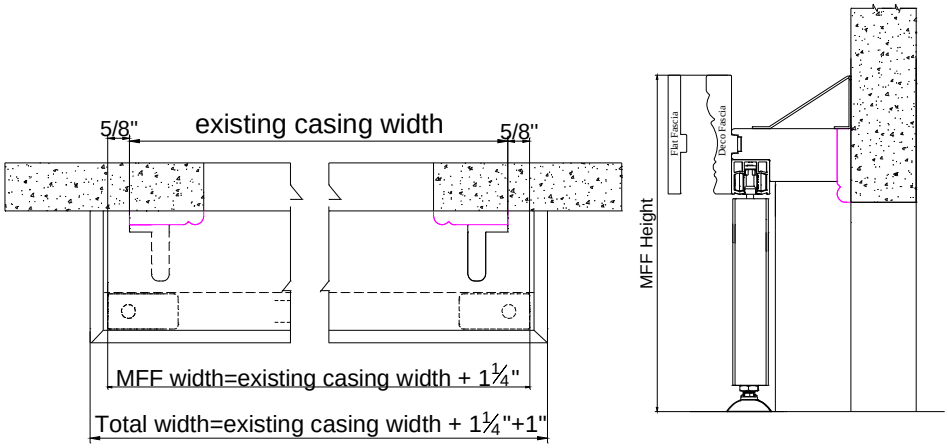
Note:

◇ Fascia return will protrude the panel about 1/2” for each side.

◇ The header will protrude the panel about 1/8” for each side.

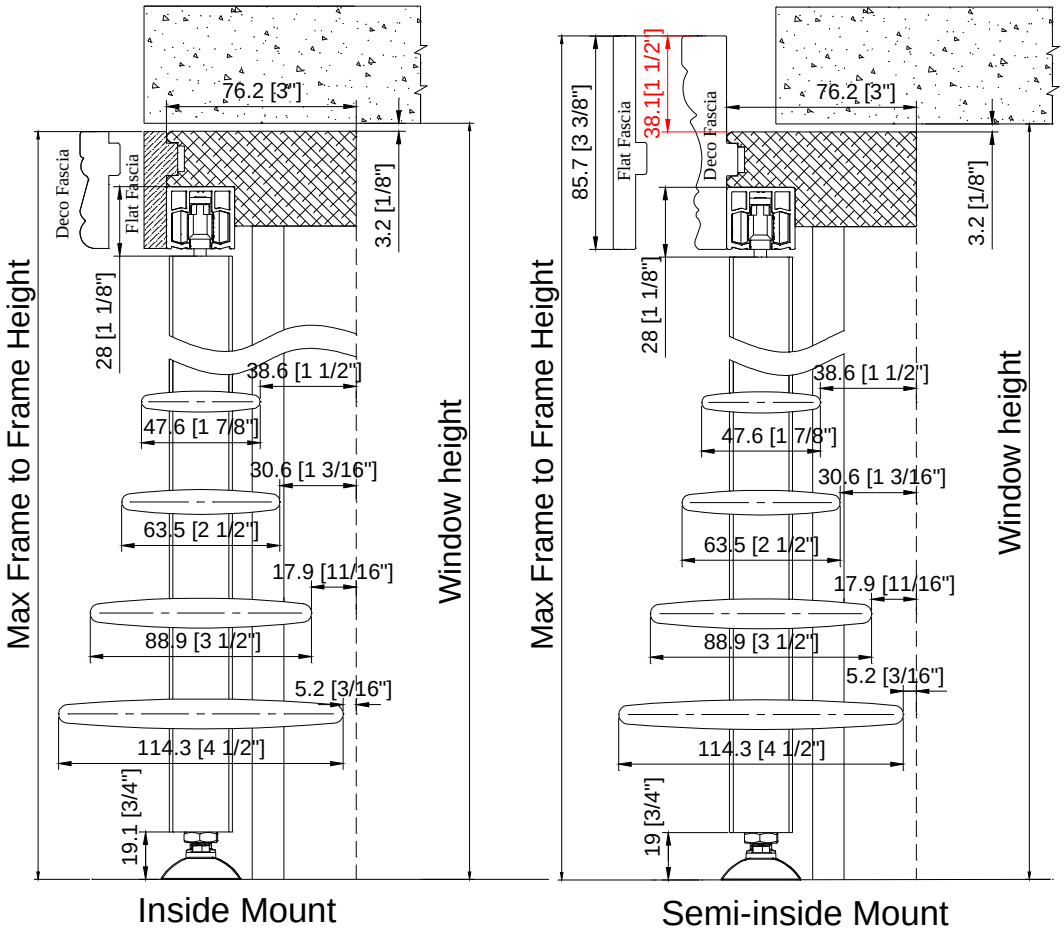
◇ Header, light blocks, and bottom pivot bracket(s) must

With Existing Casing:

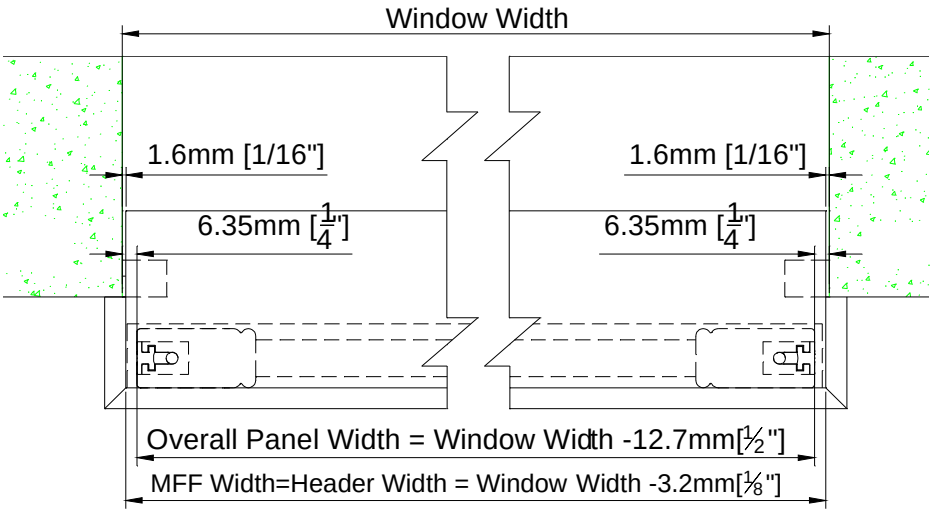


Semi-Inside/Inside Mount

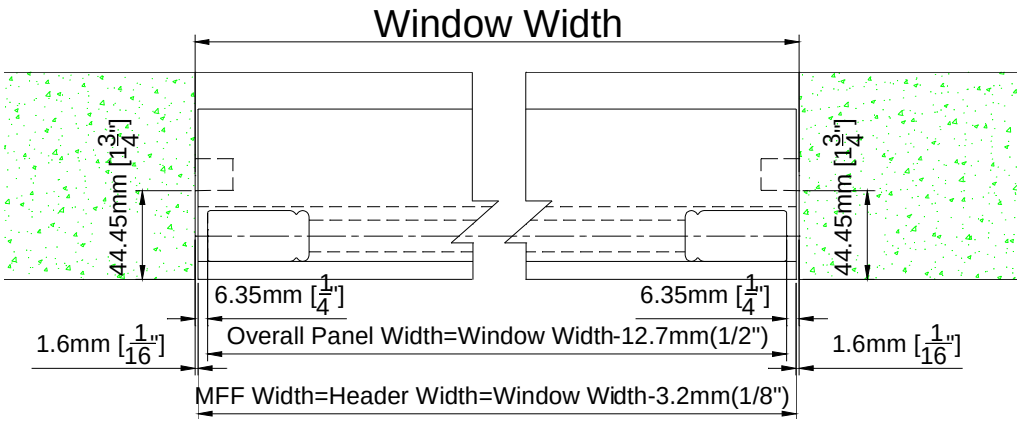
Side View



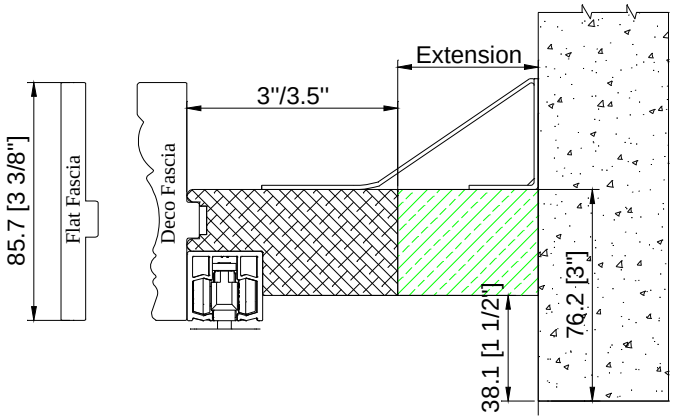
Semi-Inside Mount Top View



Inside Mount Top View

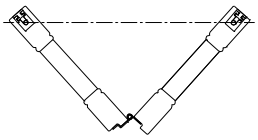


- ✧ Header Extension: Optional.
- ✧ Custom extension up to 2” for Header
- ✧ The extension will be pre-attached.

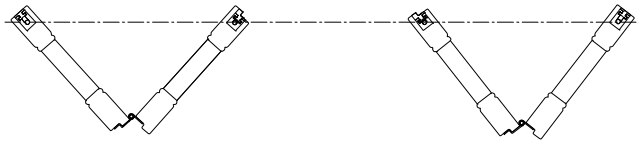


Panel Configuration：Only 2”, 2 1/4” rabbet and butt stiles are available. Center stile is not available.

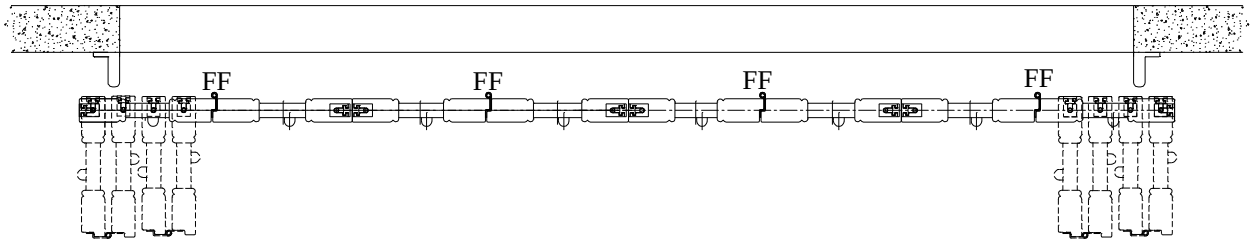
LL or RR

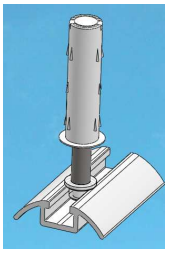


LLRR



90^0 Floating Panels



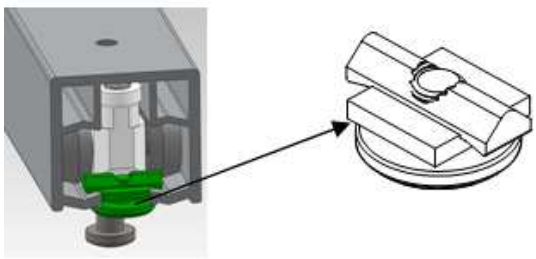


- Two or four panels can be hinged together, fold and slide to either direction
- Application comes with wheel carrier, spring loaded guide and floor track
- Can be used on large window

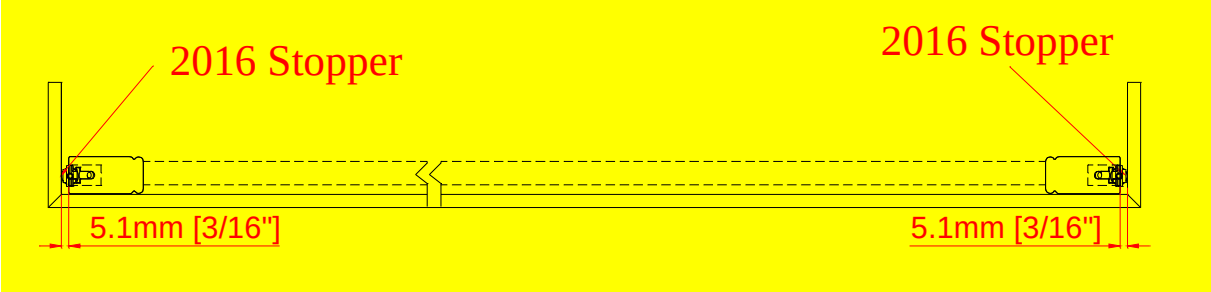
Note:

1. For 90^0 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

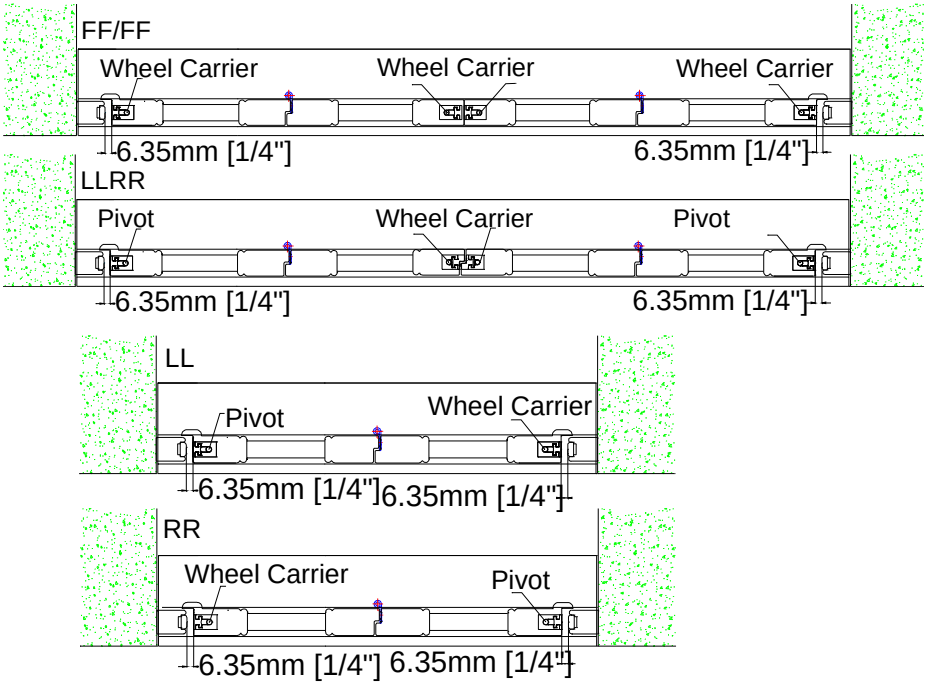


Please see drawing below to show the gap.

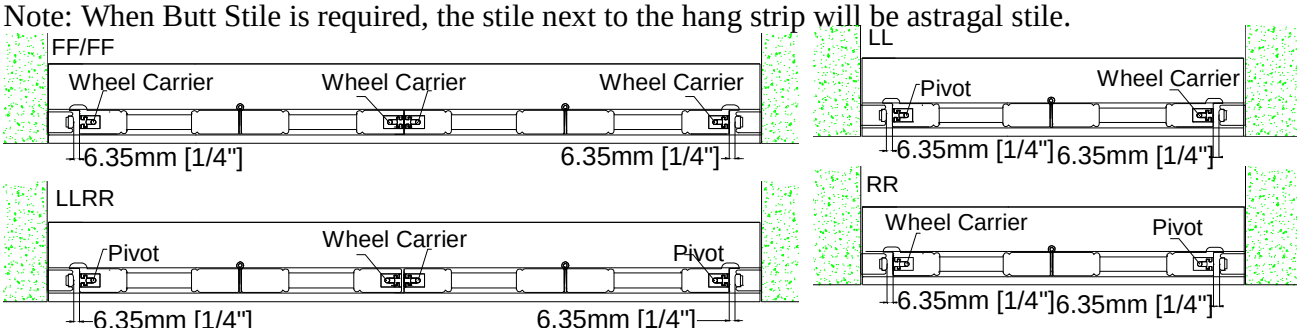


2. When rabbet stile required, the meeting stile of unhinged stile will be butt stile by default.

Optional (Hang Strip for Inside Mount Only)



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



90 degree Bi Fold Track Shutters Framing Materials

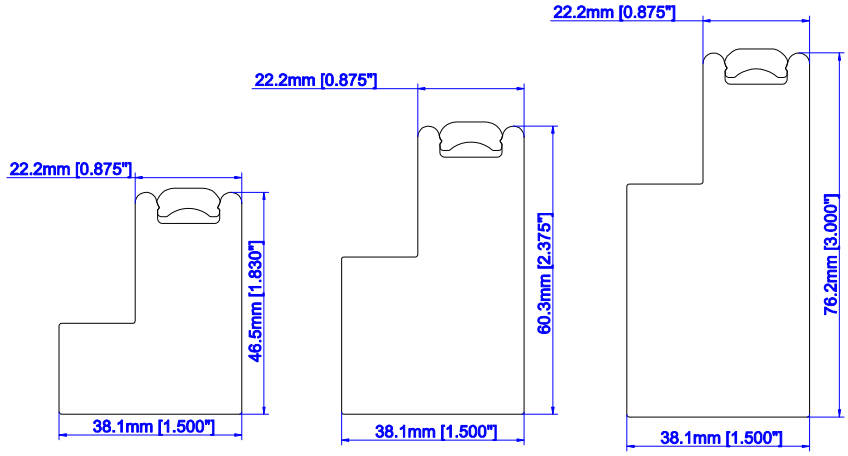
Type		Header Dimension	Top Fascia Dimension	Light Block Strip Dimension	Hang Strip Dimension
Header & Top Fascia& Light Block Strip	OM	3”	3 3/8"	1 9/16"	
		3 1/2”		2 1/16"	
	Semi-IM	3"		5/8"x3/4"	
	IM	3"	1 7/8"	5/8"x3/4"	1.08”x0.875”

