

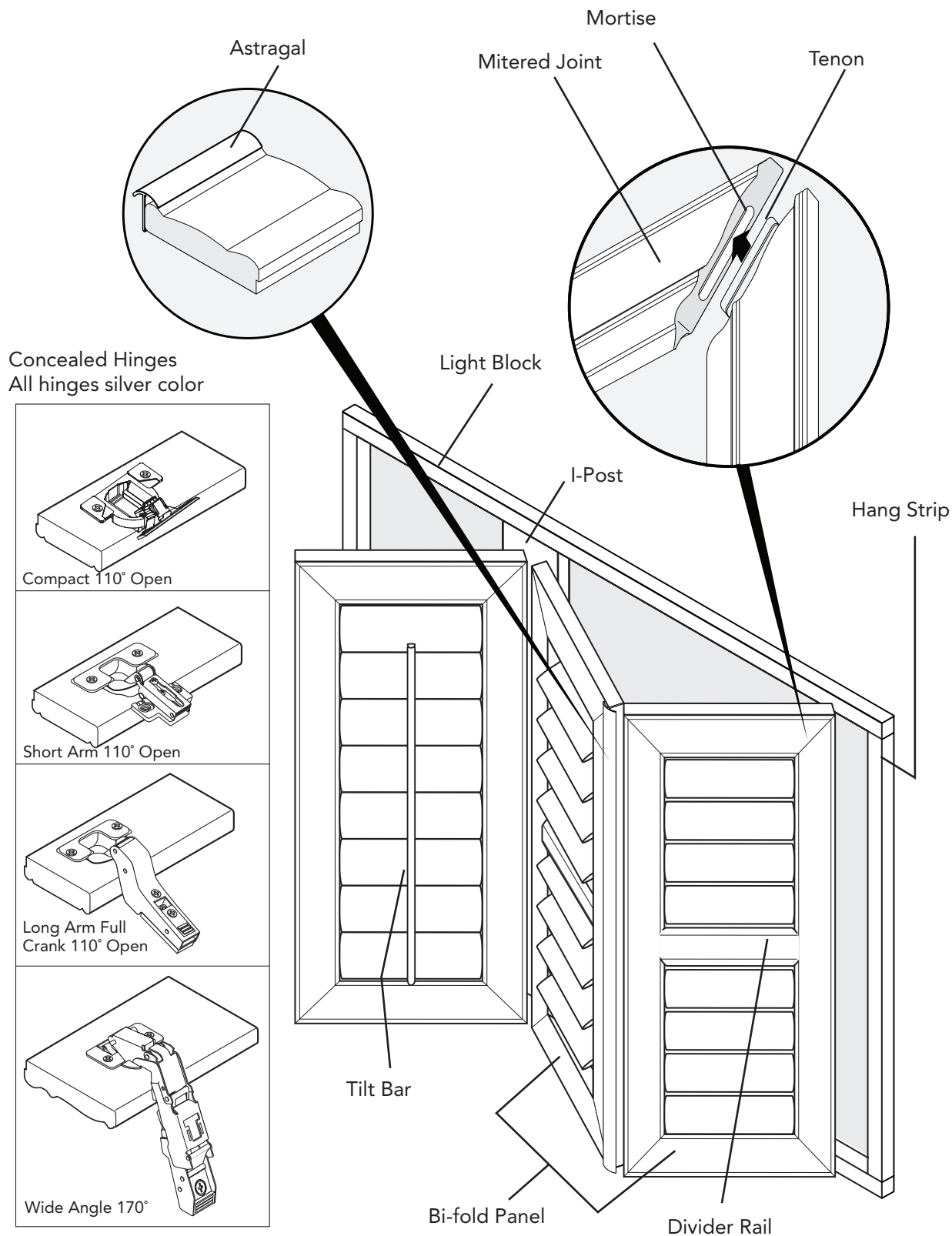
AURORA™ SHUTTERS, TRADITIONS® WOOD SHUTTERS AND COMPOSITE SHUTTERS

TABLE OF CONTENTS

AURORA™ SHUTTERS	
Product Illustration	2
Product Options	3
Louver Size Clearance Chart	4
Mounting Options--Drywall Wrapped Windows	5
Mounting Options--Wood Trimmed Windows	6
Mounting Options	7-14
How to Measure	15
Panel Configurations	16
Tilt Options	17
Lightblock and Build-outs	18
Pricing	19
WOOD SHUTTERS	
Product Illustration	20
Shutter Frame Type Decision Tree	21
Measuring: Standard Shutter, Divider Rails and T-Posts	22-23
Shutter Styles	24
Cafe Shutters	25
Wood and Composite Louver Options	26
Wood and Composite Frame Configurations	27
Wood and Composite Panel Configurations	28
Wood and Composite Options	29-30
Wood Shutter Exploded View	31
Wood Characteristics	32
Wood Shutter Pricing	33
Wood Color Options	34
Wood Shutter Frame Options	35-36
Wood Frame Allowances	37
Wood Minimum/Maximum	38
Wood Arches	39-43
Wood French Door	44
Wood and Composite Bypass Shutter	45-46: 49-50
Wood Bi-Fold Track System	47-48: 49-50
COMPOSITE SHUTTERS	
Composite Exploded View	51
Composite Shutter Pricing	52
Composite Frame Allowances	53
Composite Minimum/Maximum Charts	54-55
Composite Frames Options	56-57
GENERAL INFORMATION	
Definitions	58
Warranty and Care Information	59

Aurora™ Shutters

PRODUCT ILLUSTRATION



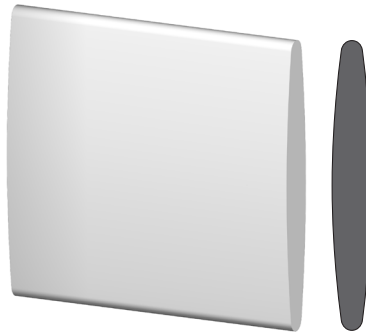
Product Options – Aurora Shutters

LOUVER SIZES AVAILABLE

2½" Louver



3½" Louver



4½" Louver



COLORS AVAILABLE

Antique White 1026*

Cloud White 1922

Dover White 1683*

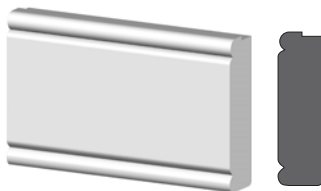
Snowflake 1603*

*Also available in wood shutter program

PANEL EDGE DESIGNS

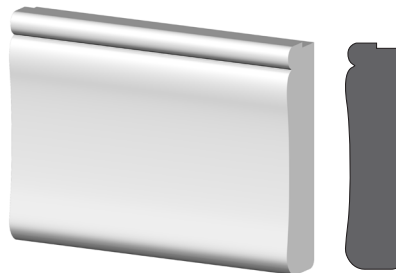
2½" Width

Timeless



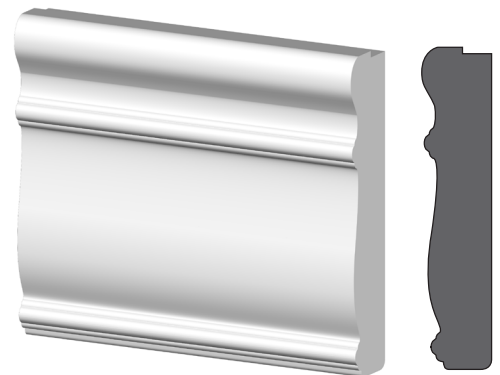
3" Width

Casual

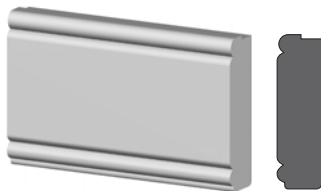


3½" Width

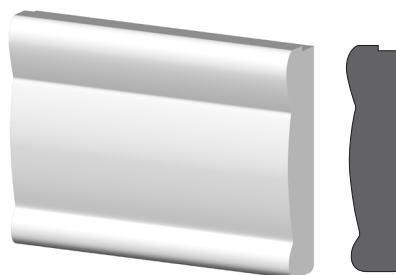
Ornate



Classic

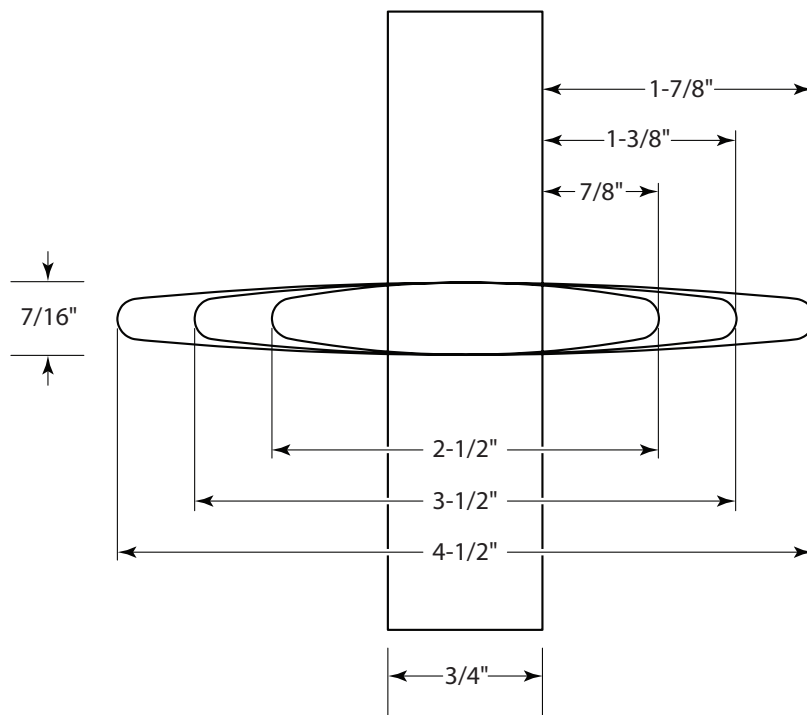


Contemporary



Louver Size Clearances Chart – Aurora Shutters

LOUVER SIZES AVAILABLE



NOTE: Hidden tilt add 1/8" to depth for window clearance.

PANEL WIDTH/HEIGHT MINIMUM AND MAXIMUM SIZES

Panel Edge Design	Timeless and Classic		Contemporary and Casual		Ornate	
Divider rail minimum requirements	Divider rail required over 60"		One divider rail required over 72"		One divider rail required over 72"	
			Two divider rails required over 84"		Two divider rails required over 96"	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Width single panel	10"	30"	11"	30"	12"	30"*
Width bi-fold	10"	24"	11"	24"	12"	24"
Height	15"	84"	18"	96"	21"	120"

*Panels over 96" tall have a maximum width of 26"

Mounting Options for Aurora Shutters Drywall Wrapped Windows

OUTSIDE MOUNT OPTIONS

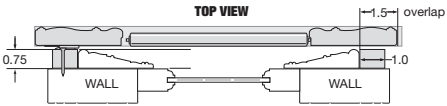
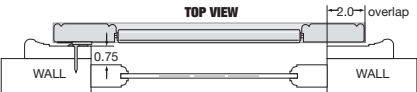
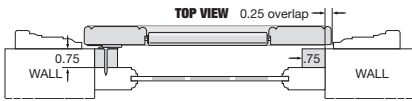
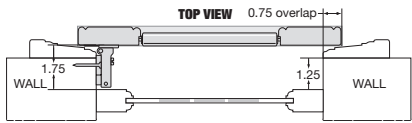
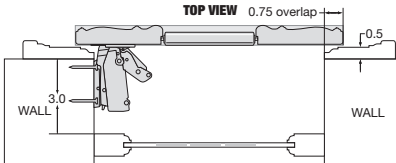
		OVERLAP	MINIMUM WINDOW DEPTH	MAXIMUM PANEL SWING	PAGE
OPTION #1 BUILD-OUT		1½" Beyond edge of opening	Flush	110°	7
OPTION #2 WALL MOUNT		2" Beyond edge of opening	¾"	110°	8
OPTION #3 HANG STRIP		¼" Beyond edge of opening	¾"	110°	9
OPTION #5 DIRECT MOUNT		¾" Beyond edge of opening	1¾"	110°	11
OPTION #7 DIRECT MOUNT		¾" Beyond edge of opening	3½"	170°	13

INSIDE MOUNT OPTIONS

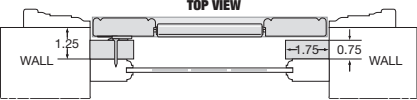
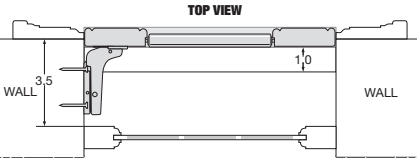
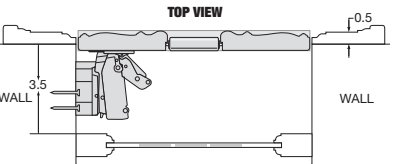
		OVERLAP	MINIMUM WINDOW DEPTH	MAXIMUM PANEL SWING	PAGE
OPTION #4 RECESSED HANG STRIP		N/A	1⅝"	110°	10
OPTION #6 RECESSED DIRECT MOUNT		N/A	4"	110°	12
OPTION #8 RECESSED DIRECT MOUNT		N/A	4"	170°	14

Mounting Options for Aurora Shutters Wood Trimmed Windows

OUTSIDE MOUNT OPTIONS

		OVERLAP	MINIMUM WINDOW DEPTH	MAXIMUM PANEL SWING	PAGE
OPTION #1 BUILD-OUT		1½" Beyond edge of opening	Flush	110°	7
OPTION #2 WALL MOUNT		2" Beyond edge of opening	¾"	110°	8
OPTION #3 HANG STRIP		¼" Beyond edge of opening	¾"	110°	9
OPTION #5 DIRECT MOUNT		¾" Beyond edge of opening	1¼"	110°	11
OPTION #7 DIRECT MOUNT		¾" Beyond edge of opening	3"	170°	13

INSIDE MOUNT OPTIONS

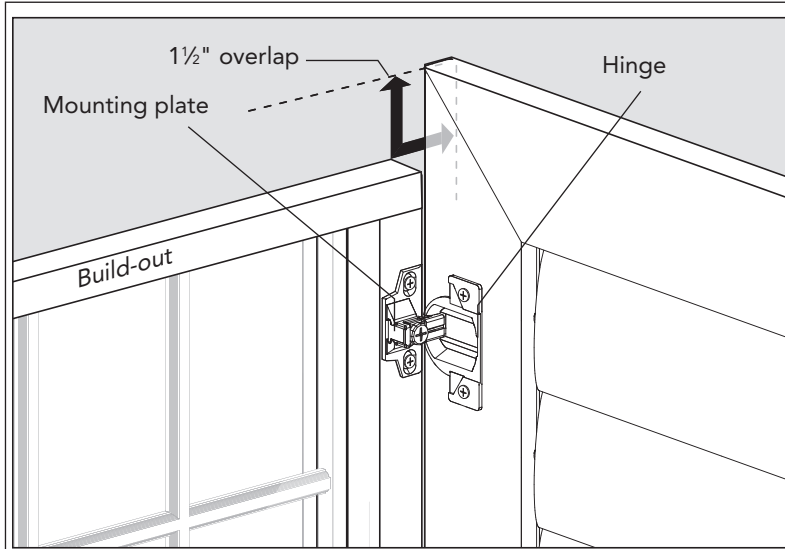
		OVERLAP	MINIMUM WINDOW DEPTH	MAXIMUM PANEL SWING	PAGE
OPTION #4 RECESSED HANG STRIP		N/A	1¼"	110°	10
OPTION #6 RECESSED DIRECT MOUNT		N/A	3½"	110°	12
OPTION #8 RECESSED DIRECT MOUNT		N/A	3½"	170°	14

Mounting Options for Aurora Shutters

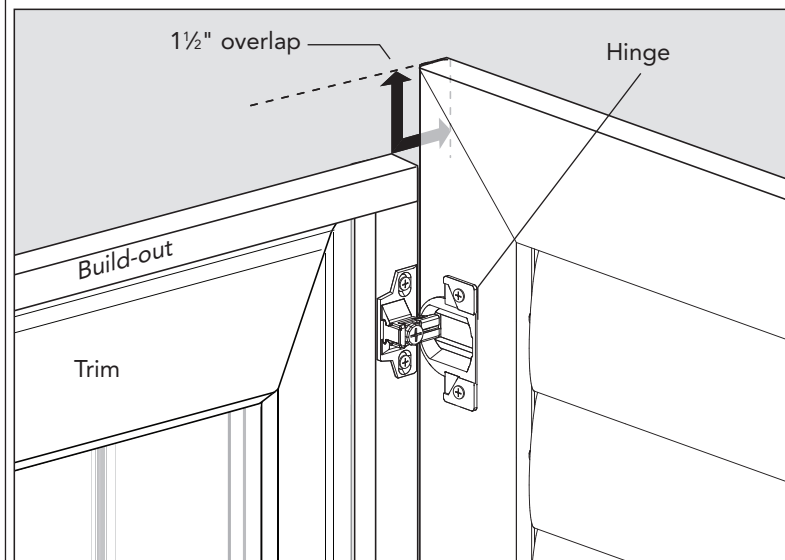
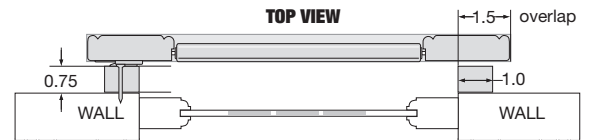
OPTION 1 — SHALLOW WINDOWS—OUTSIDE MOUNT

Less than 3/4" window depth

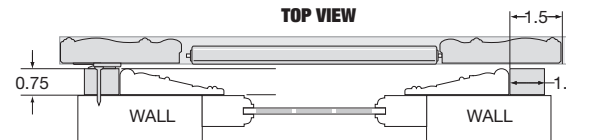
BUILD-OUT WITH 1 1/2" OVERLAP



Drywall wrapped window: 1 1/2" overlap with build-out
Minimum window depth: Flush to wall
Hinge: Compact 110° open
Tilt In: Yes
Measure Type: Window opening
Finished Size: Factory will add 3" to ordered width and 3" to ordered height or 1 1/2" to height for windows with a sill.



Window with trim: 1 1/2" overlap with build-out
Minimum window depth: Flush to wall
Hinge: Compact 110° open
Tilt In: Yes
Measure Type: Trim to trim
Finished Size: Factory will add 3" to ordered width and 3" to ordered height or 1 1/2" to height for windows with a sill.



4 1/2" louvers are not available on this option.

NOTE: Larger build-out needed for 3 1/2" or 4 1/2" louvers, see below.

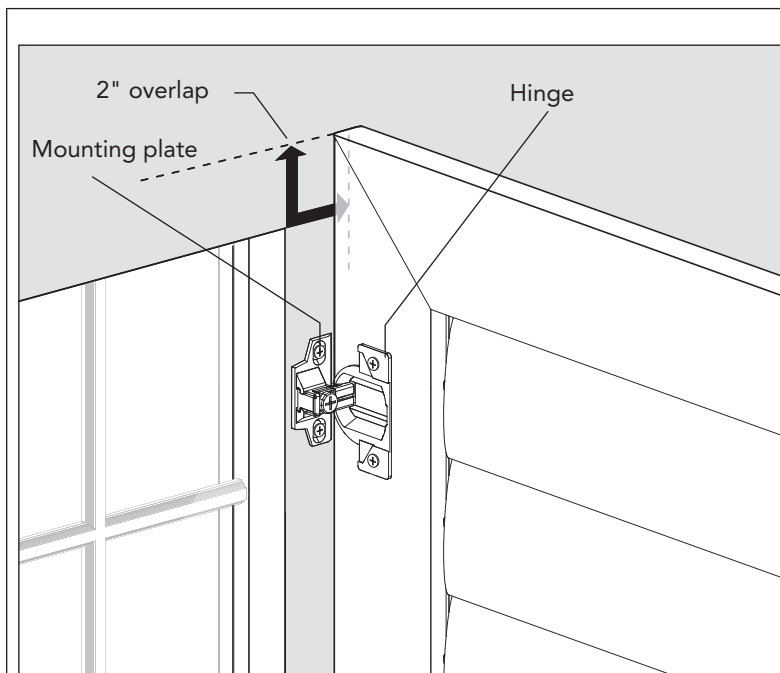
Build-out Chart

Louver Size	Build-out Height
2 1/2"	3/4"
3 1/2"	1 1/4"
4 1/2"	1 3/4"

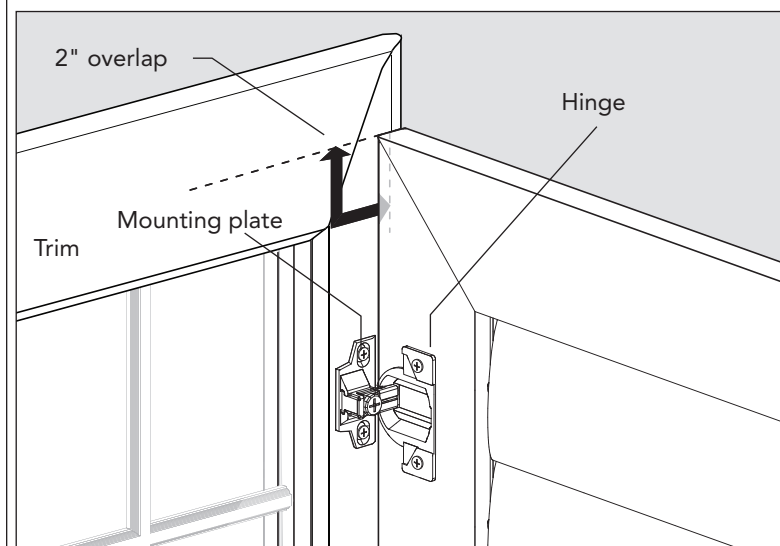
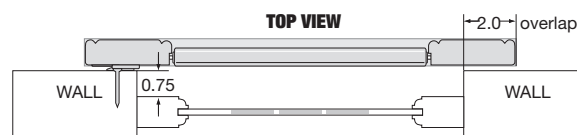
Mounting Options for Aurora Shutters

OPTION 2 — SHALLOW WINDOWS—OUTSIDE MOUNT

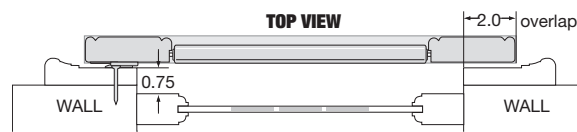
WALL MOUNT WITH 2" OVERLAP



Drywall wrapped window: 2" overlap
Minimum window depth: 3/4"
Hinge: Compact 110° open
Tilt In: Yes
Measure Type: Window opening
Finished Size: Factory will add 4" to ordered width and 4" to ordered height or 2" to height for windows with a sill.



Window with trim: Trim with no reveal, 2" overlap
Minimum window depth: 3/4"
Hinge: Compact 110° open
Tilt In: Yes
Measure Type: Window opening
Finished Size: Factory will add 4" to ordered width and 4" to ordered height or 2" to height for windows with a sill.



Requires 1/2" flat surface on trim.

NOTE: Build-out required for 3 1/2" and 4 1/2" louvers, see below.

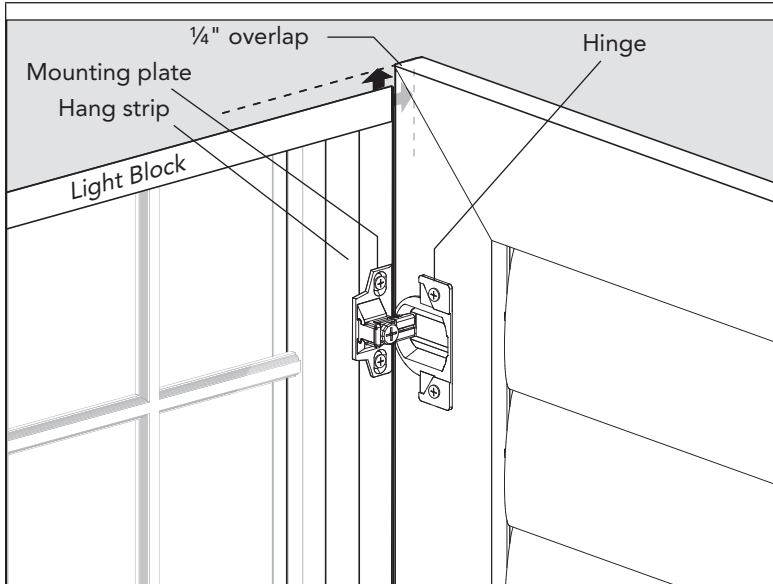
Build-out Chart

Louver Size	Build-out Height
2 1/2"	None
3 1/2"	3/4"
4 1/2"	1 1/4"

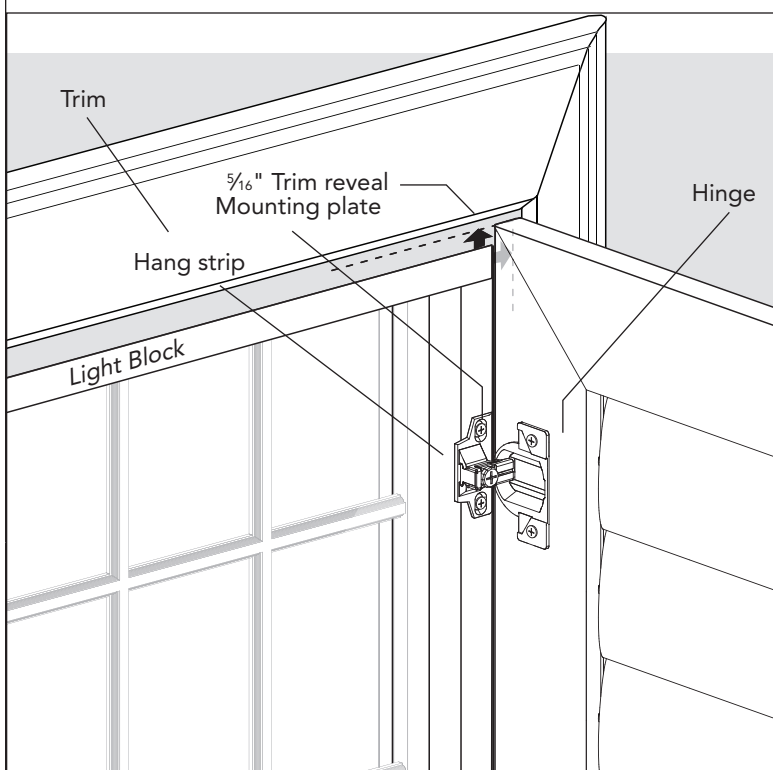
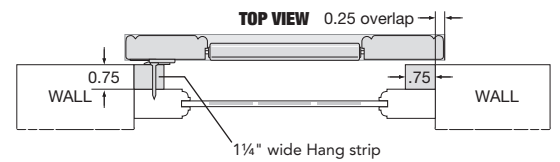
Mounting Options for Aurora Shutters

OPTION 3 — SHALLOW WINDOWS—OUTSIDE MOUNT

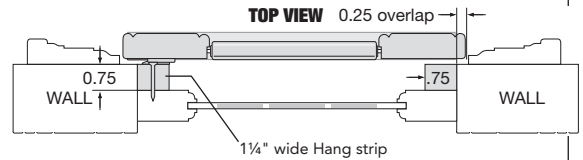
HANG STRIP WITH 1/4" OVERLAP



Drywall wrapped window: 1/4" overlap
Minimum window depth: 3/4"
Hinge: Compact 110° open
Tilt In: No
Measure Type: Window opening
Finished Size: Factory will add 1/2" to ordered width and 1/2" to ordered height or 1/4" to height for windows with a sill.



