# 2016 Log

*Normandy® Shutters*

| Date | Topic | Page | Note |
|------|-------|------|------|
| January 6 | Frame Style | E-3 | Change the name of "Scribe Trim" to "Quarter Round" |
| January 22 | Hardware | I-1,3 | Effective on Feb. 1$^{st}$, Additional Hinge Color for Pure White Shutters; Available in Late March |
| January 22 | Appendix | N-1 | Effective on Feb. 1$^{st}$, Additional Hinge Color for Pure White Shutters; Available in Late March |
| January 22 | Bifold | J1-15,18,19 | Effective on Feb. 1$^{st}$, Single direction Bi-fold /Multi-fold will be available for Frame Hinged Bifold Track Shutters |
| March 5 | Bypass | J2-11 | Add details for New Nylon Guide |
| March 19 | Divider Rail | H | Add "Cut Out" for 84" panel height limit without divider rail is for Wood French Door installed with button catches & Wood Bypass and bi-fold track shutters. |
| March 24 | Bypass | J2-1,11 | Change "2014 Track Shutters-Bypass" to "2016 Track Shutters-Bypass" Change "Picth of Track" to " Separation of Track" |

*Normandy® Shutters*

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Effective 2008

# Features and Benefits

- Brings a touch of timeless elegance to your home. The **textured finish of Normandy shutters** blends the tranquility of nature with distinctive luxury.

- Normandy is treated with our exclusive **Prescription Wood Conditioning™** technique according to the moisture content of the final installation location to reduce post-installation shrinking and swelling.

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

- **Reinforced engineered stiles** -- Multiple layers of wood bonded together to reinforce durability to the core of the stile, which results in a robust support system for the shutter panel.

- Multiple stile options available in various sizes to accommodate different window configurations. **Astragal (solid color shutters only) or Rabbet stiles** provide a natural light block between panels.

- Employs **mortise and tenon joinery** that resists shear and racking forces endured by shutters and ensures prolonged stability and durability.

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

- Labor-intensive **hand finishing process** involves **multiple sequences of sanding and coating** with fine layers of stain or paint for a brilliant, lustrous finish.

- Personalize shutters with **special options.** Choose from hidden or offset tilt rods, double-hung panels, café shutters, track systems, specialty shapes and many more.

- **Special panel and frame designs** are finely crafted to accommodate unique window configurations. Create unity or attract attention with Normandy's exclusive decorative elements.

- Available in **classic paint and radiant stain** that harmonize into the style of any home.

- A guarantee of Norman's exemplary quality with a **lifetime limited warranty on materials and workmanship.**
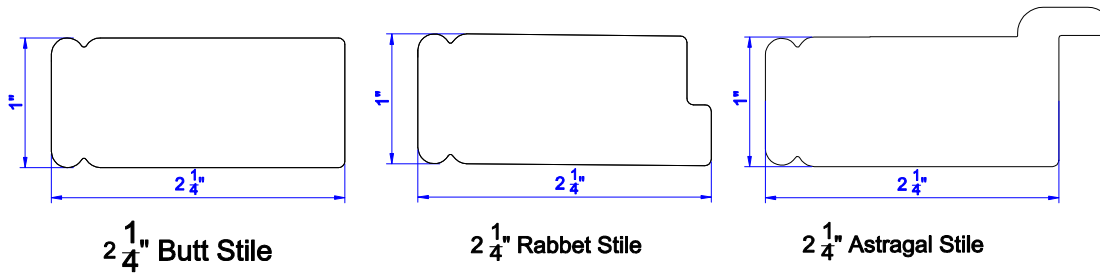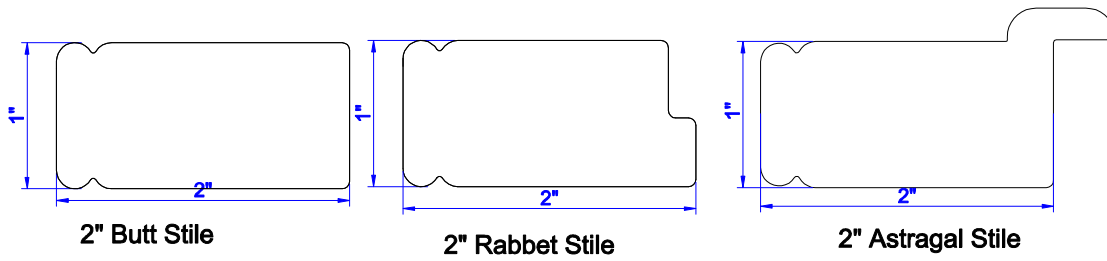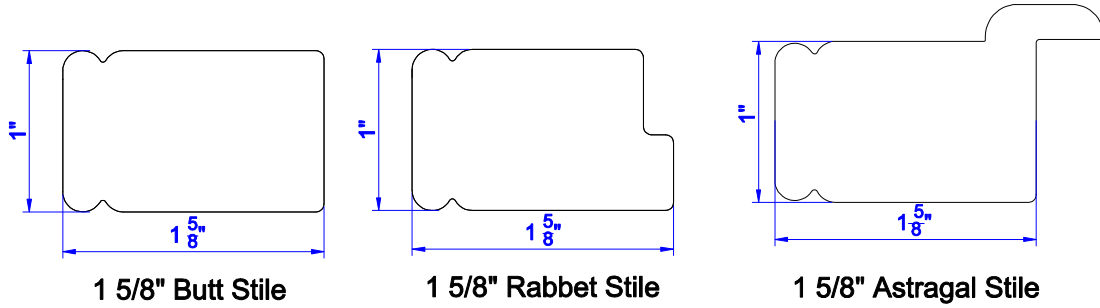
# Colors & Louvers

| Solid Colors | Louvers | |
|---|---|---|
| 001 Pure White | | |
| 003 Silk White | | |
| 004 Bright White | | |
| 006 Pearl | | |
| 009 Creamy | | |
| 012 Crisp Linen | | |
| 030 Moondust | | |
| 046 Ice | | |
| **Stain Colors*** | | |
| 108 Rustic Gray | | |
| 110 Limed White | | |
| 205 Goldenrod | Elliptical | 2½" |
| 211 Cherry | | 3½" |
| 221 Black Walnut | | 4½" |
| 227 Red Oak | | |
| 229 Rich Walnut | | |
| 230 Old Teak | | |
| 231 Spring Rose | | |
| 232 Red Mahogany | | |
| 233 Dark Mahogany | | |
| 237 Wenge | | |
| 242 Auburn | | |
| 249 Acorn | | |
| 250 Sumatra | | |

| Optimal™* |
|---|
| Optimal™ safeguards your window treatments from accumulating airborne germs and disease-causing bacteria so that you have on less thing to worry about. |
| ** Custom sheen options available |

$2\frac{1}{2}"$ $\frac{3}{4}"$

$3\frac{1}{2}"$ $1\frac{1}{4}"$

$4\frac{1}{2}"$ $1\frac{3}{4}"$

**1" Stile**
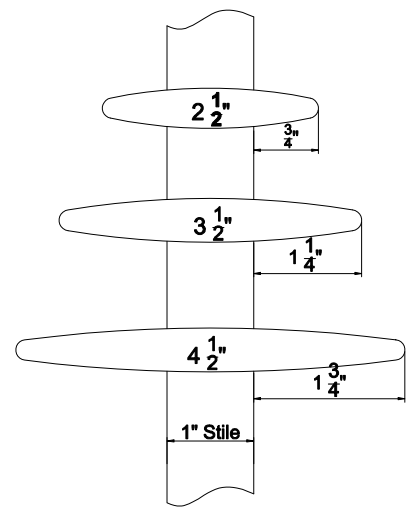
**Colors available till June 30, 2013**

| Color Code | Color Name | Note |
|---|---|---|
| 011 | Cameo | Discontinue on June 30, 2013 |
| 013 | Bisque | Discontinue on June 30, 2013 |
| 103 | Maple Sugar | Discontinue on June 30, 2013 |
| 105 | Hermitage Green | Discontinue on June 30, 2013 |
| 206 | Pecan | Discontinue on June 30, 2013 |
| 214 | Cocoa | Discontinue on June 30, 2013 |
| 222 | Light Pine | Discontinue on June 30, 2013 |
| 224 | Mellow Beech | Discontinue on June 30, 2013 |
| 226 | Chestnut | Discontinue on June 30, 2013 |

# 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

$2\frac{1}{4}$" Butt Stile

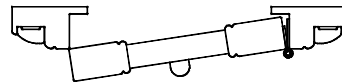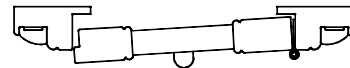$2\frac{1}{4}$" Rabbet Stile

$2\frac{1}{4}$" Astragal Stile

# Stile between panel closure

### <u>Single panel</u>

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)
  - $1 \, ^5/_8$"
  - 2" (default)

II) Panel width $\geq$ 9"
- Butt stile only
  - $1 \, ^5/_8$" ( Optional for panel width ≤ 12" )
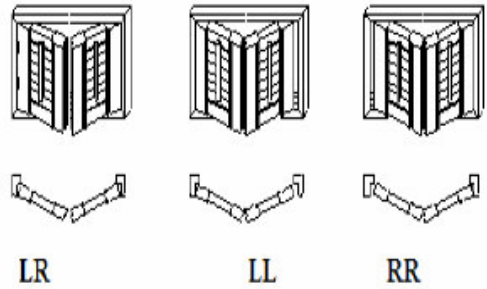  - 2" (default)

### <u>2 panels or more</u>

- Astragal stile
  - $1 \, ^5/_8$" ( Optional for panel width ≤ 12" )
  - 2" (default)
- Rabbet stile
  - $1 \, ^5/_8$" ( Optional for panel width ≤ 12" )
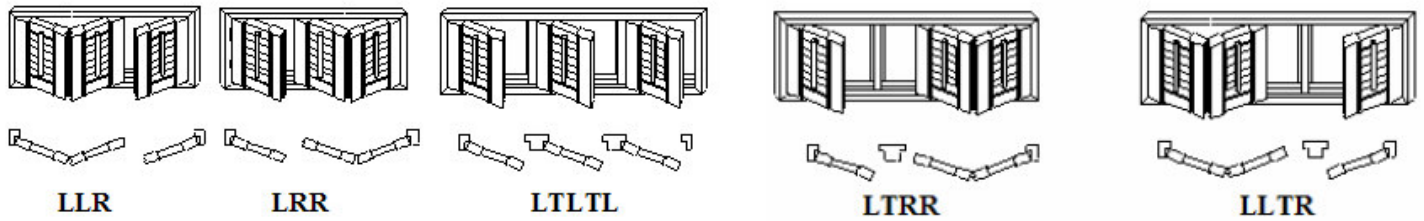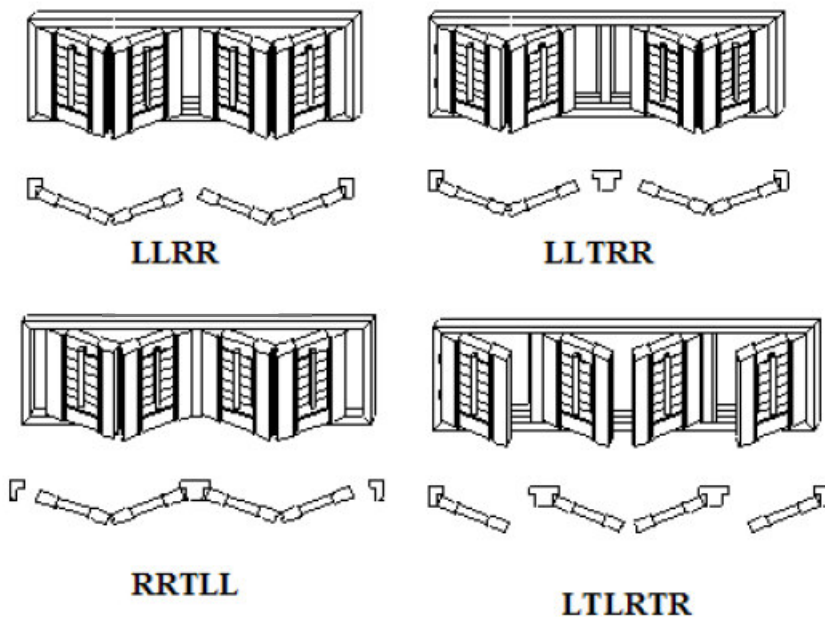  - 2"

# Panel Configurations

## Single Panel

L  OR  R
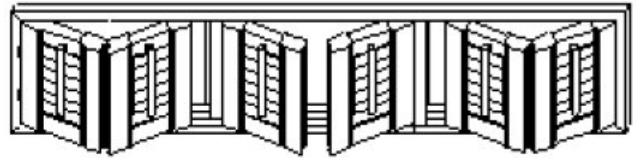
## 2 Panels

LR  LL  RR

## 3 Panels

LLR  LRR  LTLTL  LTRR  LLTR

## 4 Panels

LLRR  LLTRR
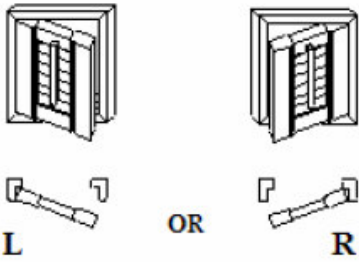
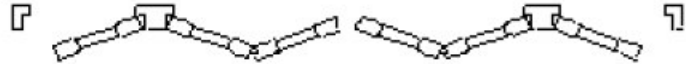RRTLL  LTLRTR

# Panel Configurations (continued)

**6 Panels**



LRTLRTLR



LLTLRTRR
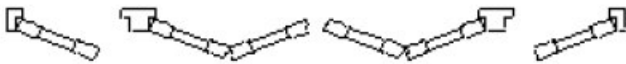


LTLLRRTR



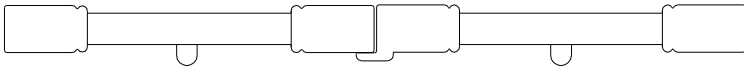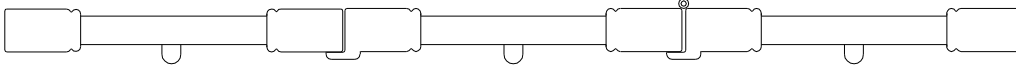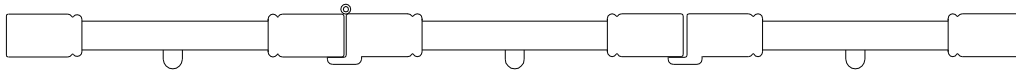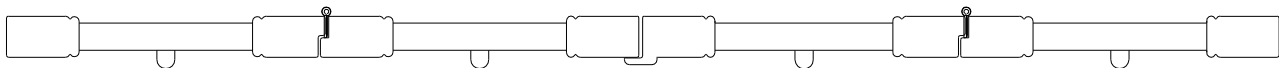RTLLRRTL

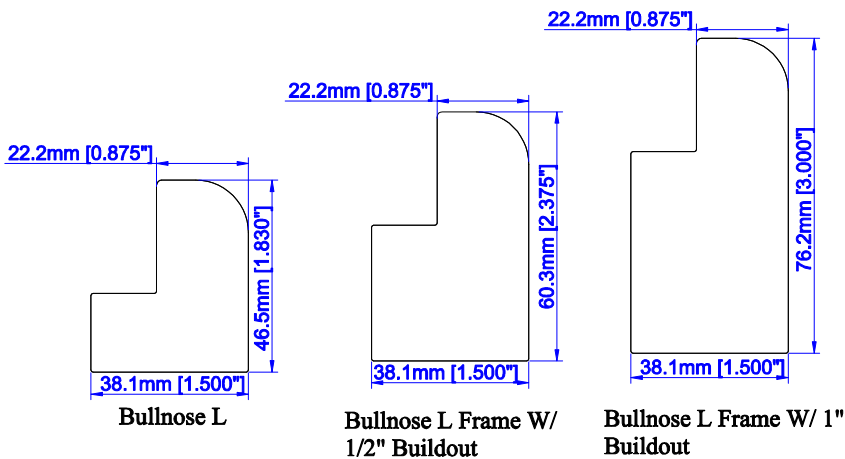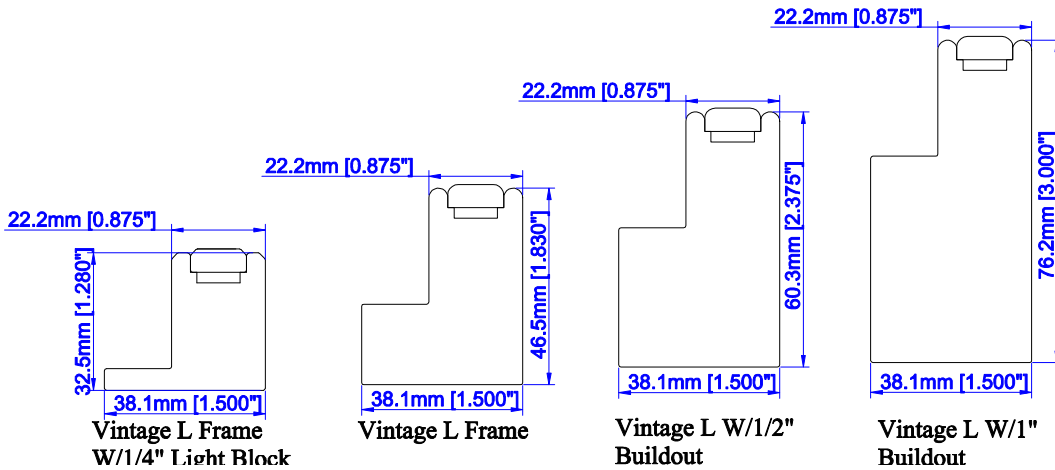# Panel Configurations – Astragal Stile

○ 2 Panels – LR

○ 3 Panels - LRR

○ 3 Panels – LLR

○ 4 Panels - LLRR

# Frame Styles

22.2mm [0.875"]
32.5mm [1.280"]
38.1mm [1.500"]
**Beaded L W/1/4"
Light Block**

22.2mm [0.875"]
46.5mm [1.830"]
38.1mm [1.500"]
**Beaded L Frame**

22.2mm [0.875"]
60.3mm [2.375"]
38.1mm [1.500"]
**Beaded L W/1/2"
Buildout**

22.2mm [0.875"]
76.2mm [3.000"]
38.1mm [1.500"]
**Beaded L W/1"
Buildout**

22.2mm [0.875"]
32.5mm [1.280"]
38.1mm [1.500"]
**Vintage L Frame
W/1/4" Light Block**

22.2mm [0.875"]
46.5mm [1.830"]
38.1mm [1.500"]
**Vintage L Frame**

22.2mm [0.875"]
60.3mm [2.375"]
38.1mm [1.500"]
**Vintage L W/1/2"
Buildout**

22.2mm [0.875"]
76.2mm [3.000"]
38.1mm [1.500"]
**Vintage L W/1"
Buildout**

22.2mm [0.875"]
46.5mm [1.830"]
38.1mm [1.500"]
**Bullnose L**

22.2mm [0.875"]
60.3mm [2.375"]
38.1mm [1.500"]
**Bullnose L Frame W/
1/2" Buildout**

22.2mm [0.875"]
76.2mm [3.000"]
38.1mm [1.500"]
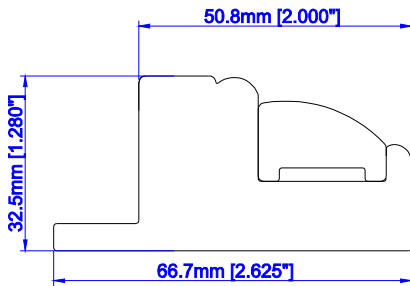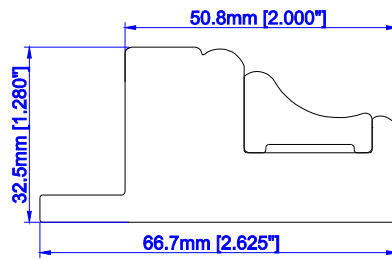**Bullnose L Frame W/ 1"
Buildout**

Also available

○ Custom extensions* up to 2" for L frames

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

# Frame Styles
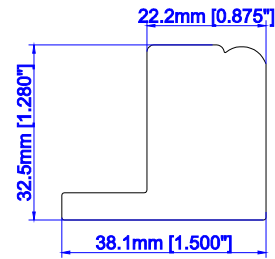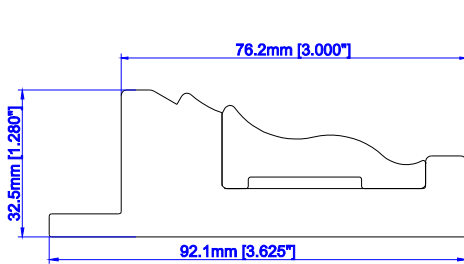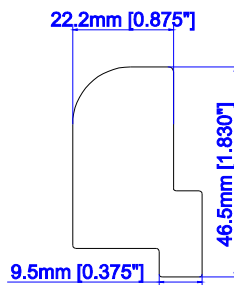
**2" Camber Deco Frame**

50.8mm [2.000"]
32.5mm [1.280"]
66.7mm [2.625"]

**2" Classic Deco Frame**

50.8mm [2.000"]
32.5mm [1.280"]
66.7mm [2.625"]

**2" Deco Sill Plate**

22.2mm [0.875"]
32.5mm [1.280"]
38.1mm [1.500"]

**3" Ridge Deco Frame**

76.2mm [3.000"]
32.5mm [1.280"]
92.1mm [3.625"]

**Tilt Out Z Frame**

22.2mm [0.875"]
46.5mm [1.830"]
9.5mm [0.375"]

**Ridge Deco Sill Plate**

22.2mm [0.875"]
32.5mm [1.280"]
38.1mm [1.500"]

**1 1/4" Beaded Z Frame**

31.8mm [1.250"]
9.5mm [0.375"]
9.5mm [0.375"]
46.5mm [1.830"]
38.1mm [1.500"]

**1 1/2" Bullnose Z Frame**

38.1mm [1.500"]
9.5mm [0.375"]
15.9mm [0.625"]
46.5mm [1.830"]
38.1mm [1.500"]

**2" Bel Air Z Frame**

50.8mm [2.000"]
28.6mm [1.125"]
9.5mm [0.375"]
46.5mm [1.830"]
38.1mm [1.500"]

**3" Crown Z Frame**

76.2mm [3.000"]
54mm [2.125"]
14mm [0.551"]
46.5mm [1.830"]
38.1mm [1.500"]

**3" Crown Z Sill Plate**

22.2mm [0.875"]
46.5mm [1.830"]
38.1mm [1.500"]
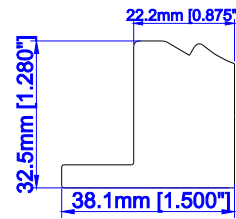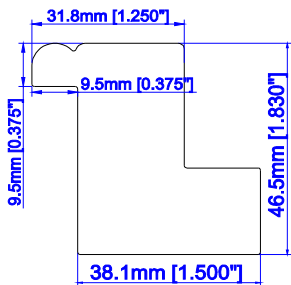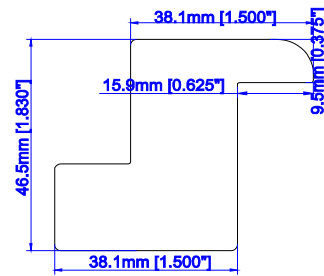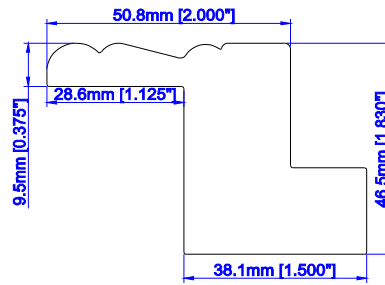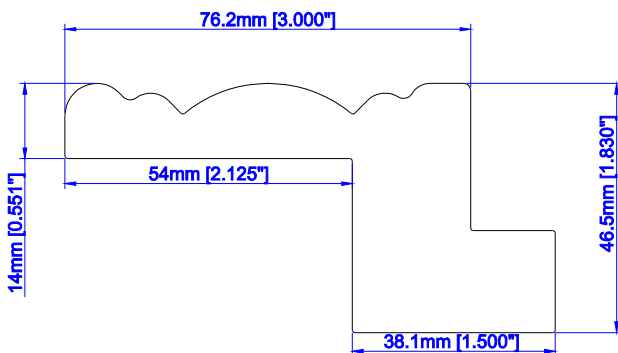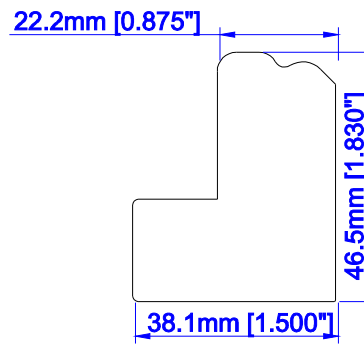
Also available

○ Custom extensions* up to 1" for Z frames

○ ½", 1" and 1½" standard extensions* and custom extensions* up to 2" for Deco frames

○ Custom extensions* up to 2" for hang strips (OM)

ND e-2

# Frame Styles

22.2mm [0.875"]    46.5mm [1.830"]    38.1mm [1.500"]

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

22.2mm [0.875"]    46.5mm [1.830"]    38.1mm [1.500"]
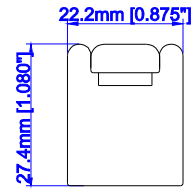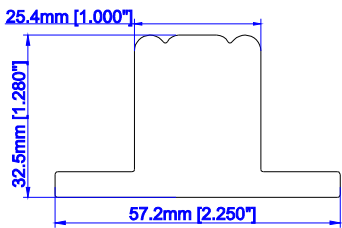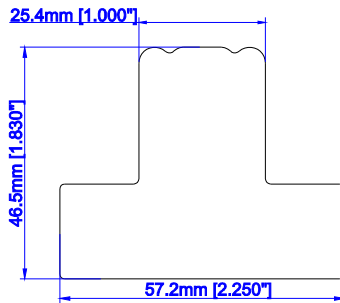
**2" Bel Air Z Sill Plate**