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

Frame Hinged Bifold

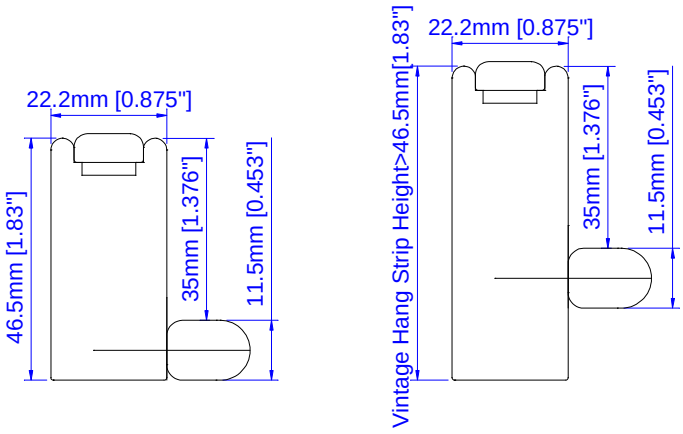
Available Stile: Rabbet Stile Only

Available Frame type



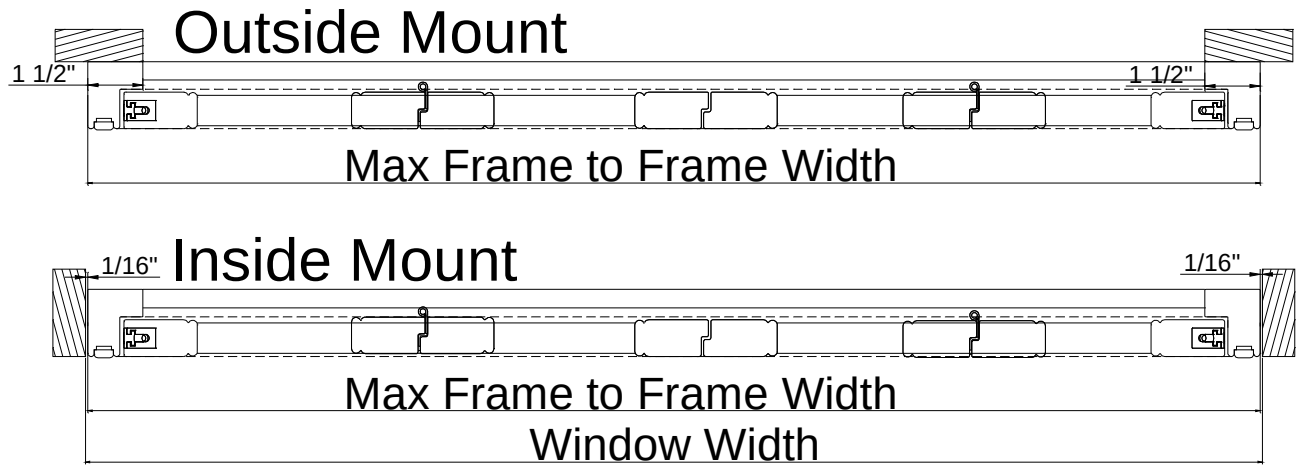
Vintage L Frame | Vintage L W/1/2" Buildout | Vintage L W/1" Buildout

Vintage Hang Strip with 11.5mm light block: For single direction shutter with even panel qty, the frame on the unhinged side will be Vintage Hang Strip with 11.5mm [0.453’’] 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

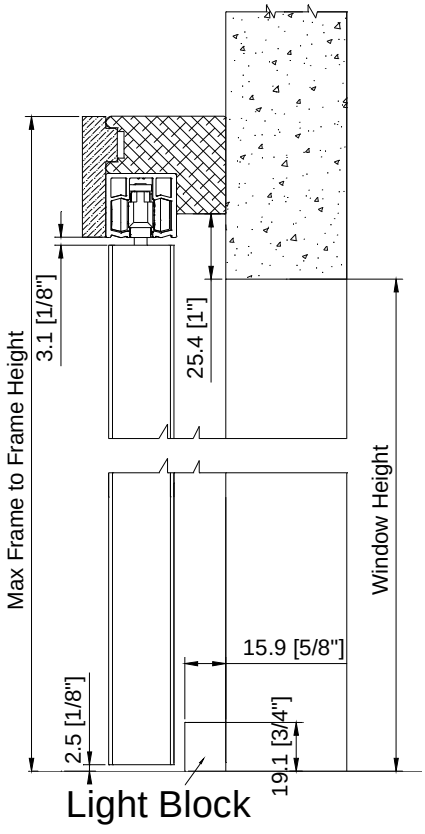
Hinged at Left or Right with wheel assembly at top;



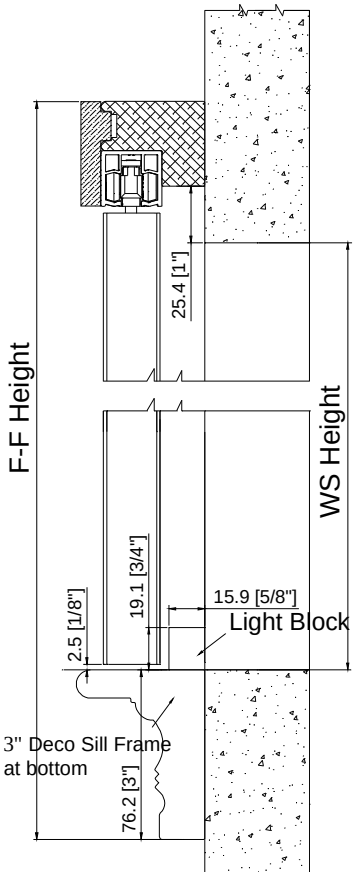
Side View

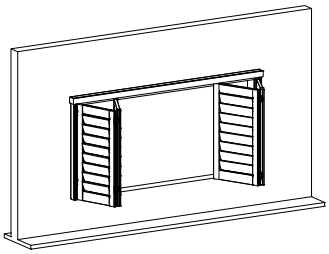
Outside Mount

3-Sides + bottom light block



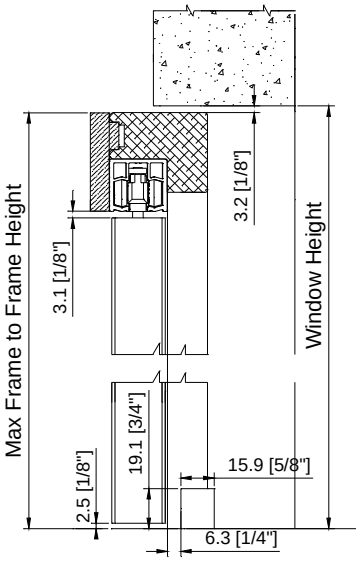
3-Sides + 3” Deco Sill Frame



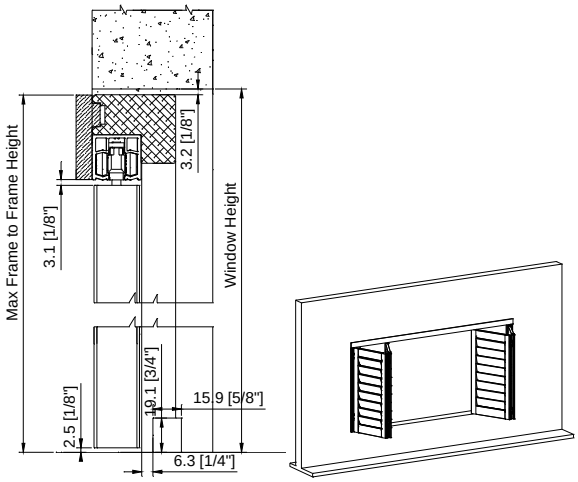


Note: For OM Frame Hinged Bifold shutter not to use as a door, if there is no existing sill at the bottom of the window opening, it is recommended to have the 3” Deco Sill Frame at the bottom.

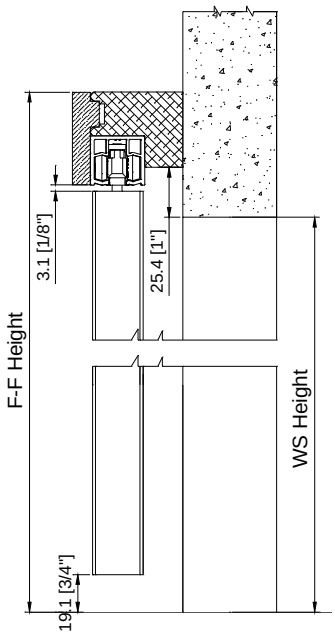
Semi-Inside



Inside Mount

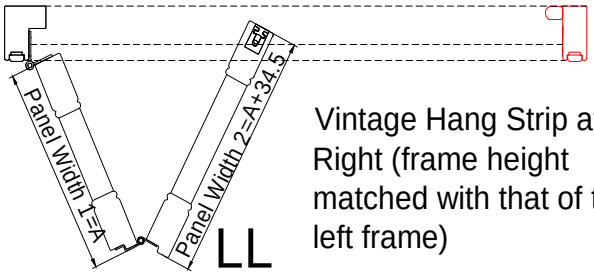


For frame hinged bifold track shutter used as door, the bottom gap will be 19mm by default. Please specify “Used As Door” on the order form.



Woodlore® Shutters

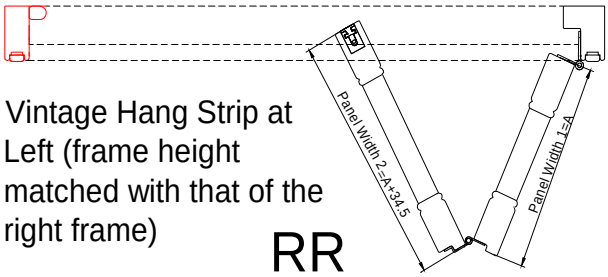
Panel Configuration (uneven panel width)



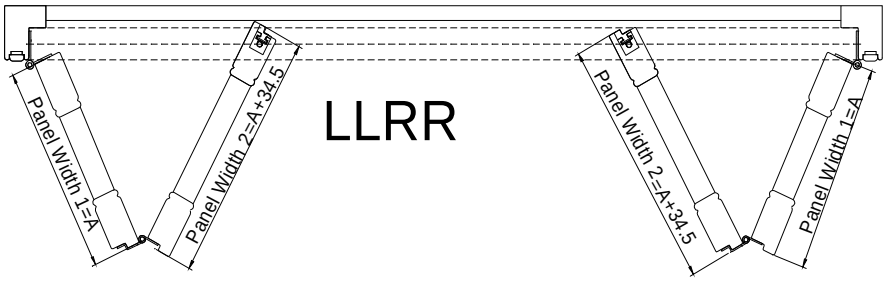
LL

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

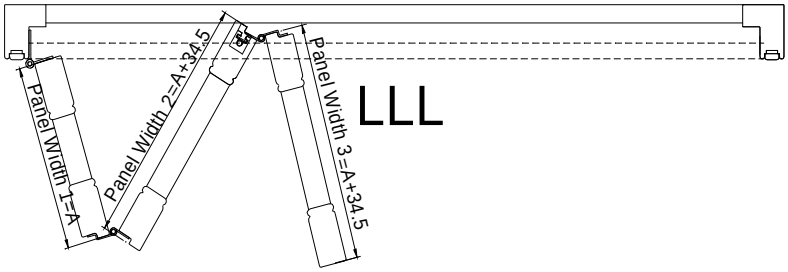
Vintage Hang Strip at Left (frame height matched with that of the right frame)



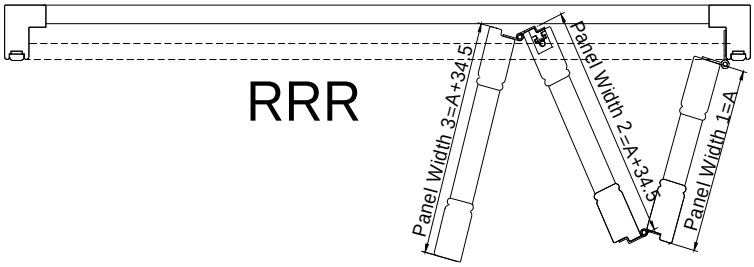
RR



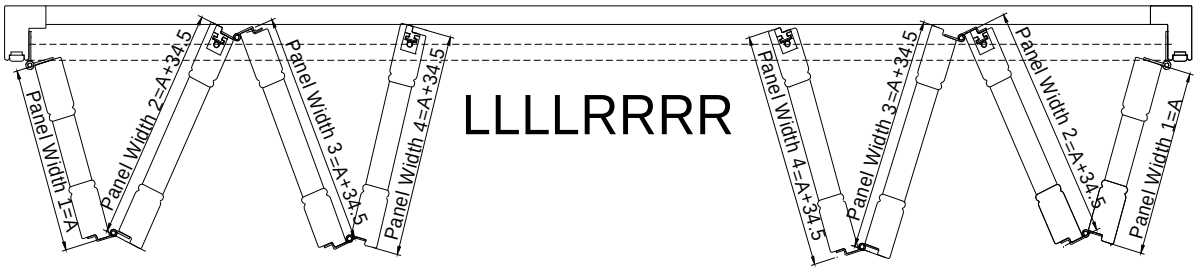
LLRR



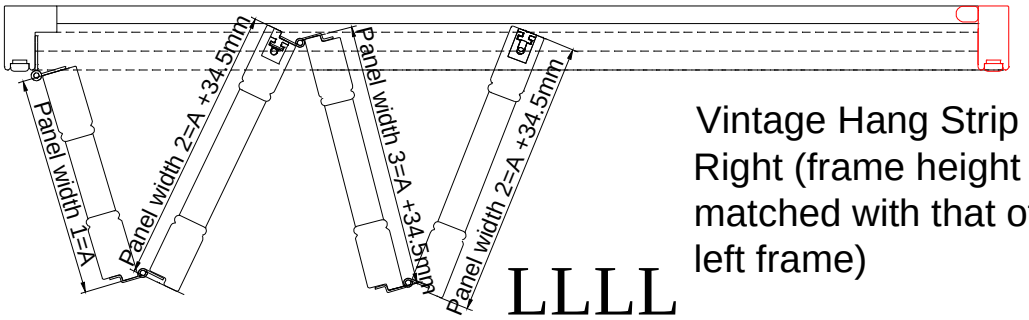
LLL



RRR

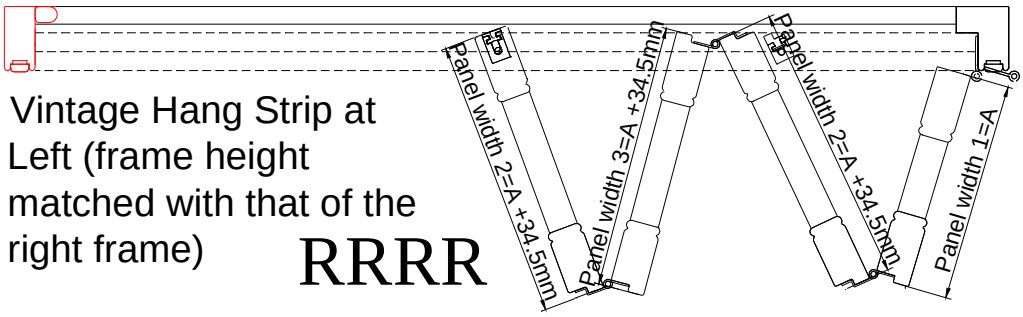


LLLLRRRR



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

LLLL

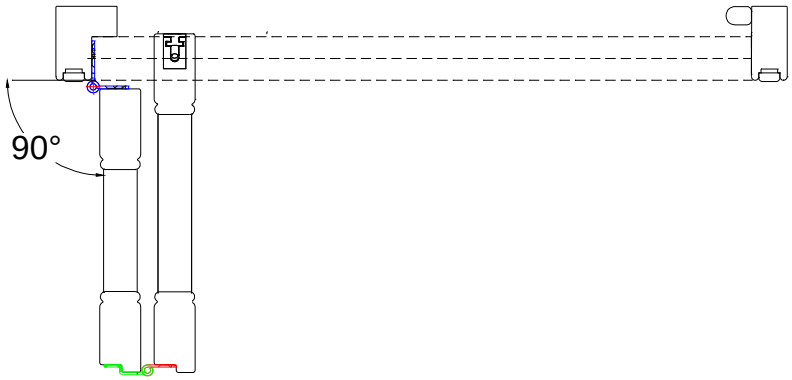


Vintage Hang Strip at Left (frame height matched with that of the right frame)

RRRR

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;

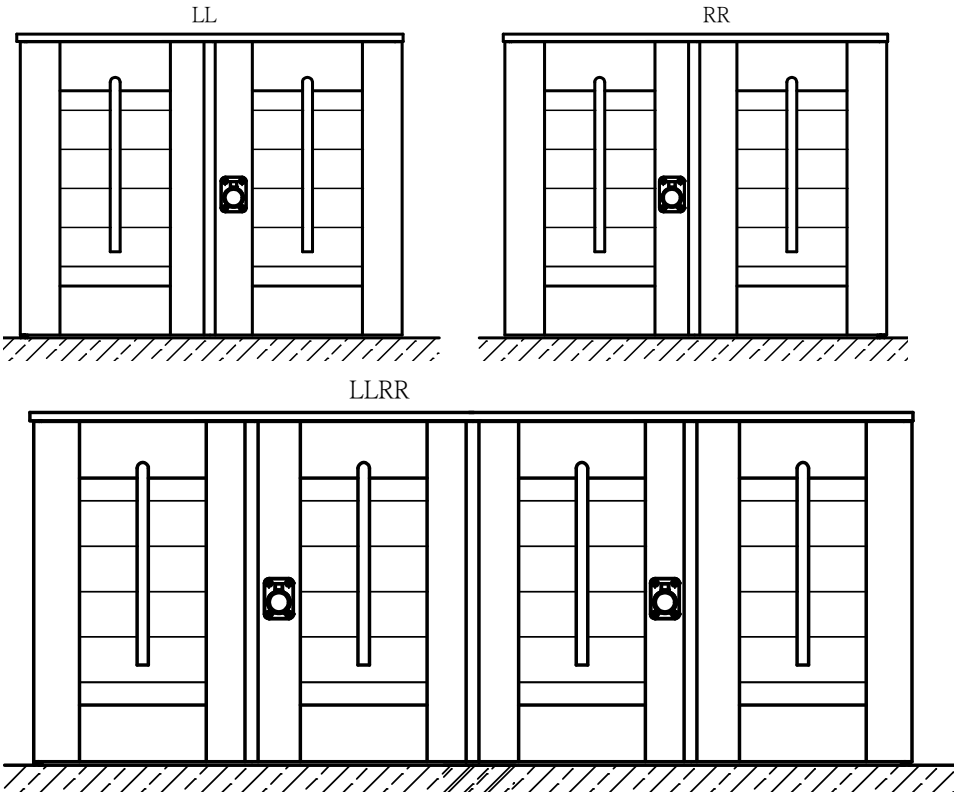


2. Frames available: Only Vintage L Frame

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.