Window with trim: Trim with 5/16" reveal
Minimum window depth: 3/4"
Hinge: Compact 110° open
Tilt In: No
Measure Type: Window opening
Finished Size: Factory will add 1/2" to ordered width and 1/2" to ordered height or 1/4" to height for windows with a sill.



Requires minimum of 1/4" reveal between edge of window and trim.

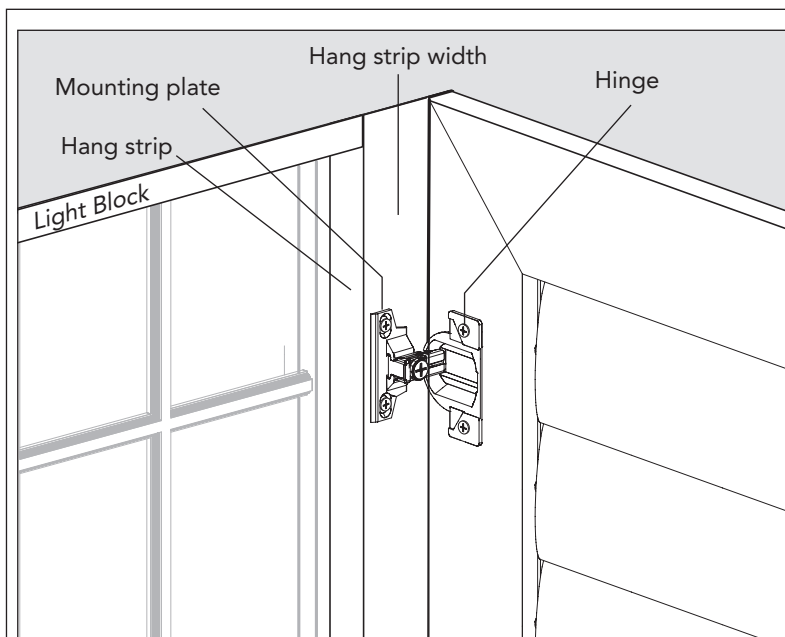
Required Clearance

Louver Size	Minimum Window Depth
2 1/2"	3/4"
3 1/2"	1 1/2"
4 1/2"	2"

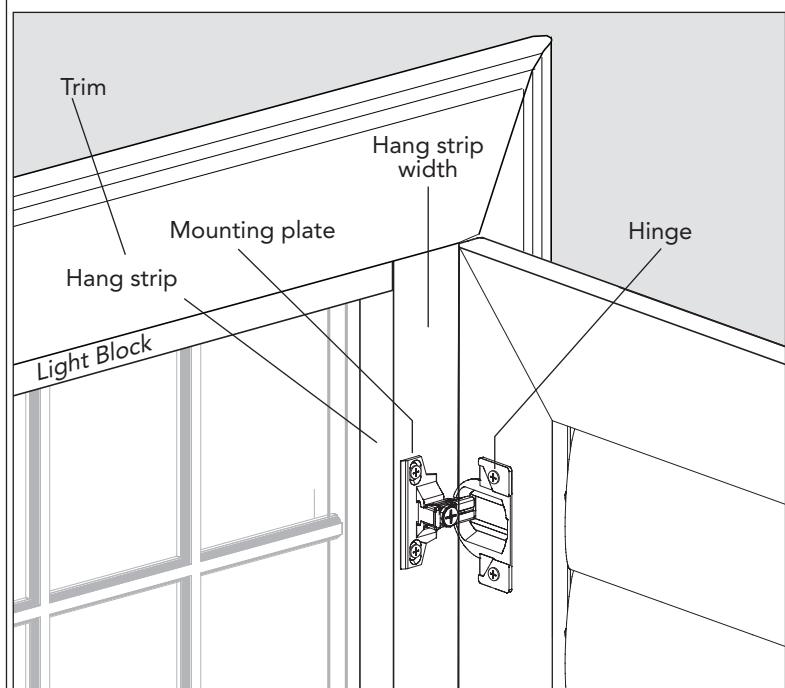
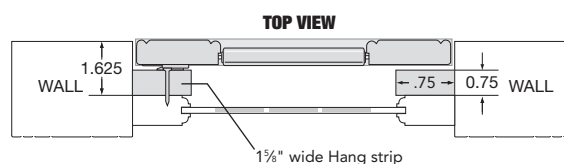
Mounting Options for Aurora Shutters

OPTION 4 — SHALLOW WINDOWS—INSIDE MOUNT

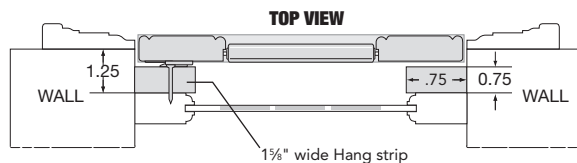
INSET WITH 3/4" HANG STRIP



Drywall wrapped window: Inset window
Minimum window depth: 1 5/8"
Hinge: Compact 110° open
Tilt In: No
Measure Type: Window opening
Finished Size: Factory will deduct 1/4" from the ordered width height.



Window with trim: Trim with no reveal
Minimum window depth: 1 1/4"
Hinge: Compact 110° open
Tilt In: No
Measure Type: Window opening
Finished Size: Factory will deduct 1/4" from the ordered width height.



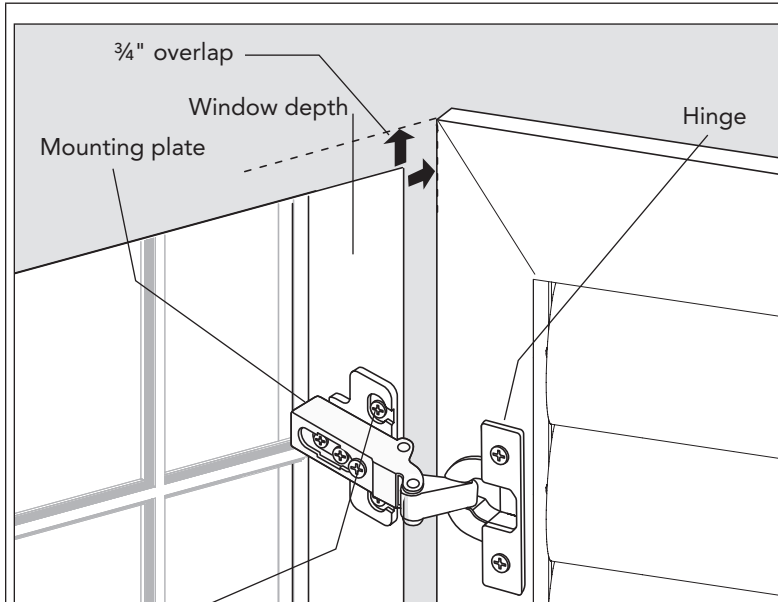
Required Clearance

Louver Size	Minimum Window Depth
2 1/2"	3/4"
3 1/2"	1 1/2"
4 1/2"	2"

Mounting Options for Aurora Shutters

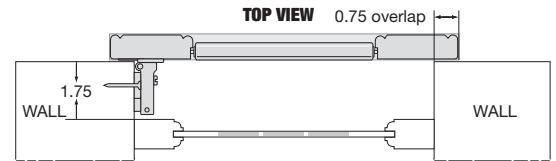
OPTION 5 — SHALLOW WINDOWS—OUTSIDE MOUNT

WITH 3/4" OVERLAP

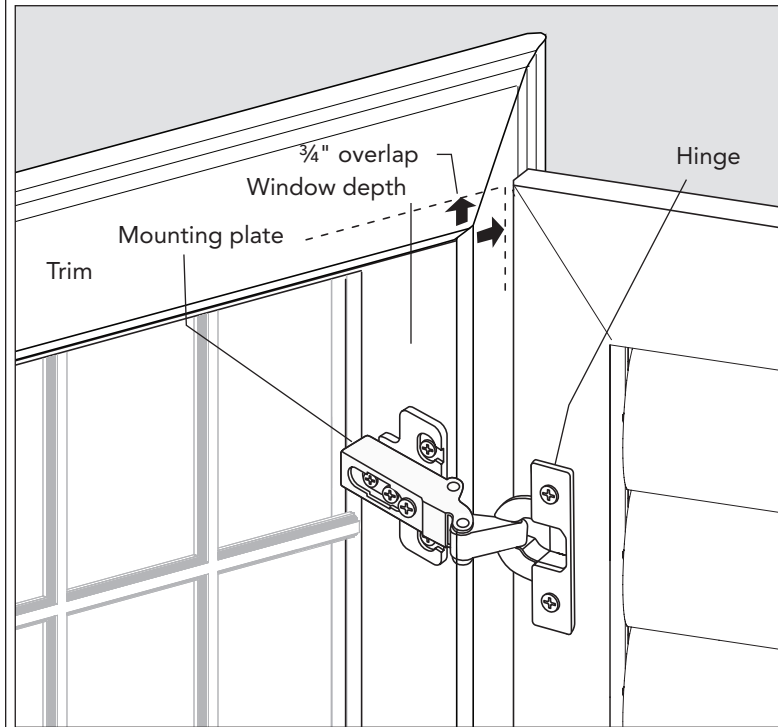


CAUTION: Screws are 5/8" in from corner and depending on application may not hit a stud. Screws could also hit the metal corner bead.

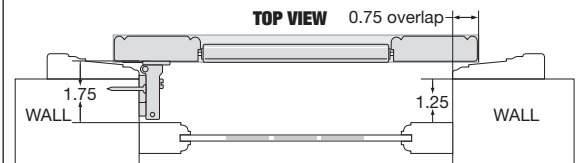
Drywall wrapped window: Outside mount with 3/4" overlap
Minimum window depth: 1 3/4"
Hinge: Short Arm 110° open
Tilt In*: Yes, 1/16" clearance
Measure Type: Window opening
Finished Size: Factory will add 1 1/2" to ordered width and 1 1/2" to ordered height or 3/4" to height for windows with a sill.



* Hinge must be disengaged from mounting plate and panel removed to tilt window in.



Window with trim: Trim with no reveal
Minimum window depth: 1 1/4"
Hinge: Short Arm 110° open
Tilt In*: Yes, 1/16" clearance
Measure Type: Window opening
Finished Size: Factory will add 1 1/2" to ordered width and 1 1/2" to ordered height or 3/4" to height for windows with a sill.

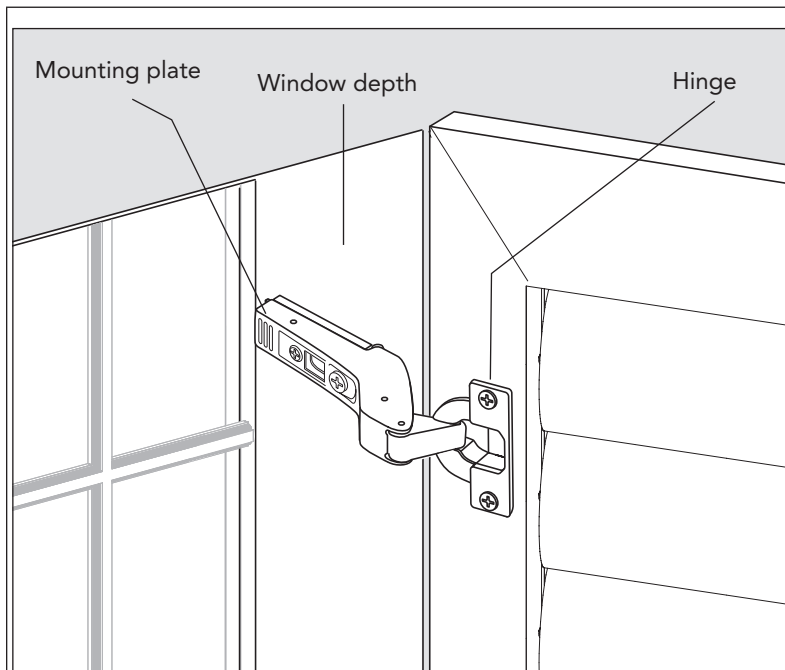


* Hinge must be disengaged from mounting plate and panel removed to tilt window in.

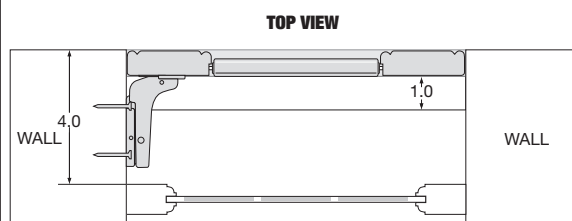
Mounting Options for Aurora Shutters

OPTION 6 — DEEP WINDOWS—INSIDE MOUNT

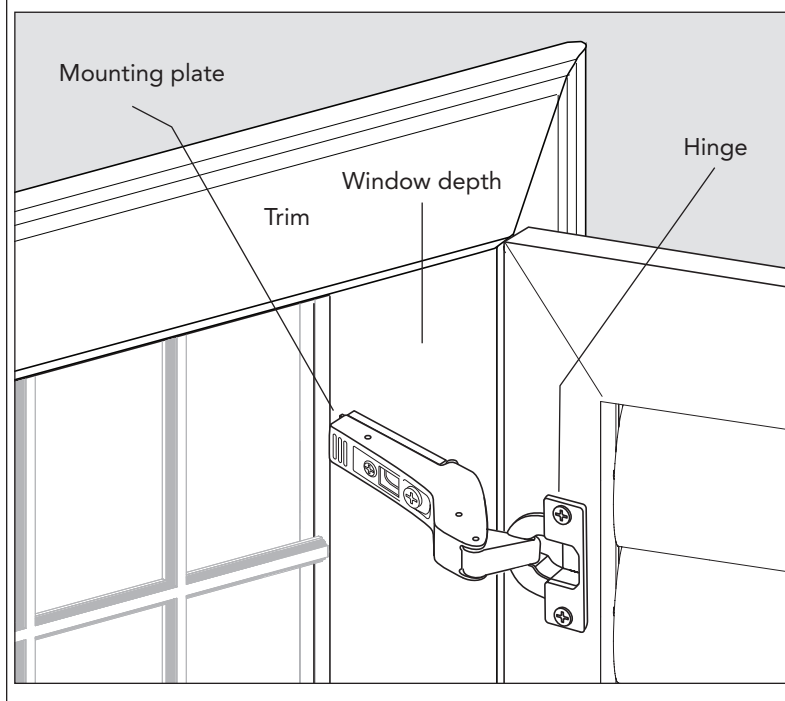
INSET MOUNT



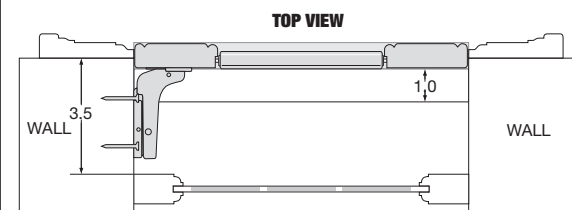
Drywall wrapped window: Flush inset
Minimum window depth: 4"
Hinge: Long arm full crank
 110° open
Tilt In*: Yes, 3/8" clearance required
Measure Type: Window opening
Finished Size: Factory will deduct 1/4" from the ordered width and height.



* Hinge must be disengaged from mounting plate and panel removed to tilt window in.



Window with trim: Trim with no reveal
Minimum window depth: 3 1/2"
Hinge: Long arm full crank
 110° open
Tilt In*: Yes, 3/8" clearance required
Measure Type: Window opening
Finished Size: Factory will deduct 1/4" from the ordered width and height.



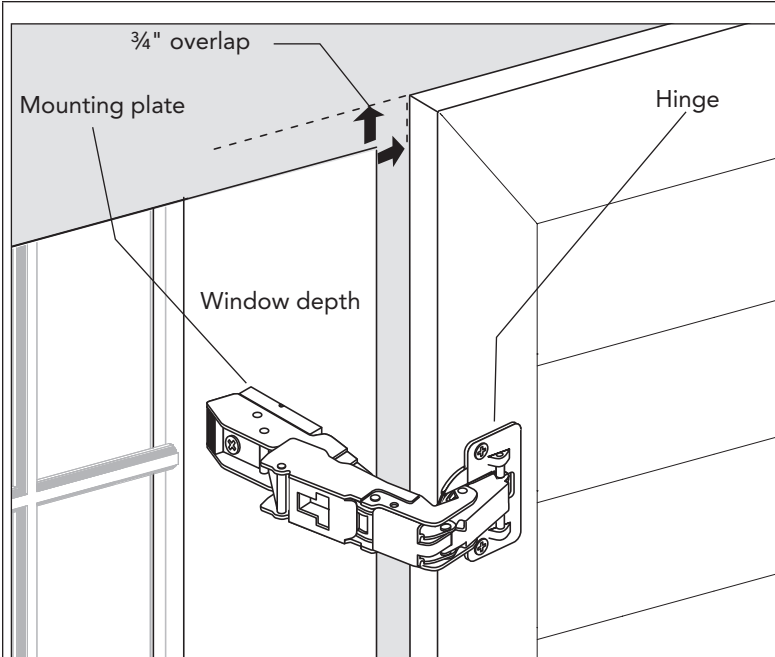
* Hinge must be disengaged from mounting plate and panel removed to tilt window in.

Mounting Options for Aurora Shutters

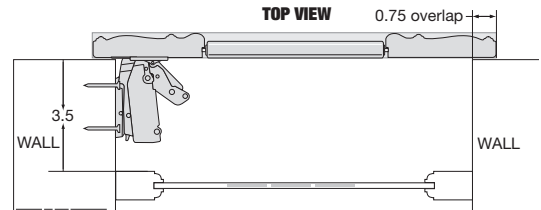
OPTION 7 — DEEP WINDOWS—OUTSIDE MOUNT

NOTE: Only available with Ornate Panel edge design.

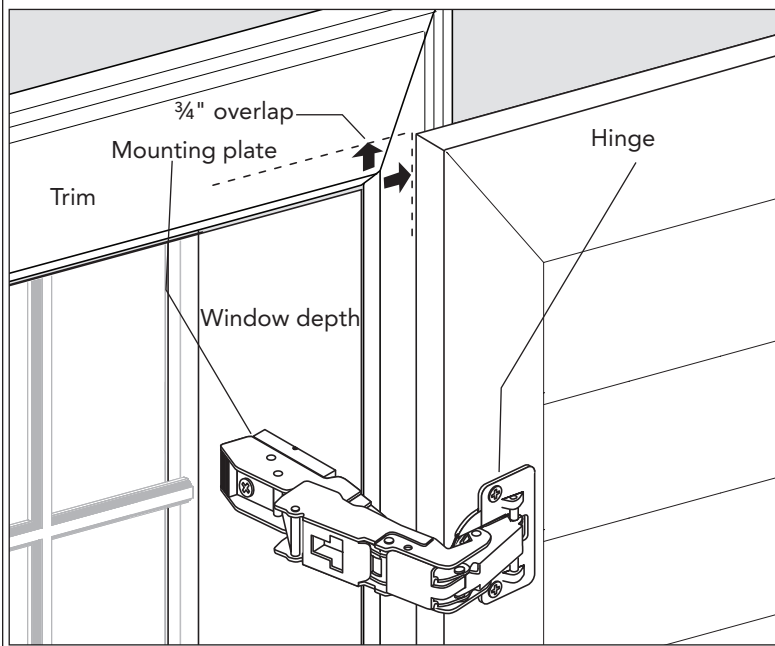
WITH 3/4" OVERLAP



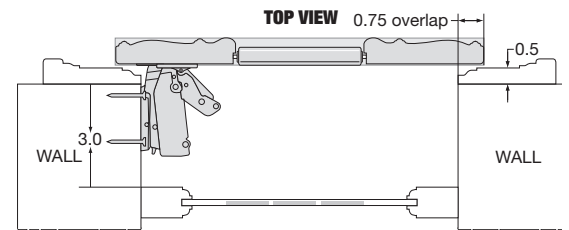
Drywall wrapped window: 3/4" overlap
Minimum window depth: 3 1/2"
Hinge: Wide angle 170°
Tilt In: Yes, 3/8" clearance required
Measure Type: Window opening
Finished Size: Factory will add 1 1/2" to ordered width and 1 1/2" to ordered height or 3/4" to height for windows with a sill.



* Hinge must be disengaged from mounting plate and panel removed to tilt window in.



Window with trim: Trim with no reveal
Minimum window depth: 3"
Hinge: Wide angle 170°
Tilt In: Yes, 3/8" clearance required
Measure Type: Window opening
Finished Size: Factory will add 1 1/2" to ordered width and 1 1/2" to ordered height or 3/4" to height for windows with a sill.



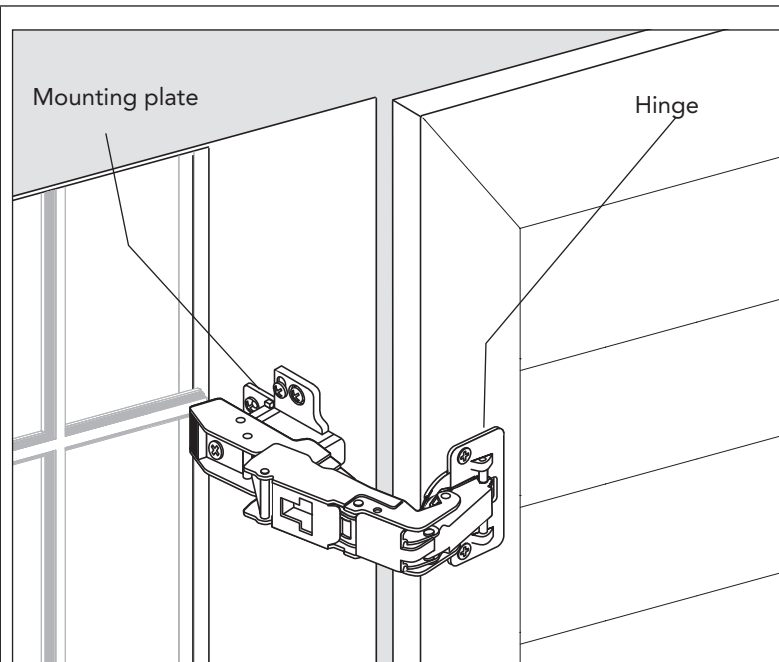
* Hinge must be disengaged from mounting plate and panel removed to tilt window in.

Mounting Options for Aurora Shutters

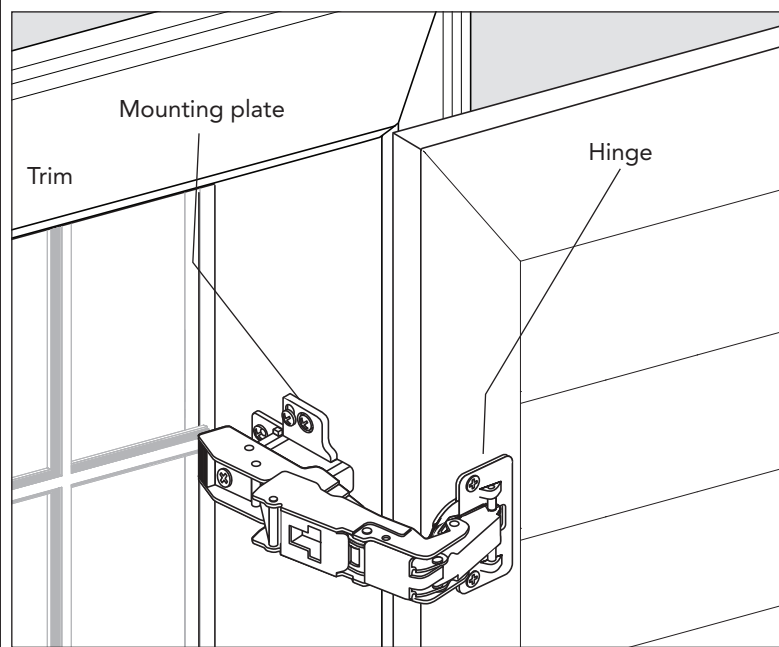
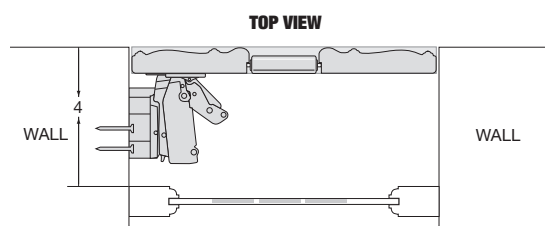
OPTION 8 — DEEP WINDOWS—INSIDE MOUNT

NOTE: Only available with Ornate Panel edge design.