22.2mm [0.875"]    27.4mm [1.080"]

**Vintage Hang Strip**

25.4mm [1.000"]    32.5mm [1.280"]    57.2mm [2.250"]

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

25.4mm [1.000"]    46.5mm [1.830"]    57.2mm [2.250"]
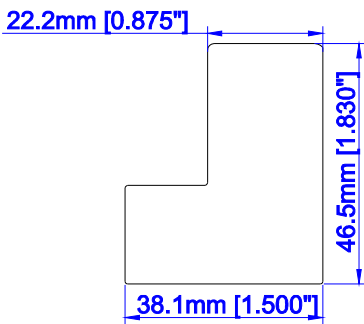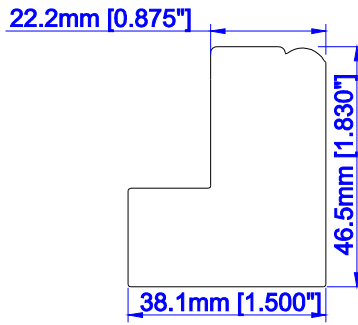
**1" T Post W/ 3/4" Light Block
(L/Z/HS)**

$\frac{3}{4}$"    $\frac{5}{8}$"

**Light Block**

44.4mm [1.750"]    32.5mm [1.280"]    76.2mm [3.000"]

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

44.5mm [1.750"]    46.5mm [1.830"]    76.2mm [3.000"]

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

$\frac{1}{2}$"    $\frac{3}{4}$"
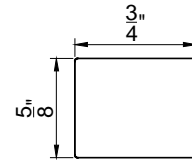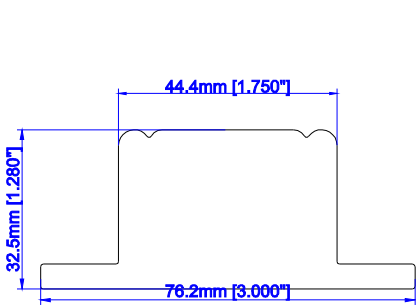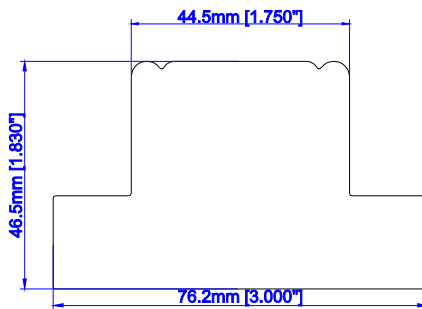
**Quarter Round**
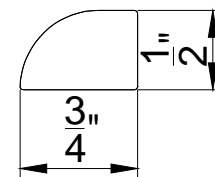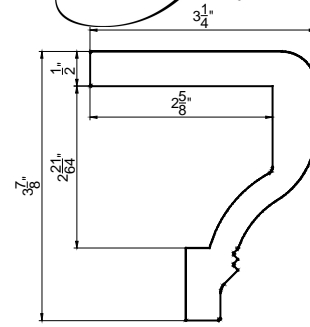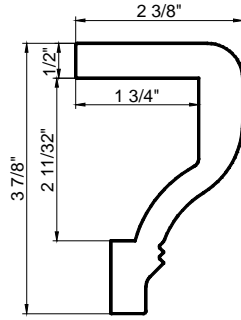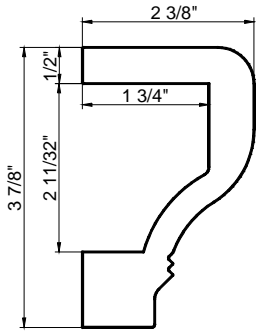
Curved Designer Sill Cap (L)    Curved Designer Sill Cap (D/HS)    Curved Designer Sill Cap (Z)

57.5mm [2.26"]

76.2mm [3"]

**3" Deco Sill Frame**

19.1mm [0.75"]

25.4mm [1"]

50.8mm [2"]

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

19.1mm [0.75"]

19.1mm [0.75"]

50.8mm [2"]
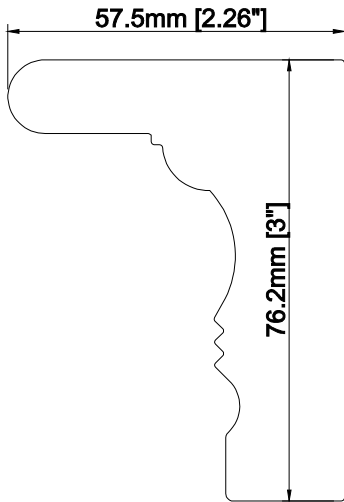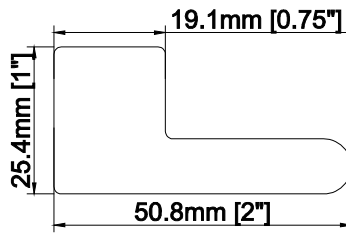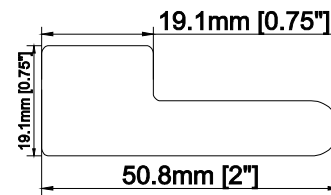
2" Sill Plate with 3/8"
Light Block (L/Z)

5.1mm [0.2"]

25.4mm [1"]

36.8mm [1.45"]
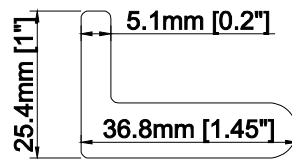
1.5" Sill Plate with
5/8" Light Block
(Deco)

5.1mm [0.2"]

19mm [0.75"]

36.8mm [1.45"]
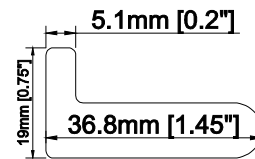
1.5" Sill Plate with
3/8" Light Block
(Deco)

90°

19mm [0.750"]

27.4mm [1.080"]

19mm [0.750"]

46.5mm [1.830"]

15.9mm [0.625"]

34.9mm [1.375"]

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

90°

19mm [0.750"]

27.4mm [1.080"]

5.1mm [0.200"]

32.5mm [1.280"]

15.9mm [0.625"]

34.9mm [1.375"]
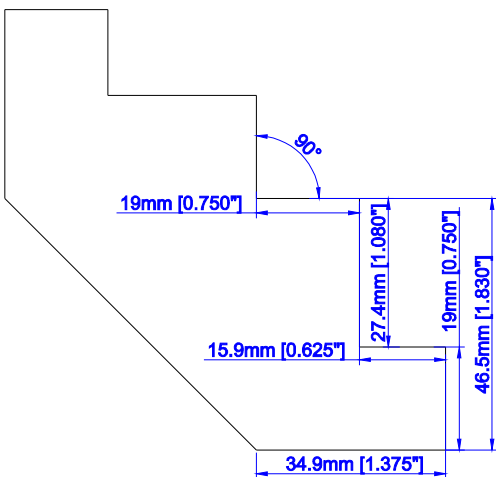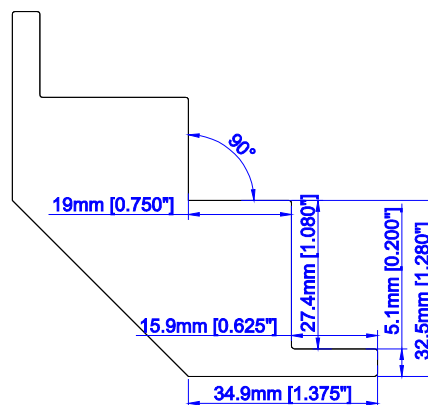
**Corner Post W/ 1/4"
Light Block (Deco)**

# Frame Styles
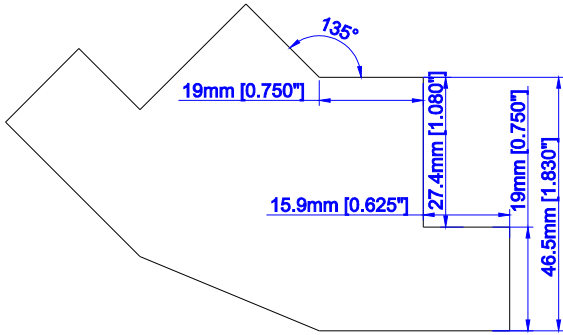
**Bay Post W/ 3/4"**
**Light Block (L/Z/HS)**
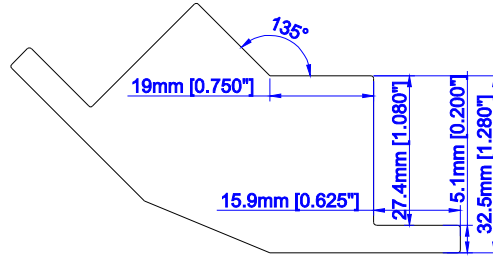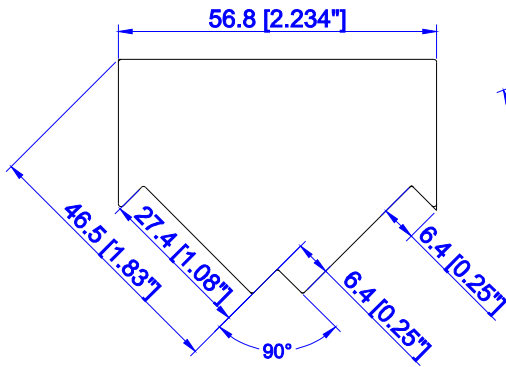
135°
19mm [0.750"]
27.4mm [1.080"]
19mm [0.750"]
15.9mm [0.625"]
46.5mm [1.830"]

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

135°
19mm [0.750"]
27.4mm [1.080"]
5.1mm [0.200"]
32.5mm [1.280"]
15.9mm [0.625"]

56.8 [2.234"]
46.5 [1.83"]
27.4 [1.08"]
6.4 [0.25"]
6.4 [0.25"]
90°

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

44.5 [1.75"]
46.5 [1.83"]
27.4 [1.08"]
6.4 [0.25"]
6.4 [0.25"]
135°

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

38.7 [1.525"]
46.5 [1.831"]
27.4 [1.08"]
6.4 [0.25"]
6.4 [0.25"]
150°

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

46 [1.81"]
27.4 [1.08"]
32.5 [1.28"]
12.7 [0.5"]
6.4 [0.25"]
6.4 [0.25"]
90°

**Slim Fit Corner Post for 90 Degree (D)**

44.5 [1.75"]
32.5 [1.28"]
27.4 [1.08"]
6.4 [0.25"]
6.4 [0.25"]
135°

**Slim Fit Bay Post for 135 Degree (D)**

38.7 [1.525"]
32.5 [1.28"]
27.4 [1.08"]
6.4 [0.25"]
6.4 [0.25"]
150°
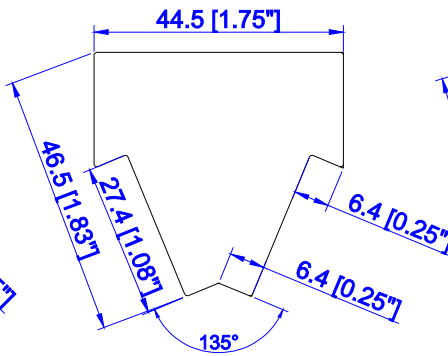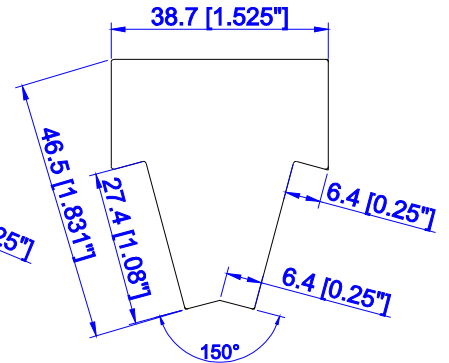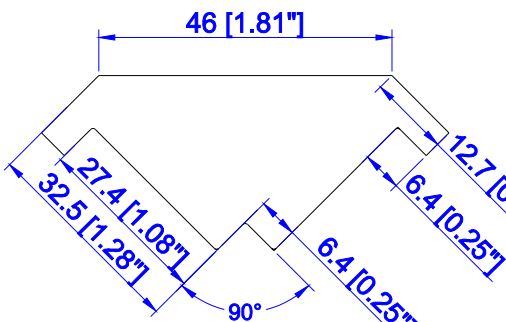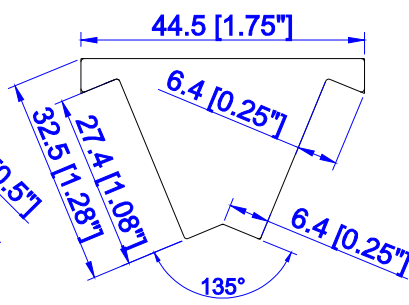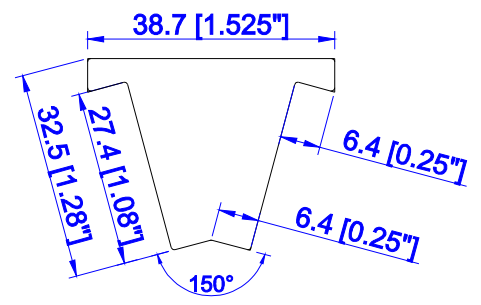
**Slim Fit Bay Post for 150 Degree (D)**

# Frame Styles
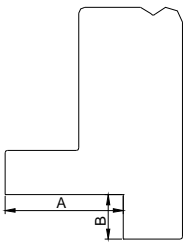
Notch Out
Beaded L Frame (A) *
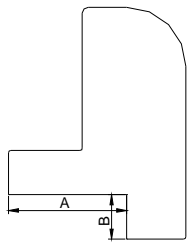
Notch Out
Bullnose L Frame (A) *
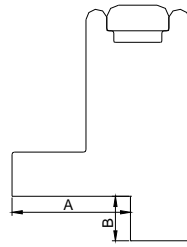
Notch Out
Vintage L Frame (A) *
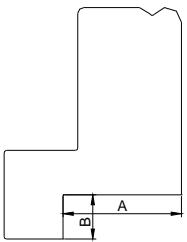
Notch Out
Beaded L Frame (B) *
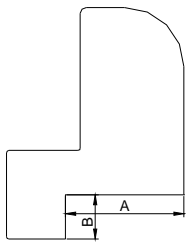
Notch Out
Bullnose L Frame (B) *
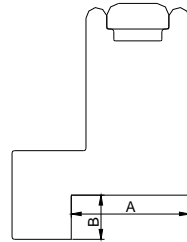
Notch Out
Vintage L Frame (B) *

Also available
- ○ Custom depth* up to 2" / width* up to 7½  for T Posts
- ○ Custom angle bay posts*

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

## Pre-drill L or Z frames:
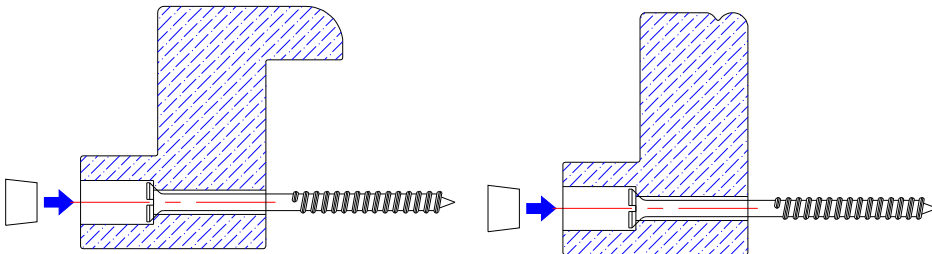
# General Product Specifications

| Description | Minimum | Maximum |
|---|---|---|
| Single Panel Width (Regular) | 6" | 42" for 3.5"&4.5" louvers, 36" for other louver type |
| Single Panel Width (Bifold) | 6" | 26" |
| 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 (frame* pieces exceeding 142" will be spliced) |
| Shutter Height | N/A | 133" + frame |

*For frame and stile exceeding 108", there will be a visible finger joint line in the middle.*

## Shutters without bottom supports

Normandy shutters will be covered by our warranty for this application, subject to our standard specification limitations and the guidelines listed below:

**All Normandy panel configurations:**

◊ You must inform Norman Shutters of situations where shutters will not have bottom support when placing the initial order, or warranty will be considered void.

◊ Informing Norman Shutters when placing such orders ensures that the factory will add extra hinges to support the panel. This will reduce the probability of the panels sagging and increase shutter integrity.

◊ If you fail to notify Norman Shutters that the shutter will be used without a bottom support or used as doors, this will constitute a misapplication of the shutter. Consequently, you will be responsible for the cost of any RGA Reorder that is submitted.

◊ If you want a bifold shutter, a track must be ordered to support the panels.

# Tilt Rod
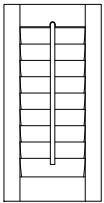
**Standard Tilt Rod**
  **Default Location**      In the middle of the panel on front side (default).
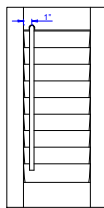
**Offset Tilt Rod***
  **Default Location**      On the front side of the panel and at 1" from the louver ends
on the hinged side.
Optional location: per your request.

**InvisibleTilt™ ***
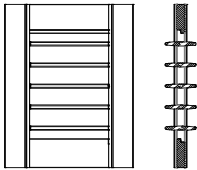
Louver tilting system embedded within panel stile.  It is not available for $1^7/_8$" louver. The tilting system is split when the number of louvers exceeds the limits as listed below:

| 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.

*Normandy® 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.
- Divider rail is required for panel heights over 78".
- 84" panel height limit without divider rail is for Wood French Door Cut Out installed with button catches & Wood Bypass and bi-fold track shutters.
- Custom Size(3"~7.875") Divider Rail is available with surcharge.

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

**Measurements**:
- Window size:
  — Measure from the bottom of the window to the center of the divider rail.
- Max frame-to-frame:
  — Measure from the bottom of the frame to the center of the divider rail.
- Position:
  — Per customer's specification. However, the divider rail may be adjusted to a lower or higher position, within our allowable deviation, to ensure reinforcement and aesthetics of the shutter.
  When placing the order, please clearly specify if the divider rail position needs to line up with that of other shutter divider rails in the same room. Please also refer to the table below for the allowable deviation details.
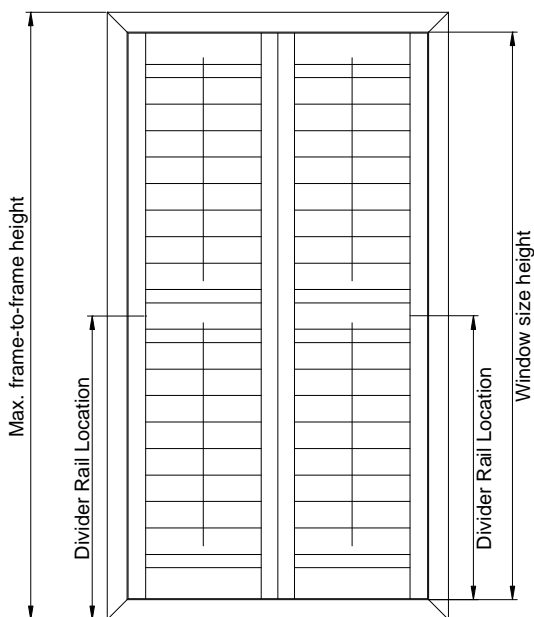


**Divider rail allowable deviations**

| Louver Size | Allowable ± Deviation |
|---|---|
| 2½" | 1" |
| 3½" | 1½" |
| 4½" | 2" |

# Hardware

## Hinges

Self-Mortise Hinge

Bi-fold Hinge

2 3/8"

2 3/8"

L Hinge

2 3/8"
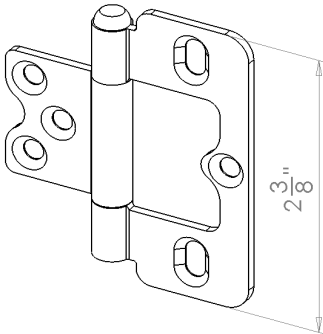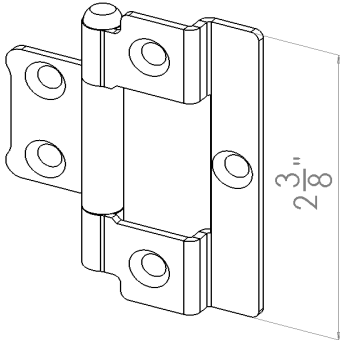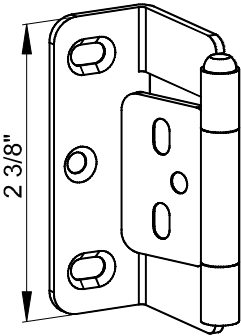
Hinges are available in :
Pure White, Silk White, Bisque, Pearl, Bright Brass, Antique Brass, Black, Nickel plated and Stainless Steel[*]

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

**Available Material: All**

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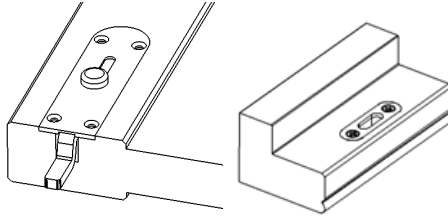
**Position:** (Only available on Bottom for Track Shutters with Bottom Track; For Regular, available on Top/Bottom/both Top and Bottom)

LL

RR

LLL

RRR

LLRR

LLLL

RRRR

Panel Config: FFFFFF(R)
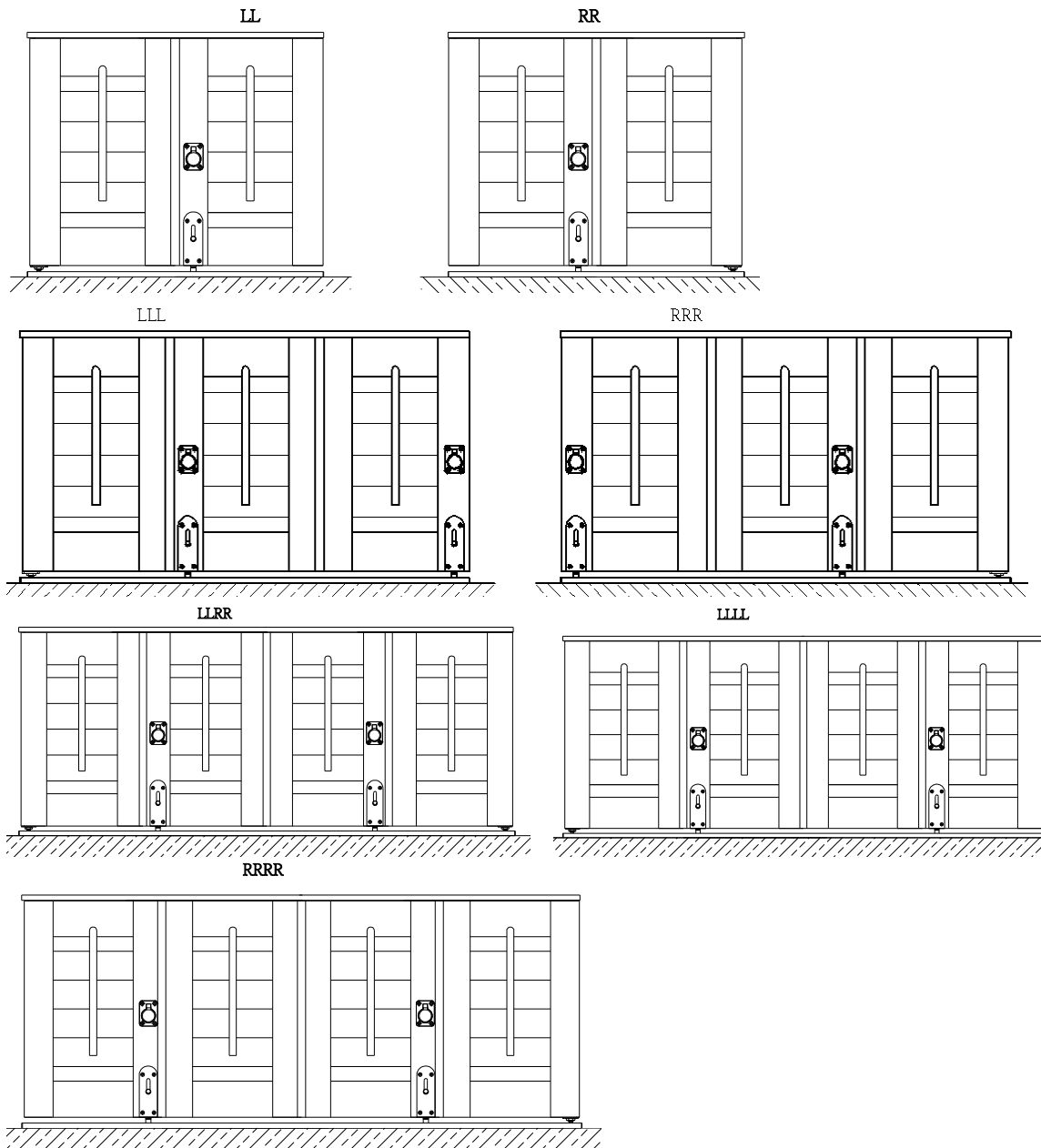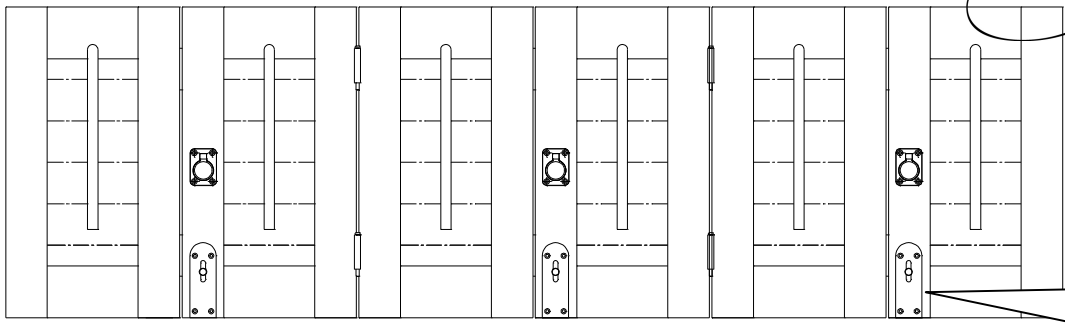
Default:

Floating panels stacked to Right

The Panel Lock location for both track system shutters and regular shutters would be the same.

