HARDWOOD SHUTTERS



SIZE STANDARDS

PRICING & SURCHARGES

ORDERING NOTES

SPECIFICATIONS

FOR ADDITIONAL INFORMATION ON INSTALLATION, OPERATION & CARE, VISIT LEVOLOR.COM/PREMIER.

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Reference Guide Revision & Discontinuation History

LEVOLOR® PREMIER™ HARDWOOD SHUTTERS

Revision History

This section provides an overview of Reference Guide revision (rev) updates. Revisions listed in this section reset each Spring launch.

Date	Revision Description	Affected Page(s)
02/04/25	Add L96, L97, L98, Z97 frames.	Various
02/04/25	Update Color Coordination chart.	LPHS-74
02/04/25	Add Contemporary stiles	Various
02/04/25	Update Track System frames and valances	LPHS-48 & LPHS-49
02/04/25	Add four new colors	LPHS-17

Discontinuation History

This section provides an overview of discontinued frames and colors. Discontinued items listed reset each Spring launch.

Date	Discontinued Description	Affected Page(s)
FRAMES		
02/04/25	L92 & Z94 frames	Various
COLORS		

The LEVOLOR® PREMIER™ Hardwood Shutters program combines timeless beauty and enduring craftsmanship with the latest innovations in shutter technology. Each shutter is custom made to your customers' exact specifications.
Hardwood Shutters offer greater variety than ever with rectangular shutters, arch/angle top panels, specialty shapes, and on-trend color choices.

RECTANGULAR SHUTTERS

Three basic rectangular shutter types are available in a variety of both framed and unframed configurations:
- Standard Hinged Panels
- Bi-Fold Track Configurations
- Bypass Track Configurations

Special applications include:
- French Doors
- Café Shutters
- Double-Hung Shutters
- Bay Windows
- Corner Windows
- Bypass Open Louver Track
- Bypass Triple Track

Operating systems include:
- Front Tilt
- Concealed Tilt

ARCH AND ANGLE TOP PANELS

Arch top and angle top panels allow coverage of shaped windows with one continuous panel. The panel bottom is rectangular and the panel top is arched (full or quarter) or angled.

SPECIALTY SHAPES

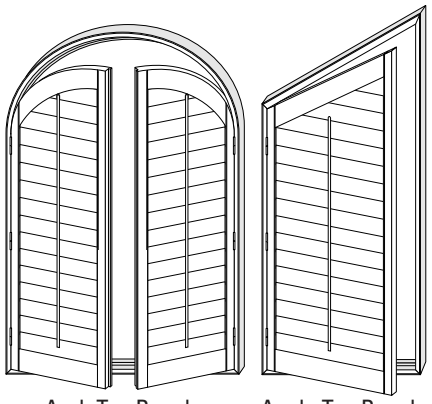
A wide range of framed and unframed specialty shapes are available as stand-alone shutters or combined with standard hinged panels below in one continuous opening. Most specialty shapes feature operable louvers arranged as a sunburst around a hub, however select shapes are available with horizontal louvers.

INSTALLER FRIENDLY

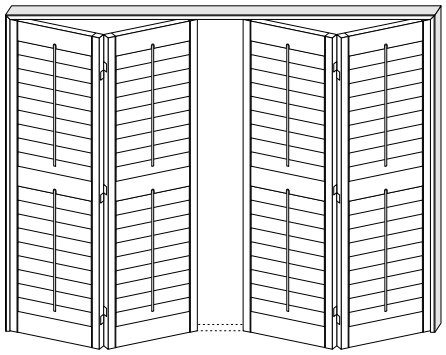
Hardwood shutters are designed with quality and simplicity in mind. High quality wood shutter components, installer-friendly hardware, and a national installer training program help make installation quick and easy.

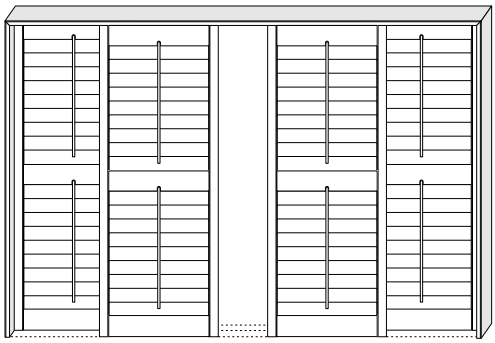
COORDINATION PROGRAMS

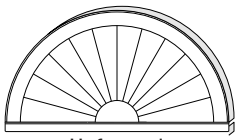
See the Coordination Programs for information on coordinating Hardwood Shutters colors with Composite Shutters, Poly Shutters, Alternative Wood Blinds, or Wood Blinds.

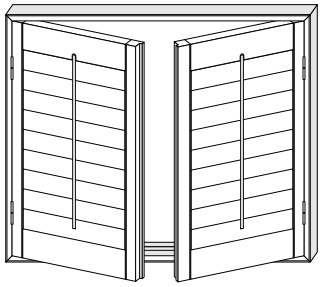


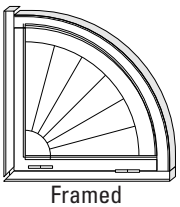
Arch Top and Angle Top Panels[oo]


Bi-Fold Track Configurations[oo]


Bypass Track Configurations[oo]


Unframed




Framed

Specialty Shapes[oo]

Standard Hinged Panel[oo]

HOW TO USE THE SIZE STANDARDS CHARTS

The Size Standards charts are designed to be a quick reference to size standards and where to find further size specifications. Further size specifications are referenced by the page number next to the configuration heading. Always read the notes under the chart for important additional information.
Important: shutter dimensions must be equal to or less than the maximum dimensions (width and height) and equal to or greater than the minimum dimensions (width and height) to be within specification guidelines.

PANEL SIZE STANDARDS (Not including Frames)	Standard Hinged Panels						Arch Top/Angle Top Panels		Track Configuration					
	Individually Hinged			Bi-Fold Hinged (No Track)			Individually Hinged	Bi-Fold Hinged (No Track)	Bi-Fold Track			Bypass Track		
	2½" Louvers	3½" Louvers	4½" Louvers	2½" Louvers	3½" Louvers	4½" Louvers	All Louver Sizes	All Louver Sizes	2½" Louvers	3½" Louvers	4½" Louvers	2½" Louvers	3½" Louvers	4½" Louvers
Min. Panel Width:	7"	7"	7"	7" [1]	7" [1]	7" [1]	12"	12"	12"	12"	12"	12"	12"	12"
Max. Panel Width:	36"	36"	36"	26"	26"	26"	36"	26"	26"	26"	26"	36"	36"	36"
Min. Panel Height:	12"	14"	17"	12"	14"	17"	18" [2]	18" [2]	12"	14"	17"	12"	14"	17"
Max. Panel Height:	116"	116"	116"	116"	116"	116"	116"	116"	116"	116"	116"	116"	116" [3]	116"

[1] Panels under 12" in width are not recommended due to possible limited functionality.
[2] In some cases, it may be possible to order panels under 18" in height.

Notes:

- Minimum and maximum ordered widths including frames: Refer to Standard Hinged Panel℠, Bi-Fold Track Configurations℠, and Bypass Track Configurations℠.
- Top and bottom rails:
  - Standard hinged panels: Top and bottom rails will be of equal height, varying from $3^{7}/_{8}$" to $5^{7}/_{8}$", depending on panel height and louver selection.
  - Arch Top and Angle Top panels: Top rails are fixed at 3" and bottom rails vary from $3^{7}/_{8}$" to $5^{7}/_{8}$", depending on panel height and louver selection.
  - Double-Hung panels: Adjacent center rails will have fixed heights of $3^{7}/_{8}$". See Café and Double-Hung Shutters℠.
- Divider rails:
  - Standard hinged panels: Panels greater than 72" in height require one divider rail. Panels greater than 102" in height require two divider rails.
  - Track Configurations, French door cut-outs and their companions: Panels greater than 84" in height require one divider rail.
  - Other specifications: Maximum space between divider rails is 72" for Standard Hinged Panels greater than 84" for Track Configurations, French door cut-outs and their companions. There must be a minimum of two louvers between divider rails and the top or bottom rail.
- Tie louvers: Panels greater than 60" tall will have tie louvers for additional strength, unless a divider rail is ordered.
- Shoulder height: Minimum shoulder height for Arch Top and Angle Top panels is zero. See Arch Top and Angle Top Panels℠.
- Hinges: Number of hinges per panel height are 2 hinges up to 40"; 3 hinges $40^{1}/_{16}$" to 72"; 4 hinges $72^{1}/_{16}$" to 104"; and 5 hinges $104^{1}/_{16}$" to 116".
- Splicing: Frames and valances greater than 115" in width or height may require splicing.

Size Standards
LEVOLOR® PREMIER™ HARDWOOD SHUTTERS

SPECIALTY SHAPES SIZE STANDARDS (Framed and Unframed)	Sunburst Louvers										Horizontal Louvers 2½", 3½", and 4½" Louvers			
	A1 Perfect Arch	A2 Quarter Circle	A3 Circle	A4 Extended Eyebrow	A4 Extended Arch	A5 Eyebrow Arch	A6 Extended Quarter Eyebrow Arch	A7 Angle	A7 Extended Angle	A8 Pentagon	T1 Oval	T2 Circle	T3 Hexagon	T4 Octagon
Min. Panel Width:	22"	11"	22"	22"	22"	22"	14"	14"	14"	22"	20"	22"	24"	24"
Max. Panel Width:	102"	51"	102"	102"	102"	102"	51"	51"	51"	102"	36"	36"	36"	36"
Min. Panel Height:	11"	11"	22"	16"	16"	14"	16"	14"	16"	16"	24"	22"	24"	24"
Max. Panel Height:	51"	51"	102"	51"	51"	51"	51"	51"	51"	51"	60"	36"	48"	48"

Notes:
- Illustrations and further specifications: Refer to Specialty Shapes℠.
- Sunburst sizes: Sunburst sizes depend on the maximum louver reach of 51". See Specifications℠.
- Frames: All shapes are available framed or unframed.
- Returns: Outside mount unframed specialty shapes may be ordered with or without returns. Returns add ½" per side. Not available for unframed inside mounts.
- Top Rail: Sunburst specialty shape top rails are 2" for shapes up to 65" wide, 3" for shapes between 65" and 96", and 3½" for shapes greater than 96" wide.
- Hinges: Wherever possible, framed sunburst specialty shapes will be hinged. See Specialty Shapes℠.
- Arches and angles with horizontal louvers: To order arch or angle window shapes with horizontal louvers, order as an Arch Top or Angle Top panel. See Arch Top and Angle Top Panels℠.

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

How to Price Imported

The base price grids reflect the lower pricing provided by our expanded hardwood shutter operations. This is an import program and comes with longer lead times. Orders will default to Base Price — Imported except for configurations that are only available with Domestic Direct.

Domestic Direct Surcharge Option

For customers needing a faster lead time or wanting shutters made in the USA, the Domestic Direct option is available.

Notes

- All lead times for both options and options only available with Domestic Direct can be found in the Newsroom.
- Shipping costs remain the same for both Base Price Imported and Domestic Direct.

How to Price Hardwood Shutters

The base prices on the Hardwood price charts are for Framed or Unframed, painted standard hinged panels. Framed pricing includes any of the Hardwood frames. A surcharge needs to be applied for stained colors, and for any other configurations. Follow these basic pricing procedures:

1. Round up the ordered width and height dimensions to the nearest size shown on the price chart.
2. Locate the box where the correct width column meets the correct height row.
3. If the width exceeds the largest width on the chart, add the appropriate amount for each additional 6" of width.
4. Add any necessary surcharges. For surcharges, see Pricing – Surcharges & Accessories. Track configuration and arch top and angle top panel surcharges are width-based. All other surcharges (or deductions) are shown as a percentage of the base price or as a dollar amount.

The pricing examples below are rounded to the nearest dollar for illustration purposes.

How to Price a Painted Front Tilt Framed Standard Hinged Panel less than 12" wide			
Example: 11" x 60" unit, Painted, Front Tilt with Standard Z-Frame			
1	Locate base price	Grid A2: 12" x 60" unit base price	$624
2	Total price (no surcharges)		$624

How to Price Painted Concealed Tilt Unframed Standard Hinged Panels			
Example: 42" x 72" unit, Painted, Concealed Tilt, Unframed			
1	Locate base price	Grid A3: 42" x 72" unit base price	$1243
3	Total price (no surcharges)		$1243

How to Price a Stained Front Tilt Framed Bypass Track System with Stackback[1]			
Example: 94" x 82" unit, Stained, Front Tilt, Bypass Frame with Standard Valance, stackback width = 141"			
1	Locate base price	Grid A2: 96" x 84" base price	$3163
	Add Stain surcharge	Add 15% of $3163	+316
2	Add 141" track surcharge.	Width-based surcharge of $1110 + $180 for additional 21"	+1290
3	Total price		$4769

[1] See page Stackback Design for an explanation of stackback.

How to Price a Painted Front Tilt Continuous Framed Specialty Shape with Standard Hinged Panels			
Example: Full opening 42" x 72", Perfect Arch (A1) 42" and standard shutter below 42" x 50 1/4", Painted, Front Tilt with Colonial Z-Frame			
1	Locate base price	Grid B2: 42" base price	$2010
2	Locate base price for standard hinged panels	Grid A2: 42" x 54" unit base price	+892
3	Total price		$2902

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Base Price Imported A1

Unframed Painted Colors Front Tilt

- Panels Only or with 2-sided Hang Strip
- 2½", 3½", and 4½" Louvers
- Hinged Panels
- T-Posts, Divider Rails, Build-Out (for some applications), and Hardware

HEIGHT TO \ WIDTH TO	12"	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	EVERY 6" ADD
36"	$451	451	451	465	541	618	696	773	850	926	1004	1080	1158	1235	1311	1389	1466	1542	77
42	451	451	451	541	632	723	812	900	991	1080	1171	1261	1350	1441	1532	1620	1708	1799	85
48	457	451	516	618	723	824	926	1029	1133	1235	1338	1441	1542	1645	1749	1851	1954	2057	101
54	512	465	581	696	812	926	1044	1158	1275	1389	1505	1620	1735	1851	1967	2083	2198	2313	116
60	568	516	645	773	900	1029	1158	1287	1414	1542	1672	1799	1927	2057	2185	2313	2441	2570	129
66	625	568	709	850	991	1133	1275	1414	1556	1697	1839	1979	2121	2261	2404	2543	2685	2826	142
72	680	618	773	926	1080	1235	1389	1542	1697	1851	2006	2159	2313	2468	2621	2775	2929	3082	154
78	737	670	837	1004	1171	1338	1505	1672	1839	2006	2172	2338	2505	2672	2838	3006	3172	3340	167
84	795	723	900	1080	1261	1441	1620	1799	1979	2159	2338	2518	2697	2878	3057	3237	3416	3595	180
90	850	773	966	1158	1350	1542	1735	1927	2121	2313	2505	2697	2890	3082	3276	3469	3661	3853	193
96	907	824	1029	1235	1441	1645	1851	2057	2261	2468	2672	2878	3082	3288	3494	3699	3905	4109	206
102	966	877	1095	1311	1532	1749	1967	2185	2404	2621	2838	3057	3276	3494	3714	3929	4148	4366	219
108	1019	926	1158	1389	1620	1851	2083	2313	2543	2775	3006	3237	3469	3699	3929	4160	4391	4623	232
114	1077	978	1222	1466	1708	1954	2198	2441	2685	2929	3172	3416	3661	3905	4148	4391	4635	4879	244
120	1133	1029	1287	1542	1799	2057	2313	2570	2826	3082	3340	3595	3853	4109	4366	4623	4879	5136	257

Notes
- Prices in the 12" column include a surcharge for narrow panels.
- For surcharges and other pricing details, see Pricing – Surcharges & Accessories. Surcharges are added to the base price.
- For arch top and angle top panels, base price is determined by tallest overall height.
- Only Bi-Fold and Bypass track frames include build-out at no additional charge. All other build-out options must be ordered as lineal materials.

Additional freight charges apply. Contact Customer Service for current rates.

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Base Price Imported A2

Framed Painted Colors Front Tilt

- All Frames
- 2½", 3½", and 4½" Louvers
- Framed Standard Hinged Panels

- T-Posts, Divider Rails, Build-Out (for some applications), and Hardware

HEIGHT TO \ WIDTH TO	12"	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	EVERY 6" ADD
36"	$496	496	496	511	595	679	765	849	934	1018	1103	1187	1273	1357	1441	1526	1611	1694	85
42	496	496	496	595	695	794	892	989	1089	1187	1287	1386	1483	1583	1683	1780	1877	1977	99
48	502	496	567	679	794	906	1018	1131	1245	1357	1470	1583	1694	1808	1922	2034	2147	2260	113
54	563	511	638	765	892	1018	1147	1273	1401	1526	1654	1780	1907	2034	2161	2289	2415	2542	127
60	624	567	709	849	989	1131	1273	1414	1554	1694	1837	1977	2118	2260	2401	2542	2682	2824	142
66	687	624	779	934	1089	1245	1401	1554	1710	1865	2021	2175	2331	2485	2642	2795	2951	3106	156
72	747	679	849	1018	1187	1357	1526	1694	1865	2034	2204	2373	2542	2712	2880	3049	3219	3387	170
78	810	736	920	1103	1287	1470	1654	1837	2021	2204	2387	2569	2753	2936	3119	3303	3486	3670	184
84	874	794	989	1187	1386	1583	1780	1977	2175	2373	2569	2767	2964	3163	3359	3557	3754	3951	198
90	934	849	1062	1273	1483	1694	1907	2118	2331	2542	2753	2964	3176	3387	3600	3812	4023	4234	212
96	997	906	1131	1357	1583	1808	2034	2260	2485	2712	2936	3163	3387	3613	3840	4065	4291	4515	226
102	1061	964	1203	1441	1683	1922	2161	2401	2642	2880	3119	3359	3600	3840	4081	4318	4558	4798	240
108	1120	1018	1273	1526	1780	2034	2289	2542	2795	3049	3303	3557	3812	4065	4318	4571	4825	5080	254
114	1183	1075	1343	1611	1877	2147	2415	2682	2951	3219	3486	3754	4023	4291	4558	4825	5093	5362	268
120	1245	1131	1414	1694	1977	2260	2542	2824	3106	3387	3670	3951	4234	4515	4798	5080	5362	5644	283

Notes
- Prices in the 12" column include a surcharge for narrow panels.
- For surcharges and other pricing details, see Pricing – Surcharges & Accessories. Surcharges are added to the base price.
- For arch top and angle top panels, base price is determined by tallest overall height.
- Only Bi-Fold and Bypass track frames include build-out at no additional charge. All other build-out options must be ordered as lineal materials.
- Additional freight charges apply. Contact Customer Service for current rates.

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Base Price Imported A3

Unframed Painted Colors Concealed Tilt

- Panels Only or with 2-sided Hang Strip
- 2½", 3½", and 4½" Louvers
- Standard Hinged Panels

- T-Posts, Divider Rails, Build-Out (for some applications), and Hardware

HEIGHT TO \ WIDTH TO	12"	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	EVERY 6" ADD
36"	$520	520	520	535	623	711	801	889	978	1066	1155	1243	1332	1421	1509	1597	1686	1774	89
42	520	520	520	623	728	832	934	1036	1140	1243	1348	1451	1552	1657	1762	1863	1965	2069	97
48	526	520	594	711	832	948	1066	1184	1303	1421	1539	1657	1774	1893	2012	2129	2248	2365	116
54	589	535	668	801	934	1066	1201	1332	1467	1597	1732	1863	1997	2129	2262	2396	2528	2661	133
60	654	594	743	889	1036	1184	1332	1481	1627	1774	1923	2069	2217	2365	2513	2661	2807	2956	148
66	719	653	815	978	1140	1303	1467	1627	1790	1952	2116	2277	2440	2601	2765	2926	3089	3251	163
72	783	711	889	1066	1243	1421	1597	1774	1952	2129	2307	2483	2661	2838	3014	3191	3369	3545	178
78	848	771	963	1155	1348	1539	1732	1923	2116	2307	2499	2689	2881	3073	3264	3457	3648	3841	192
84	915	832	1036	1243	1451	1657	1863	2069	2277	2483	2689	2897	3102	3311	3515	3723	3929	4135	207
90	978	889	1112	1332	1552	1774	1997	2217	2440	2661	2881	3102	3324	3545	3767	3989	4211	4432	222
96	1044	948	1184	1421	1657	1893	2129	2365	2601	2838	3073	3311	3545	3781	4019	4254	4491	4726	237
102	1110	1009	1259	1509	1762	2012	2262	2513	2765	3014	3264	3515	3767	4019	4272	4519	4770	5021	251
108	1173	1066	1332	1597	1863	2129	2396	2661	2926	3191	3457	3723	3989	4254	4519	4784	5050	5316	266
114	1239	1126	1406	1686	1965	2248	2528	2807	3089	3369	3648	3929	4211	4491	4770	5050	5330	5612	281
120	1303	1184	1481	1774	2069	2365	2661	2956	3251	3545	3841	4135	4432	4726	5021	5316	5612	5907	296

Notes
- Prices in the 12" column include a surcharge for narrow panels.
- For surcharges and other pricing details, see Pricing – Surcharges & Accessories℠. Surcharges are added to the base price.
- For arch top and angle top panels, base price is determined by tallest overall height.
- Only Bi-Fold and Bypass track frames include build-out at no additional charge. All other build-out options must be ordered as lineal materials.

Additional freight charges apply. Contact Customer Service for current rates.

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Base Price Imported A4

Framed Painted Colors Concealed Tilt

- All Frames
- 2 1/2", 3 1/2", and 4 1/2" Louvers
- Framed Standard Hinged Panels

- T-Posts, Divider Rails, Build-Out (for some applications), and Hardware

HEIGHT TO \ WIDTH TO	12"	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	EVERY 6" ADD
36"	571	571	571	588	685	781	880	977	1075	1171	1269	1366	1464	1561	1658	1755	1853	1949	98
42	571	571	571	685	800	914	1026	1138	1253	1366	1481	1594	1706	1821	1936	2047	2159	2274	114
48	578	571	653	781	914	1042	1171	1301	1432	1561	1691	1821	1949	2080	2211	2340	2470	2599	130
54	647	588	734	880	1026	1171	1320	1464	1612	1755	1903	2047	2194	2340	2486	2633	2778	2924	146
60	719	653	816	977	1138	1301	1464	1627	1788	1949	2113	2274	2436	2599	2762	2924	3085	3248	163
66	790	718	896	1075	1253	1432	1612	1788	1967	2145	2325	2502	2681	2858	3039	3215	3394	3572	179
72	860	781	977	1171	1366	1561	1755	1949	2145	2340	2535	2729	2924	3119	3312	3507	3702	3896	195
78	932	847	1058	1269	1481	1691	1903	2113	2325	2535	2746	2955	3166	3377	3587	3799	4009	4221	211
84	1006	914	1138	1366	1594	1821	2047	2274	2502	2729	2955	3183	3409	3638	3863	4091	4318	4544	227
90	1075	977	1222	1464	1706	1949	2194	2436	2681	2924	3166	3409	3653	3896	4140	4384	4627	4870	244
96	1147	1042	1301	1561	1821	2080	2340	2599	2858	3119	3377	3638	3896	4155	4416	4675	4935	5193	260
102	1220	1109	1384	1658	1936	2211	2486	2762	3039	3312	3587	3863	4140	4416	4694	4966	5242	5518	276
108	1289	1171	1464	1755	2047	2340	2633	2924	3215	3507	3799	4091	4384	4675	4966	5257	5549	5842	292
114	1361	1237	1545	1853	2159	2470	2778	3085	3394	3702	4009	4318	4627	4935	5242	5549	5857	6167	309
120	1432	1301	1627	1949	2274	2599	2924	3248	3572	3896	4221	4544	4870	5193	5518	5842	6167	6491	325

Notes
- Prices in the 12" column include a surcharge for narrow panels.
- For surcharges and other pricing details, see Pricing – Surcharges & Accessories℠. Surcharges are added to the base price.
- For arch top and angle top panels, base price is determined by tallest overall height.
- Only Bi-Fold and Bypass track frames include build-out at no additional charge. All other build-out options must be ordered as lineal materials.
- Additional freight charges apply. Contact Customer Service for current rates.

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Base Price Imported B1 — Unframed Painted Colors Specialty Shapes

- Hardware

WIDTH TO	30	36	42	48	54	60	66	72	78	84	90	96	102
PERFECT ARCH (A1)	$1005	1090	1335	1500	1695	1885	2095	2500	2785	3025	3280	3515	3755
QUARTER CIRCLE (A2) EXTENDED QUARTER CIRCLE (A2)	760	825	1010	1125	1255								
CIRCLE (A3)	1980	2165	2660	2980	3345	3750	4175	4980	5545	6030	6520	7005	7485
EXTENDED EYEBROW (A4) EXTENDED ARCH (A4)	1005	1090	1335	1500	1695	1885	2095	2500	2785	3025	3280	3515	3755
EYEBROW (A5)	1005	1090	1335	1500	1695	1885	2095	2500	2785	3025	3280	3515	3755
EXTENDED QUARTER EYEBROW (A6)	760	825	1010	1125	1255								
EXTENDED ANGLE (A7) ANGLE (A7)	760	825	1010	1125	1255								
PENTAGON (A8)	1005	1090	1335	1500	1695	1885	2095	2500	2785	3025	3280	3515	3755
OVAL (T1), CIRCLE (T2) HEXAGON (T3), OCTAGON (T4)	1980	2165											

Base Price Imported B2 — Framed Painted Colors Specialty Shapes

- All Frames
- Hardware

WIDTH TO	30	36	42	48	54	60	66	72	78	84	90	96	102
PERFECT ARCH (A1)	$1500	1640	2010	2255	2535	2835	3150	3760	4190	4560	4920	5295	5665
QUARTER CIRCLE (A2) EXTENDED QUARTER CIRCLE (A2)	1125	1230	1515	1705	1885								
CIRCLE (A3)	2840	3095	3810	4275	4810	5385	5995	7150	7970	8670	9365	10065	10765
EXTENDED EYEBROW (A4) EXTENDED ARCH (A4)	1500	1640	2010	2255	2535	2835	3150	3760	4190	4560	4920	5295	5665
EYEBROW (A5)	1500	1640	2010	2255	2535	2835	3150	3760	4190	4560	4920	5295	5665
EXTENDED QUARTER EYEBROW (A6)	1125	1230	1515	1705	1885								
EXTENDED ANGLE (A7) ANGLE (A7)	1125	1230	1515	1705	1885								
PENTAGON (A8)	1500	1640	2010	2255	2535	2835	3150	3760	4190	4560	4920	5295	5665
OVAL (T1), CIRCLE (T2) HEXAGON (T3), OCTAGON (T4)	2985	3250											

Notes:
- For surcharges and other pricing details, see Pricing – Surcharges & Accessories℠. Surcharges are added to the base price.
- Additional freight charges apply. Contact Customer Service for current rates.

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Track System Surcharges
(Width-Based)

WIDTH TO:	24"	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	EVERY 6" ADD
BI-FOLD	$185	230	275	320	365	410	455	500	545	590	635	680	725	770	815	860	905	45
BYPASS	390	435	480	525	570	615	660	705	750	795	840	885	930	975	1020	1065	1110	45
BYPASS OPEN LOUVER	565	645	725	805	885	965	1045	1125	1205	1285	1365	1445	1525	1605	1685	1765	1845	80
BYPASS TRIPLE TRACK	655	735	815	895	975	1055	1135	1215	1295	1375	1455	1535	1615	1695	1775	1855	1935	80

Note:
For stackback track configurations, first locate the base price for the shutter width and height. Next, use the stackback width to determine the track surcharge with Standard or Decorative Valance. Add this surcharge to the shutter base price to arrive at the total price for the stackback configuration. See Pricing – How to Price℠ and Stackback Design℠.

- Units with panel widths less than 27 1/2" may not be built with Controlled Close for Bypass, depending on the configuration.

Arch Top and Angle Top Panel Surcharges
(Width-Based)

WIDTH TO:	24"	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	EVERY 6" ADD
ANGLE TOP	$645	715	780	850	920	1000	1080	1150	1225	1315	1405	1490	1570	1660	1750	1840	1930	85
ARCH TOP	715	795	865	940	1025	1110	1200	1285	1355	1455	1555	1650	1745	1845	1940	2035	2135	90

Decorative Window Fashion Support
(Width-Based)

WIDTH TO:	18"	24	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"
PAINT	$270	305	340	375	405	440	475	510	540	575	610	645	675	710
STAIN	300	335	375	410	445	485	520	560	600	630	670	710	745	780

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Domestic Direct Surcharges

Fabricated in the United States (Shorter lead time)	Add 40% to base price grid

Design Option Surcharges

Stain Colors	Add 15% to base price grid.
Café Shutters (One-, two-, or three-sided frames)	Add 30% to base price grid
Café Shutters (Four-sided frames only)	Add 40% to base price grid after the Domestic Direct surcharge has been applied (if applicable).
Café Shutters — Arch Top Frame	Add 50% to the Framed base price after the Domestic Direct surcharge has been applied (if applicable).
Café Shutters — Angle Top Frame	Add 40% to the Framed base price after the Domestic Direct surcharge has been applied (if applicable).
Double-Hung Shutters	Add 40% to the Framed base price after the Domestic Direct surcharge has been applied (if applicable).
3½" Curved French Door Cut-Outs	Add $775 per cut-out
Rectangular and 5" Curved French Door Cut-Outs	Add $775 per cut-out
Arch Top Panel Single Build-Out	Add 10% to the Framed base price after the Domestic Direct surcharge has been applied (if applicable).
Arch Top Panel Double Build-Out	Add 20% to the Framed base price after the Domestic Direct surcharge has been applied (if applicable).
Casing Frame Spacer Build-Out	Add 10% to the Framed base price after the Domestic Direct surcharge has been applied (if applicable).
Stainless Steel Hardware (Hinges and screws)	Add $75 per unit (one continuous opening)
Hinges Painted To Coordinate (Paint colors only)	Add $75 per unit (one continuous unit)
Build-Out For Framed and Unframed Specialty Shapes[1]	Add 25% to the Framed specialty base price for each build-out after the Domestic Direct surcharge has been applied.
Extension Pole	Add $110

[1] Available with Domestic Direct only.

Note:
Due to the endless range of options available, special charges may apply for orders outside the published product specifications; contact Customer Service for a quote.

Deductions*

FRAME ONLY (Mitered and Hinged)	Deduct 75% from the Framed base price

* For Domestic Direct orders, deductions will be calculated after the Domestic Direct surcharge has been applied to the base price grid.

Product price only, not including freight, state/local taxes, measuring and installation, and other services associated with a custom installation.

Extra Lineal Materials

Hardwood Shutters are shipped with all the components and hardware needed for the installation. In some cases, however, you may need additional lineal materials. Those materials are priced by the inch in the chart below.

Lineal Materials Pricing
Base Price Per Inch

LINEAL MATERIAL	PAINTED	STAINED
1 5/8" Traditional L-Frame (L91)	$1.56	1.66
2 3/8" Traditional L-Frame (L93)	2.59	3.01
2 7/8" Traditional L-Frame (L94)	3.61	4.14
1 3/4" Contemporary L-Frame (L95)	1.56	1.66
2 3/8" Contemporary L-Frame (L96)	2.59	3.01
2 7/8" Contemporary L-Frame (L97)	3.61	4.14
1 3/4" Traditional L-Frame (L98)	1.56	1.66
Standard Z-Frame (Z92)	2.20	2.26
Traditional Z-Frame (Z93)	2.38	2.50
Contemporary Z-Frame (Z96)	2.20	2.26
Contemporary Tilt-In Z-Frame (Z67)	1.56	1.69
Traditional Tilt-In Z-Frame (Z98)	1.56	1.69
Casing Frame (C91)	2.38	2.50
Casing Frame Spacer (TCS)	1.32	1.45
2 3/8" Traditional L-Frame Partial Trim Extension (L93KP)	1.56	1.66
2 3/8" Traditional L-Frame Full Trim Extension (L93KF)	1.56	1.66
2 7/8" Traditional L-Frame Partial Trim Extension (L94KP)	4.67	5.37
2 7/8" Traditional L-Frame Full Trim Extension (L94KF)	4.67	5.37
2 3/8" Contemporary L-Frame Partial Trim Extension (L96KP)	1.56	1.66
2 3/8" Contemporary L-Frame Full Trim Extension (L96KF)	1.56	1.66
2 7/8" Contemporary L-Frame Partial Trim Extension (L97KP)	4.67	5.37
2 7/8" Contemporary L-Frame Full Trim Extension (L97KF)	4.67	5.37
Sill Frame ½" Light Stop (S12)	1.04	1.11
Sill Frame 5/8" Light Stop (S58)	1.04	1.11
Stile (CST)	1.56	1.66

Lineal Materials Pricing
Base Price Per Inch

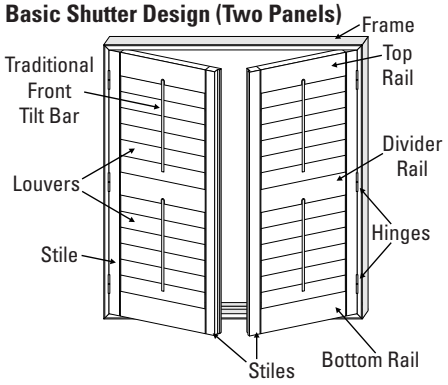
LINEAL MATERIAL	PAINTED	STAINED
Traditional T-Post 1/2" Light Stop (T12T)	2.70	2.87
Traditional T-Post 5/8" Light Stop (T58T)	2.70	2.87
Contemporary T-Post 5/8" Light Stop (T58N)	2.70	2.87
Bi-Fold Frame (BF)	2.20	2.26
Bypass Frame (BP)	3.71	3.99
Open Bypass/Triple Track (BO/BT)	7.63	8.23
Hang Strip (HS)/Build-Out	1.04	1.11
Trim Hang Strip (THS)/Build-Out	0.97	1.02
1/2" Light Stop/Trim Strip (LS12)	0.29	0.31
5/8" Light Stop/Trim Strip (LS58)	0.35	0.42
2 1/2" Standard Valance (SV2)	1.32	1.45
5 3/8" Standard Valance (SV5)	2.20	2.26
Decorative Valance (DEV)	4.67	5.37
Bottom Track Spacer (BTS)	0.91	0.98
Quarter Round (QTR)	0.35	0.42
Bi-Fold/Bypass Track (TRK) - Aluminum	0.54	
Bottom Track (BTMTRK) - Aluminum	0.40	
#6 x 1 5/8" Installation Screw - Black (ISW1)	6.23 per quantity of 25	
#6 x 1 5/8" Installation Screw - White (ISW1W)	6.23 per quantity of 25	
#6 x 2 1/4" Installation Screw - Black (ISW2)	6.23 per quantity of 25	
#6 x 2 1/4" Installation Screw - White (ISW2W)	6.23 per quantity of 25	
#8 x 3" Installation Screw - Black (ISW3)	13.29 per quantity of 25	
#8 x 3 1/2" Installation Screw - Black (ISW4)	24.07 per quantity of 25	

Notes:
- Minimum order for lineal materials or parts alone is $30 net.
- Lineal material frames can be square cut or miter cut.
- There is an additional $75 net surcharge for curved lineal material not requested with an original order.