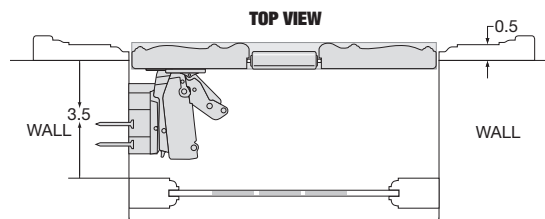
RECESSED DIRECT MOUNT



Drywall wrapped window: Inset
Minimum window depth: 4"
Hinge: Wide angle 170°
Tilt In: No
Measure Type: Window opening
Finished Size: Factory will deduct ¼" from the ordered width height.



Window with trim: Trim with no reveal
Minimum window depth: 3 ½"
Hinge: Wide angle 170°
Tilt In: No
Measure Type: Window opening
Finished Size: Factory will deduct ¼" from the ordered width height.



How to Measure – Aurora Shutters

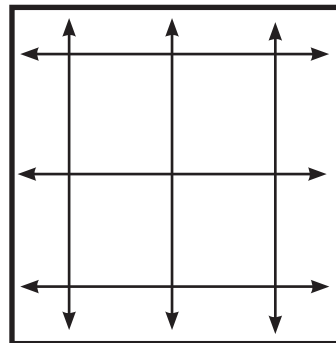
WINDOW OPENING

Measure the width at three points and the height at three points. Use the smallest width and height measurements.

For windows that are more than ¼" out of square on diagonal measurements, we recommend an outside mount installation.

For drywall-wrapped windows with a rounded edge (Bullnose) where the radius of the Bullnose is 1" or less, simply measure the window opening as if it were a square corner. For radius larger than 1" measure from where the wall becomes flat for window opening measurement.

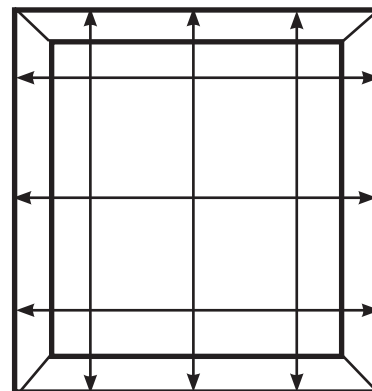
NOTE: On large radius Bullnose edges confirm the louvers will have sufficient clearance to rotate with the 2" overlap.



TRIM-TO-TRIM (INSTALL OPTION 1 ONLY IF WINDOW HAS TRIM)

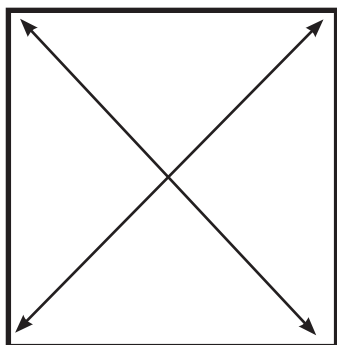
Measure width and height from outside of window trim to outside of window trim at three points. Use the largest width and height measurements.

For windows with sills, measure from top of trim to window sill for height.

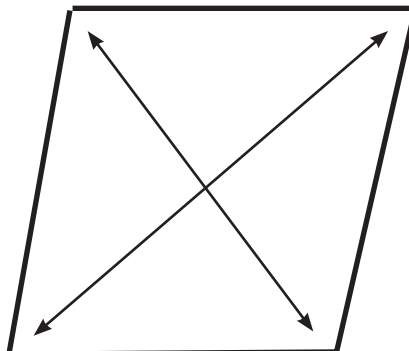


CONFIRM THAT WINDOW IS SQUARE

Measure the diagonals. If the difference between the two measurements is greater than ¼", an outside mount shutter is required.



OK

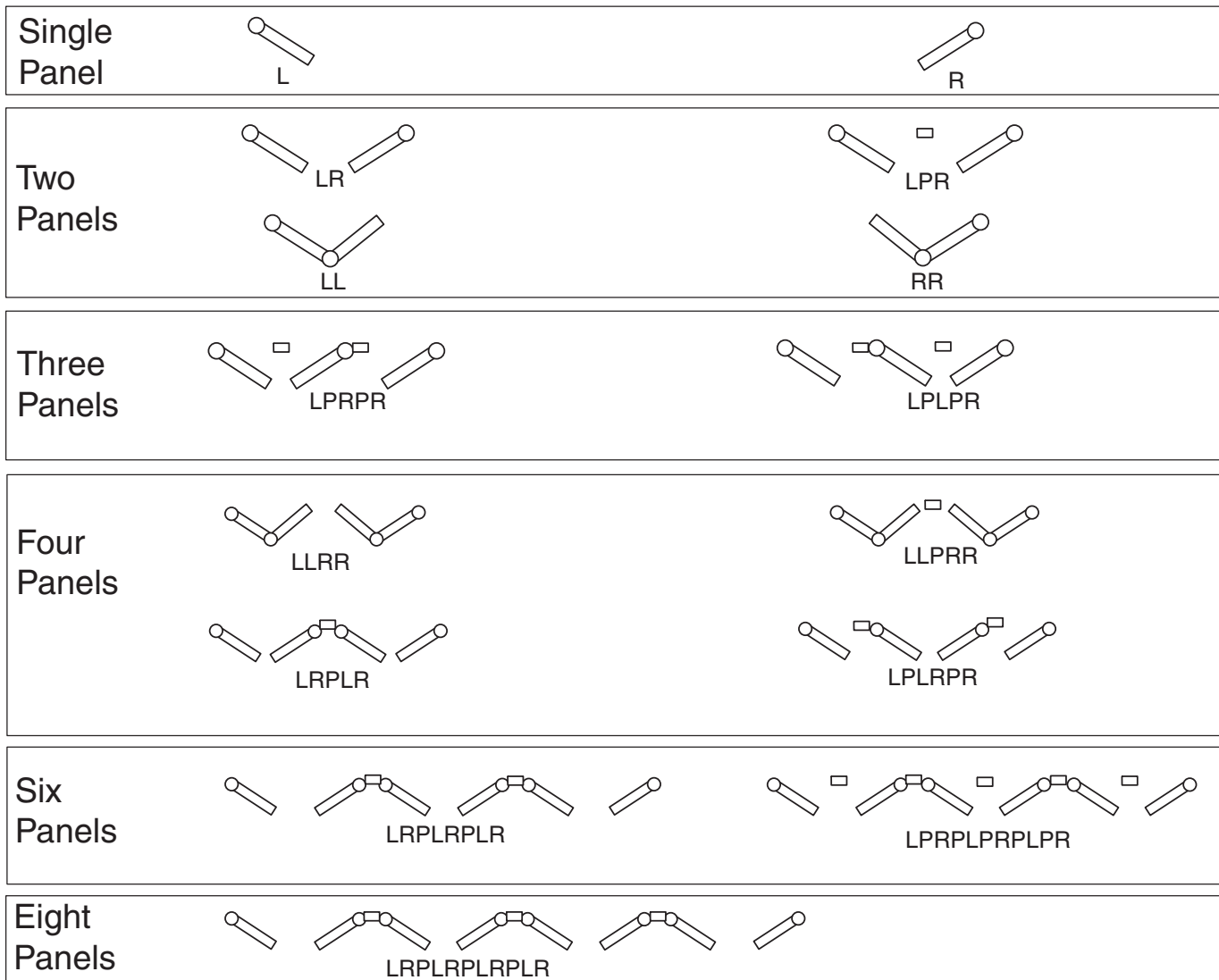


Not OK

Panel Configurations – Aurora Shutters

PANEL CONFIGURATIONS AVAILABLE

Panel , Post , Hinge Side 

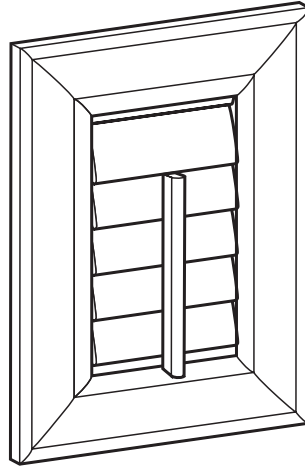


- All panel configurations ordered with an I Post will receive a frame to assemble.
- Panels hinged to an I Post will use a compact hinge.

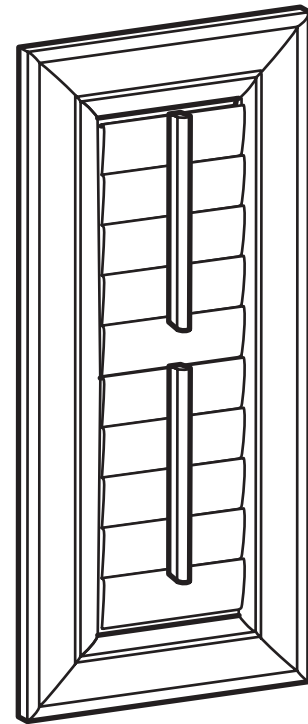
Tilt Options – Aurora Shutters

STANDARD TILT

Standard tilt features a tilt-bar on the front of the panel.

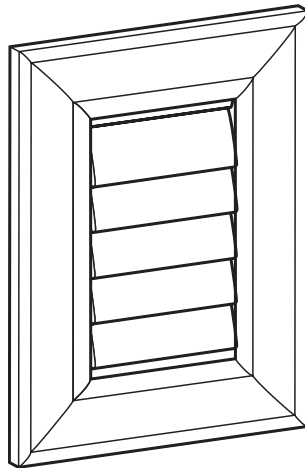


SPLIT TILT



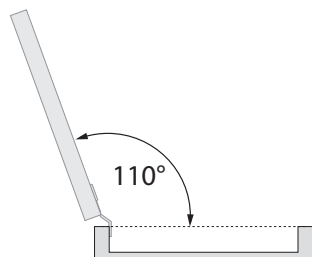
HIDDEN TILT

Stainless steel tilt-bar on back of panel (on hinge side) requires additional 1/8" clearance.

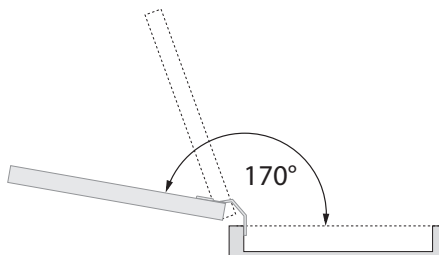


- Available on Standard Tilt and Hidden Tilt
- Split is always as centered as possible

PANEL OPENINGS AT 110° AND 170°



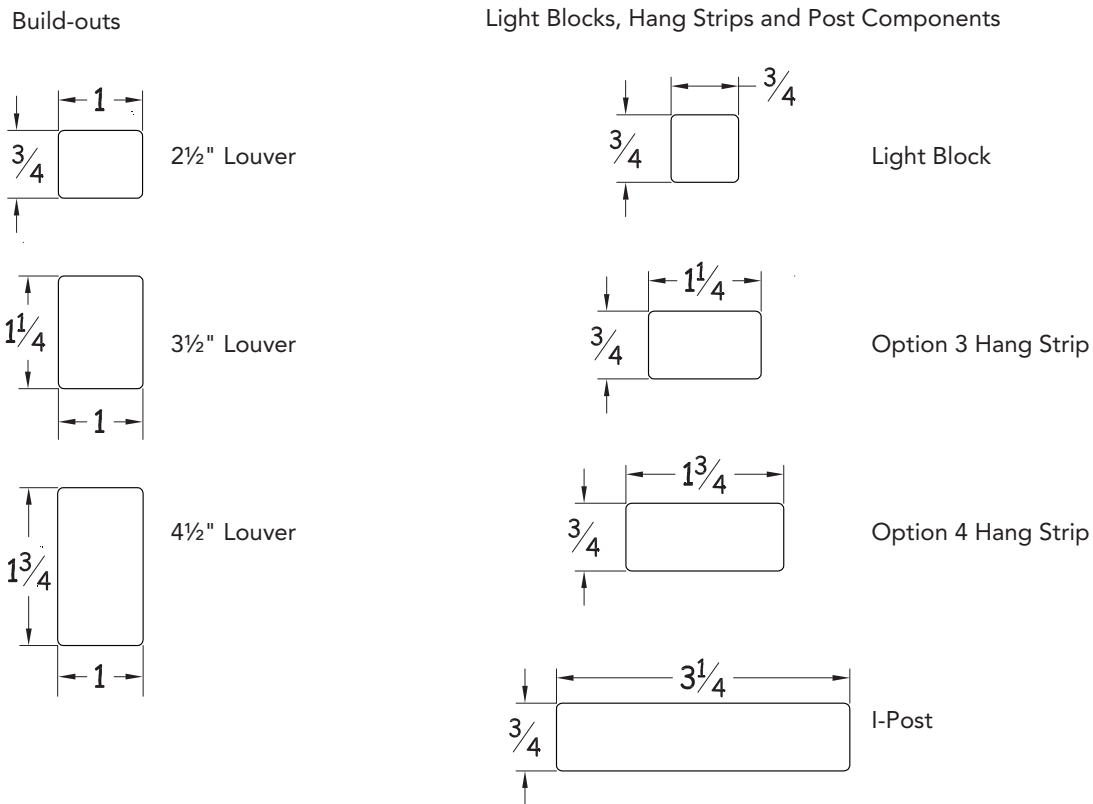
Install Options 1-6



Install Options 7 and 8

Lightblock and Build-outs – Aurora Shutters

LIGHTBLOCK, BUILD-OUTS AND I-POST



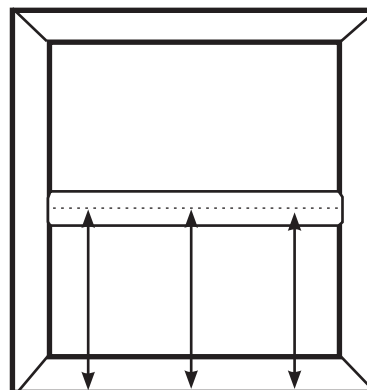
DIVIDER RAILS

Window opening measurements: Measure from bottom of window opening to center of divider rail location.

Trim-to-trim measurements: Measure from bottom of trim to center of divider rail location or sill to center of divider rail. (Option 1 with trim only)

Note: Must have four (4) louvers between any 2 rails.

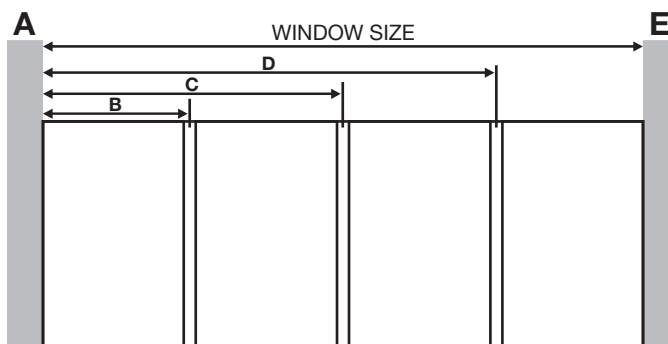
Divider rail width: 3".



I-POSTS

Window opening measurements: Measure from left side of window opening to center of any I-post location.

Trim-to-trim measurements: Measure from left edge of trim to center of I-post location. (Option 1 with trim only)



Pricing Information – Aurora Shutters

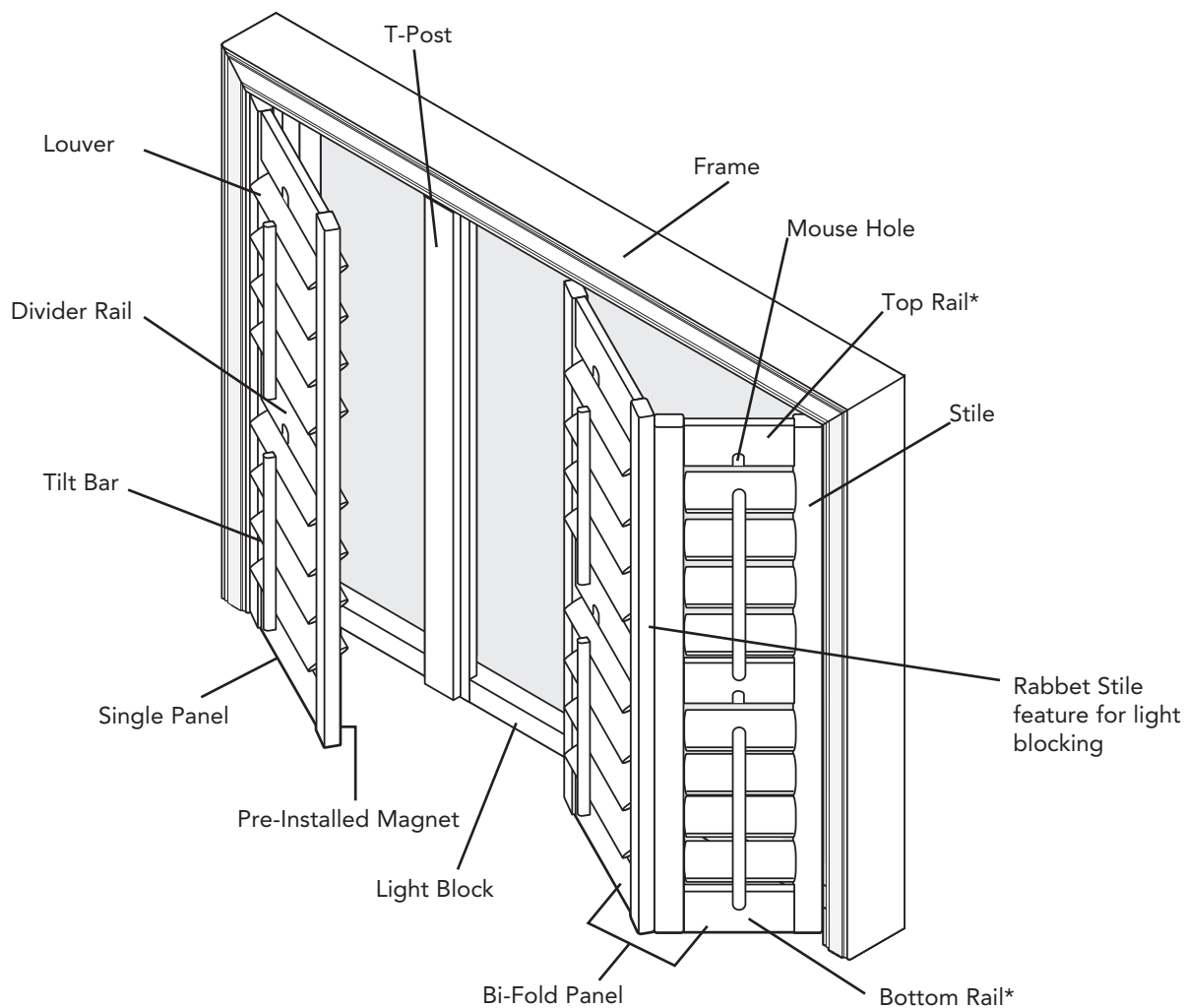
Aurora™ Shutter Pricing:

Measure Type

Trim to Trim, Install option 1 (windows with trim)	\$38.50 per sq. ft.
Window Opening, Install options 1-6.....	\$38.50 per sq. ft.
Window Opening, Install option 7-8	\$39.50 per sq. ft.
Split Tilt	\$16.00 per shutter
Hidden Tilt	\$54.00 per shutter

Wood Shutters

PRODUCT ILLUSTRATION

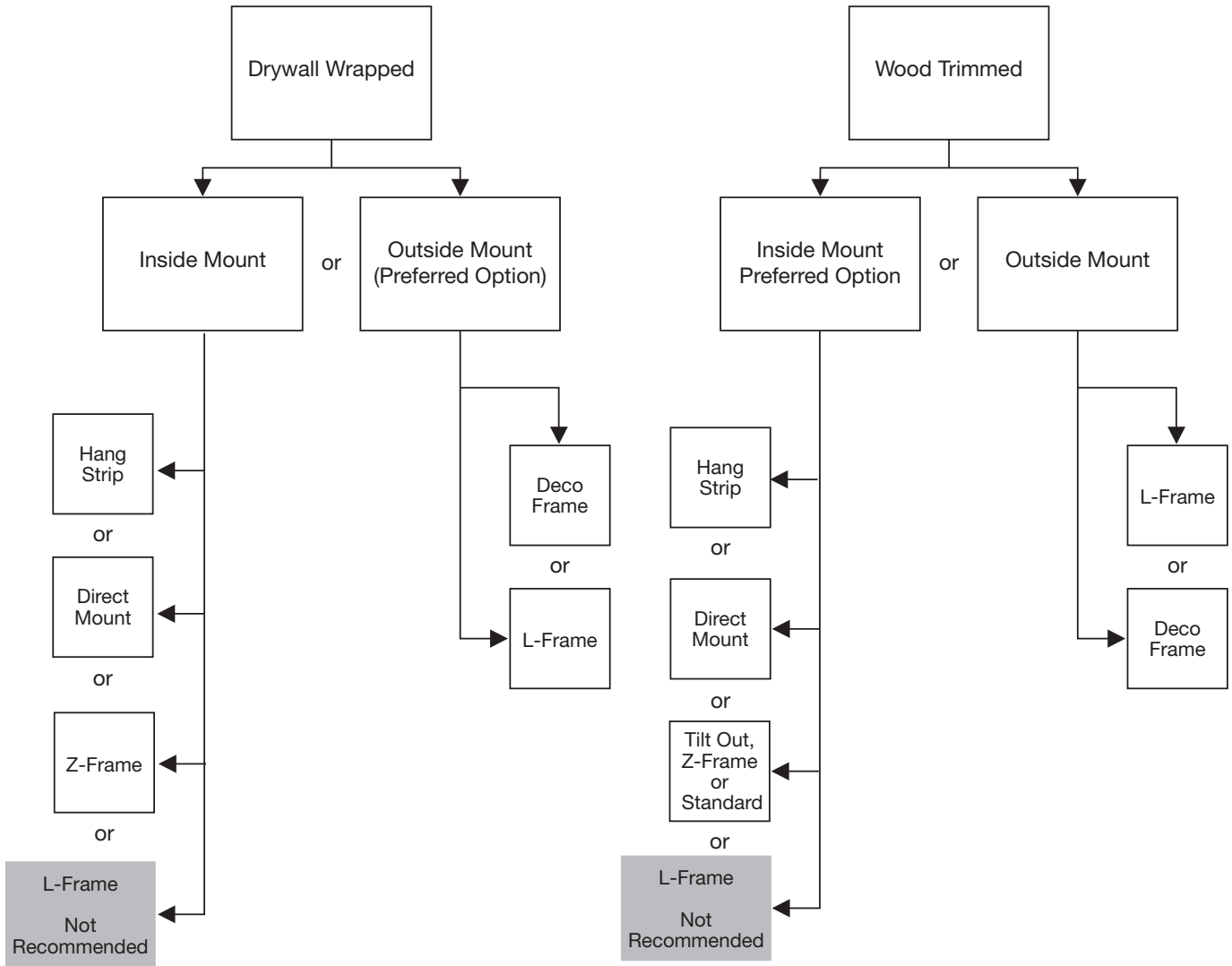


*Top and Bottom Rail heights will vary.

Mouse Hole – standard is top only
 – optional top and bottom (double mouse hole)

Shutter Frame Type Decision Tree

Review window and the area around the window. Choose from the options below.

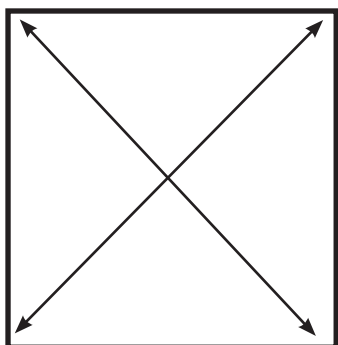


If window has a sill, configuration with a sill bottom is recommended

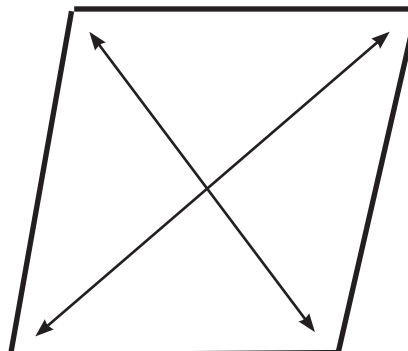
Measuring—Standard Shutters

Confirm that the window is square.

Measure the diagonals. If the difference between the two measurements is greater than ¼", an outside mount shutter is required.



OK



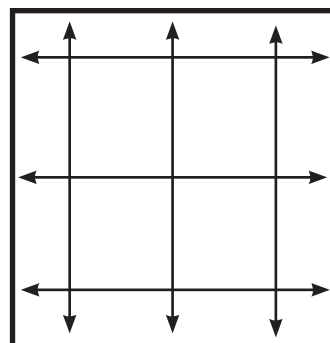
Not OK

Window Opening Measurement

Inside Mount with Hang Strips, Direct Mount, Z-Frame, Tilt-Z

Measure the width at three points and the height at three points. Use the smallest width and height measurements.