The general principle is that the Panel Lock position will avoid the stile which will install the spring-loaded guide at bottom (same stile as the Wheel carrier).



Pivot    Wheel carrier    Wheel carrier    Wheel carrier    Pivot

L   bolt   L    L   bolt   L    R bolt   R    R bolt   R
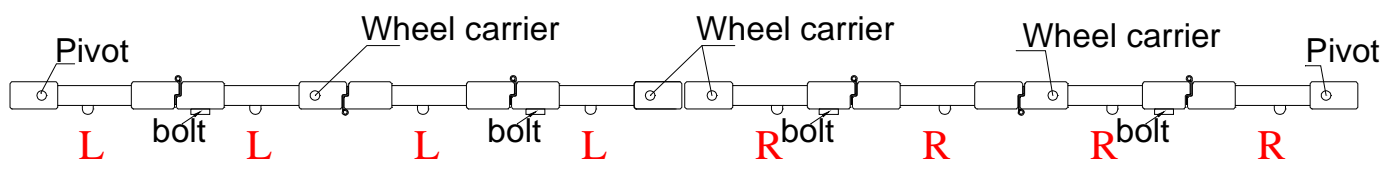
**Ring pull**: for easy opening and closing

**(Not available for 1.625" Stile)**
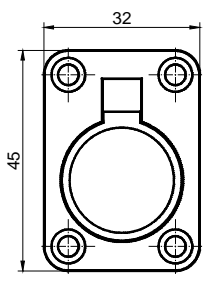


Please note the ring pull finish will match with the hinge finish.

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.**

| Default | Default when there is a Divider Rail | Optional: at Custom Location |
|---------|--------------------------------------|------------------------------|
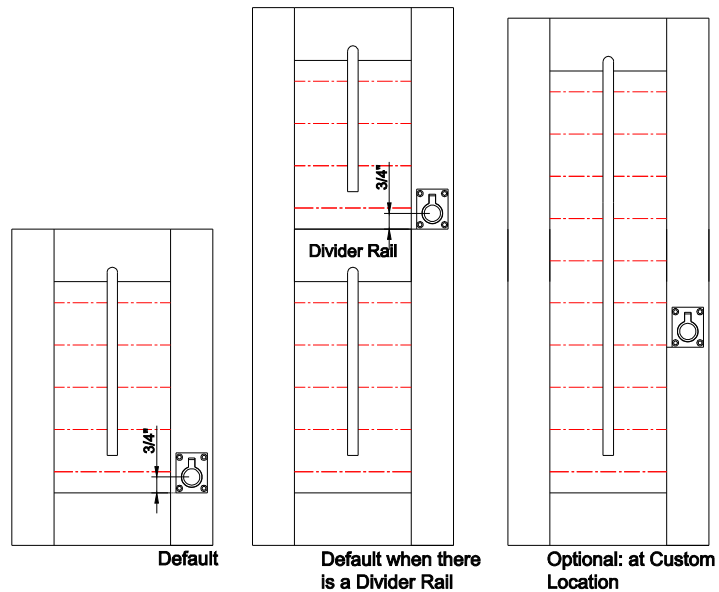
Position:
A. Above Bottom Rail (Default)
B. Above 1st Divider Rail (Default when there are Divider Rails)
C. Custom Location

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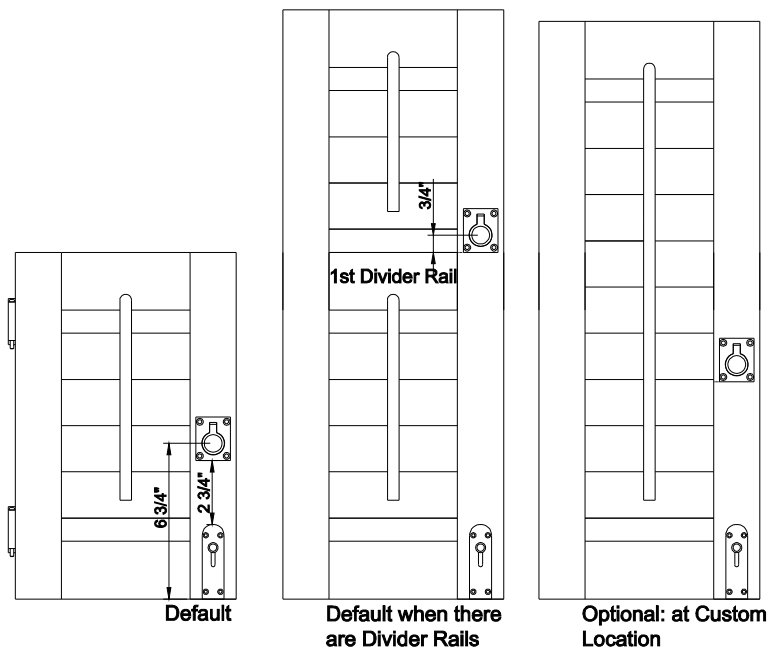
Position:
A. 2 3/4" Above Panel Lock (Default when both Ring Pull and Panel Lock are specified)
B. Above 1st Divider Rail (Default when there are Divider Rails)
C. Custom Location

**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.

## Invisible Hinge

| Frame Options | Hinge | Notes |
|---|---|---|
| 2'' Camber Deco Frame | Y | / |
| 2'' Classic Deco Frame | Y | / |
| 3" Ridge Deco Frame | N | / |
| Vintage L Frame W / 1/4" Light Block | N | / |
| Vintage L | N | / |
| Vintage L Frame w/ 1/2" Buildout | N | / |
| Vintage L Frame w/ 1" Buildout | N | / |
| Beaded L w 1/4"light block | Y | / |
| Beaded L | Y | / |
| Beaded L Frame w/ 1/2" Buildout | Y | / |
| Beaded L Frame w/ 1" Buildout | Y | / |
| Bullnose L | N | / |
| Bullnose L Frame w/ 1/2" Buildout | N | / |
| Bullnose L Frame w/ 1" Buildout | N | / |
| Tilt out Z Frame | N | / |
| 1.25" Beaded Z Frame | Y | / |
| 1.5" Bullnose Z Frame | Y | / |
| 2" Bel Air Z Frame | Y | / |
| 3" Crown Z Frame | N | / |
| 7/8"  Vintage Hang Strip (31mm) (27mm for 1" stile) | N | / |
| 1" T-Post w/ 1/4" Light Block(for Deco) | Y | only available with hinge on one side, for example, LTL is available, but RTL is not. |
| 1" T-Post w/3/4" Light Block(for L/Z/HS) | Y | |
| 1 3/4" T-Post w/1/4" Light Block(for Deco) | Y | available with hinge on BOTH side, for example, RTL. |

| | | |
|---|---|---|
| 1 3/4" T-Post w/3/4" Light Block(for L/Z/HS) | Y | |
| Corner Post w/1/4" Light Block(for Deco) | Y | / |
| Corner Post w/3/4" Light Block(for L/Z/HS) | Y | / |
| Bay Post  w/1/4" Light Block(for Deco) | Y | / |
| Bay Post w/3/4" Light Block(for L/Z/HS) | Y | / |

Invisible Hinge Qty

| Panel Height (H) | Hinge Qty |
|---|---|
| H<=48" | 2 |
| 48"<H<=78" | 3 |
| 78"<H<=96" | 4 |
| 96"<H<=120" | 5 |
| H>120" | 6 |

Available Stile:Butt and Astragal

Preinstallation:

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

If bifold/multi-fold panels are packaged together, the hinges are installed before shipping, or the hinges & screws are packed into the hardware box.

## 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)
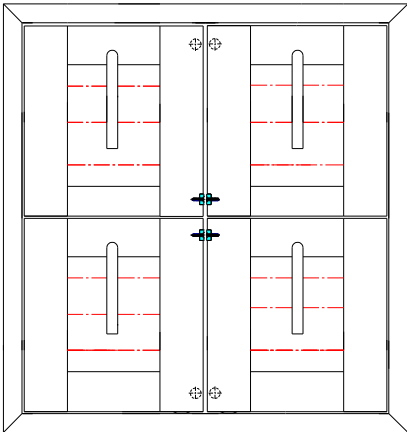


2.  Café Shutter

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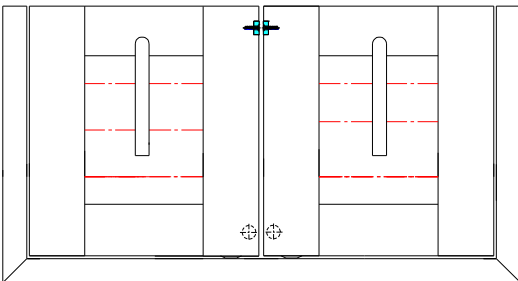


3.  No frame or light block or L-shape striker plate on either top or bottom, or if larger than standard top or bottom gap is requested.

    Side magnets will be applied to the meeting stiles of the L and R panel. (Optional)
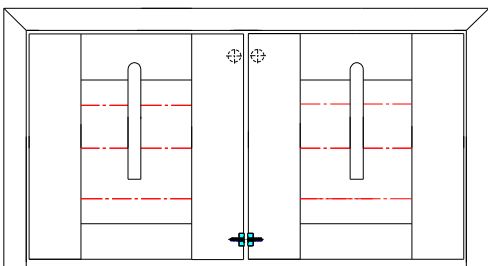
# Bi-fold 180<sup>TM</sup>

## Guidelines and Specs:

| Description | Minimum | Maximum |
| --- | --- | --- |
| | | 2½" ; 3½" ; 4½" |
| Single-Panel Width (Bi-fold Track) | 6" | 26" |
| Single-Panel Width (LLL/RRR) | 6" | 20" |
| Single-Panel Height | 10" | 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.

*Normandy® Shutters*
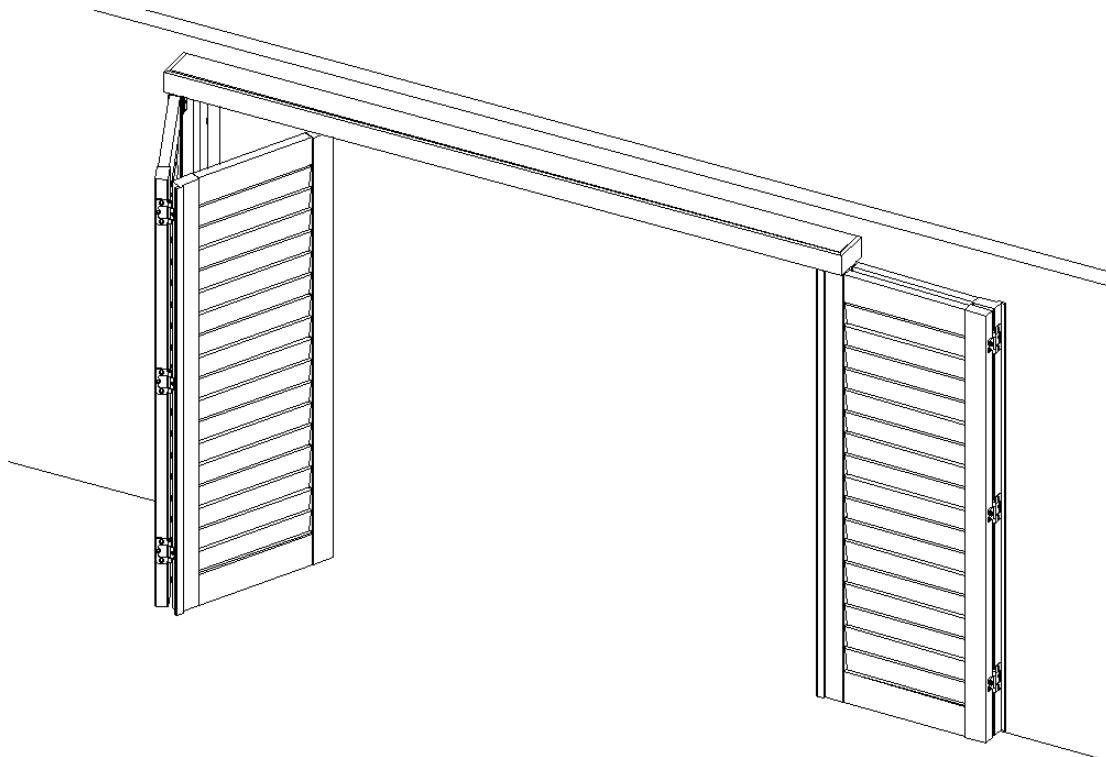
**Mounting Options:** Outside Mount only
## Side View
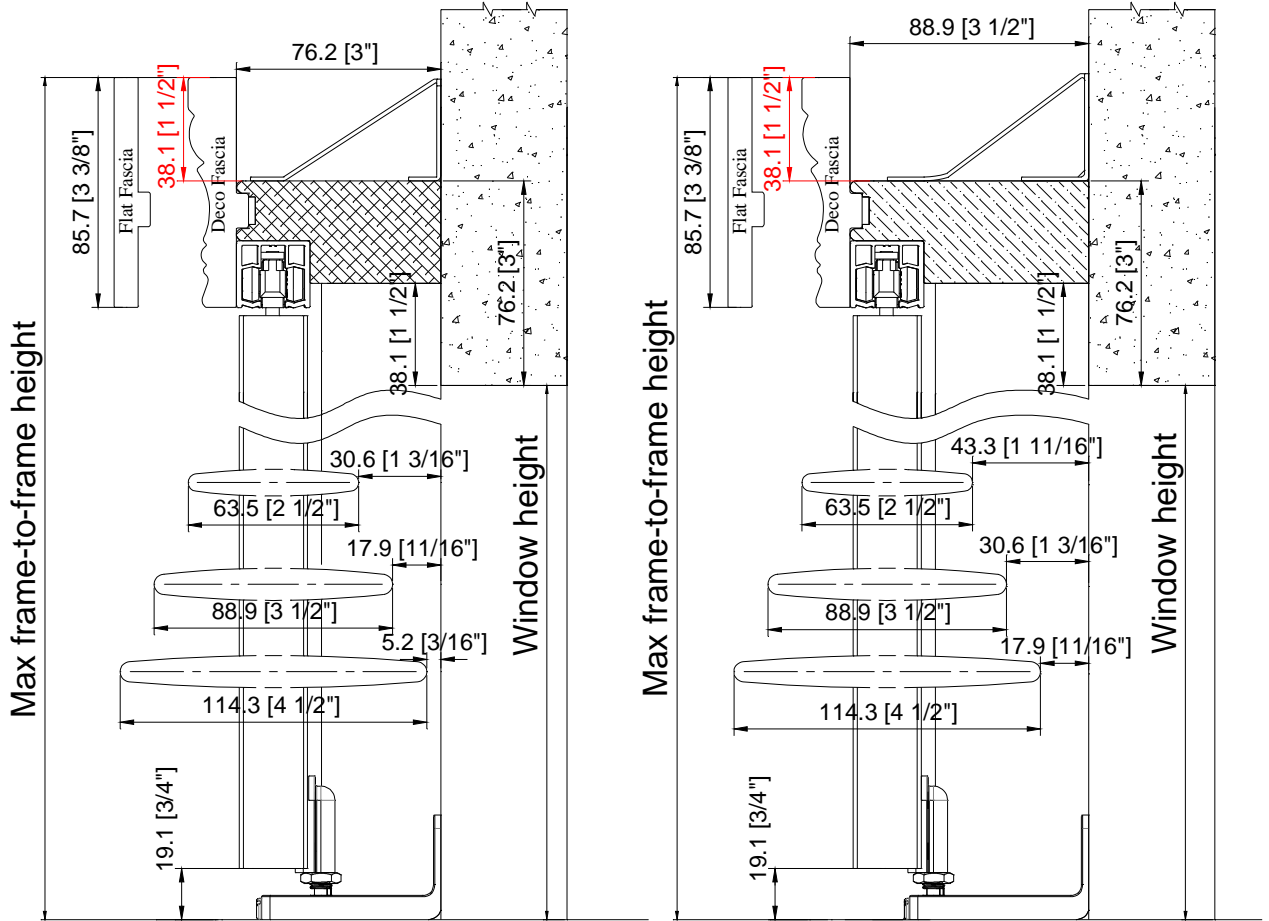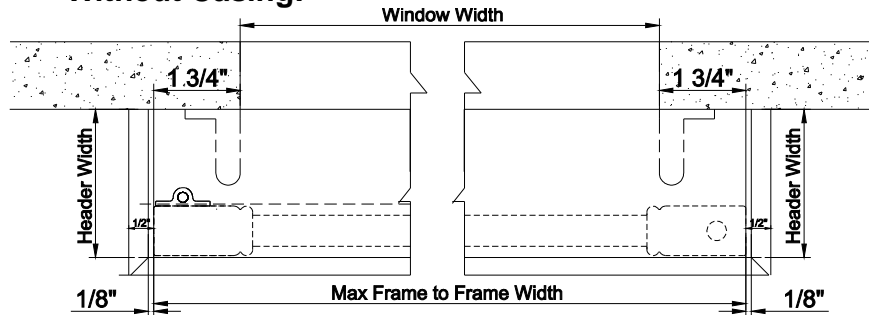
Flat Fascia
Deco Fascia
76.2 [3"]
85.7 [3 3/8"]
38.1 [1 1/2"]
76.2 [3"]
38.1 [1 1/2"]
Max frame-to-frame height
Window height
30.6 [1 3/16"]
63.5 [2 1/2"]
17.9 [11/16"]
88.9 [3 1/2"]
5.2 [3/16"]
114.3 [4 1/2"]
19.1 [3/4"]

Flat Fascia
Deco Fascia
88.9 [3 1/2"]
85.7 [3 3/8"]
38.1 [1 1/2"]
76.2 [3"]
38.1 [1 1/2"]
Max frame-to-frame height
Window height
43.3 [1 11/16"]
63.5 [2 1/2"]
30.6 [1 3/16"]
88.9 [3 1/2"]
17.9 [11/16"]
114.3 [4 1/2"]
19.1 [3/4"]

## Top View
**Without Casing:**

Window Width
1 3/4"
1 3/4"
Header Width
Header Width
1/2"
1/2"
1/8"
Max Frame to Frame Width
1/8"

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.

ND j1-2

**With Existing Casing:**

existing casing width

$\frac{5}{8}$"

MFF Height

MFF width=existing casing width + 1$\frac{1}{4}$"

Total width=existing casing width + 1$\frac{1}{4}$"+1$\frac{3}{8}$"

Flat Fascia

Deco Fascia

Height

- ✧ 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.

Extension

Header Width

11/16"

11/16"

5/16"

5/16"

- ✧ The extension will be pre-attached.

Extension

3"/3.5"

85.7 [3 3/8"]

Flat Fascia

Deco Fascia

76.2 [3"]

38.1 [1 1/2"]
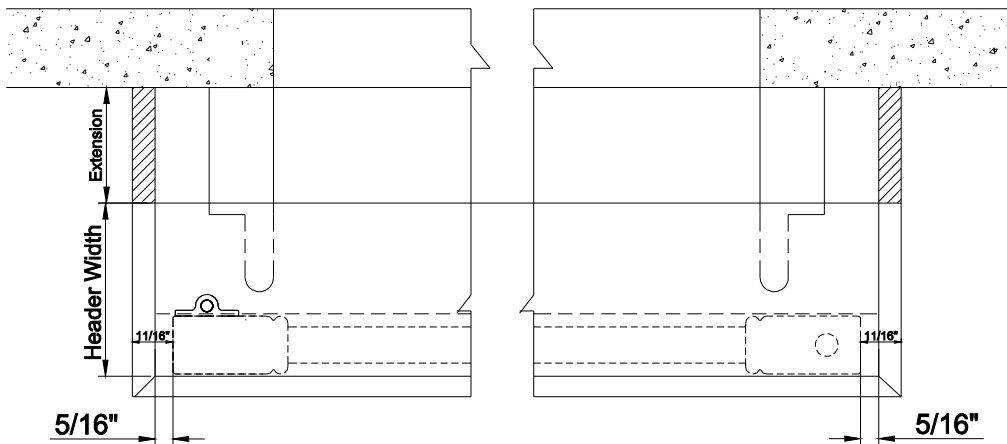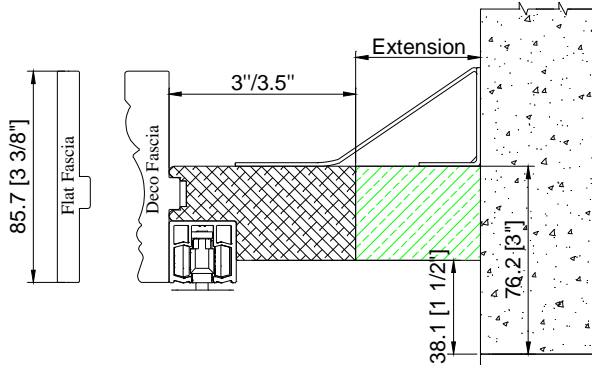
For 180 Bi-fold, if Bottom Pivot L Bracket is required, the extension for the L shape light block will be 1 3/4" in width. Please see picture below:

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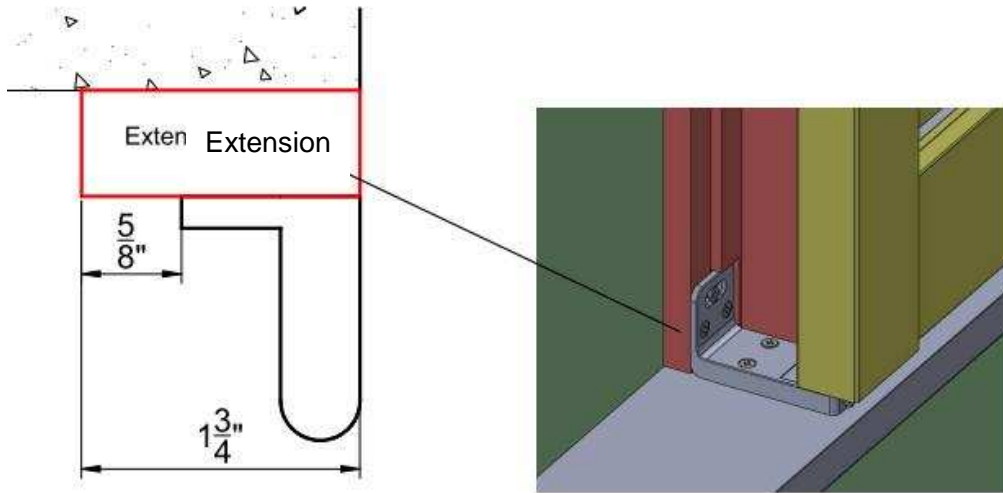
**Panel Configuration：Only 2", 2 1/4" rabbet and butt stiles are available. Center stile is not available.**

LLL RRR

LLRR

LL

RR

LLL

RRR
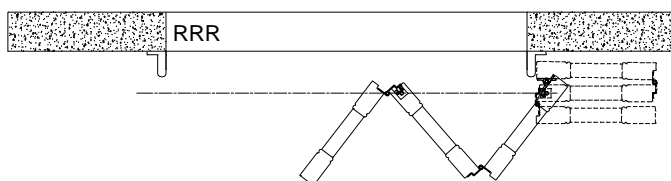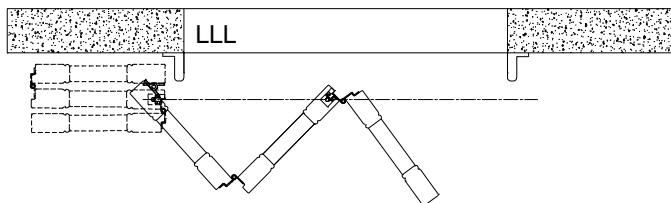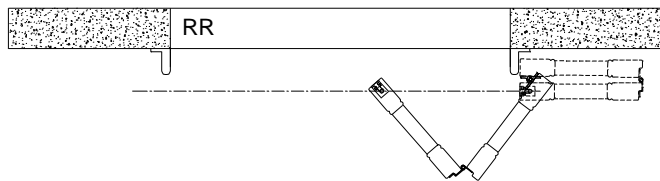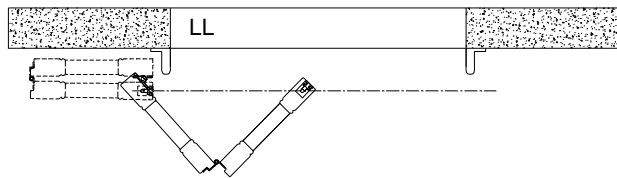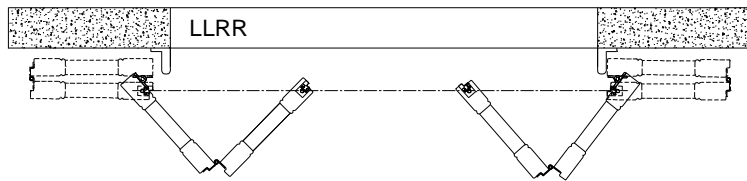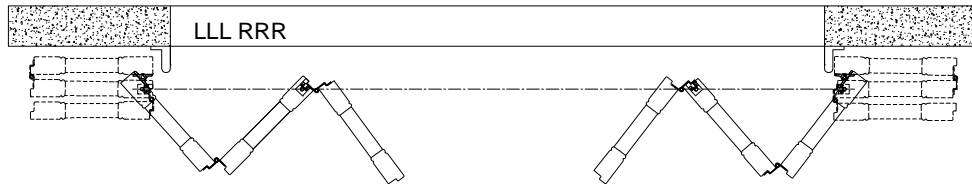
Notes:
If there is no baseboard to the wall, 3" header can be used.
If there is baseboard to the wall, then it should be as below:
1. If base board thickness is less or equal to 5/8", 3 1/2" header can be used.
2. If base board thickness is over 5/8", it is suggest using the 3" header with build out. And the build out thickness=base board thickness-1/8".