Shutter Terminology

The basic shutter assembly is a panel hinged to a frame. The panel consists of louvers which pivot open and closed, with stiles on the sides and rails on the top and bottom.

Basic Shutter Design (Two Panels)



Operating Systems

Shutter louvers open and close using a tilt bar linked to the louvers. Hardwood Shutters have fixed louver spacing.

Front Tilt

A traditional front tilt bar is located on the front center of the panel and is connected to the edge of the louvers with staples. Open and close louvers together using the tilt bar.

A standard rear clearance of 1/4" is recommended for louver operation.

Important:

Do not open or close the shutter panels by pulling or pushing on the tilt bar.

Concealed Tilt

The tilt mechanism is fully enclosed within the stile, providing expanded view-through with no external tilt bar.

Light Control and Privacy

Louver Sections

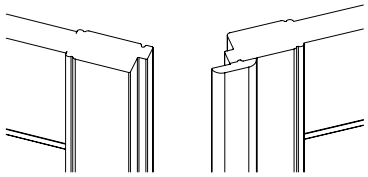
A louver section is a group of louvers within a panel that tilt in unison. Ordering a divider rail or split tilt creates multiple louver sections which are operated independently.

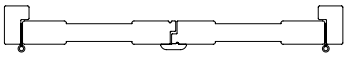
Divider Rail

A divider rail is a fixed rail inserted between louvers for additional panel strength. Divider rails may also be used to create upper and lower louver sections for increased operational flexibility or privacy, or to cover horizontal window features such as sashes or mullions.

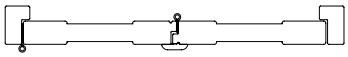
Astragal

Astragal is a flange to cover the gap where two shutter panels meet. It helps to minimize the light passing between rabbeted stiles and conceal uneven panel gaps due to out-of-square openings. It is always located on the front of the panel and is placed as indicated in the example drawings below.

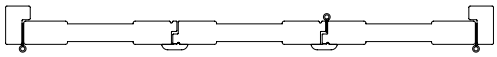




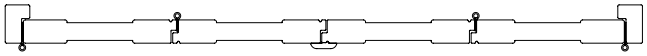
LR – Standard Hinged Panels



LL – Bi-Fold Hinged Panels



LRR – Bi-Fold Hinged Panels

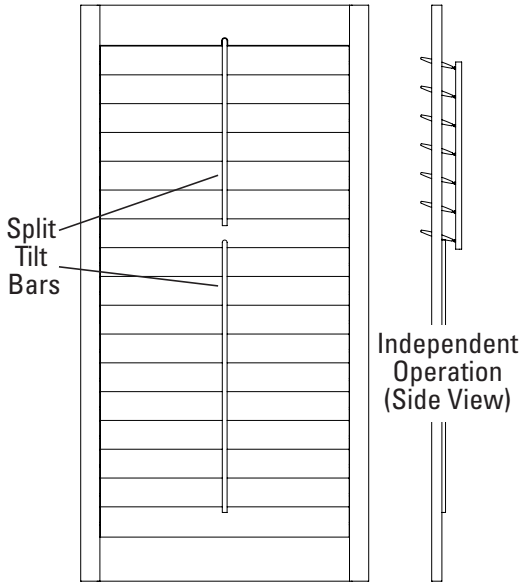


LLRR – Bi-Fold Hinged Panels

Split Tilt

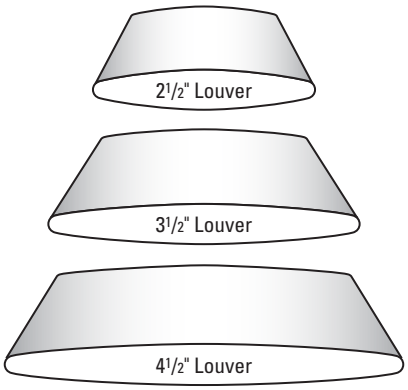
Split tilt can be specified for increased operational flexibility and privacy.

- Split tilt can be specified on panels with or without divider rails.
- Enter split tilt height on the order form to indicate the desired split tilt location.
- Split front tilt bars can limit range of movement for both top section and bottom section.



Louver Options

Louver Sizes
Three louver sizes are available: 2 1/2", 3 1/2", and 4 1/2". This gives consumers a choice of scale for different sized windows and rooms.



Louver Closure
With Hardwood Shutters, louver closure is in the upward position only. Louvers will not close completely in the downward position. On shutters with front tilt, a mouse hole will be placed in the top rail to allow space for the tilt bar when louvers are in the closed position.

Product Color Options
Specify color number on the order form.

Paint Colors:
- 7700 Crystal White
- 7701 Beluga
- 7702 Tundra
- 7703 Honest White
- 7721 Cloud Cover
- 7746 Blanche
- 7759 Whisper White
- 7773 Honeycomb

Stain Colors
- 8704 Golden Ember
- 8706 Sandbar
- 8712 Caviar
- 8718 Sterling Grey
- 8724 Sparrow
- 8744 Nightfall
- 8770 Marigold
- 8780 Sedona

Shutter Hinges
Hinges are available in a range of colors and finishes to coordinate with shutter color and room décor.
All shutter panels come standard with removable hinge pins packed in the hardware.

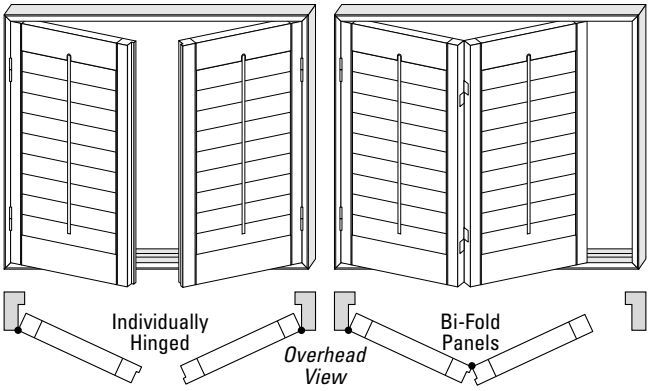
Hinge Color Options
Hinges can coordinate or contrast with the shutter. Specify hinge color number on the order form. Note that stainless steel hinges are available for a surcharge.
- 007 Antique Brass Finish
- 008 Brushed Nickel Finish
- 009 White
- 010 Off-White
- 011 Stainless Steel
- 014 Polar White
- 022 Venetian Bronze
- 023 Satin Black

Standard Hinged Panels (SH)

Standard hinged panels consist of one or more shutter panels hinged in a variety of configurations. Single panels can be individually hinged or two panels may be hinged together in a Bi-Fold panel design. Although unframed shutters are available, frames help compensate for out-of-square openings, offer superior light blockage, and add a decorative style to the window or door opening.

Some of the more common types of standard hinged panels are illustrated in the Standard Hinged Panel℠ section.

Standard hinged panels are also available in a variety of special applications, including French door shutters, café, and double-hung shutters, and shutters for bay and corner windows. These special applications are described in detail beginning with French Doors℠.



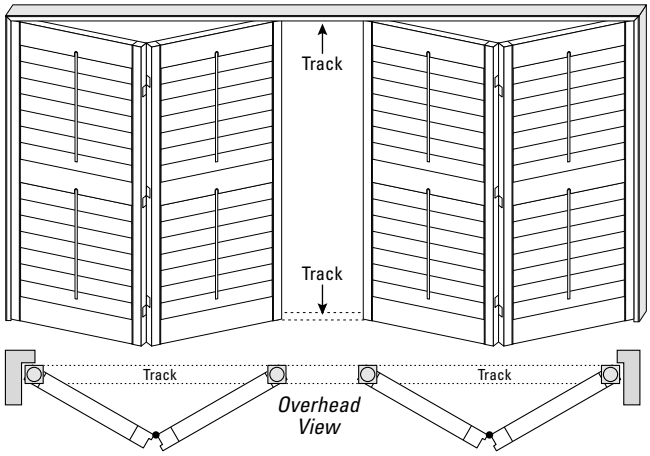
Standard Hinged Panel Examples

Bi-Fold Track (BF)

Bi-Fold track configurations allow up to six panels to be hinged together. Panels are connected to a top track which both supports the panels and guides their folding movements. Panels must be hinged together in multiples of two.

A special Bi-Fold Track Frame is used with Bi-Fold track configurations. The frame accommodates the track and minimizes light leaks. The track may also be attached directly to the ceiling or inside the window opening without a frame. A bottom floor track is recommended for all Bi-Fold track configurations to minimize panel sag and keep the panels from swinging in and out of the opening.

Possible panel arrangements in a Bi-Fold track configuration are illustrated in Bi-Fold Track Configurations℠.



Bi-Fold Track Example

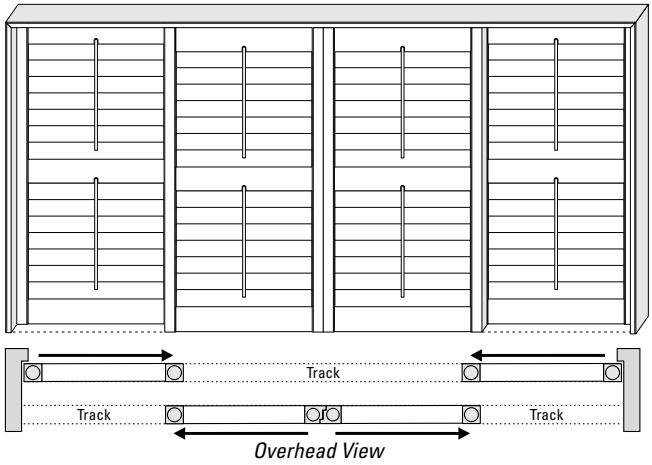
Bypass Track (BP)

Shutter panels in a Bypass track configuration are not hinged. Instead, they traverse on top tracks to stack and close. Two or three tracks are required so that the panels can slide past each other.

The tracks can be attached to a Bypass Track Frame or directly to the ceiling or inside the opening without a frame. Typically, in door openings, the frames are three-sided, with floor guides.

Controlled Close for Bypass is a mechanism for opening/closing bypass panels. It automatically slows the panel as it approaches the frame on either side of the unit, and gently brings it up against the frame. Controlled Close for Bypass comes standard on Bypass, Open Bypass, and Bypass Triple Track Systems.

Panel configurations for Bypass track configurations are illustrated in Bypass Track Configurations℠.



Bypass and Bypass Open Louver Track Example

Bypass Open Louver Track (BO)

The Bypass Open Louver track configuration is similar to the Bypass track configuration except it has additional projection so that louvers can be opened when the panels are positioned in front of one another. A maximum of two tracks is allowed with this configuration.

Bypass Triple Track (BT)

The Bypass Triple Track configuration uses the same frame as the Bypass Open Louver configuration, but with three tracks instead of two. Available in select panel configurations, the use of three tracks increases the view to two-thirds of the opening instead of one-half with a standard Bypass track configuration.

Arch Top/Angle Top Panels (ART/ANT)

Arch Top and Angle Top panels are simply standard hinged panels with an arched or angled top. Measuring and operation differ slightly, however, so be sure to see Arch Top and Angle Top Panels℠ for information about these panel configurations.

Specialty Shapes (A1 to A8 and T1 to T4)

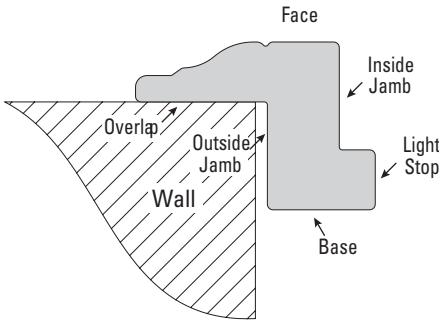
The Hardwood product line includes a wide variety of specialty shapes, including eight shapes with sunburst louvers and four shapes with horizontal louvers. Refer to Specialty Shapes℠.

Frame and Louver Clearances

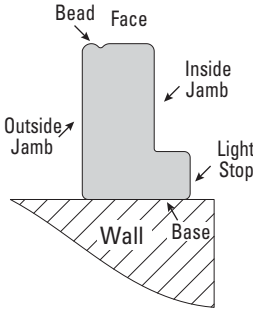
Frame Terminology

Common frame terminology is shown in the illustrations at right.

- Inside Mount: Frame sits inside the window opening either overlapping the wall (Z frame) or flush with the wall (L frame).
- Outside Mount: Frame sits on the wall or existing trim outside the window opening.

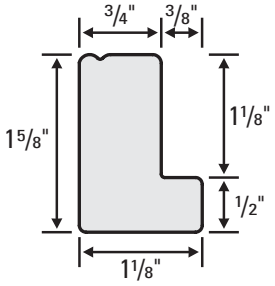


Inside Mount (IM)



Outside Mount (OM)

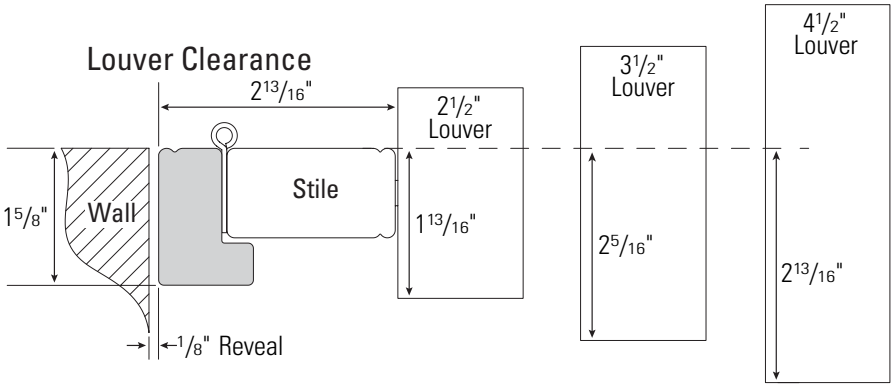
1⅝" Traditional L-Frame (L91)



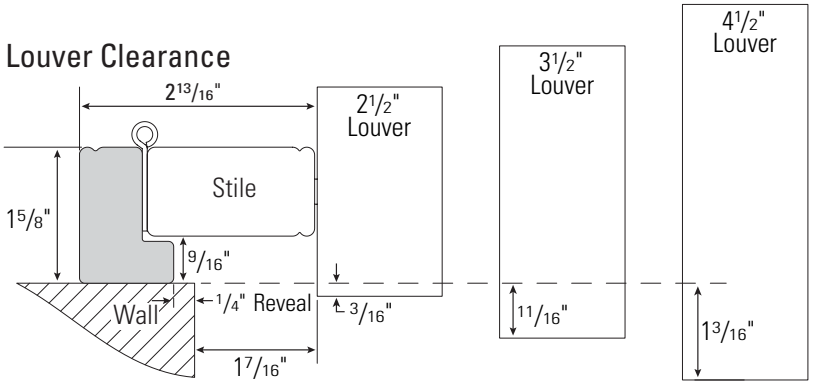
Features

As an inside mount, the frame is installed directly into the window opening. It may be mounted at various depths within the opening, depending on clearance. As an outside mount, the frame can be mounted on the outside perimeter of the window opening.

- Mounting type: inside or outside mount
- Flush inside mounting depth: 1⅝" plus louver clearance if necessary
- Minimum flat outside mounting surface: 1⅛"
- Available combinations: Casing Frame, Sill Frame ½" Light Stop, T-Post ½" Light Stop, and ½" Light Stop/Trim Strip.

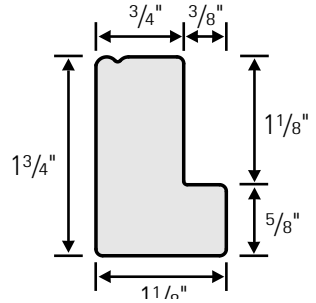


Inside Mount (IM)



Outside Mount (OM)

1 3/4" Traditional L-Frame (L98)

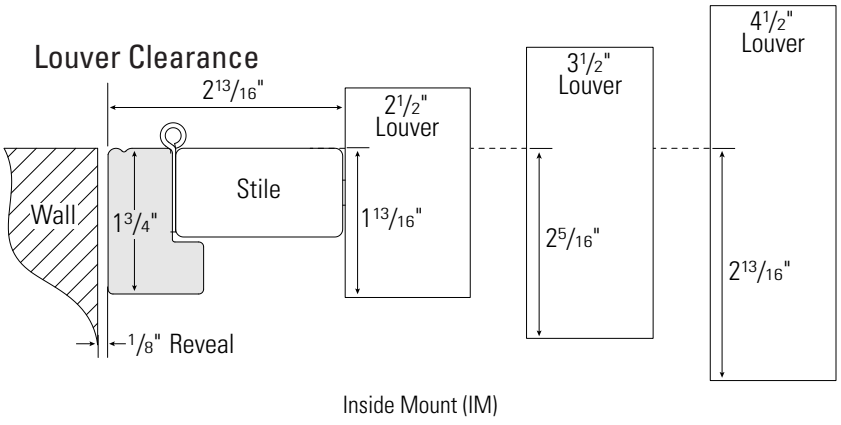


Features

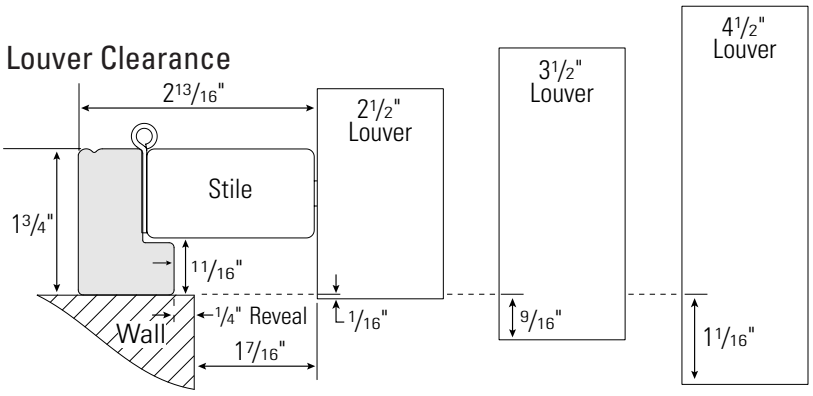
As an inside mount, the frame is installed directly into the window opening. It may be mounted at various depths within the opening, depending on clearance.

As an outside mount, the frame can be mounted on the outside perimeter of the window opening.

- Mounting type: inside or outside mount
- Flush inside mounting depth: 1 3/4" plus louver clearance if necessary
- Minimum flat outside mounting surface: 1 1/8"
- Available combinations: Traditional Tilt-In Z-Frame, Sill Frame 5/8" Light Stop, T-Post 5/8" Light Stop, and 5/8" Light Stop/Trim Strip

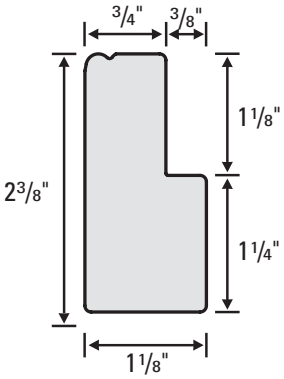


Inside Mount (IM)



Outside Mount (OM)

2 3/8" Traditional L-Frame (L93)



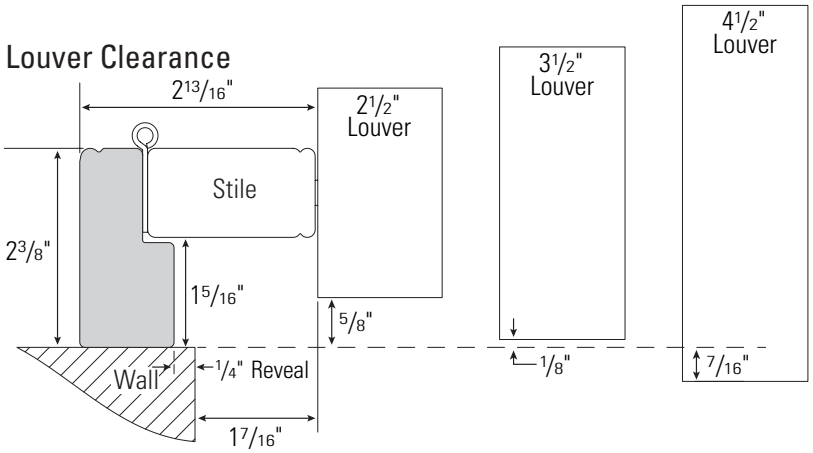
Features

The 2 3/8" Traditional L-Frame is an extended version of the 1 5/8" Traditional L-Frame. The distance from the light stop to the base is 3/4" greater. These dimension differences make the 2 3/8" Traditional L-Frame an ideal choice for French doors.

- Mounting type: inside or outside mount
- Flush inside mounting depth: 2 3/8" plus louver clearance if necessary
- Minimum flat outside mounting surface: 1 1/8"
- Available combinations: none

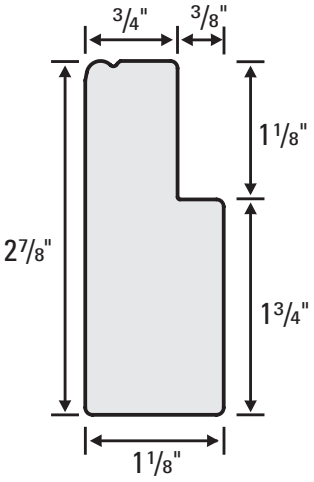
Note:

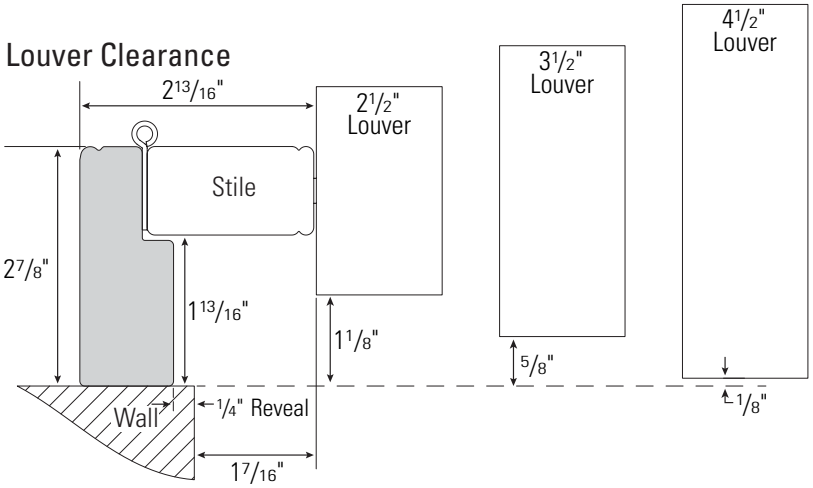
The 2 3/8" Traditional L-Frame and 2 7/8" Traditional L-Frame are not compatible with the Sill Frame due to the difference in projection.



Outside Mount (OM)

2 7/8" Traditional L-Frame (L94)





Outside Mount (OM)

Features

The 2 7/8" Traditional L-Frame is an extended version of the 2 3/8" Traditional L-Frame. The base is 1/2" deeper making this frame an ideal choice for French doors with 4 1/2" louvers with Front Tilt.

- Mounting type: inside or outside mount
- Flush inside mounting depth: 2 7/8" plus louver clearance if necessary
- Minimum flat outside mounting surface: 1 1/8"
- Available combinations: none

Note:

The 2 3/8" Traditional L-Frame and 2 7/8" Traditional L-Frame are not compatible with the Sill Frame due to the difference in projection.

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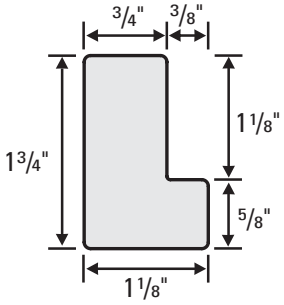
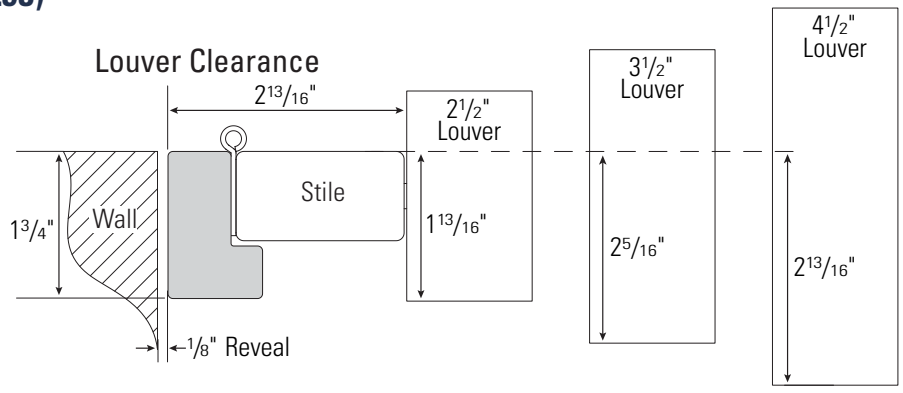
1 3/4" Contemporary L-Frame (L95)



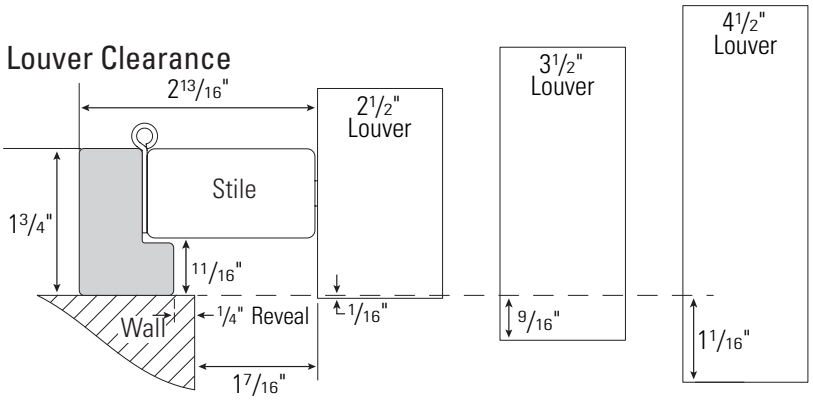


Inside Mounts (IM)

Features

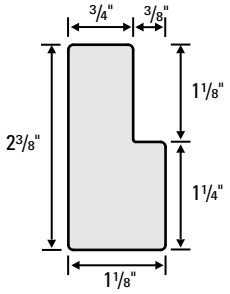
As an inside mount, the frame is installed directly into the window opening. It may be mounted at various depths within the opening, depending on clearance.
As an outside mount, the frame can be mounted on the outside perimeter of the window opening.

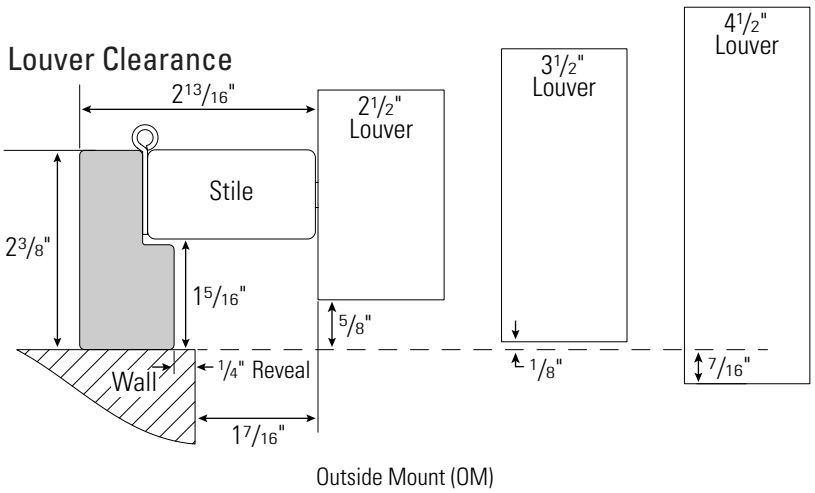
- Mounting type: inside or outside mount
- Flush inside mounting depth: 1 3/4" plus louver clearance if necessary
- Minimum flat outside mounting surface: 1 1/8"
- Available combinations: 1 3/4" Contemporary L-Frame, Sill Frame 5/8" Light Stop, T-Post 5/8" Light Stop, and 5/8" Light Stop/Trim Strip



Outside Mount (OM)

2 3/8" Contemporary L-Frame (L96)





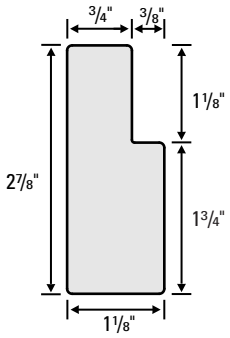
Outside Mount (OM)

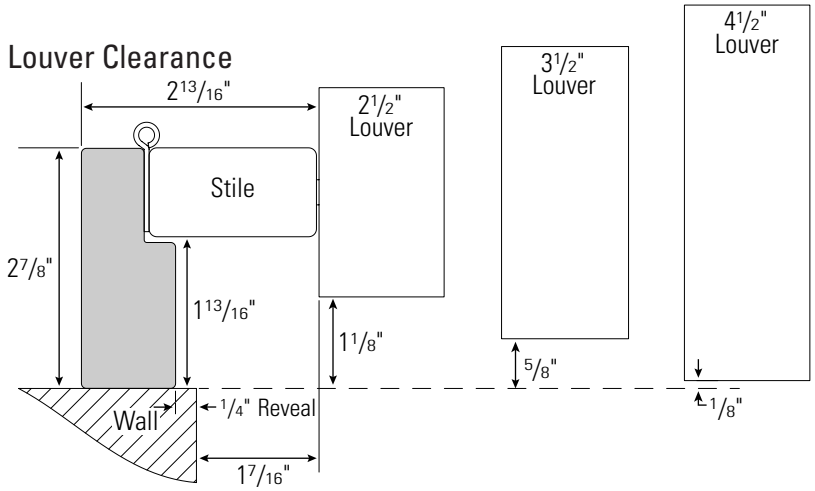
Features

The 2 3/8" Contemporary L-Frame is an extended version of the 1 3/4" Contemporary L-Frame. The taller height of the 2 3/8" Contemporary L-Frame makes it an ideal choice for French doors.

- Mounting type: inside or outside mount
- Flush inside mounting depth: 2 3/8" plus louver clearance if necessary
- Minimum flat outside mounting surface: 1 1/8"
- Available combinations: none

2 7/8" Contemporary L-Frame (L97)





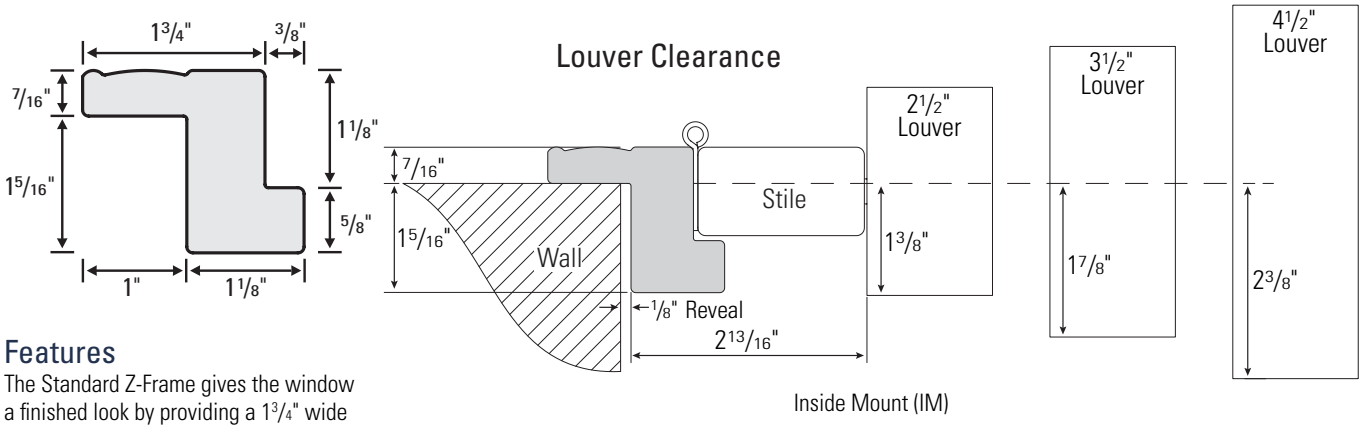
Outside Mount (OM)

Features

The 2 7/8" Contemporary L-Frame is an extended version of the 2 3/8" Contemporary L-Frame. The taller height of the 2 7/8" Contemporary L-Frame makes it an ideal choice for French doors.