NOTE: Factory makes no allowances/deductions for Tilt-Z frame.

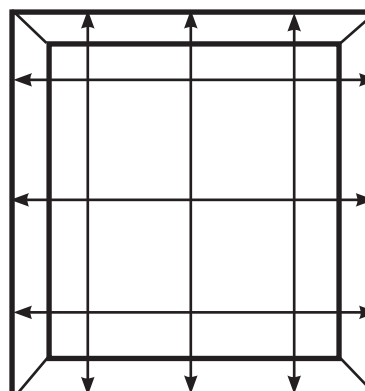


Frame-to-Frame Measurement

Required for L-Frame and Deco Frame

Place a sample of the L-frame or Deco frame on the window frame or wall to determine frame-to-frame placement.

Measure frame-to-frame width at three points and frame-to-frame height at three points. Use the largest width and height measurements.



NOTE: At least 1¾" flat surface is needed on each side of the window for an L-Frame.

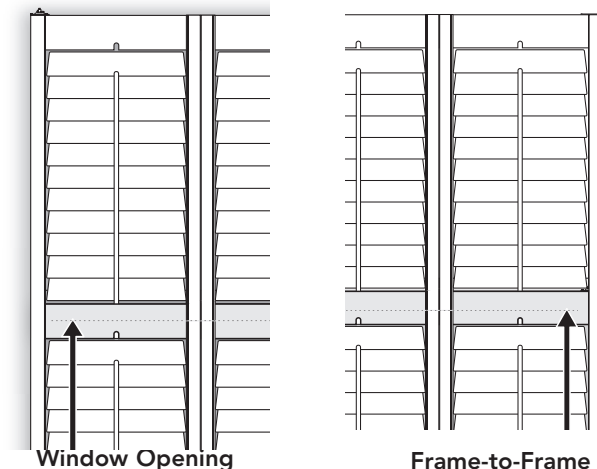
Helpful Hint: If shutters are in the same room and/or side by side, shutters must be ordered at the same height to ensure rail width, divider rail location, louver count and hinge quantity will match.

Measuring–Divider Rails and T-Posts

MEASURING DIVIDER RAIL

Always start from the bottom point of measure to center of the desired divider rail location. To measure frame-to-frame, measure from the bottom of the shutter frame up to the center of the desired rail location. To measure window opening, measure from the sill or bottom of the window opening to the center of the desired rail location.

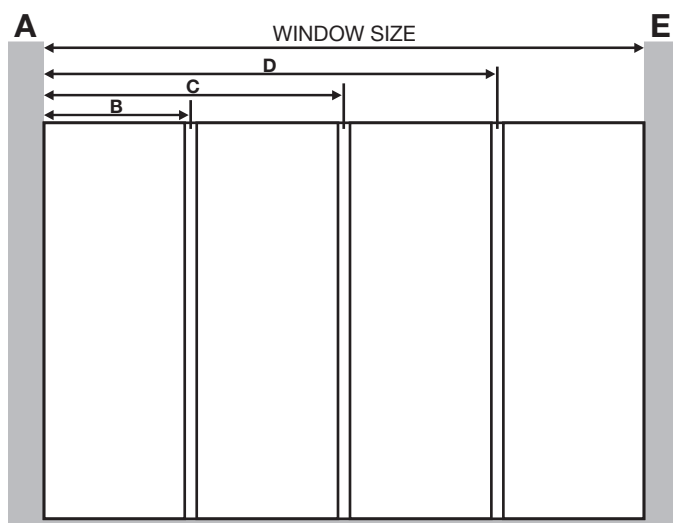
If there are two divider rails, measure from the bottom of measure type up to center of first rail location then measure from the bottom of measure type up to the center of the second rail location.



MEASURING T-POSTS

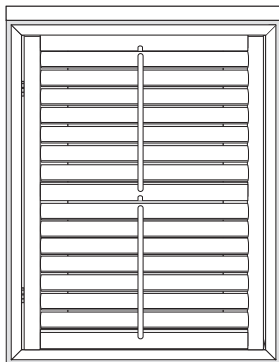
Always start from the left point of measure type to the center of the desired T-post location. To measure frame-to-frame, measure from the left of the shutter frame to the center of the desired T-post location. To measure window opening, measure from the left inside of the window opening to the center of the desired T-post location.

If there is more than one T-post measure from the left of measure type to the center of first T-post location, then measure from the left of measure type over to the center of the second T-post location etc.



ALWAYS measure from the same point the frame was measured. EXAMPLE: If measuring for L-Frame, frame-to-frame measure type, A is the outside edge of the L-Frame.

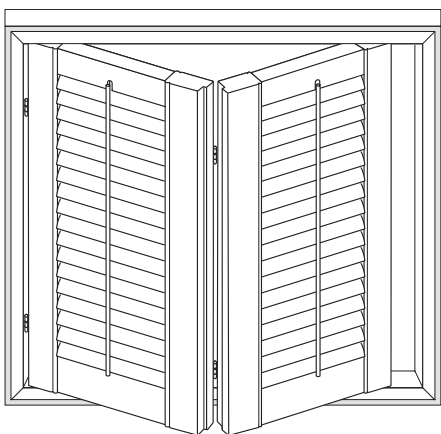
Shutter Styles



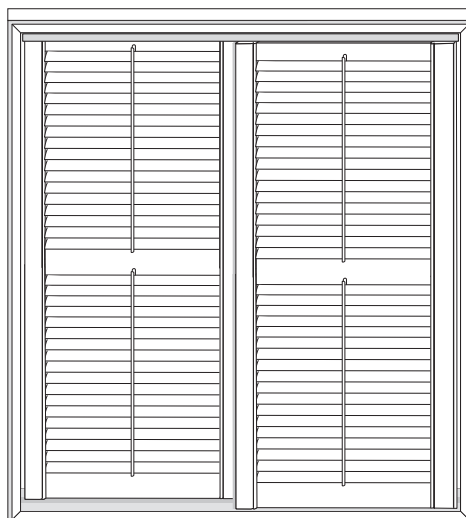
Standard Panel: A rectangular shaped panel that can be installed using any frame style.



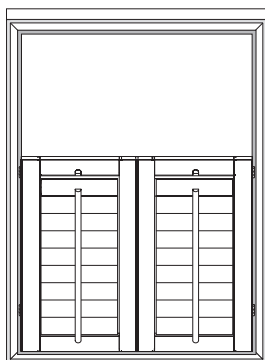
Bi-Fold Track System (wood only): Two or four panels are hinged together with a top and bottom track (see pages 47-49 for bi-fold information).



Bi-Fold: Two panels are hinged together and fold to lie flush.

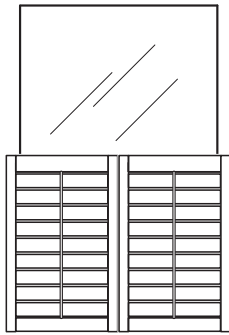


Bypass Track System: Shutter panels slide on a top track to open and close. The track system can be attached to a frame or mounted directly to a window casing or the ceiling. The most common approach is a 3-sided box-out with floor guides. Louvers must be closed before sliding panels (see pages 45-46, 49-50 for bypass information).

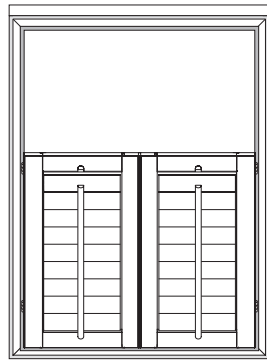


Café: Panels come standard with a magnet on the base of each panel; aligning catch at top of panels is optional.

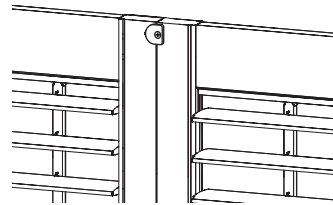
Café Shutters



Shown as 2 sided



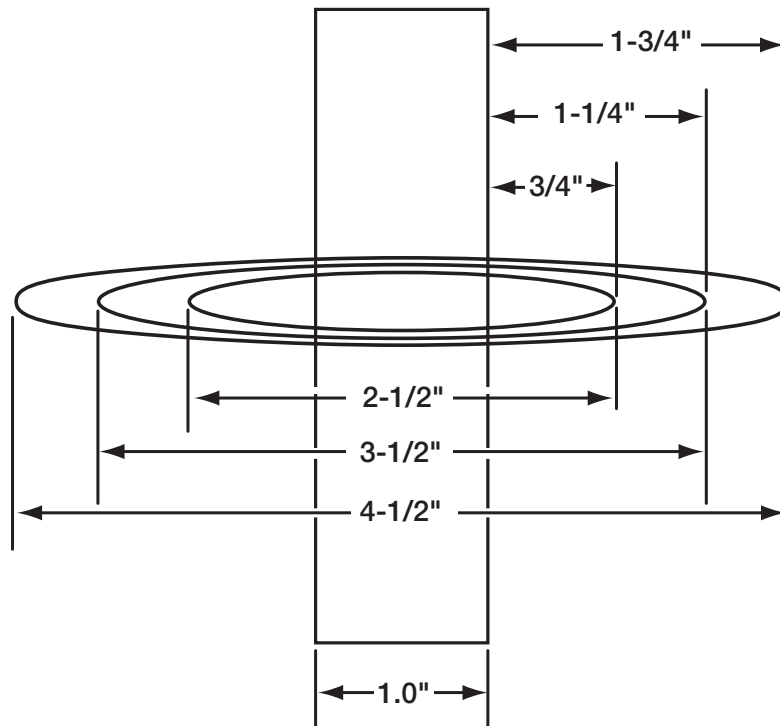
Shown as 4 sided



Rear view of Café Panel
Optional: Café Aligning Catch

- Tops of wood panels are finished.
- Tops of composite panels are NOT finished and are not recommended.
- Café shutter panels cover the lower portion of the window.
- Pricing is width x café panel height.
- Optional Café Aligning Catch
- Frame can be ordered to stop at panel height

Wood and Composite Louver Options



Note: Hide-a-Tilt requires an additional $\frac{3}{8}$ " window clearance

2½" Louver (Wood and Composite)

- Traditional in style and most widely used louver size
- Minimal window depth needed
- Shutters are focal point of the room
- Required clearance $\frac{3}{4}$ "
- Hide-a-tilt available; required clearance 1½"

3½" Louver (Wood and Composite)

- Offers more visibility and light control than small louver
- Design flexibility when working with space around shutter
- Required clearance 1¼"
- Hide-a-tilt available; required clearance 1⅝"

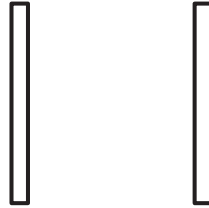
4½" Louver (Wood and Composite)

- Provides the greatest visibility through the open louvers
- Looks most proportionate in a larger window; view beyond the window becomes more important
- Louvers almost disappear when open
- Required clearance 1¾"
- Hide-a-tilt available; required clearance 2⅞"
- Not available on Composite Woodgrain colors

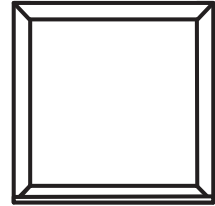
Wood and Composite Frame Configurations

2-sided

Hang strip with inside mount is available only in 2-sided frame (vertical). We will provide the light block at no charge for hang strip with inside mount.

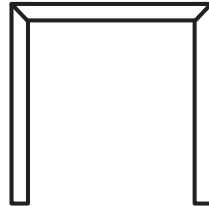


4-sided with sill bottom

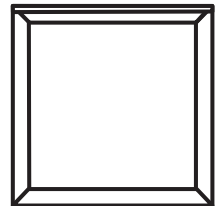


3-sided

Light block included at no charge.

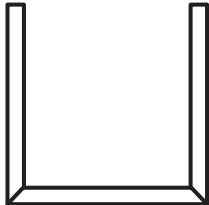


4-sided with sill top

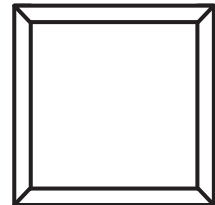


3-sided inverted

Light block included at no charge.

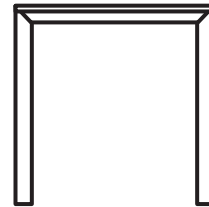


4-sided

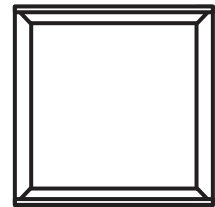


3-sided with sill top

Light block included at no charge.

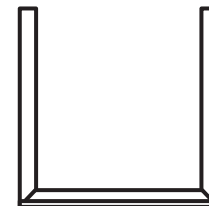


4-sided with sill top and bottom



3-sided inverted with sill bottom

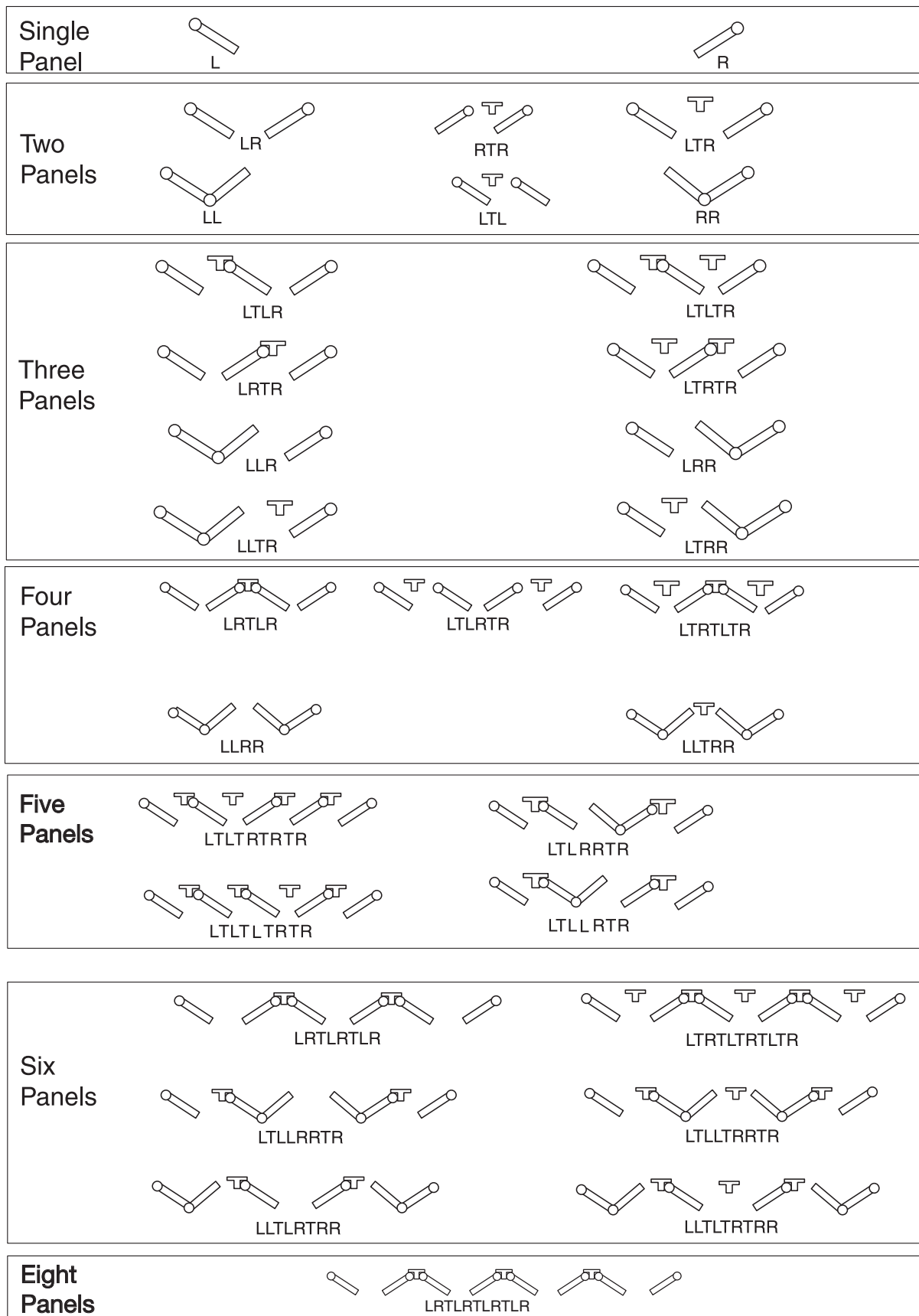
Light block included at no charge.



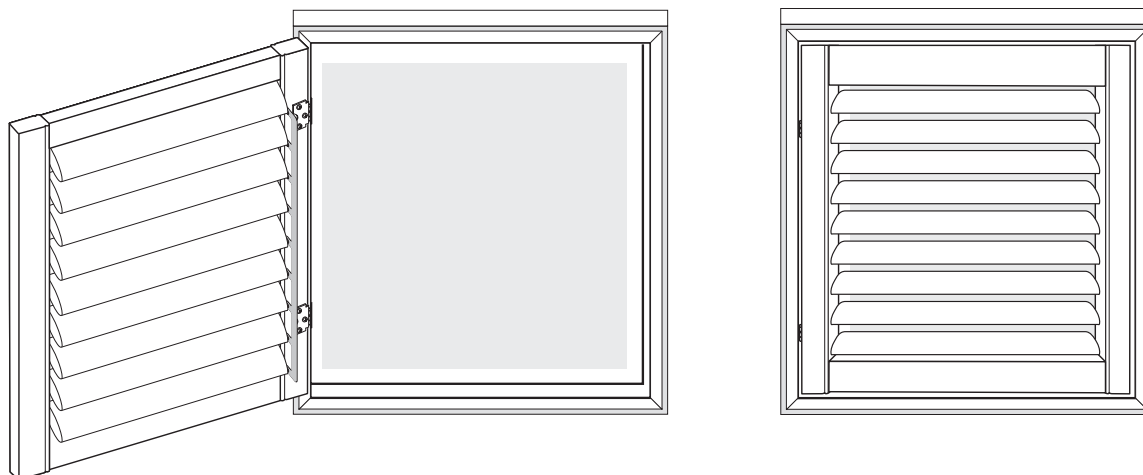
Direct mount includes four light blocks at no charge.

Wood and Composite Panel Configurations—Standard Shutters

STANDARD AND BI-FOLD PANEL-ONLY CONFIGURATIONS AVAILABLE



Wood and Composite Options



Hide-a-Tilt™ Option offers the tilt mechanism in the back of the shutter panel, eliminating the traditional tilt bar and creating an unobstructed view, as well as a clean linear appearance. A thin stainless steel tilt bar is attached to the louvers in the rear of the panel. Operation of the shutter is as simple as positioning one louver into position; all of the other louvers will follow. Hide-a-Tilt allows the shutter to be closed in the upward and downward position.

Available on wood and composite standard shutters, French doors, bi-fold or bypass with 2½", 3½" and 4½" louvers. To measure for a Hide-a-Tilt, use the traditional measuring procedure (page 26), and check for additional ⅜" clearance in the back of the shutter.

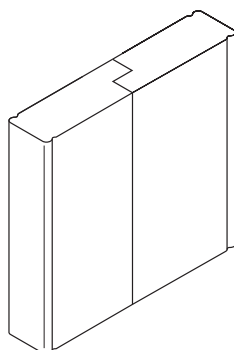
- Maximum height without divider rail is 72".
- **Hide-a-Tilt bar will always be stainless steel color**

ASTRAGAL PANEL OVERLAP STYLES FOR WOOD AND COMPOSITE SHUTTERS

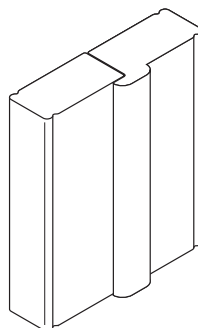
Rabbet and Astragal Style Overlap

- Rabbet - overlap is right over left
- Astragal - standard overlap will be right over left; optional overlap is left over right
- All panels on an order will have the same overlap
- Not available on Composite Woodgrain colors

*NOTE: Bi-Fold panels will be rabbetted between the panels.



Rabbet Style Panel Overlap

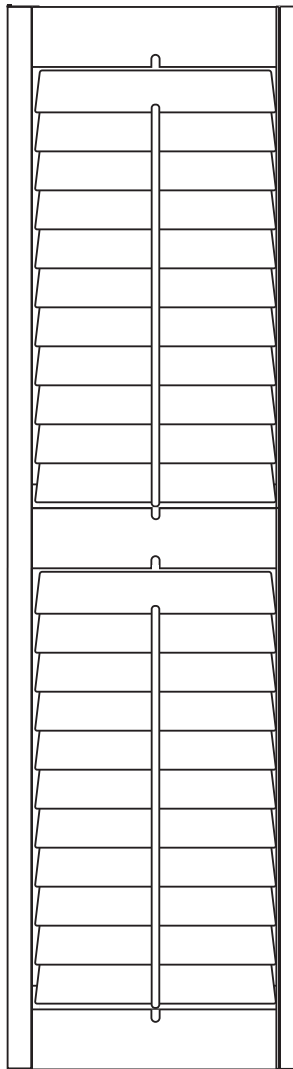
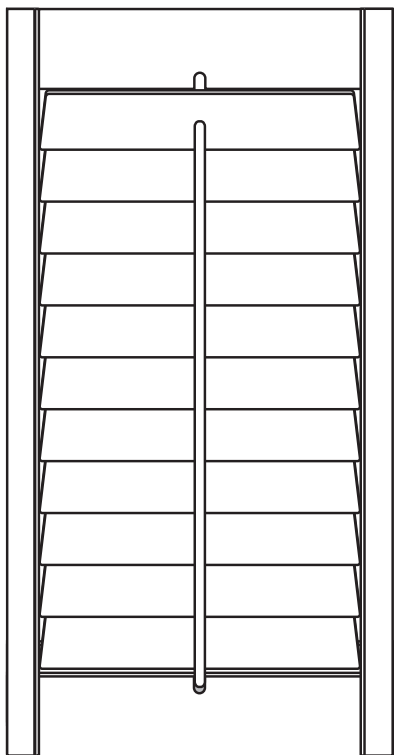


Astragal Style Panel Overlap

Wood and Composite Options

Double Mouse Hole for Wood and Composite Shutters

- A mouse hole on the rail above and below each louver section allows the louvers to be closed in the upward or downward position



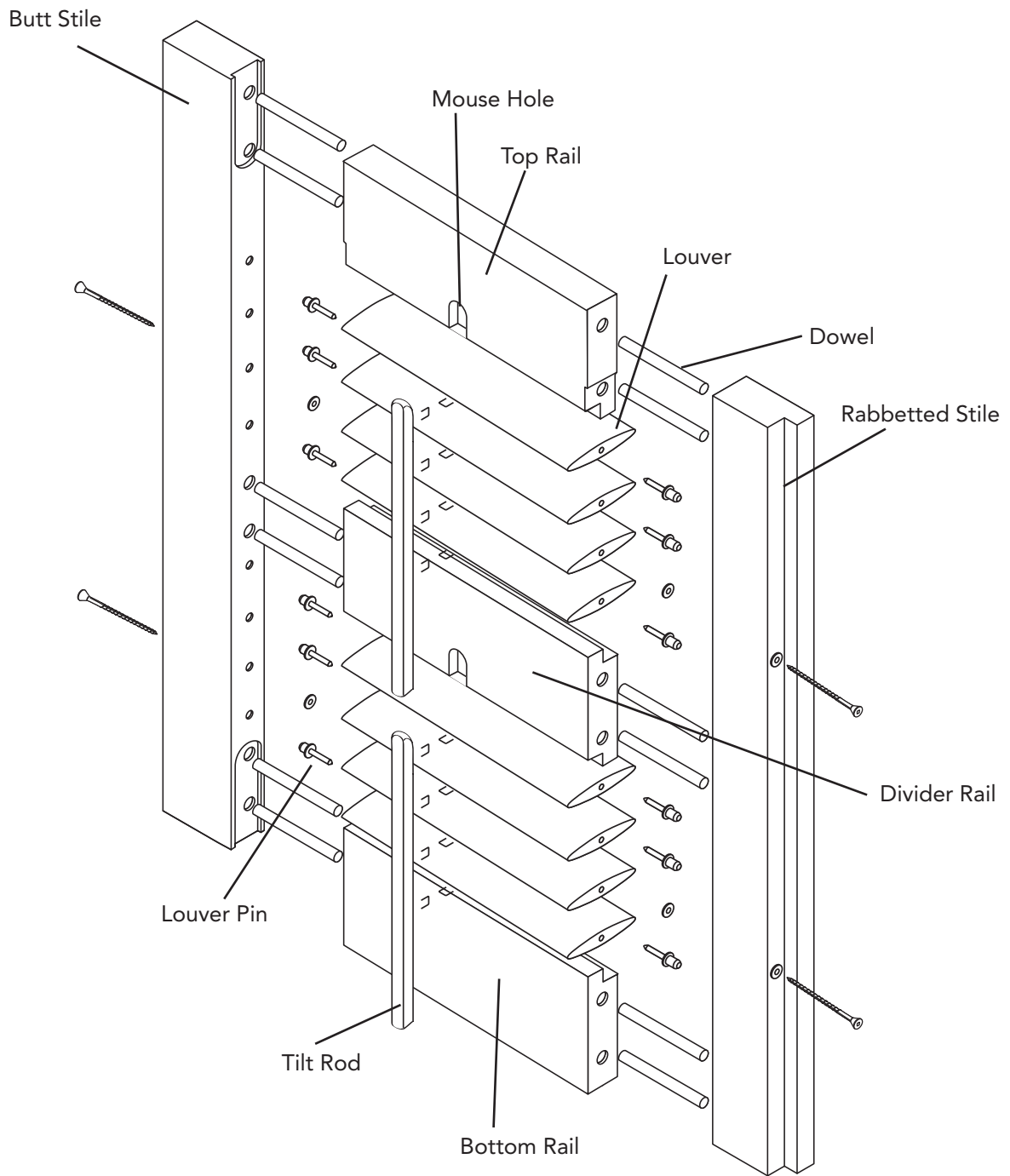
HARDWARE OPTIONS

Hinge Colors

Select the hardware color that best fits your decor:

- White
- Off White
- Antique Brass
- Oil Rubbed Bronze
- Satin Nickel
- Bright Brass

Wood Shutter Illustration



Graber Wood Characteristics

WOOD CHARACTERISTICS

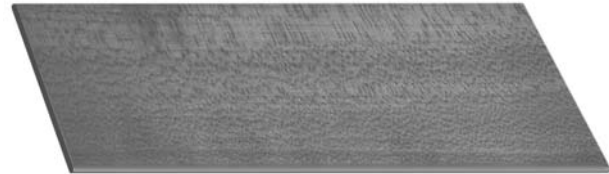
Wood used to manufacture wood shutters has many natural characteristics which make it truly unique... no two pieces of hardwood are alike. The following are all natural characteristics of wood, and we do not consider them to be defects:

- Grain – The direction, size, and appearance of wood fibers vary greatly depending on where the wood is cut within the tree
- Tiger Striping – Directional change in grain pattern
- Burl – Formed from an irregular growth on the outer edge of the tree
- Bird's Eye – Small area on the surface of the board where fibers are contorted to form circular figures that resemble birds' eyes
- Knots – Vary in size, shape, structure, and color (only solid knots less than $\frac{3}{8}$ " diameter are allowed)
- Mineral Marks – Dark or discolored areas caused by minerals which the tree extracts from the soil; they can be either streaks or stains, usually blackish blue

Natural variations in color and grain effect are inherent in the beauty of wood. These variations are within established industry guidelines and should be expected. In addition, shutters may stain slightly darker or lighter than the samples shown.