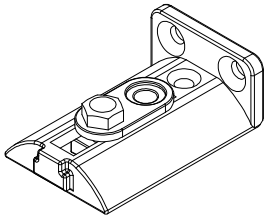
Ring Pull: The ring pull will be provided as an option; and for frame hinged bi-fold, the ring pull will be supplied as default; Customer need specify ring pull location on the order form. Ring pull location is measured from the floor to center of the ring pull in height direction.
Ring pull color will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

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

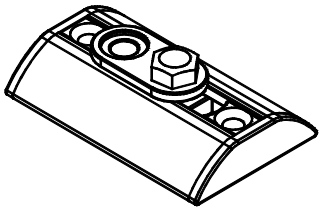


Bottom Pivot Bracket for 90 degree bifold:

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

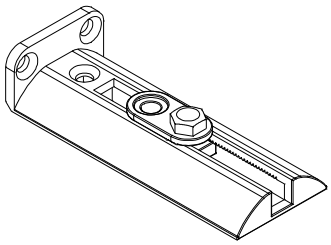


For Inside Mount, Bottom Pivot L Bracket will be supplied as default;



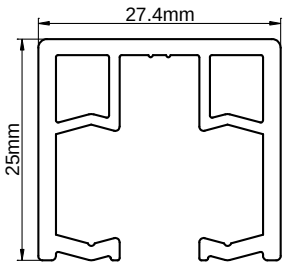
For Semi-Inside or Outside Mount, bottom pivot bracket will be supplied as default.

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

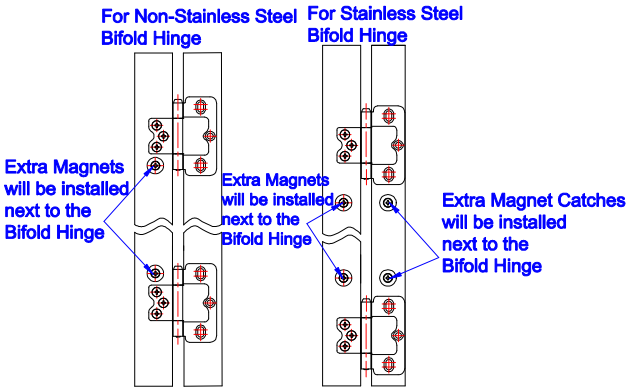


Track Dimension:

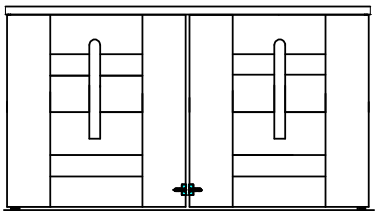
Top Track



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

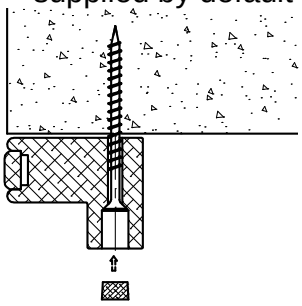


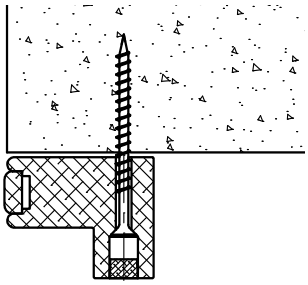
90^0 Bi Fold Track Shutters Hardware Box

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 screw 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 and screws and wood plug will be supplied by default





2016 Track Shutters—Bypass

Woodlore® Shutters

Guidelines and Specs:

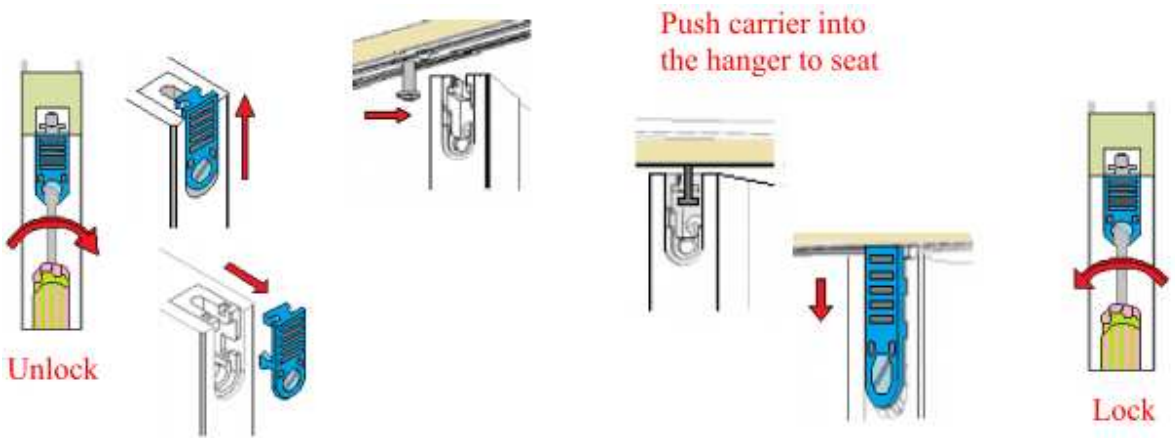
Description	Minimum	Maximum		
		1⅞"	2½"	3½" ; 4½"
Single-Panel Width (Woodlore)	6”	24”	30”	30”
Single-Panel Height	10"	133"	133”	133"

Outside Mount
Max frame-to-frame width: window width + 3”
Max frame-to-frame height: window height + 4½’’

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 - $^{1}/_{8}$”

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

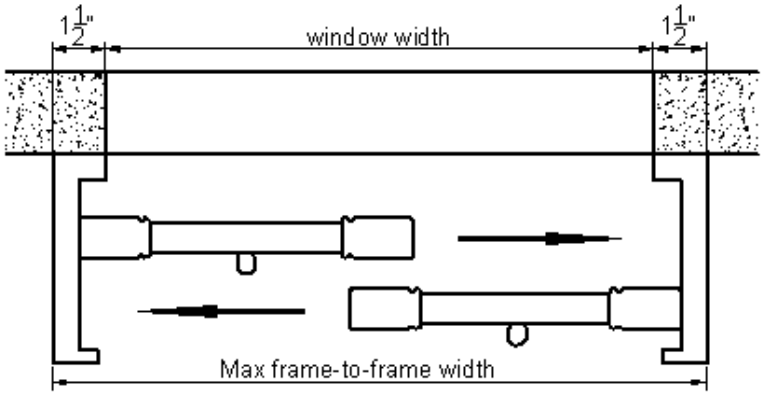


2016 Track Shutters—Bypass

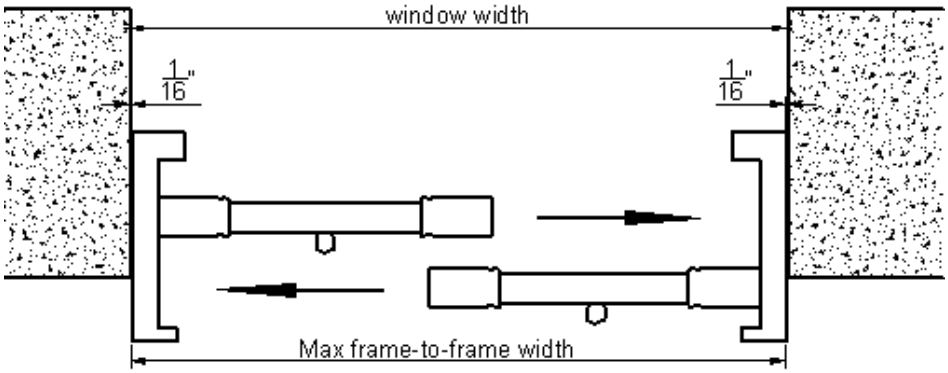
Woodlore® Shutters

Top View

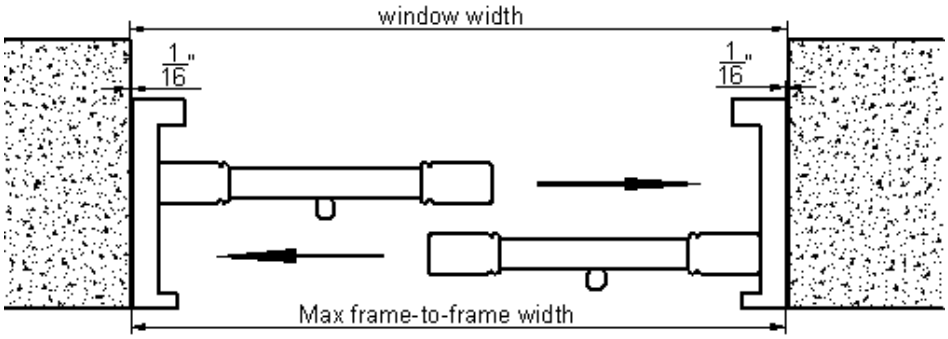
Outside Mount



Semi-Inside Mount



Inside Mount

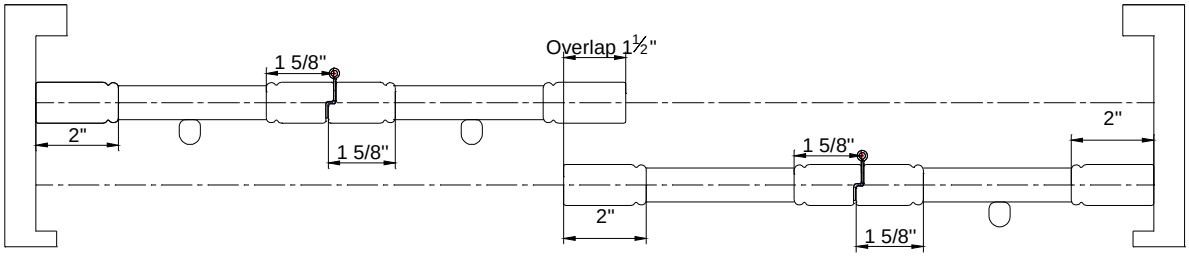


2016 Track Shutters—Bypass

Woodlore® Shutters

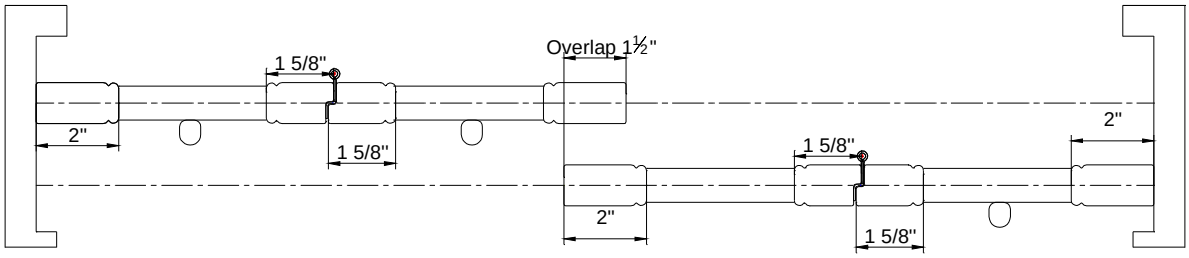
Top View

Combi - joined Panels (optional)

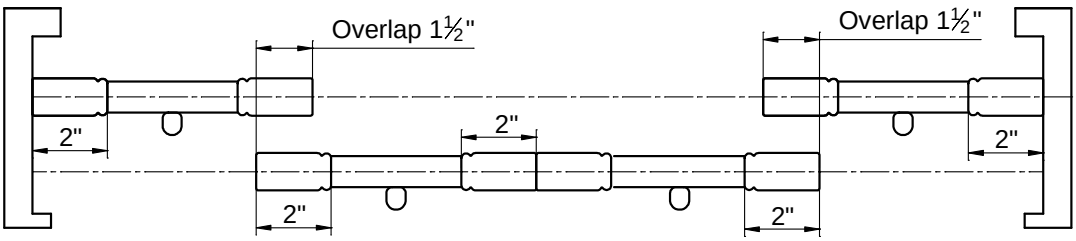


For shutters with 4 or more panels, please select “side open” or “center open”

Side Open



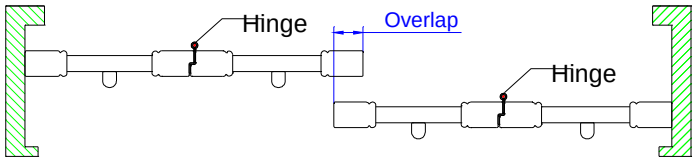
Center Open



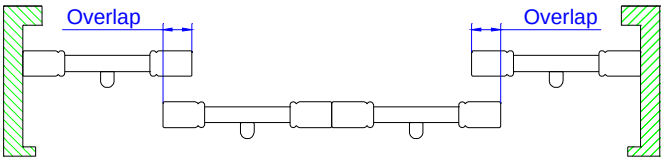
2016 Track Shutters—Bypass

Woodlore® Shutters

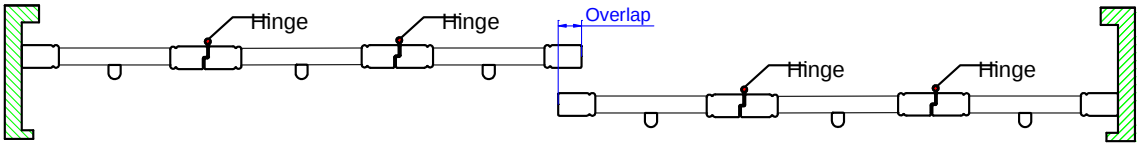
4 panels side open w/Rabbet stile



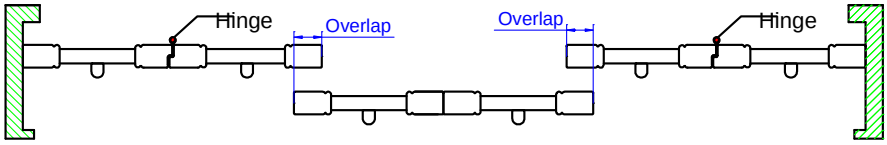
4 panels center open w/Rabbet stile



6 panels side open w/Rabbet stile



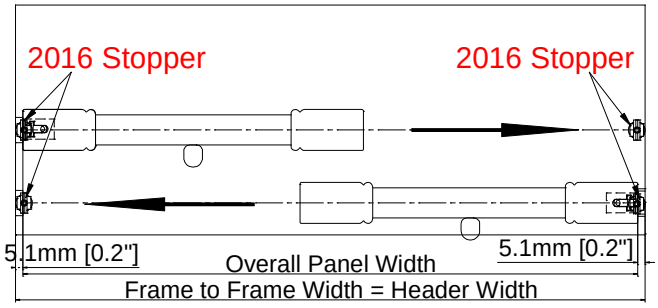
6 panels center open w/Rabbet stile



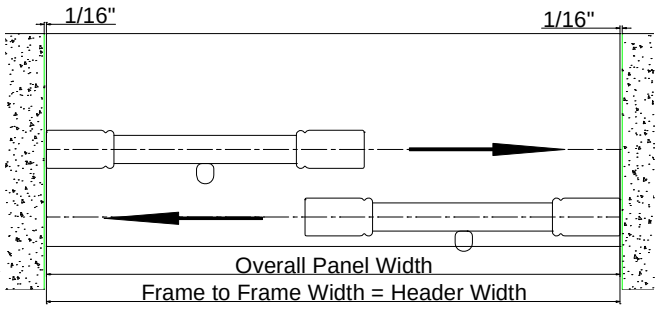
Stile: Only 2”, 2 1/4” rabbet stile is available,
1 5/8” rabbet stile only used for combi-joined panels.
Center stile is not available.