- Mounting type: inside or outside mount
- Flush inside mounting depth: 2 3/8" plus louver clearance if necessary
- Minimum flat outside mounting surface: 1 1/8"
- Available combinations: none

Standard Z-Frame (Z92)



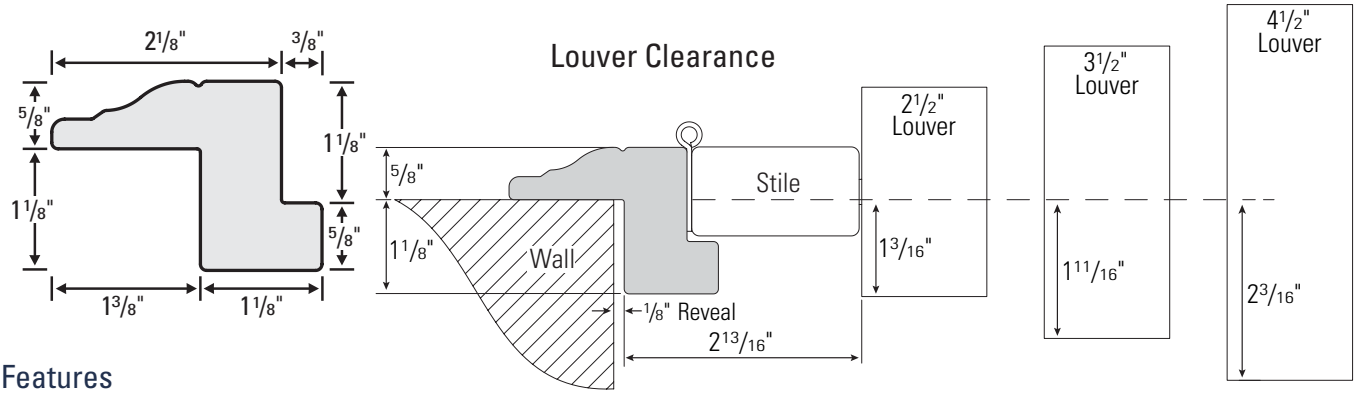
Inside Mount (IM)

Features

The Standard Z-Frame gives the window a finished look by providing a 1 3/4" wide frame around the opening. It is installed inside the window opening at a depth of 1 5/16". The face provides an overlap of 1" to accommodate outof-square windows.

- Mounting type: inside mount
- Minimum mounting depth: 1 5/16" plus louver clearance if necessary
- Available combinations: 1 3/4" Contemporary L-Frame, Sill Frame 5/8" Light Stop, T-Post 5/8" Light Stop and 5/8" Light Stop/Trim Strip

Traditional Z-Frame (Z93)



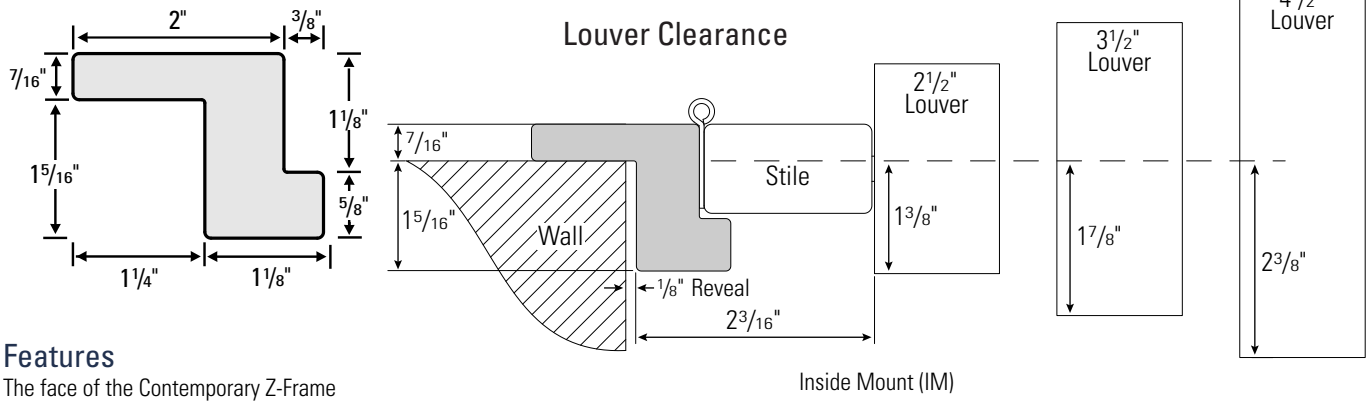
Inside Mount (IM)

Features

The 2 1/8" face of the Traditional Z-Frame is designed to coordinate with most trim and molding. It is installed inside the window opening at a depth of 1 1/8". The face provides an overlap of 1 3/8" to accommodate out-ofsquare windows.

- Mounting type: inside mount
- Minimum mounting depth: 1 1/8" plus louver clearance if necessary
- Available combinations: 1 3/4" Contemporary L-Frame, Sill Frame 5/8" Light Stop, T-Post 5/8" Light Stop and 5/8" Light Stop/Trim Strip

Contemporary Z-Frame (Z96)



Inside Mount (IM)

Features

The face of the Contemporary Z-Frame provides a clean and sleek aesthetic. It is installed inside the window opening at a depth of 1 5/16". The face provides an overlap of 1 1/4" to accommodate out-of-square windows.

- Mounting type: inside mount
- Minimum mounting depth: 1 5/16" plus louver clearance if necessary
- Available combinations: 1 3/4" Contemporary L-Frame, Sill Frame 5/8" Light Stop, T-Post 5/8" Light Stop, and 5/8" Light Stop/Trim Strip

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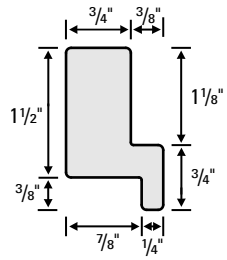
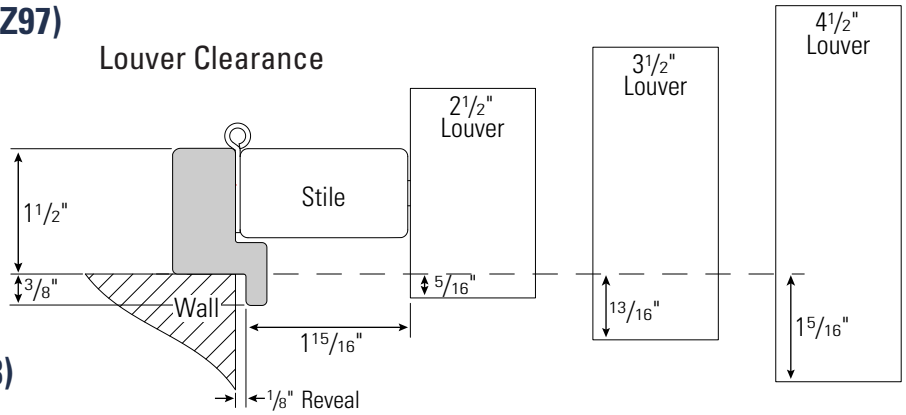
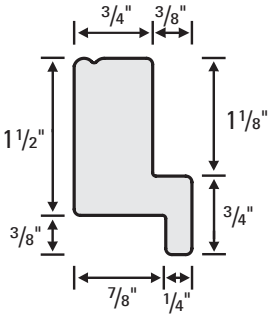
Contemporary Tilt-In Z-Frame (Z97)





Inside Mount (IM)

Traditional Tilt-In Z-Frame (Z98)



Features

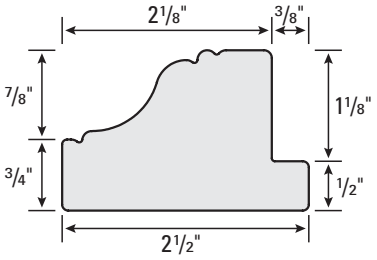
Ideal for windows that tilt inward, the Tilt-In Z-Frame is installed inside the window opening or on top of the window casing at a minimal depth of 3/8". It provides a 3/4" wide frame around the opening, giving the window a finished look. The frame's overlap of 7/8" easily accommodates out-of-square windows.

- Mounting type: inside mount
- Minimum mounting depth: 3/8" plus louver clearance if necessary
- Contemporary available combinations: 1 3/4" Contemporary L-Frame, Sill Frame 5/8" Light Stop, Contemporary T-Post 5/8" Light Stop, and 5/8" Light Stop/Trim Strip.
- Traditional available combinations: 1 3/4" Traditional L-Frame, Sill Frame 5/8" Light Stop, Traditional T-Post 5/8" Light Stop, and 5/8" Light Stop/Trim Strip.

Notes

- The combinations of the Traditional and Contemporary Tilt-In Z-Frame and L frame light stops will not match up on the rear of the shutter.

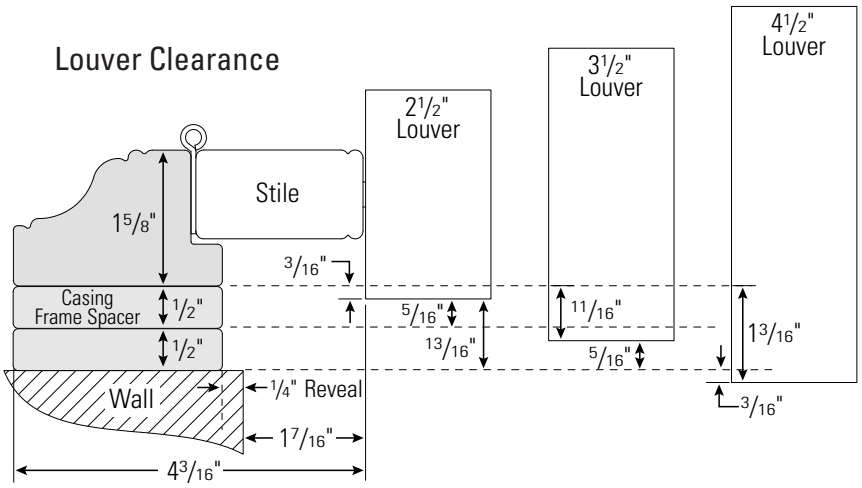
Casing Frame (C91)



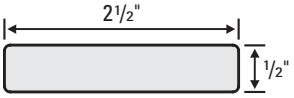
Features

The Casing Frame is designed to be mounted on the outside perimeter of the window opening to create the look of a decorative molding. Its base of 2 1/2" allows it to be mounted over molding in many cases. For additional frame projection, order the Casing Frame Spacer as build-out or lineal material (see Pricing – Surcharges & Accessories∞).

- Mounting type: outside mount
- Minimum flat outside mounting surface: 2 1/2"
- Available combinations: Standard L-Frame, Sill Frame 1/2" Light Stop, T-Post 1/2" Light Stop, and 1/2" Light Stop/Trim Strip



Casing Frame Spacer (TCS)

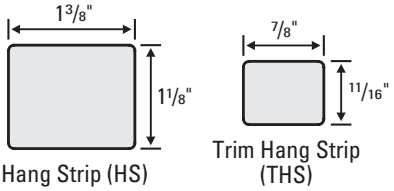


Features

The Casing Frame Spacer can be ordered as build-out or lineal material to provide more projection. A surcharge is applied when ordered as build-out.

- Dimensions: 2 1/2" x 1/2"
- One build-out equals 1/2"
- Two build-outs equal 1"

Hang Strip/Build-Out (HS/THS)



Features

Hang Strip is an alternative mounting method. Hang Strip (HS) can be mounted to the side (HSS) or behind (HSB) the panels as inside mount (IM) or outside mount (OM). Trim Hang Strip (THS) is only available as HSB for IM. The 11/16" side is attached to the window jamb on an IM application. Wrap around hinges are used for all HSB applications. See louver clearance charts (Standard Hinged Panels — Frame and Louver Clearances∞) for hinge placement. On inside mount applications, the Hang Strip will be 1/16" shorter than the ordered height to ensure space for mounting to the inside of the opening. Light Stop is recommended to minimize the light gaps around panels.

Hang Strip can be used as a build-out for extra projection of Bi-Fold and Bypass Track Frames. Up to two build-outs can be used. Hang Strip is also used with French door (FD) applications.

Note:

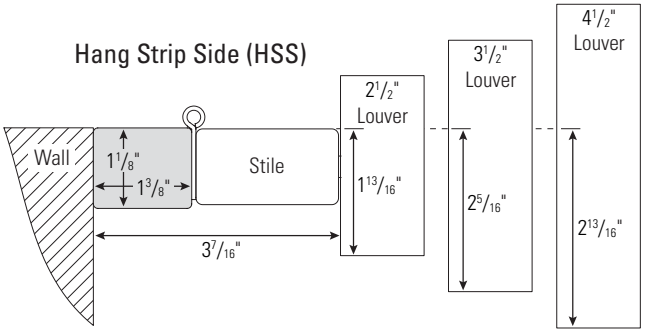
Hang Strips used with wrap-around hinges may result in panel sag. Bi-Fold panels greatly increase the chance of this occurring.

Notes:

- For Front Tilt and Concealed Tilt, with all frame types, allow an additional 1/4" for louver clearance from the back edge of the louvers.
- Always check for obstructions.

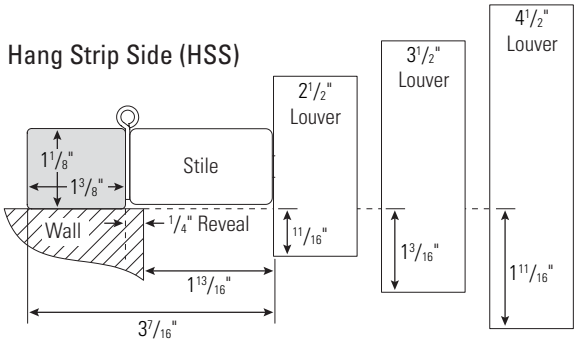
Louver Clearances

Hang Strip Side (HSS)



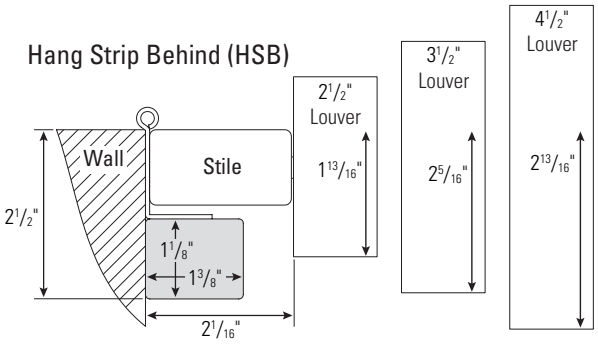
Inside Mount (IM)

Hang Strip Side (HSS)



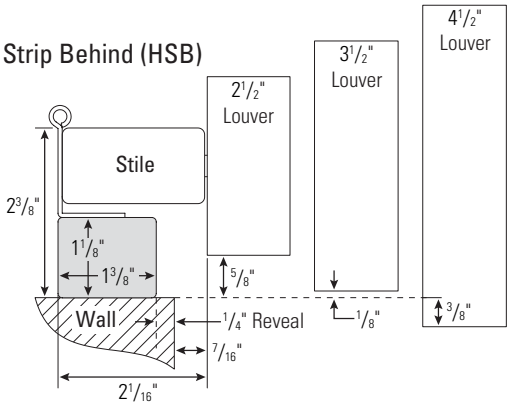
Outside Mount (OM)

Hang Strip Behind (HSB)



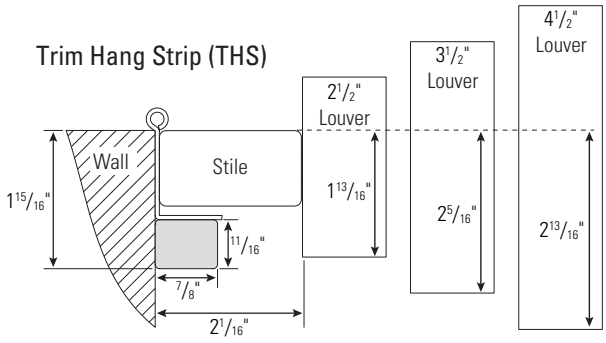
Inside Mount (IM)

Hang Strip Behind (HSB)

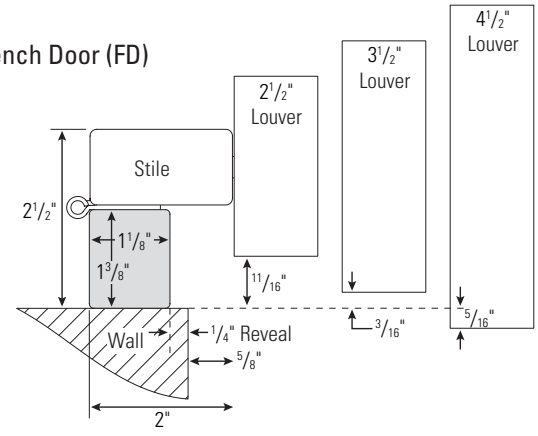


Outside Mount (OM)

Trim Hang Strip (THS)

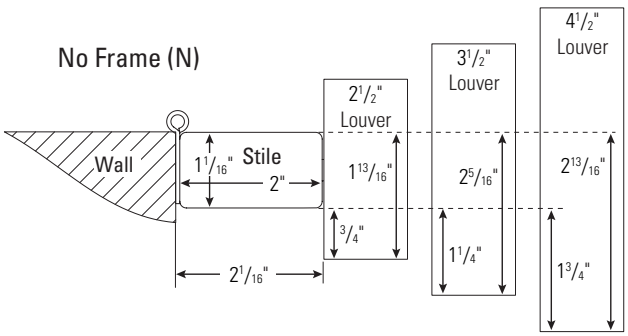


French Door (FD)



Outside Mount (OM)

No Frame (N)



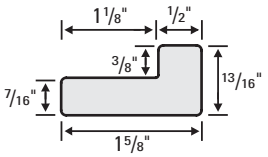
Inside Mount (IM)

Notes

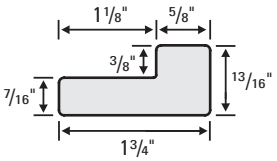
- For Front Tilt and Concealed Tilt, with all frame types, allow an additional 1/4" for louver clearance from the back edge of the louvers.
- Always check for obstructions.

Frames

Sill Frame



Sill Frame 1/2" Light Stop (S12)



Sill Frame 5/8" Light Stop (S58)

Features

The Sill Frame is recommended for inside mount frames resting on a sill. It mounts to the window sill to prevent light leakage and provides a finishing touch.

Note:

The Sill Frame is not compatible with Trim L-Frame, Trim L-Frame + 1/2" Partial Trim Extension and Trim L-Frame + 1" due to the difference in projection.

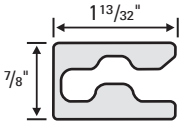
- Mounting type: sill mount
- Sill Frame 1/2" Light Stop — Available combinations: Standard L-Frame, Casing Frame, T-Post 1/2" Light Stop and 1/2" Light Stop/Trim Strip
- Sill Frame 5/8" Light Stop — Available combinations: 1 3/4" Traditional L-Frame, 1 3/4" Contemporary L-Frame, Standard Z-Frame, Colonial Z-Frame, Traditional Z-Frame, Contemporary Z-Frame, Tilt-In Z-Frame, T-Post 5/8" Light Stop and 5/8" Light Stop/Trim Strip

Notes:

- All frames are designed with integrated light stop.
- For Hang Strip inside mount applications, or on sides with no frame, Light Stop is recommended to minimize the light gaps around panels. It must be ordered in the Frame Detail.
- Light Stop is not included as standard for tops of café units, track configurations or 3D applications.
- Additional Light Stop/Trim Strip, Hang Strip, or Trim Hang Strip may be ordered as lineal material for finishing or detailing the installation.

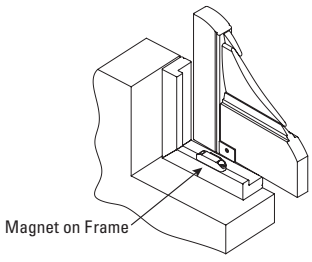
Hinge Shim

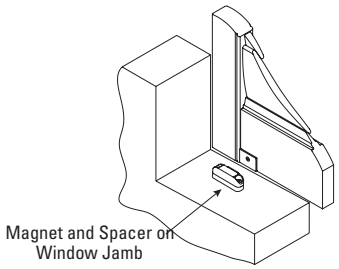
A thin piece of plastic designed to fit between the hinge and the mounting surface and aid in panel alignment.



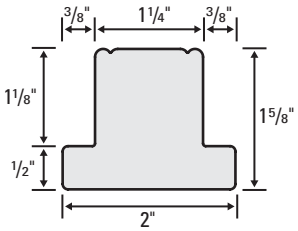
Magnets

Panels are held closed by using magnets. Magnets are available pre-installed or shipped separately to install on site. When Light Stop is not ordered, a magnet spacer will be provided to position the magnet at the correct height.

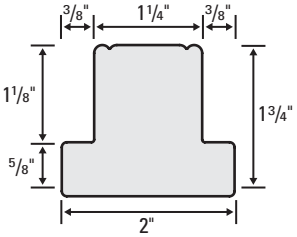




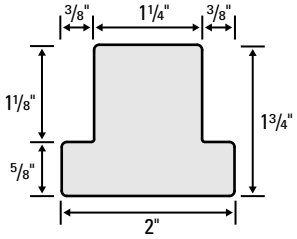
T-Post



Traditional T-Post
1/2" Light Stop (T12T)



Traditional T-Post
5/8" Light Stop (T58T)



Contemporary T-Post
5/8" Light Stop (T58N)

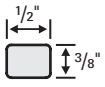
Features

T-Posts are vertical components of the shutter frame that separate the frame into multiple panel sets. Shutter panels are hinged within each set. T-Posts allow for placement of more panels (or panel sets) within the same opening and add structural integrity to a shutter.

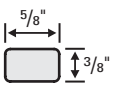
Notes:

- Traditional T-Post 1/2" Light Stop — Available combinations: 1 5/8" Traditional L-Frame, Casing Frame, Sill Frame 1/2" Light Stop and 1/2" Light Stop/Trip Strip
- Traditional T-Post 5/8" Light Stop — Available combinations: 1 3/4" Traditional L-Frame, Traditional Tilt-In Z-Frame, Sill Frame 5/8" Light Stop, and 5/8" Light Stop/Trim Strip
- Modern T-Post 5/8" Light Stop — Available combinations: 1 3/4" Contemporary L-Frame, Standard Z-Frame, Traditional Z-Frame, Contemporary Z-Frame, Contemporary Tilt-In Z-Frame, Sill Frame 5/8" Light Stop, and 5/8" Light Stop/Trim Strip
- Light Stop and 5/8" Light Stop/Trim Strip T-Posts can be used with the Trim L-Frame Partial Trim Extension and Trim L-Frame + 1/2" Partial Trim Extension; however, the back of the T-Post will not be flush with the back of the frame.
- Vertical T-Posts are not recommended with three-sided or café applications due to possible lack of a stable mounting surface.
- Vertical T-Posts are recommended on standard hinged, bi-fold panels where the width is greater than the height. Example: LLRR should be ordered as LRTLR.
- T-Posts are used horizontally in continuous framed specialty applications. T-Posts can also be used horizontally in double-hung applications.

Light Stop/Trim Strip (LS12 and LS58)



1/2" Light Stop/
Trim Strip (LS12)



5/8" Light Stop/
Trim Strip (LS58)

Features

When needed, Light Stop/Trim Strip is used to finish an installation. It should be ordered as lineal material.

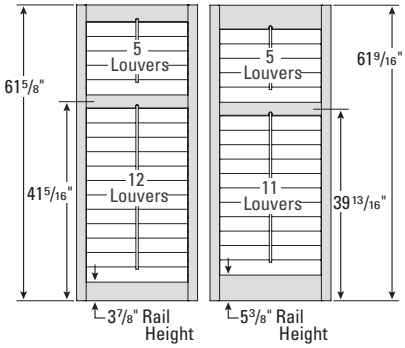
Measuring Guidelines

Importance of Accuracy

Proper fit requires precise, accurate measurements. It is essential to use a quality steel tape measure. Measure all windows, even though they may appear to be identical. Measurements should indicate the width first, then the height. Always measure to the nearest 1/16".

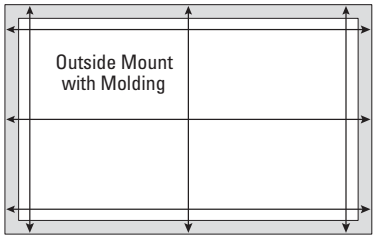
Notes:

- Cranks, latches, depth, and squareness of the window opening must also be considered.
- Ordering openings with minor height variations may result in significant differences in louver count, divider rail placement, and rail size as shown in the example below. To avoid this issue, order all openings of similar height with the exact same height, divider rail location, or split tilt, etc.



Outside Mount Frames on Molding

1. Measure the width and height from outside of molding to outside of molding in three places, as indicated below. Order the **largest** size.



Ordered measurements will be the finished size of the shutter including the frame.

Outside Mount L Frames Around Molding

Note:

Take into consideration the construction of the window to ensure sufficient mounting space and a secure attachment to the wall stud or window framing.

1. Measure the width and height in three places, as described above.
2. To determine ordered size, add the appropriate overlap factors from the Outside Mount Frame Overlap chart.

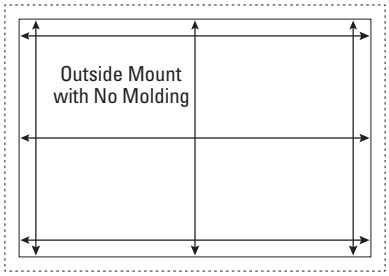
Ordered measurements will be the finished size of the shutter including the frame.

Note:

If the molding is wider than 1 3/8", it will be visible when louvers are opened. Check louver clearance to determine if build-out is required.

Outside Mount with L Frames or Casing Frame (No Molding)

1. Measure the width and height inside the opening in three places, as indicated below. Record all measurements.



2. To determine ordered size, add the appropriate overlap factors from the Outside Mount Frame Overlap chart.

Ordered measurements will be the finished size of the shutter including the frame.

Outside Mount Frame Overlap

Frame Type	Overlap per Frame Side
All L Frames	1 3/8"
Casing Frame	2 3/4"

Note:

Overlap factor provides for frame base plus 1/4" reveal per frame side. Add additional reveal when required.

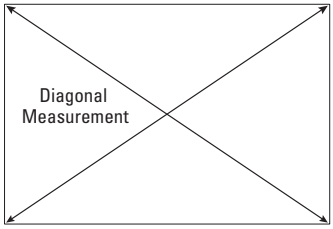
Inside Mount with L Frames or Z Frames

Z frames require these flat surfaces around the opening for the frame overlap (per frame side):

- Standard Z-Frame (Z92): 1"
- Traditional Z-Frame (Z93): 1 3/8"
- Contemporary Z-Frame (Z96): 1 1/4"
- Contemporary Tilt-in Z-Frame (Z97): 7/8"
- Traditional Tilt-in Z-Frame (Z98): 7/8"

L frames fit inside the opening and require no overlap.

1. Measure the width inside the opening at the top, middle, and bottom. Order the **smallest** size.
2. Measure the height inside the opening at the left, center, and right. Order the **smallest** size.
3. To determine squareness, measure diagonally from top left to bottom right from top right to bottom left. If the measurements are not equal, the opening is not square. If the measured difference is greater than 1/2", reduce the ordered size accordingly or consider an outside mount.



Minimum Mounting Depths

For minimum mounting depths refer to Standard Hinged Panels℠.

Inside Mount Deductions

Your ordered measurements are the size from which deductions will be taken at the factory. Follow the same measuring procedures (steps 1, 2, and 3) as shown for inside mounts with L frames or Z frames.

Inside Mount Framed Deductions

Frame Type	Width	Height
4-Sided Frames	–1/4"	–1/4"
3-Sided Frames with no Bottom	–1/4"	–1/8"

Note:
All deductions are taken from ordered dimensions and may vary ±1/16".

Inside Mount No Frame Deductions

Frame Type	Width	Height
Panel Deductions	–3/16"	–1/4"

Note:
- All deductions are taken from ordered dimensions and may vary ±1/16".
- Hinge thickness consumes half of width deduction.

Inside Mount Hang Strip Behind (HSB) and Hang Strip to the Side (HSS) Deductions

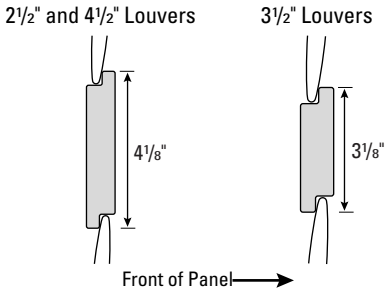
Frame Type	Width	Height
Panel Deductions	–3/16"	–1/4"
Frame Deductions — 1- or 2-Sided	0"	–1/16"
Frame Deductions — 3-Sided	–1/4"	–1/8"
Frame Deductions — 4-Sided	–1/4"	–1/4"

Notes:
- All deductions are taken from ordered dimensions and may vary ±1/16".
- With 3-sided door applications (3D), the factory will provide 5/8" panel-to-floor deduction.
- Light Stop is recommended to minimize the light gaps around panels. It must be ordered in the Frame Detail.

Measuring for Divider Rails and Split Tilt

Divider Rails

Divider rails add strength to shutter panels while providing versatility. With a divider rail in place, the separate sections of the shutter panel operate independently of each other.



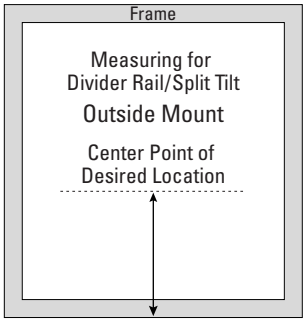
For Standard Hinged panels, one divider rail is required for panels greater than 72" in height. Two divider rails are required for panels greater than 102" in height.
For Track Configurations, French door cut-outs, and their companions, one divider is required for panels greater than 84" in height.

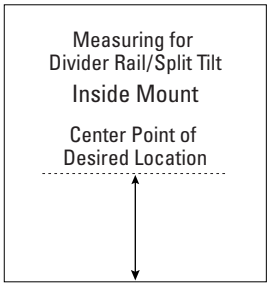
Notes:
- Divider rail location may vary up or down as much as 1" with 2½" louvers, 1½" with 3½" louvers, and 2" with 4½" louvers.
- In the closed position, the ordered split tilt height will be covered by the lower louver section.
- The top of the louver in the lower louver section, in the closed position, may be above the ordered split tilt location by as much as 2" with 2½" louvers, 3" with 3½" louvers, and 4" with 4½" louvers. If location is critical, contact Customer Service.

Divider Rail/Split Tilt Location

The divider rail/split tilt should be placed to meet customer needs. You must indicate placement of the divider rail/split tilt.

Note
With multiple windows in the same room, order the same heights whenever possible to avoid visual misalignment.
- Outside mount: measure from the bottom of where the frame will be located to the center point of the desired location.
- Inside mount: measure from the bottom inside of the opening to the center point of the desired location.
- Three-sided frame: measure from the floor or sill to the center point of the desired location.