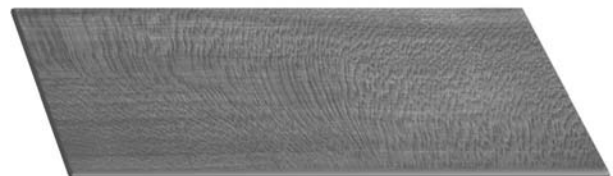
Flat Grain



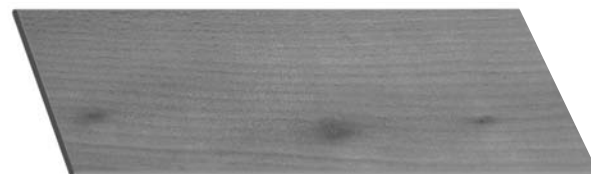
Grain Change



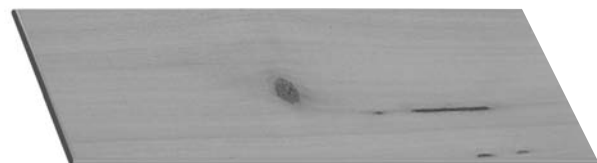
Mineral Marks



Tiger Striping



Burl/Bird's Eye



Knots

Wood Shutter Pricing

Wood Shutter Pricing:

Frame Type	Painted	Stained
Hang Strip, Direct Mount, Tilt-Z Frame (Window Opening only)	\$50.00 per sq. ft.	\$54.00 per sq. ft.
L-Frames (Frame to Frame only).....	\$50.00 per sq. ft.	\$54.00 per sq. ft.
Z-Frames (Window Opening only).....	\$52.00 per sq. ft.	\$56.00 per sq. ft.
Deco Frames (Frame to Frame only).....	\$52.00 per sq. ft.	\$56.00 per sq. ft.
Bi-fold or Bypass Inside Mount Track Systems**	\$54.00 per sq. ft.	\$58.00 per sq. ft.

Wood Specialty Shutters (with or without frames)	All Colors
Perfect Arches, Elongated and Eyebrow Arches	\$118.00 per sq. ft.
Arched Panels - arched panel square foot charge	
Square Foot Charge	\$110.00 per sq. ft.

Additional Surcharges	
Café Shutter with 4-sided frame5%
French Door Cut-Out*	\$500.00
Hidden Tilt Bar	10%
Bi-Fold or Bypass 3-sided Box-Out (outside mount only)**	15%
Bypass Decorative Valance	No charge
Bi-Fold or Bypass Stackback Surcharge**5%
Astragal	No charge
Café Aligning Catch	No charge

Custom Color (flat fee per color per order) Standard Shutters	\$75.00 net
Custom Color (flat fee per color per order) Specialty Shutters	\$150.00 net

*Calculate the overall square footage of the French Door panel using the L-Frame price; then add the surcharge.
 **Calculate the overall square footage of the Bypass or Bi-Fold panels. Use the overall square footage to calculate the surcharge for the Box-Out or Stackback surcharge.

Wood Shutter Color Options

COLORS AVAILABLE

Antique White	1026	Natural.....	1007	Additional Colors Available (NOT SAMPLED)	
Bone	1024	Peru	1688	Almond.....	1724
Cappuccino	1546	Putty	1410	Angora.....	1052
Cherry Wood.....	1014	Raven.....	1690	Base White	1051
Cognac	1465	Saddle Brown	1694	Bridgewood.....	1069
Dark Cherry	1316	Sienna.....	1685	Crisp White	1712
Designer White	1055	Snowflake	1603	Ivory.....	1325
Dover White	1683	Stark White.....	1869	Light Pecan.....	1020
Espresso	1716	Swiss Coffee.....	1692	Mocha.....	1759
Golden Oak.....	1030	Walnut	1012	Pinewood	1056
Honey Maple.....	1013	Wheat.....	1710	Sable.....	1565
Knotty Pine.....	1515			Stucco.....	1963
				Tawny	1045
				Truffle	1054

ADDITIONAL COLOR INFORMATION

- Due to the nature of manufacturing, colors may vary slightly between dye lots. Please order all shutters for the same room at the same time. Slight variations may also occur between the finished products and the color samples (see wood characteristics on page 32).

CUSTOM COLOR MATCH PROCESS

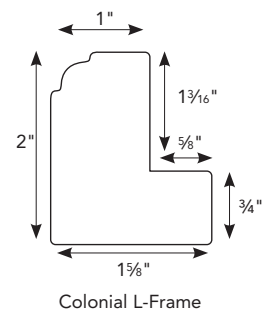
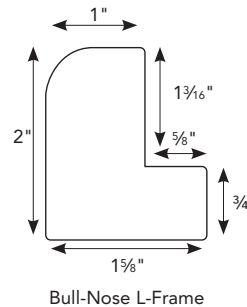
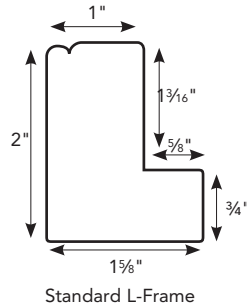
1. Complete the Custom Color Match Request Form.
2. Supply Springs Window Fashions with a color sample. For best results, submit a 3" x 3" color sample.
3. Send the form and the sample to:
Springs Window Fashions
8467 Route 405 South
P.O. Box 500
Montgomery, PA 17752
Attn: Shutter Department
4. Strike-off approval is required for all shutter orders.
5. Strike-offs will be sent for approval within 10-14 days of receiving the color sample.
6. Once color approval is received, fabrication of the custom shutters will begin.

Wood Shutter Frame Options

FRAME OPTIONS

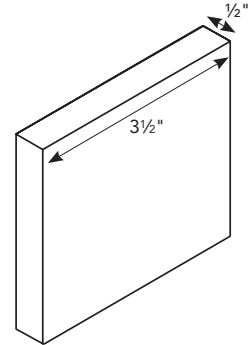
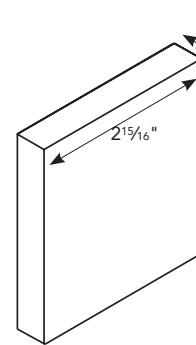
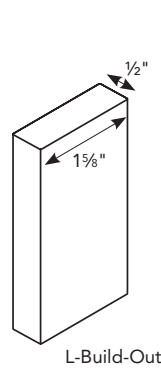
L-Frames

- Frame to frame measurement only
- Recommend outside mount only
- Frame Configuration (see page 27)
 - 2-sided
 - 3-sided
 - 3-sided inverted
 - 3-sided with sill top
 - 3-sided inverted with sill bottom
 - 4-sided with sill bottom
 - 4-sided with sill top
 - 4-sided
 - 4-sided with sill top and bottom
- Standard, Bull-Nose or Colonial L-Frame



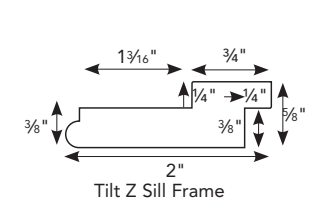
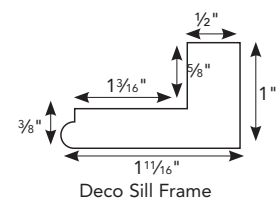
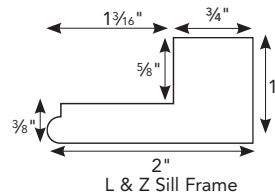
Build-Outs

- Used with L-Frames and Deco frames
- Maximum of 2" (4 pieces) per shutter; 1/2" increments



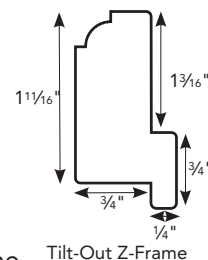
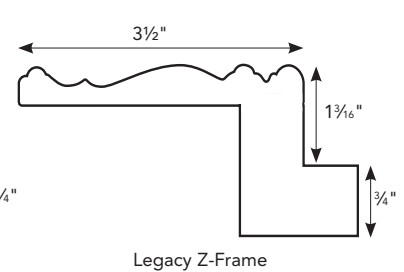
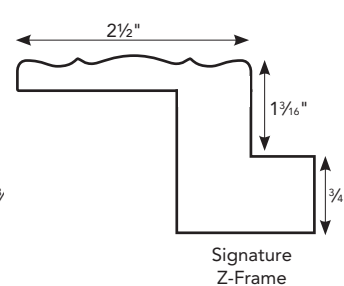
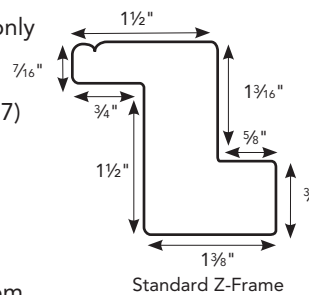
Sill Frames

- Offered with L, Z-Frames and Deco Frames
- Not available with Build-Outs



Z-Frames

- Window opening measurement only
- Inside mount only
- Frame Configuration (see page 27)
 - 2-sided
 - 3-sided
 - 3-sided inverted
 - 3-sided with sill top
 - 3-sided inverted with sill bottom
 - 4-sided with sill bottom
 - 4-sided with sill top
 - 4-sided
 - 4-sided with sill top and bottom
- Standard, Tilt-Out, Signature or Legacy Z-Frames



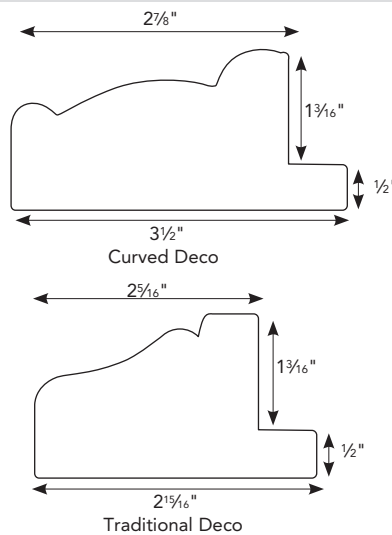
Windows larger than 96" may require splicing for the frame.

Wood Shutter Frame Options

FRAME OPTIONS

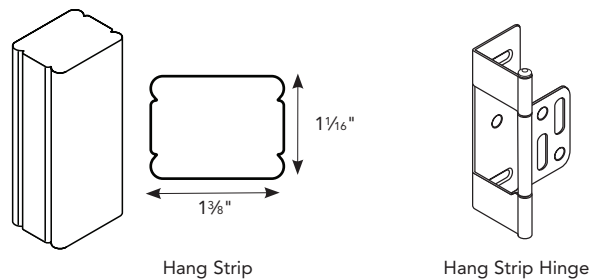
Deco Frame

- Frame to frame measure only
- Outside mount only
- Frame Configurations (see page 27):
 - 2-sided
 - 3-sided
 - 3-sided inverted
 - 3-sided with sill top
 - 3-sided inverted with sill bottom
 - 4-sided
 - 4-sided with sill bottom
 - 4-sided with sill top
 - 4-sided with sill top and bottom
- Curved Deco and Traditional Deco



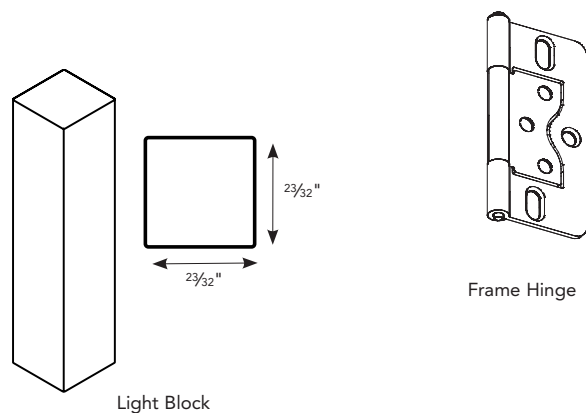
Hang Strip Frame

- Inside mount only, window opening measure only
- Frame Configuration
 - 2-sided frames with top and bottom light blocks
- Includes adjustable wrap-around hinge for easy installation
- Standard gap between shutter and window will be 1/8" to 3/16"
- Window opening must be square; diagonal measurements must be within 1/4" difference



Light Block

- Included with hang strip, direct mount, 3-sided and 2-sided frame types

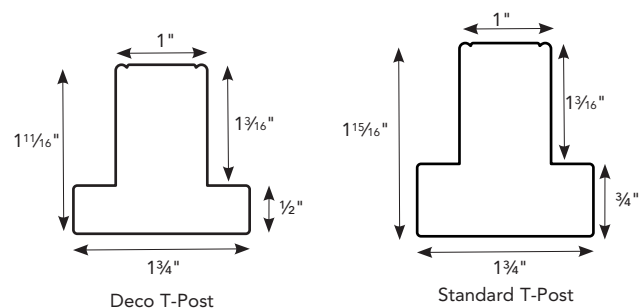


T-Post

- A vertical post that divides the panel into two sections (used with wider shutters).

Direct Mount

- Inside mount only, window opening measure only
- Four light blocks included
- Window opening should be square; diagonal measurements must be within 1/4" differences



Wood Frame Allowances

WOOD DIRECT MOUNT AND HANG STRIP FRAMES

Window Opening Measure Only

Window must be square (diagonal dimensions within 1/4" of each other)

Factory makes deductions - Width deduction = 3/16"
 Length deduction = 1/4"

NOTE: Frames will be 1/8" larger than panels

WOOD Z FRAME (STANDARD, 2 1/2 SIGNATURE AND 3 1/2 LEGACY Z)

Window Opening - Factory makes deductions. see below:

2 sided: width - 5/16" length - 0

3 sided: Width - 5/16" length - 5/32"

3 sided invert: Width - 5/16" length - 5/32"

3 sided sill top: Width - 5/16" length - 1/16"

3 sided invert sill bottom: Width - 5/16" length - 1/16"

4 sided: Width - 5/16" length - 5/16"

4 sided sill top: Width - 5/16" length - 5/32"

4 sided sill bottom: Width - 5/16" length - 5/32"

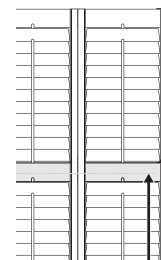
4 sided sill top and bottom: Width - 5/16" length - 1/16"

NOTE: Factory makes no deductions on Tilt-Z Frames.

DIVIDER RAIL REQUIREMENTS

2 1/2", 3 1/2" & 4 1/2" Wood Shutters

1. For panel up to 30" wide, divider rails are required over 84" height for added strength.
2. For panels wider than 30", 1 divider rail is required panel height over 60".
3. For panels wider than 30", 2 divider rails are required for panels over 78".
4. Divider rail can be requested (when not required) for design purposes.
5. A 3" divider rail is used with 2 1/2" and 3 1/2" louvers.
6. A 4" divider rail is used with 4 1/2" louvers.
7. Factory may shift rail up or down, (+ or - 2") to achieve uniform louver spacing.
8. Minimum louver set is 2" in each section.



Divider rail

HELPFUL HINT: If shutters are in the same room and/or side by side, shutters must be ordered at the same height to ensure divider rail location will match.

2½", 3½", 4½" Wood Shutters—Minimum/Maximum Order Sizes

2½", 3½" & 4½" WOOD SHUTTERS - Minimum and Maximum Order Sizes by Panel Configuration

PANEL CONFIGURATION	Examples of shutter configurations with combinations of panels and T-posts	DIRECT MOUNT, HANG STRIP, TILT OUT Z-FRAMES		Z-FRAMES		L-FRAMES		CURVED DECO FRAMES		TRADITIONAL DECO FRAME	
		Order W-O Size		Order W-O Size		Order F-F Size		F-F Size		F-F Size	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1 Panel		9¾"	36¾"	11"	38"	11¾"	38¾"	14 ¹⁵ / ₁₆ "	41 ¹⁵ / ₁₆ "	13 ³ / ₁₆ "	40 ¹³ / ₁₆ "
2 Panel		18 ¹ / ₁₆ "	72 ¹ / ₁₆ "	19 ⁷ / ₈ "	73 ⁷ / ₈ "	20 ¹ / ₁₆ "	74 ¹ / ₁₆ "	23 ¹³ / ₁₆ "	77 ¹³ / ₁₆ "	22 ¹ / ₁₆ "	76 ¹ / ₁₆ "
2 Panel, 1 T-Post		19 ³ / ₈ "	73 ³ / ₈ "	21 ³ / ₁₆ "	75 ³ / ₁₆ "	21 ³ / ₈ "	75 ³ / ₈ "	25 ¹ / ₈ "	79 ¹ / ₈ "	24"	78"
1 Bi-Fold		18 ¹ / ₁₆ "	52 ¹ / ₁₆ "	19 ⁷ / ₈ "	53 ⁷ / ₈ "	20 ¹ / ₁₆ "	54 ¹ / ₁₆ "	23 ¹³ / ₁₆ "	57 ¹³ / ₁₆ "	22 ¹ / ₁₆ "	56 ¹ / ₁₆ "
1 Panel, 1 Bi-Fold		27 ¹ / ₄ "	88 ¹ / ₄ "	29 ¹ / ₁₆ "	90 ¹ / ₁₆ "	29 ¹ / ₄ "	90 ¹ / ₄ "	33"	94"	31 ⁷ / ₈ "	92 ⁷ / ₈ "
1 Panel, 1 Bi-Fold, 1 T-Post		28 ³ / ₄ "	89 ³ / ₄ "	30 ¹ / ₁₆ "	91 ¹ / ₁₆ "	30 ¹ / ₄ "	91 ¹ / ₄ "	34"	95"	32 ⁷ / ₈ "	93 ⁷ / ₈ "
3 Panel, 1 T-Post		28 ³ / ₄ "	109 ³ / ₄ "	30 ¹ / ₁₆ "	111 ¹ / ₁₆ "	30 ¹ / ₄ "	111 ¹ / ₄ "	34"	115"	32 ⁷ / ₈ "	113 ⁷ / ₈ "
3 Panel, 2 T-Post		29 ⁹ / ₁₆ "	110 ⁹ / ₁₆ "	31 ³ / ₈ "	112 ³ / ₈ "	31 ¹ / ₁₆ "	112 ⁹ / ₁₆ "	35 ⁵ / ₁₆ "	116 ⁵ / ₁₆ "	34 ³ / ₁₆ "	115 ⁹ / ₁₆ "
2 Bi-Fold		36 ⁵ / ₁₆ "	104 ⁵ / ₁₆ "	38 ¹ / ₈ "	106 ¹ / ₈ "	38 ⁵ / ₁₆ "	106 ⁵ / ₁₆ "	42 ¹ / ₁₆ "	110 ¹ / ₁₆ "	40 ¹⁵ / ₁₆ "	108 ¹⁵ / ₁₆ "
2 Bi-Fold, 1 T-Post		37 ¹ / ₈ "	105 ¹ / ₈ "	38 ¹⁵ / ₁₆ "	106 ¹⁵ / ₁₆ "	39 ¹ / ₈ "	147 ¹ / ₈ "	47 ⁷ / ₈ "	110 ⁷ / ₈ "	41 ³ / ₄ "	109 ³ / ₄ "
4 Panel, 1 T-Post		37 ¹ / ₈ "	145 ¹ / ₈ "	38 ¹⁵ / ₁₆ "	146 ¹⁵ / ₁₆ "	39 ¹ / ₈ "	147 ¹ / ₈ "	42 ⁷ / ₈ "	150 ⁷ / ₈ "	41 ³ / ₄ "	149 ³ / ₄ "
4 Panel, 2 T-Post		38 ⁷ / ₁₆ "	146 ⁷ / ₁₆ "	40 ¹ / ₄ "	148 ¹ / ₄ "	40 ⁹ / ₁₆ "	148 ⁹ / ₁₆ "	44 ³ / ₁₆ "	152 ³ / ₁₆ "	43 ¹ / ₁₆ "	151 ¹ / ₁₆ "
4 Panel, 3 T-Post		39 ³ / ₄ "	147 ³ / ₄ "	41 ¹ / ₁₆ "	149 ¹ / ₁₆ "	41 ³ / ₄ "	149 ³ / ₄ "	45 ¹ / ₂ "	153 ¹ / ₂ "	44 ³ / ₈ "	152 ³ / ₈ "
5 Panel, 2 T-Post		47 ⁵ / ₈ "	162 ⁵ / ₈ "	51 ¹ / ₄ "	166 ¹ / ₄ "	51 ⁵ / ₈ "	166 ⁵ / ₈ "	51 ¹ / ₈ "	174 ¹ / ₈ "	56 ⁷ / ₈ "	171 ⁷ / ₈ "
5 Panel, 2 T-Post		47 ⁵ / ₈ "	162 ⁵ / ₈ "	51 ¹ / ₄ "	166 ¹ / ₄ "	51 ⁵ / ₈ "	166 ⁵ / ₈ "	51 ¹ / ₈ "	174 ¹ / ₈ "	56 ⁷ / ₈ "	171 ⁷ / ₈ "
5 Panel, 4 T-Post		49 ¹⁵ / ₁₆ "	184 ¹⁵ / ₁₆ "	53 ³ / ₁₆ "	188 ³ / ₁₆ "	53 ¹⁵ / ₁₆ "	188 ¹⁵ / ₁₆ "	60 ⁷ / ₁₆ "	195 ⁷ / ₁₆ "	57 ¹ / ₁₆ "	193 ¹³ / ₁₆ "
5 Panel, 4 T-Post		49 ¹⁵ / ₁₆ "	184 ¹⁵ / ₁₆ "	53 ³ / ₁₆ "	188 ³ / ₁₆ "	53 ¹⁵ / ₁₆ "	188 ¹⁵ / ₁₆ "	60 ⁷ / ₁₆ "	195 ⁷ / ₁₆ "	57 ¹ / ₁₆ "	193 ¹³ / ₁₆ "
2 Panel, 2 Bi-Fold, 2 T-Post		56 ³ / ₁₆ "	178 ¹ / ₁₆ "	58 ¹ / ₂ "	180 ¹ / ₂ "	58 ¹¹ / ₁₆ "	180 ¹ / ₁₆ "	62 ⁷ / ₁₆ "	184 ⁷ / ₁₆ "	61 ¹ / ₁₆ "	183 ⁵ / ₁₆ "
6 Panel, 2 T-Post		56 ³ / ₁₆ "	218 ³ / ₁₆ "	58"	220"	58 ³ / ₁₆ "	220 ³ / ₁₆ "	61 ¹ / ₁₆ "	223 ³ / ₁₆ "	60 ¹³ / ₁₆ "	222 ¹³ / ₁₆ "
2 Panel, 2 Bi-Fold, 3 T-Post		57 ¹ / ₂ "	179 ¹ / ₂ "	59 ⁵ / ₁₆ "	181 ⁵ / ₁₆ "	59 ¹ / ₂ "	181 ¹ / ₂ "	63 ¹ / ₄ "	185 ¹ / ₄ "	62 ⁷ / ₈ "	184 ⁷ / ₈ "
6 Panel, 5 T-Post		60 ⁷ / ₈ "	222 ⁷ / ₈ "	61 ¹⁵ / ₁₆ "	223 ¹⁵ / ₁₆ "	62 ⁷ / ₈ "	224 ⁷ / ₈ "	65 ⁵ / ₈ "	227 ⁵ / ₈ "	64 ³ / ₄ "	226 ³ / ₄ "
8 Panel, 3 T-Post		75 ¹ / ₄ "	291 ¹ / ₄ "	77 ¹ / ₁₆ "	293 ¹ / ₁₆ "	77 ¹ / ₄ "	293 ¹ / ₄ "	81"	297"	79 ⁷ / ₈ "	295 ⁷ / ₈ "

Windows larger than 96" may require splicing for the frame.