Please see the drawing below:
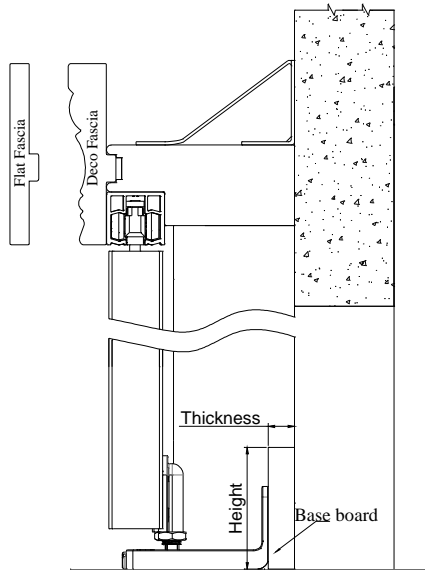


**180⁰ Bi-fold Track Shutters Framing Materials**

| 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" |

Normandy Shutters

**180⁰ 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 pre-drilled screw holes |

# Bi-fold 90

## Guidelines and Specs:

| Description | Minimum | Maximum |
| --- | --- | --- |
| | | 2½" ; 3½" ; 4½" |
| Single-Panel Width (Bi-fold Track) | 6" | 26" |
| Single-Panel Width (Multifold track up to 4 panels) | 6" | 20" |
| Single-Panel Height | 10" | 133" |

<u>Outside Mount</u>
Max frame-to-frame width: window width + 3 1/2"
Max frame-to-frame height: window height + 4 1/2"
<u>Semi-Inside Mount</u>
Max frame-to-frame width: window width - $^1/_8$"
Max frame-to-frame height: window height + 1 $^3/_8$"
<u>Inside Mount</u>
Max frame-to-frame width: window width - $^1/_8$"
Max frame-to-frame height: window height - $^1/_8$"
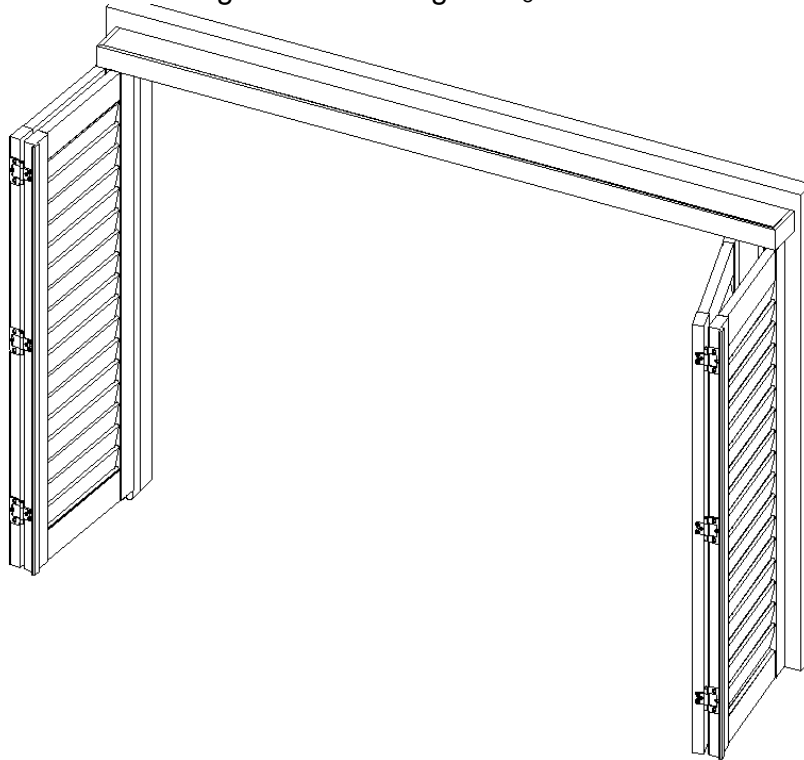
Track is pre-installed on the header; standard 1 track only.
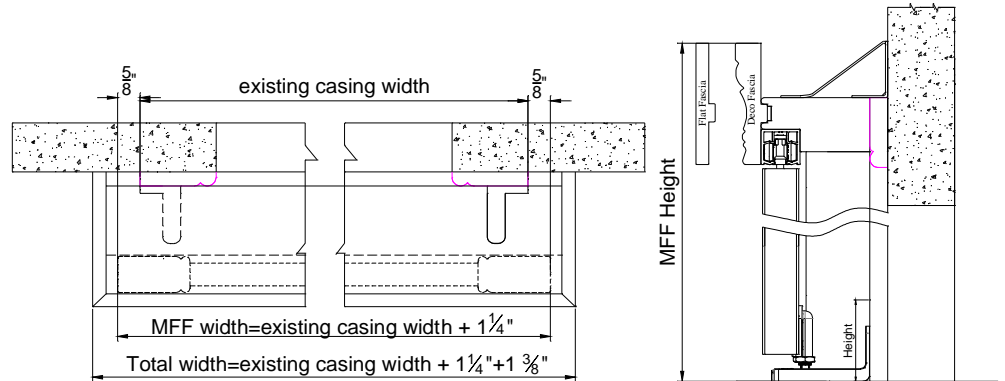
**Mounting Options: Outside Mount**

**Side View**
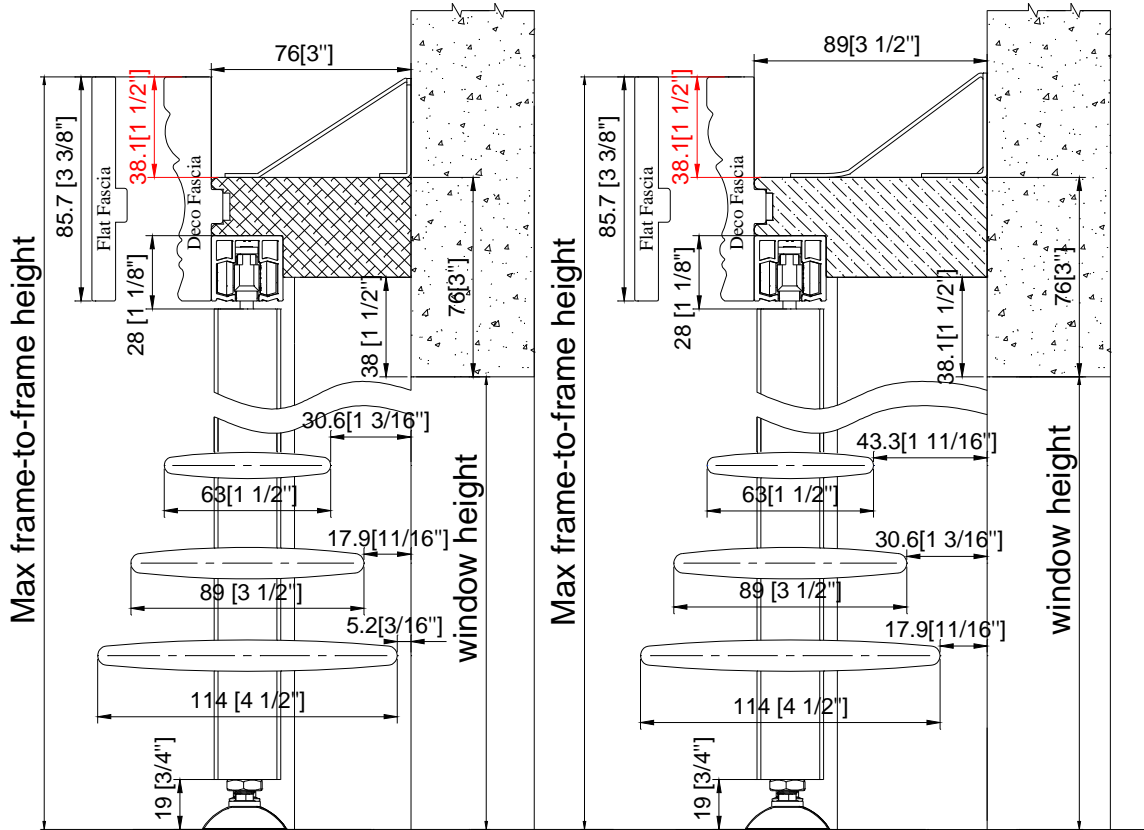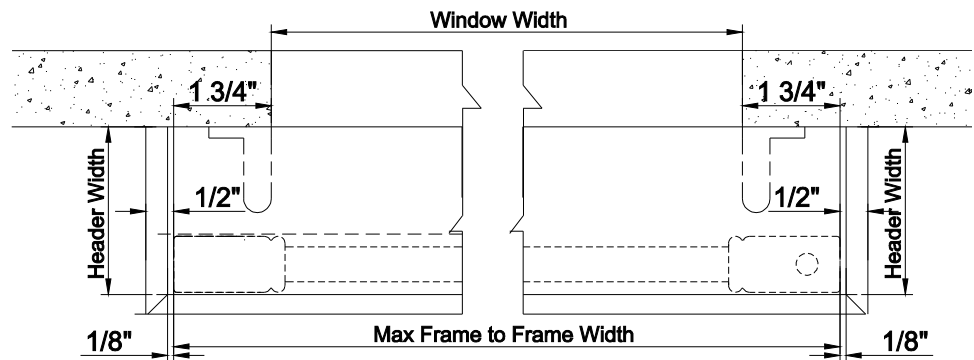
76[3"]

85.7 [3 3/8"]

38.1[1 1/2"]

Flat Fascia

Deco Fascia

28 [1 1/8"]

38 [1 1/2"]

76[3"]

Max frame-to-frame height

30.6[1 3/16"]

63[1 1/2"]

17.9[11/16"]

89 [3 1/2"]

5.2[3/16"]

114 [4 1/2"]

19 [3/4"]

window height

89[3 1/2"]

85.7 [3 3/8"]

38.1[1 1/2"]

Flat Fascia

Deco Fascia

28 [1 1/8"]

38.1[1 1/2"]

76[3"]

Max frame-to-frame height

43.3[1 11/16"]

63[1 1/2"]

30.6[1 3/16"]

89 [3 1/2"]

17.9[11/16"]

114 [4 1/2"]

19 [3/4"]

window height

**Top View**

**Without Casing:**

Window Width

1 3/4"

1/2"

Header Width

1/8"

Max Frame to Frame Width

1 3/4"

1/2"

Header Width

1/8"

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

Normandy Shutters

**With Existing Casing:**

5/8"  existing casing width  5/8"

MFF Height

Flat Fascia  Deco Fascia

MFF width=existing casing width + 1¼"

Total width=existing casing width + 1¼"+1"
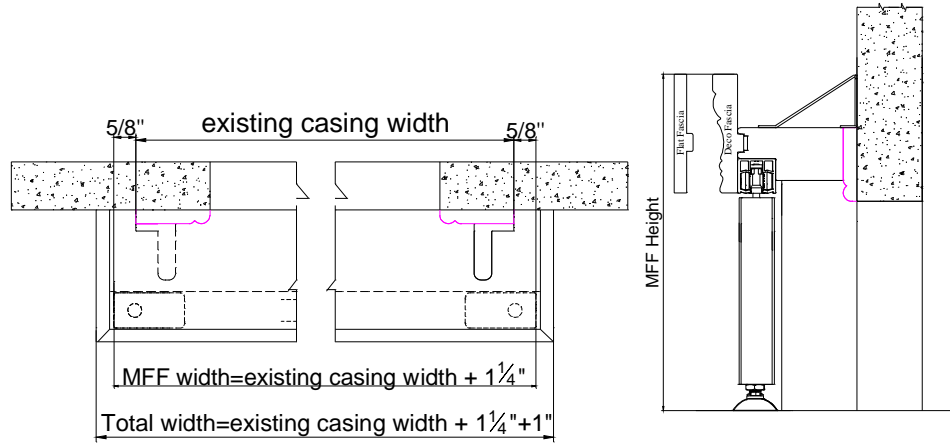
## Semi-Inside/Inside Mount

## Side View

76.2 [3"]

3.2 [1/8"]

Deco Fascia  Flat Fascia

Max Frame to Frame Height

28 [1 1/8"]

30.6 [1 3/16"]

63.5 [2 1/2"]

17.9 [11/16"]

88.9 [3 1/2"]

5.2 [3/16"]

114.3 [4 1/2"]

19 [3/4"]

Window height

**Inside Mount**

85.7 [3 3/8"]

38.1 [1 1/2"]

Flat Fascia  Deco Fascia

76.2 [3"]

3.2 [1/8"]

Max Frame to Frame Height

28 [1 1/8"]

30.6 [1 3/16"]

63.5 [2 1/2"]

17.9 [11/16"]

88.9 [3 1/2"]

5.2 [3/16"]

114.3 [4 1/2"]

19 [3/4"]

Window height

**Semi-inside Mount**

ND j1-10

Normandy Shutters

Semi-Inside Mount Top View

Window Width

1.6mm [1/16"]                1.6mm [1/16"]

6.35mm $[\frac{1}{4}"]$              6.35mm $[\frac{1}{4}"]$

Overall Panel Width = Window Width -12.7mm[$\frac{1}{2}$"]

MFF Width=Header Width = Window Width -3.2mm[$\frac{1}{8}$"]

Inside Mount Top View

Window Width

44.45mm [1$\frac{3}{4}$"]                      44.45mm [1$\frac{3}{4}$"]

6.35mm $[\frac{1}{4}"]$                    6.35mm $[\frac{1}{4}"]$

1.6mm $[\frac{1}{16}"]$   Overall Panel Width=Window Width-12.7mm(1/2")   1.6mm $[\frac{1}{16}"]$

MFF Width=Header Width=Window Width-3.2mm(1/8")

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

Extension

3''/3.5''

85.7 [3 3/8"]

Flat Fascia

Deco Fascia

76.2 [3"]

38.1 [1 1/2"]
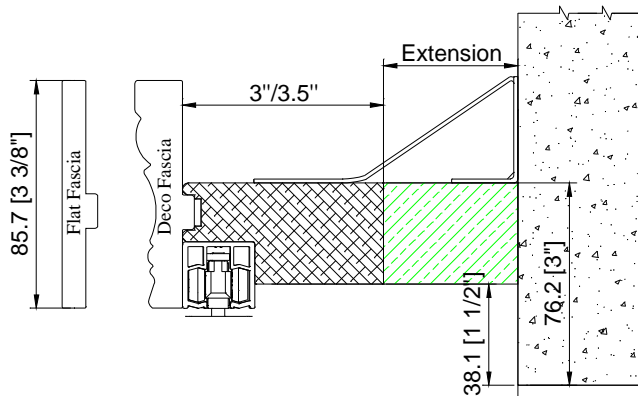
**Panel Configuration：Only 2", 2 1/4" rabbet and butt stile are available. Center stile is not available.**

LL or RR
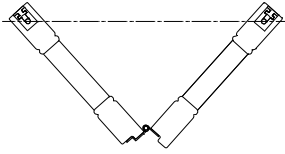
LLRR
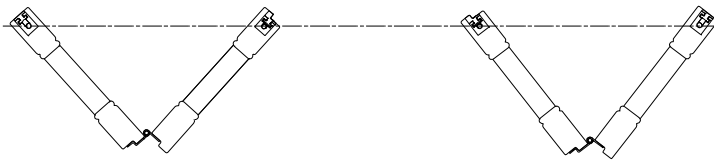
**Optional (Hang Strip for Inside Mount Only)**

LL
Pivot          Wheel Carrier
6.35mm [1/4"]6.35mm [1/4"]

RR
Wheel Carrier          Pivot
6.35mm [1/4"] 6.35mm [1/4"]

FF/FF
Wheel Carrier     Wheel Carrier     Wheel Carrier
6.35mm [1/4"]                    6.35mm [1/4"]

LLRR
Pivot          Wheel Carrier          Pivot
6.35mm [1/4"]                    6.35mm [1/4"]
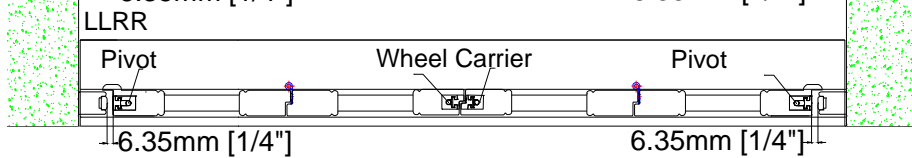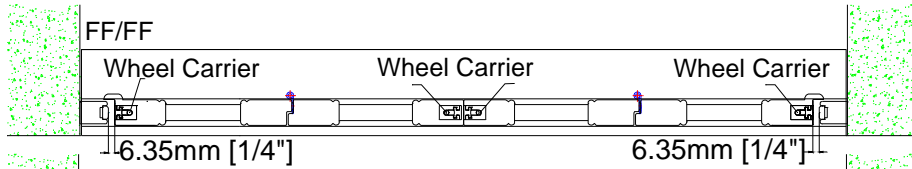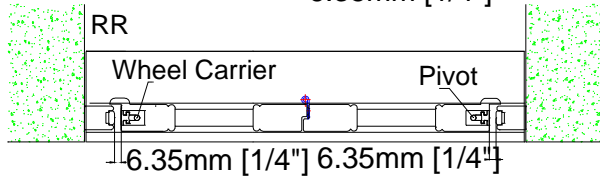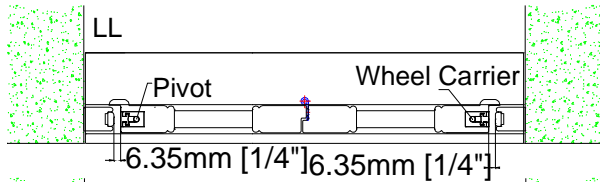
Note: When Butt/rabbet Stile is required, the stile next to the hang strip will be astragal stile.

LL
Pivot          Wheel Carrier
6.35mm [1/4"]6.35mm [1/4"]

RR
Wheel Carrier          Pivot
6.35mm [1/4"]6.35mm [1/4"]

FF/FF

Wheel Carrier     Wheel Carrier     Wheel Carrier

6.35mm [1/4"]           6.35mm [1/4"]

LLRR

Pivot       Wheel Carrier       Pivot

6.35mm [1/4"]           6.35mm [1/4"]
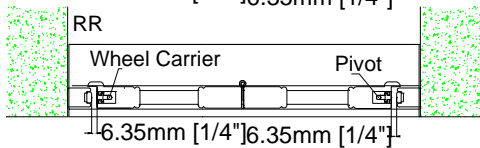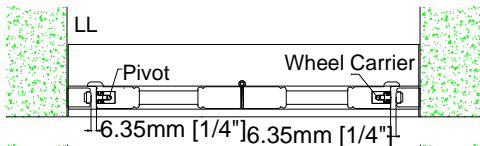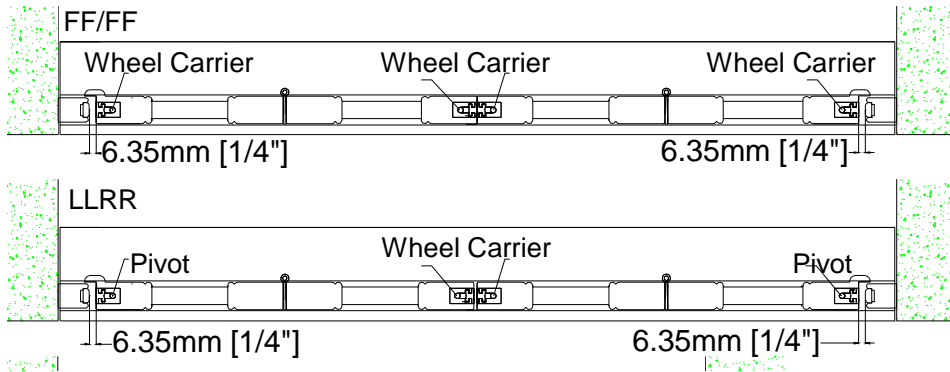
## $90^0$ Multi-Fold Track Shutters (Wood only)

Maximum single panel width for multi-fold is 20"
Panel Configuration: LLLL, RRRR, or LLLLRRRR

$L$ $\frac{9}{32}$" [7mm]   $\frac{9}{32}$" [7mm] $L$   $\frac{9}{32}$" [7mm] $L$   $\frac{9}{32}$" [7mm] $L$     $R$ $\frac{9}{32}$" [7mm]   $R$ $\frac{9}{32}$" [7mm]   $R$ $\frac{9}{32}$" [7mm] $\frac{9}{32}$" [7mm] $R$

Tilt Rods are offset by 7mm(9/32") to the left for left panel
and to the right for right panel to enable the shutters
to fold completely.

## $90^0$ Floating Panels

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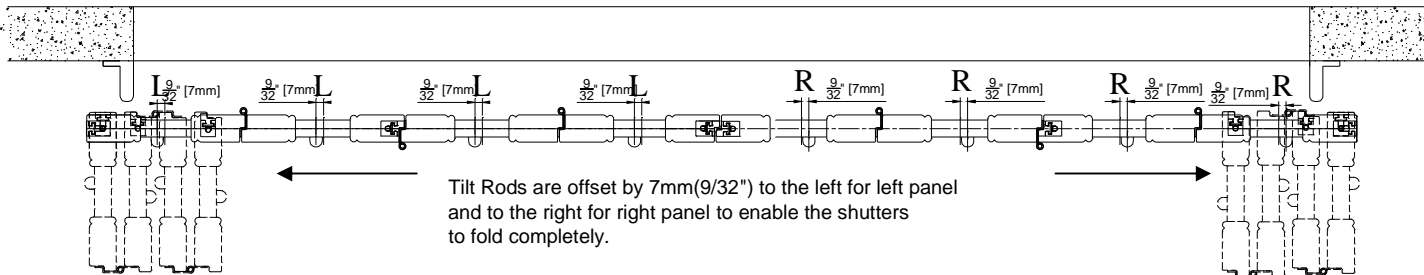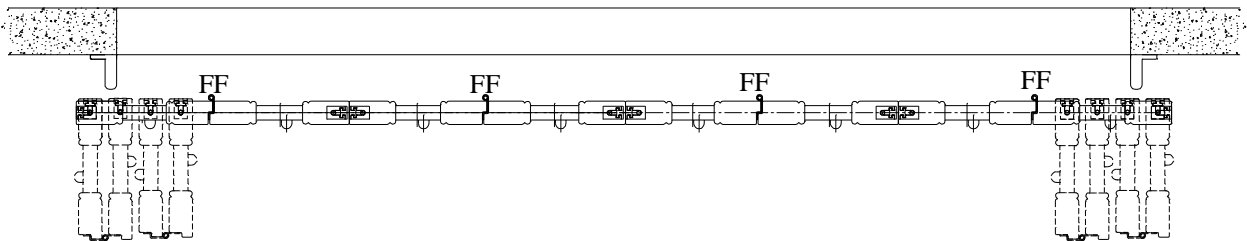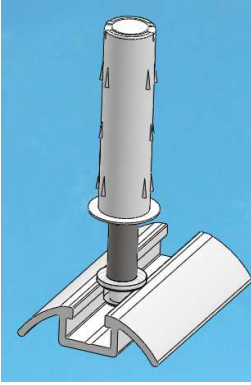
o   Two or four panels can be hinged together, fold and slide to either direction
o   Application comes with wheel carrier, spring loaded guide and floor track
o   Can be used on large window

1.For $90^0$ Floating Panels outside mount/semi-inside mount without the side boards, T-Stopper will be supplied and the gap between the fascia return and the panel is 11mm each side. 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.