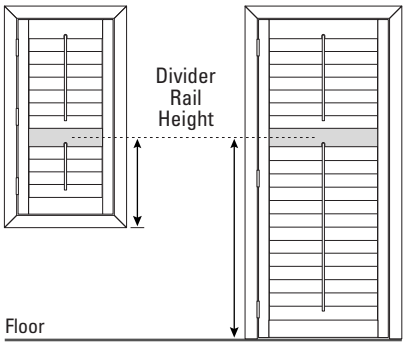
These are the requirements when specifying divider rail or split tilt locations:
- Maximum distance from center of the divider rail to the center of other divider rails, or to the top and bottom of a shutter panel:
  - Standard Hinged Panels: 72"
  - Track configurations, French door cutouts and their companions: 84"

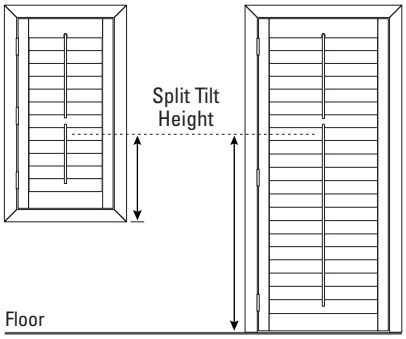
Minimum Louver Chart Divider Rail

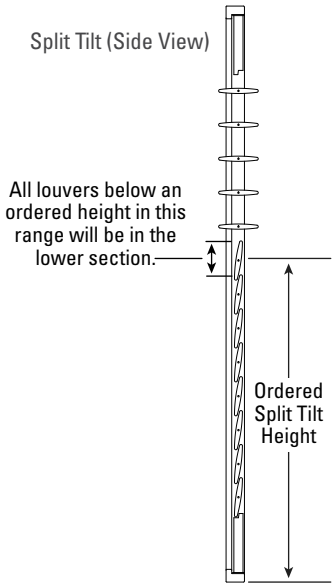
Operating System	2½"	3½"	4½"
Front Tilt	2	2	2
Concealed Tilt	2	2	2

Specifying Divider Rail/Split Tilt Locations on Windows of Different Heights

1. Determine the desired divider rail/split tilt location for all windows.
2. Mark the location on the molding or wall at the first window.
3. Measure from the floor to your mark.
4. Carry that measurement from the floor to all the other windows and mark the molding or wall at each location.
5. Then measure up to the mark on all windows, following the procedure for outside mounts, inside mounts, or three-sided frames.







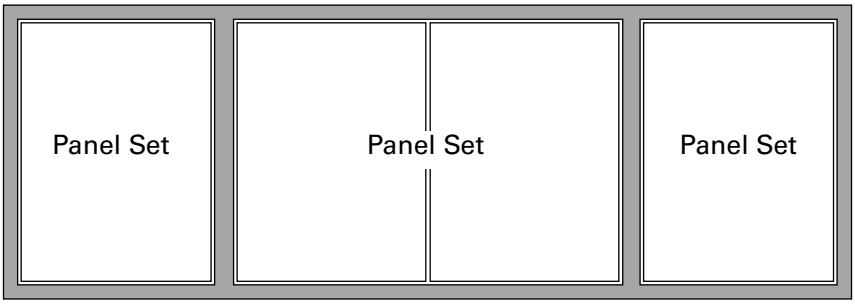
Openings with T-Posts

- A T-Post is a vertical component of the shutter frame that separates the frame into multiple panel sets. Shutter panels are hinged within each set.
- T-Posts allow for placement of more panels (or panel sets) within the same opening, and add structural integrity to a shutter.
- T-Posts can be ordered as EQP or measured.

EQP T-Posts

- All panels in the opening are equal in width.
- T-Post positions are predetermined based on the shutter configuration.
- T-Post and panel width measurements are not required.

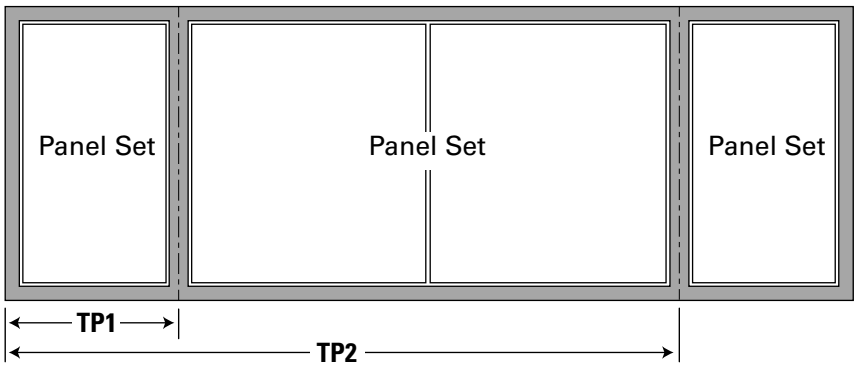
EQP T-Posts



Measured T-Posts With Even Panels

- Panel widths are equal within each panel set.
- T-Post positions are measured.
- T-Post measurements (TP1, TP2, etc.) are required.
- Panel width measurements are not required.

Measured T-Posts With Even Panels



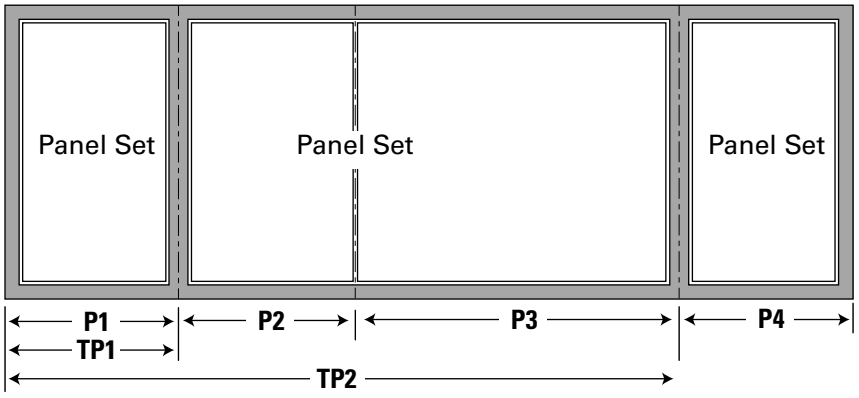
Measured T-Posts With Uneven Panels

- Panel widths are not equal within each panel set.
- T-Post positions are measured.
- T-Post measurements (TP1, TP2, etc.) are required.
- Panel width measurements (P1, P2, etc.) are required.

Example shown on the right:

— P1 must be equal to TP1
— P1 + P2 + P3 must be equal to TP2
— P1 + P2 + P3 + P4 must be equal to the ordered width

Measured T-Posts With Uneven Panels



Measuring for T-Posts

1. Measure from the left-most point of the overall ordered width (for outside mount, include frame adder) to the center of the first desired T-Post location.
2. Measure from the left-most point of the overall ordered width to the center of the second desired T-Post location.
3. Repeat this procedure for any additional T-Post locations.
4. Enter the desired T-Post locations in designated section of the order form.

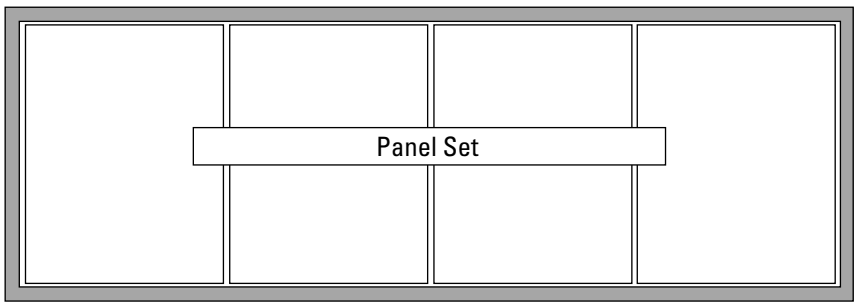
Openings without T-Posts

- All panels within the opening make up one panel set.
- Shutters without T-Posts can be ordered with Even panels or Uneven panels. Even panels is the default.
  - To order a shutter with all panels having equal widths, select Even panels.
  - When specific panel widths are needed, use special instructions to enter the desired locations where the panels should meet.

Even Panels

- All panels in the opening are equal in width.
- Panel width measurements are not required.

Even Panels



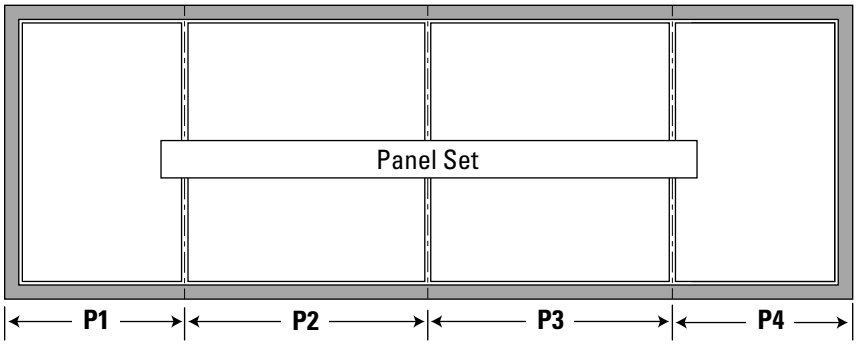
Uneven Panels

- Panel widths are not equal.
- Panel width measurements are required.

Example shown on the right:

- P1 + P2 + P3 + P4 must be equal to the ordered width

Uneven Panels



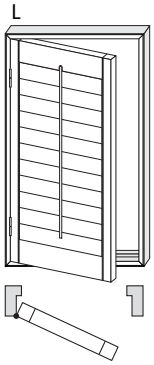
Configurations

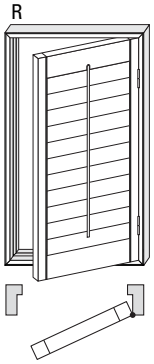
Overview

In this panel configuration section, some of the most popular shutter configurations are shown. Each configuration has a letter code, as well as minimum and maximum ordered widths. Order your shutter configuration by the example codes shown.
Ordering panels in even numbers is often suggested because it allows for uniform folding when the panels are opened to the side of the window.
The use of a T-Post increases the number of possible panel combinations.
Notes:

- The minimum and maximum ordered widths include frames and T-Posts as illustrated.
- For minimum and maximum panel dimensions, see Size Standards[∞].
- Bi-Fold or Bypass track configurations are recommended for large 3-sided door openings.
- Vertical T-Posts are recommended on standard hinged, bi-fold panels where the width is greater than the height. Example: LLRR should be ordered as LRTLR.

One Panel

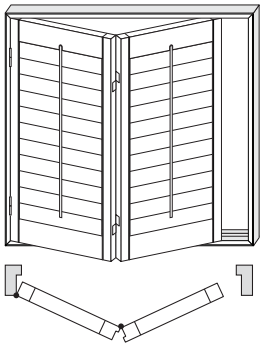




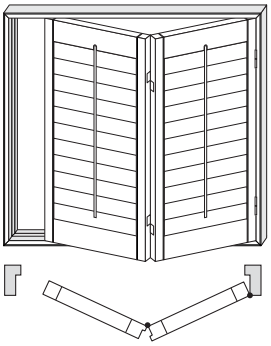
		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	$7\frac{3}{16}$"	$36\frac{3}{16}$"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	$8\frac{15}{16}$"	$37\frac{15}{16}$"
	HSS	$9\frac{15}{16}$"	$38\frac{15}{16}$"
OM	N, HSB	7"	36"
	L91, L93, L94, L95, L96, L97, L98	$8\frac{11}{16}$"	$37\frac{11}{16}$"
	HSS	$9\frac{15}{16}$"	$38\frac{15}{16}$"
	C91	$11\frac{7}{16}$"	$40\frac{7}{16}$"

Two Panels — Bi-Fold

LL



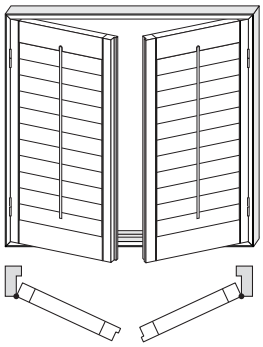
RR



		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	7 3/16"	36 3/16"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	8 15/16"	37 15/16"
	HSS	9 15/16"	38 15/16"
OM	N, HSB	7"	36"
	L91, L93, L94, L95, L96, L97, L98	8 11/16"	37 11/16"
	HSS	9 15/16"	38 15/16"
	C91	11 7/16"	40 7/16"

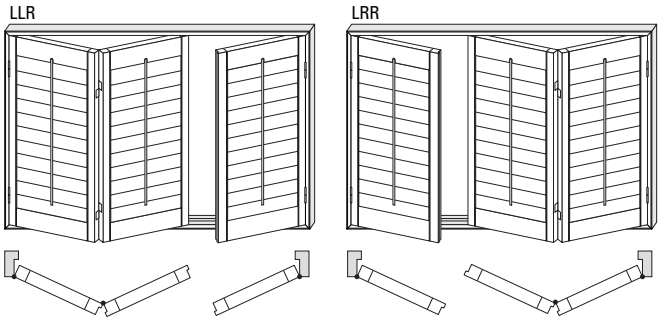
Two Panels — Individually Hinged

LR



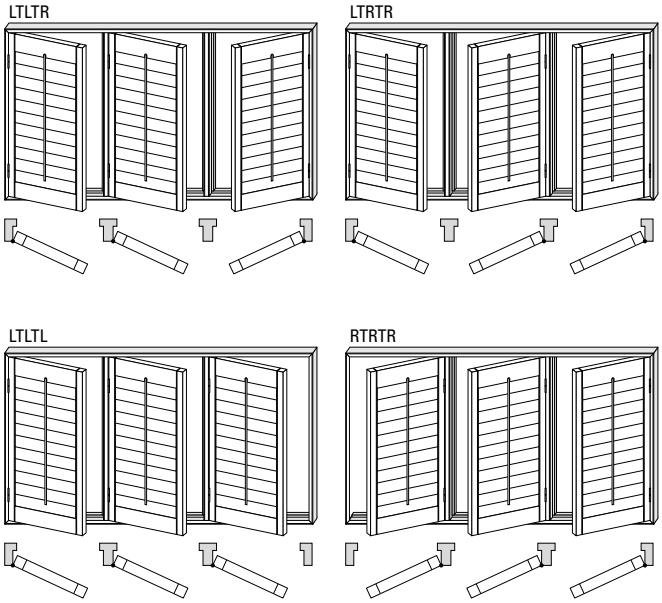
		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	14"	72"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	15 3/4"	73 3/4"
	HSS	16 3/4"	74 3/4"
OM	N, HSB	13 13/16"	71 13/16"
	L91, L93, L94, L95, L96, L97, L98	15 1/2"	73 1/2"
	HSS	16 3/4"	74 3/4"
	C91	18 1/4"	76 1/4"

Three Panels — Bi-Fold



		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	$20\frac{7}{8}$"	$77\frac{7}{8}$"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	$22\frac{5}{8}$"	$79\frac{5}{8}$"
	HSS	$23\frac{5}{8}$"	$80\frac{5}{8}$"
OM	N, HSB	$201\frac{11}{16}$"	$77\frac{11}{16}$"
	L91, L93, L94, L95, L96, L97, L98	$22\frac{3}{8}$"	$79\frac{3}{8}$"
	HSS	$23\frac{5}{8}$"	$80\frac{5}{8}$"
	C91	$25\frac{1}{8}$"	$82\frac{1}{8}$"

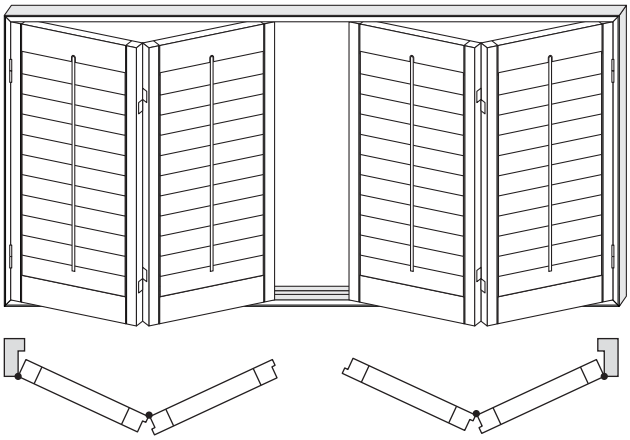
Three Panels — Individually Hinged



		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	$24\frac{1}{16}$"	$111\frac{1}{16}$"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	$25\frac{13}{16}$"	$112\frac{13}{16}$"
	HSS	$26\frac{13}{16}$"	$113\frac{13}{16}$"
OM	N, HSB	$23\frac{7}{8}$"	$110\frac{7}{8}$"
	L91, L93, L94, L95, L96, L97, L98	$25\frac{9}{16}$"	$112\frac{9}{16}$"
	HSS	$26\frac{13}{16}$"	$113\frac{13}{16}$"
	C91	$28\frac{5}{16}$"	$115\frac{5}{16}$"

Four Panels — Bi-Fold

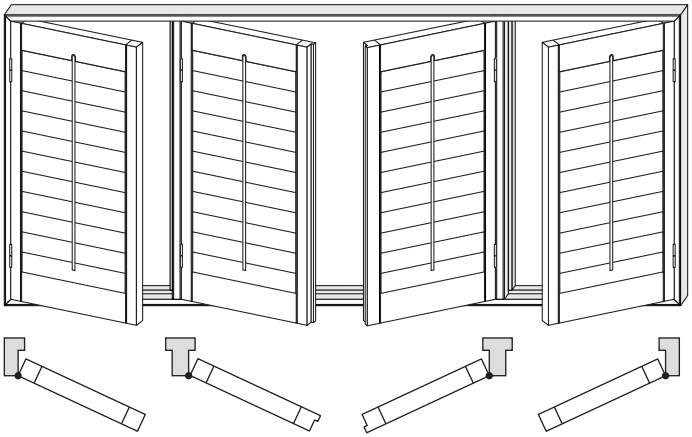
LLRR



		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	27 11/16"	103 11/16"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	29 7/16"	105 7/16"
	HSS	30 7/16"	106 7/16"
OM	N, HSB	27 1/2"	103 1/2"
	L91, L93, L94, L95, L96, L97, L98	29 3/16"	105 3/16"
	HSS	30 7/16"	106 7/16"
	C81	31 15/16"	107 15/16"

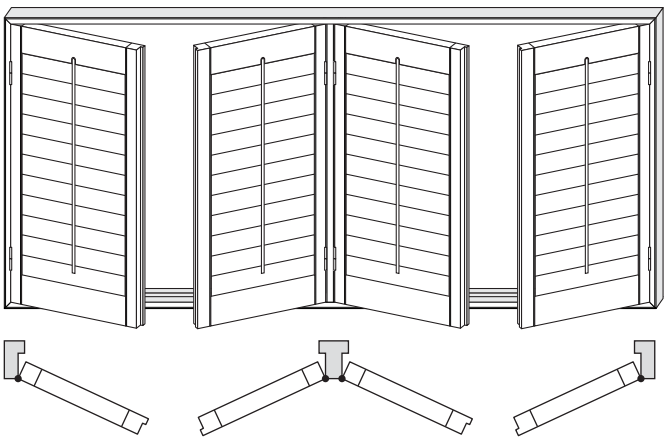
Four Panels — Individually Hinged

LTLRTR



		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	30 7/8"	146 7/8"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	32 5/8"	148 5/8"
	HSS	33 5/8"	149 5/8"
OM	N, HSB	30 11/16"	146 11/16"
	L91, L93, L94, L95, L96, L97, L98	32 3/8"	148 3/8"
	HSS	33 5/8"	149 5/8"
	C91	35 1/8"	151 1/8"

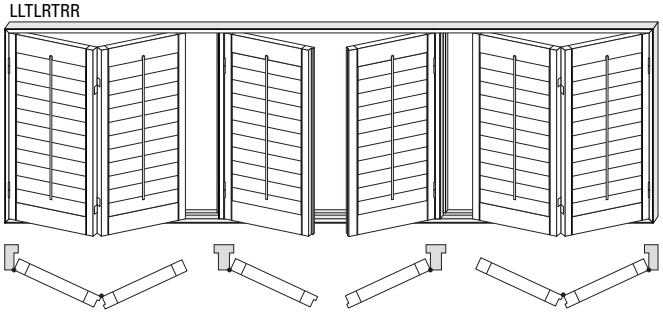
LRTLR



		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	29 1/4"	145 1/4"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	31"	147"
	HSS	32"	148"
OM	N, HSB	29 1/16"	145 1/16"
	L91, L93, L94, L95, L96, L97, L98	30 3/4"	146 3/4"
	HSS	32"	148"
	C91	33 1/2"	149 1/2"

Six Panels — Bi-Fold

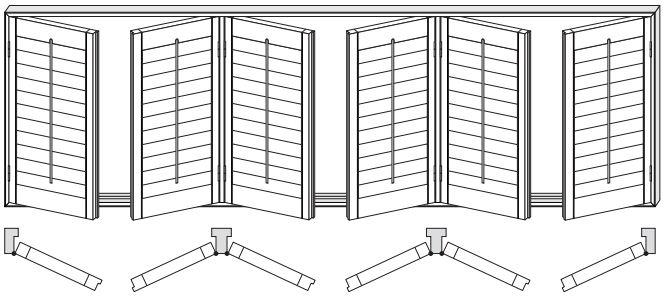
LLTLRTRR



		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	49 9/16"	158 9/16"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	51 5/16"	160 5/16"
	HSS	52 5/16"	161 5/16"
OM	N, HSB	49 3/8"	158 3/8"
	L91, L93, L94, L95, L96, L97, L98	51 1/16"	160 1/16"
	HSS	52 5/16"	161 5/16"
	C91	48 13/16"	162 13/16"

Six Panels — Individually Hinged

LRTLRTLR

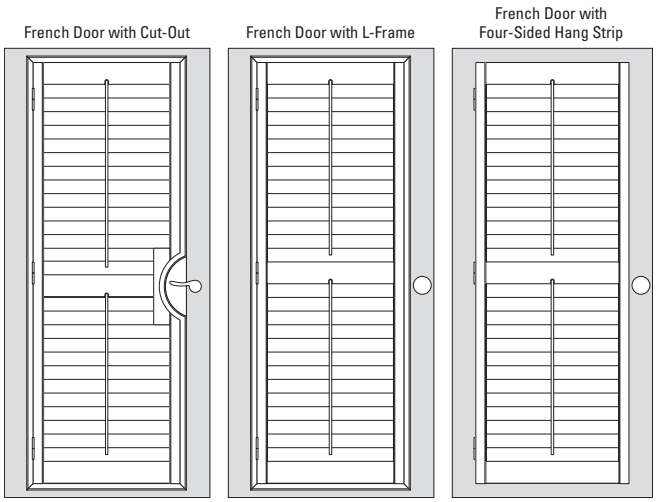


		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	44 1/2"	218 1/2"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	46 1/4"	220 1/4"
	HSS	47 1/4"	221 1/4"
OM	N, HSB	44 5/16"	218 5/16"
	L91, L93, L94, L95, L96, L97, L98	46"	220"
	HSS	47 1/4"	221 1/4"
	C91	48 3/4"	222 3/4"

Note:
Other multiple panel arrangements are possible, including eight and ten panels. Consult Customer Service for details.

The Basics

Shutters for French doors are always ordered as outside mount (OM) s. They are single panel shutters hinged on the same side as the actual French door. Depending on the type of handle and door, there are several different frame options that can be specified, including doors with and without cut-outs. Shutters with cut-outs provide clearance for lever handles. Whichever frame option you choose, always check for sufficient clearance and possible obstructions.



Frame Options

L Frames

There are four L-Frame projections available for French door applications:

- 2 3/8" Traditional L-Frame (L93)
- 2 7/8" Traditional L-Frame (L94)
- 2 3/8" Contemporary L-Frame (L96)
- 2 7/8" Contemporary L-Frame (L97)

Full and partial trim extensions are available for projecting door trim.

Frame Type	Options
2 3/8" L-Frame	SH, FDC, Trim Extension
2 7/8" L-Frame	SH, FDC, Trim Extension
4-Sided Hang Strip	FD

Hang Strips

Hang strips may be used when the French door has a small handle. The hang strips are fabricated into a four-sided mitered frame that is concealed by the closed shutter panel. This provides an installation where only the shutter panel is visible from the front view.

Build-Out

There are three build-out options for French doors. 1/2" Light Stop (LS12) and 5/8" Light Stop (LS58) are available as 3/8" build-out, and Trim Hang Strip (THS) is available as 11/16" build-out.

Frames with Full Louver Clearance

For details, see Standard Hinged Panels.

Louver Size	2 1/2"	3 1/2"	4 1/2"
2 3/8" L-Frame	F	F or C	—
2 7/8" L-Frame	F or C	F or C	F or C
Hang Strip (FD)	F or C	F	—

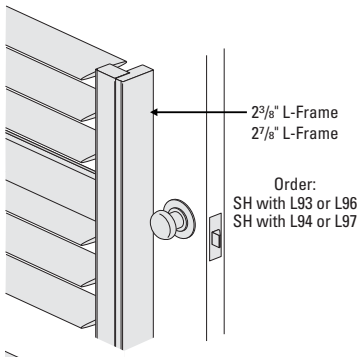
Note:
F = front tilt; C = Concealed Tilt.

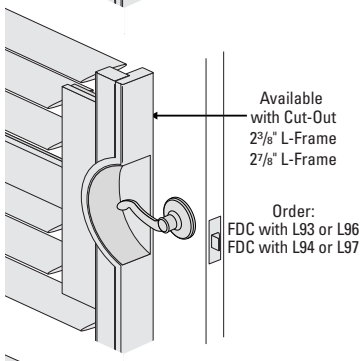
Measuring and Ordering

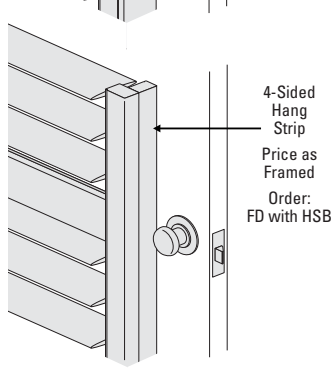
Measuring instructions for all French Door frame options are shown on the following pages. Use the measuring guidelines with the specific Hardwood worksheets.

When ordering, use the following codes for frame type:

- L93: 2 3/8" Traditional L-Frame (L93)
- L94: 2 7/8" Traditional L-Frame (L94)
- L95: 2 3/8" Contemporary L-Frame (L96)
- L96: 2 7/8" Contemporary L-Frame (L97)
- Trim Extensions (add trim extension code to frame code; example: L93KP):
  - — KP: Partial Extension
  - — KF: Full Extension
- HSB: Hang Strip Behind







French Door Cut-Outs

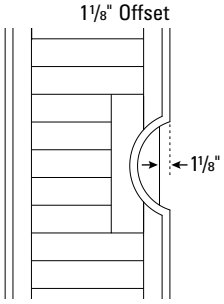
Two cut out shapes are available with French doors, curved and rectangular. Both shapes are designed to fit around door handles and deadbolts. A 3/8" back plate covers the cut-out area and sits against the door. The back plate extends into the louver area of the shutter panel. Cut-outs are available with and without an offset, and with full or partial trim extensions.

French door cut-out shutters will be built to ordered width and height.

Surcharges

Add the appropriate French door cut-out surcharge to the base price of the framed shutter.

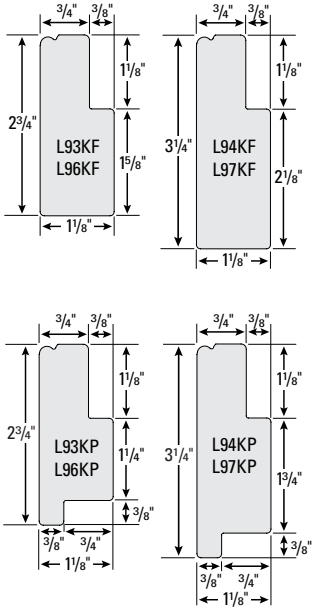
Offset Cut-Outs



With offset cut-outs, the flange area is offset the width of the frame base (1 1/8"). This is a good option where there is limited space between the door handle/ hardware and the glass. When ordering, specify an offset on the French Door Cut-Out worksheet.

Trim Extensions

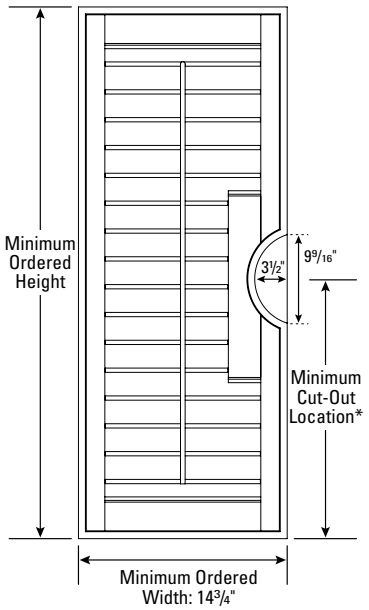
The frame can be extended to fit on the projecting trim that surrounds some glass openings. There are two types of trim extensions, full and partial. Trim extensions can be ordered per side — top, left, right, and bottom. If ordering a trim extension and offset cut-out, a gap may be visible behind the backplate.



Curved Cut-Out Sizes

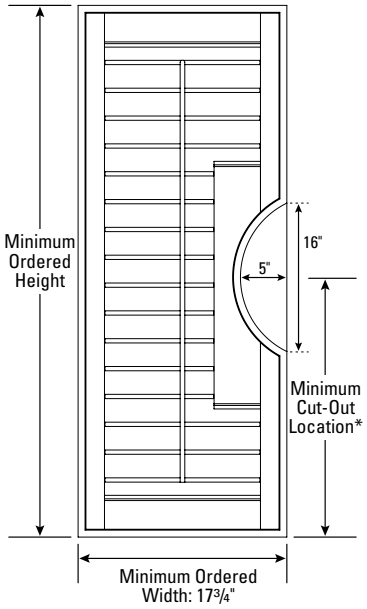
Two size cut-out options are available: 3 1/2" and 5". The 3 1/2" cut-out accommodates most door levers. The 5" cut-out is for longer lever handles and deadbolt locks. Both sizes can be ordered with or without an offset. See the illustrations below.

3 1/2" Curved French Door Cut-Out



*Measured from bottom of frame to center of cut-out

5" Curved French Door Cut-Out



*Measured from bottom of frame to center of cut-out

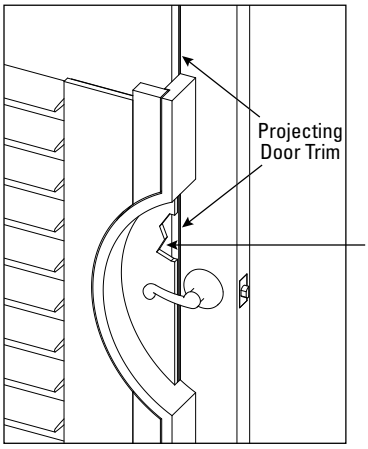
Louver Size	Minimum Ordered Height	Minimum Cut-Out Location
2 1/2"	31 5/16"	14 3/4"
3 1/2"	33 5/16"	15 3/4"
4 1/2"	37 5/16"	16 3/4"

Louver Size	Minimum Ordered Height	Minimum Cut-Out Location
2 1/2"	37 5/16"	17 7/8"
3 1/2"	39 5/16"	18 7/8"
4 1/2"	41 5/16"	19 7/8"

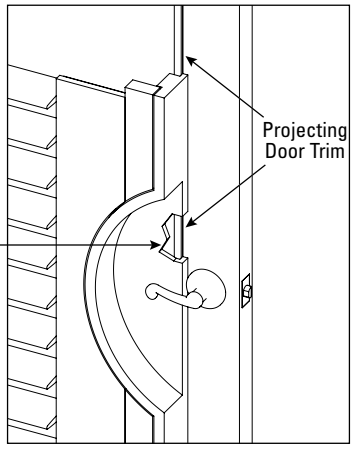
Notes:

- Minimum ordered height leaves one louver between the cut-out block and rails.
- Some ordered height and cut-out height combinations may not be possible due to rail height variations.

Full Trim Extension with Offset Cut-Out



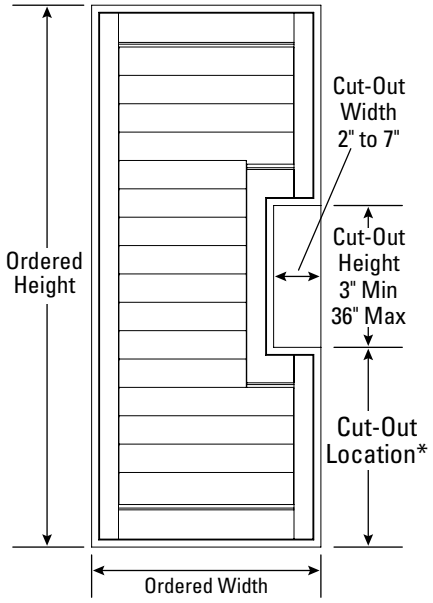
Partial Trim Extension



Rectangular Cut-Outs

The rectangular cut-out can be ordered at a custom size, with or without an offset.

Rectangular French Door Cut-Out



**Measured from bottom of frame to bottom of cut-out*

Notes:

- The ordered height requires space for one louver between the cut-out block and rails.
- Some ordered height and cut-out height combinations may not be possible due to rail height variations.

Minimum Ordered Width

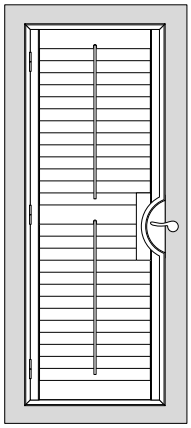
Because rectangular cut-outs are custom sized, minimum widths and heights vary. With a 2" cut-out width, minimum ordered width is $11^{11}/_{16}$" with front tilt and $10^{11}/_{16}$" with Concealed Tilt. If your cut-out width is larger than 2", add the amount of cut-out width greater than 2" to these minimums.

Minimum Ordered Height

Minimum heights based on a cut-out height of 3" range from $23^{5}/_{16}$" to $29^{5}/_{16}$", depending on louver size. With the 3" cut-out height, minimum cut-out locations range from $10^{3}/_{16}$" to $13^{3}/_{16}$".
If the shutter you are ordering approaches these width or height minimums, contact customer service for more specific information.