Wood Arches–Non-Perfect Arch Template

HOW TO MAKE A TEMPLATE (RECOMMENDED FOR INSIDE MOUNT FRAMELESS ARCHES)

1. Tape paper over the window opening, allowing plenty of overlap. See below for template material information.
2. Draw an exact outline of the window opening. Be careful NOT to press in or crease the paper of the template while tracing.
3. Remove the paper from the window opening and cut out the arch.
4. Place the template back on the window opening to verify size.
5. Mark the template with the following:
 - Room Side
 - Purchase Order Number
 - Customer's Name
 - Company Name and Account Number
 - Frame-to-frame measurement (width) of shutter panels below the arch if applicable
6. Attach a copy of the purchase order to the template.
7. Roll the template and place it in a mailing tube.
8. DO NOT FOLD THE TEMPLATE!

9. Mail to:
Springs Window Fashions
8467 Route 405 South
P.O. Box 500
Montgomery, PA 17752
Attn: Shutter Department

Acceptable Materials for Making a Template*

- Kraft type paper
- Butcher paper
- Lightweight poster paper that can be rolled without creasing

Non-Acceptable Materials for Making a Template

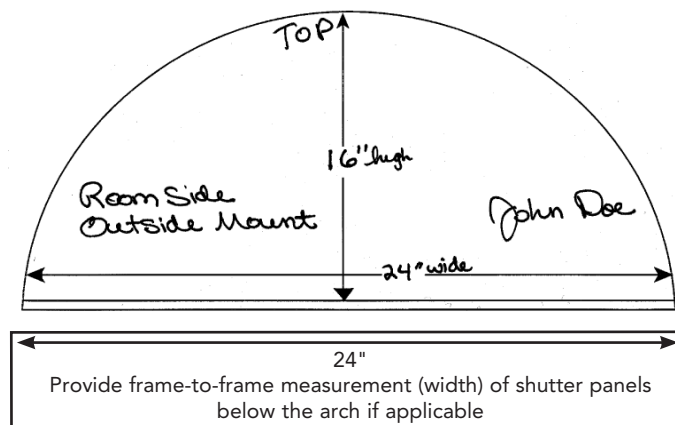
- Newspaper
- Wrapping paper
- Tissue paper
- Fabrics
- Wood
- Wax paper

If the material used to make a template stretches, tears easily, will not lay flat after being rolled, or will mark the product in any way, Springs Window Fashions will refuse to use the template and require a new one.

*Use only tape that will not pull off paint or wallpaper.

NOTE: Notify Customer Service at time of order if a template is being sent, otherwise order will be processed without.

Manufacturer will not add to or deduct from size. Provide finished size for frameless arches.



Frameless Wood Arches

Frameless Arches: Panel Only– Templates not Required

1. Beveled louvers for maximum light control.
2. Starburst pattern – no horizontal louvers.
3. Offered three ways: perfect, eyebrow and elongated.

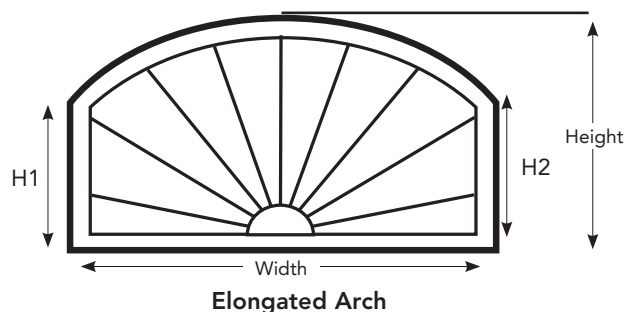
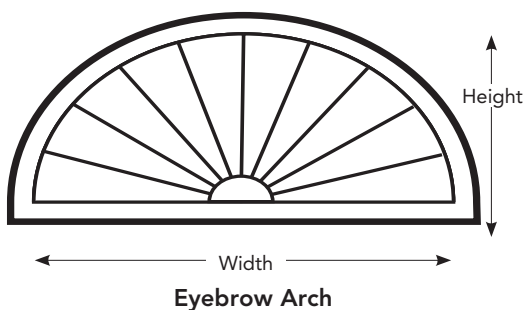
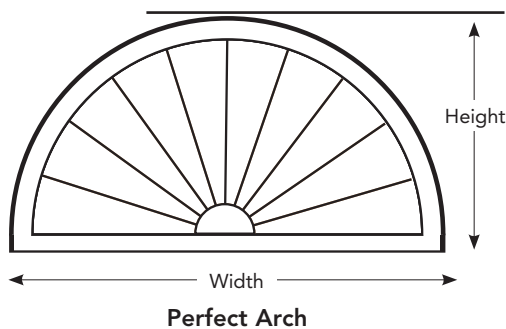
NOTE: Perfect arch – width must be exactly two times the height.

4. All wood color options and composite whites are available.
5. The arch has no tilt bar; the louvers open individually.
6. Allow sufficient wall space to mount. Panel-only arches that are:
 - 20"–24" wide: top frame 2" wide, bottom frame 1" wide
 - 24"–45" wide: top frame 3" wide, bottom frame 2" wide
 - 45"–80" wide: top frame 3" wide, bottom frame 3" wide
 - 80"–108" wide: top frame 4" wide, center support louver (non-functioning), bottom frame 4" wide

7. Panel is 1 1/16" thick and may not match projection of other outside mount standard shutters.

8. Order arch as frame-to-frame.

NOTE: If mounting arch inside take own deduction and order frame-to-frame. Template recommended.



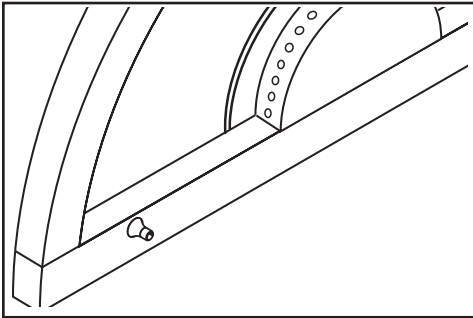
NOTE: Arches over 80" wide require a center non-operating louver for support.

Frameless Arch Minimum and Maximum Sizes				
Frameless - Panel Only	Width		Height	
	Minimum	Maximum	Minimum	Maximum
Perfect Arch (Height = 50% of width)	20"	108"	10"	54"
Eyebrow (Height = no less than 33% of width)	20"	108"	7"	54"
Elongated Arch (Height = no greater than 66% of width)	20"	108"	10"	71 1/4"

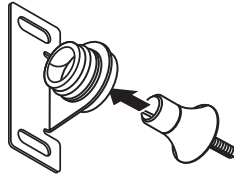
Wood Frameless Arches—Installation Methods

Frameless Arch Installation Methods

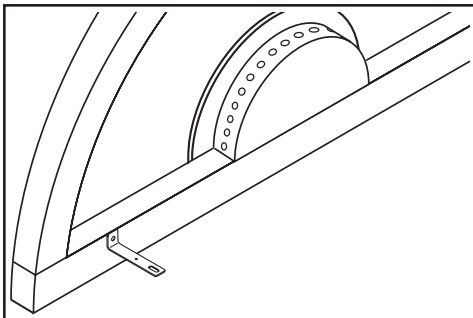
Arches arrive with the louvers pre-installed but louvers are removable for certain installations. Louvers are numbered on bottom edge from right to left for easy installation.



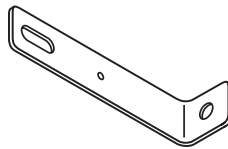
Bulldog catch works best with window openings that have a square edge. Allows arch panel to be removed for cleaning. Available in White.



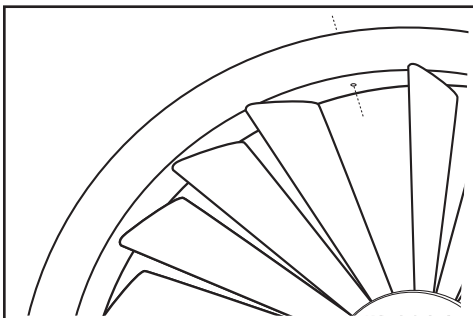
Suggested quantity usage: Less than 36" - 3
36" to 72" - 5
72" to 108" - 7



L-bracket works best with windows that have a bull-nosed edge. Long-throw on the L-bracket allows you to reach past the curved window edge to a flat surface.



Suggested quantity usage: Less than 36" - 5
36" to 72" - 7
72" to 108" - 9



If using trim head screws to mount, pilot a hole diagonally from underside of curved frame and exit through rear of frame. Place screw hole near louver pin to help hide hole from view.

Framed Wood Arches

Framed Arches – Templates not required.

1. Beveled louvers for maximum light control.
2. Starburst pattern – no horizontal louvers.
3. Offered 3 ways – perfect, eyebrow and elongated.

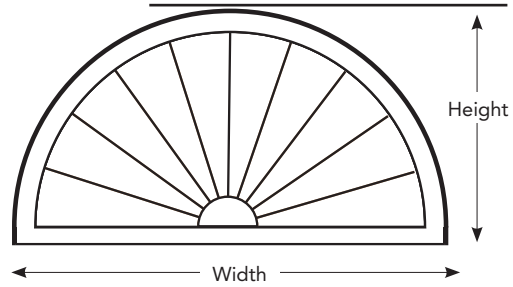
NOTE: Perfect arch – width must be exactly two times the height.

4. All wood color options and composite whites are available.
5. Arch has no tilt bar, louvers open individually.
6. Louvers are shipped installed but are removable.

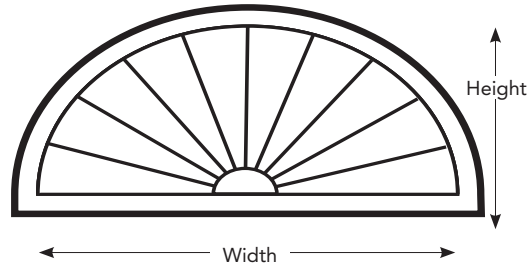
Frame Options (see pages 35-36)

- All L-Frames – outside mount only
Frame projections is 2". Measure frame-to-frame.
- All Deco Frames – outside mount only
Measure frame-to-frame.
- All Z-Frame – inside mount only
Always ordered as window opening size.

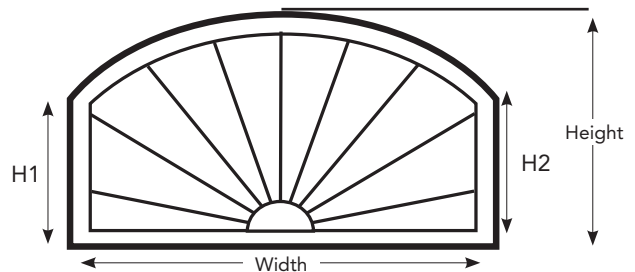
NOTE: Framed arches not available with Tilt-Z frame.



Perfect Arch



Eyebrow Arch

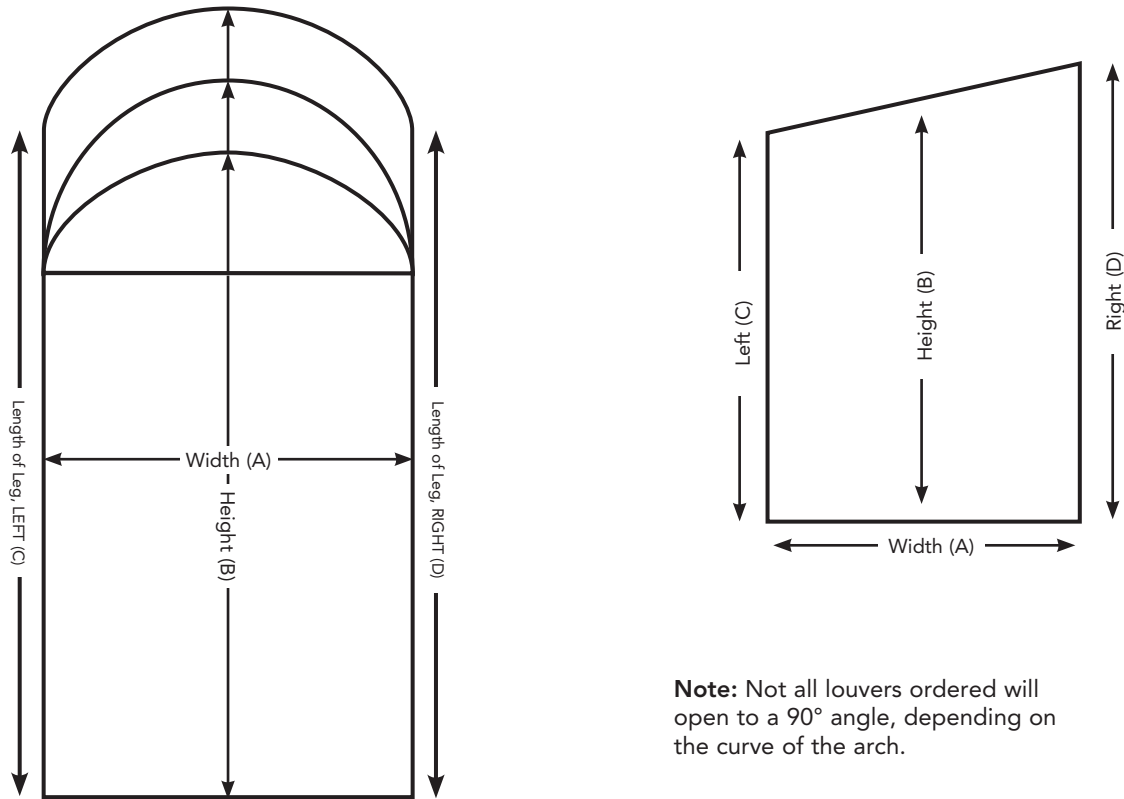


Elongated Arch

Order width and height limitations of framed arches				
Arch type	Width		Height	
	Minimum	Maximum	Minimum	Maximum
Perfect arch with L frames	22 $\frac{1}{8}$	110 $\frac{1}{8}$	12 $\frac{1}{8}$	56 $\frac{1}{8}$
Perfect arch with Z frames	21 $\frac{13}{16}$	109 $\frac{13}{16}$	11 $\frac{13}{16}$	55 $\frac{13}{16}$
Perfect arch with curved deco	27 $\frac{1}{8}$	115 $\frac{1}{8}$	17 $\frac{1}{8}$	71 $\frac{1}{8}$
Perfect arch with traditional deco	24 $\frac{3}{4}$	112 $\frac{3}{4}$	14 $\frac{3}{4}$	58 $\frac{3}{4}$
Eyebrow arch with L frames	22 $\frac{1}{8}$	110 $\frac{1}{8}$	9 $\frac{1}{8}$	56 $\frac{1}{8}$
Eyebrow arch with Z frames	21 $\frac{13}{16}$	109 $\frac{13}{16}$	8 $\frac{13}{16}$	55 $\frac{13}{16}$
Eyebrow arch with curved deco	27 $\frac{1}{8}$	115 $\frac{1}{8}$	14 $\frac{1}{8}$	71 $\frac{1}{8}$
Eyebrow arch with traditional deco	24 $\frac{3}{4}$	112 $\frac{3}{4}$	11 $\frac{3}{4}$	58 $\frac{3}{4}$
Elongated arch with L frames	22 $\frac{1}{8}$	110 $\frac{1}{8}$	12 $\frac{1}{8}$	73 $\frac{1}{8}$
Elongated arch with Z frames	21 $\frac{13}{16}$	109 $\frac{13}{16}$	11 $\frac{13}{16}$	73 $\frac{1}{16}$
Elongated arch with curved deco	27 $\frac{1}{8}$	115 $\frac{1}{8}$	17 $\frac{1}{8}$	78 $\frac{1}{8}$
Elongated arch with traditional deco	24 $\frac{3}{4}$	112 $\frac{3}{4}$	14 $\frac{3}{4}$	76

Wood Arched Panel Shutter Measure Sheet

MEASURING



Note: Not all louvers ordered will open to a 90° angle, depending on the curve of the arch.

Ordered Width Limitations for Arched and Rake Panel Shutters

Panel Configurations	Window Opening				Frame-to-Frame					
	Hang Strip		Z Frames		L Frames		Traditional Deco Frame		Curved Deco Frame	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
L/R	9 ³ / ₁₆	36 ³ / ₁₆	11	38	11 ³ / ₁₆	38 ³ / ₁₆	13 ¹³ / ₁₆	40 ¹³ / ₁₆	14 ¹⁵ / ₁₆	41 ¹⁵ / ₁₆
LL/RR	18 ¹ / ₁₆	52 ¹ / ₁₆	19 ⁷ / ₈	53 ³ / ₈	20 ¹ / ₁₆	54 ¹ / ₁₆	22 ¹¹ / ₁₆	56 ¹¹ / ₁₆	23 ¹³ / ₁₆	57 ¹³ / ₁₆
LR	18 ¹ / ₁₆	72 ¹ / ₁₆	19 ⁷ / ₈	73 ³ / ₈	20 ¹ / ₁₆	74 ¹ / ₁₆	22 ¹¹ / ₁₆	76 ¹¹ / ₁₆	23 ¹³ / ₁₆	77 ¹³ / ₁₆
LLRR	36 ³ / ₁₆	104 ³ / ₁₆	38 ³ / ₈	106 ³ / ₈	38 ³ / ₁₆	106 ³ / ₁₆	40 ¹⁵ / ₁₆	108 ¹⁵ / ₁₆	42 ¹ / ₁₆	110 ¹ / ₁₆

Ordered Height Limitations for Arched and Rake Panel Shutters

	Frame Configuration	Frame type	Minimum		Maximum
			2.5/3.5 Louvers	4.5 Louver	2.5/3.5/4.5 Louver
Window Opening	2 side	Hang strip/direct mount	15 ¹ / ₄	20 ¹ / ₄	120 ¹ / ₄
	3 sided	Z frames	16 ¹ / ₈	21 ¹ / ₈	121 ¹ / ₈
	4 sided with sill bottom	Z frames	16 ¹ / ₈	21 ¹ / ₈	121 ¹ / ₈
	4 side	Z frames	17 ¹ / ₁₆	22 ¹ / ₁₆	122 ¹ / ₁₆
Frame-to-Frame	3 sided	L frame	16 ¹ / ₄	21 ¹ / ₄	121 ¹ / ₄
	4 sided with sill bottom	L frame	16 ³ / ₄	21 ³ / ₄	121 ³ / ₄
	4 sided	L frame	17 ¹ / ₄	22 ¹ / ₄	122 ¹ / ₄
	3 sided	Deco curve	18 ¹ / ₈	23 ¹ / ₈	123 ¹ / ₈
	4 sided with sill bottom	Deco curve	18 ¹ / ₂	23 ¹ / ₂	123 ¹ / ₂
	4 sided	Deco curve	21	26	126
	3 sided	Traditional deco	17 ¹ / ₁₆	22 ² / ₁₆	122 ² / ₁₆
	4 sided with sill bottom	Traditional deco	17 ¹⁵ / ₁₆	22 ¹⁵ / ₁₆	122 ¹⁵ / ₁₆
4 side	Traditional deco	19 ¹ / ₈	24 ¹ / ₈	124 ¹ / ₈	

Frame Types Available (see pages 35-36)

- All L-Frames, all Deco Frames – order as Frame to Frame
- All Z-Frames (except Tilt-Z) – order as Window Opening
- Astragal, Hide-A-Tilt and Split Tilt available.
- 2¹/₂" , 3¹/₂" & 4¹/₂" louvers available
- All wood color options available

Wood French Door Shutters

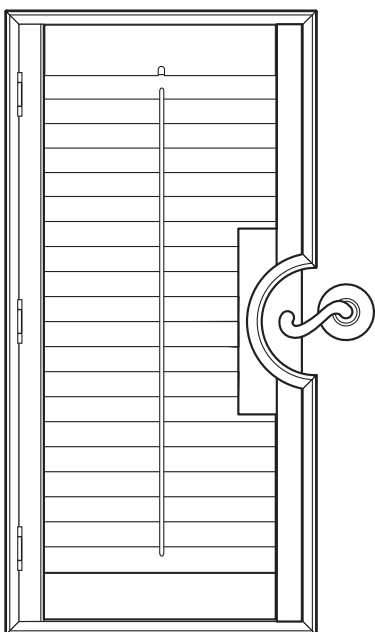
FRENCH DOOR OPTIONS – WOOD SHUTTERS ONLY

- Shutters for French Doors are outside mount only
- Single panels hinged on the same side as the door
- Three options are available: L-Frame with curved cut-out, L-Frame (no cut-out), L-Frame with rectangular cut-out
- Order frame-to-frame
- 2½", 3½" and 4½" louvers only
- Hide-a-Tilt, Split Tilt and double mouse hole available
- All wood color options are available
- Two cut-out options allow for handle function: Curved and Rectangular
- L-Frames include Standard L, Bullnose L and Colonial L
- Build-outs are provided as needed
- Divider rails are not available
- Button catches plus magnets are standard to provide for a secure closure

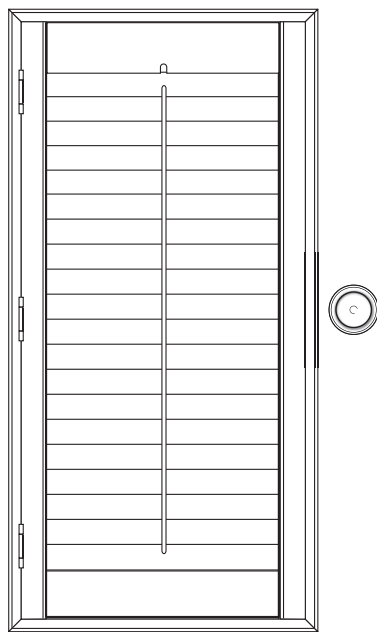
NOTE: All French Door shutters for cut-out and no cut-out should be ordered at the same time.

MINIMUM/MAXIMUM FRENCH DOOR SIZES

	Width	Height
Minimum	16¾"	37¾"
Maximum	38¾"	90¾"

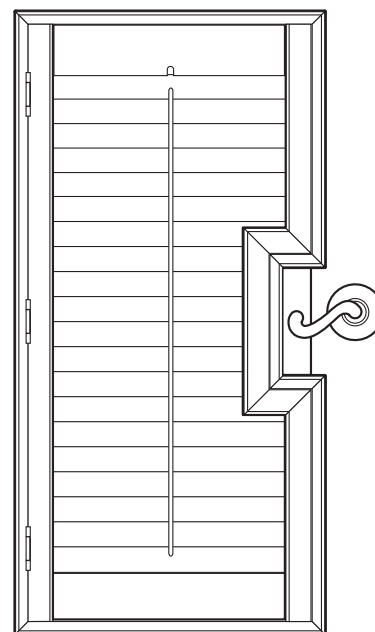


L-Frame with Curved Cut-Out
(Surcharge applies)



L-Frame
No Cut-Out

This should only be ordered when installed next to a French door with cut-out, otherwise order it as a standard shutter.

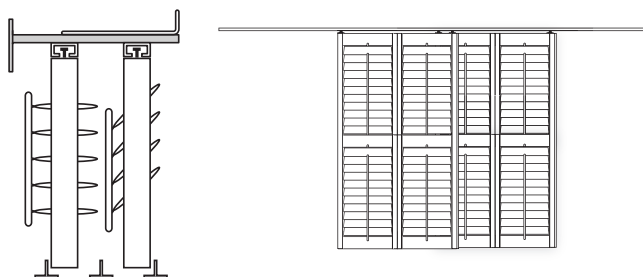


L-Frame with Rectangular
Cut-Out (Surcharge applies)

Wood and Composite Bypass Shutters

BYPASS TRACK SYSTEM

- All wood colors options available, whites only in composite
- Ideal solution for large windows and patio doors
- Outside mount with 3-Sided Box-Out is recommended
- System consists of a double-top track and floor guides
- Available in 2½" and 3½" louver sizes
- Available with Hide-a-Tilt
- Available with Double Mouse Hole
- Minimum and maximum order sizes on page 50 (Factory to determine panel size based on width ordered and configuration.)



OUTSIDE MOUNT NOTES

Width Measurement (with Box-Out): If no window trim: measure window opening size. If window trim: measure outside edge of trim to outside edge of trim. Factory will add ¾" to your overall ordered width. Note: When measuring, add more for bullnose so that frames mount completely on flat surface.

Width Measurement (without Box-Out): If no window trim: measure window opening. If window trim: measure outside edge of trim to outside edge of trim. Factory will add ¼" to your overall ordered width. Note: When measuring, add more to extend beyond window edge for privacy purposes and add more for bullnose so that frames mount completely on flat surface.

Height Measurement (with or without Box-Out): If no window trim: measure from floor surface to top of window opening. If window trim: measure to top of window trim. Factory will add 2⅝" to your overall ordered height.

Other Measurement Considerations: If there are window moldings, factory can accommodate only up to ½" thick molding when using 3½" louvers and Hide-a-Tilt.

Track and Header Board: Unit includes track installed to header. Header is 5½" deep and ¾" thick.

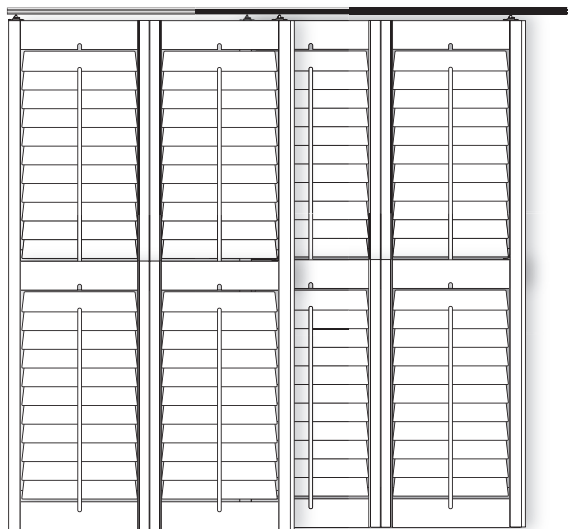
Valances and Returns: Two top-treatment styles are available: standard 5" double-bead valance and the optional 4½" decorative valance. Valance returns are included and wrap around the outside of the Box-Out (frame). Returns are mitered and are 5⅞" (inside measure). Refer to page 50 for valance options.