T Stopper                                    T Stopper

11mm [7/16"]                                11mm [7/16"]
20mm [13/16"]                              20mm [13/16"]
MFF Width=Overall Panel Width
Header Width=Overall Panel Width +22mm(7/8")

1.6mm [1/16"]                              1.6mm [1/16"]

T Stopper                                    T Stopper

11mm [7/16"]                                11mm [7/16"]
20mm [13/16"]                              20mm [13/16"]
Overall Panel Width
MFF Width=Header Width=Overall Panel Width+22mm(7/8")
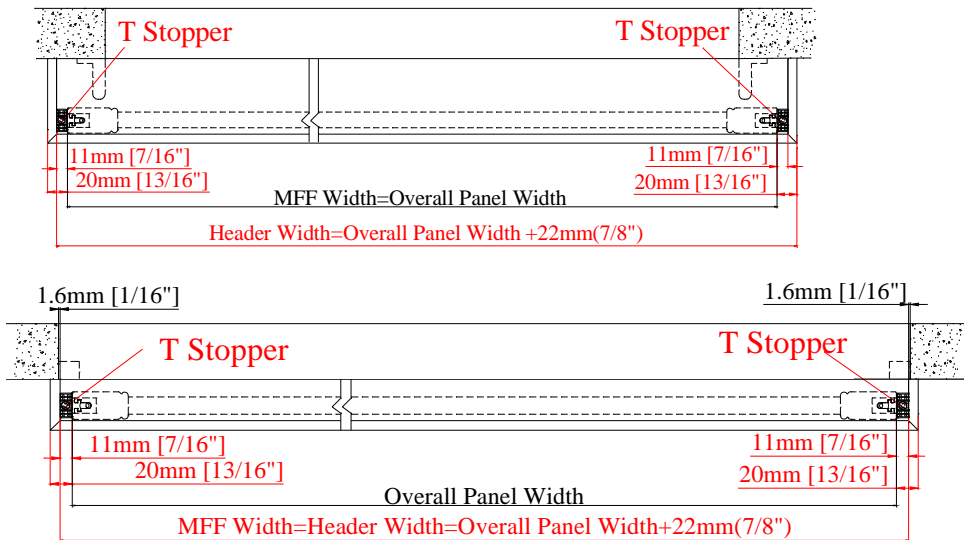
## 90 Degree Bi Fold Track Shutters Framing Materials

| 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 |
|---|---|---|
| [0.875"], 46.5mm [1.830"], 38.1mm [1.500"] | 22.2mm [0.875"], 60.3mm [2.375"], 38.1mm [1.500"] | 22.2mm [0.875"], 76.2mm [3.000"], 38.1mm [1.500"] |
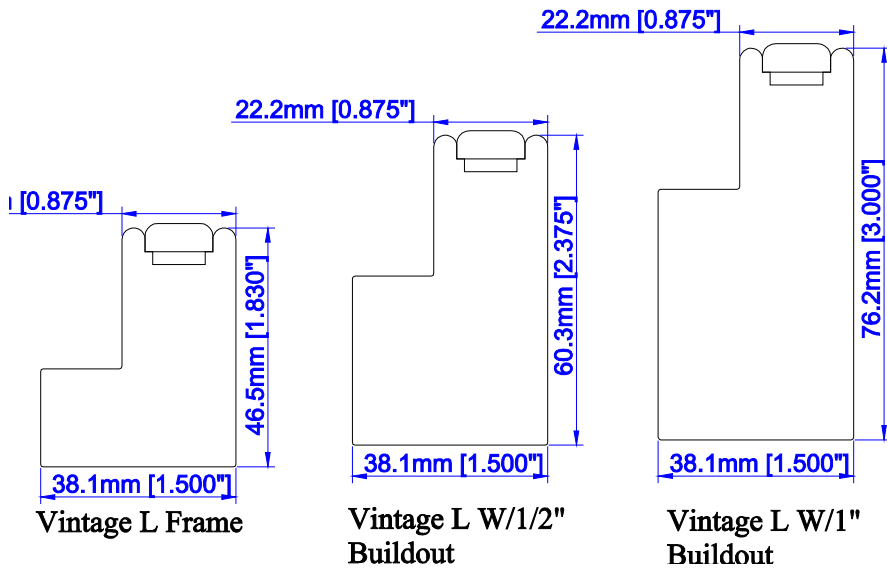
**Vintage Hang Strip with 11.5mm light block:** For single direction bi-fold or multi-fold shutter with even panel qty, the frame on the unhinged side will be Vintage Hang Strip with 11.5mm [0.453''] light block, the height of the Vintage Hang Strip will match with that of the hinged side frame.
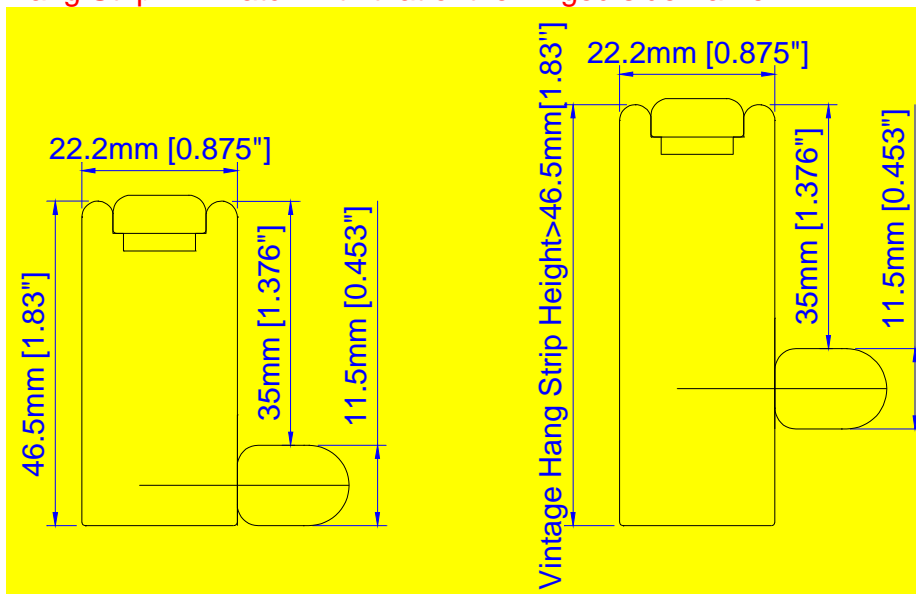
**Top View**
Hinged at Left or Right with wheel assembly at top;

# Outside Mount

1 1/2"                                                                    1 1/2"

## Max Frame to Frame Width

1/16"  # Inside Mount                                        1/16"

## Max Frame to Frame Width
## Window Width
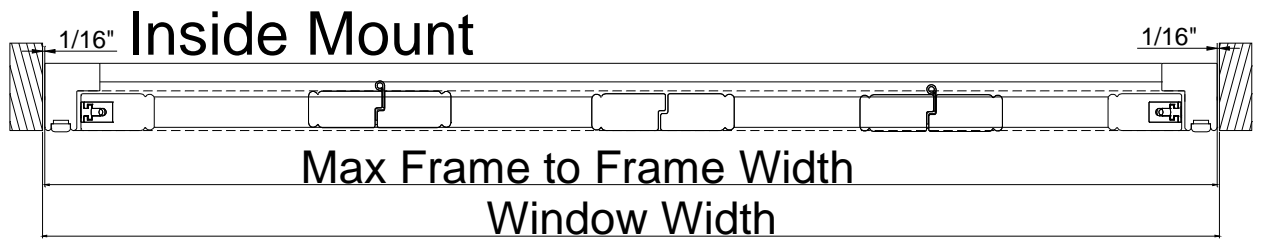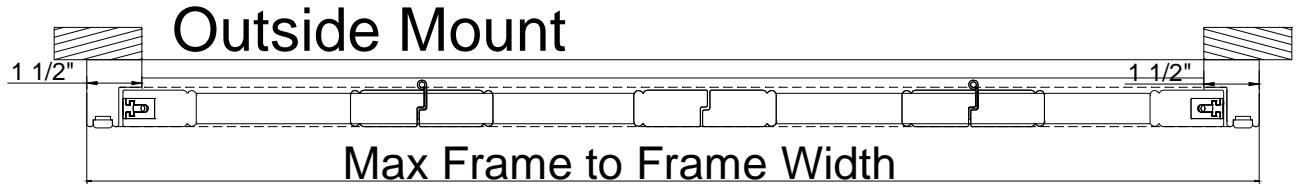
**Side View**
Outside Mount
3-Sides + bottom light block                3-Sides + 3" Deco Sill Frame

Max Frame to Frame Height

3.1 [1/8"]

25.4 [1"]

Window Height

15.9 [5/8"]

2.5 [1/8"]

19.1 [3/4"]

Light Block

F-F Height

25.4 [1"]

WS Height

2.5 [1/8"]

19.1 [3/4"]

15.9 [5/8"]
Light Block

3" Deco Sill Frame
at bottom

76.2 [3"]
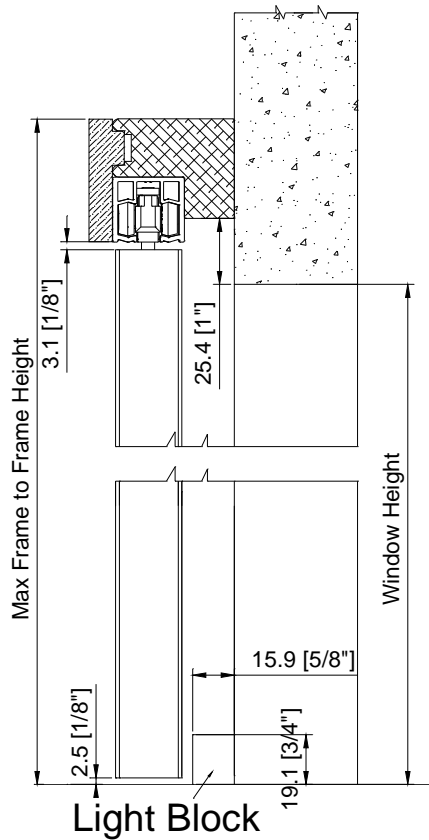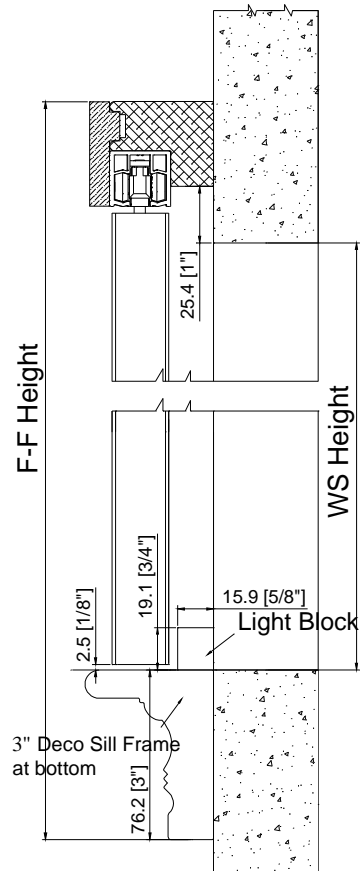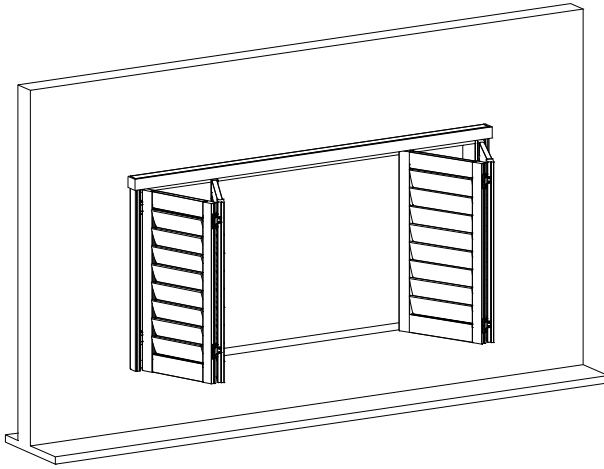
Note: For OM Frame Hinged Bifold shutter not to use as a door, if there is no existing sill at the bottom of the window opening, it is recommended to have the 3" Deco Sill Frame at the bottom.

## Semi-Inside



Max Frame to Frame Height

3.1 [1/8"]

3.2 [1/8"]

Window Height

2.5 [1/8"]

19.1 [3/4"]

15.9 [5/8"]

6.3 [1/4"]

## Inside Mount



Max Frame to Frame Height

3.1 [1/8"]

3.2 [1/8"]

Window Height

2.5 [1/8"]

19.1 [3/4"]

15.9 [5/8"]

6.3 [1/4"]
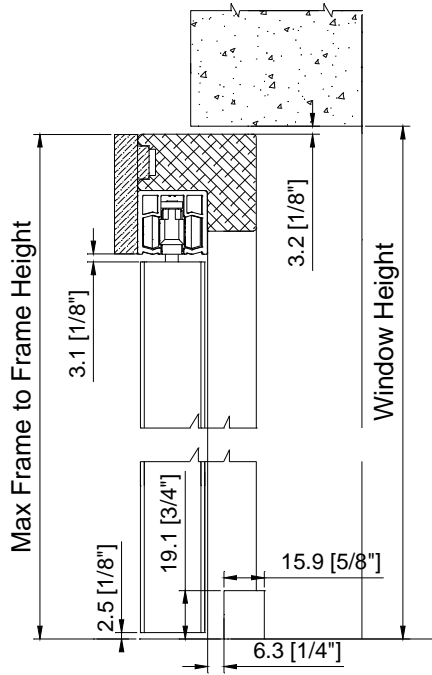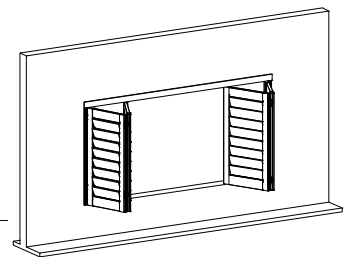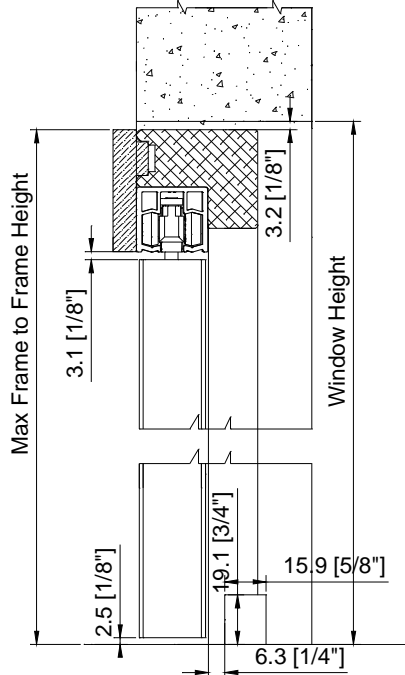
**For frame hinged bifold track shutter used as door, the bottom gap will be 19mm by default. Please specify "Used As Door" on the order form.**

3.1 [1/8"]

25.4 [1"]

F-F Height

WS Height

19.1 [3/4"]
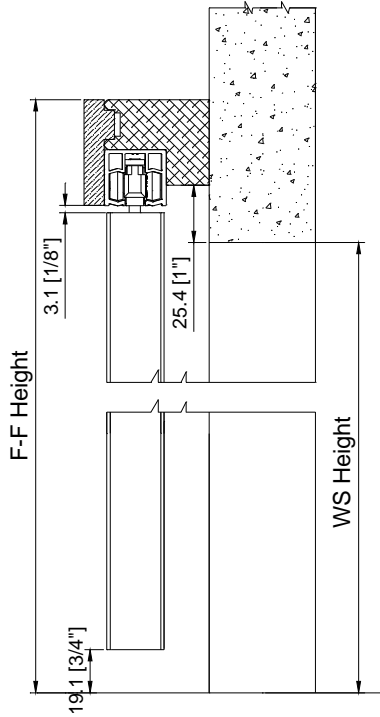
## Panel Configuration (uneven panel width)

Panel Width 1 = A

Panel Width 2 = A+43.6

**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)

Panel Width 2 = A+43.6

Panel Width 1 = A

**RR**

Panel width 1 = A

Panel width 2 = A +43.6

**LLRR**

Panel width 2 = A +43.6mm

Panel width 1 = A

ND j1-18

Normandy Shutters

LLL

Panel Width 1=A
Panel Width 2=A+43.6
Panel Width 3=A+31.6

RRR

Panel Width 3=A+31.6
Panel Width 2=A+43.6
Panel Width 1=A

LLLL

Panel width 1=A
Panel width 2=A +43.6mm
Panel width 3=A +31.6mm
Panel width 2=A +43.6mm

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

RRRR

Panel width 2=A +43.6mm
Panel width 3=A +31.6mm
Panel width 2=A +43.6mm
Panel width 1=A

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

ND j1-19

# LLLLRRRR

Panel width 1=A, Panel width 2=A +43.6mm, Panel width 3=A +31.6mm

**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 100 degree;

*100°*
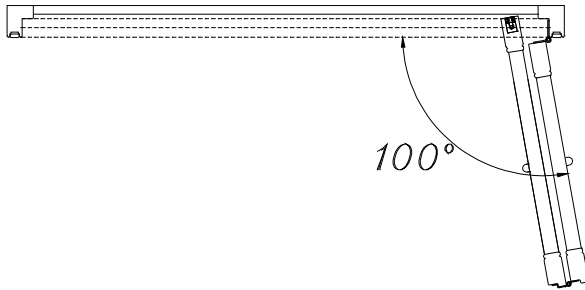
2. Frames available: Only Vintage L Frame
1) For top frame, the insert will be replaced by top fascia;
2) Top track will be pre-attached to the top frame;
3) Frame will be pre-drilled with screw holes same as regular shutters.

**Ring Pull:** The ring pull will be provided as an option. 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 types:

LL          RR

LLL          RRR

LLRR          LLLL

RRRR
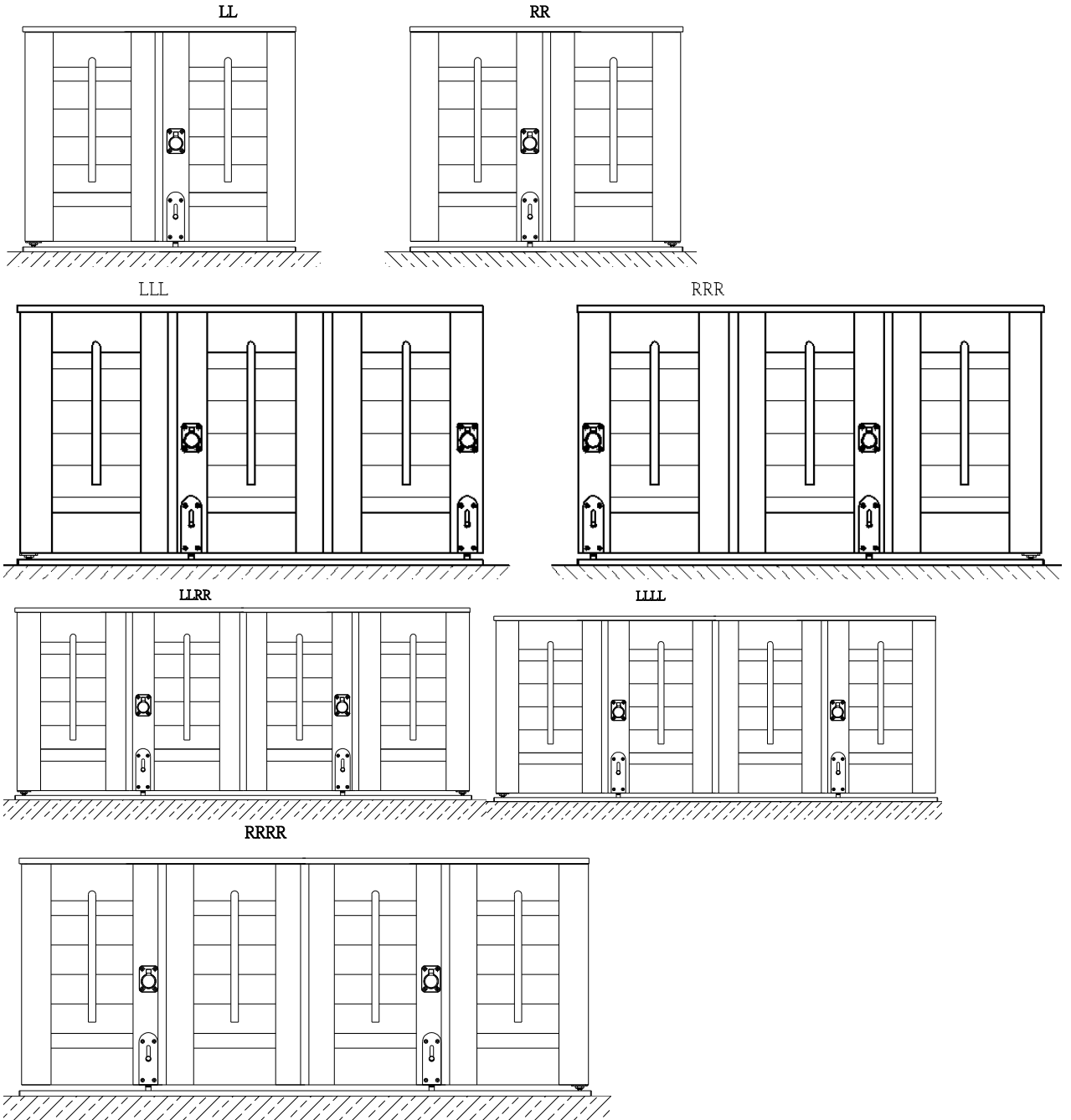
## Bottom Pivot Bracket for 90 degree bifold:

For 90°Bifold Track Shutter, there will be 2 types of Bottom Pivot Brackets available.
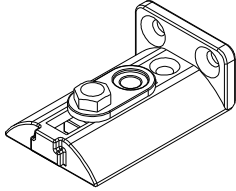
For Inside Mount, Bottom Pivot L Bracket will be supplied as default;
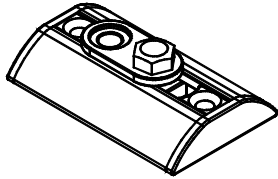
For Semi-Inside or Outside Mount, bottom pivot bracket will be supplied as default.

## Track Dimension:

Top Track

27.4mm

25mm
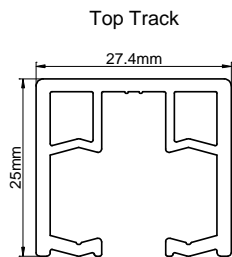
## Extra Magnets will be supplied for Bifold hinges: (only for the most top and bottom hinges)

For Non-Stainless Steel Bifold Hinge

For Stainless Steel Bifold Hinge

Extra Magnets will be installed next to the Bifold Hinge

Extra Magnets will be installed next to the Bifold Hinge

Extra Magnet Catches will be installed next to the Bifold Hinge

ND j1-22
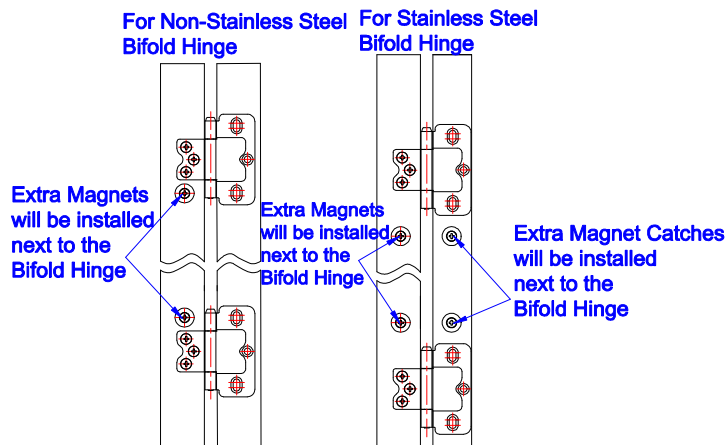
**Side Magnet:** applied to the meeting stiles of LR panels
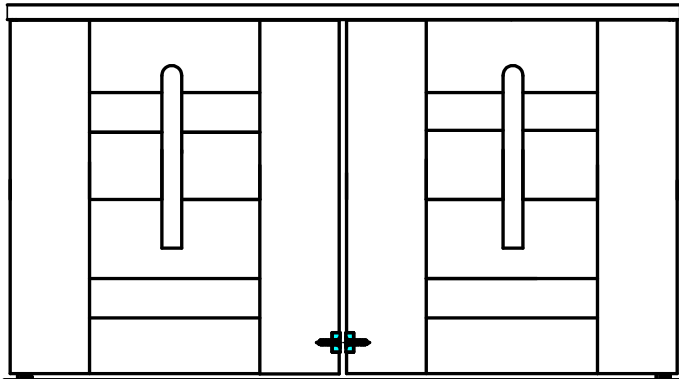


**Extra magnet and Side Magnet**



**90⁰ 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 pre-drilled 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
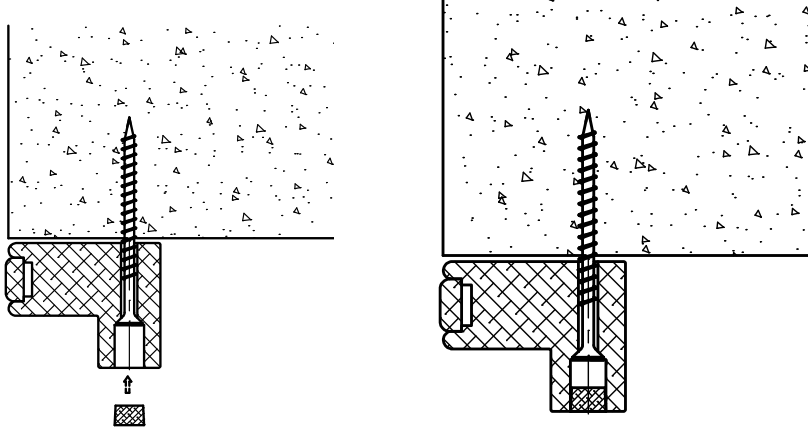
## Guidelines and Specs:

| Description | Minimum | Maximum | |
|---|---|---|---|
| | | **2½"** | **3½"  ;  4½"** |
| Single-Panel Width  (Wood) | 6" | 36" | 42" |
| Single-Panel Height | 10" | 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 - $\frac{1}{8}$"
Max frame-to-frame height: window height + $1\frac{3}{8}$"

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

**Carriers are in the Track / Hangers are in the Panel:**
Adjustments to panel alignment are made by turning the Carrier Bolt
with the wrench included in the Hardware Box

# 2016 Track Shutters—Bypass

*Normandy Shutters*

## Top View

### Window Width

Outside Mount

38.1mm [1 1/2"]          38.1mm [1 1/2"]

Max frame-to-frame width

### Window Width

1.6mm[1/8"]          1.6mm[1/8"]

Semi-Inside Mount

Max frame-to-frame width

### Window Width

1.6mm[1/8"]          1.6mm[1/8"]