Hinge Side vs. Cut-Out Side

Order an "L" (left-hinged) panel for a right cut-out (shown) or an "R" (right-hinged) panel for a left cut-out.



Measuring for Curved and Rectangular Cut-Outs

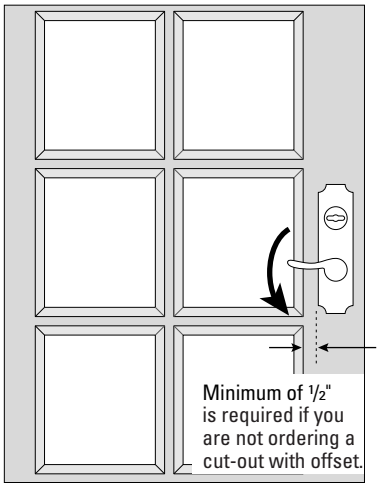
Use the French Door Cut-Out worksheet and template to perform the required calculations. Transfer the indicated results to the Hardwood Specialty order form and attach the worksheet to the order form.

Mounting Surface

Align the French door cut-out template to the base of the door handle or plate and position the template in the desired location. Confirm proper handle rotation. The handle lever must rotate within the cut- out area.

We recommend having a minimum $^{1}/_{2}$" flat mounting surface for attaching the shutter frame, as shown below. If there is less than $^{1}/_{2}$" flat mounting surface, an offset cut-out is recommended.

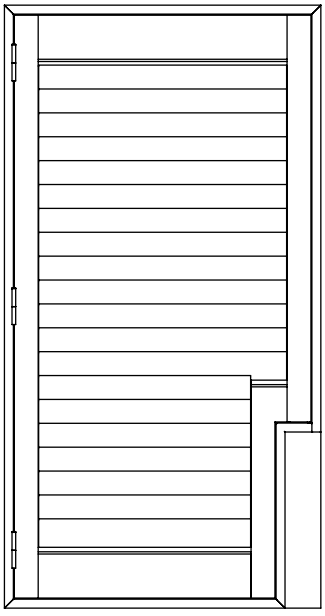
Ideally, there should be at least $1^{3}/_{8}$" of flat mounting surface so that the entire base of the frame is on the flat mounting surface and there is room for a $^{1}/_{4}$" reveal. This way, the frame base is not visible from the other side of the French door.



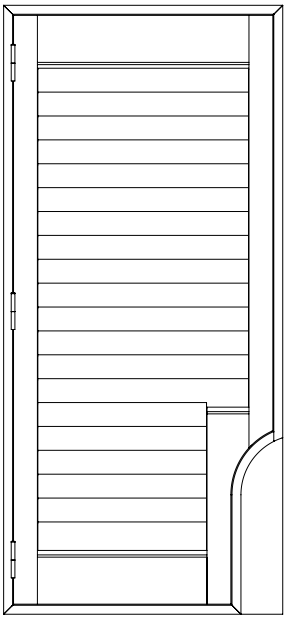
Corner Cut-Outs

On French doors where the glass does not run the full length of the door, corner cut-outs are available. All three cut-out sizes are available as corner cut-outs. For rectangular corner cutouts, the width and height are customizable. For the $3^{1}/_{2}$" and 5" curved corner cut-outs, select the size needed in order to allow full operation of the door handle. Use the French Door Cut-Out Template to determine which size is needed.

Rectangular



Curved



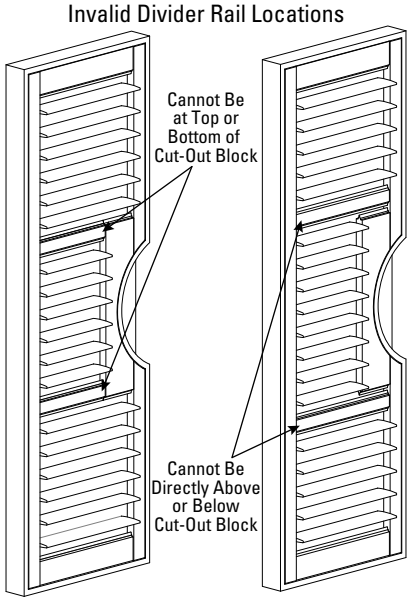
For some door configurations, the backplate on the corner cut-out is not needed. The option for No Backplate can be selected at order entry. Please note that the window glass may be visible on corner cut-outs ordered without a backplate.
When a backplate is ordered, the $1^{1}/_{8}$" offset is available if needed.
See the French Door Cut-Out worksheet for ordering details.

Divider Rail

A divider rail is required if the panel height is 84" or greater. Up to two are permitted.

The divider rail location may vary up or down as much as 1" with 2 1/2" louvers, 1 1/2" with 3 1/2" louvers, and 2" with 4 1/2" louvers. The divider rail cannot be specified at the top or bottom of the cut-out or directly above or below the cut-out. Contact Customer Service for more specific information.

Invalid Divider Rail Locations



Notes:

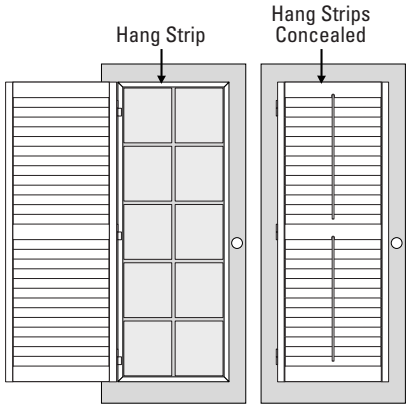
- Occasionally, adjacent French doors will only need a cut-out on one of the doors. To ensure that the panels for both of these doors are the same height and have coordinating divider rail locations, louver quantity, and rail sizes, be sure to indicate FDCWC (French door companion without cut-out) on your order.
- French door cut-outs are available on arch top and angle top panels.

French Door with Four-Sided Hang Strip or L-Frame

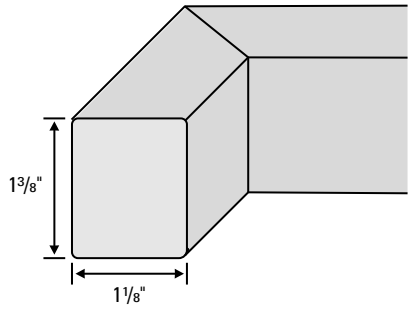
Hang Strips

Hang strips are an excellent option for French door shutters for several reasons:

• The shutter panel fits over the face of the frame, concealing it from view. This provides a clean, simple look on the French door.



- The amount of view through the louvers is typically about 10% more than other installation options.
- The narrow 1 1/8" width of the hang strips is perfect for the tight mounting clearances typical of French doors.
- Refer to Standard Hinged Panels.



Note:
For use on French doors, the hang strips are turned so that the 1 3/8" dimension is the depth.

L Frames

For consumers who prefer a framed look on their French doors, there are four options:

- 2 3/8" Traditional L-Frame (L93)
- 2 7/8" Traditional L-Frame (L94)
- 2 3/8" Contemporary L-Frame (L96)
- 2 7/8" Contemporary L-Frame (L97)

Knob or Handle Clearance

In order for a hang strip or L-Frame to be specified, there must be sufficient mounting space between the knob or handle and the edge of the opening — a minimum of 1/2" plus room to operate the knob or handle, ideally 1 3/8".

If a lever-type handle is on the door, several options can be considered:

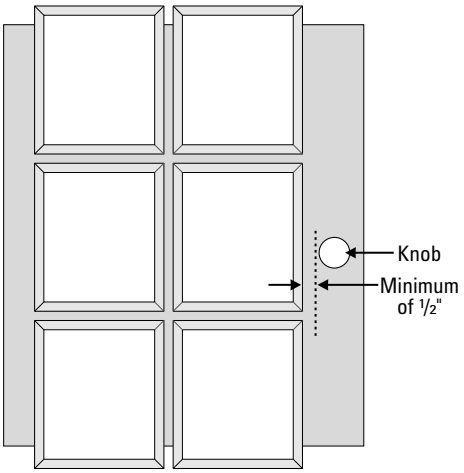
- Rotate the handle 90°.
- Replace the handle with a knob or egg-shaped handle.
- Consider a handle extension so that the handle clears the shutter.
- Order a French door cut-out, see French Doors.

Measuring for Hang Strips and L Frames

Refer to the French Door worksheet and follow the steps below. Enter all measurements on the worksheet and transfer the results to the specialty Hardwood order form and attach the worksheet.

Mounting Surface

Measure the width of available flat mounting surface between the edge of the opening and the door knob, handle, or base plate. Ideally, there should be sufficient flat mounting surface so that the entire base of the frame is on the flat mounting surface.



Divider Rail

A divider rail is required if the panel height is 84" or greater. Up to two are permitted. The divider rail location may vary up or down as much as 1" with 2 1/2" louvers, 1 1/2" with 3 1/2" louvers, and 2" with 4 1/2" louvers.

Note:
Always check for sufficient clearance and any obstructions which may interfere with louver movement.

The Basics

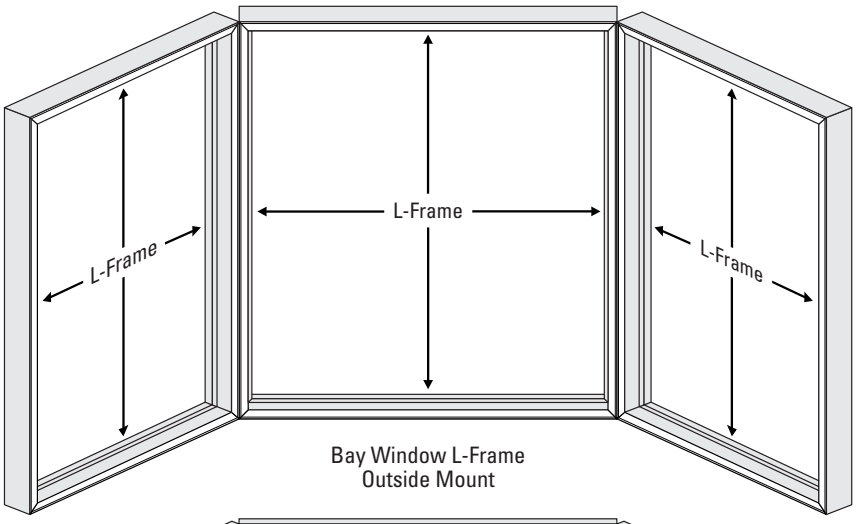
Shutters for bay windows consist of three or more separate framed shutter assemblies which butt together at their front corners. Each of the separate framed assemblies are priced and ordered as individual units.

Frame Options

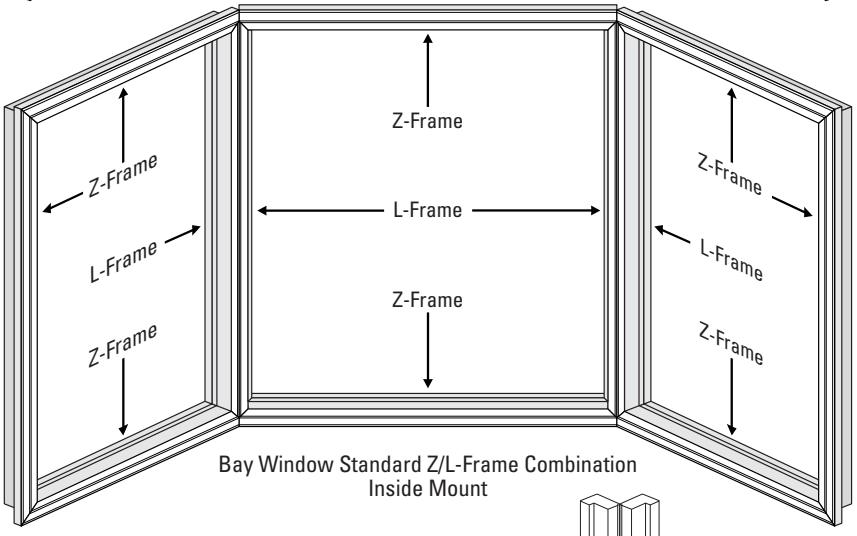
Seven types of frames are used for shutters in bay windows:

- 1 5/8" Traditional L-Frame (L91)
- 1 3/4" Traditional L-Frame (L98)
- 1 3/4" Contemporary L-Frame (L95)
- Casing Frame (C91)
- Standard Z-Frame (Z92)
- Traditional Z-Frame (Z93)Contemporary Z-Frame (Z96)

L frames and Casing Frames are used for outside mounts, and Z frames in combination with L frames are used for inside mounts.



Bay Window L-Frame
Outside Mount



Bay Window Standard Z/L-Frame Combination
Inside Mount

Suggested Frame Combinations for Bay Windows

Frame Type	Options
Standard Z-Frame	1 3/4" Contemporary L-Frame
Traditional Z-Frame	1 3/4" Contemporary L-Frame
Contemporary Z-Frame	1 3/4" Contemporary L-Frame
1 5/8" Traditional L-Frame	1 5/8" Traditional L-Frame
Casing Frame	1 5/8" Traditional L-Frame

Panel Configurations

Any standard hinged panel configuration — whether Bi-Fold or individually hinged — may be ordered for bay windows. However, it is very important to plan how the shutters will open after they are installed, taking into consideration how the panels interact with each other, as well as maintaining comparable panel widths.

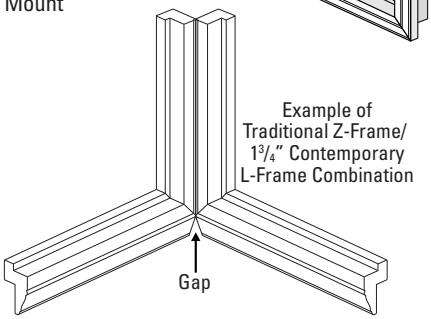
Measuring and Ordering

Measuring instructions are shown on the following page. A special angle measuring tool enables you to measure and order without using templates.

For each order, complete the bay and corner worksheet, transfer the information to the standard Hardwood order form and attach a copy of the worksheet to the order form.

Sill Frames

If desired, a Sill Frame can be specified at the bottom of the opening.



Example of Traditional Z-Frame/ 1 3/4" Contemporary L-Frame Combination

Note: Traditional Z/L, and Casing Frame with 1 5/8" Traditional L-Frame combinations are not recommended with bay window applications. These frame profiles creates a gap at the corner where the frame assemblies meet. See the measuring worksheet for application details.

Bay Window Measuring

Measuring for Bay Window on Outside Mount (OM)s

1 3/4" Contemporary L-Frame (L95)

Refer to the Bay Window worksheet and follow the steps below. Enter all measurements on the worksheet. Then perform the required calculations, transfer the results to the standard Hardwood order form and attach the worksheet.

Step One

Using the appropriate angle guide measuring tool, locate the 1 3/4" Contemporary L-Frame (L95) portion at the appropriate position left of opening 1 and allow for a 3/8" reveal. Mark A. Repeat this step for F.

Step Two

Using the Easy Angle measuring tool, determine and mark positions B and C. Repeat this step for D and E.

Step Three

Measure the distance from mark A to mark B (opening 1). Repeat for C to D (opening 2) and E to F (opening 3). Enter these width measurements on the worksheet.

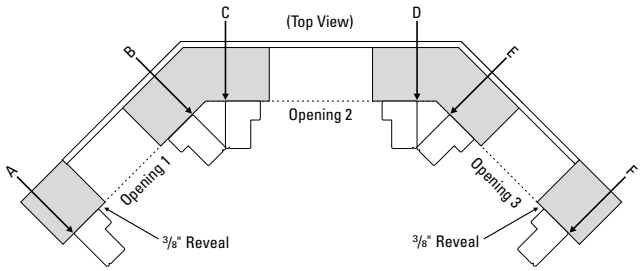
Step Four

Measure the inside height in three places for each opening. Use the largest height measurement for all three shutters and add the following:

- Add 3" for 4-sided 1 3/4" Contemporary L-Frame (L95).
- Add 2 5/8" for 4-sided frame with bottom sill not on existing window sill.
- Add 1 1/2" for Sill Frame on window sill.

Step Five

Transfer the information from the worksheet to the standard LEVOLOR® PREMIER™ order form and indicate in the "Notes" section that the shutters are for a bay window. Attach the worksheet to the order form.



Measuring for Bay Window on Inside Mount (IM)s

Standard Z-Frame (Z92) with 1 3/4" Contemporary L-Frame (L95)

Refer to the Bay Window worksheet and follow the steps below. Enter all measurements on the worksheet. Then perform the required calculations, transfer the results to the standard Hardwood order form and attach the worksheet.

Step One

Using the appropriate angle guide measuring tool, locate the L-Frame portion at the left corner of the bay, and mark positions B and C. Repeat this step for D and E.

Step Two

Measure inside opening 1 from the wall at A to the mark at B. This provides a 1/4" space at A.

Step Three

Measure inside opening 2 from the mark at C to the mark at D. Add 1/4" to determine ordered width.

Step Four

Measure inside opening 3 from the mark at E to the wall at F. This provides a 1/4" space at F.

Step Five

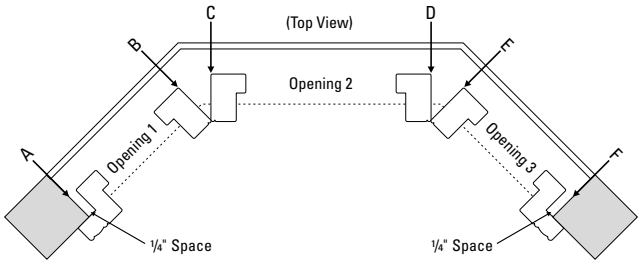
Measure the inside height in three places for each opening. Use the smallest inside height and subtract 1/4" to determine your ordered height for all three openings to allow for vertical racking adjustment.

Step Six

Transfer the information from the worksheet to the standard LEVOLOR PREMIER order form and indicate in the "Notes" section that the shutters are for a bay window. Attach the worksheet to the order form.

Note:

These measuring procedures provide a 3/8" reveal on the width.



The Basics

Shutters for corner windows consist of two separate framed shutter assemblies which butt together at their front corners. Each of the separate framed assemblies are priced and ordered as individual units. A hidden Hang Strip is used to connect the two assemblies where they meet, and should be ordered as lineal material.

Frame Options

Seven frame types are used for shutters in corner windows:

- 1 5/8" Traditional L-Frame (L91)
- 1 3/4" Traditional L-Frame (L98)
- 1 3/4" Contemporary L-Frame (L95)
- Casing Frame (C91)
- Standard Z-Frame (Z92)
- Traditional Z-Frame (Z93)Contemporary Z-Frame (Z96)

L frames and Casing Frame are used for outside mounts, and Z frames in combination with L frames are used for inside mounts.

Note that with the Z/L combination for inside mounts, the L frames are used as vertical components where the frame assemblies meet.

Suggested Frame Combinations for Corner Windows

Frame Type	Options
Standard Z-Frame	1 3/4" Contemporary L-Frame
Traditional Z-Frame	1 3/4" Contemporary L-Frame
Contemporary Z-Frame	1 3/4" Contemporary L-Frame
1 5/8" Traditional L-Frame	1 5/8" Traditional L-Frame
Casing Frame	1 5/8" Traditional L-Frame

Panel Configurations

Any standard hinged panel configuration — whether Bi-Fold or individually hinged — may be ordered for corner windows. However, it is very important to plan how the installed shutters will open.

For example, most customers would not want two "LR" configurations. Opening the shutter doors in the corner would conflict with each other. It would be better to order the shutters as single panels or Bi-Folds hinged to the outer side of the frame.

Measuring and Ordering

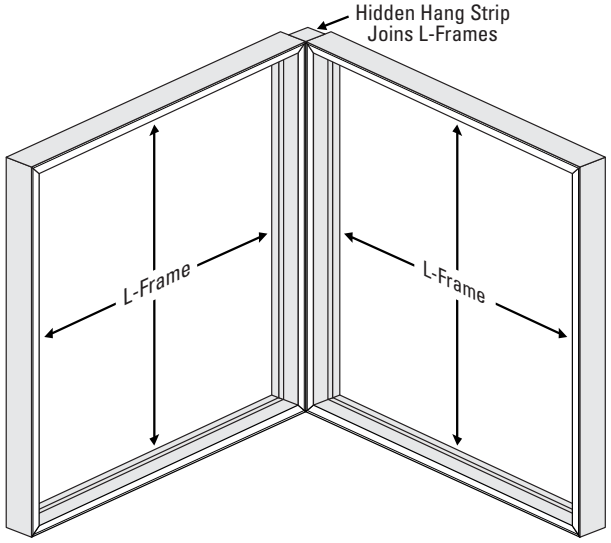
Measuring instructions are shown on the following page.

For each order, complete the bay and corner worksheet, transfer the information to the standard Hardwood order form and attach a copy of the worksheet to the order form.

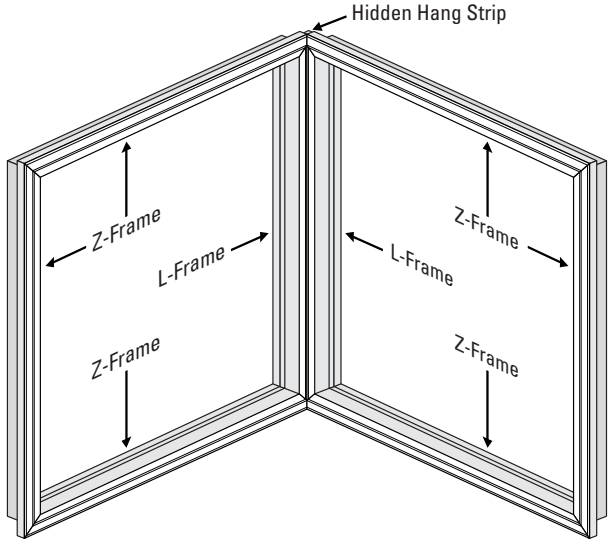
Sill Frames

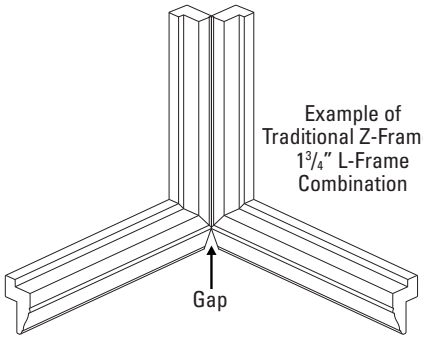
If desired, a sill frame can be specified at the bottom of the opening.

Corner Window L-Frame Outside Mount



Corner Window Standard Z/L-Frame Combination Inside Mount





Note: Traditional Z/L and Casing Frame with 1 5/8" Traditional L-Frame combinations are not recommended with corner window applications.

These frame profiles creates a gap at the corner where the frame assemblies meet. See the measuring worksheet for application details.

Corner Window Measuring

Measuring for Corner Window on Outside Mount (OM)s

1 3/4" Contemporary L-Frame (L95)

Refer to the Corner Window worksheet and follow the steps below. Enter all measurements on the worksheet. Then perform the required calculations, transfer the results to the standard Hardwood order form and attach the worksheet.

Step One

Place the 1 3/4" Contemporary L-Frame (L95) at the appropriate position left of opening 1 and allow for a 3/8" reveal. Mark A. Repeat this step at D.

Step Two

Locate and mark positions B and C (same point).

Step Three

Measure the distance from mark A to mark B and subtract 1 3/4" (opening 1). Repeat the measurement for C to D and subtract 1 3/4" (opening 2). Enter these width measurements on the worksheet.

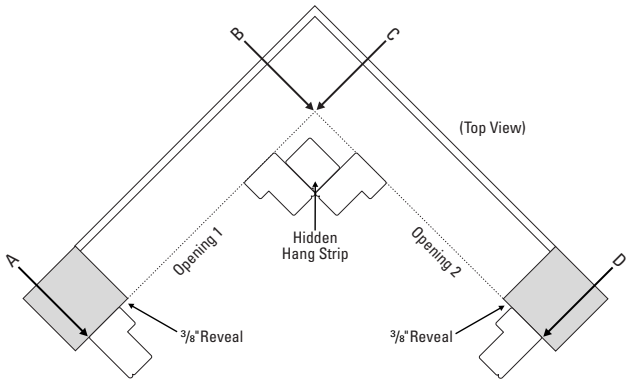
Step Four

Measure the inside height in three places for each opening. Use the largest height measurement for both shutters and add the following:

- Add 3" for 4-sided 1 3/4" Contemporary L-Frame (L95).
- Add 2 11/16" for 4-sided frame with bottom sill not on existing window sill.
- Add 1 1/2" if bottom Sill Frame is on window sill.

Step Five

Transfer the information from the worksheet to the standard Hardwood order form and indicate in the "Notes" section that the shutters are for a corner window. Attach the worksheet to the order form.



Measuring for Corner Window on Inside Mount (IM)s

Standard Z-Frame (Z92) with 1 3/4" Contemporary L-Frame (L95)

Refer to the Corner Window worksheet and follow the steps below. Enter all measurements on the worksheet. Then perform the required calculations, transfer the results to the standard LEVOLOR PREMIER order form and attach the worksheet.

Step One

Locate and mark positions B and C (same point).

Step Two

Measure inside opening 1 from the wall at A to the mark at B and subtract 1/2". This provides a 1/4" space at A.

Step Three

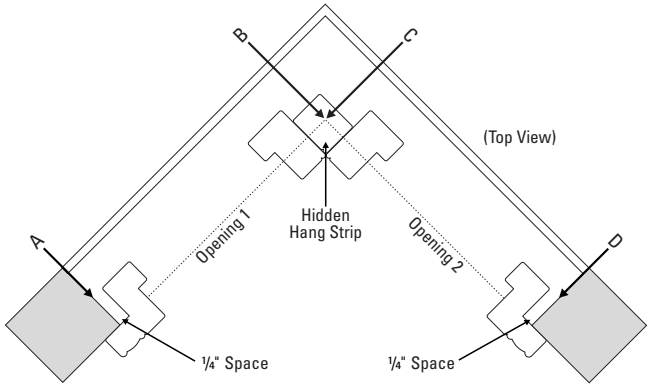
Measure inside opening 2 from the mark at C to the wall at D and subtract 1/2". This provides a 1/4" space at D.

Step Four

Measure the inside height in three places for each opening. Use the smallest inside height and subtract 1/4" to determine your ordered height for both openings to allow for vertical racking adjustment.

Step Five

Transfer the information from the worksheet to the standard LEVOLOR PREMIER order form and indicate in the "Notes" section that the shutters are for a corner window. Attach the worksheet to the order form.



Notes:

- These measuring procedures provide a 3/8" reveal on the width. After evaluating the diagonals, additional allowances may be necessary to compensate for out-of-square windows.
- For corner window applications, be sure to order Hang Strip as lineal material. Order the Hang Strip to be 1/16" shorter than the ordered height.

Café Shutters (CS)

Café shutters can be inside or outside mounted and must be identified as café panels when ordering. For a four-sided café, price the shutter using ordered width and café height, and add surcharge (see Pricing – Surcharges & Accessories∞).

The surcharge is for the extra frame being used to cover the entire opening.

You may also order a three-sided frame, with the top of the frame sides flush with the top of the shutter panels. There is no surcharge for this type of application.

Café shutters can also be used for arch-top and angle-top openings. Again, with three-sided frames (straight portion only), there is no surcharge. With a full frame café shutter in an arch-top or angle-top opening, add the applicable surcharge (see Pricing – Surcharges & Accessories∞).

- The ordering code for a full frame arch-top café shutter is CS-ART.
- The ordering code for a full frame angle-top café shutter is CS-ANT.

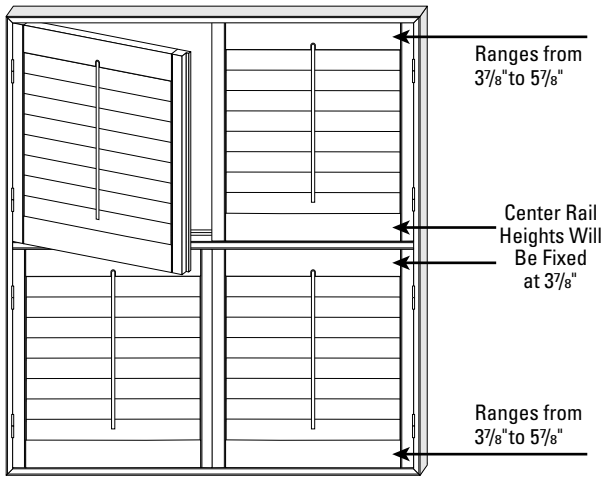
If café shutters are desired, it is important to order them as café, not as a standard hinged shutter with a 3-sided frame.

Café Style	Standard Hinged with 3-Sided Frame
Order number stamped on bottom of panel	Order number stamped on top of panel
Tops of panels and side frames receive extra finishing because they may be visible	Tops of panels and side frames receive standard finishing
Top of panel is flush with top of side frame	Top of panel is lower than top of side frame due to standard panel deductions
On IM shutters, no height deduction is taken on the side frames	On IM shutters, a 1/8" deduction will be taken on the side frames

Double-Hung Shutters (DH)

A Double-Hung shutter consists of two panels or groups of panels which are mounted separately, one above the other, and can swing open separately. There is a surcharge with this option (see Pricing – Surcharges & Accessories∞).

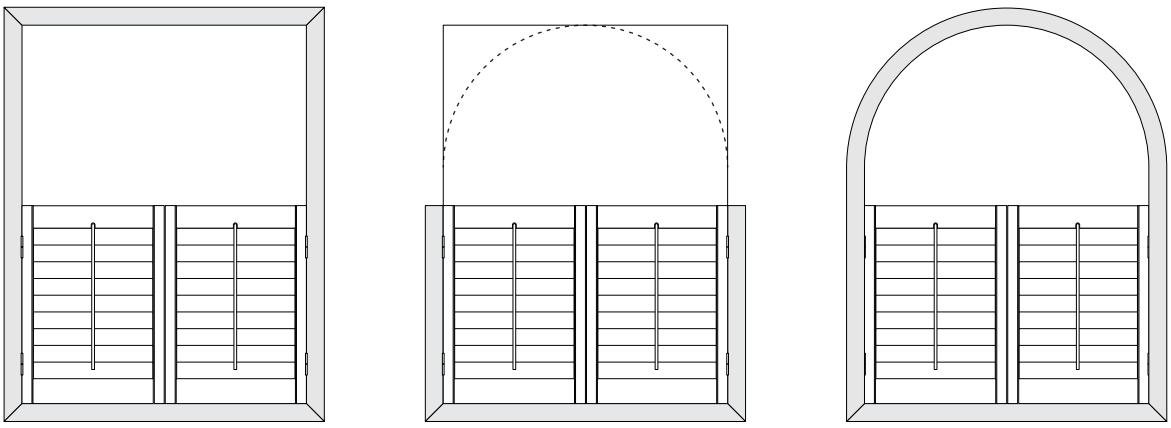
There will be a 1/8" gap between the top and bottom set of panels. A horizontal T-Post is recommended to stabilize panels and to block light. There may be variation in the horizontal T-Post position to keep the top and bottom rails of the panels equal size. A horizontal T-Post cannot be specified with Hang Strip applications.



Double-Hung

Notes:

- Double-Hung break placements, like divider rail placements, may vary up or down as much as 1" with 2 1/2" louvers, 1 1/2" with 3 1/2" louvers, and 2" with 4 1/2" louvers.
- Double-Hung shutters are not recommended when the single and combined panel width is greater than the height — panel sagging will occur.

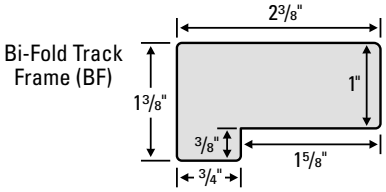


Full Frame | Three-Sided Frame | Full Frame Arch Top

Café Shutters Styles

Note:
Vertical T-Posts are not recommended with three-sided or café applications due to possible lack of a stable mounting surface.

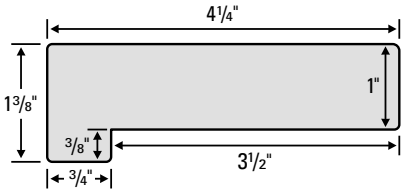
Bi-Fold Track Frame (BF)



The Bi-Fold Track Frame uses a single track on which hinged panels glide to open and close.

- Mounting type: inside or outside mount.
- Pre-drilled installation holes.
- Track Frame Build-Out is available for louver clearance.
- Corner key is not used with this frame.

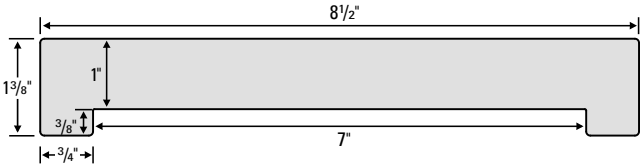
Bypass Track Frame (BP)



The Bypass Track Frame uses two tracks where panels can slide past each other with louvers in the closed position.

- Mounting type: inside or outside mount.
- Pre-drilled installation holes.
- Track Frame Build-Out is available for louver clearance.
- Corner key is not used with this frame.

Bypass Open Louver (BO) And Bypass Triple Track (BT) Frame



The Bypass Open Louver Track Frame uses two tracks where the panels can slide past each other with louvers in the open position. The Bypass Triple Track Frame uses three tracks, where panels can slide past each other with louvers in the closed position.