Size Definition

For Semi-Inside/OM without side boards



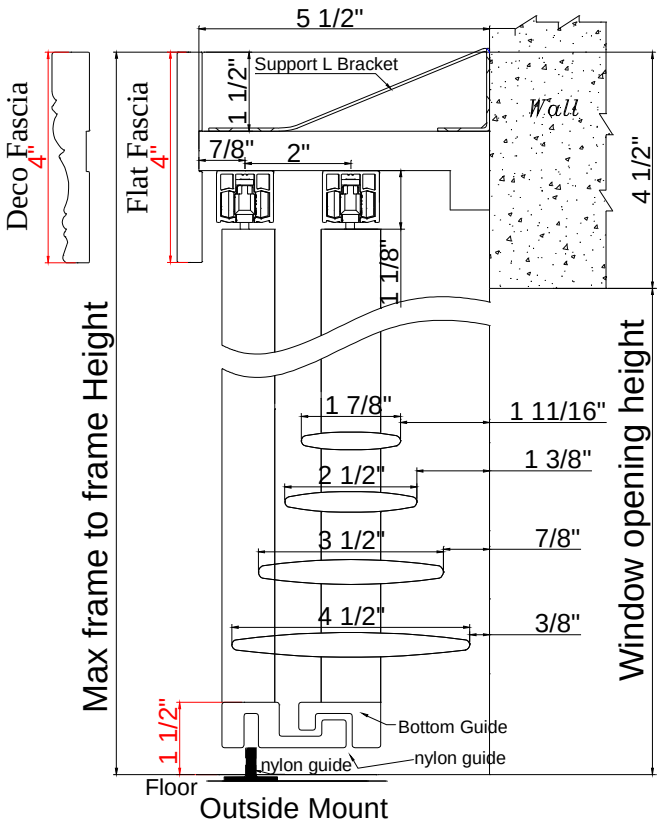
For IM without side boards



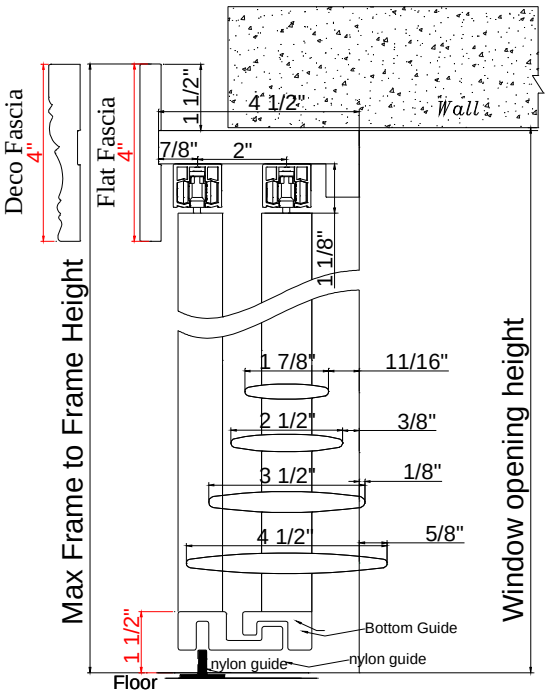
Note: For Semi-Inside/OM bypass without side boards but with fascia return, 2016 Stopper will be supplied.

Mounting Options (Closed Bypass)

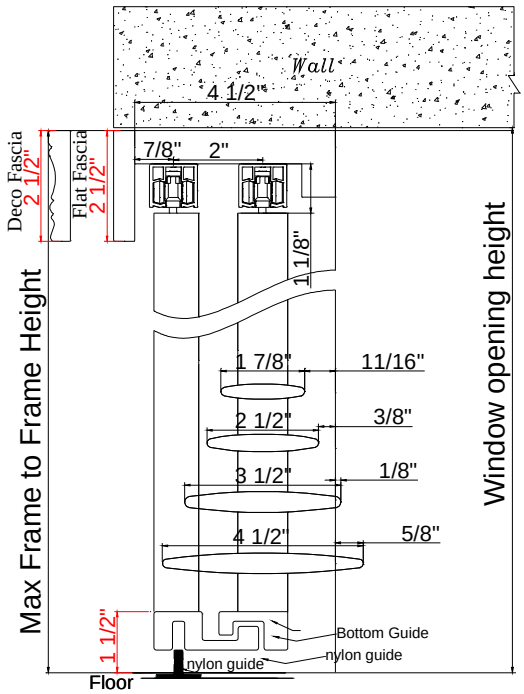
Side View



Outside Mount



Semi-inside Mount

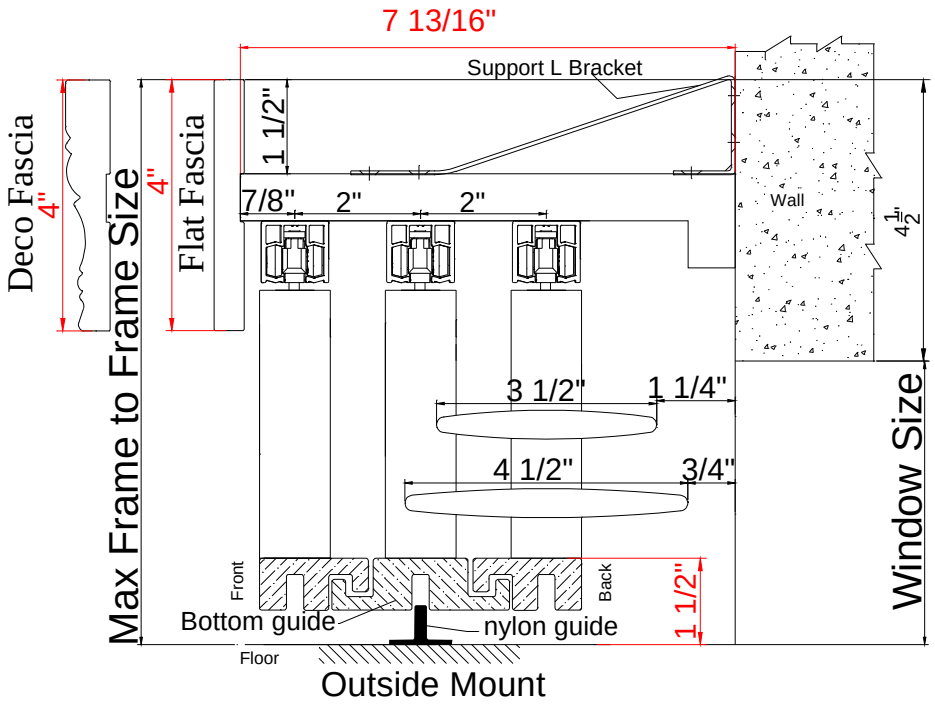


Inside Mount

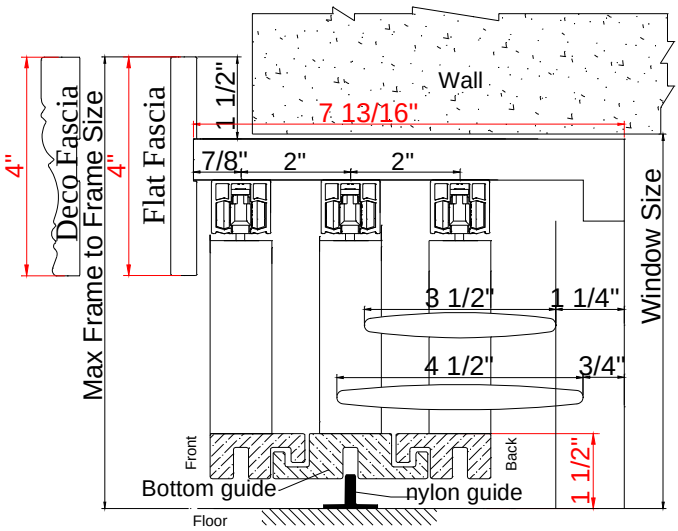
2016 Track Shutters—Bypass

Woodlore® Shutters

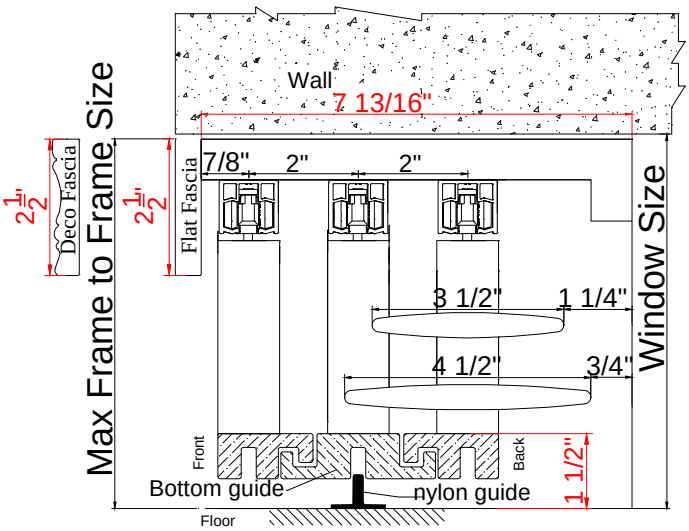
Mounting Options (Closed Bypass with 3 Tracks):



Outside Mount



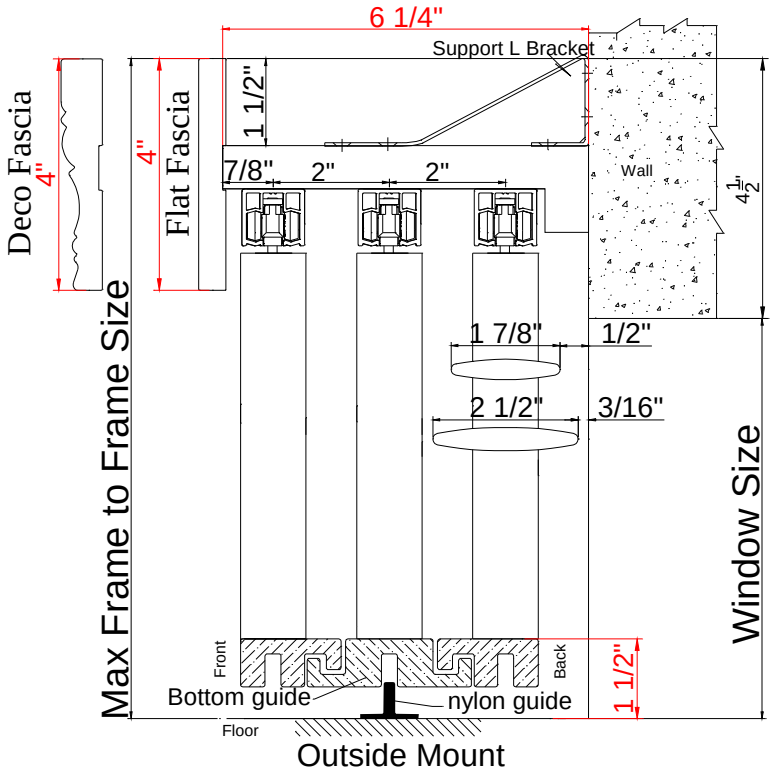
Semi-inside Mount



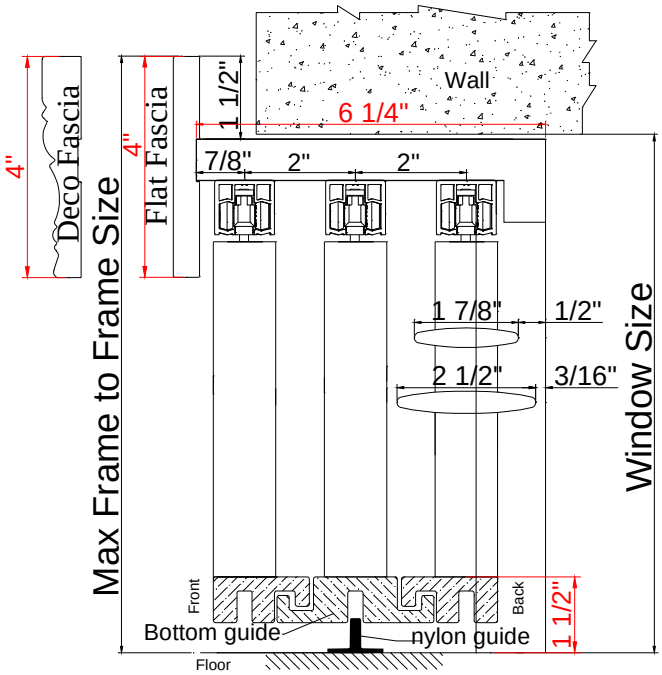
Inside Mount

2016 Track Shutters—Bypass

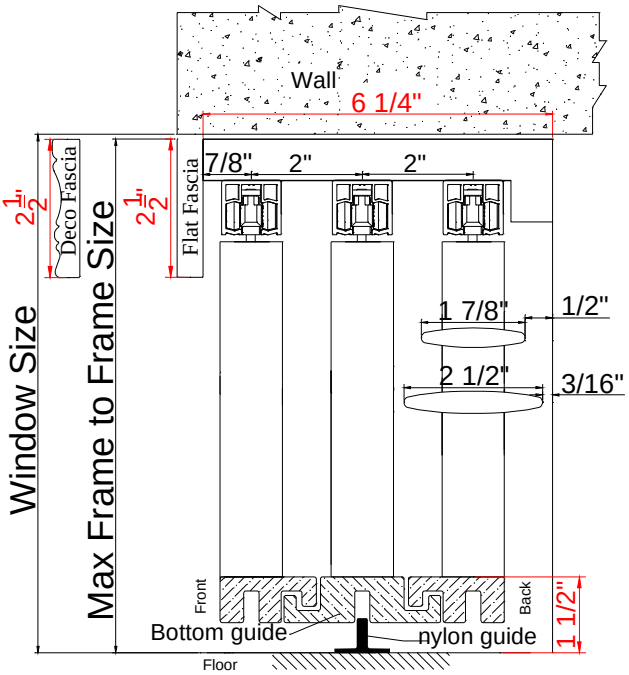
Woodlore® Shutters



Outside Mount



Semi-inside Mount



Inside Mount

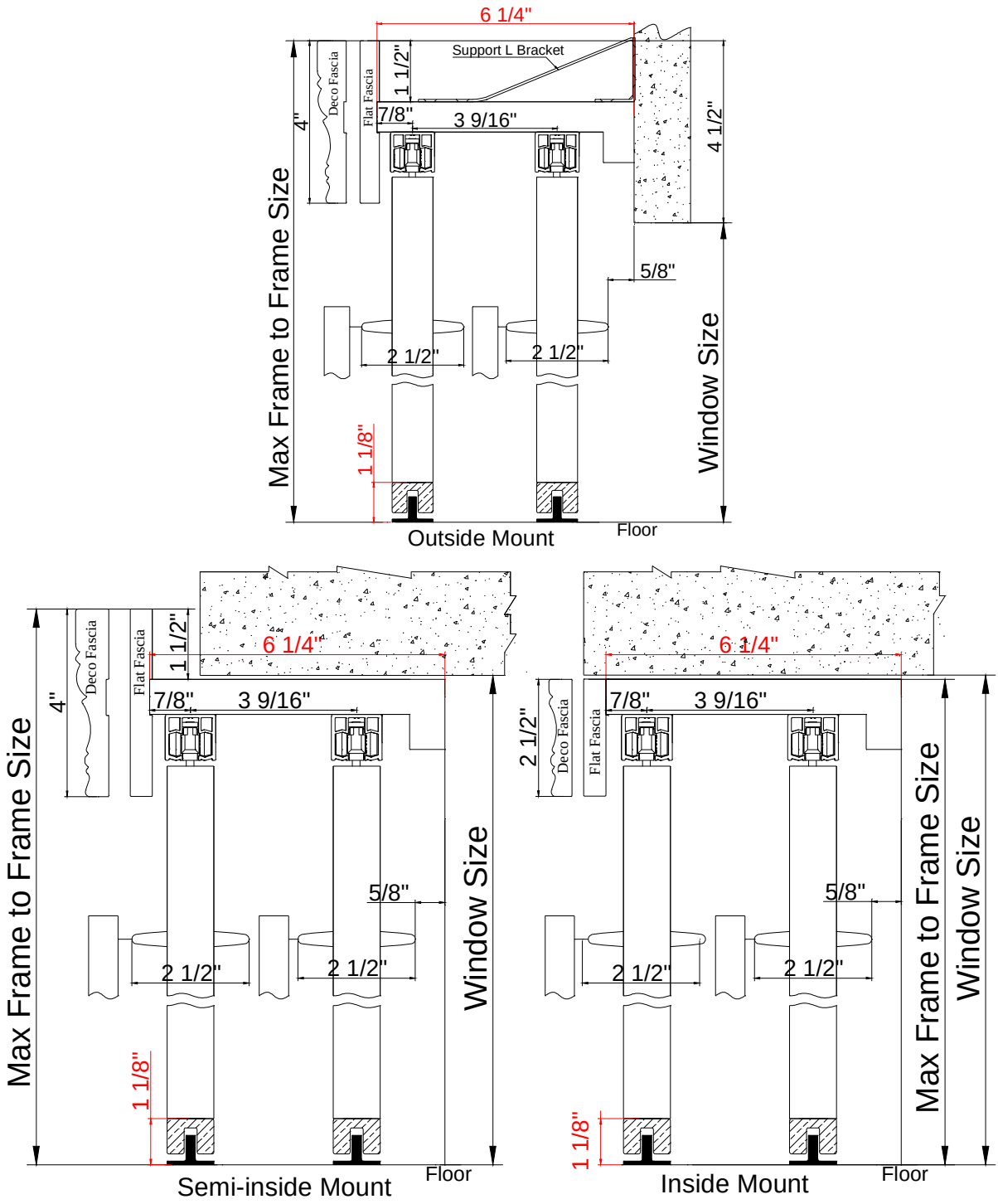
2016 Track Shutters—Bypass

Woodlore® Shutters

Mounting Options (Opened Bypass)