Inside Mount

Max frame-to-frame width
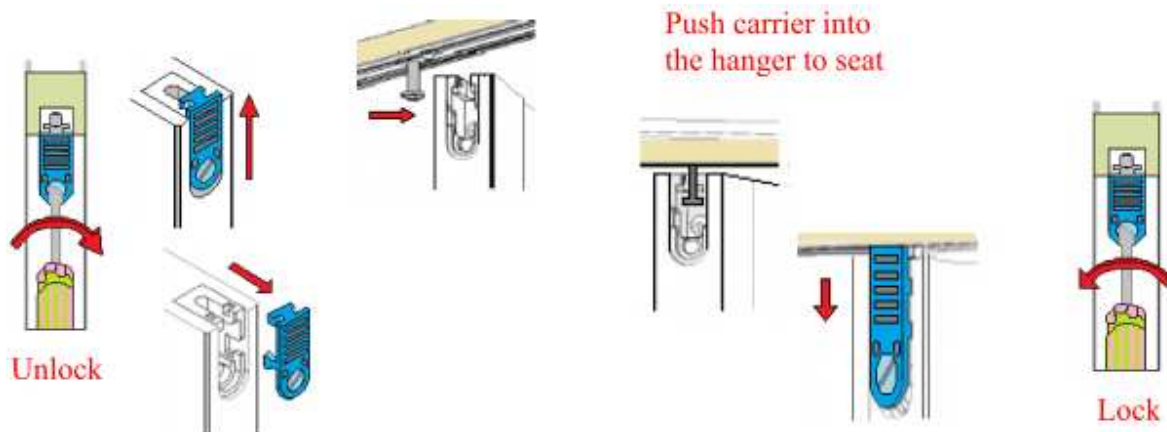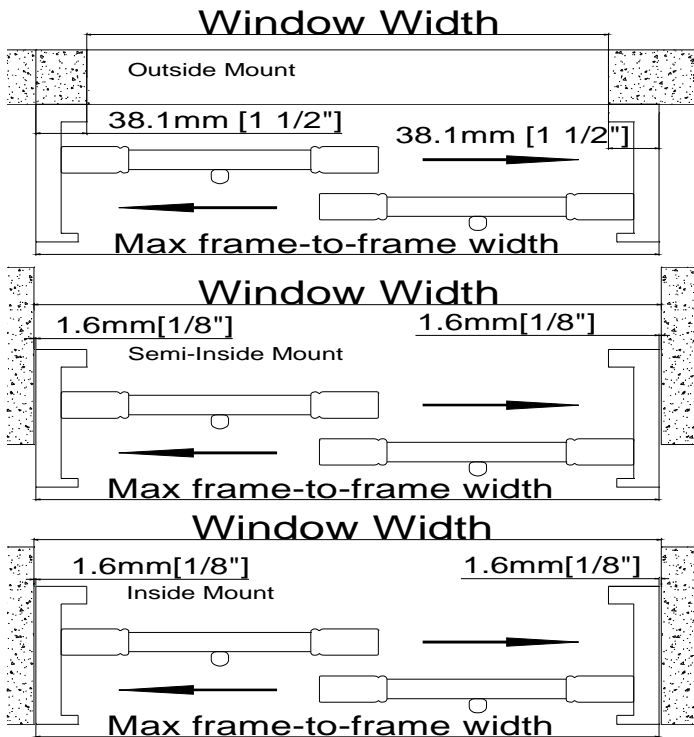
## Size Definition

### For Semi-Inside/OM without side boards

T Stopper          T Stopper

7/16"     Overall Panel Width     7/16"
Frame to Frame Width = Header Width

### For IM without side boards

1/16"          1/16"

Overall Panel Width
Frame to Frame Width = Header Width
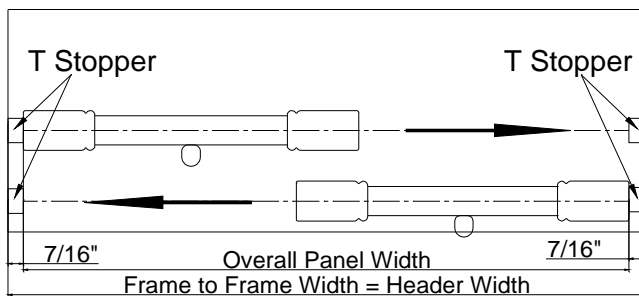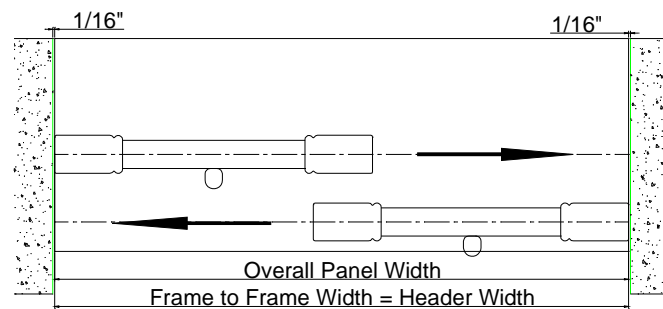
Note: For Semi-Inside/OM without side boards bypass, T Stopper will be supplied.

# 2016 Track Shutters—Bypass

## Top View

Combi - joined Panels (optional)

Overlap 1½"
1 5/8"
1 5/8"
2"
2"
1 5/8"
2"
1 5/8"
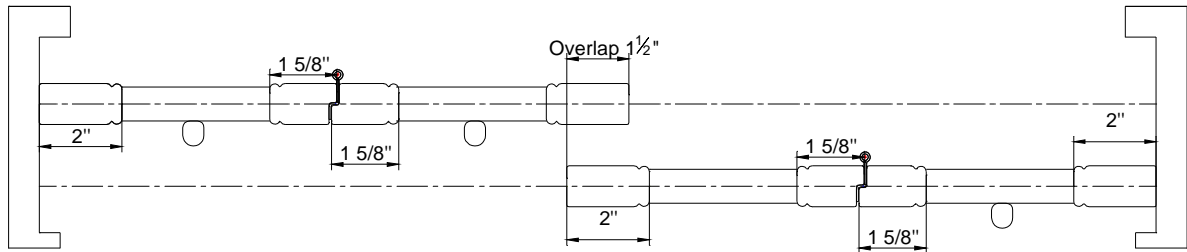
For shutters with 4 or more panels, please select "side open" or "center open"

### Side Open

Overlap 1½"
1 5/8"
1 5/8"
2"
2"
1 5/8"
2"
1 5/8"

### Center Open

Overlap 1½"
Overlap 1½"
2"
2"
2"
2"
2"
2"
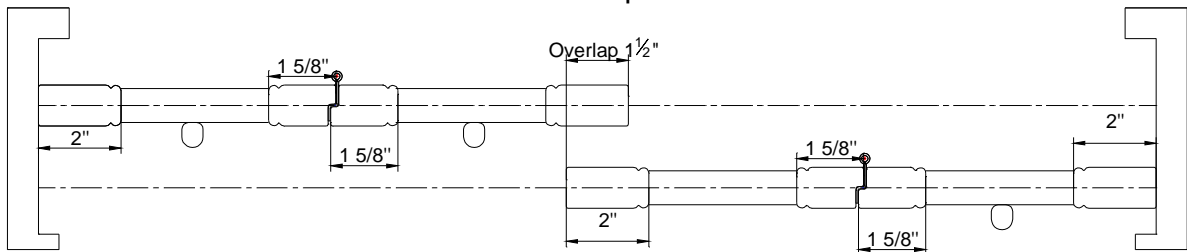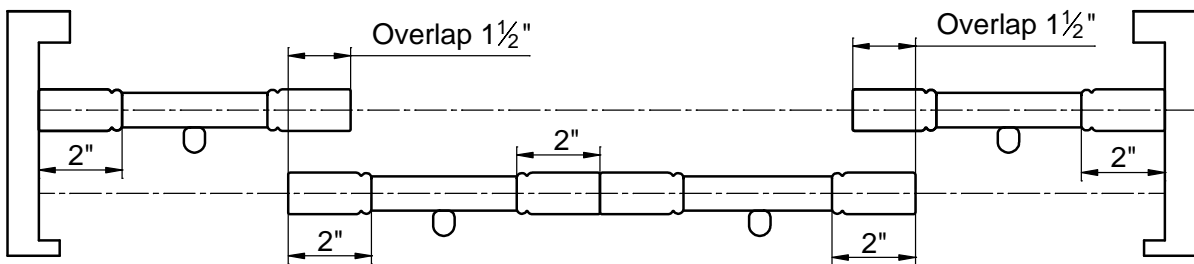
# 2016 Track Shutters—Bypass

*Normandy Shutters*

## 4 panels side open w/Rabbet stile
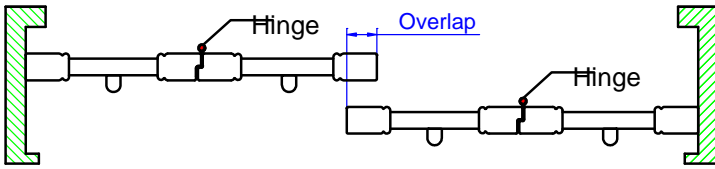
Hinge
Overlap
Hinge

## 4 panels center open w/Rabbet stile

Overlap
Overlap

## 6 panels side open w/Rabbet stile

Hinge
Hinge
Overlap
Hinge
Hinge
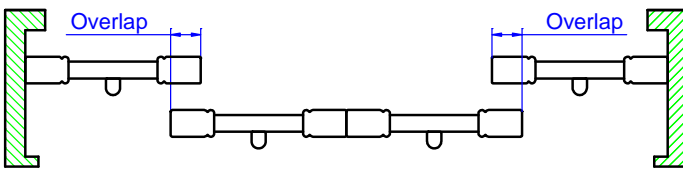
## 6 panels center open w/Rabbet stile
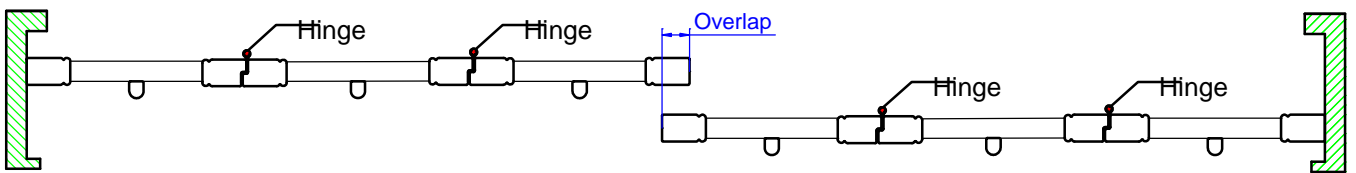
Hinge
Overlap
Overlap
Hinge
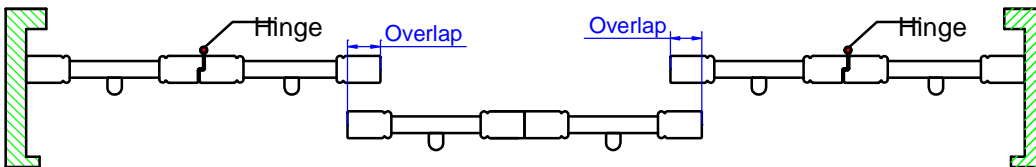
**Stile:** Only 2", 2 1/4" butt and rabbet stiles are available,
1 5/8" rabbet stile only used for combi-joined panels.
Center stile is not available.

# 2016 Track Shutters—Bypass

*Normandy Shutters*

## Mounting Options (Closed Bypass)

### Side View



Deco Fascia 4"
Flat Fascia 4"
5 1/2"
Support L Bracket
1 1/2"
7/8"   2"
Wall
4 1/2"
Max frame to frame Height
1 1/8"
Window opening height
2 1/2"   1 3/8"
3 1/2"   7/8"
4 1/2"   3/8"
1 1/2"
Bottom Guide
nylon guide
Floor
**Outside Mount**

### Bottom Guide



Floor

---



Deco Fascia 4"
Flat Fascia 4"
1 1/2"
4 1/2"
Wall
7/8"   2"
Max Frame to Frame Height
1 1/8"
Window opening height
2 1/2"   3/8"
3 1/2"   1/8"
4 1/2"   5/8"
1 1/2"
Bottom Guide
nylon guide
Floor
**Semi-inside Mount**



Wall
4 1/2"
Deco Fascia 2 1/2"
Flat Fascia 2 1/2"
7/8"   2"
Max Frame to Frame Height
1 1/8"
Window opening height
2 1/2"   3/8"
3 1/2"   1/8"
4 1/2"   5/8"
1 1/2"
Bottom Guide
nylon guide
nylon guide
Floor
**Inside Mount**

## Mounting Options (Closed Bypass with 3 Tracks):



Outside Mount



Semi-inside Mount



Inside Mount

# 2016 Track Shutters—Bypass

*Normandy Shutters*

## Outside Mount

6 5/16"

Support L Bracket

1 1/2"

Deco Fascia 4"

Flat Fascia 4"

Wall

4 1/2"

7/8"  2"  2"

1/2"

Max Frame to Frame Size

1 7/8"

2 1/2"  3/16"

Window Size

Front  Back

1 1/2"

Bottom guide  nylon guide

Floor

## Semi-inside Mount

1 1/2"

Wall  6 5/16"

Deco Fascia 4"

Flat Fascia 4"

7/8"  2"  2"

Max Frame to Frame Size

1 7/8"  1/2"

2 1/2"  3/16"

Window Size

Front  Back

1 1/2"

Bottom guide  nylon guide

Floor

## Inside Mount

Wall  6 5/16"

2 1/2"  2 1/2"

Deco Fascia  Flat Fascia

7/8"  2"  2"

Window Size

Max Frame to Frame Size

1 7/8"  1/2"

2 1/2"  3/16"

Front  Back

1 1/2"

Bottom guide  nylon guide

Floor

## Mounting Options (Opened Bypass)

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

**2 ½" Louver**



Outside Mount



Semi-inside Mount



Inside Mount

ND j2-8

**3 ½" Louver**



7 7/8"

Support L Bracket

Deco Fascia

Flat Fascia

1 1/2"

4"

7/8"   4 1/2"

4 1/2"

3/4"

Max Frame to Frame Size

Window Size

3 1/2"   3 1/2"

1 1/8"

Outside Mount   Floor



7 7/8"

Deco Fascia

Flat Fascia

1 1/2"

Wall

4"

7/8"   4 1/2"

3/4"

Max Frame to Frame Size

Window Size

3 1/2"   3 1/2"

1 1/8"

Semi-inside Mount   Floor



7 7/8"

Deco Fascia

Flat Fascia

2 1/2"

7/8"   4 1/2"

3/4"

Max Frame to Frame Size

Window Size

3 1/2"   3 1/2"

1 1/8"
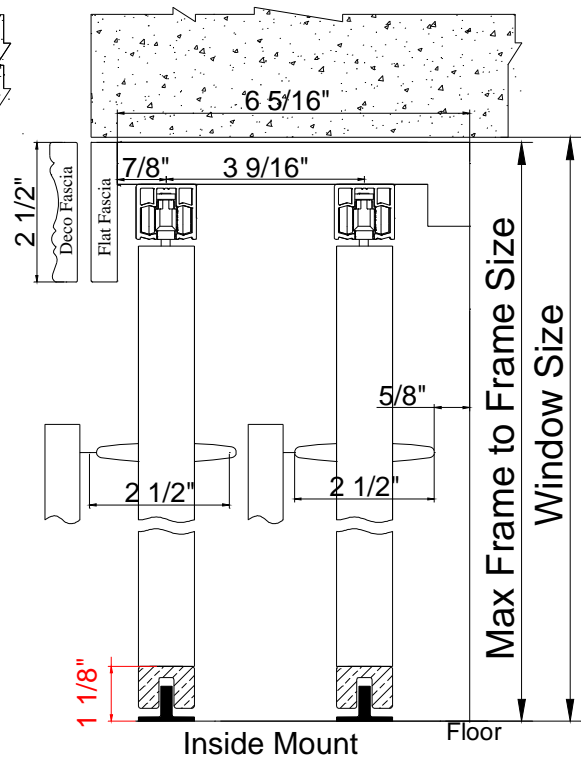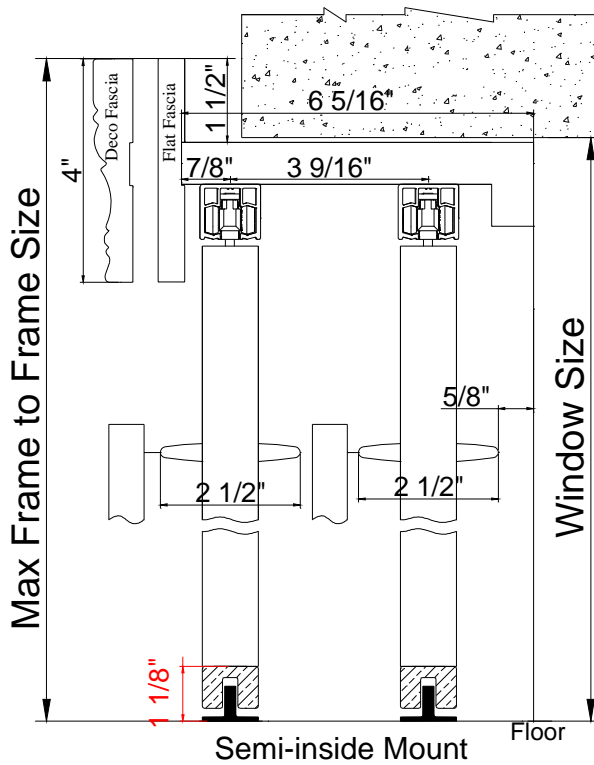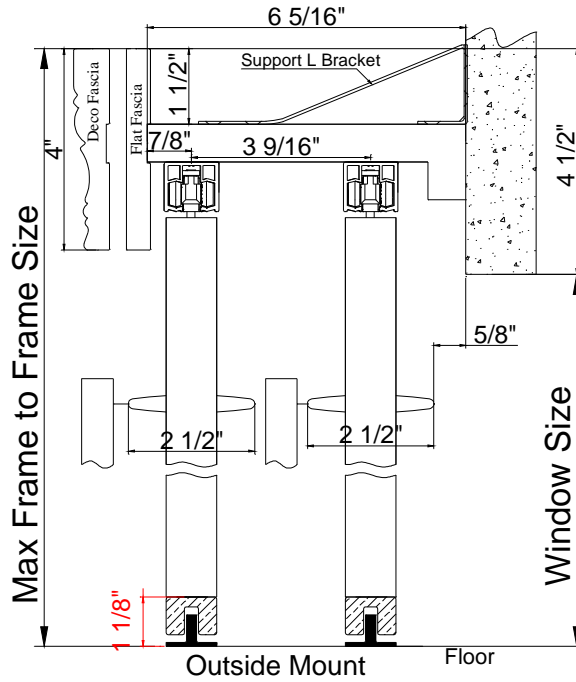
Inside Mount   Floor
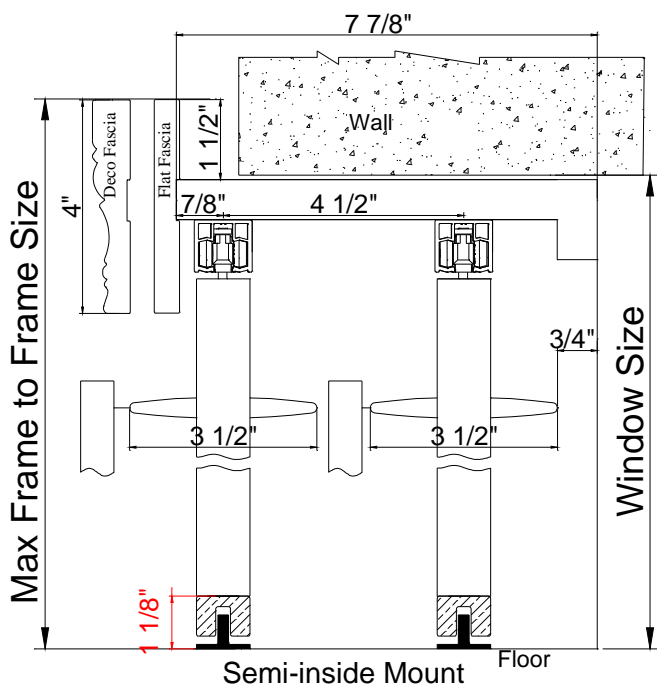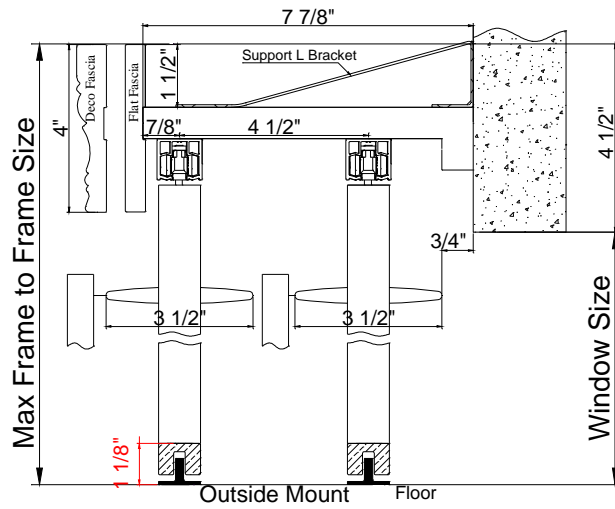
# 2016 Track Shutters—Bypass

*Normandy Shutters*

Open By Pass：has 2 kinds of bottom guide

Deco Fascia · Flat Fascia · 4" · 1 1/8" · Floor

Deco Fascia · Flat Fascia · 4" · 1 1/2" · Floor
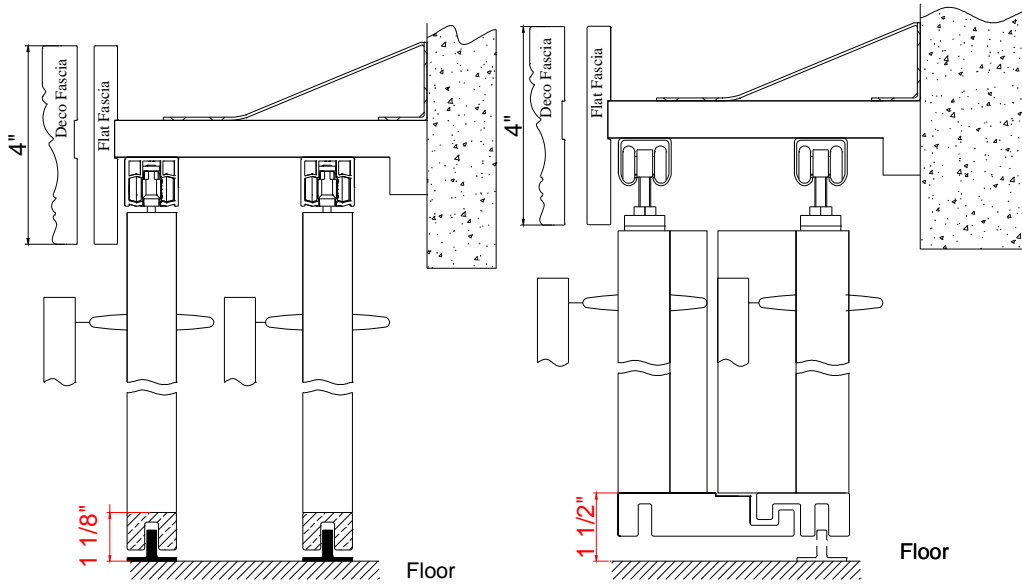
**Default Bottom Guide**  **Optional Interlocking Bottom Guide**

## Opened Bypass

### Top View

Pitch of track · $2\frac{1}{2}$"; $3\frac{1}{2}$" · 2" · h2 · h1 · 1" · $2\frac{1}{2}$"; $3\frac{1}{2}$"
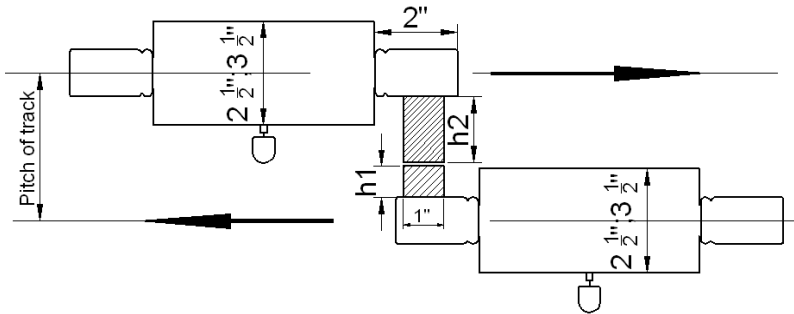
Note: The light block for open bypass will be changed to use screws with wood plugs instead of current dowels.
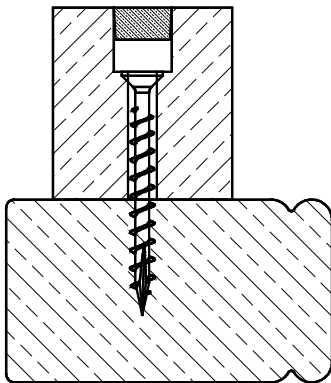
*Normandy Shutters*