- Mounting type: inside or outside mount.
- Pre-drilled installation holes.
- Track Frame Build-Out is not recommended.
- Corner key is not used with this frame.

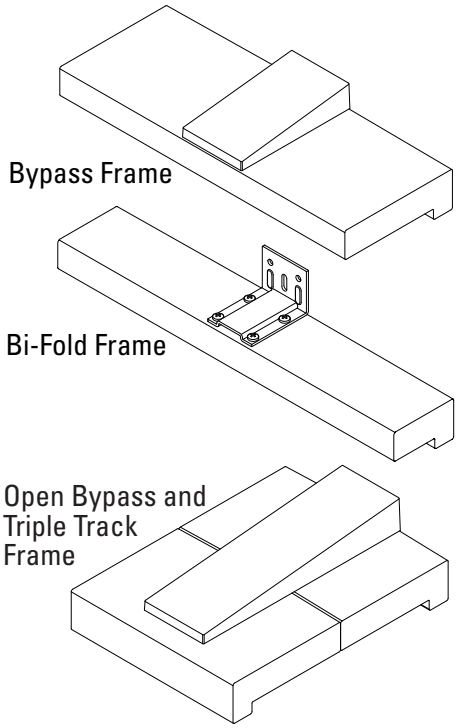
Divider Rails

A divider rail is required on track system applications when panels exceed 84" in height. Up to two are permitted.

Support Brackets

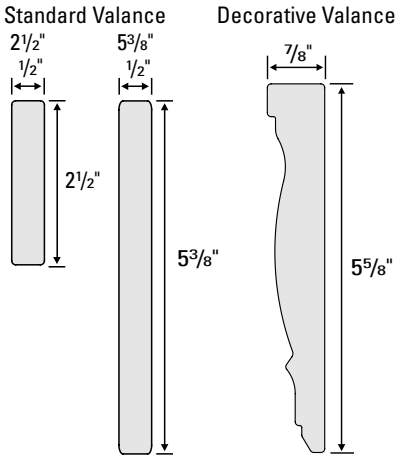
Support brackets come standard on all outside mount track configurations. Note that 1 1/2" of clearance is required above the frame for the bracket. In order to install the support brackets, there must be enough clearance above the frame for a tool.

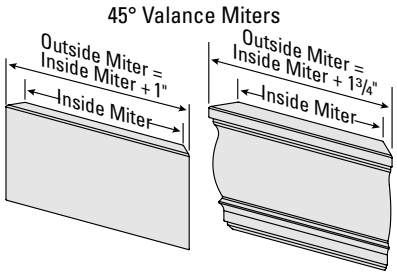
- Installation of these brackets is critical for the lifetime operation of your shutters.



Valances

Three valances are offered for Bi-Fold and Bypass track configurations. The 2 1/2" Standard Valance and 5 3/8" Standard Valance have a simple design, which creates a classic look. The Decorative Valance features a detailed design that complements both modern and classic décor.

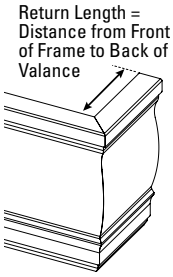




- L-brackets are provided to attach the valance.
- The top of the valance must be 1" or more above the top of the frame for the L-bracket to be used.


Valance L-Bracket

- On an outside mount, the standard return length equals the depth of the frame plus any ordered build-out. If a longer return is needed (example: mounting on top of molding), specify return length.
- If returns are desired for an inside mount, specify length when ordering (1" minimum).



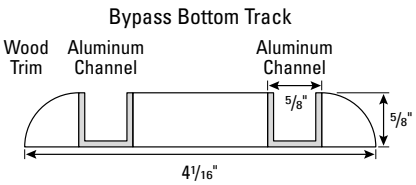
	No Build-Out	1 Build-Out	2 Build-Outs
BF	2 3/8"	3 1/2"	4 5/8"
BP	4 1/4"	5 3/8"	6 1/2"
BO/BT	8 1/2"	9 5/8"	10 3/4"

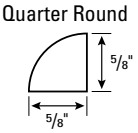
Bottom Tracks/Floor Guides

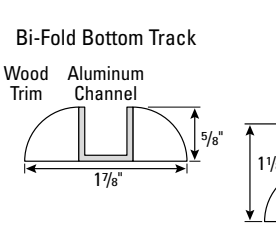
Bottom tracks or floor guides are strongly recommended for track configurations to improve panel functionality and performance.

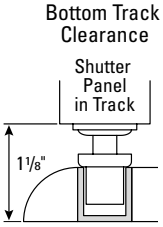
Bottom Tracks

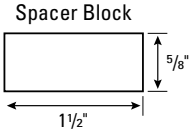
Optional bottom tracks are available for Bi-Fold and Bypass track configurations. Bottom tracks must be specified at the time of ordering regardless of frame configuration so that the factory can take an additional 1/2" deduction to allow for the height of the track. Bottom tracks run the full width of the opening.







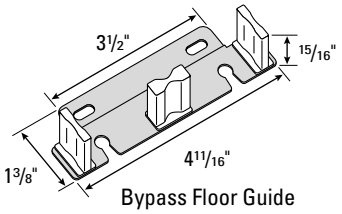




Note:
Bottom track quarter round and spacer block are available for ordering as lineal material.

Floor Guides

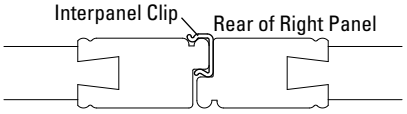
If desired, floor guides may be used on Bypass and Bypass Triple Track configurations instead of a bottom track. No additional height deduction is needed with floor guides.



Bypass Floor Guide

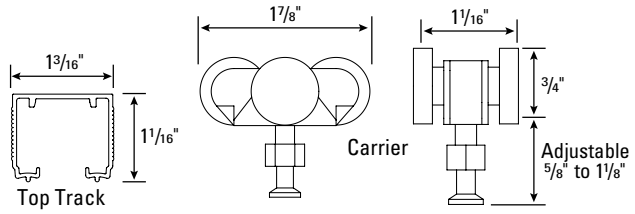
Bypass Track Interpanel Clips

Bypass track configurations use discreet interpanel clips to hold married panels together. The clip connects two panels so that they move as a single unit in the opening.

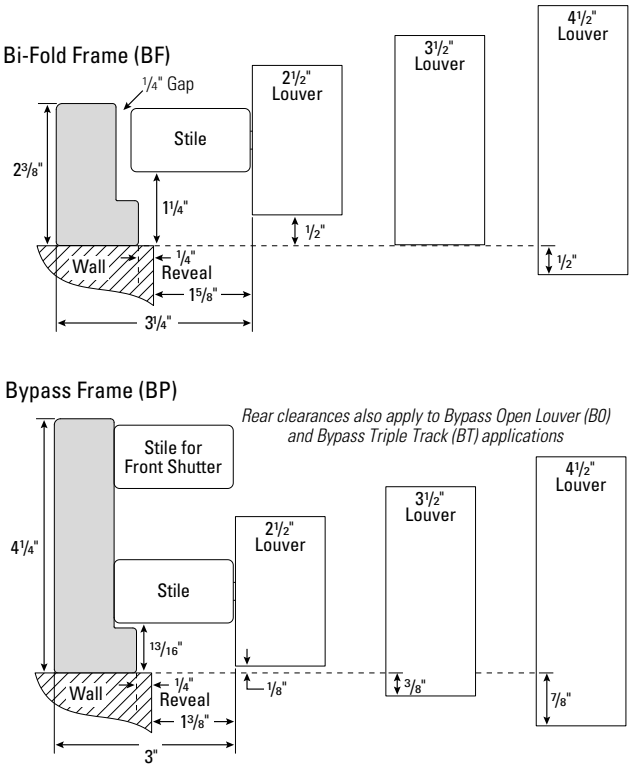


Top Track and Carrier Dimensions

Shown here are the dimensions of the top track and carriers.



Louver Rear Clearances

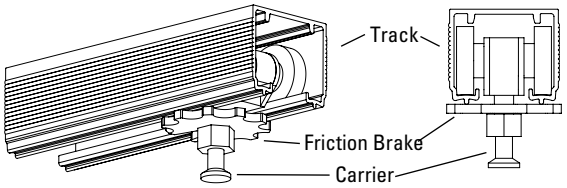


Notes:

- For front tilt, allow an additional 1/4" for louver clearance from the back edge of the louvers. Always check for obstructions.
- A minimum depth of 1 1/2" is required to inside mount either the Bi-Fold or Bypass Frame.

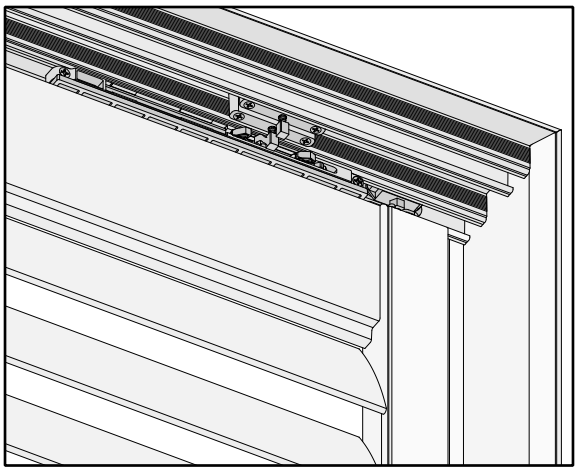
Friction Brake

In certain track installations, the panels may drift due to out-of-square window openings or settling of the home. The friction brake may be installed on one or more track system carriers to provide slight resistance and prevent panel drift.



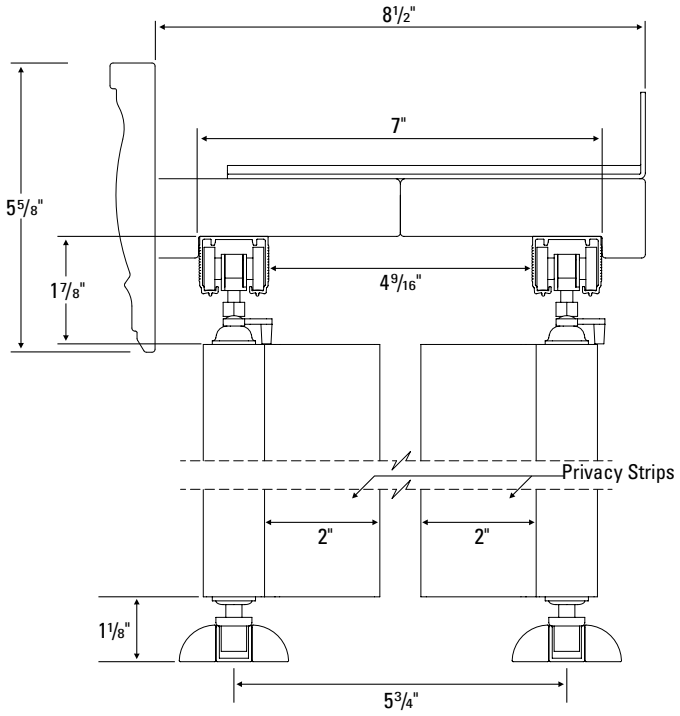
Controlled Close for Bypass

Controlled Close for Bypass is a mechanism for opening/closing bypass panels and will come standard on all bypass track systems. There are no measurement or deductions impacts when ordering. The Controlled Close for Bypass components will come pre-installed and may require slight adjustment at installation. During installation, panel placement will be important to ensure engagement of the Controlled Close components. Panel configuration will need to be selected with care.

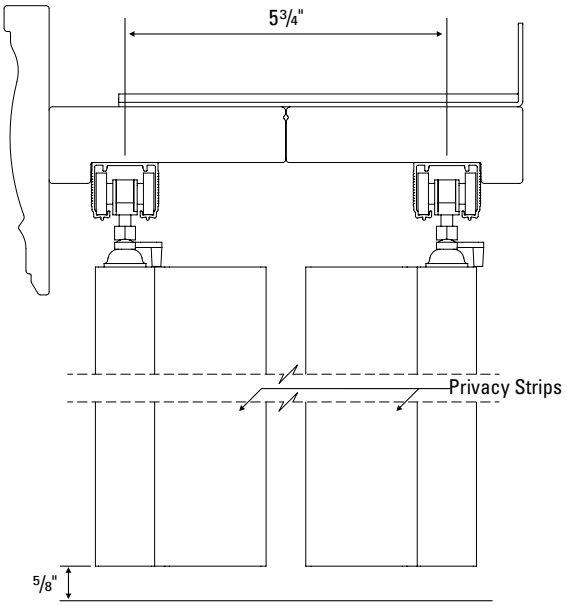


Bypass Open Louver and Bypass Triple Track Configuration Details with Bottom Track Options

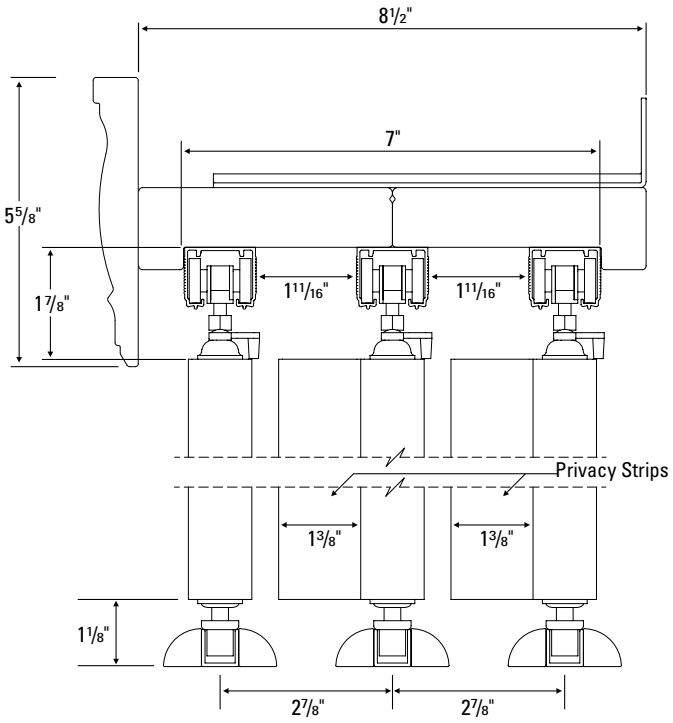
Bypass Open Louver with Bottom Track



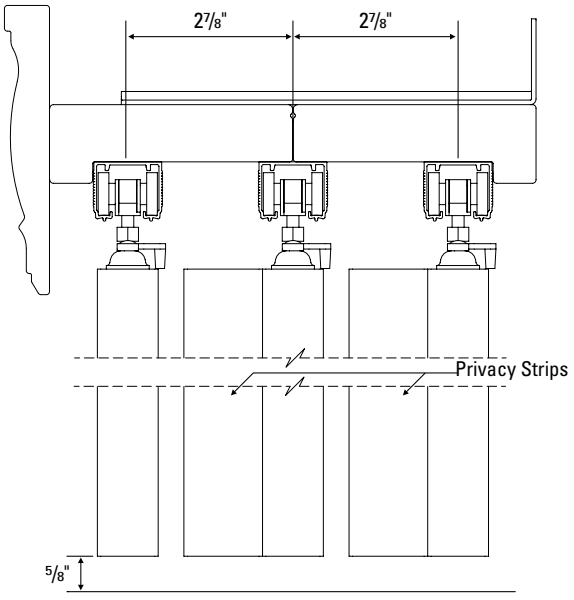
Bypass Open Louver with No Bottom Track



Bypass Triple Track with Bottom Track



Bypass Triple Track with No Bottom Track

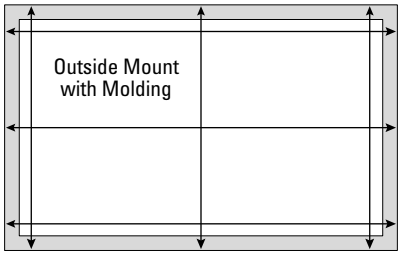


Measuring Guidelines

Outside Mount with Molding

Mounting around molding requires sufficient wall structure to securely mount the frame.

1. Measure the width from outside of molding to outside of molding at the top, middle, and bottom. Record all three measurements.
2. Measure the height from outside molding to outside molding at the left, center, and right. Record all three measurements.

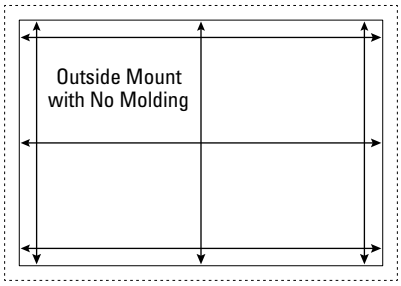


3. To determine ordered size, add the appropriate overlap factors from the Outside Mount Frame Overlap chart.

The ordered measurements will be the finished size of the shutter including the frame.

Outside Mount with No Molding

1. Measure the width inside the opening at the top, middle, and bottom. Record all three measurements.
2. Measure the height inside the opening at the left, center, and right. Record all three measurements.



3. To determine ordered size, add the appropriate overlap factors from the Outside Mount Frame Overlap chart.

The ordered measurements will be the finished size of the shutter including the frame.

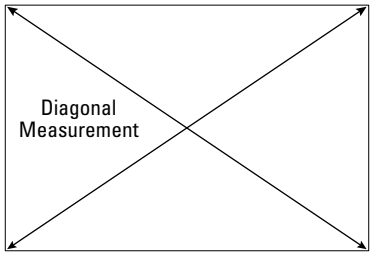
Outside Mount Frame Overlap	
Track Type	**Overlap per Frame Side**
Bi-Fold Track	1 5/8"
Bypass Track	1 5/8"

Note:
Overlap factor provides for the frame base plus a 1/4" reveal per frame side.

Inside Mount with Frame

Inside mounts can be challenging. Cranks, latches, depth, and squareness of the window opening must be considered. For inside mounts, all measurements should be exact and measured to the nearest 1/16".

1. Measure the width inside the opening at the top, middle, and bottom. Record all three measurements and order the smallest measurement.
2. Measure the height inside the opening at the left, center, and right. Record all three measurements. Order the smallest measurement.
3. To determine squareness, measure diagonally from top left to bottom right and from top right to bottom left. If the measurements are not equal, the opening is not square. Reduce the ordered size accordingly or if the measured difference is greater than 1/2" consider an outside mount.



The ordered measurements are the size from which frame deductions will be taken. Inside mount factory deductions are 1/4" from ordered width and height on four-sided frames. On three-sided frames the height deduction is 1/8".

Inside Mount Deductions

If different deductions than the 1/4" standard are required for framed inside mounted shutters, you must make adjustments to the dimensions when placing the order. See guidelines on the order form for more details.

Minimum Mounting Depths for Framed Configurations

For minimum mounting depths, refer to Track Components℠ for the louver clearance diagrams. Note that a minimum depth of 1 1/2" is required to inside mount Bi-Fold and Bypass Frames.

Inside Mount with No Frame

The same measuring procedures are used for both framed and unframed configurations. If the opening is not square, a framed configuration is highly encouraged.

Note:
If no frame is used, small light gaps will exist around the edges of the panels.

Minimum Mounting Depths for Unframed Configurations

A minimum depth of 1 3/8" is required for Bi-Fold track configurations without frames, and a minimum of 3 1/2" is required for Bypass track configurations without frames.

Clearance Information

Panel Clearance

Panel-to-floor clearance of 5/8" is provided on inside- and outside-mounted Bi-Fold and Bypass track configurations.
Additional panel clearance is needed if optional bottom tracks are used. Refer to Track Components℠ for the louver clearance diagrams.

Support Brackets

Support brackets come standard with all outside mounted track configurations. Note that 1 1/2" of clearance is required above the frame. See Track Frames and Components℠ for illustrations of the support brackets.

Note:
For stackback measuring guidelines, refer to Bi-Fold Track Configurations℠ and Bypass Track Configurations℠.

Bi-Fold Track Configurations

LEVOLOR® PREMIER™ HARDWOOD SHUTTERS

Overview

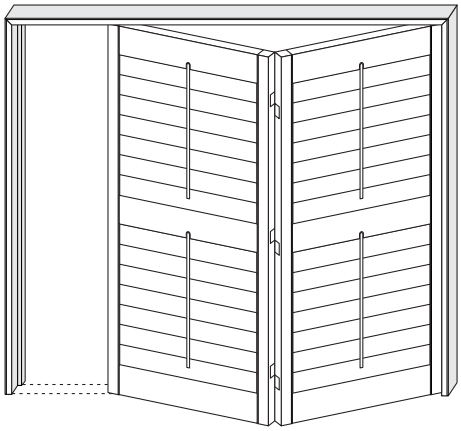
Bi-Fold track configurations use a top track and optional bottom track on which the shutter panels glide to open and close. They are designed in multiples of two panels (two, four, or six) which are hinged together in a variety of configurations.

A maximum of six panels can be hinged together. Bi-Fold track configurations are most commonly used in extra wide windows such as sliding doors and are typically ordered with three-sided frames.

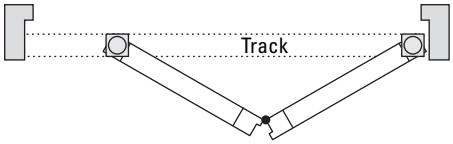
Notes:

- When ordering a Bi-Fold track configuration, it is advised to order the optional bottom track to improve alignment and functionality.
- Minimum and maximum ordered widths are based on outside mount applications.

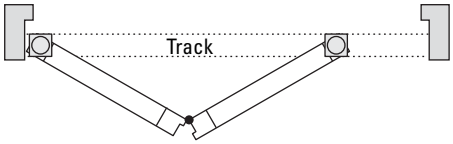
Two Panels



BF-2R

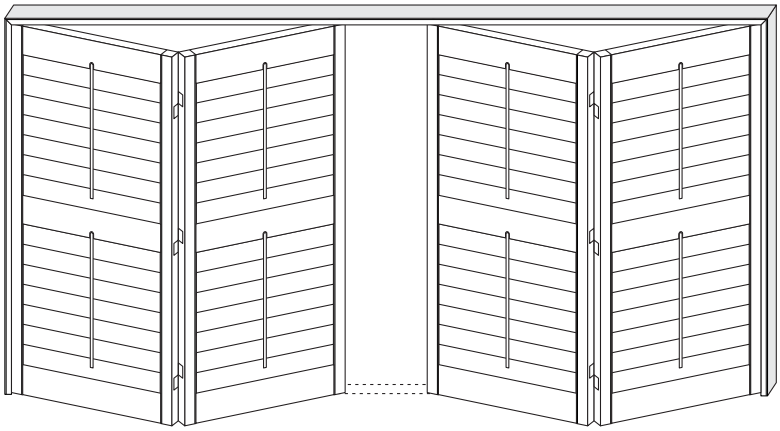


BF-2L

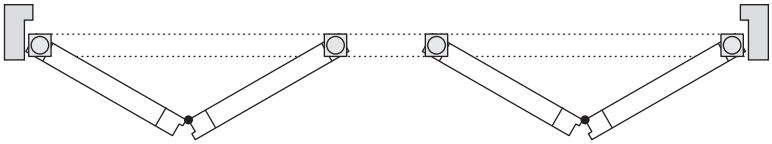


	Ordered Width	
Frame	**Minimum**	**Maximum**
BF	26 3/16"	54 3/16"
N	24 3/16"	52 3/16"

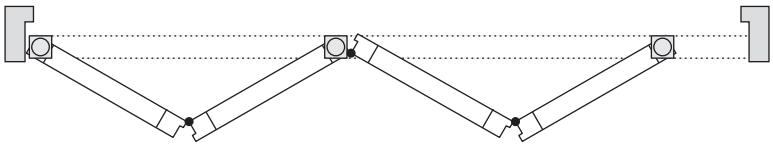
Four Panels

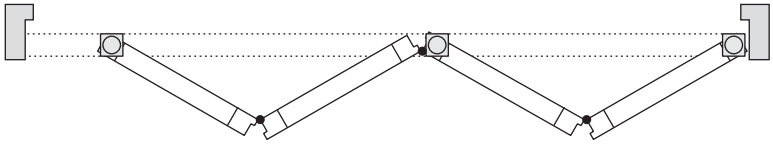


BF-2L/2R



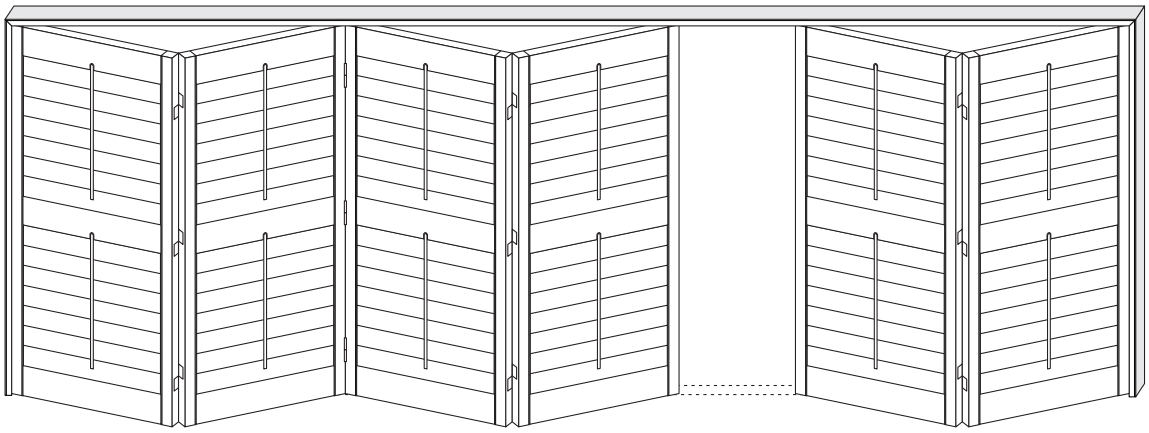
	Ordered Width	
Frame	**Minimum**	**Maximum**
BF	50"	106"
N	48"	104"



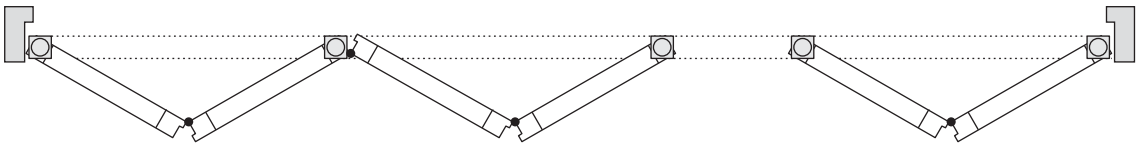


	Ordered Width	
Frame	**Minimum**	**Maximum**
BF	50 1/8"	106 1/8"
N	48 1/8"	104 1/8"

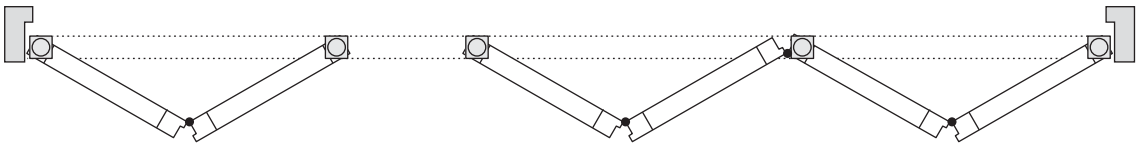
Six Panels



BF-4L/2R

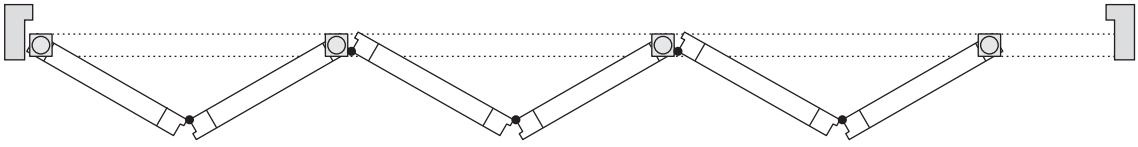


BF-2L/4R

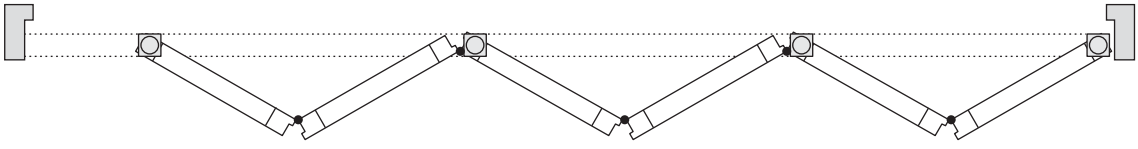


	Ordered Width	
Frame	**Minimum**	**Maximum**
BF	$73^{11}/_{16}$"	$157^{11}/_{16}$"
N	$71^{11}/_{16}$"	$155^{11}/_{16}$"

BF-6L



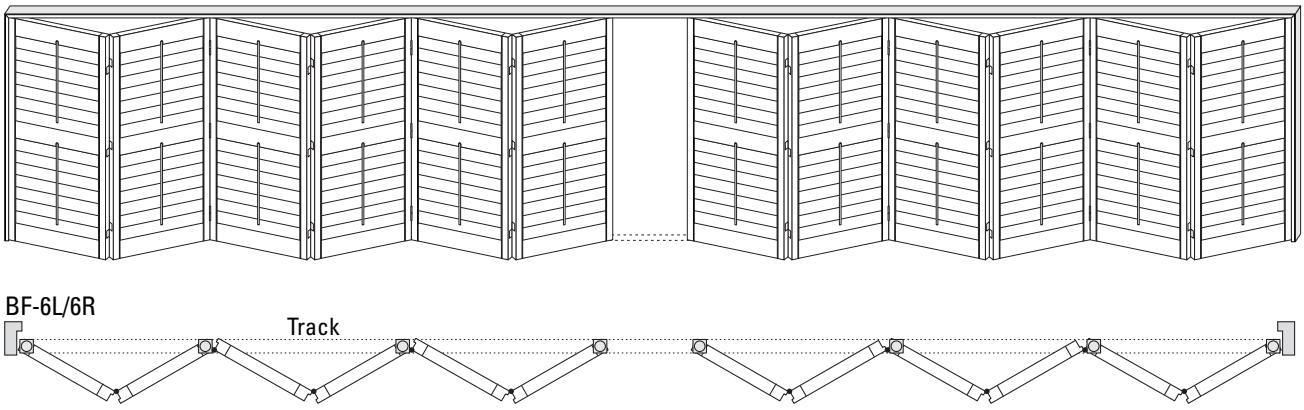
BF-6R



	Ordered Width	
Frame	**Minimum**	**Maximum**
BF	$73^{9}/_{16}$"	$157^{9}/_{16}$"
N	$71^{9}/_{16}$"	$155^{9}/_{16}$"

Notes:
- Other multiple panel arrangements are possible, including eight and ten panels. Consult Customer Service for details.
- Minimum and maximum ordered widths are based on outside mount applications.

Twelve Panels



	Ordered Width	
Frame	**Minimum**	**Maximum**
BF	144 3/4"	312 3/4"
N	142 3/4"	310 3/4"

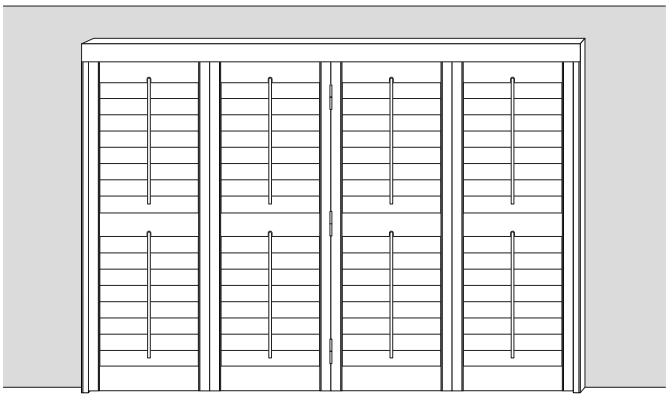
Notes:
Minimum and maximum ordered widths are based on outside mount applications.

Stackback Design

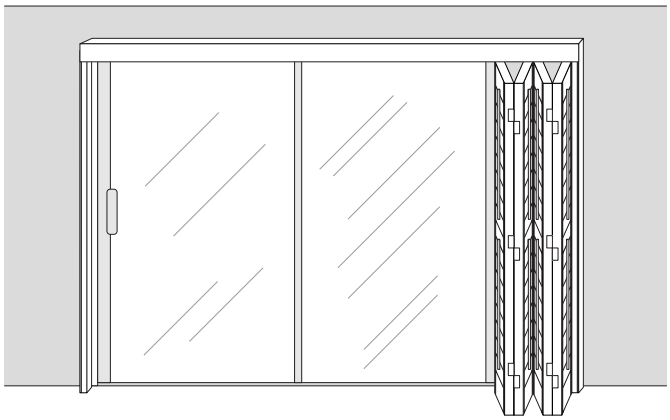
A stackback design enables the panels of a Bi-Fold track configuration to be pushed away from the opening and completely uncover it. This is achieved by extending the top frame and track a distance equal to 2" for each pivot point at the far ends of the installation, plus 4" per set of panels. A pivot point is the stationary location on the frame sides where panels are anchored and fold away from the opening.

Examples:
4L has one pivot point on the left. 2L/2R has two pivot points, one on the left and one on the right.
In the illustration below, a four-panel Bi-Fold track configuration is extended by the needed distance to stack the panels back. This design is usually considered when a customer desires more view and wall space is available.