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

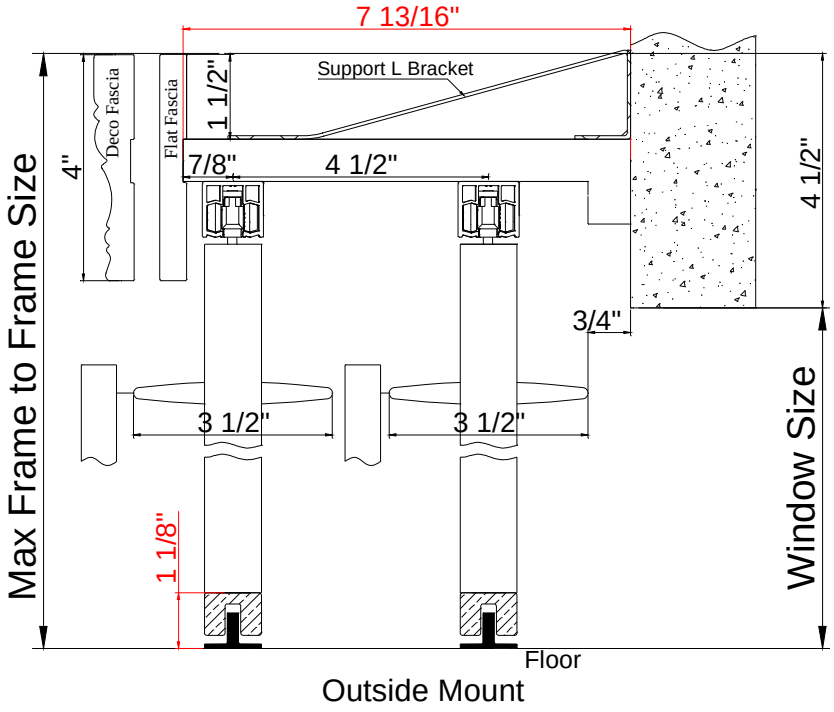
2 ½" Louver



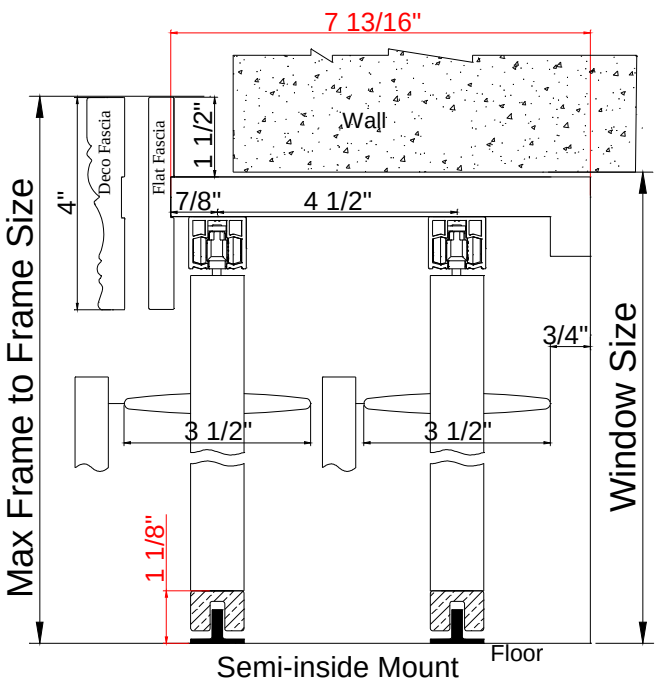
2016 Track Shutters—Bypass

Woodlore® Shutters

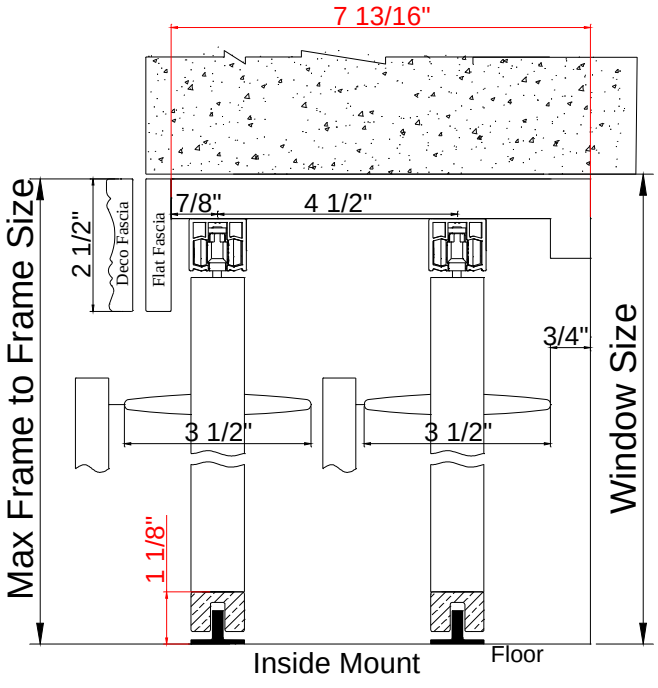
3 ½” Louver



Outside Mount



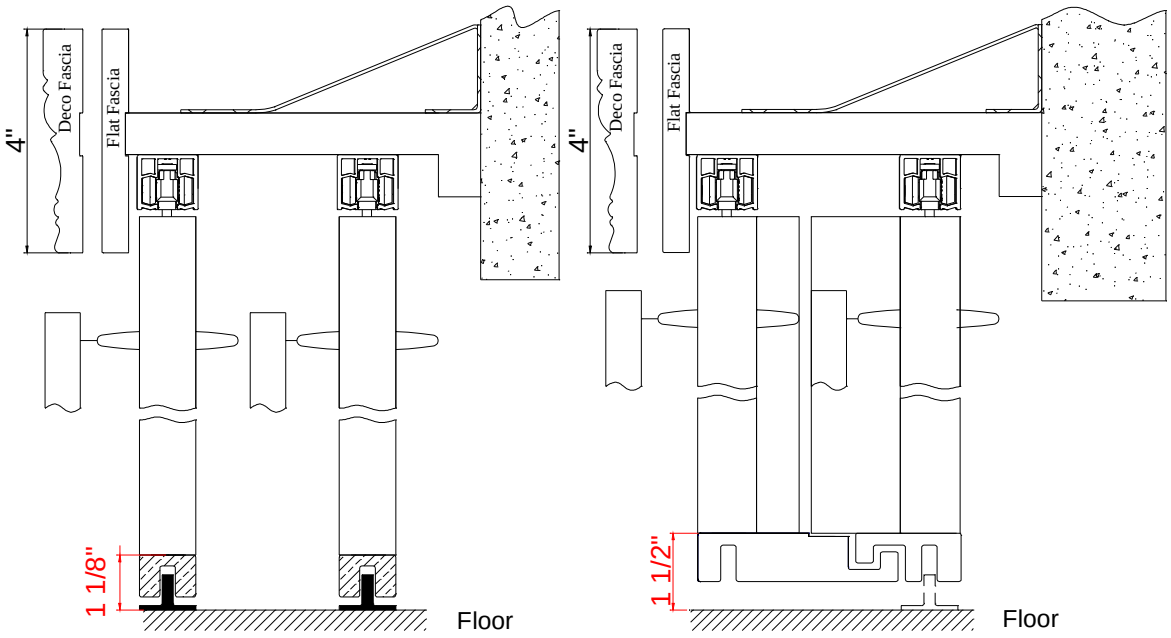
Semi-inside Mount



Inside Mount

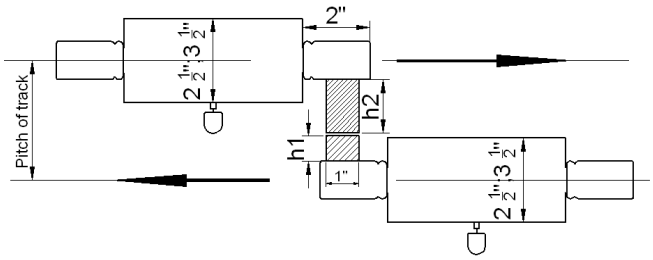
2016 Track Shutters—Bypass

Open By Pass：has 2 kinds of bottom guide

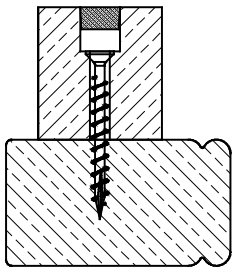


Default Bottom Guide　　Optional Interlocking Bottom Guide

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

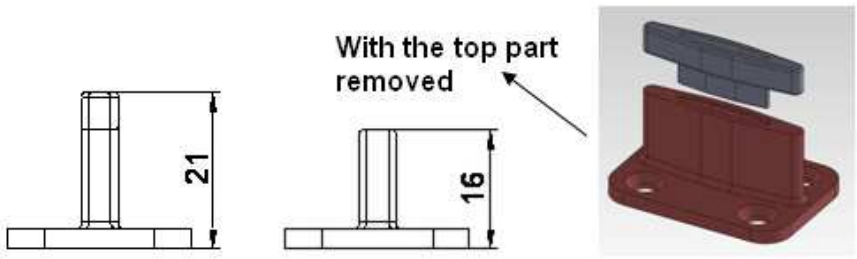
Louver	U shape bottom guide		Interlocking bottom guide	
	Regular Tilt Rod	Invisible tilt	Regular Tilt Rod	Invisible tilt
2.5"	3 9/16"	2 3/4"	3 9/16"	3 9/16"
3.5"	4 1/2"	3 5/8"	4 1/2"	4 1/2"

2016 Track Shutters—Bypass

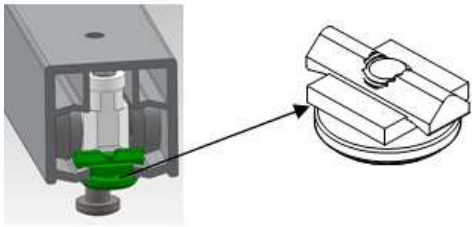
Light block thickness for panel

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"	1 9/16"
	h2	1 9/16"	3/4"	1 9/16"	3/4"
3.5"	h1	1 3/16"	1 3/16"	1 3/16"	1 15/16"
	h2	1 15/16"	1 3/16"	1 15/16"	1 3/16"

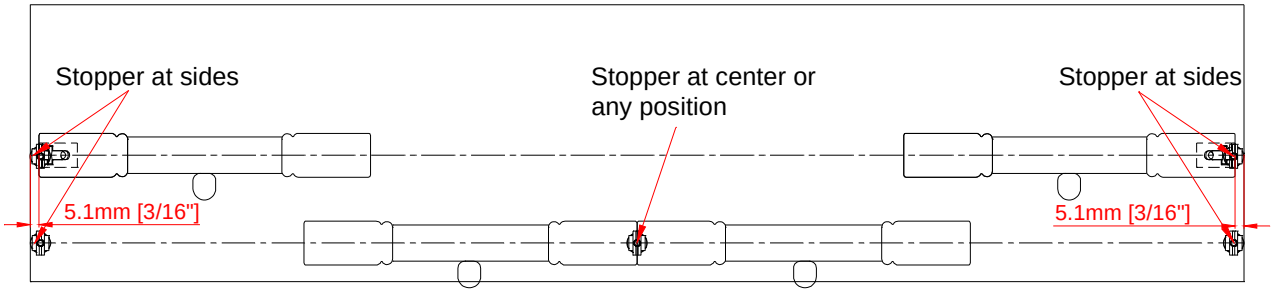
Nylon Guide: The nylon guide is composed by 2 parts and will supplied as a whole set by default (bottom part 16mm and top part 5mm), please remove the top part if necessary.



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

Woodlore® Shutters

Track Shutters Framing Materials

<table>
<tr><th>Framing</th><th colspan="4">Size</th><th>Pc(s)</th></tr>
<tr><td>L Shape Header</td><td>Header (Closed Bypass)</td><td>Header (Opened Bypass)</td><td colspan="2">Supporting Strip</td><td rowspan="3">1 pc</td></tr>
<tr><td>(2 in 1)</td><td>¾" x 5½"*
(Default for Outside Mount; Optional for Semi-Inside and Inside Mount)</td><td>¾" x 6¼"*
(2½" Louver)</td><td colspan="2" rowspan="2">¾" x ¾"</td></tr>
<tr><td>Header with Supporting Strip</td><td>¾" x 4½"*
(Default for Semi-Inside and Inside Mount;
Optional for Outside Mount)</td><td>¾" x $7^{13}/_{16}$"*
(3½" Louver)</td></tr>
<tr><td></td><td>Custom * ≤ 8"</td><td>Custom * ≤ 8"</td><td colspan="2"></td></tr>
<tr><td>U Shape Side Frame</td><td>Side Frame (Closed Bypass)</td><td>Side Frame (Opened Bypass)</td><td>Supporting Strip</td><td>Side Fascia</td><td rowspan="3">2 pcs</td></tr>
<tr><td>(3 in 1)</td><td>¾" x 5 7/8"*
(Default for Outside Mount; Optional for Semi-Inside and Inside Mount)</td><td>¾" x 6 ⅝"*
(2½" Louver)</td><td rowspan="2">¾" x ¾"</td><td rowspan="2">⅜" x 1¼ "</td></tr>
<tr><td>Side Frame with Supporting Strip & Side Fascia</td><td>¾" x 4 7/8"*
(Default for Semi-Inside and Inside Mount; Optional for Outside Mount)</td><td>¾" x 8¼"*
(3½" Louver)</td></tr>
<tr><td></td><td>Custom * ≤ 8"</td><td>Custom * ≤ 8"</td><td colspan="2"></td></tr>
<tr><td rowspan="2">Top Fascia (Plain/Deco)</td><td colspan="4">4" (Semi-inside and Outside Mount)</td><td rowspan="2">1 pc</td></tr>
<tr><td colspan="4">½" x 2 ½” (Inside Mount)</td></tr>
<tr><td rowspan="2">Top Fascia Return</td><td colspan="4">4" (Semi-inside and Outside Mount)</td><td rowspan="2">2 pcs</td></tr>
<tr><td colspan="4">N/A (Inside Mount)</td></tr>
</table>

Note: When the header size is 4½"*, 5½"*, 6¼"* or $7^{13}/_{16}$"*, 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 4½"*, 5½"*, 6¼"* or $7^{13}/_{16}$"*, 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.

Hardware Box

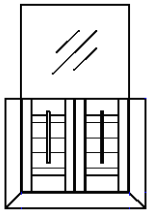
Hardware Box
Part
Wrench
Nylon Guide
¾ " screws for Nylon Guide
Support L Bracket (based on the length of header)
2 ½ " screws for support L bracket
¾ " screws for support L bracket

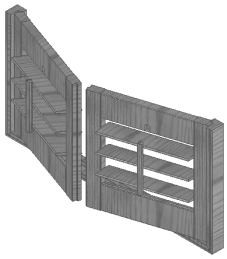
Woodlore® Shutters

Special Options

Café Shutters*

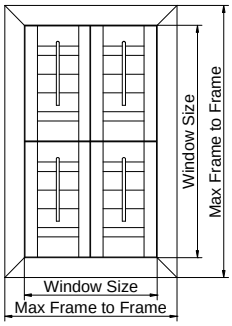
- The top of the panel requires a special finish. Please indicate “café shutter” when placing orders.
- The shutter does not come with recessed magnet on top.