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" |

Light block thickness for panel

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

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

With the top part removed

21

16
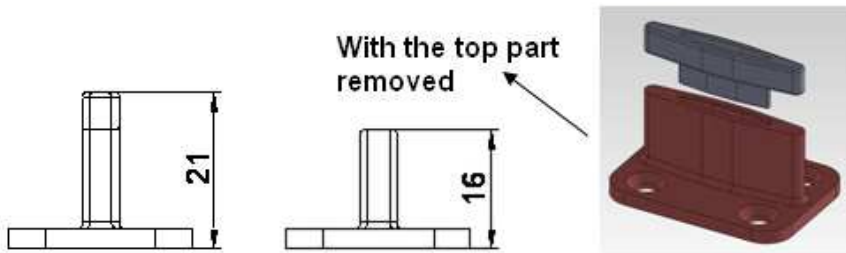
**Track Shutters Framing Materials**

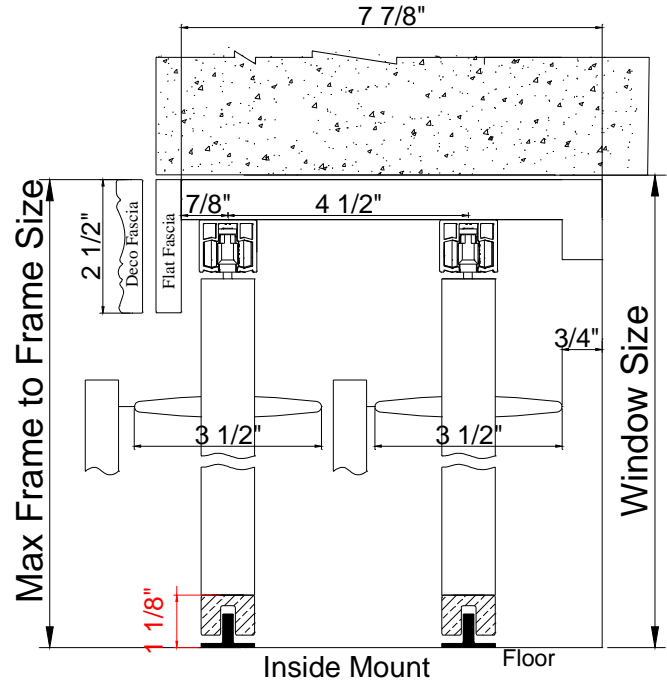| Framing | Size | | | | Pc(s) |
|---|---|---|---|---|---|
| **L Shape Header** | **Header (Closed Bypass)** | **Header (Opened Bypass)** | **Supporting Strip** | | |
| **(2 in 1)** | ¾" x 5½"* (Default for Outside Mount; Optional for Semi-Inside and Inside Mount) | ¾" x 6¼"* ( 2½" Louver) | ¾" x ¾" | | 1 pc |
| Header with Supporting Strip | ¾" x 4½"* (Default for Semi-Inside and Inside Mount; Optional for Outside Mount) | ¾" x 7¹³/₁₆"* (3½" Louver) | | | |
| | Custom * ≤ 8" | Custom * ≤ 8" | | | |
| **U Shape Side Frame** | **Side Frame (Closed Bypass)** | **Side Frame (Opened Bypass)** | **Supporting Strip** | **Side Fascia** | |
| **(3 in 1)** | ¾" x 5 7/8"* (Default for Outside Mount; Optional for Semi-Inside and Inside Mount) | ¾" x 6 ⅝"* ( 2½" Louver) | ¾" x ¾" | ⅜⅜" x 1¼ " | 2 pcs |
| Side Frame with Supporting Strip & Side Fascia | ¾" x 4 7/8"* (Default for Semi-Inside and Inside Mount; Optional for Outside Mount) | ¾" x 8¼"* (3½" Louver) | | | |
| | Custom * ≤ 8" | Custom * ≤ 8" | | | |
| Top Fascia (Plain/Deco) | 4" (Semi-inside and Outside Mount) | | | | 1 pc |
| | ½" x 2 ½" (Inside Mount) | | | | |
| Top Fascia Return | 4" (Semi-inside and Outside Mount) | | | | 2 pcs |
| | N/A (Inside Mount) | | | | |

# 2016 Track Shutters—Bypass

*Normandy Shutters*

# 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 |

# 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.
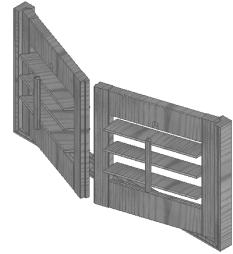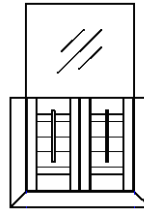
## Double-Hung Shutters*

- For total number of panels, please include panels in both rows.
- 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

Fixed Louvers
- Closed (Default)
  - Dress Down
  - Dress Up
- Opened
  - Dress Down
  - Dress Up
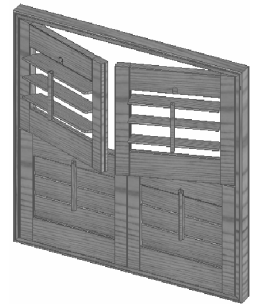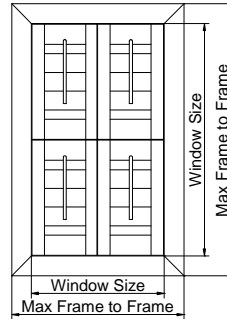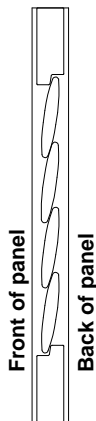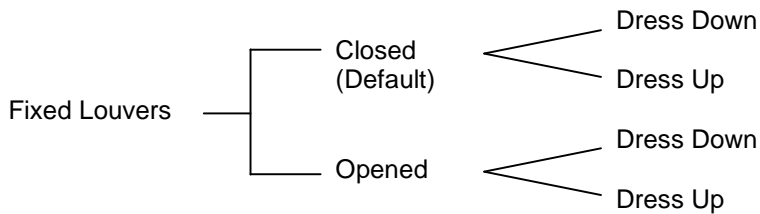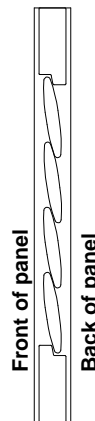
| Front of panel / Back of panel | Front of panel / Back of panel | Front of panel / Back of panel | Front of panel / Back of panel |
|---|---|---|---|
| Closed, dressed down | Closed, dressed up | Opened, dressed down | Opened, dressed up |
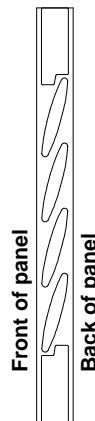
*Surcharge applies. Please see Options and Surcharges page for details.

ND k-1

# Special Options

**French Door Cut-out Collection**[*]

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

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

- For measurement details please refer to Form section.

Type A     Type B     Type C     Type D     **Type E**     **Type F**

1/4"thick plywood
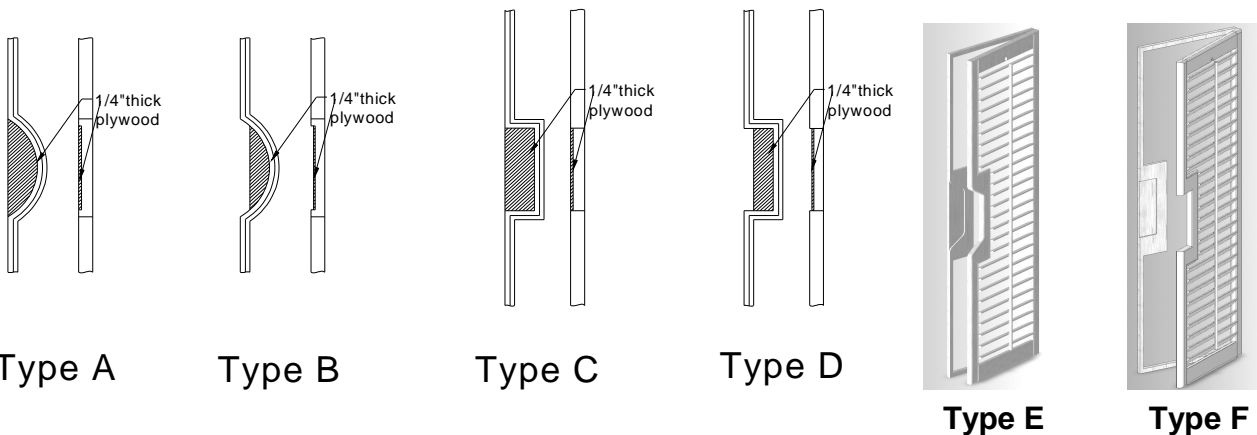
**Shutters to be installed in Angled or Horizontal Skylight Window Openings**

If shutters are going to be installed in angled or horizontal skylight window openings, please specify on the order form.

| | |
|---|---|
| **Available Material** | Wood Shutters (Not available for Motorized Shutters) |
| **Available Frame Type** | Frame with light block thickness not less than 3/4" |
| **Max Panel Size** | 26" W x 78"H |
| **Tilt Rod** | Invisible Tilt |
| **Panel Configuration** | single panel or single panels with T-Posts |
| **Hardware for unhinged side** | Panel Lock on top and bottom + 2 Button Catches |

[*] Surcharge applies. Please see Options and Surcharges page for details.
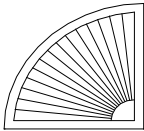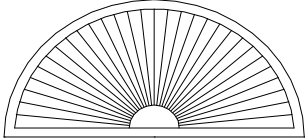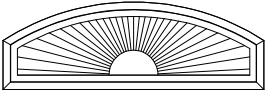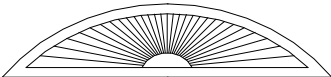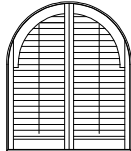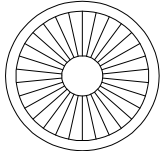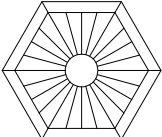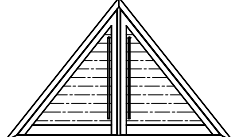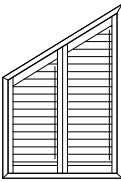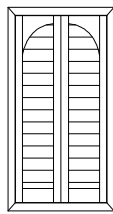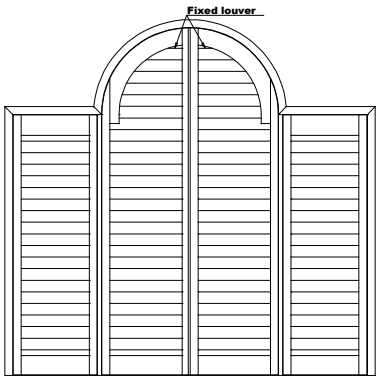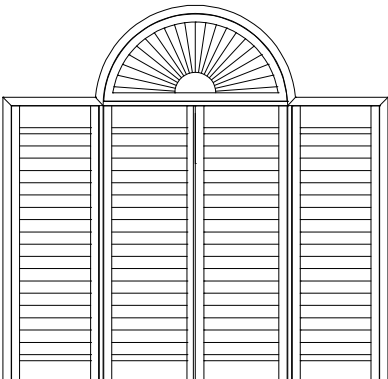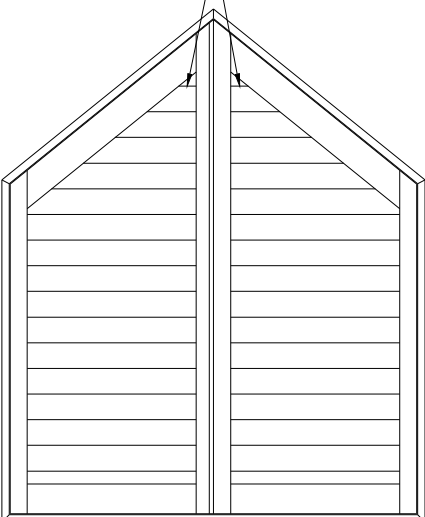
# Specialties

## Specialty Shutters[*]

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

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

| Arch Windows | Special Shapes |
|---|---|
| Quarter Round Sunburst     Half Round Sunburst | Louvered Arch w/ Center Tilt Rod     Circle Sunburst |
| Elongated Eyebrow Sunburst     Eyebrow Sunburst | Hexagon Sunburst     Triangle |
| **Angle Top** | **Louver Arch in a Rectangle** |
| Angle Top     *Top louver of angle top might be fixed as shown above | Louver Arch in a Rectangle |
| **Arch Top Picture Window with horizontal louvers** | **Arch Top Picture Window with Sunburst** |
| Fixed louver | |

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

| **Peak** | |
|---|---|
| **Fixed louver** | |

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

# Pricing

| **1) By Max Frame-to-Frame Measurement:** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Regular Shutter** | | | | | | | |
| Inside and Outside Mount | | Width | x | Height | / 144 | x | $/sq ft |
| **Track Shutter\*\*** | | | | | | | |
| Inside | | Width | x | Height | / 144 | x | $/sq ft |
| Semi-Inside and Outside Mount | | Width | x | (Height-1½") | / 144 | x | $/sq ft |
| **2) By Net Panel Measurement:** | | Width | x | Height | / 144 | x | $/sq ft |
| **3) By Window Size:** | | | | | | | |
| **2" Camber Deco Frame** | 4-sided | (Width+4") | x | (Height+4") | / 144 | x | $/sq ft |
| | 3-sided with Designer Sill Cap | (Width+4") | x | (Height+8") | / 144 | x | $/sq ft |
| | 3-sided with Sill Plate | (Width+4") | x | (Height+4") | / 144 | x | $/sq ft |
| | 3-sided | (Width+4") | x | (Height+2") | / 144 | x | $/sq ft |
| | 2-sided with Designer Sill Cap | (Width+4") | x | (Height+6") | / 144 | x | $/sq ft |
| | 2 sided with Sill Plate | (Width+4") | x | (Height+2") | / 144 | x | $/sq ft |
| | 2-sided | (Width+4") | x | (Height) | / 144 | x | $/sq ft |
| **3" Ridge Deco Frame** | 4-sided | (Width+6") | x | (Height+6") | / 144 | x | $/sq ft |
| | 3-sided with Deco Sill Frame | (Width+6") | x | (Height+6") | / 144 | x | $/sq ft |
| | 3-sided with Designer Sill Cap | (Width+6") | x | (Height+9") | / 144 | x | $/sq ft |
| | 3-sided with Sill Plate | (Width+6") | x | (Height+6") | / 144 | x | $/sq ft |
| | 3-sided | (Width+6") | x | (Height+3") | / 144 | x | $/sq ft |
| | 2-sided with Deco Sill Frame | (Width+6") | x | (Height+3") | / 144 | x | $/sq ft |
| | 2-sided with Designer Sill Cap | (Width+6") | x | (Height+6") | / 144 | x | $/sq ft |
| | 2-sided with Sill Plate | (Width+6") | x | (Height+3") | / 144 | x | $/sq ft |
| | 2-sided | (Width+6") | x | (Height) | / 144 | x | $/sq ft |
| **3" Crown Z Frame** | 4-sided | (Width+4 ½") | x | Height+4½") | / 144 | x | $/sq ft |
| | 3-sided with Designer Sill Cap | (Width+4 ½") | x | Height+8¼") | / 144 | x | $/sq ft |
| | 3-sided with Sill Plate | (Width+4 ½") | x | Height+4½") | / 144 | x | $/sq ft |
| | 3-sided | (Width+4 ½") | x | Height+2¼") | / 144 | x | $/sq ft |
| | 2-sided with Designer Sill Cap | (Width+4 ½") | x | (Height+6") | / 144 | x | $/sq ft |
| | 2-sided with Sill Plate | (Width+4 ½") | x | Height+2¼") | / 144 | x | $/sq ft |
| | 2-sided | (Width+4 ½") | x | (Height) | / 144 | x | $/sq ft |
| **2" Bel Air Z Frame** | 4-sided | (Width+2 ½") | x | Height+2½") | / 144 | x | $/sq ft |
| | 3-sided with Designer Sill Cap | (Width+2 ½") | x | Height+7¼") | / 144 | x | $/sq ft |
| | 3-sided with Sill Plate | (Width+2 ½") | x | Height+2½") | / 144 | x | $/sq ft |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 3-sided | (Width+2 ½") | x | Height+1¼") | / 144 | x | $/sq ft |
| | 2-sided with Designer Sill Cap | (Width+2 ½") | x | (Height+6") | / 144 | x | $/sq ft |
| | 2-sided with Sill Plate | (Width+2 ½") | x | Height+1¼") | / 144 | x | $/sq ft |
| | 2-sided | (Width+2 ½") | x | (Height) | / 144 | x | $/sq ft |
| **1 ½ " Bullnose Z Frame** | 4-sided | (Width+2") | x | (Height+2") | / 144 | x | $/sq ft |
| | 3-sided with Designer Sill Cap | (Width+2") | x | (Height+7") | / 144 | x | $/sq ft |
| | 3-sided with Sill Plate | (Width+2") | x | (Height+2") | / 144 | x | $/sq ft |
| | 3-sided | (Width+2") | x | (Height+1") | / 144 | x | $/sq ft |
| | 2-sided with Designer Sill Cap | (Width+2") | x | (Height+6") | / 144 | x | $/sq ft |
| | 2-sided with Sill Plate | (Width+2") | x | (Height+1") | / 144 | x | $/sq ft |
| | 2-sided | (Width+2") | x | (Height) | / 144 | x | $/sq ft |
| **Vintage Hang Strip** | Inside | Width | x | Height | / 144 | x | $/sq ft |
| | Outside 4-sided | (Width+3") | x | (Height+3") | / 144 | x | $/sq ft |
| | Outside 3-sided with Designer Sill Cap | (Width+3") | x | Height+7½") | / 144 | x | $/sq ft |
| | Outside 3-sided | (Width+3") | x | Height+1½") | / 144 | x | $/sq ft |
| | Outside 2-sided with Designer Sill Cap | (Width+3") | x | (Height+6") | / 144 | x | $/sq ft |
| | Outside 2-sided | (Width+3") | x | (Height) | / 144 | x | $/sq ft |
| | Inside (max frame to frame measurement only) | Width | x | Height | / 144 | x | $/sq ft |
| **Beaded L Frame/** | Outside 4-sided | (Width+3") | x | (Height+3") | / 144 | x | $/sq ft |
| **Colonial L Frame/** | Outside 3-sided with Designer Sill Cap | (Width+3") | x | Height+7½") | / 144 | x | $/sq ft |
| **Bullnose L Frame/** | Outside 3-sided | (Width+3") | x | Height+1½") | / 144 | x | $/sq ft |
| **Vintage L Frame** | Outside 2-sided with Designer Sill Cap | (Width+3") | x | (Height+6") | / 144 | x | $/sq ft |
| | Outside 2-sided | (Width+3") | x | (Height) | / 144 | x | $/sq ft |
| **Track Shutter**\*\* | | | | | | | |
| Inside and Semi-Inside Mount | | Width | x | Height | /144 | x | $/sq ft |
| Outside Mount | | (Width+3") | x | (Height+3") | /144 | x | $/sq ft |

# Options & Surcharges

| Option | Surcharge | Remark |
|---|---|---|
| Beaded L Frame with ¼" Thick Light Block | No surcharge | |
| L Frame with ½" & 1" Buildout | 5% | |
| Notch Out L Frame | 10% | |
| Deco Frame with ½", 1" & 1½" Extension | 5% | |
| Custom Extension | 10% | Up to 2" for L Frames, Deco Frames and Hang Strip (OM) |
| | | Up to 1" for Z Frames (not available for Tilt Out Z frame) |
| T Post | No surcharge | |
| T Post Extension | 5% | Up tp 2" |
| Custom width T Post | 5% | Up tp 7½" |
| 90 degree Corner Post & 135 degree Bay Post | No surcharge | |
| Double Hung / Horizontal 1¾" T Post | 10% | |
| Custom Angle/Depth Bay Post | 5% | Up to 2" for custom depth |
| Extra Light Block | Charge per linear ft | Please contact your Customer Account Specialist for details |
| Scribe Trim | Charge per linear ft | Please contact your Customer Account Specialist for details |
| Center Tilt Rod | No surcharge | |
| Offset Tilt Rod | 5% | |
| InvisibleTilt™ | 10% | |
| Optimal™ Antimicrobial Treatment | 10% | |
| Café Shutters | 30% | Surcharge applies when the frame exceeds 5" beyond the top of the panel. |
| Fixed Louver Panel | No surcharge | Please indicate fixed position: up/down and open/close |
| French Door Cutout | See specialty surcharge | Please contact your Customer Account Specialist for details |
| Track | See specialty surcharge | Please contact your Customer Account Specialist for details |
| Plain Boxout (Standard size) | 40% | |
| Deco Boxout (Standard size) | 40% | |
| Plain Boxout (Custom size) | 40% | |
| Deco Boxout (Custom size) | 40% | |
| Interlocking Bottom Guide (Opened Bypass) | 5% | |
| Specialties | See specialty surcharge | Please contact your Customer Account Specialist for details |
| InvisibleHinge™ | 10% | |
| Stainless Steel Hinges | 5% | |

| PerfectTilt (regular) | Per motor, per remote control | Please contact your Customer Account Specialist for details |
|---|---|---|
| PerfectTilt (solar) | Per motor, per remote control | Please contact your Customer Account Specialist for details |

# Appendix
## Color Coordination Chart

| Color ID | Color Name | Hinge Colour |
|----------|------------|--------------|
| 001 | Pure White | <span style="color:red">Pure White</span> |
| 003 | Silk White | Silk White |
| 004 | Bright White | |
| 006 | Pearl | Pearl |
| 009 | Creamy | Bisque |
| 012 | Crisp Linen | |
| 030 | Moondust | Nickel Plated |
| 046 | Ice | Silk White |
| 108 | Rustic Gray | Nickel Plated |
| 110 | Limed White | Silk White |
| 205 | Goldenrod | Antique Brass |
| 211 | Cherry | |
| 221 | Black Walnut | |
| 227 | Red Oak | |
| 229 | Rich Walnut | |
| 230 | Old Teak | |
| 231 | Spring Rose | |
| 232 | Red Mahogany | |
| 233 | Dark Mahogany | |
| 237 | Wenge | |
| 242 | Auburn | |
| 249 | Acorn | |

| 250 | Sumatra | |
|-----|---------|---|

# Louver Depth Clearance

**Standard Tilt Rod**                    **Offset Tilt Rod**

$2\frac{1}{2}"$

$\frac{3}{4}"$

$3\frac{1}{2}"$

$1\frac{1}{4}"$

$4\frac{1}{2}"$

$1\frac{3}{4}"$

1" Stile

1"
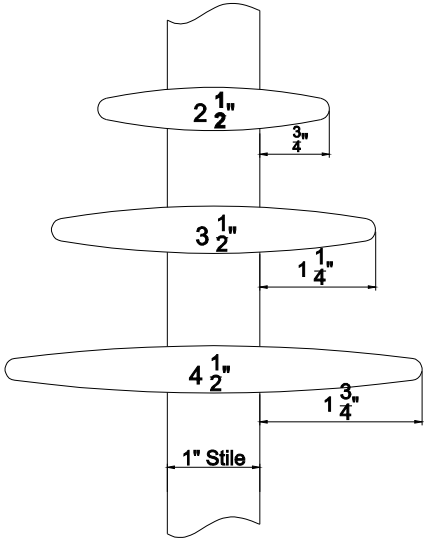
**New PerfectTilt RF**

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
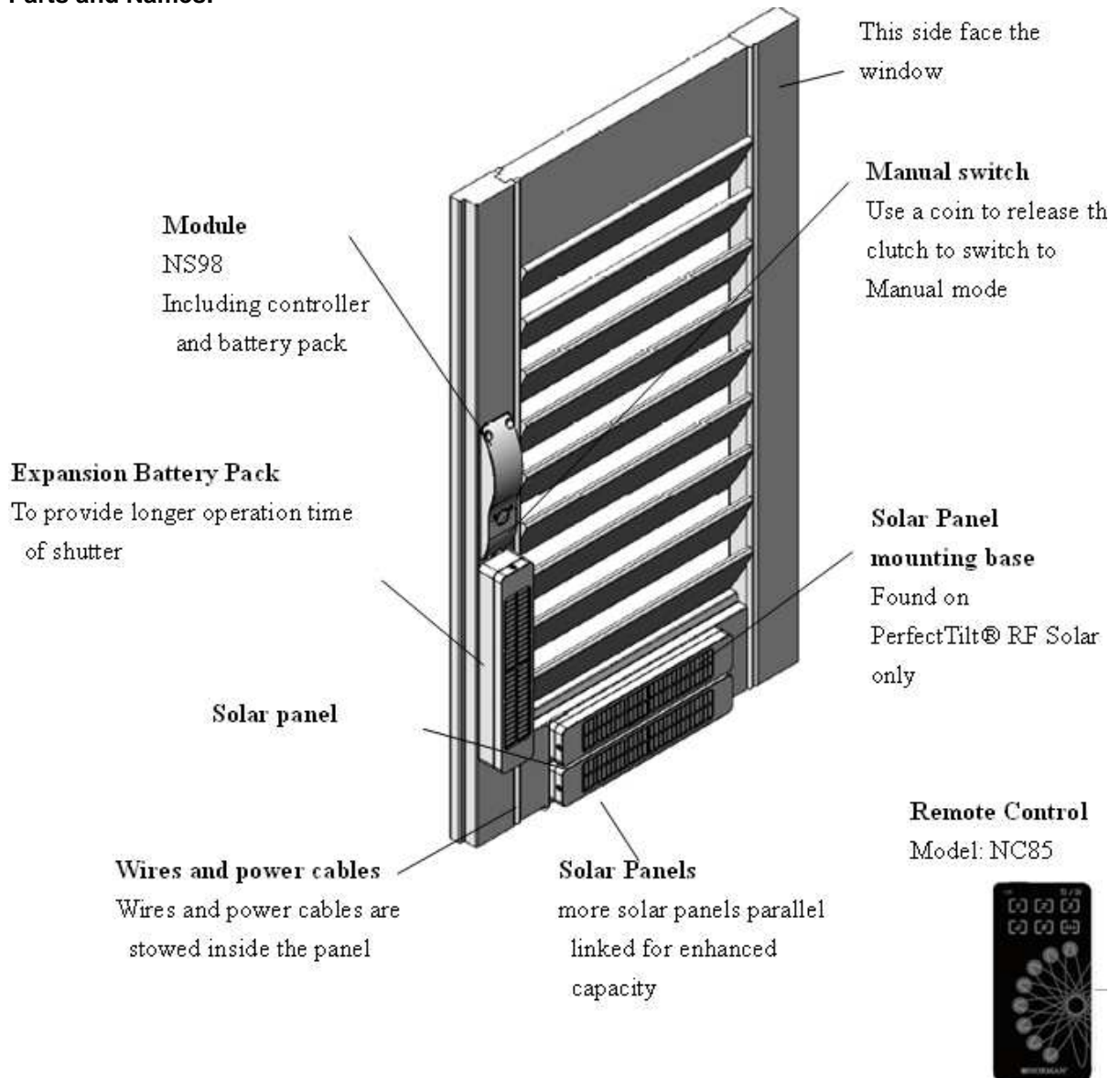- Remote is equipped with a timer, allowing you to use your own computer from anywhere at any time with our proprietary web interface
- Whisper quiet, gear-driven system
- PerfectTilt® RF wires are concealed inside panel, completely hidden from view
- Extra battery packs can be installed as add-on for longer periods between recharges