Box-Out (side frames): Optional Box-Out (side frames) are available for outside mount bypass shutters. Box-Out Frame is ¾" x 5½".

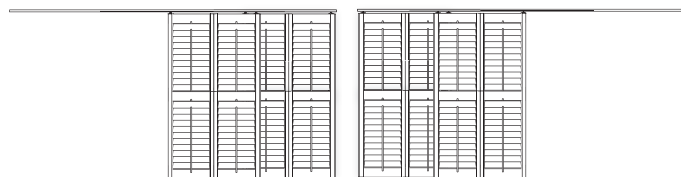
Stackback: Optional Stackback is available for outside mount bypass shutters. Custom Stackback widths are available. See details on page 50.

Configuration Options:

- Outside mount with Box-Out
- Outside mount without Box-Out
- Outside mount with full Stackback (with or without Box-Out) or custom header
- Inside mount, minimum window depth 5⅜"



NOTE: Louvers must be closed in order for panels to pass each other.



INSIDE MOUNT NOTES

Width Measurement: Order W-O (window opening) and provide net window width. Factory will make a ½" deduction from the track for proper fit.

Height Measurement: Order W-O (window opening) and provide net window height. Factory will make approximately ½" deduction. Carriers are adjustable.

Other Measurement Considerations: Minimum window depth requirement 5⅜".

Track and Header Board: Unit includes track installed to header. Header is 5½" deep and ¾" thick.

Valances and Returns: Two top-treatment styles are available: standard 5" double-bead valance and the optional 4½" decorative valance. No returns are available. Valance ends are not mitered. Refer to page 50 for valance options.

Box-Out (side frames): Box-Out (side frames) are not available.

Stackback: Stackback is not available for inside mount bypass shutters.

Wood and Composite Bypass Shutters

BYPASS SHUTTER – MINIMUM/MAXIMUM ORDER SIZES BY PANEL CONFIGURATION

Panel Configuration	Example of shutter unit configurations using various panel combinations	WOOD				COMPOSITE			
		Outside Mount*		Inside Mount		Outside Mount*		Inside Mount	
		Order W-O Size		Order W-O Size		Order W-O Size		Order W-O Size	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1L / 1R		18"	70"	20"	71"	18"	58"	20"	59"
1L / 1C / 1R		27½"	104"	28½"	106½"	27½"	86"	28½"	88½"
1L / 1C / 1C / 1R		37"	141"	38"	142"	37"	117"	38"	118"
2L / 2R		37¾"	141¾"	38¾"	142¾"	37¾"	117¾"	38¾"	118¾"
2L / 1C / 1C / 2R		56"	212"	58⅞"	213"	56"	176"	58⅞"	177"
2L / 2C / 2R		57⅞"	213⅞"	58⅞"	213"	57⅞"	177⅞"	58⅞"	177¼"
2L / 2C / 2C / 2R		76½"	284½"	77½"	285½"	76½"	236½"	77½"	237½"

*Same minimum/maximum sizes apply if ordered with Stackback options and with or without Box-Out.
NOTE: Header, side frame and valance will be wood on Composite Bypass. Panels will be composite.

Options	Minimum	Maximum
Outside mount	15⅜	96⅜
Inside mount	17¼	98¼

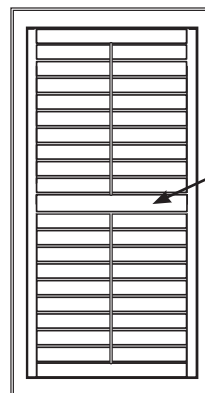
Options	Minimum	Maximum
Outside mount	15⅜	120⅜
Inside mount	17¼	122¼

Wood Bypass Shutter Divider Rail Requirements

- 1st divider rail required over 84" ordered height
- 2nd divider rail required over 100" ordered height

Composite Bypass Shutter Divider Rail Requirements

- Divider rail required over 72" ordered height
- Only one divider rail available



Divider Rail

- Tracks wider than 144" will be spliced
- Header and valance could be spliced over 96"

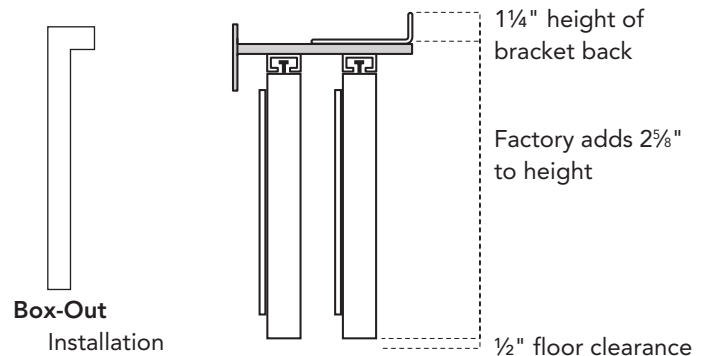
SETTING BRACKET HEIGHT

(for outside mount without side frames)

For Wall Mount Bypass Shutter System
Top of Angle Bracket to Floor:

Top of bracket will be 3⅞" above ordered height. This includes ½" clearance off the floor.

Note: With optional Box-Out, side frames determine the mounting height. Bottom edge of side frame is meant to touch the floor surface.

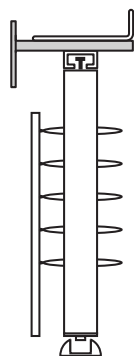
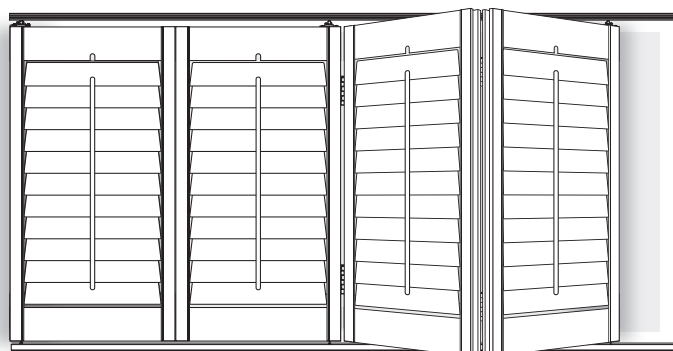


Wood Bi-fold Track System Shutters

BI-FOLD TRACK SYSTEM

- All wood colors options are available
 - System consists of top and bottom track and quarter-round as standard
 - Available in 2½" and 3½" louver sizes
 - Available with Hide-a-Tilt
 - Available with double mouse hole
 - Minimum and maximum order sizes on page 48.
- Outside mount with Box-Out
 - Outside mount with optional Stackback (with Box-Out)
 - Inside mount, minimum window depth 3⅝"

Configuration Options:



Bottom Track Detail

Installer screws the track to the floor and attaches "quarter-round" up to the face of the track (and along the back of the track, if needed).

Note: Factory does not supply adhesive, trim nails or other fasteners to install quarter-round.

Note: Factory always furnishes bottom track. Installer determines whether bottom track is needed.

OUTSIDE MOUNT NOTES

Width Measurement (using the required Box-Out): If no window trim: measure window opening (W-O) size. If window trim: measure outside edge of trim to outside edge of trim. Factory will add 5" to your overall ordered width. Note: When measuring, add more for bullnose so that frames mount completely on flat surface.

Height Measurement: If no window trim: measure from floor surface to top of window opening. If window trim: measure to top of window trim. Factory will add 3½" to your overall ordered height.

Other Measurement Considerations: If there are window moldings, factory can accommodate only up to ½" thick molding when using 3½" louvers and Hidden Tilt.

Track and Header Board: Unit includes track installed to header board. Header is 3½" deep and ¾" thick.

Valances and Returns: One top-treatment style is available: standard 2⅜" single-bead valance. Valance returns are included and wrap around the outside of the Box-Out (frame). Returns are mitered and are 3⅞" (inside measurement). Refer to page 50 for valance options.

Box-Out (side frames): Sides frames are required for securing the pivot set of outer most panels. Box-Out Frame is ¾" x 3½".

Stackback available: Optional Stackback is available for outside mount bi-fold shutters. Custom Stackback widths are available. See page 50.

INSIDE MOUNT NOTES

Width Measurement: Order W-O (window opening) and provide net window width. Factory will make a ½" deduction from the track for proper fit.

Height Measurement: Order W-O (window opening) and provide net window height. Factory will make approximately ½" deduction. Carriers are adjustable.

Other Measurement Considerations: Minimum window depth requirement 3⅝". Standard edge gap (edge of panel to inside of window edge) is ⅜" on both sides of the units.

Track and Header Board: Unit includes track installed to header.


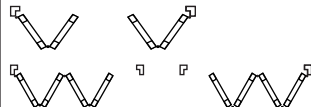
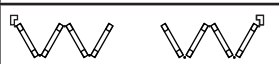
Valances and Returns: One top-treatment style is available: standard 2⅜" single-bead valance. No returns are available. Valance ends are not mitered. Refer to page 50 for valance options.

Box-Out (side frames): Box-Out is not available. The pivot set of outer most panels is secured to the inside of window opening.

Stackback not available.

Wood Bi-fold Track System Shutters

BI-FOLD SHUTTER – MINIMUM/MAXIMUM ORDER SIZES BY PANEL CONFIGURATION

Panel Configuration	Example of shutter unit configurations using various panel combinations	Outside Mount (with side frame)		Outside Mount with Stackback (with side frame)		Inside Mount	
		Order W-O Size		Order W-O Size		Order W-O Size	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
LL / RR		17"	49"	14"	48"	21"	54"
LLRR / LLLL / RRRR		38"	100"	32"	95"	41"	105"
LLLLRRRR		80"	205"	70"	194"	80"	209"

Wood Bi-fold Minimum and Maximum		
Height Only	Minimum	Maximum
Outside mount	15 $\frac{7}{8}$ "	122 $\frac{1}{8}$ "
Inside mount	17 $\frac{7}{8}$ "	122 $\frac{7}{8}$ "

SETTING BRACKET HEIGHT (for outside mount)

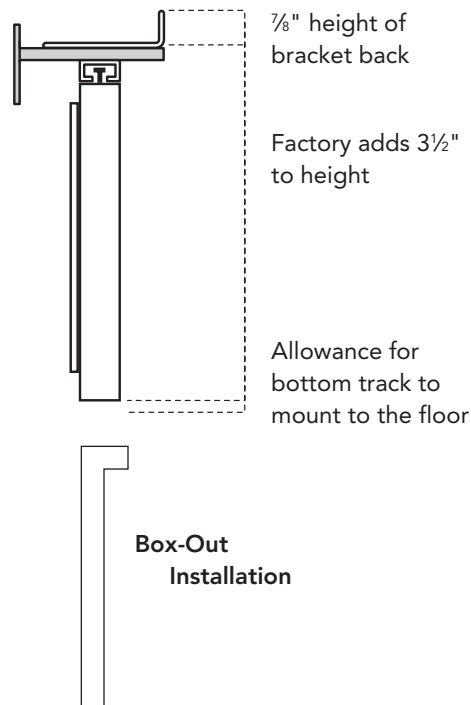
For Wall Mount Bi-Fold Shutter System Top of Angle Bracket to Floor:

Top of bracket will be 5 $\frac{7}{8}$ " above ordered height.

Note: Side frames determine the mounting height. Bottom edge of side frame is meant to touch the floor surface.

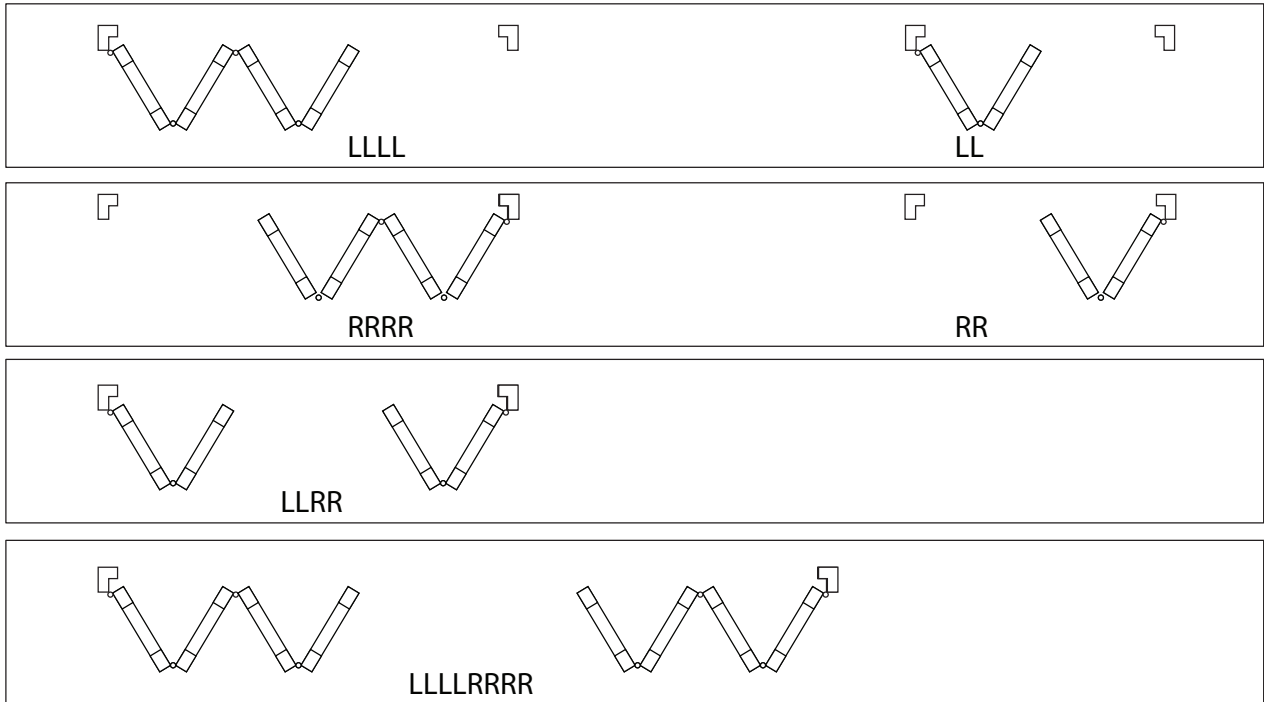
Bi-Fold Track System Divider Rail Requirements

- Divider rail required over 84" ordered height
- Tracks wider than 144" will be spliced, header and valance may be spliced over 96" wide.

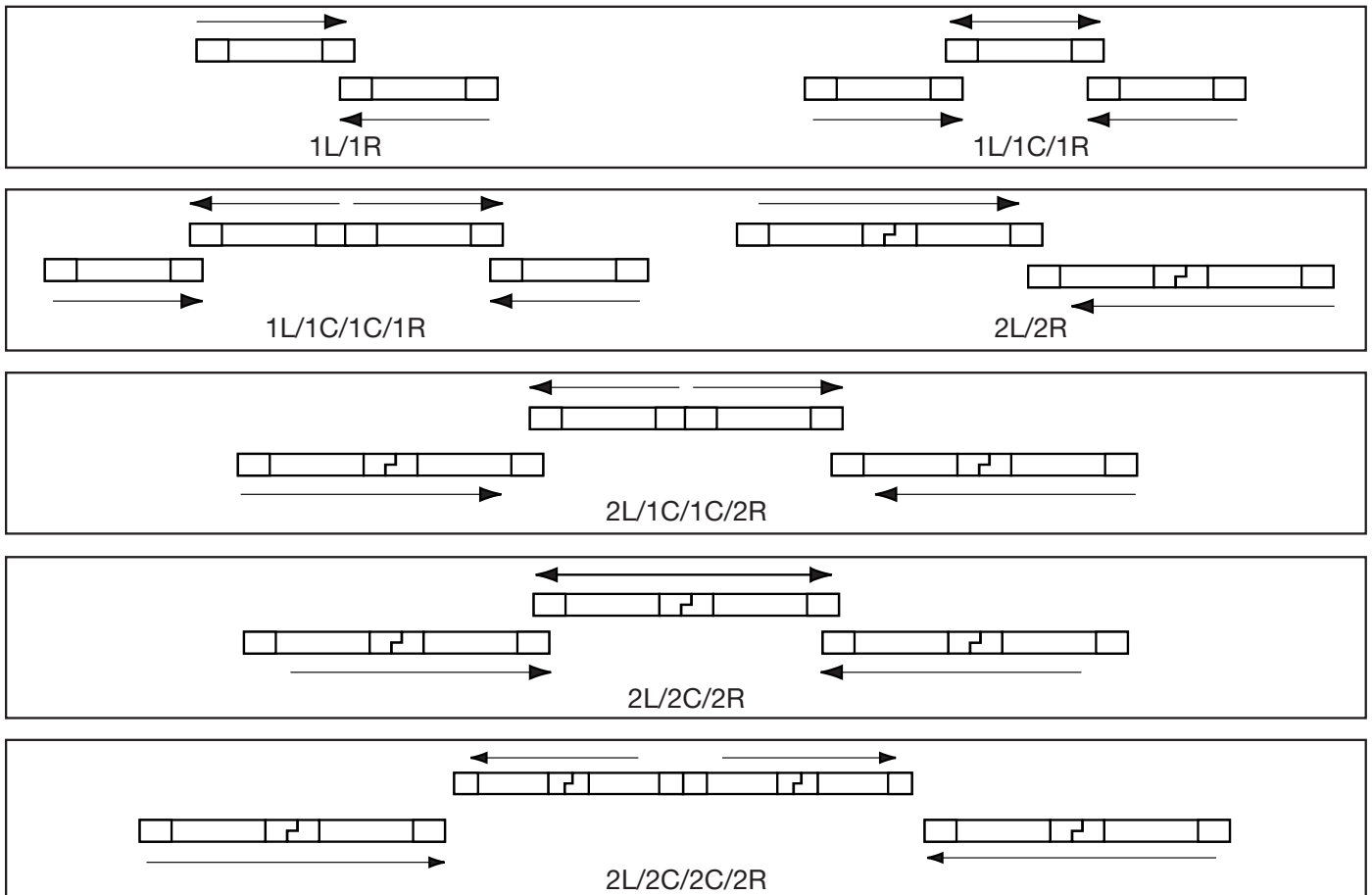


Wood Track Systems–Panel Configurations

BI-FOLD TRACK SYSTEM CONFIGURATION OPTIONS–ONLY CONFIGURATIONS AVAILABLE



BYPASS TRACK SYSTEM CONFIGURATION OPTIONS–ONLY CONFIGURATIONS AVAILABLE



Wood Track Systems—Stackback and Valance

Stackback Option

(available on Bypass or Bi-Fold Track Systems)

The Stackback option allows for the shutter panels to clear the window opening, creating an unobstructed view.

Measure only the frame-to-frame area for outside mount with Stackback. Factory will calculate the correct Stackback needed for full Stackback. Custom header also available.

Measuring for Outside Mount with Box-Out (Bypass Only)

It is recommended that the Box-Out frame be mounted to a flat surface. Add trim or molding to the width and height of the opening of the window.

General Guidelines for Stackback

Use the formulas below to estimate the minimum additional space needed. Submit frame-to-frame measurement only; do not include additional width needed. Factory will calculate the additional frame length needed.

Bypass Track System – Stackback	
<ul style="list-style-type: none"> • Ideal solution for large windows and patio doors • Outside mount with 3-sided Box-Out is standard • System consists of a double-top track and floor guides <p>Configuration Options:</p> <ul style="list-style-type: none"> • Outside mount with Box-Out • Outside mount without Box-Out 	<p>Bypass Panel Configurations (For Full Stackback):</p> <p>Width Measurement x 1.5 = Frame Width</p> <p>Example: Width Measurement = 100" $100" \times 1.5 = 150"$ Frame Width (Approximate)</p>
Bi-Fold Track System – Stackback	
<p>Bi-Fold Track System</p> <ul style="list-style-type: none"> • System consists of top and bottom track and quarter-round as standard <p>Configuration Options:</p> <ul style="list-style-type: none"> • Outside mount (Box-Out required) 	<p>Bi-Fold Panel Configurations:</p> <p>Number of Panels per Side x 1.5"</p> <p>Example: LLRR, 2 sided stackback $1.5" \times 2 = 3"$ An additional 3" on each side is needed.</p>

VALANCE OPTIONS

4½" Decorative Valance (Optional Bypass Only)



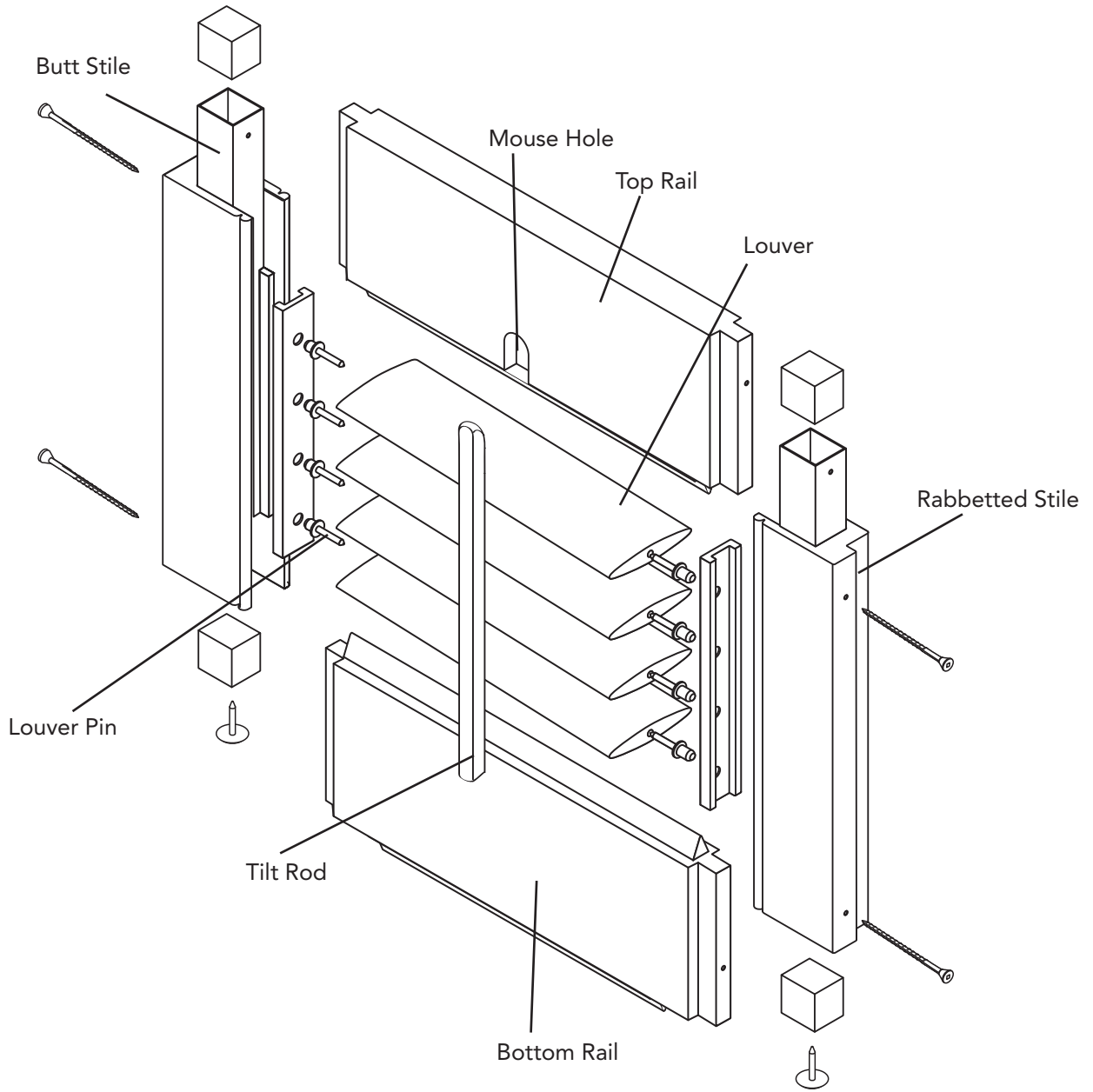
5" Standard Valance (Bypass Only)



2¾" Standard Valance (Bi-Fold Only)



Composite Exploded View



Composite Shutter Pricing

Composite Pricing:

Reynosa Manufacturing (10 working days to ship)

Whites

Hang Strip, Z-Frames, Direct Mount, Tilt-Z Frame (window opening only).....	\$45.50 per sq. ft.
L-Frame, Deco Frame (frame to frame only)	\$45.50 per sq. ft.
Bypass Track System.....	\$49.50 per sq. ft.

Asian Manufacturing (42 days to deliver)

Whites

Hang Strip, Z-Frames, Direct Mount, Tilt Z-Frame (window opening only).....	\$40.00 per sq. ft.
L-Frame, Deco Frame (frame to frame only)	\$40.00 per sq. ft.

Colors Available:

COMPOSITE - Whites

Silk White	2922
Off White.....	2185
Sweet White	2729

Additional Surcharges

Hide-a-Tilt™ Bar	10%
Bypass 3 Sided Box Out*	15%
Bypass Stackback*	5%
Astragal	N/C
Cafe Aligning Catch.....	N/C
Bypass Decorative Valance	N/C

* Calculate overall square feet of Bypass. Use overall square foot price to calculate surcharge for Box-Out and Stackback.

