

**WARNING:** Never use Z-Clips or Z-Bars to install panels on ceilings including angled ceilings or walls that lean into the room.

**WARNING:** When securing hardware to drywall walls, use appropriate drywall anchors and/or anchor fasteners into studs. Screws into drywall alone do not have sufficient holding strength.

Number shown in the grid is the number of mounting points per panel. Attach this number of clips or bars to the panel, **and** the same number of bars or clips to the wall. Total clips or bars used on the panel plus the wall will be double the number shown.

In this table C means Z-Clips, B means Z-Bars.

For length or width less than 24 inches use 24 inches in the lookup table below.

For fractional sizes round up to the next higher inch.

See page 2 for larger sizes. See page 4 for placement measurements.

Length / Width	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
24	2C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C
25	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
26	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
27	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
28	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
29	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
30	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
31	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
32	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
33	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
34	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
35	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
36	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
37	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
38	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
39	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
40	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4C	4B	4B	4B	4B	4B	4B	4B	4B
41	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
42	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
43	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
44	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
45	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
46	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
47	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
48	4C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
49+	See next page.																								

Number shown in the grid is the number of mounting points. Attach this number of clips or bars to the panel, **and** the same number of bars or clips to the wall. Total clips or bars used on the panel plus the wall will be double the number shown.

In this table C means Z-Clips, B means Z-Bars.

For fractional sizes round up to the next higher inch.

See page 1 for smaller sizes. See page 4 for placement measurements.

Length / Width	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
50	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
51	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
52	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
53	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
54	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
55	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
56	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
57	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
58	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
59	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
60	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
61	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
62	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
63	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
64	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
65	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
66	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
67	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
68	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
69	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
70	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
71	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
72	6C	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	2B	4B	4B	4B	4B	4B	4B	4B	4B
73+	See next page.																								



These are general guidelines that may not be suitable for oversize panels, custom shapes/cutouts, or atypical installation situations. Each customer/installer is responsible to evaluate surface and substrate materials and specific installation circumstances to ensure panels are adequately anchored and protected from coming loose or falling.

These charts show the placement of the clips or bars on the back of the panel. In all cases the top of the clips or bars on the wall should be placed 1.25 inches lower (further from the top of the panel) than the clips or bars on the back of the panel.

**Placement measurements for panels with longest side vertical.**

See next page for panels placed with longest side horizontal (landscape orientation).

Clip/Bar Count	Placement on Backs of Panels with Longest Side Vertical		
	Top Row of Clips/Bars	Middle Row of Clips/Bars	Bottom Row of Clips/Bars
2C	Top of clips 4 inches below the top of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.	Not applicable.	Not applicable.
4C	Top of clips 4 inches below the top of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.	Not applicable.	Top of clips 7 inches above the bottom of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.
6C	Top of clips 4 inches below the top of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.	Vertically centered on the panel. Outer edges of the clips 4 inches in from the left and right edges of the panel.	Top of clips 7 inches above the bottom of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.
2B	Top of bar 4 inches below the top of the panel. Horizontally centered on the panel.	Not applicable.	Bottom of bar 7 inches above the bottom of the panel. Horizontally centered on the panel.
3B	Top of bar 4 inches below the top of the panel. Horizontally centered on the panel.	Vertically and horizontally centered on the panel.	Not applicable.
4B	Top of bars 4 inches below the top of the panel. Outer edges of bars 3.5 inches in from the left and right edges of the panel.	Not applicable.	Top of bars 7 inches above the bottom of the panel. Outer edges of bars 3.5 inches in from the left and right edges of the panel.
6B	Top of bars 4 inches below the top of the panel. Outer edges of bars 3.5 inches in from the left and right edges of the panel.	Vertically centered on the panel. Outer edges of the bars 3.5 inches in from the left and right edges of the panel.	Top of bars 7 inches above the bottom of the panel. Outer edges of bars 3.5 inches in from the left and right edges of the panel.

These charts show the placement of the clips or bars on the back of the panel. In all cases the top of the clips or bars on the wall should be placed 1.25 inches lower (further from the top of the panel) than the clips or bars on the back of the panel.

**Placement measurements for panels with longest side horizontal.**

See previous page for panels placed with longest side vertical (portrait orientation).

Placement on Backs of Panels with Longest Side Horizontal			
Clip/Bar Count	Top Row of Clips/Bars	Middle Row of Clips/Bars	Bottom Row of Clips/Bars
2C	Top of clips 4 inches below the top of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.	Not applicable.	Not applicable.
4C	Top of clips 4 inches below the top of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.	Not applicable.	Top of clips 7 inches above the bottom of the panel. Outer edges of clips 3.5 inches in from the left and right edges of the panel.
6C	Top of clips 4 inches below the top of the panel. Center clip horizontally centered on the panel. Outer edges of outer clips 3.5 inches in from the left and right edges of the panel.	Not applicable.	Top of clips 7 inches above the bottom of the panel. Center clip horizontally centered on the panel. Outer edges of outer clips 3.5 inches in from the left and right edges of the panel.
2B	Top of bar 4 inches below the top of the panel. Horizontally centered on the panel.	Not applicable.	Bottom of bar 7 inches above the bottom of the panel. Horizontally centered on the panel.
3B	2 bars in top row. Top of bars 4 inches below the top of the panel. Outer edges of the bars 3.5 inches from the left and right edges of the panel.	Not applicable.	1 bar in bottom row. Top of bar 7 inches above the bottom of the panel. Horizontally centered on the panel.
4B	Top of bars 4 inches below the top of the panel. Outer edges of bars 3.5 inches in from the left and right edges of the panel.	Not applicable.	Top of bars 7 inches above the bottom of the panel. Outer edges of bars 3.5 inches in from the left and right edges of the panel.
6B	3 bars in top row. Top of bars 4 inches below the top of the panel. Center bar horizontally centered on the panel. Outer edges of outer bars 3.5 inches in from the left and right edges of the panel.	Not applicable.	3 bars in bottom row. Top of bars 7 inches above the bottom of the panel. Center bar horizontally centered on the panel. Outer edges of outer bars 3.5 inches in from the left and right edges of the panel.