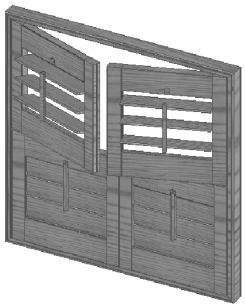




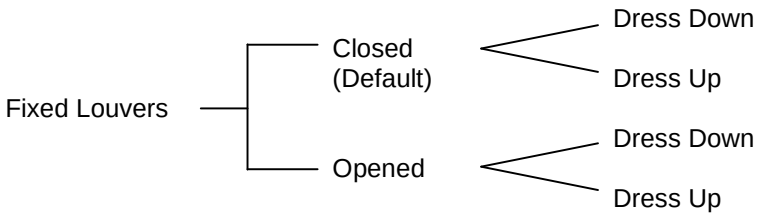
Double-Hung Shutters*

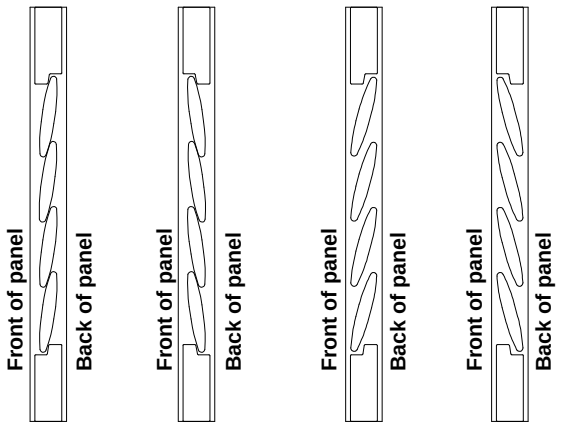
- For total number of panels, please include panels in both rows.
- Bifold panel is not available under this option.
- For panel configuration, please provide panel fold for one row.
- The default location for the division point is the center unless specified otherwise.
- Horizontal T Post* can be added for increased structural integrity.





Fixed Louvers



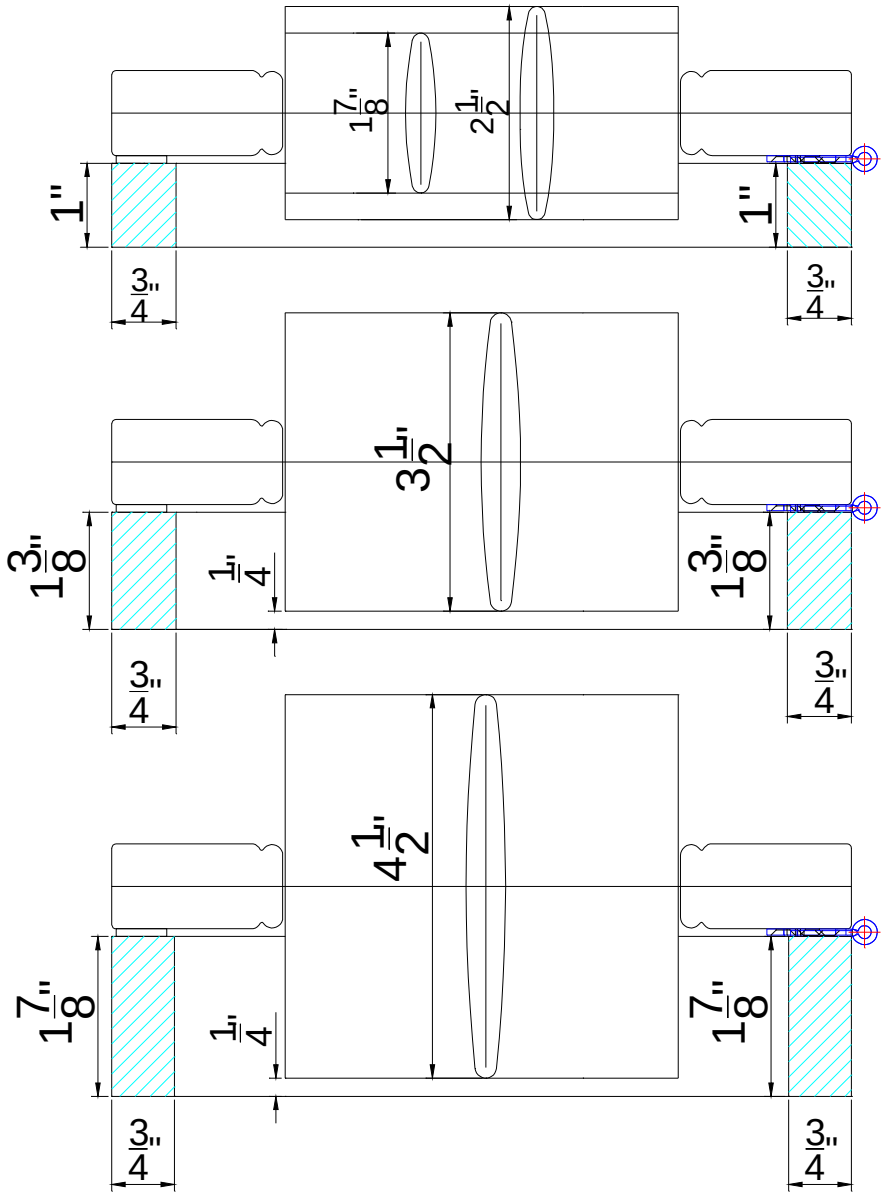


* Surcharge applies. Please see Options and Surcharges page for details. WL k-1

Batten size for Type E/F

- The batten is placed behind the Type E/F panel to block light.

Louver size	Batten Width	Batten thickness	Material
1 7/8” & 2 1/2”	3/4”	1”	Woodlore
3 1/2”	3/4”	1 3/8”	Wood
4 1/2”	3/4”	1 7/8”	Wood



* Surcharge applies. Please see Options and Surcharges page for details. WL k-2

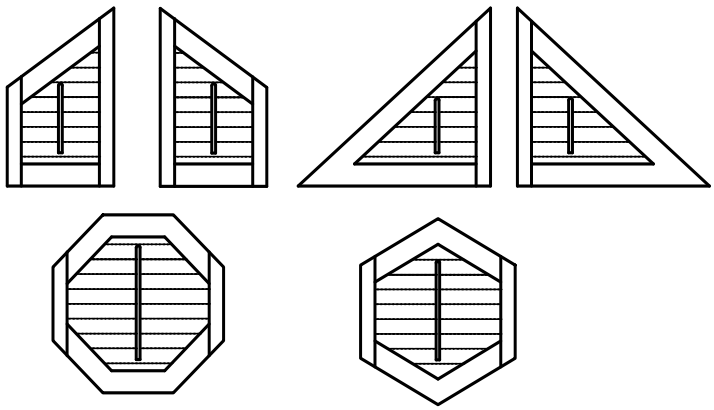
Specialties

Specialty Shapes*

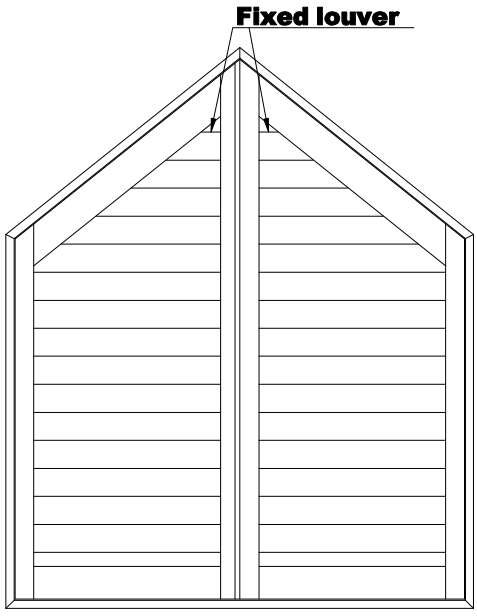
Templates are required if it is an imperfect specialty. Delivery time is 8 weeks from the order confirmation date for all specialty shutters. Please refer to Specialties and Template Requirement sections for details.

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.

Angled Top / Hexagon / Octagon / Hexagon



Peak



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

Woodlore® Shutters

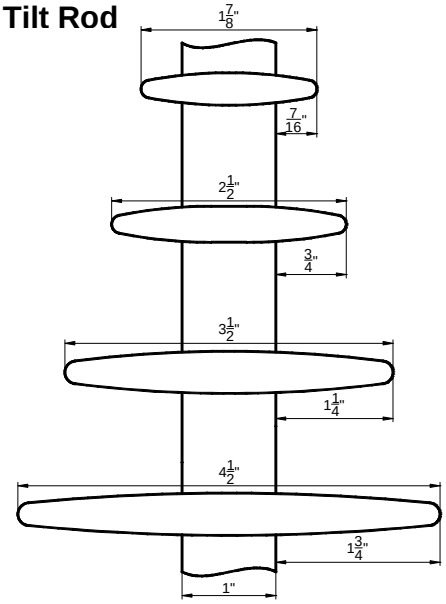
Appendix

Color Coordination Chart

NO	Color ID	Color Name	Default Hinge Colour	Default Track Colour
1	001	Pure White	Pure White	White
2	003	Silk White	White	
3	004	Bright White		
4	006	Pearl	Pearl	
5	009	Creamy	Bisque	

Louver Depth Clearance

Standard Tilt Rod



Offset Tilt Rod



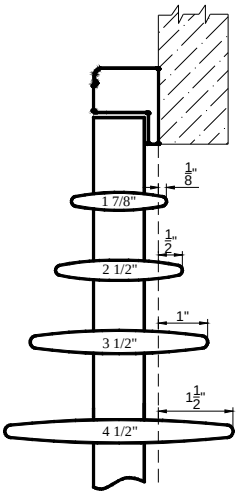
Offset tilt rod projects 1” from the edge of the louvers.

Woodlore® Shutters

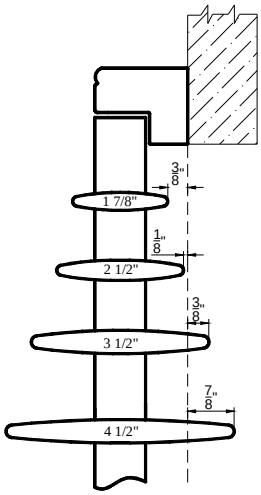
Louver Depth Clearance For Specific Frames

Louver Depth Clearance for

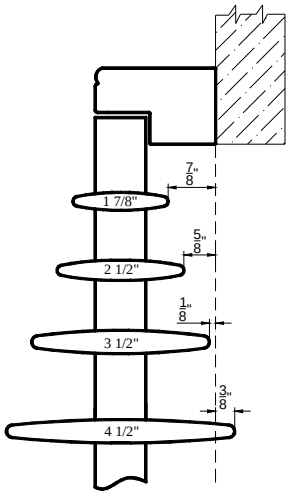
- Offset tilt rod, add 1”



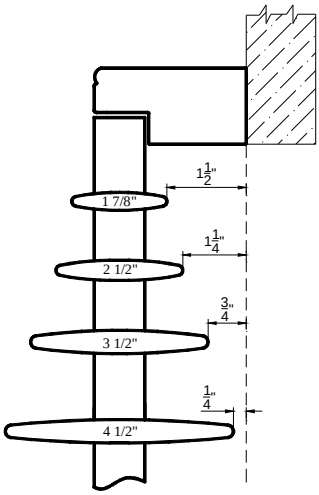
L Frame
w/ 13/64 “ Light Block



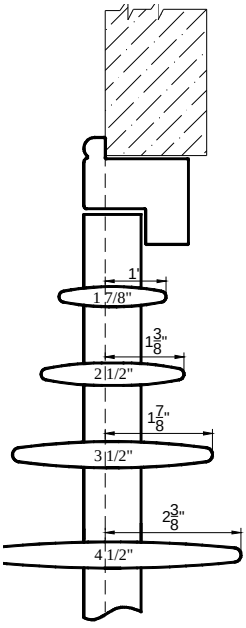
L Frame



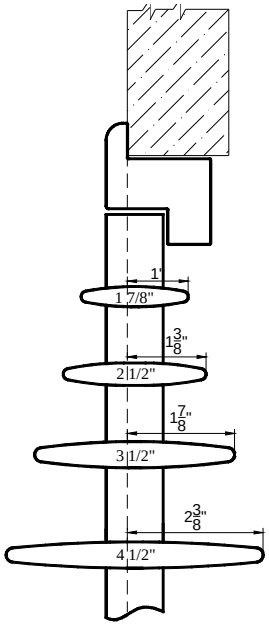
L Frame
w/ ½ “ Buildout



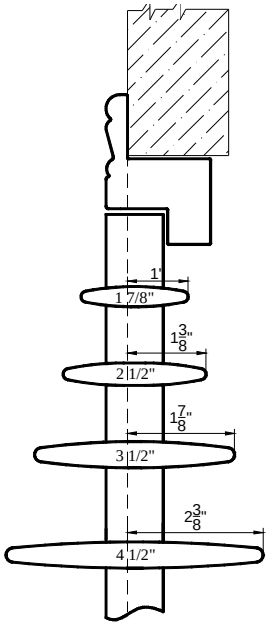
L Frame
w/ 1“ Buildout



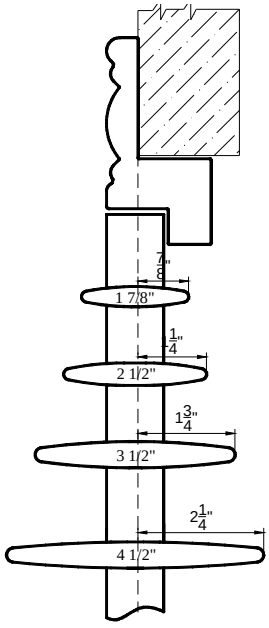
1 ¼ ” Beaded Z Frame



1 ½” Bullnose Z Frame



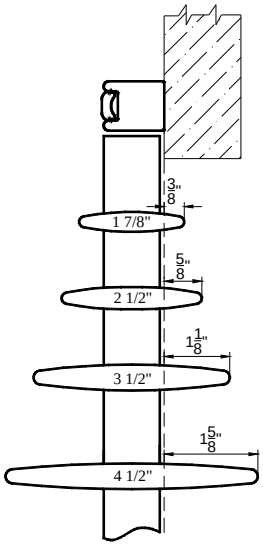
2” Bel Air Z Frame



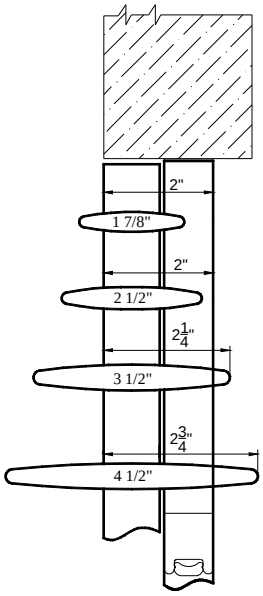
3” Crown Z Frame

Woodlore® Shutters

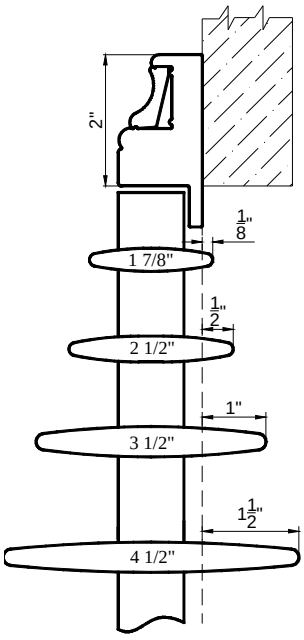
Louver Depth Clearance For Specific Frames



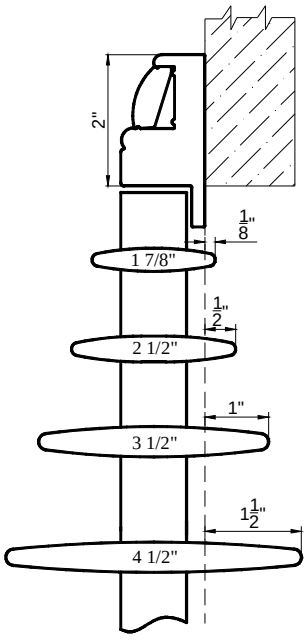
Hang Strip
(beside the panel)



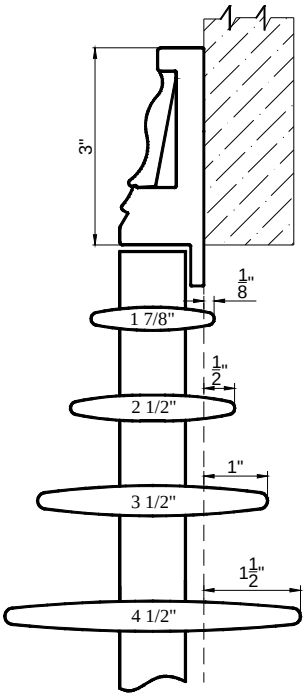
Hang Strip
(behind the panel)