**Parts and Names:**



This side face the window

**Manual switch**
Use a coin to release th clutch to switch to Manual mode

**Module**
NS98
Including controller and battery pack

**Expansion Battery Pack**
To provide longer operation time of shutter

**Solar Panel mounting base**
Found on PerfectTilt® RF Solar only

**Solar panel**

**Wires and power cables**
Wires and power cables are stowed inside the panel

**Solar Panels**
more solar panels parallel linked for enhanced capacity

**Remote Control**
Model: NC85

**Specifications:**

| | **New PerfectTilt RF** | |
|---|---|---|
| Shutter Type | All types except bi-fold double hung or panel with gap at bottom over 0.1" (no support on bottom) | |
| Specialty Shutter Shape | All shapes except shapes without a vertical stile in the middle (for example, eyebrow, elongated eyebrow, half-round sunburst without horizontal louvers) | |
| Tilt System | InvisibleTilt only, the tilting system will not split unless specified | |
| Stile Width | 2.25" stile only<br>Center Stile is not available | |
| Louver | 2.5", 3.5", 4.5"   Elliptical louver | |
| Panel Size Limit | Min. Panel Height (with lined up Motors) | Min. Panel Height (Default with Staggered Motors) |
| | 18" | 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. |
| | Max. Panel Height without divider rail: 78"<br>Min. Panel Width Limit: 8 11/16";<br>12 5/16" if solar panel is to attach to rail;<br>Max Width Limit: same as regular non-motorized shutters | |
| Motor Type | NS98 | |
| Remote Control | *Radio frequency<br>*6 channels<br>*8 pre-set angles<br>*Built-in timer function<br>*When ordering, customer needs to specify quantity<br>*Press the "Activation Button" to wake up | |
| Ring Pull | Ring Pull will be supplied as default. (Refer to "i" page for more information) | |
| Options | Solar Panel/Expansion battery pack=> surcharge option; customer can choose to add as many Solar Panels/Expansion Battery Packs as long as space allows | |

**Components:**

| Items | |
|---|---|
| Remote Control Model : NC85<br><br>Radio Frequency; Battery: 2×AAA.<br><br>Dimensions : 122 x 62 x 16 mm<br>Distance of transmission (control): 20 meters indoor, 40 meters outdoor |  |
| Module<br>Model : NS98<br>Colors Available: White; Coffee; Caramel<br>Dimensions : 330.5 x 37.5 x 40 mm<br>One for each louver section, 6×AA normal batteries or rechargeable batteries are required. Either alkaline or lithium batteries may be used. |  |
| Battery cartridge<br><br>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<br>Colors Available: White; Coffee; Caramel<br>Dimensions: 195 x 37 x 21.6 mm |  |

| | |
|---|---|
| **Solar panel**<br><br>Colors Available: White; Coffee; Caramel<br><br>Dimensions: 195 x 37 x 13,5 mm<br><br><br>Position:<br><br>A.  attached to the module itself (Default)<br><br>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 )**<br><br>Colors Available: White; Coffee; Caramel<br><br>Dimensions: 195 x 37 x 8,5 mm<br><br>With Power cable<br><br>Colors: Coffee; White | |
| **USB Cable**<br><br>Color: Black<br><br>Connect the computer and the remote control to set up timer function. | |
| **Slotted Point Driver**<br><br><br>One for each louver section.<br><br>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. | |

**Color Coordinate Chart:**

| | NO. | Color ID | Color Name | Module/Battery Expansion Pack/Solar Panel Color |
|---|---|---|---|---|
| 8 Paint | 1 | 001 | Pure White | White |
| | 2 | 003 | Silk White | White |
| | 3 | 004 | Bright White | White |
| | 4 | 006 | Pearl | White |
| | 5 | 009 | Creamy | White |

| | | | | |
|---|---|---|---|---|
| | 6 | 012 | Crisp Linen | White |
| | 7 | 030 | Moondust | White |
| | 8 | 046 | Ice | White |
| 15 Stain | 1 | 108 | Rustic Grey | Coffee |
| | 2 | 110 | Limed White | White |
| | 3 | 205 | Goldenrod | Caramel |
| | 4 | 211 | Cherry | Coffee |
| | 5 | 221 | Black Walnut | Coffee |
| | 6 | 227 | Red Oak | Caramel |
| | 7 | 229 | Rich Walnut | Coffee |
| | 8 | 230 | Old Teak | Coffee |
| | 9 | 231 | Spring Rose | Coffee |
| | 10 | 232 | Red Mahogany | Coffee |
| | 11 | 233 | Dark Mahogany | Coffee |
| | 12 | 237 | Wenge | Coffee |
| | 13 | 242 | Auburn | Caramel |
| | 14 | 249 | Acorn | Coffee |
| | 15 | 250 | Sumatra | Coffee |

**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.
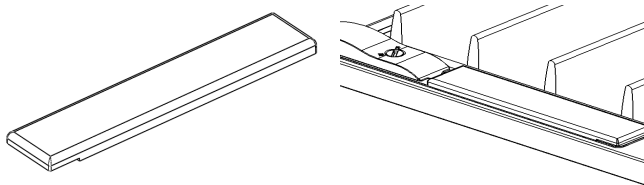


If Expansion Battery Pack or Solar Panel is to fix on the module, please keep the wood cover and in the future if the expansion battery pack or the solar panel is not needed, the wood cover can be put back in use.

✧ 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:**

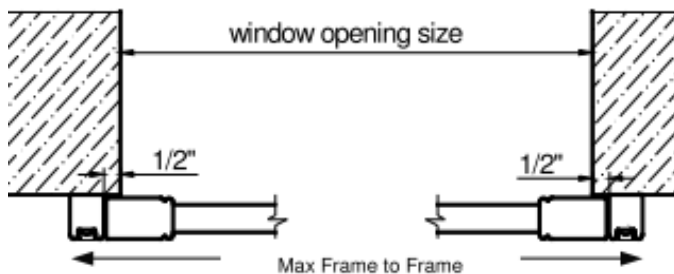| | Module | Battery Expansion Pack | Solar Panel | Solar Panel Mounting Base |
|---|---|---|---|---|
| Thickness | 11/16"(17.5mm) | 43/64" (17mm) | 23/64"(9mm) | 11/32"(8.5mm) |

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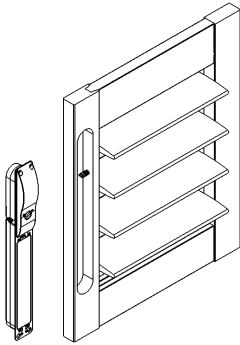


E.g.: Below is the situation **not available** for the module unless enough build-out is added to the frame.

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**
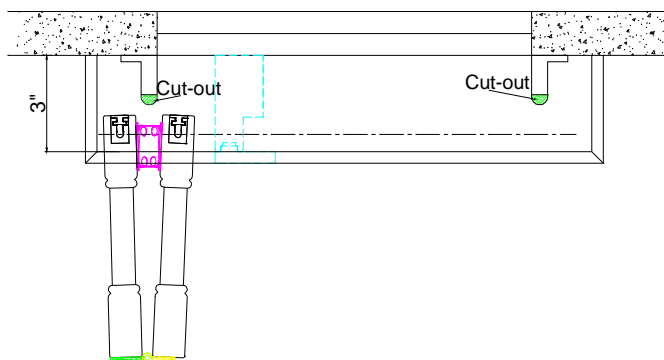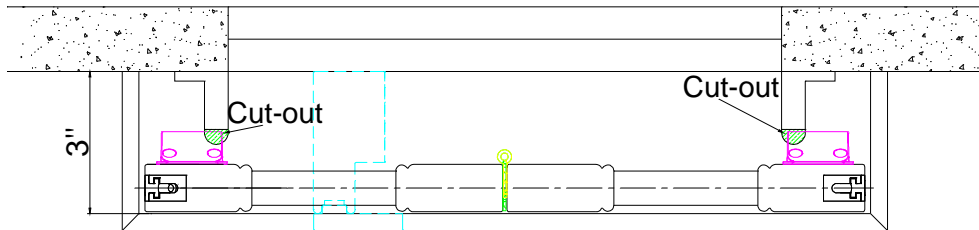
**enough clearance.**

Side view for module in panel with different louver types



| 2.5" Louver | 3.5" Louver | 4.5" Louver |
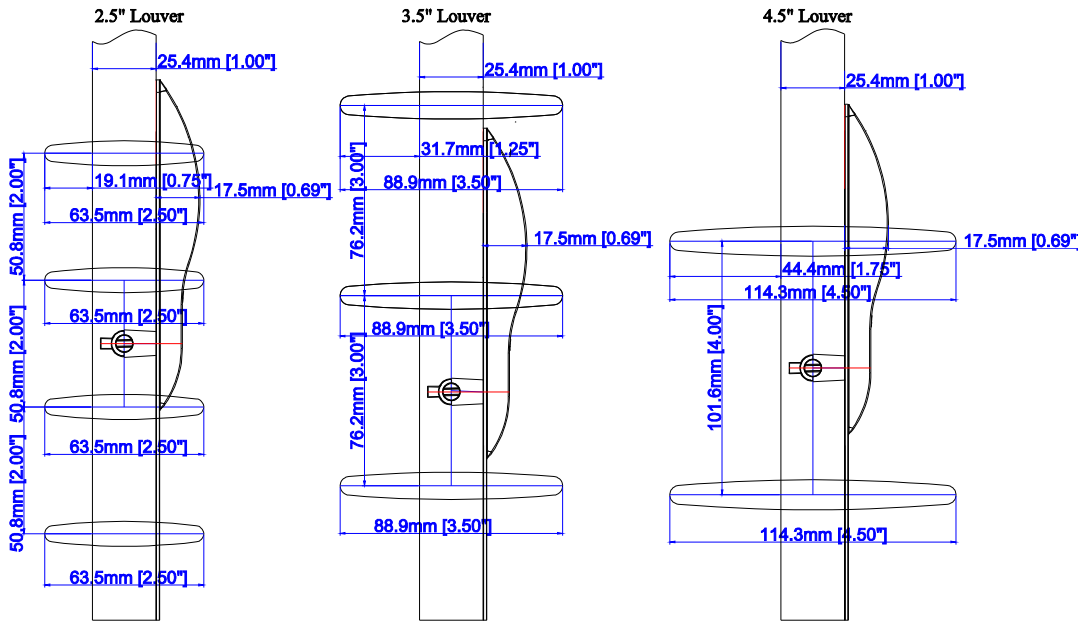
## For Motorized 90° Bifold Track Shutter:

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;



Cut-out    Cut-out

3"



Cut-out        Cut-out

3"

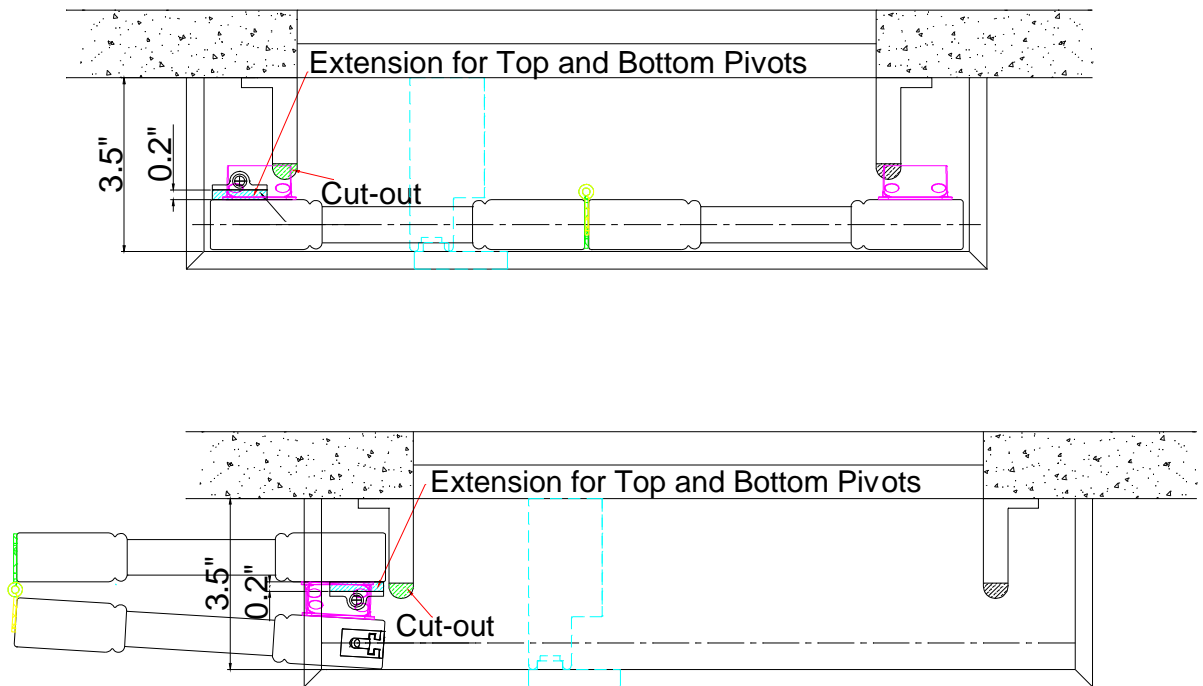3) For Motorized shutter with both Solar Panel and Expansion Battery Pack attached to

the back of the module, the L Shape Light Block will be cut out 11/16" to avoid the confliction;
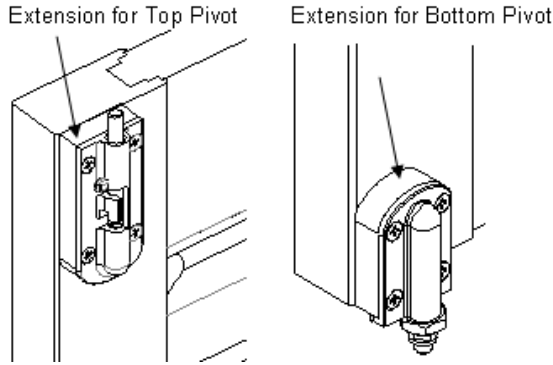
Available options:

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;

Extension for Top Pivot     Extension for Bottom Pivot

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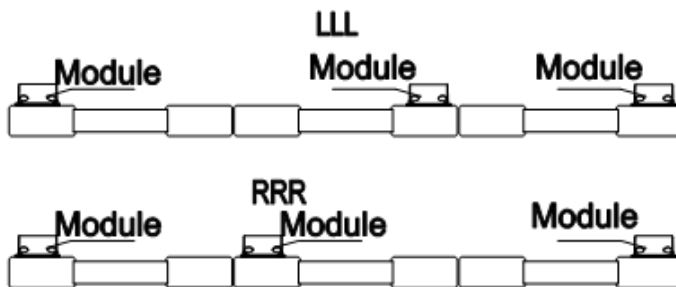
**Module Location:** (Easy Tilt will be on the same side as the module)

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

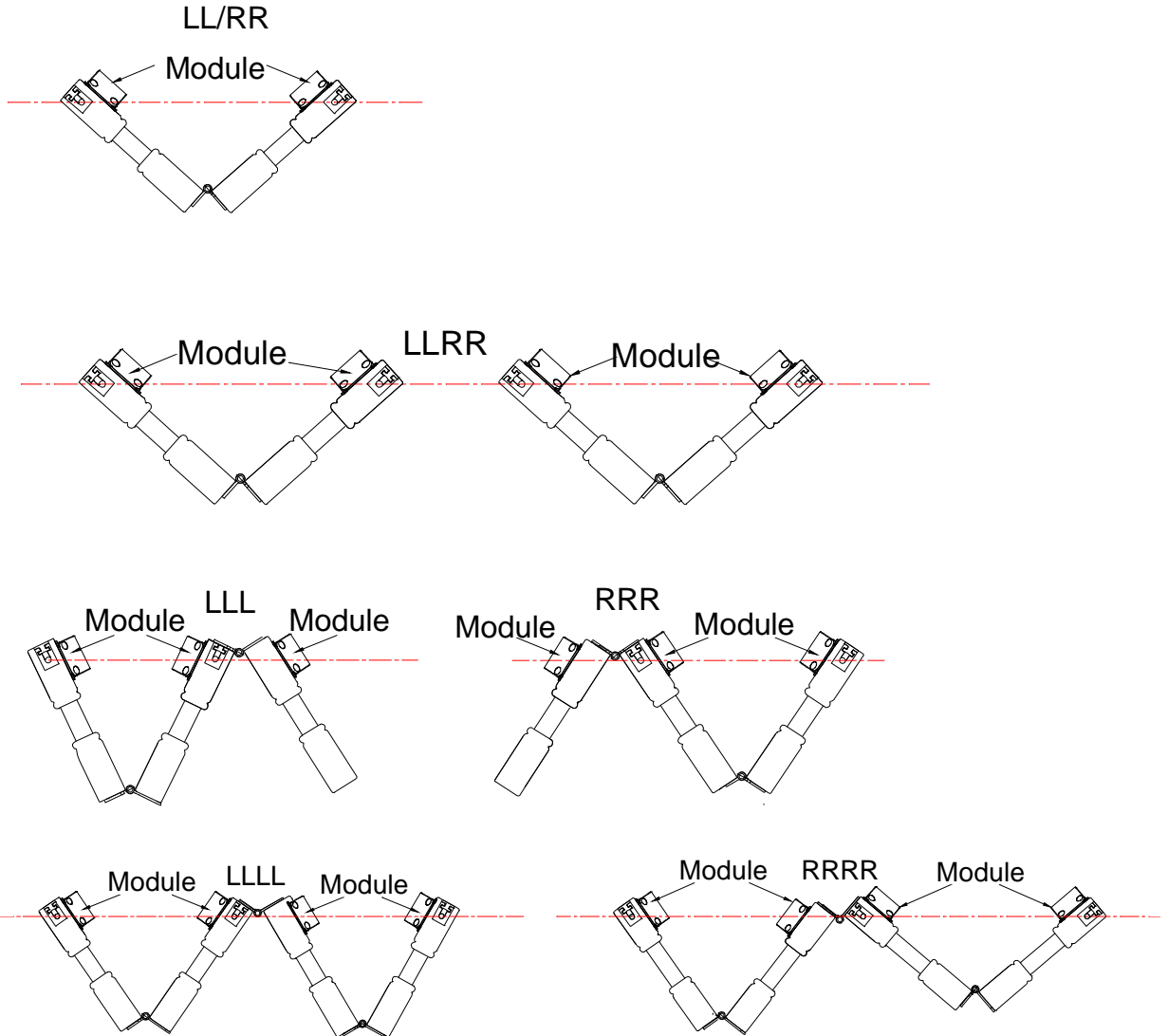1) Single Panel: Module will be on the un-hinge stile

2) 2 Panels: LL, LR, RR
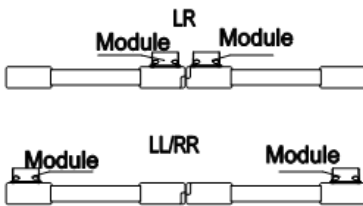


3) 3 Panels: LLL/RRR

4)   4 Panels: LLRR/LLLL/RRRR



## For 90°and 180°Bifold Track:

LL/RR



LLRR



LLL                    RRR



LLLL                    RRRR



## 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**
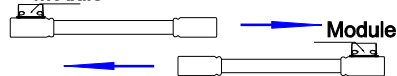
**optional to line up the modules for bi-fold/multi-fold shutter;**

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



Staggered Motors

Louver Spaces
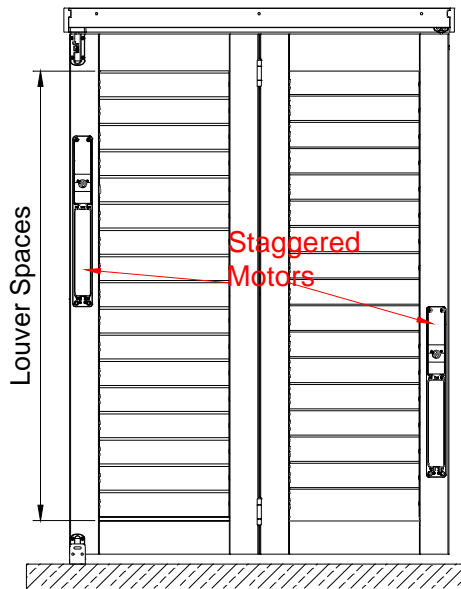
**For By-Pass Application**

2 Panels Side Open
Module

Module

3 Panels Center Open (Not available for Open Bypass)
Module          Module

Module

4 Panels Center Open
Module                    Module

Module  Module

Module                              Module

Module  Module
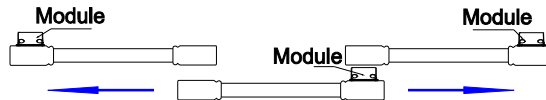
4 Panels Side Open
Module   Module
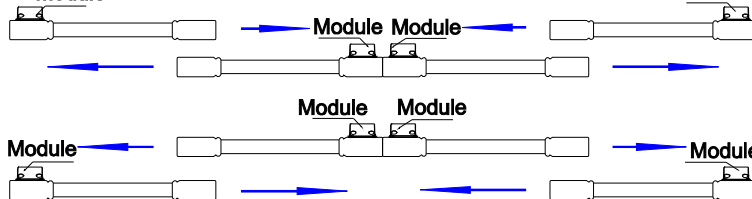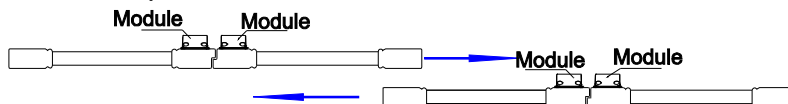
Module   Module

**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



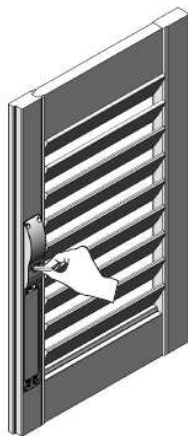\*No Receiver/Louver Cap

\*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.

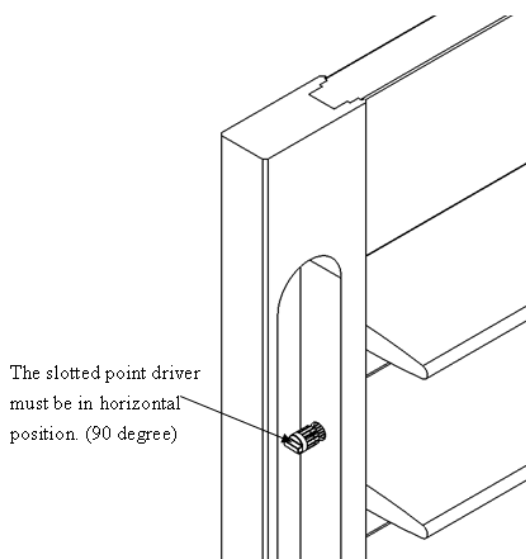## HOW TO FIX LOUVERS THAT ARE OUT OF POSITION

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 slotted point driver must be in horizontal position. (90 degree)

*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.
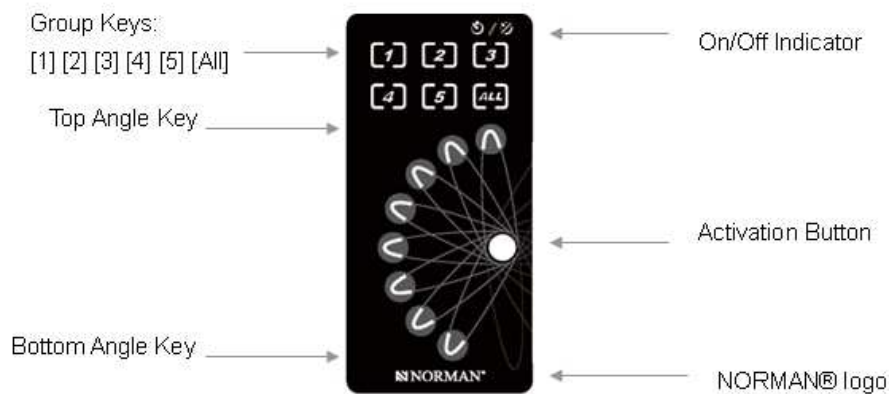
## HOW TO REPLACE BATTERY FOR THE MODULE

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.
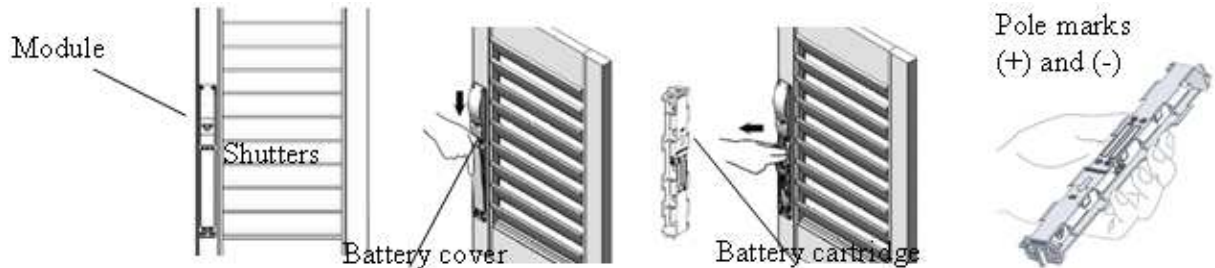


## HOW TO USE THE REMOTE CONTROL

### 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.

Remote Control Back Cover

Norman® LOGO light

Pop the back cover from here