Bi-Fold Stackback Design – Closed



Bi-Fold Stackback Design – Open



Notes:
- On a Bi-Fold stackback design, a portion of the wall is hidden behind the shutter panel, and there may be limited louver operation.
- In Bi-Fold track stackback applications, the Ordered Width and the stackback width are the same.

Bypass Track Configurations
LEVOLOR® PREMIER™ HARDWOOD SHUTTERS

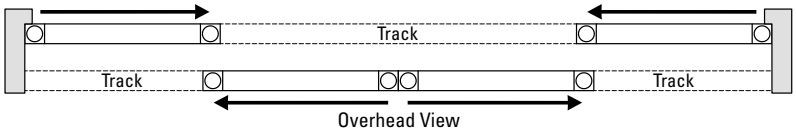
Overview

Bypass track configurations use two or three tracks and floor guides on which the shutter panels glide to open and close. It is designed for multiple panels (two, three, four, five, six, or eight) which are used individually or attached in sets in a variety of configurations. Bypass track configurations are most commonly used in extra wide windows such as sliding doors and are typically ordered with three-sided frames. With Bypass track configurations, floor guides are used to hold the panels in alignment when operating the shutters or subjecting them to wind. An optional Bypass bottom track is also available if the consumer prefers this over the floor guides. Discreet interpanel clips are used to marry multiple panels together when ordered in sets.

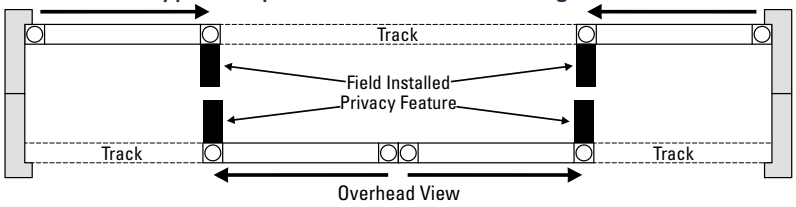
Notes:

- Minimum and maximum ordered widths are based on outside mount applications.
- Units with panel widths less than 27 1/2" may not be built with Controlled Close for Bypass depending on the configuration. A pop-up in DirectConnect™ will indicate when a unit cannot be made with Controlled Close for Bypass.
- Bypass panel overlaps of 1 5/8" are accounted for in minimum and maximum ordered widths.
- All panel configurations are available as standard Bypass or Bypass Open Louver configurations.

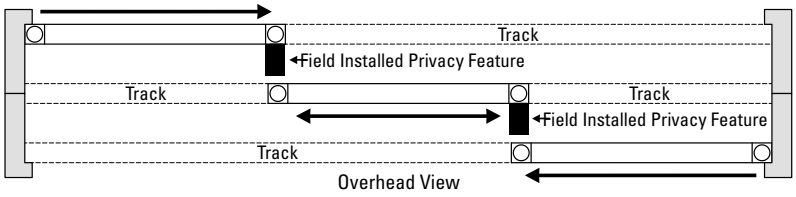
Bypass Track Configuration



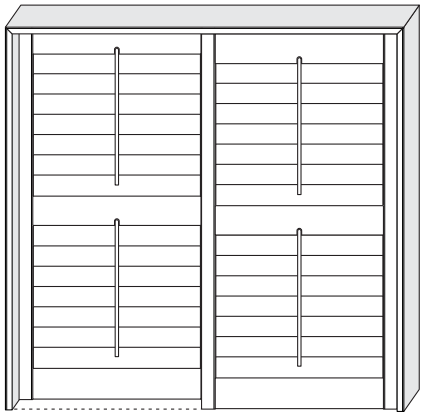
Bypass Open Louver Track Configuration



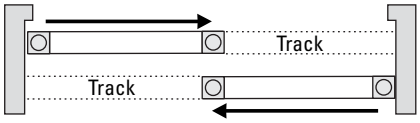
Bypass Triple Track Configuration



Two Panels

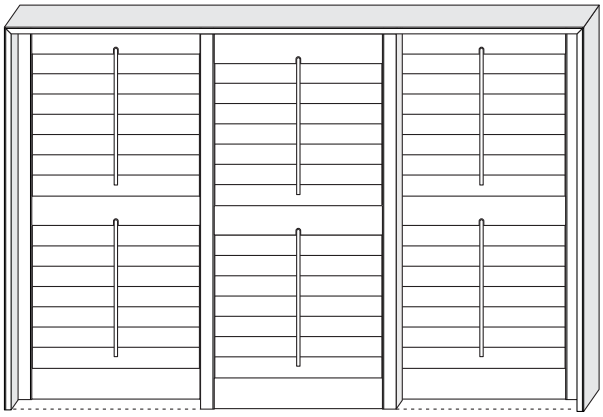


BP-1L/1R

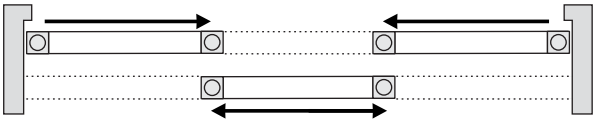


	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	24 3/8"	72 3/8"
Single Stackback	23 3/8"	71 3/8"
N, Double Stackback	22 3/8"	70 3/8"

Three Panels



BP-1L/1C/1R



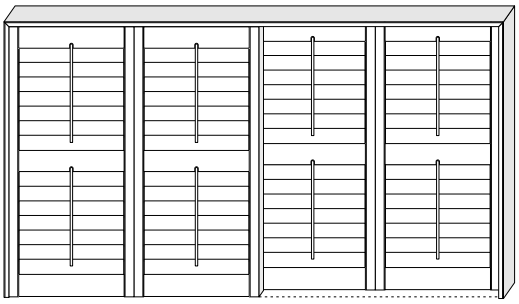
	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	34 3/4"	106 3/4"
Single Stackback	33 3/4"	105 3/4"
N, Double Stackback	32 3/4"	104 3/4"

Note:
Available with two or three tracks.

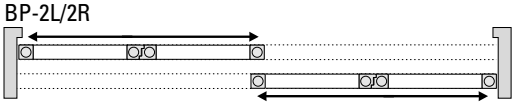
Note:

- Minimum and maximum ordered widths are based on outside mount applications.

Four Panels

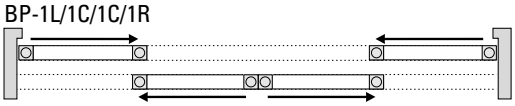


BP-2L/2R



	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	48 1/16"	144 1/16"
Single Stackback	47 1/16"	143 1/16"
N, Double Stackback	46 1/16"	142 1/16"

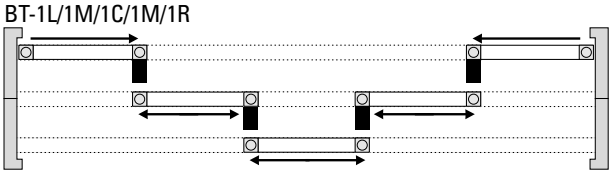
BP-1L/1C/1C/1R



	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	46 3/4"	142 3/4"
Single Stackback	45 3/4"	141 3/4"
N, Double Stackback	44 3/4"	140 3/4"

Five Panels

BT-1L/1M/1C/1M/1R



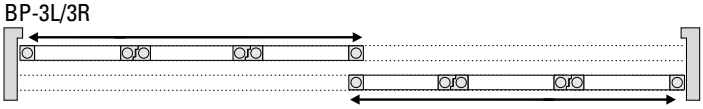
	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	55 1/2"	175 1/2"
Single Stackback	54 1/2"	174 1/2"
N, Double Stackback	53 1/2"	173 1/2"

Notes:

- Minimum and maximum ordered widths are based on outside mount applications.

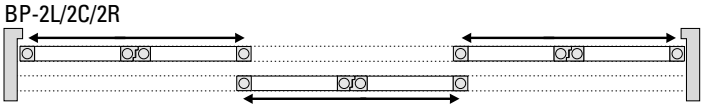
Six Panels

BP-3L/3R



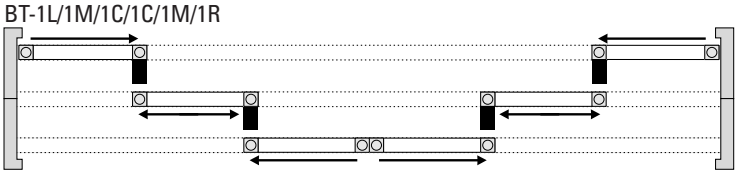
	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	71 3/4"	215 3/4"
Single Stackback	70 3/4"	214 3/4"
N, Double Stackback	69 3/4"	213 3/4"

BP-2L/2C/2R



	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	70 5/16"	214 5/16"
Single Stackback	69 5/16"	213 5/16"
N, Double Stackback	68 5/16"	212 5/16"

BT-1L/1M/1C/1C/1M/1R



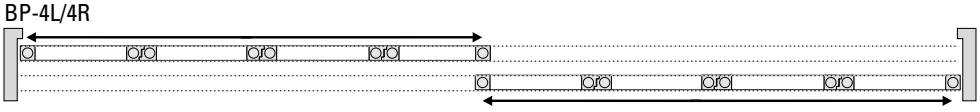
Note:

Available with two or three tracks.

	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	67 1/2"	211 1/2"
Single Stackback	66 1/2"	210 1/2"
N, Double Stackback	65 1/2"	209 1/2"

Eight Panels

BP-4L/4R



	Ordered Width	
Frame	**Minimum**	**Maximum**
BP	95 7/16"	287 7/16"
Single Stackback	94 7/16"	286 7/16"
N, Double Stackback	93 7/16"	285 7/16"

Notes:

- Minimum and maximum ordered widths are based on outside mount applications.
- Other multiple panel arrangements are possible, including 10 or 12 panels. Consult Customer Service for details.

Stackback Design

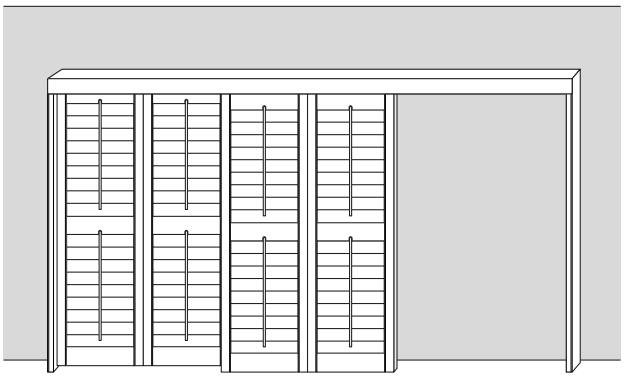
A stackback design enables both the front and rear panels of a Bypass track configuration to be slid away from the opening and completely uncover it. In the illustration below, a four-panel Bypass track configuration is extended by a distance equal to the width of two panels. This type of stackback configuration comes with design limitations. When the panels are closed, covering the glass, the valance and frame appear to be free floating on the wall, as seen in the illustration below.

However, one or both of the side frames may be eliminated if the top frame abuts one or both walls, or is an inside mount or ceiling mount. This provides a very clean look to the installation but assumes proper mounting is available.

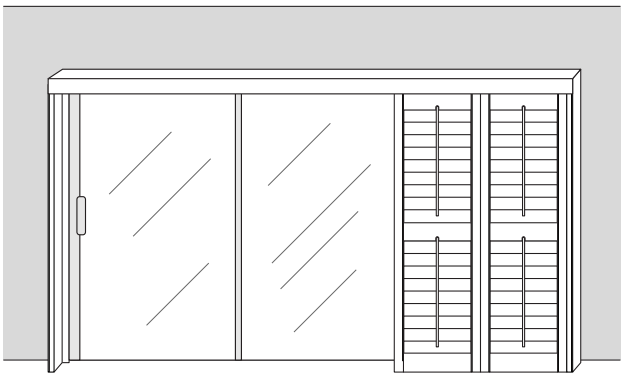
Note:

When ordering a Bypass with stackback you must provide ordered width and stackback width. You must also indicate whether the stackback will be to the left, right, or both left and right. This information is required to calculate correct panel widths including $1^{5}/_{8}$" panel overlaps.

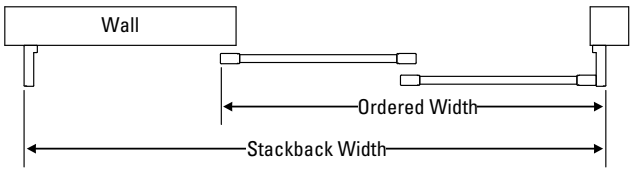
Bypass Stackback Design — Closed



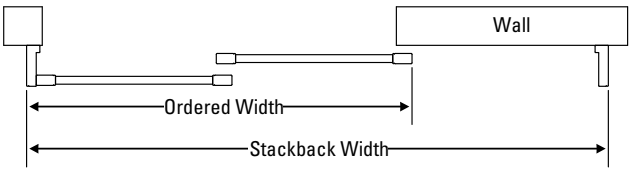
Bypass Stackback Design — Open



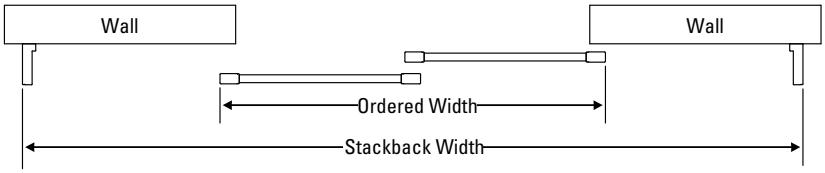
Bypass Single Stackback (Left)



Bypass Single Stackback (Right)



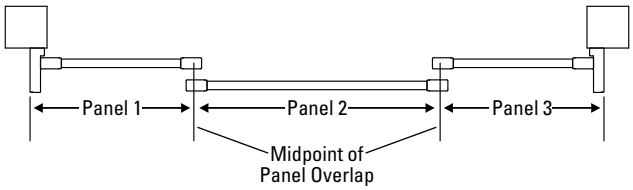
Bypass Double Stackback (Left-Right)



Bypass Track Unequal Panels

As standard, panel widths will be equal within an opening. If varying panel widths are required, specify as unequal panels in special instructions on the order form and provide panel measurements as shown at right.

Bypass Track Unequal Panels



The Basics

Arch top and angle top panels allow coverage of specialty shaped windows with continuous panels. The arch top may be in the shape of an arch or a quarter circle.

- Available as inside or outside mount.
- Available framed or unframed.
- Single or multiple panel configurations.
- French door cut-outs are available on arch top and angle top panels.

Possible arch top and angle top configurations are the same as standard hinged panel configurations, see Standard Hinged Panel℠.

Sample arch top and angle top configurations are shown in Arch Top and Angle Top Panel℠. For panels that are hinged on the tall side, the backs will be chamfered for clearance purposes, which may result in light gaps.

Louver Operation

Louvers in an arch top or angle top panel are horizontal. A rear tilt bar may be used to provide as many operable louvers as possible. Louvers that cannot be connected to a tilt bar will operate independently. In some cases, some louvers may be fixed closed.

On arch top and angle top panels with front tilt, if the louvers in the arched or angled area can't be attached to the front tilt bar or Concealed Tilt mechanism, the remaining louvers will either be individually moveable or grouped separately with a rear tilt bar. In the latter case, an additional $^{7}/_{16}$" depth is required for rear clearance. This includes the $^{1}/_{4}$" standard recommended clearance and the $^{3}/_{16}$" clearance for the rear tilt bar.

Louvers near the top of the shutter will have limited rotation due to the shape of the arch/angle. These louvers may not rotate past the horizontal position. Tight closure will be in the upward position only. Ordering a divider rail or split tilt near the shoulder will achieve full louver rotation below the shoulder height. For split tilt, the louvers above the split tilt need to be in the open position for full louver rotation below.

An extension pole that extends to 96" is available for hard-to-reach louvers.

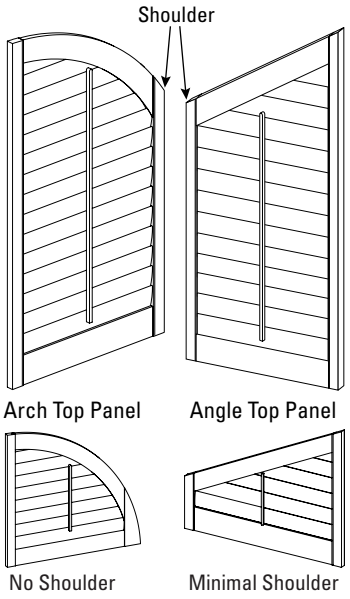
Arch Top/Angle Top Panels With or Without Shoulder

The shoulder is unique to arch top and angle top panels. The shoulder is the point where the arch or angle begins.

- Shoulder height is recorded as left and/or right height.
- Minimum shoulder height: 0"
- Minimum panel height: 18"

Note:

Depending on shoulder height, panel configurations may be limited.



Frame Splicing

Frames on arch top panels greater than 30" wide may be spliced at the center top of the arch.

Product Specifications

The following specifications are the same for arch top and angle top panels as they are for standard hinged panels. Depending on shoulder height, specifications may vary.

- Size standards (with the exception of minimum panel height, which is 18")
- Number of panels
- Divider rail requirements
- Number of hinges per panel height

Track configurations are not available in arch top or angle top panels.

Notes:

- Entire height of a divider rail location must always be located below the shoulder of an arch or angle top panel.
- If a separate louver section is desired above the shoulder of the arch or angle, split tilt should be ordered.

Measuring Guidelines

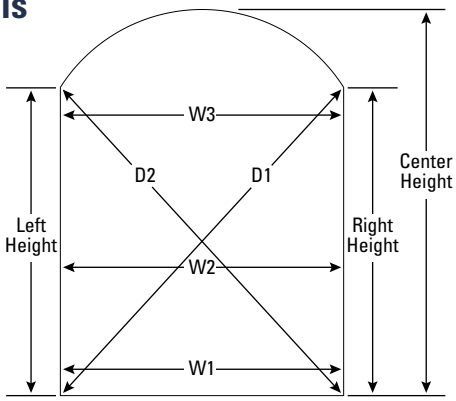
Measuring Guidelines Specific to Arch Top and Angle Top Panels

Arch top and angle top panels require key measurements and accurate communication of the measurements. Measure and record the measurements on the specialty shape order form. Examples of the measurements required for an arch top panel are shown at right.

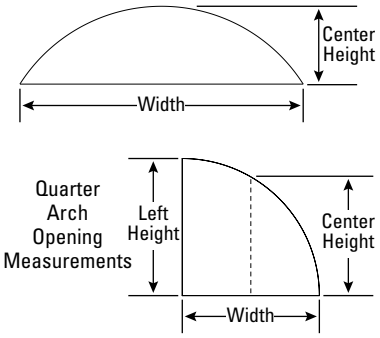
Note:

Measuring can be challenging due to several factors. Cranks, latches, depth and squareness of the window opening must be considered. All measurements should be taken to the nearest $^{1}/_{16}$".

Arch Top Panel with Shoulder Opening Measurements



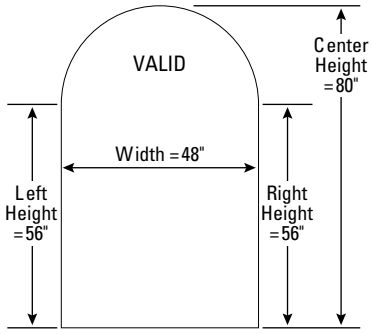
Arch Top Panel with No Shoulder Opening Measurements



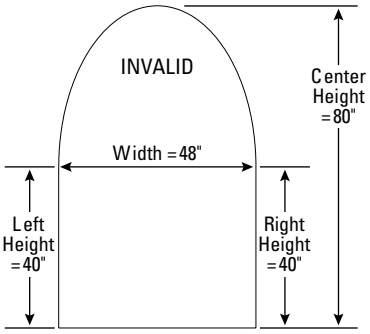
Checking for Valid Arch Top Measurements

Arch top panel shapes must have valid side height measurements. In many cases the left or right side height measurement is difficult to obtain due to the smooth transition from the straight side to the arch portion of the opening.

The measurements are valid when the side height (left or right) is equal to or greater than the center height minus one-half the width. If it is not, either adjust the side heights to a valid measurement or provide a template. See the examples at right.



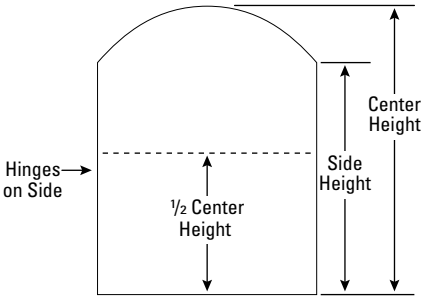
½ Width = 24"
80" – 24" = 56"
Measurements are valid because 56" is equal to the center height minus one-half the width.



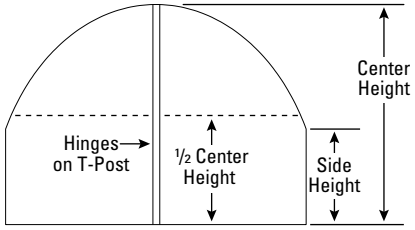
½ Width = 24"
80" – 24" = 56"
Measurements are invalid because 40" is less than the center height minus one-half the width.

Hinging and T-Posts

If the side height of an arch top/angle top panel shutter is greater than one-half the center height, the panel(s) may be hinged to the side(s). However, if the side height of the arch top/angle top panel shutter is equal to or less than one-half the center height, a vertical T-Post must be added and the panels will be hinged off the T-Post. Some example configurations are RTL, RRTLL, or RTRTLTL.



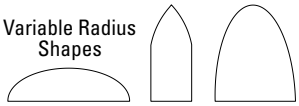
Hinges on Side



Hinges on T-Post

Notes:

- Templates are required for all variable radius specialty shapes or openings that are irregularly shaped. See Hardwood Specialty Shapes order form for details.



- Maximum widths and heights can vary depending on the radius.

Configurations

Overview

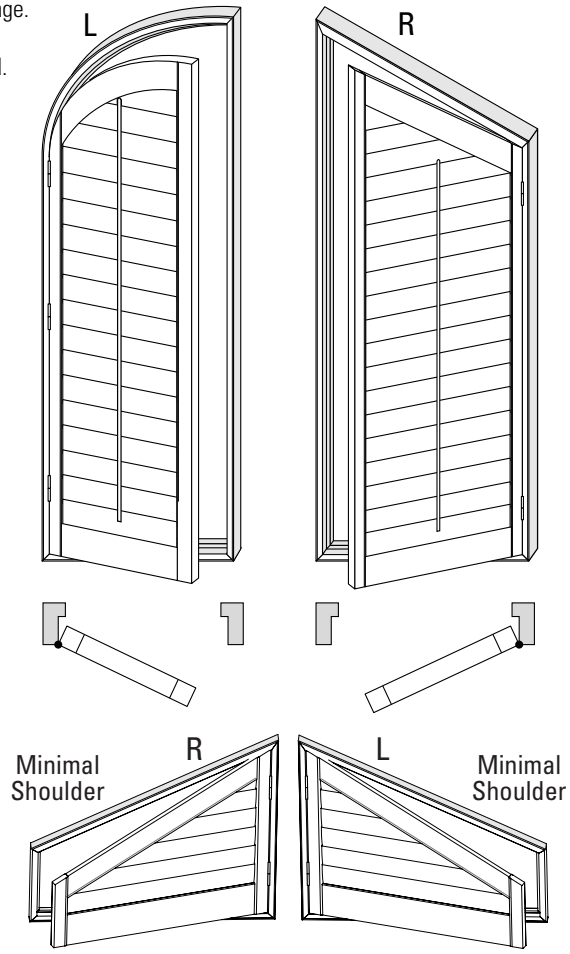
All standard hinged panel configurations shown in Standard Hinged Panel℠ may be used for arch top and angle top panels. However, in most cases, one or two panel configurations will be ordered. Those configurations are shown on this page.

Note:

The minimum and maximum ordered widths include frame and T-Posts as illustrated.

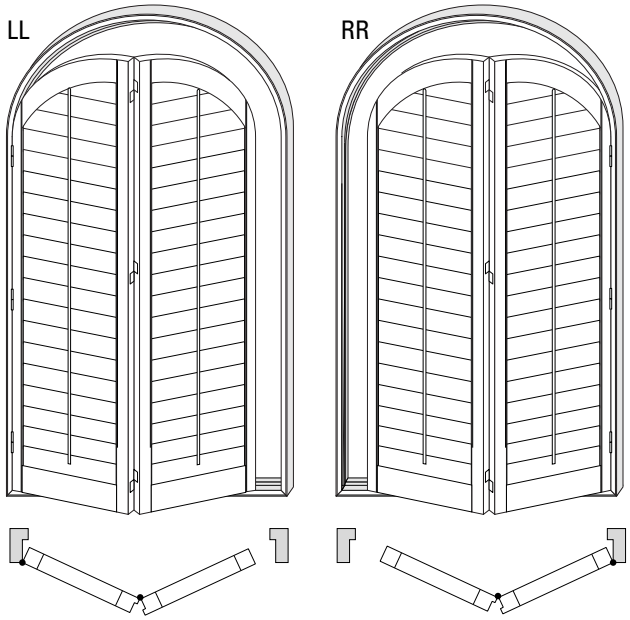
One Panel

		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	$12\frac{3}{16}$"	$36\frac{3}{16}$"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	$13\frac{15}{16}$"	$37\frac{15}{16}$"
	HSS	$14\frac{15}{16}$"	$38\frac{15}{16}$"
OM	N, HSB	12"	36"
	L91, L93, L94, L95, L96, L97, L98	$13\frac{11}{16}$"	$37\frac{11}{16}$"
	HSS	$14\frac{15}{16}$"	$38\frac{15}{16}$"
	C91	$16\frac{7}{16}$"	$40\frac{7}{16}$"



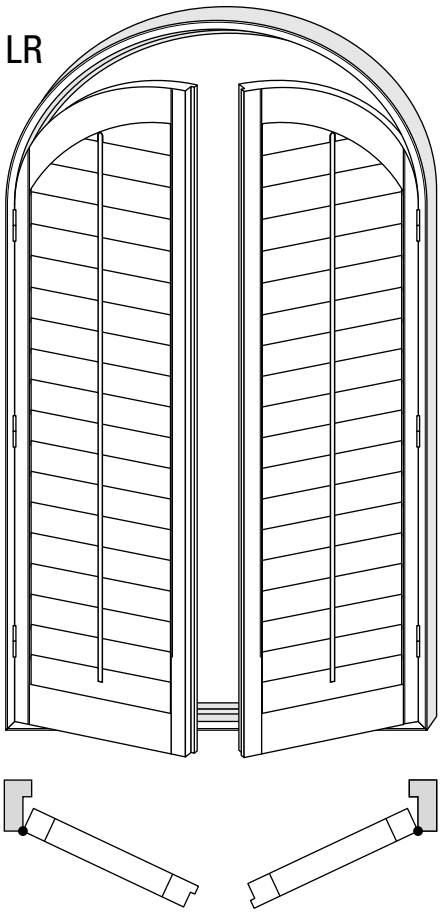
Two Panels — Bi-Fold

		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	$24\frac{1}{16}$"	$52\frac{1}{16}$"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	$25\frac{13}{16}$"	$53\frac{13}{16}$"
	HSS	$26\frac{13}{16}$	$54\frac{13}{16}$"
OM	N, HSB	$23\frac{7}{8}$"	$51\frac{7}{8}$"
	L91, L93, L94, L95, L96, L97, L98	$25\frac{9}{16}$"	$53\frac{9}{16}$"
	HSS	$26\frac{13}{16}$"	$54\frac{13}{16}$"
	C91	$28\frac{5}{16}$"	$56\frac{5}{16}$"

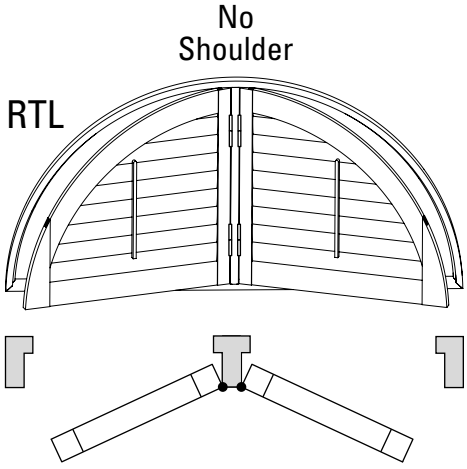


Two Panels — Individually Hinged

		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	24"	72"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	25 3/4"	73 3/4"
	HSS	26 3/4"	74 3/4"
OM	N, HSB	23 13/16"	71 13/16"
	L91, L93, L94, L95, L96, L97, L98	25 1/2"	73 1/2"
	HSS	26 3/4"	74 3/4"
	C91	28 1/4"	76 1/4"

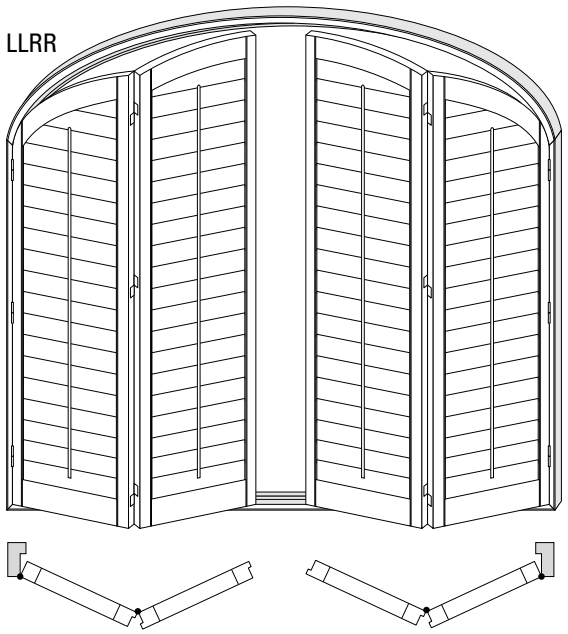


		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	25 5/8"	73 5/8"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	27 3/8"	75 3/8"
	HSS	28 3/8"	76 3/8"
OM	N, HSB	25 7/16"	73 7/16"
	L91, L93, L94, L95, L96, L97, L98	27 1/8"	75 1/8"
	HSS	28 3/8"	76 3/8"
	C91	29 7/8"	77 7/8"



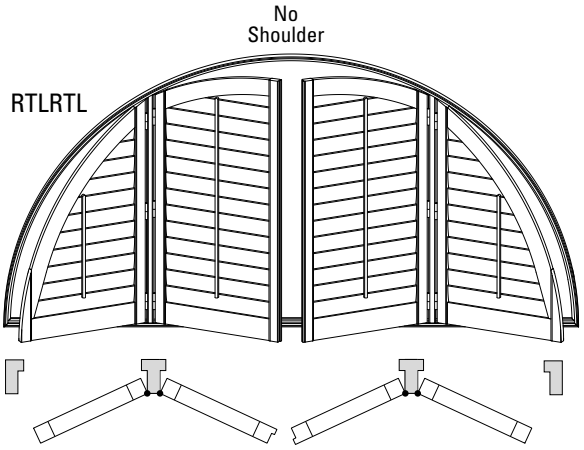
Four Panels — Bi-Fold

		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	47 11/16"	103 11/16"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	49 7/16"	105 7/16"
	HSS	50 7/16"	106 7/16"
OM	N, HSB	47 1/2"	103 1/2"
	L91, L93, L94, L95, L96, L97, L98	49 3/16"	105 3/16"
	HSS	50 7/16"	106 7/16"
	C91	51 15/16"	107 15/16"



Four Panels — Individually Hinged

		Ordered Width	
Mount	**Frame**	**Minimum**	**Maximum**
IM	N, HSB, THS, Z97, Z98	50 7/8"	146 7/8"
	L91, L93, L94, L95, L96, L97, L98, Z92, Z93, Z94	52 5/8"	148 5/8"
	HSS	53 5/8"	149 5/8"
OM	N, HSB	50 11/16"	146 11/16"
	L91, L93, L94, L95, L96, L97, L98	52 3/8"	148 3/8"
	HSS	53 5/8"	149 5/8"
	C91	55 1/8"	151 1/8"

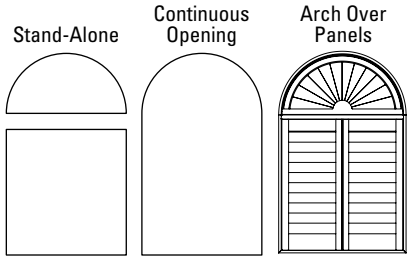


The Basics

Unframed and framed specialty shapes are available, either painted or stained. Multiple specialty shapes are offered in the Hardwood product line:

- Perfect arch (A1)
- Quarter circle (A2L or A2R)
- Circle (A3)
- Extended eyebrow (A4)
- Extended arch (A4)
- Eyebrow (A5)
- Extended quarter eyebrow (A6L or A6R)
- Angle (A7L or A7R)
- Extended angle (A7L or A7R)
- Pentagon (A8)
- Oval (T1)
- Circle (T2)
- Hexagon (T3)
- Octagon (T4)

Both framed and unframed specialty shapes may be ordered as stand-alone shutters or combined with standard hinged panels below in a continuous opening.