Composite Characteristics

- Perfect for high humidity areas
- Color will not fade
- Easy cleaning with soap and water
- Exclusive 'printed' shutter looks more like real wood

Panel Size Limitations

	MINIMUM		MAXIMUM	
	2½", 3½"	4½"	2½", 3½"	4½"
Single Panel Width (Reg.)	9"	9"	30"	30"
Single Panel Width (Bi-fold)	9"	9"	24"	24"
Panel Height	15"	15"	96"	96"

Composite Frame Allowances

COMPOSITE DIRECT MOUNT AND HANG STRIP FRAMES

Window Opening Measure Only

Window must be square (diagonal dimensions within $\frac{1}{4}$ " of each other)

Factory makes deductions - Width deduction = $\frac{1}{4}$ "
Length deduction = $\frac{1}{4}$ "

COMPOSITE Z FRAME (STANDARD AND SIGNATURE)

Window Opening - Factory makes deductions. See below:

2 sided: width - $\frac{5}{16}$ " length - 0

3 sided: Width - $\frac{5}{16}$ " length - $\frac{5}{32}$ "

3 sided invert: Width - $\frac{5}{16}$ " length - $\frac{5}{32}$ "

3 sided sill top: Width - $\frac{5}{16}$ " length - $\frac{1}{16}$ "

3 sided invert sill bottom: Width - $\frac{5}{16}$ " length - $\frac{1}{16}$ "

4 sided: Width - $\frac{5}{16}$ " length - $\frac{5}{16}$ "

4 sided sill top: Width - $\frac{5}{16}$ " length - $\frac{5}{32}$ "

4 sided sill bottom: Width - $\frac{5}{16}$ " length - $\frac{5}{32}$ "

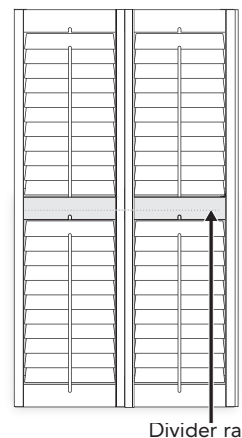
4 sided sill top and bottom: Width - $\frac{5}{16}$ " length - $\frac{1}{16}$ "

NOTE: Factory makes no deductions on Tilt-Z Frames

DIVIDER RAIL REQUIREMENTS

2½", 3½" & 4½" Composite Shutters

1. Required over 72" panel height for panel strength
2. Divider rail can be requested under 72" for privacy or design purposes
3. A 3" divider rail is used
4. Factory may shift rail up or down, (+ or - 2") to achieve uniform louver spacing
5. Minimum louver set for smaller portion is 2 louvers



HELPFUL HINT: If shutters are in the same room and/or side by side, shutters must be ordered at the same height to ensure divider rails will match.

Composite Shutters—Minimum/Maximum Order Sizes

2½" & 3½" LOUVERS - Minimum and Maximum Order Sizes by Panel Configuration

PANEL CONFIGURATION	Examples of shutter configurations with combinations of panels and T-posts	DIRECT MOUNT, HANG STRIP AND TILT-OUT Z-FRAME		STANDARD & SIGNATURE Z-FRAMES		L-FRAME		DECO FRAME	
		W-O Size		W-O Size		F-F Size		F-F Size	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1 Panel		9 ³ / ₁₆ "	30 ³ / ₁₆ "	11"	31 ⁷ / ₈ "	11 ³ / ₁₆ "	32 ¹ / ₄ "	14 ¹ / ₄ "	34 ¹ / ₄ "
2 Panel		18 ¹ / ₁₆ "	60"	19 ⁷ / ₈ "	61 ¹¹ / ₁₆ "	20 ¹ / ₁₆ "	62 ¹ / ₁₆ "	24 ¹ / ₁₆ "	64 ¹ / ₁₆ "
2 Panel, 1 T-Post		19 ³ / ₈ "	61 ³ / ₈ "	21 ³ / ₁₆ "	63 ¹ / ₁₆ "	21 ³ / ₈ "	63 ⁷ / ₁₆ "	25 ⁷ / ₁₆ "	65 ⁷ / ₁₆ "
1 Bi-Fold		18 ¹ / ₁₆ "	48"	19 ⁷ / ₈ "	49 ¹¹ / ₁₆ "	20 ¹ / ₁₆ "	50 ¹ / ₁₆ "	24 ¹ / ₁₆ "	52 ¹ / ₁₆ "
1 Panel, 1 Bi-Fold		27 ³ / ₁₆ "	78 ³ / ₁₆ "	29 ¹ / ₁₆ "	80"	29 ¹ / ₄ "	80 ¹ / ₄ "	24 ¹ / ₁₆ "	82 ¹ / ₁₆ "
1 Panel, 1 Bi-Fold, 1 T-Post		28 ¹ / ₄ "	79 ³ / ₁₆ "	30 ¹ / ₁₆ "	80 ⁷ / ₈ "	30 ¹ / ₄ "	81 ¹ / ₄ "	35 ¹ / ₄ "	83 ¹ / ₄ "
3 Panel, 1 T-Post		28 ¹ / ₄ "	91 ³ / ₁₆ "	30 ¹ / ₁₆ "	92 ⁷ / ₈ "	30 ¹ / ₄ "	93 ¹ / ₄ "	35 ¹ / ₄ "	95 ¹ / ₄ "
3 Panel, 2 T-Post		29 ¹ / ₁₆ "	92 ¹ / ₁₆ "	31 ³ / ₈ "	94 ¹ / ₄ "	31 ¹ / ₁₆ "	94 ⁵ / ₈ "	36 ⁵ / ₈ "	96 ⁵ / ₈ "
2 Bi-Fold		36 ⁵ / ₁₆ "	95 ⁵ / ₈ "	38 ¹ / ₈ "	97 ⁵ / ₁₆ "	38 ⁵ / ₁₆ "	97 ¹¹ / ₁₆ "	43 ¹¹ / ₁₆ "	99 ¹¹ / ₁₆ "
2 Bi-Fold, 1 T-Post		37 ¹ / ₈ "	97"	38 ¹⁵ / ₁₆ "	98 ¹¹ / ₁₆ "	39 ¹ / ₈ "	99 ¹ / ₁₆ "	45 ¹ / ₁₆ "	101 ¹ / ₁₆ "
4 Panel, 1 T-Post		37 ¹ / ₈ "	121"	38 ¹⁵ / ₁₆ "	122 ¹¹ / ₁₆ "	39 ¹ / ₈ "	123 ¹ / ₁₆ "	45 ¹ / ₁₆ "	125 ¹ / ₁₆ "
4 Panel, 2 T-Post		38 ⁷ / ₁₆ "	122 ³ / ₈ "	40 ¹ / ₄ "	124 ¹ / ₁₆ "	40 ⁷ / ₁₆ "	124 ⁷ / ₁₆ "	46 ⁷ / ₁₆ "	126 ⁷ / ₁₆ "
4 Panel, 3 T-Post		39 ³ / ₄ "	123 ³ / ₄ "	41 ¹ / ₁₆ "	125 ⁷ / ₁₆ "	41 ³ / ₄ "	125 ¹³ / ₁₆ "	47 ¹³ / ₁₆ "	127 ¹³ / ₁₆ "
5 Panel, 2 T-Post		48 ⁵ / ₈ "	104 ⁷ / ₁₆ "	51 ¹ / ₄ "	143 ¹⁵ / ₁₆ "	51 ⁵ / ₈ "	144 ¹¹ / ₁₆ "	60 ¹ / ₁₆ "	148 ¹ / ₁₆ "
5 Panel, 2 T-Post		48 ⁵ / ₈ "	104 ⁷ / ₁₆ "	51 ¹ / ₄ "	143 ¹⁵ / ₁₆ "	51 ⁵ / ₈ "	144 ¹¹ / ₁₆ "	60 ¹ / ₁₆ "	148 ¹ / ₁₆ "
5 Panel, 4 T-Post		50 ¹ / ₁₆ "	154 ¹⁵ / ₁₆ "	51 ⁷ / ₈ "	156 ⁵ / ₈ "	52 ¹ / ₁₆ "	157"	60"	159"
5 Panel, 4 T-Post		50 ¹ / ₁₆ "	154 ¹⁵ / ₁₆ "	51 ⁷ / ₈ "	156 ⁵ / ₈ "	52 ¹ / ₁₆ "	157"	60"	159"
2 Panel, 2 Bi-Fold, 2 T-Post		56 ³ / ₁₆ "	158 ⁷ / ₁₆ "	58 ¹ / ₂ "	160 ³ / ₈ "	58 ¹¹ / ₁₆ "	160 ⁹ / ₁₆ "	66 ⁹ / ₁₆ "	162 ⁹ / ₁₆ "
6 Panel, 2 T-Post		56 ³ / ₁₆ "	182"	58"	183 ¹¹ / ₁₆ "	58 ³ / ₁₆ "	184 ¹ / ₁₆ "	66 ⁷ / ₁₆ "	186 ⁷ / ₁₆ "
2 Panel, 2 Bi-Fold, 3 T-Post		57 ¹ / ₂ "	159 ³ / ₈ "	59 ⁵ / ₁₆ "	161 ¹ / ₁₆ "	59 ¹ / ₂ "	161 ⁷ / ₁₆ "	67 ⁷ / ₁₆ "	163 ³ / ₁₆ "
6 Panel, 5 T-Post		60 ¹ / ₄ "	186 ¹ / ₈ "	62 ¹ / ₁₆ "	187 ¹³ / ₁₆ "	62 ¹ / ₄ "	188 ³ / ₁₆ "	70 ³ / ₁₆ "	190 ³ / ₁₆ "
8 Panel, 3 T-Post		75 ³ / ₄ "	243 ³ / ₄ "	77 ⁷ / ₁₆ "	245 ⁵ / ₁₆ "	77 ³ / ₄ "	247"	79 ³ / ₄ "	249 ³ / ₄ "

Composite Shutters—Minimum/Maximum Order Sizes

4½" LOUVERS - Minimum and Maximum Order Sizes by Panel Configuration

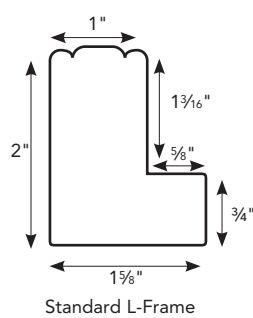
PANEL CONFIGURATION	Examples of shutter configurations with combinations of panels and T-posts	DIRECT MOUNT, HANG STRIP AND TILT-OUT Z-FRAME		STANDARD & SIGNATURE Z-FRAMES		L-FRAME		DECO FRAME	
		W-O Size		W-O Size		F-F Size		F-F Size	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1 Panel		9¾"	26¾"	11"	27⅞"	11¾"	28¼"	13¾"	30¼"
2 Panel		18½"	52"	19⅞"	53½"	20½"	54½"	22⅞"	56½"
2 Panel, 1 T-Post		19¾"	53¾"	21¾"	55½"	21¾"	55½"	23¾"	57½"
1 Bi-Fold		18½"	48"	19⅞"	49½"	20½"	50½"	22⅞"	52½"
1 Panel, 1 Bi-Fold		27¾"	74¾"	29½"	76"	29¼"	76¼"	24½"	78½"
1 Panel, 1 Bi-Fold, 1 T-Post		28¼"	75¾"	30½"	76⅞"	30¼"	77¼"	32⅞"	79¼"
3 Panel, 1 T-Post		28¼"	79¾"	30½"	74⅞"	30¼"	81¼"	32⅞"	83¼"
3 Panel, 2 T-Post		29⅞"	80⅞"	31¾"	82¼"	31⅞"	82⅞"	33¾"	84⅞"
2 Bi-Fold		36⅞"	95⅞"	38⅞"	97½"	38⅞"	97½"	39⅞"	99½"
2 Bi-Fold, 1 T-Post		37⅞"	97"	38⅞"	98½"	39⅞"	99½"	40¾"	101½"
4 Panel, 1 T-Post		37⅞"	105"	38⅞"	106½"	39⅞"	107½"	40¾"	109½"
4 Panel, 2 T-Post		38⅞"	106¾"	40¼"	108½"	40⅞"	108⅞"	42½"	110⅞"
4 Panel, 3 T-Post		39¾"	107¾"	41¼"	109⅞"	41¾"	109¾"	43¾"	111¾"
5 Panel, 2 T-Post		48⅞"	128⅞"	51¼"	131⅞"	51⅞"	142¼"	60¼"	146¼"
5 Panel, 2 T-Post		48⅞"	128⅞"	51¼"	131⅞"	51⅞"	142¼"	60¼"	146¼"
5 Panel, 4 T-Post		50¼"	142⅞"	51⅞"	144⅞"	52⅞"	145"	60"	147¼"
5 Panel, 4 T-Post		50¼"	142⅞"	51⅞"	144⅞"	52⅞"	145"	60"	147¼"
2 Panel, 2 Bi-Fold, 2 T-Post		56¾"	150⅞"	58½"	152¾"	58½"	152⅞"	60⅞"	154⅞"
6 Panel, 2 T-Post		56¾"	158"	58"	159½"	58⅞"	160⅞"	60⅞"	162¼"
2 Panel, 2 Bi-Fold, 3 T-Post		57½"	151¾"	59⅞"	153⅞"	59½"	153⅞"	61½"	155⅞"
6 Panel, 5 T-Post		60¼"	162⅞"	62¼"	163¾"	62¼"	164¾"	64¼"	166¾"
8 Panel, 3 T-Post		75¾"	211¾"	77¼"	213⅞"	77¼"	215"	79¼"	217"

Composite Shutter Frame Options

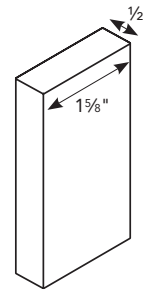
Frame Options

L-Frame

- Frame to frame measurement only
- Outside mount only
- Frame Configurations:
 - 2-sided
 - 3-sided
 - 3-sided inverted
 - 3-sided with sill top
 - 3-sided inverted with sill bottom
 - 4-sided with sill bottom
 - 4-sided with sill top
 - 4-sided
 - 4-sided with sill top and bottom



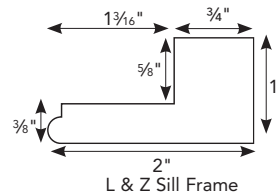
Standard L-Frame



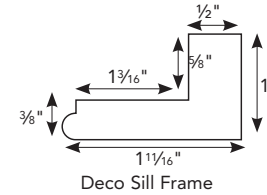
Build-Out
(Maximum of 2", (four pieces) per shutter; 1/2" increments)

Sill Frames

- Offered with L & Z-Frames and Deco Frame
- Not available with buildouts



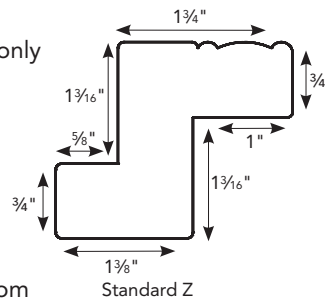
L & Z Sill Frame



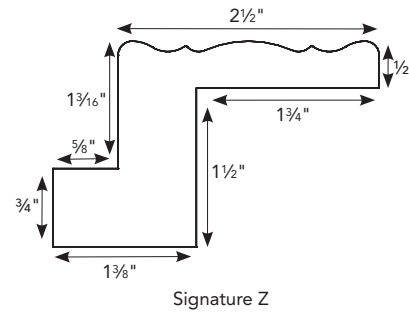
Deco Sill Frame

Z-Frames

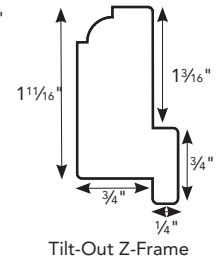
- Window opening measurement only
- Inside mount only
- Frame Configurations:
 - 2-sided
 - 3-sided
 - 3-sided inverted
 - 3-sided with sill top
 - 3-sided inverted with sill bottom
 - 4-sided with sill bottom
 - 4-sided with sill top
 - 4-sided
 - 4-sided with sill top and bottom
- Standard, 2 1/2" Signature and Tilt Z



Standard Z



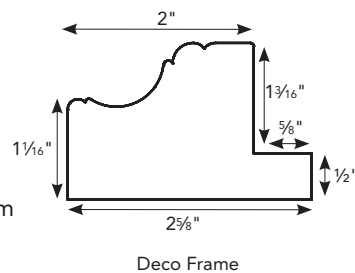
Signature Z



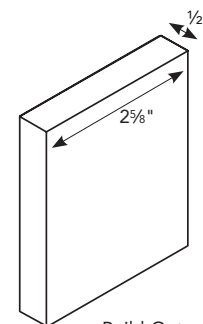
Tilt-Out Z-Frame

Deco Frame

- Frame to frame measurement only
- Outside mount only
- Frame Configurations:
 - 2-sided
 - 3-sided
 - 3-sided inverted
 - 3-sided with sill top
 - 3-sided inverted with sill bottom
 - 4-sided with sill bottom
 - 4-sided with sill top
 - 4-sided
 - 4-sided with sill top and bottom



Deco Frame



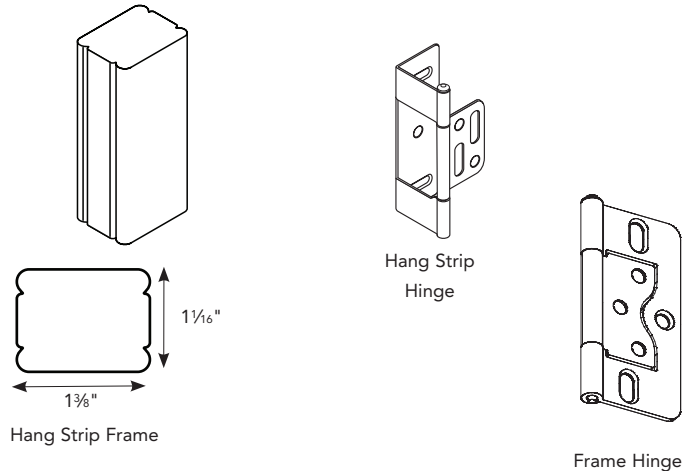
Build-Out
(Maximum of 2", (four pieces) per shutter; 1/2" increments)

NOTE: Windows larger than 115" will require splicing for the frame.

Composite Shutter Frame Options

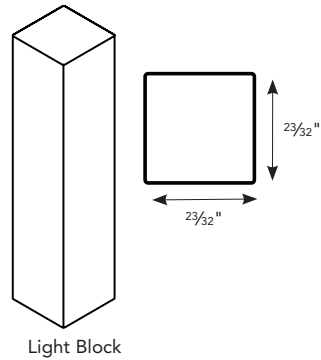
Hang Strip Frame

- Window opening must be square; diagonal measurements within 1/4"
- Inside mount only, window opening measure only
- Frame Configuration:
 - 2-sided frames with top and bottom light blocks
- Standard gap between shutter and window will be 1/8" - 3/16"
- Includes adjustable wrap-around hinge for easy installation



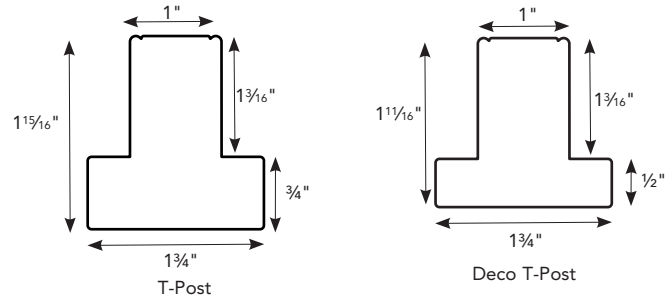
Light Block

- Included with hang strip, direct mount, two-sided and three-sided frame types



T-Post

- A vertical post that divides the panel into two sections (used with wider shutters).



Direct Mount

- Inside mount only, window opening measure only
- Four light blocks included
- Window opening must be square; diagonal measurements must be within 1/4" differences

NOTE: Windows larger than 115" will require splicing for the frame.

Definitions

Aligning Catch – Concealed magnet and catch plate on back top side of café panels. Used to provide a flush panel alignment.

Astragal – Covers clearance gap between two panels for the purpose of eliminating light gap. Integral to stile.

Bi-Fold – Two panels are hinged together to lie flush against the window or wall.

Bi-Fold Track System – Two or more hinged panels on a track. Panels do not lie flush against the window or wall.

Box-Out Frame – Track system frame option that creates an outside mount application consisting of a three-sided frame with or without a decorative valance.

Build-Out – Used in conjunction with L-Frames and Deco Frames to move panels away from window, allowing additional clearance for louvers to open.

Bypass Track System – Two or more panels on two overhead track that slide and pass each other.

Café Style Shutters – Shutters cover the lower portion of an opening. They can be made to any height within product specifications.

Direct Mount – Mounting the shutter panels directly to the window casing.

Divider Rail – A rail that divides the shutter panel into two horizontal sections. It is used to add strength to a tall panel or add a decorative touch.

Double Mouse Hole – Recess on the top and bottom rail allowing for the louvers to be completely closed in either direction.

Guide – Component part used with bypass configurations to lead the panels so that they do not project into the room.

Hang Strip – The mounting frame that is used for inside mount shutter panels.

Inside Mount – A shutter that is mounted on the inside of an opening.

Light Block – Square rail that blocks light between the window sill and the shutter panel, used with direct mount, hang strip, 2-sided frames and 3-sided frames.

Louvers – The movable fins inside the shutter panel.

Mouse Hole – Recess in the top rail of the panel that the lift rod rests in when the louvers are completely closed.

Outside Mount – A shutter that is mounted on the outside of an opening.

Panel – The part of the shutter that consists of a set of louvers, two rails and two stiles.

Rabbit Stile – A special cut on the stiles that allows the panels to overlap. Helps control light penetration between the panels.

Rails – The top and bottom solid portions of a panel that frame the louvers.

Square Window – Diagonal measurements must be within ¼" difference. Windows that are not square will need to have the shutter mounted to the outside of the window opening.

Stackback – Configuration that allows the panels of the bypass or bi-fold track system to completely slide beyond the window opening.

Stile – The vertical portion of the panel frame to which the louvers are anchored.

Strike Off – Sample color swatch to be approved prior to the production of the order.

Tilt Bar – A vertically mounted bar located on the front of the shutter used to open and close the louvers.

T-Post – A vertical post that divides the panel into two sections (used with wider shutters).

Window Depth – The distance from the surface of the wall to the closest part of the window (examples: latch, crank, frame, etc.).

Warranty and Care

LIMITED LIFETIME WARRANTY

OUR OBLIGATION TO YOU:

The manufacturer warrants your Graber Shutters will be free from original defects in materials or workmanship for as long as the original purchaser owns the product. Under the Limited Lifetime Warranty, the obligations of the manufacturer are limited to the repair or replacement of parts or product found to be defective. The manufacturer is not responsible for shipping costs or labor costs for measuring and taking the product down or reinstalling the product. If repairs are made under this warranty, the repairs will be made with like or similar parts.

This warranty does not cover conditions or damages caused by accidents, alterations, misuse or failure to follow instructions for measurement, installation, cleaning or maintenance. In addition, normal wear and tear are not covered by the Limited Lifetime Warranty.

Some wood materials may warp in high humidity areas. The manufacturer considers these things normal wear and tear and are not covered by this warranty.

TO RECEIVE WARRANTY SERVICE, PLEASE:

1. Contact our customer service department at (877) 675-0089 and advise them of the nature of the issue. Customer Service will provide you with information as to how to proceed.
2. Please remember, product returned for warranty claims must be accompanied by the original sales receipt as well as written details regarding the nature of the problem, location of the product, etc.
3. If your product is returned, please retain a copy of the shipping information for your records.

THIS LIMITED WARRANTY DOES NOT COVER, AND IS INTENDED TO EXCLUDE, ANY AND ALL LIABILITY ON THE PART OF THE MANUFACTURER, WHETHER UNDER THIS LIMITED WARRANTY OR UNDER ANY WARRANTY IMPLIED BY LAW FOR ANY INDIRECT OR CONSEQUENTIAL DAMAGES FOR BREACH HEREOF OR THEREOF, EXCEPT AS EXPRESSLY PROVIDED ABOVE IN THIS LIMITED WARRANTY, THE COMPANY HEREBY NEGATES AND DISCLAIMS ALL EXPRESS WARRANTIES.

Note: Some states do not allow the exclusion or limitation of incidental or consequential damages, so the foregoing limitation or exclusion regarding such damages may not apply to you. Also, this Limited Warranty gives specific legal rights, and you may also have other rights which vary from state to state.

ADJUSTING TENSION SYSTEM

The wood shutters that you have purchased include a built-in tension system to allow for adjustments. If you find that your louvers are too loose or are not functioning to your standards, simply follow these instructions. Open the panels fully; on each side of the panel you will find a tension adjustment screw hole. With a small screwdriver, gently turn the screw 1-2 turns (left to loosen, right to tighten the tension) to your desired resistance level on each side of the panel. Repeat this process for each panel if necessary.

COMPOSITE SHUTTERS

Occasional light vacuuming with a brush attachment should keep shutters clean. More severe soiling can be removed by using a soft cloth and a mild detergent and water solution.

If the Composite Shutter comes into contact with certain metals a black mark may result. These black marks can easily be removed with denatured alcohol.

WOOD SHUTTERS

Occasional light vacuuming with a brush attachment should keep shutters clean. For minor soiled areas, clean with warm water using a clean cotton cloth. Dry with a second clean cotton cloth. For more severe soiling, use a mild detergent diluted to a 5% solution with room temperature water. Clean with a cotton cloth. Wipe area with clear water to remove any detergent residue and dry with cotton cloth.

AURORA SHUTTERS

Occasional light vacuuming with a brush attachment should keep shutters clean. More severe soiling can be removed by using a soft cloth and a mild detergent and water solution.



Graber is a brand of Springs Window Fashions, the Best Experience Company