2” Classic Deco Frame



2” Camber Deco Frame



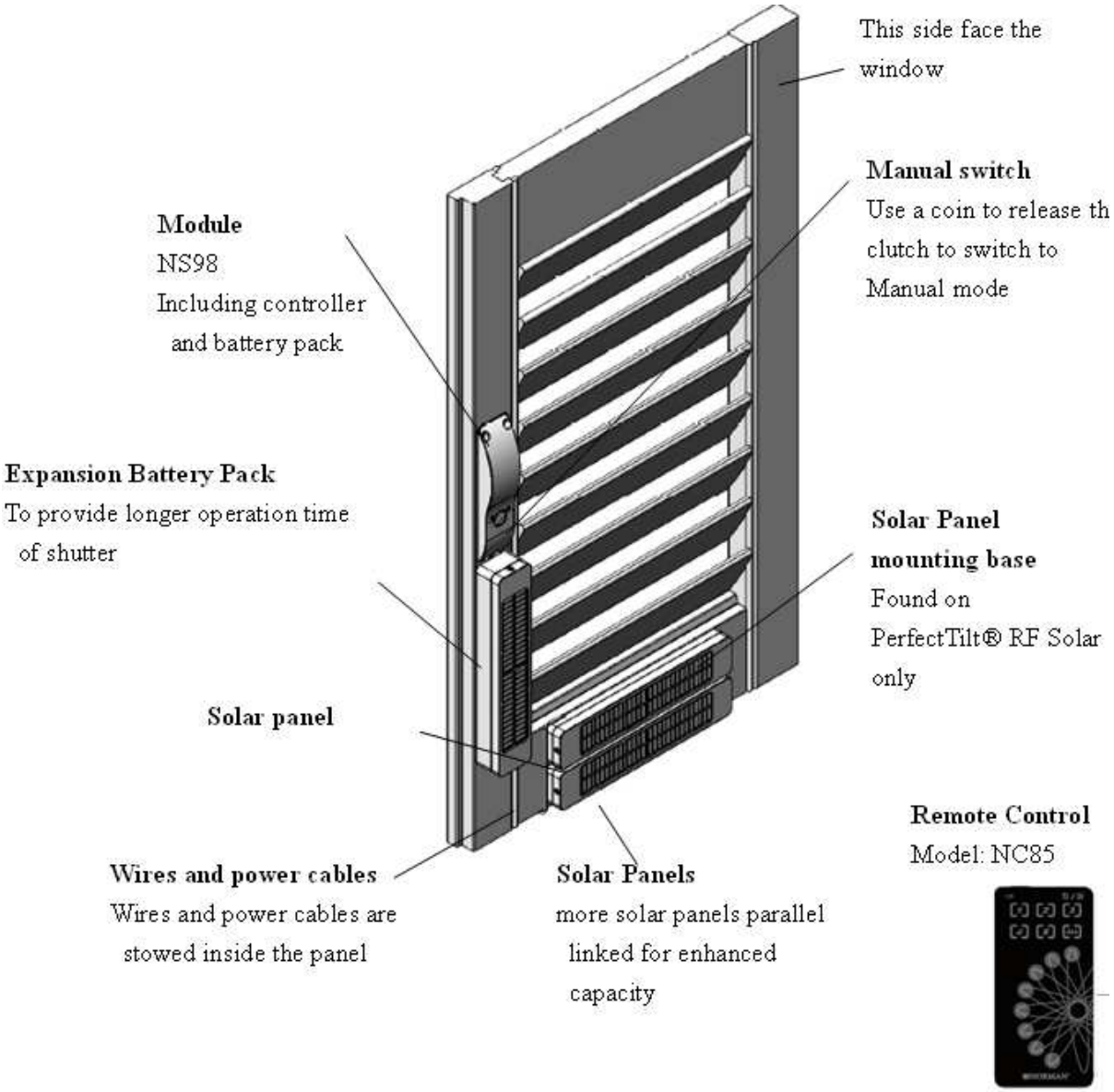
3” Ridge Deco Frame

New PerfectTilt RF

The new PerfectTilt RF has many exciting features & benefits.

- No need to plug-in, no cords, no hardwiring
- Tilt multiple panels in sync or individually
- Includes InvisibleTilt™ system, a completely tilt-rod-free solution for a more streamlined view and improved energy efficiency
- Larger solar panels on solar modules absorb more energy than ever before
- Ergonomic remote includes 8 preset angles and can control unlimited number of shutters in range
- Utilizes RF signal, not traditional infrared: for precise reception, range up to 65 ft., no sensor holes, and no need to point remote directly at receiver
- Remote is equipped with a timer, allowing you to use your own computer from anywhere at any time with our proprietary web interface
- Whisper quiet, gear-driven system
- PerfectTilt® RF wires are concealed inside panel, completely hidden from view
- Extra battery packs can be installed as add-on for longer periods between recharges
- Ring pulls are required for motorized shutters and must be ordered for warranty to apply.

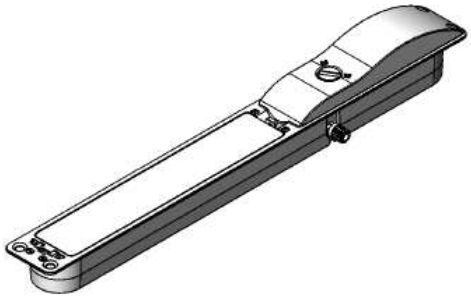
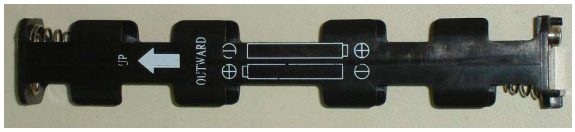
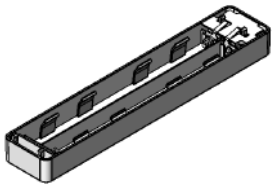
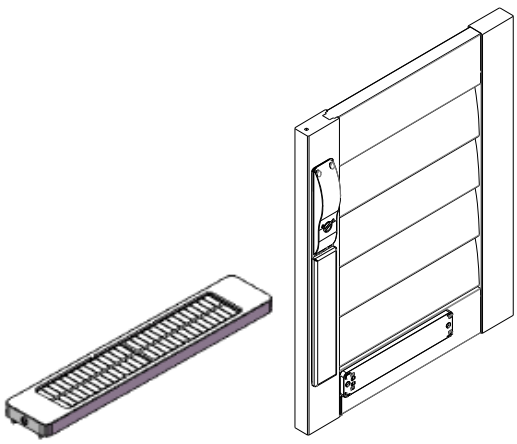
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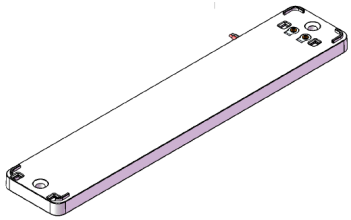
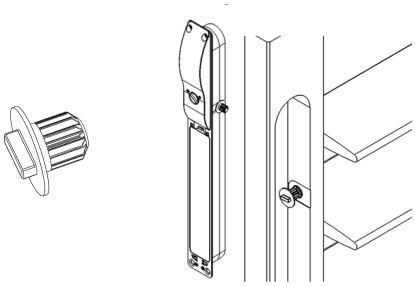
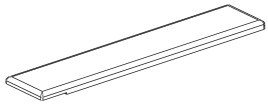
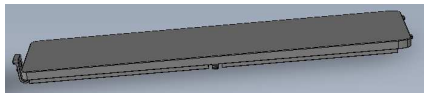


Specifications:

<table>
<tr><th></th><th>New PerfectTilt RF</th></tr>
<tr><td>Shutter Type</td><td>All types except bi-fold double hung or panel with gap at bottom over 0.1” (no support on bottom)</td></tr>
<tr><td>Specialty Shutter Shape</td><td>All shapes except shapes without a vertical stile in the middle (for example, eyebrow, elongated eyebrow, half-round sunburst without horizontal louvers)</td></tr>
<tr><td>Tilt System</td><td>InvisibleTilt only, the tilting system will not split unless specified</td></tr>
<tr><td>Stile Width</td><td>2.25" stile only
Center Stile is not available</td></tr>
<tr><td>Louver</td><td>2.5", 3.5", 4.5" Elliptical louver</td></tr>
<tr><td>Panel Size Limit</td><td>
<table>
<tr><td>Min. Panel Height
(with lined up Motors)</td><td>Min. Panel Height
(Default with Staggered Motors)</td></tr>
<tr><td>18”</td><td>Louver space not less than 26”, so at least 13 louvers for 2.5” louver; 9 louvers for 3.5” louver; 7 louvers for 4.5” louver.</td></tr>
</table>
Max. Panel Height without divider rail: 74”
Min. Panel Width Limit: 8 11/16”;
12 5/16” if solar panel is to attach to rail;
Max Width Limit: same as regular non-motorized shutters</td></tr>
<tr><td>Motor Type</td><td>NS98</td></tr>
<tr><td>Remote Control</td><td>*Radio frequency
*6 channels
*8 pre-set angles
*Built-in timer function
*When ordering, customer needs to specify quantity
*Press the “Activation Button” to wake up</td></tr>
<tr><td>Ring Pull</td><td>Ring Pull will be supplied as default. (Refer to “i” page for more information)</td></tr>
<tr><td>Options</td><td>Solar Panel/Expansion battery pack=> surcharge option; customer can choose to add as many Solar Panels/Expansion Battery Packs as long as space allows</td></tr>
</table>

Components:

Items	
Remote Control Model : NC85 Radio Frequency; Battery: 2×AAA. Dimensions : 122 x 62 x 16 mm Distance of transmission (control): 20 meters indoor, 40 meters outdoor	
Module Model : NS98 Colors Available: White; Coffee; Caramel Dimensions : 330.5 x 37.5 x 40 mm One for each louver section, 6×AA normal batteries or rechargeable batteries are required. Either alkaline or lithium batteries may be used.	
Battery cartridge Make sure the batteries are fit into the cartridge in correct direction, and when fit the cartridge into the module, also in right direction (follow the arrow).	
Battery Expansion Pack Colors Available: White; Coffee; Caramel Dimensions: 195 x 37 x 21.6 mm	
Solar panel Colors Available: White; Coffee; Caramel Dimensions: 195 x 37 x 13,5 mm Position: A. attached to the module itself (Default) B. attached to rail (Optional with surcharge)—For panels with modules below the mid rail or panels without mid rail, the solar panel will be attached to the bottom rail; For panels with modules above mid rail, the solar panel will be attached to the top rail.	

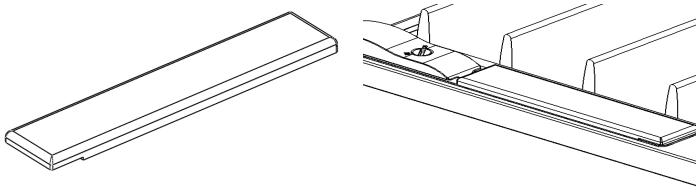
Mounting base (for Solar panel) Colors Available: White; Coffee; Caramel Dimensions: 195 x 37 x 8,5 mm With Power cable Colors: Coffee; White	
USB Cable Color: Black Connect the computer and the remote control to set up timer function.	
Slotted Point Driver One for each louver section. Connect the Easy 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.	
Wood Cover	
Battery Cover of the Module	
Wood Cover Assembly (With Battery Cover of the Module pre-attached with 4 screws, the color of the wood cover will match that of the shutter color)	

Color Coordinate Chart:

NO.	Color ID	Color Name	Module/Battery Expansion Pack/Solar Panel Color
1	001	Pure White	White
2	003	Silk White	White
3	004	Bright White	White
4	006	Pearl	White
5	009	Creamy	White

Wood Cover

The battery cover of the module would come with a wood cover that covers at least half section of the module. And the color of the wood cover will match that of the shutter.



If Expansion Battery Pack or Solar Panel is to fix on the module, please keep the wood cover and in the future if the expansion battery pack or the solar panel is not needed, the wood cover can be put back in use.

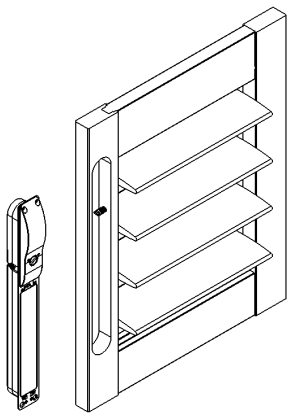
✧ Frame Cut-Out

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:

	Module	Battery Expansion Pack	Solar Panel	Solar Panel Mounting Base
Thickness	11/16"(17.5mm)	43/64" (17mm)	23/64"(9mm)	11/32"(8.5mm)

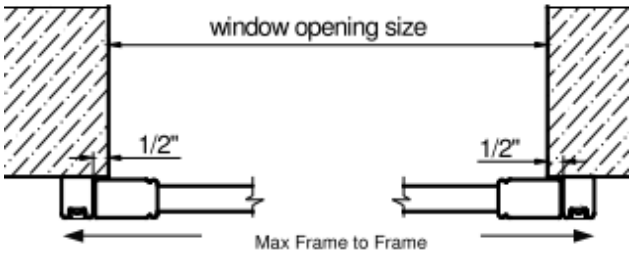
The module will protrude 11/16” from the back of the stile, please allow 3/4” clearance for the module.



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:

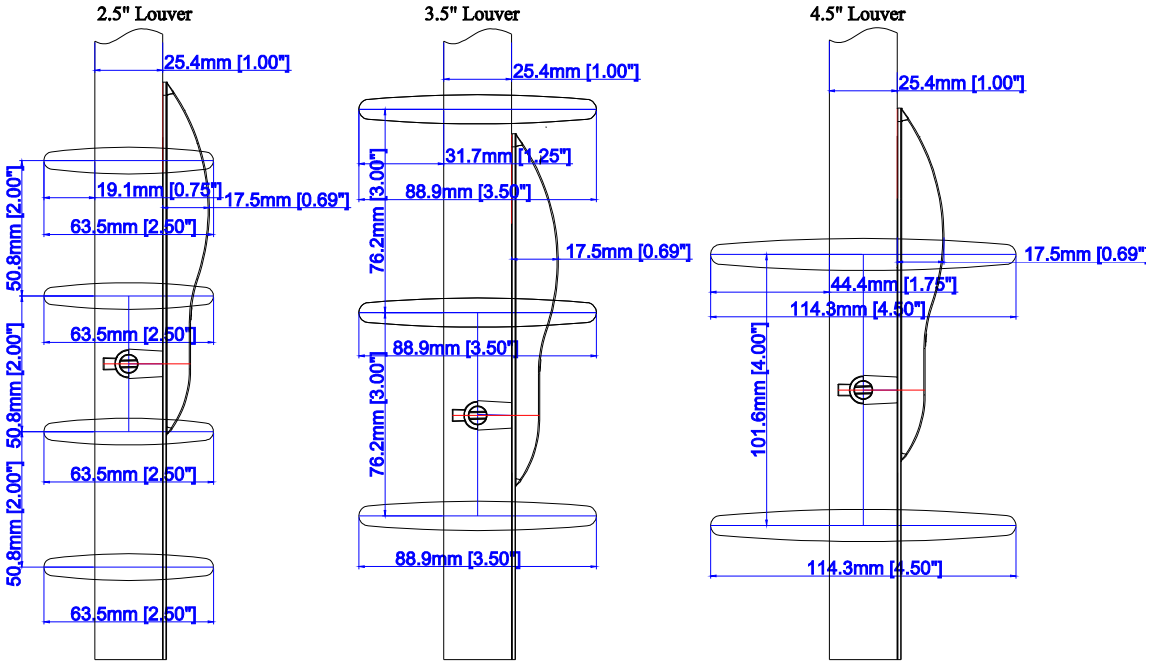
When module is on the left/right most stiles, the protrusion part will conflict with the wall.



If both Solar Panel and one Battery Expansion Pack is attached to the module, the necessary clearance is 1 1/8”;

When more Battery Expansion Packs are needed, please add build-out to allow enough clearance.

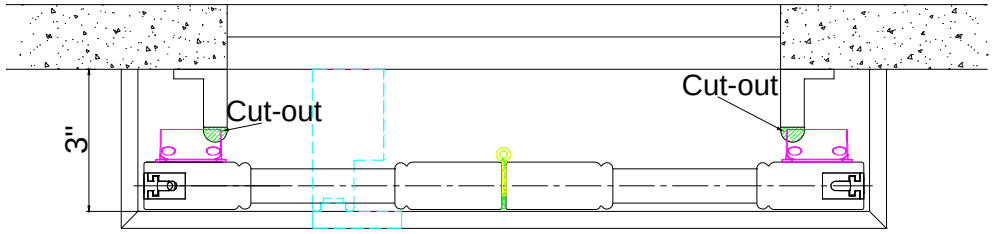
Side view for module in panel with different louver types

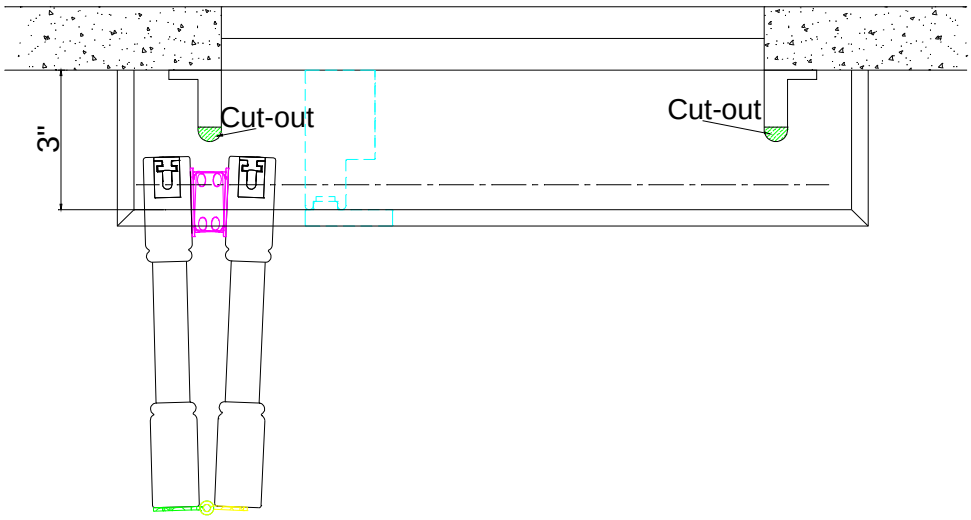


For Motorized 90°Bifold Track Shutter:

1) Both 3” and 3.5” Header are available;

2) The L Shape Light Block will be cut out 5/16” to avoid the confliction with the module;





3) For Motorized shutter with both Solar Panel and Expansion Battery Pack attached to the back of the module, the L Shape Light Block will be cut out 11/16” to avoid the confliction;

Available options:

a. One Solar Panel;

b. One Expansion Battery Pack;

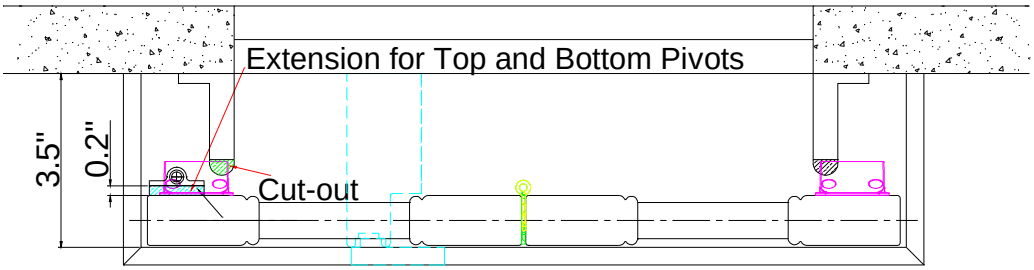
c. One Solar Panel and One Expansion Battery Pack.