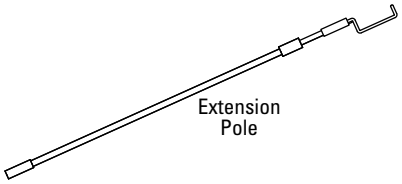


Louver Operation

Specialty shapes that start with an "A" code indicate a sunburst configuration, where individually operable louvers are arranged around a central hub.

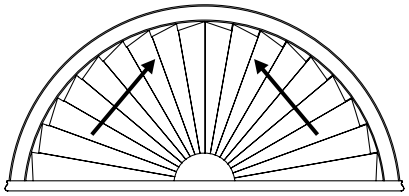
Shapes with a "T" code have horizontal louvers. All horizontal louver specialty shapes (T1–T4) are available with either front tilt or individually operable louver configurations. Note your operation preference on the Specialty Shapes order form.

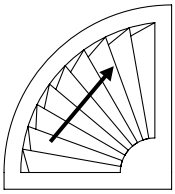
Louver movement may be limited in some cases, depending on the specialty shape. An extension pole that extends to 96" is available for hard to reach louvers.



Louver Closure

Louvers will always close upward from the horizontal to the tallest point of the shape.





The sunburst louvers in the arch above close upward toward center in two directions. In the quarter arch at left, the louvers close upward in one direction only.

The sunburst louvers in the arch above close upward toward center in two directions. In the quarter arch at left, the louvers close upward in one direction only.

Minimum Mounting Depths for Sunburst Louver Clearance

Inside Mount	
Contemporary or Traditional Tilt-In Z-Frames	1 3/8"
Standard Z-Frame	2 7/16"
Traditional Z-Frame	2"
Colonial Z-Frame	1 3/4"
Contemporary Z-Frame	2 5/8"
Outside Mount	
1 5/8" Traditional L-Frame	1 3/8"
1 3/4" Traditional L-Frame	7/8"
1 3/4" Contemporary L-Frame	7/8"
2 3/8" Contemporary or Traditional L-Frames	1/2"
2 7/8" Contemporary or Traditional L-Frames	0"
Unframed Outside Mount	1 7/8"

Minimum Flush Mounting Depths for Sunburst Louver Clearance

All L Frames	2 7/8"
Unframed Inside Mount	1 7/8"

Unframed Shapes

Unframed specialty shapes can be ordered as inside or outside mounts in stand-alone applications. When inside mounted, small gaps may be visible around the outside edges of the specialty shape. Unframed specialty shapes are installed with button catches. See illustrations in Specialty Shapes℠.

Returns

Unframed specialty shapes may be ordered with or without returns.

- Returns add 1/2" per side on all unframed specialty shapes.
- Returns are not available on inside mount applications or T-shapes.

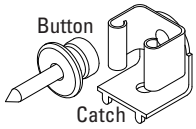
Framed Shapes

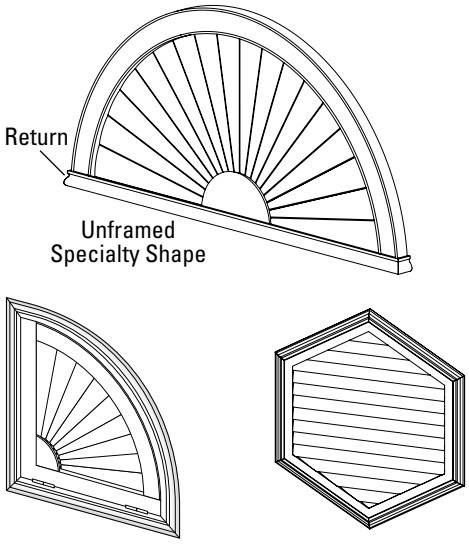
Framed specialty shapes may be ordered as inside or outside mounts. Any standard panel frame can be ordered with framed specialty shapes. The shutter panel is hinged to the frame (with the exception of a bottom Sill Frame option) and opens for easy cleaning of the window.
Note that the recommended minimum clearance depth is 1 1/2" to 2".

Number of Hinges by Width

- 2 hinges: 14" to 40"
- 3 hinges: 40 1/16" to 72"
- 4 hinges: 72 1/16" to 102"

Note:
On framed specialty shapes with bottom Sill Frame, button catches or magnets will be used in lieu of hinges. Hinge screws are too long for use with the Sill Frame.





Framed Specialty Shapes

Build-Out

To gain additional clearance for louver operation, build-out may be ordered for framed and unframed shapes. For build-out surcharges, see Pricing – Surcharges & Accessories℠.
There is a maximum of two build-outs per specialty shape.

Templates

Submitted templates will be reviewed before fabrication and compared to ordered dimensions for verification. A shape will be built as a single radius if the template dimensions are within 1/8" of a perfect radius. Contact Customer Service for further information on when a template is required.

Specifications

Sunburst Configuration Criteria

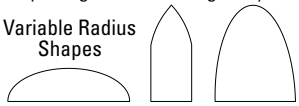
- All specialty shape louvers are in a sunburst orientation except T1–T4 shapes.
- Sunburst louvers always close upward from the horizontal to the tallest point of the shape.
- To order arch or angle window shapes with horizontal louvers, order as an arch or angle top panel format. See Arch Top and Angle Top Panels∞ for specifications.
- Framed and unframed shapes can be ordered inside mount (IM) or outside mount (OM).
- Framed specialties are available in all frames.
- Note key measurements on specialty shape order form.
- Sunburst specialty shapes can be used in stand-alone and continuous opening configurations (except circles).
- With specialty shapes in continuous openings greater than 60" wide, a vertical T-Post is required in the panel configuration which sits below the specialty shape.
- Due to the wide overlaps of the Casing Frame, complete alignment between an unframed specialty shape and a framed shutter can be achieved, but louver rotation will be limited.
- Sunburst specialty shape maximum louver reach is 51" from center of the hub to the furthest point.
- For unframed outside mount specialty shapes, maximum overlap is 1¾" per side.

Measuring

Perform the measurements indicated on the specialty shape order form for the specific shape being ordered.

Notes:

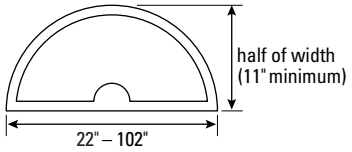
- Hub sizes will vary based on the width and height. Wider and taller openings require larger hubs. Companion shapes with varying widths and heights will have different hub sizes.
- Templates are required for all variable radius specialty shapes or openings that are irregularly shaped. See order form for details.



- Maximum widths and heights can vary depending on the radius.

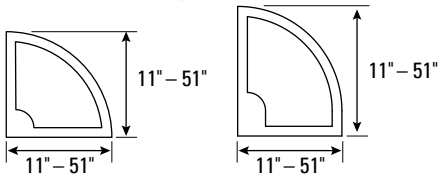
Opening Guidelines: Sunburst Louvers, No Templates

Perfect Arch (AT)



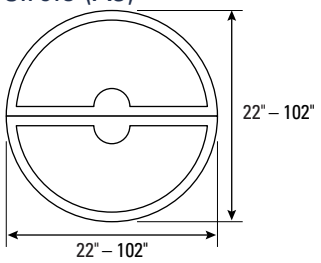
- The height of a Perfect Arch measures one-half the width. If the height measures more than half the width, specify an Extended Arch (A4). If the height measures less than half the width, specify an Eyebrow (A5).

Quarter Circle/Extended Quarter Circle (A2)



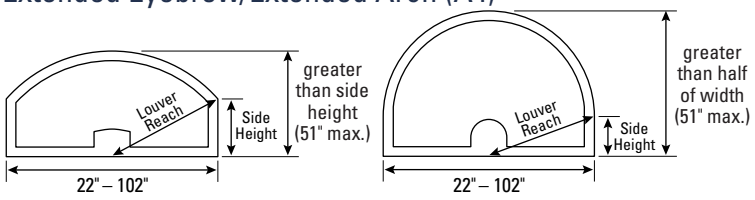
- Order as left (A2L) or right (A2R) quarter circle.

Circle (A3)



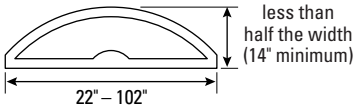
- Height must be within 1" of width.

Extended Eyebrow/Extended Arch (A4)



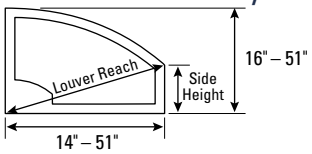
- Maximum louver reach: 51".
- Extended eyebrows with similar side height and center height have the greatest possibility of limited louver movement.

Eyebrow (A5)



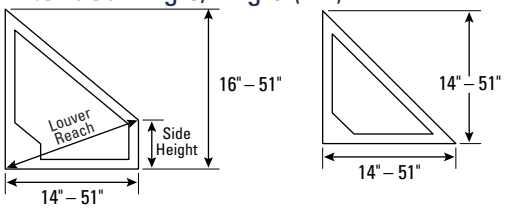
- Maximum height is less than half of the ordered width.
- Short, wide eyebrows have the greatest possibility of limited louver movement.

Extended Quarter Eyebrow (A6)



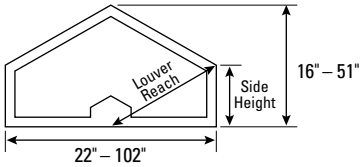
- Maximum louver reach: 51".
- Order as left (A6L) or right (A6R) extended quarter eyebrow.
- Extended quarter eyebrows with similar side height and center height have the greatest possibility of limited louver movement.

Extended Angle/Angle (A7)



- Maximum louver reach: 51".
- Order as left (A7L) or right (A7R), with or without a side height.

Pentagon (A8)

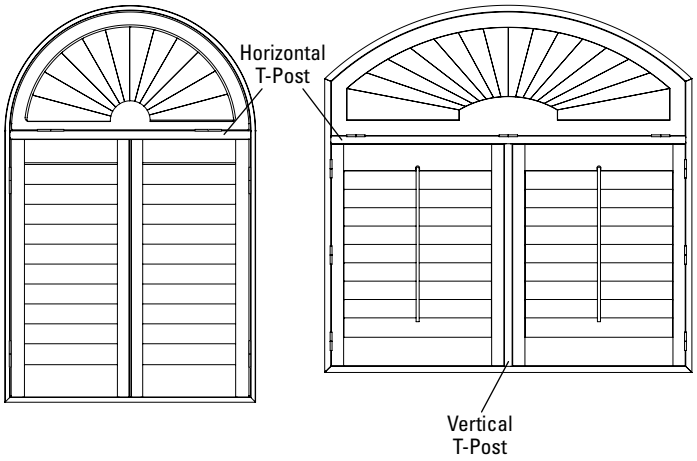


- Maximum louver reach: 51".
- Available as symmetrical only.
- Peak cannot be offset; it must be in center.

Continuous Frame — Sunburst Specialty Over Panels

In a continuous frame with specialty over panels, the specialty is supported by a horizontal T-Post. All frames can be used in this configuration. Openings greater than 60" wide require a vertical T-Post for the shutter configuration which sits below the specialty shape.

Continuous Frame
Sunburst Specialty Over Panels

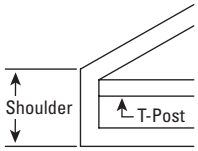


Measuring And Ordering

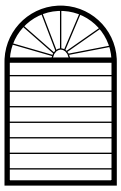
All necessary measurements for specialty shapes are shown on specialty order forms. Use the specialty order form to order the specialty and panels below as one line item. See the order form for more details.

T-Post and Divider Rail Placement Guidelines

- Entire height of a horizontal T-Post or divider rails must always be below the shoulder.
- Finished location may vary up or down from the specified location.

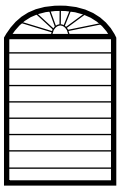


Framed Arch Sunburst Over Panels



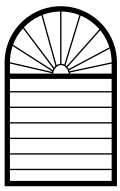
Codes: A1-SH

Framed Eyebrow Sunburst Over Panels



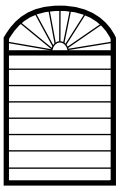
Codes: A5-SH

Extended Arch Sunburst Over Panels



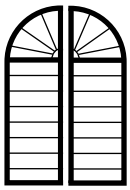
Codes: A4-SH

Extended Eyebrow Sunburst Over Panels



Codes: A4-SH

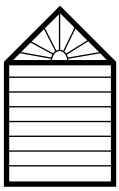
Framed Quarter Arch/Eyebrow Sunburst Over Panels



Codes: A2L-SH A6L-SH

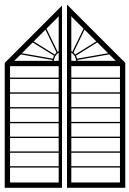
Codes: A2R-SH A6R-SH

Framed Pentagon Sunburst Over Panels



Codes: A8-SH

Framed Quarter Angle or Extended Angle Sunburst Over Panels

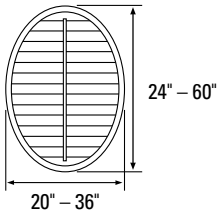


Codes: A7L-SH

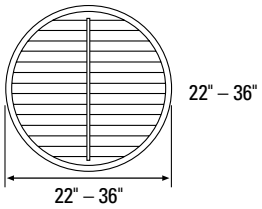
Codes: A7R-SH

Opening Guidelines: Horizontal Louvers

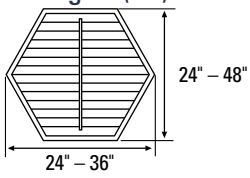
Oval (T1)



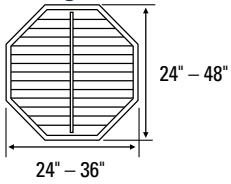
Circle (T2)



Hexagon (T3)



Octagon (T4)



Notes:

- Horizontal louver specialty shapes T1 – T4:
  - Are available framed or unframed.
  - Are not available hinged due to lack of sufficient hinging surface.
  - Can be ordered with front tilt or individually operable louvers.
  - Templates are required for all Ovals (T1) and variable radius specialty shapes or openings that are irregularly shaped. If a specialty window is not symmetric but you are able to design a shutter to fit with a symmetric design, a template is not required. This applies to the following specialty shapes: Circle (T2), Hexagon (T3), and Octagon (T4).
- Specialty shapes with horizontal louvers do not have returns.
- Horizontal louver specialty shapes are available in $2^1/_2$", $3^1/_2$", and $4^1/_2$" louver sizes.
- Other shapes and opening types may be possible as shown below. Consult Customer Service for details.



Unframed Specialty Shape Ordering Considerations

Unframed Shape Over Standard Shutter

Standard Shutter Mounting

To balance the appearance of an outside mounted unframed specialty shape, consider the projection difference between your specialty shape and the framed unit below.

The illustrations below show front views of specialty shapes with various frame types. Note that either the arch radius or the returns may be used to achieve an aligned look with the standard shutter.

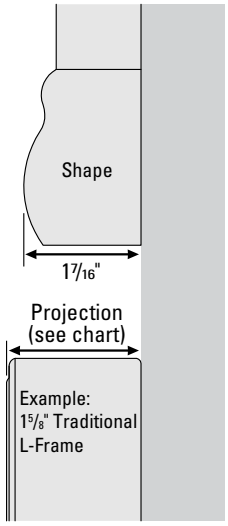
Note:

Check for enough clearance between bottom of specialty shape and top of frame.

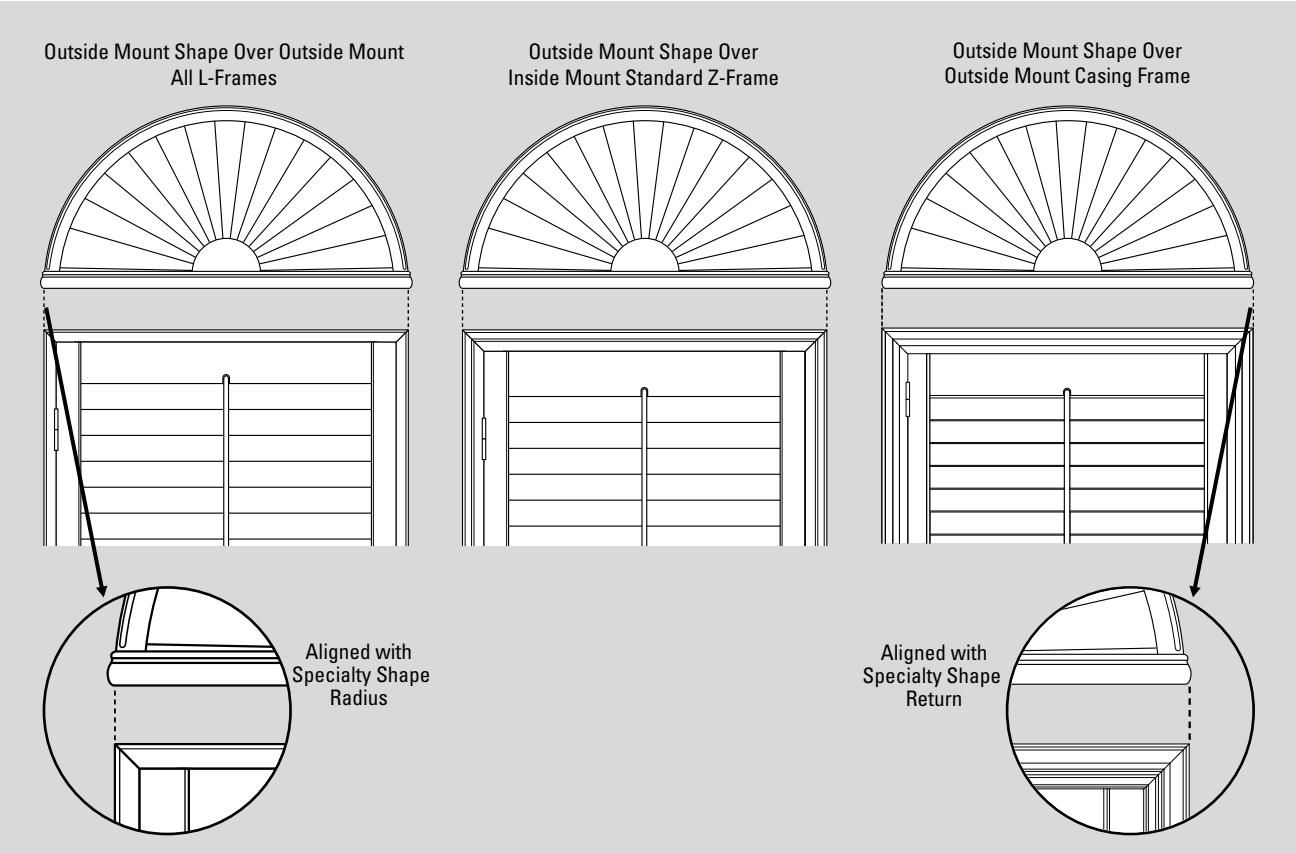
Shape and Frame Projection Chart

Frame Type	Projection
Arch Skirt	1 7/16"
1 5/8" Traditional L-Frame (L91)	1 5/8"
1 3/4" Traditional L-Frame (L98)	1 3/4"
2 3/8" Traditional L-Frame (L93)	2 3/8"
2 7/8" Traditional L-Frame (L94)	2 7/8"
1 3/4" Contemporary L-Frame (L95)	1 3/4"
2 3/8" Traditional L-Frame (L96)	2 3/8"
2 7/8" Traditional L-Frame (L97)	2 7/8"
Casing Frame (C91)	1 5/8"
Standard Z-Frame (Z92)	7/16"
Traditional Z-Frame (Z93)	5/8"
Contemporary Z-Frame (Z96)	7/16"
Contemporary Tilt-In Z-Frame (Z97)	1 1/2"
Traditional Tilt-In Z-Frame (Z98)	1 1/2"

Specialty Shape and Frame Projection
(side view)



Outside Mount Specialty Shape Alignment with Standard Panels Below



Continuous Opening

Standard Shutter Mounting

In a continuous opening with an arch top, the arch rests on top of the standard shutter frame.

When specifying any of the Z frames, a Sill Frame, 1 5/8" Traditional L-Frame, 1 3/4" Traditional L-Frame or 1 3/4" Contemporary L-Frame must be used on the top of the framed panel to support the arch. The use of a vertical T-Post for additional support is recommended.

Projection Comparison

The chart on this page compares the projection of the various types of frames with an outside-mounted shape.

The choice of a Sill Frame for the top of the standard shutter's frame minimizes the thickness where the shape's bottom rail and shutter frame meet. Refer to the illustrations to help you visualize this.

Notes:

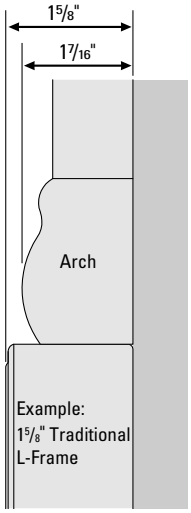
- The Sill Frame cannot be used with the Trim L-Frame or Trim L-Frame + 1/2"

Shape and Frame Projection Chart

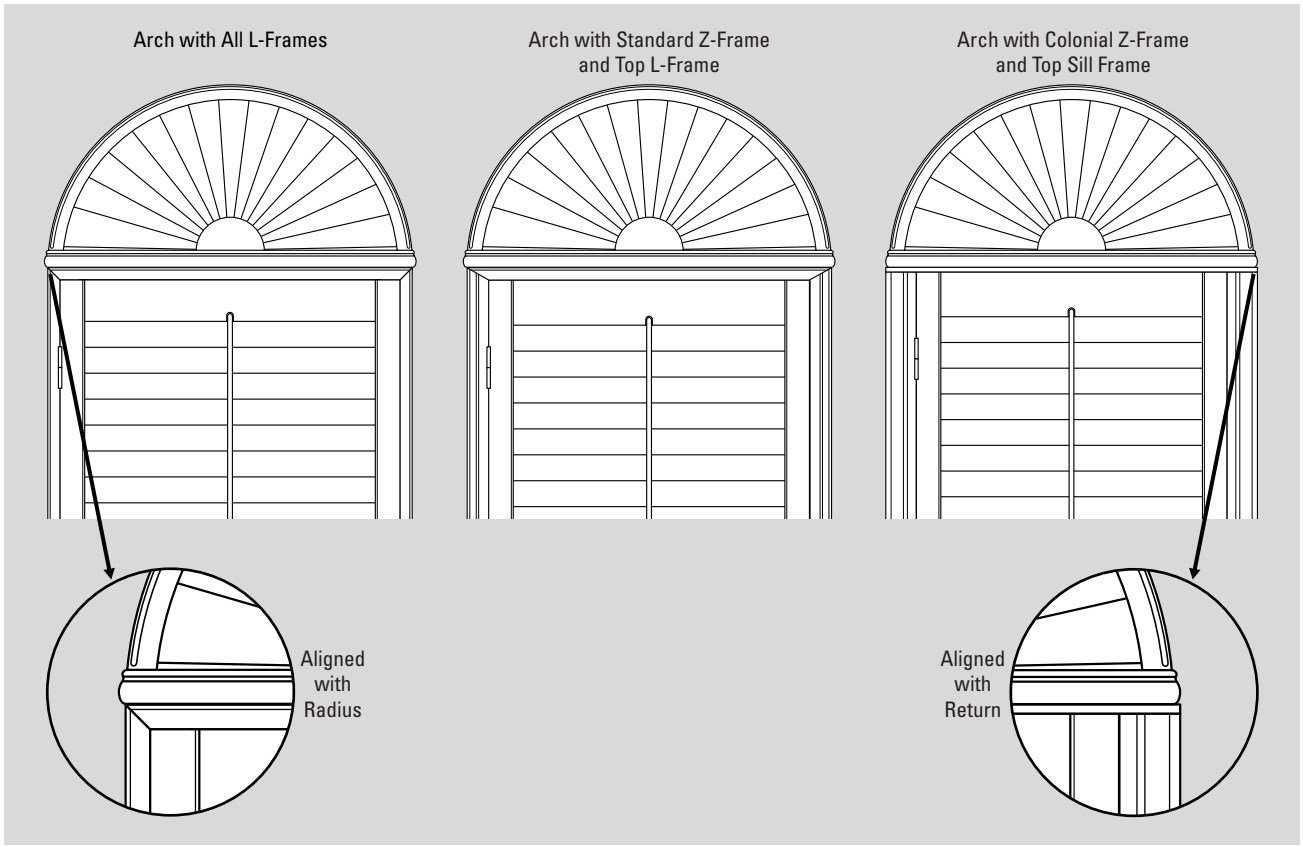
Frame Type	Projection
Arch Skirt	1 7/16"
1 5/8" Traditional L-Frame (L91)	1 5/8"
1 3/4" Traditional L-Frame (L98)	1 3/4"
2 3/8" Traditional L-Frame (L93)	2 3/8"
2 7/8" Traditional L-Frame (L94)	2 7/8"
1 3/4" Contemporary L-Frame (L95)	1 3/4"
2 3/8" Contemporary L-Frame (L96)	2 3/8"
2 7/8" Contemporary L-Frame (L97)	2 7/8"
Casing Frame (C91)	1 5/8"
Standard Z-Frame (Z92)	7/16"
Traditional Z-Frame (Z93)	5/8"
Contemporary Z-Frame (Z96)	7/16"
Contemporary Tilt-In Z-Frame (Z97)	1 1/2"
Traditional Tilt-In Z-Frame (Z98)	1 1/2"

Arch and Frame Projection Example

(side view; see chart for all fram



Outside Mount Specialty Shape Alignment with Standard Panels Below

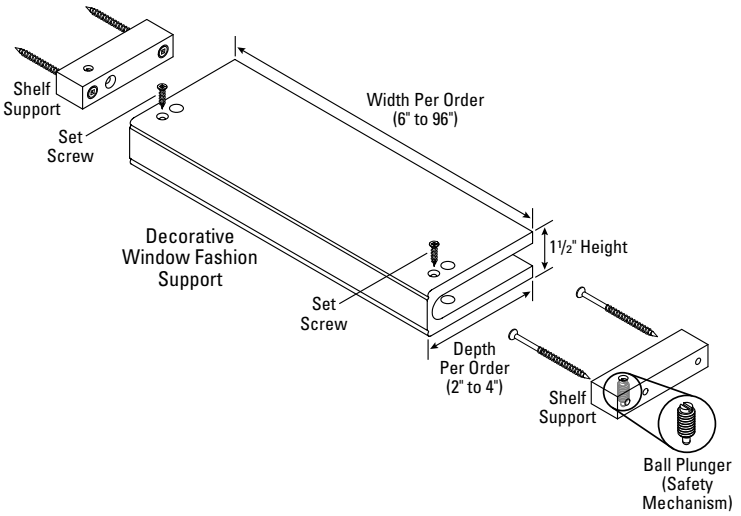


Decorative Window Fashion Support

The Decorative Window Fashion Support is a decorative support used to mount shades, shadings and blinds in specialty style windows or in a rectangular window. For example, in a Palladian arch window, the shelf enables window coverings up to 96" wide to be mounted where previously they could not be installed.

Note:

- The Decorative Window Fashion Support can be used with virtually any LEVOLOR PREMIER product.



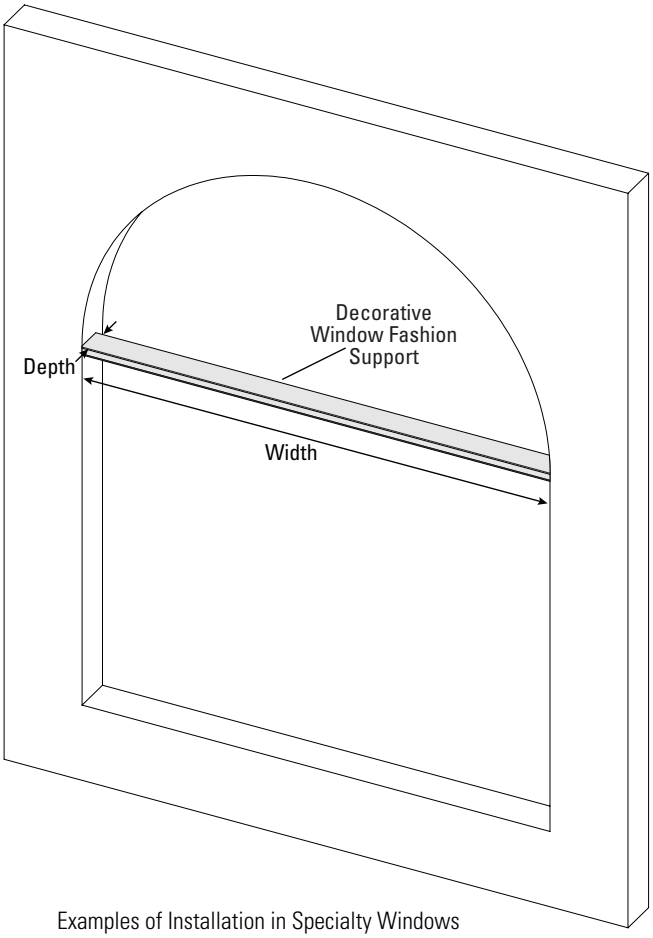
Decorative Window Fashion Support Specifications

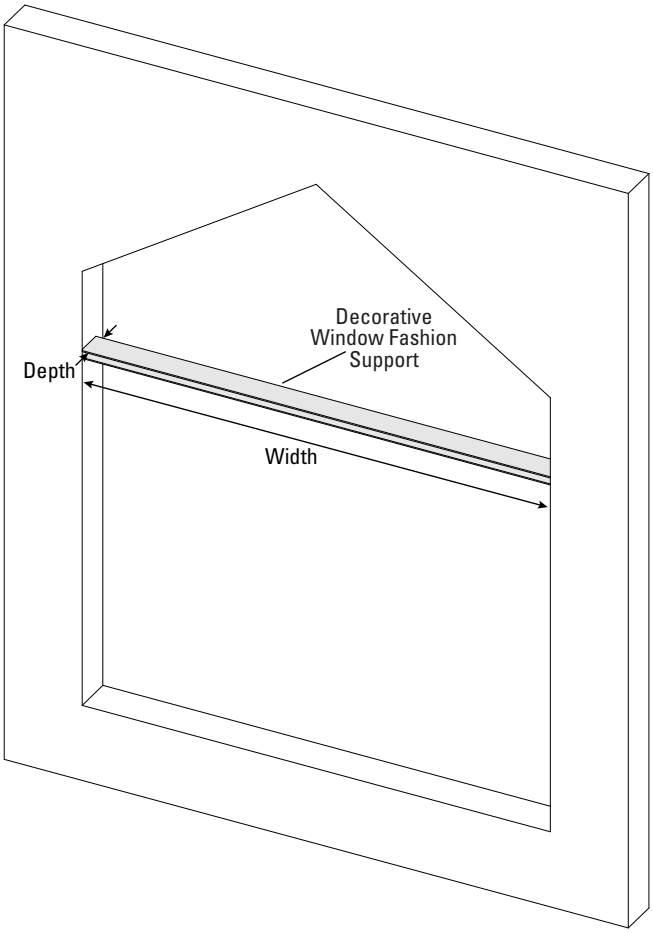
- Made of genuine hardwood
- Available in all 16 Hardwood colors
- Mounting type: inside mount only, ordered by exact measure
- Designed to support a maximum load of 40 pounds
- Concealed mounting blocks on each end with a safety locking mechanism for a secure installation

Measuring

Measure exact width and depth. See drawing below.

- Maximum width: 96"
- Minimum width: 6"
- Maximum depth: 4"
- Minimum depth: 2"
- Face height: 1½"
- No deductions taken from ordered dimensions





Examples of Installation in Specialty Windows

Coordination with Hardwood, Composite, and Poly Shutters

LEVOLOR® PREMIER™ offers three distinctive shutter products for different areas of the home.

- Hardwood Shutters are made of 100% hardwood for a classic look that stands the test of time.
- Composite Shutters offer the blended look of painted and manmade materials in a top quality product.
- Poly Shutters combine the beautiful look of a finely painted shutter with the durability to withstand harsh conditions such as extreme light, moist environments and high traffic areas.

Coordination with Alternative Wood Blinds and Wood Blinds

LEVOLOR PREMIER Alternative Wood Blinds and Wood Blinds offer a variety of applications.

- Alternative Wood Blinds offer the warmth and style of wood blinds, with the advantages of modern engineered materials.
- Wood Blinds feature the finest genuine wood quality, innovative lifting systems and premium upgrades.

Color Coordination Throughout the Home

Coordinating Products makes it easy to coordinate Hardwood, Poly, or Composite Shutters with Alternative Wood Blinds or Wood Blinds. If, for example, a customer wants a Bi-Fold or Bypass shutter to cover a sliding glass door or other wide expanse, but prefers blinds for the windows, you can quickly suggest appropriate coordinating colors. Design versatility is optimized.





Colors listed in chart below are designed as a guide to coordination. They are not an exact match.

Hardwood Shutters	Composite Shutters	Poly Shutters	Alternative Wood Blinds	Wood Blinds
7700 Crystal White		5736 Cotton		450 Meringue
7701 Beluga	6750 Dove White			801 Frost White 427 Cotton Ball
7703 Honest White			3100 Cashmere Crème	
		5751 Ivory		808 Crème
7721 Cloud Cover				221 Heron White
7759 Whisper White		5737 White	971 Igloo	867 Super White
8724 Sparrow				480 Tudor
8744 Nightfall			994 Storm Cloud	
8770 Marigold				870 Autumn
8780 Sedona			945 English Walnut	

Notes

- Always review sample kit color chips when making color coordination decisions.