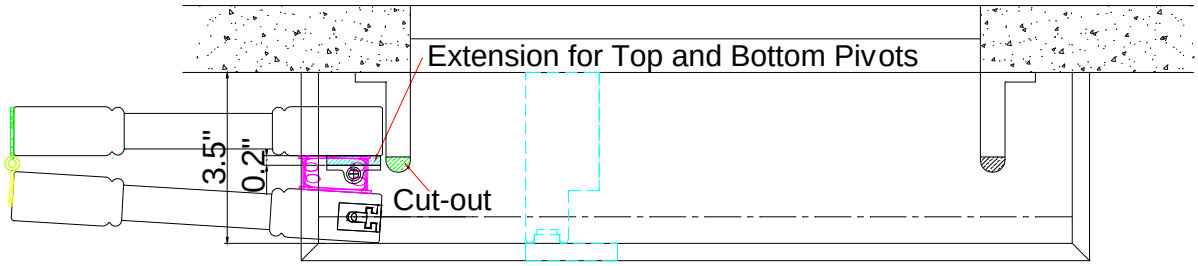
4) It is not recommended to have solar panels for the leftmost or rightmost panel due to the lack of sunlight;

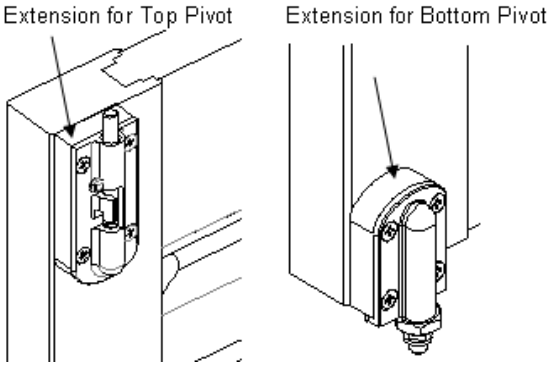
For Motorized 180° Bifold Track Shutter:

1) The default header width is 3.5”; The min. Header width is 3.25”; so for 3” header, 0.25” extension is required;

2) The L Shape Light Block will be cut out to avoid the confliction with the module; 0.2” extension is necessary for installation of the top and bottom pivots;







3) For Motorized shutter with EITHER ONE Solar Panel OR ONE Battery Expansion Pack attached to the back of the module, the L Shape Light Block will be cut out to avoid the confliction;

Available options:

a. One Solar Panel;

b. One Expansion Battery Pack.

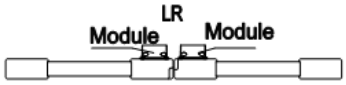
4) It is not recommended to have solar panels for the leftmost or rightmost panel due to the lack of sunlight.

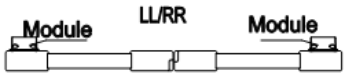
Module Location: (Easy Tilt will be on the same side as the module)

For regular shutter and bi-fold Application (Except for 2014 bifold track):

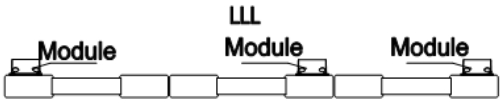
1) Single Panel: Module will be on the un-hinge stile

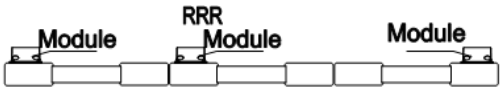
2) 2 Panels: LL, LR, RR





3) 3 Panels: LLL/RRR

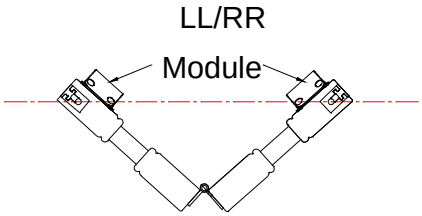


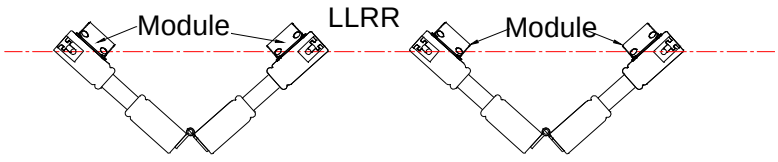


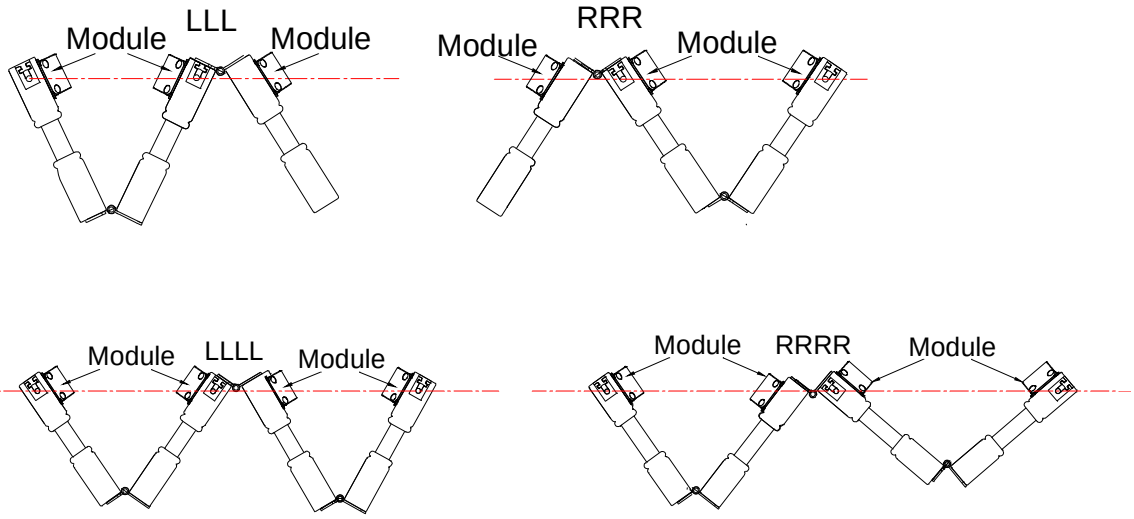
4) 4 Panels: LLRR/LLLL/RRRR



For 90°and 180°Bifold Track:





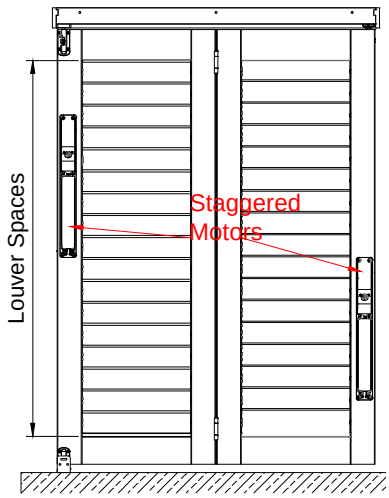


Special Note on Bi-fold or Multi-fold Configurations

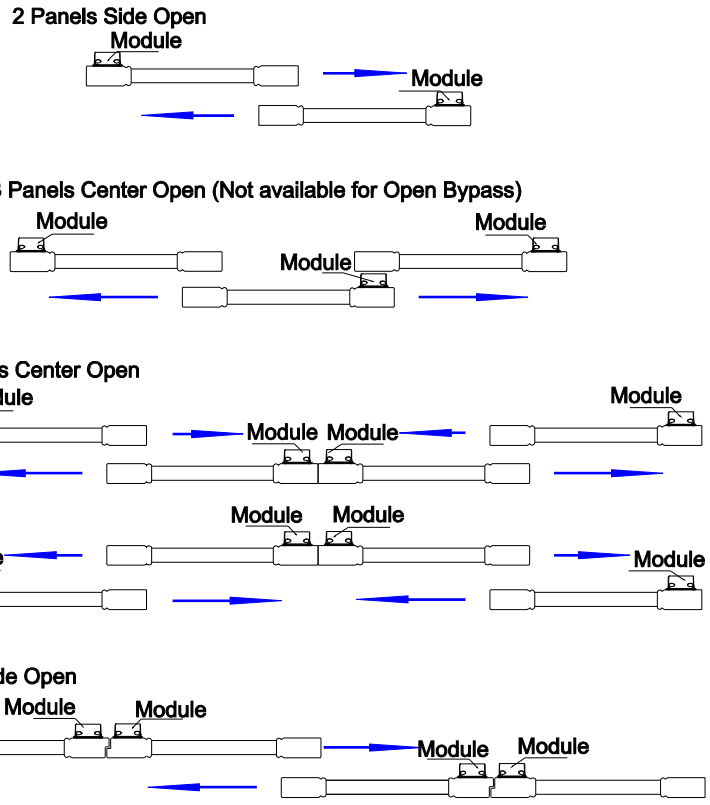
Please be aware that in bi-fold or multi-fold configurations of RF, the motorization modules will touch each other when the panels are folded together, so the panels can't be able to stack together as tightly as that of the non-motorized shutters.

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 Fold panels, the module installation will be staggered by default for better fold; it is optional to line up the modules for bi-fold/multi-fold shutter;

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



For By-Pass Application



For Special Shape Application:

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

Built-in Timer Function:

The Timer function is now available for remote unit that were shipped on and after June 1st, 2013. Please see below for Website link and follow the User Guide to set up the timer schedule for the remote.

Perfect Tilt RF e-Timer website:

www.windowcoveringsautomation.com:9000/

The following is how to distinguish the remote with and without timer function:

	Original Remote	New Remote w/ Timer
Timer Off Light Color	**Red**	**Orange**
PN Number	not available	located beneath the back cover

Warranty

The warranty for the Module and the Remote Control Unit is 2-year under normal operation.

SHUTTER LOOK FROM FRONT AND BACK

The front side of the shutter



*No Receiver/Louver Cap

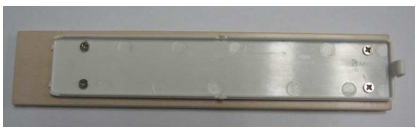
*Easy Tilt Only

The back of the shutter



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

*The battery cover of the module would come with a wood cover And the color of the wood cover will match that of the shutter.



HOW TO MANUALLY OPERATE THE LOUVERS

At the back of the motor, there is an “M” and “R” which is a remote switch.





*Turn to M to manually operate the louvers and turn to R to use your remote to operate the shutter.

Note: Forcing the louvers to rotate without turning to M will cause serious damage to your PerfectTilt® RF system.

HOW TO USE THE EXPANSION BATTERY PACK

Expansion Battery Pack is to provide longer operation time of shutter.

Remove the battery cover and wood cover, and fix the Expansion Battery Pack to the module. More can be added if the space allows.



*Expansion Battery Pack can be attached to the module

*Make sure to use same type batteries in both the module and the Expansion Battery Pack.

HOW TO USE THE SOLAR PANEL





* Make sure rechargeable batteries are used in the module or the Expansion Battery Pack when using with Solar Panel

*Solar Panel Position:
a. Attached to the back of the module or the Expansion Battery Pack

b. Installed on the rail (Optional with surcharge) factory will prewire and install the mounting base.

For panels with modules below the mid rail or panels without mid rail, the solar panel will be attached to the bottom rail;

For panels with modules above mid rail, the solar panel will be attached to the top rail.

If Expansion Battery Pack or Solar Panel is to fix on the module, please keep the wood cover and in the future if the expansion battery pack or the solar panel is not needed, the wood cover can be put back in use.

HOW TO FIX LOUVERS THAT ARE OUT OF POSITION

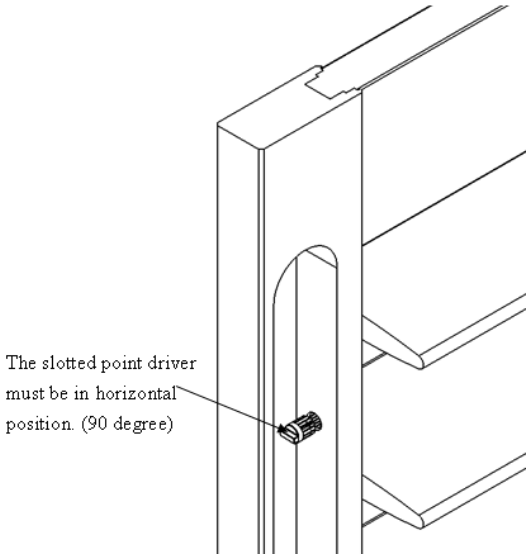
Firstly find out the louver out of position;



Next please grab three louvers above or below the louver in different position.
Then grab the louver out of position and tilt it up/down to put the louver back to the correct position.



HOW TO REPLACE THE MODULE

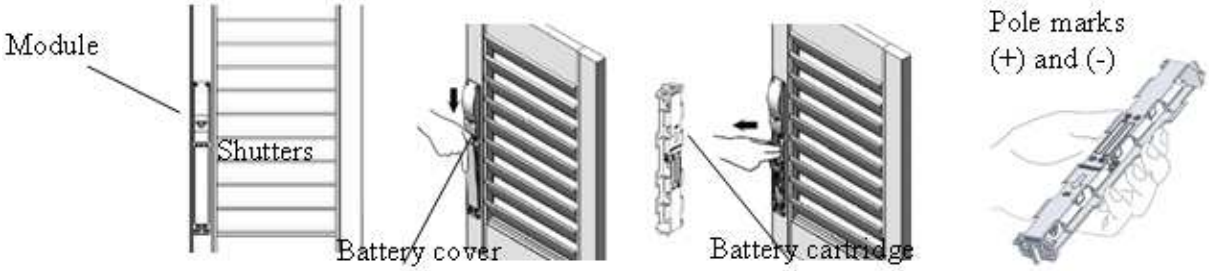


*The module can be taken out of the stile when the louver as well as the slotted point driver is in horizontal position.

*The customer could also fix the module into the stile when the louver as well as the slotted point driver is in horizontal position.

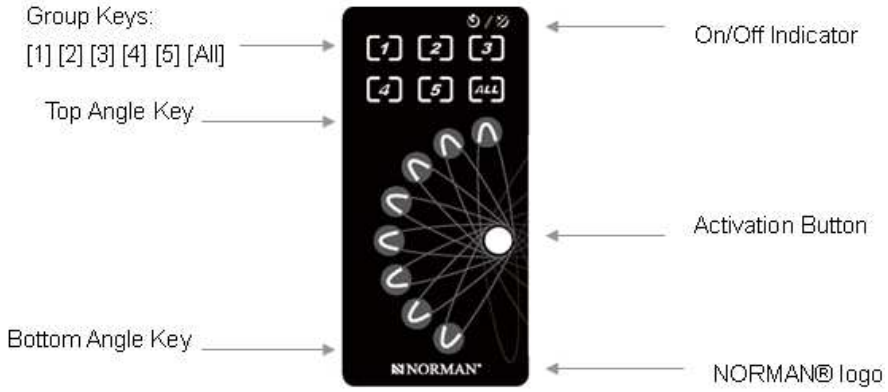
HOW TO REPLACE BATTERY FOR THE MODULE

To install batteries to the open the battery cover. Remove the battery cartridge. Insert batteries (AA batteries *6) matching the (+) and (-) marks inside the battery cartridge. Put back the cartridge and reinstall the battery cover.



HOW TO USE THE REMOTE CONTROL

Remote Control Buttons and Indicators



USB Port (Timer Function)

Norman Logo Light:

Light on = Remote Control ready

Light off = Remote Control in sleep mode

8 Preset Louver Positions

Each of the “Angle” keys corresponds to a desired tilting position, spanning the entire arc of the louver’s movement

Group keys “1” through “5” and “All” key

The keys “1” through “5”control shutter modules grouped in “1” to “5” groups, each group can consist of unlimited numbers of shutters that are in range.

The “All” key controls shutter modules in all groups at once.

HOW TO REPLACE BATTERY FOR REMOTE CONTROL

The remote control requires 2 AAA batteries. To install the batteries, turn over the remote and open the cover. Insert batteries (AAA batteries * 2) matching the (+) and (-) marks and cover the bottom cover. If the battery has been properly installed, the NORMAN® logo will light up.



