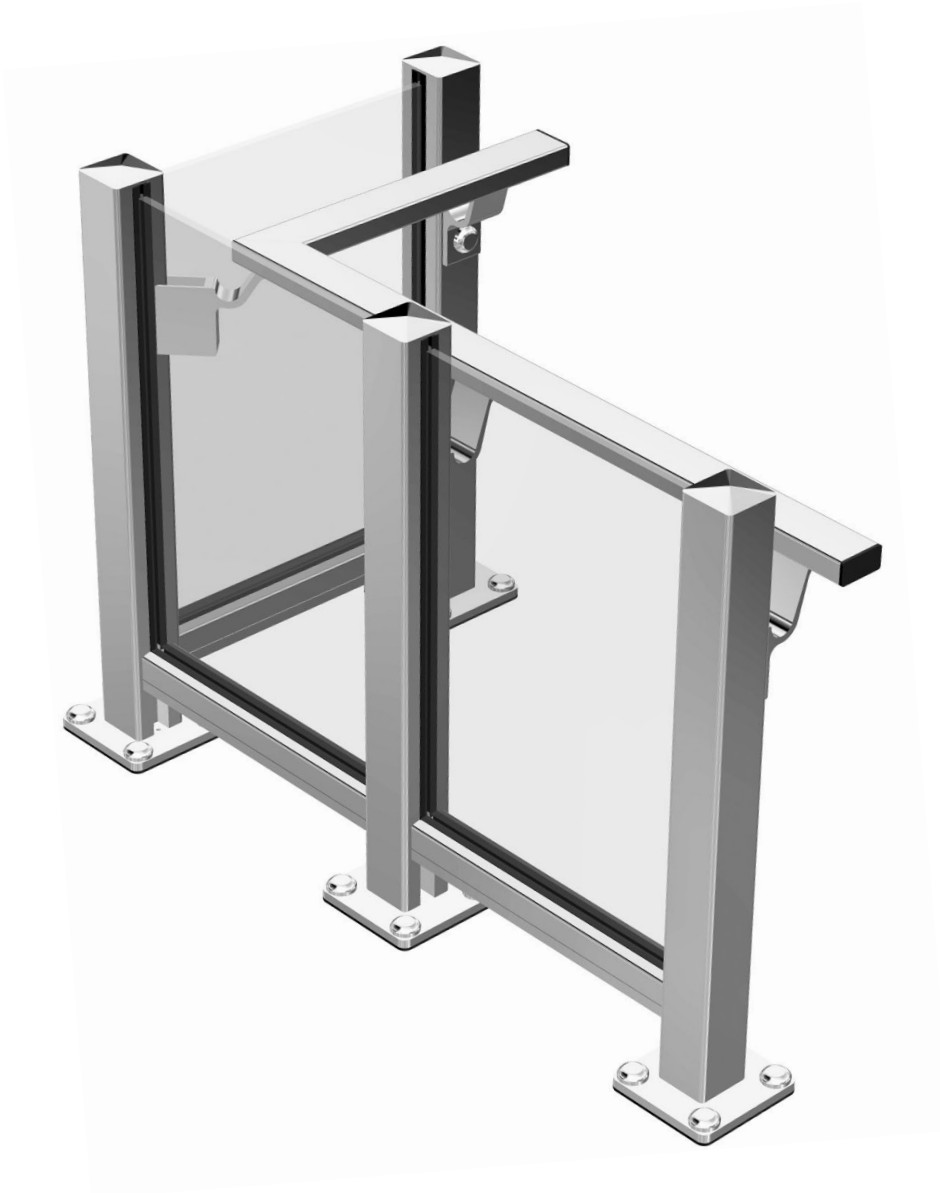

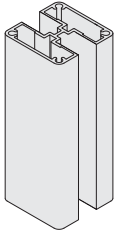

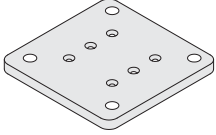
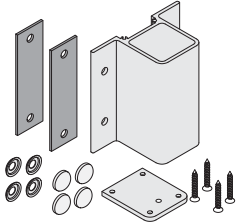
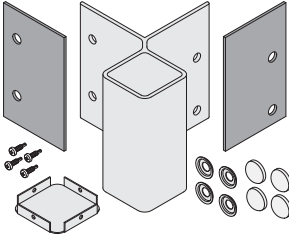
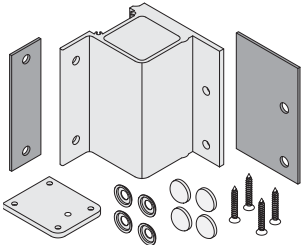
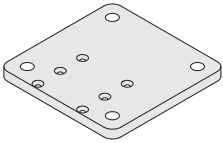
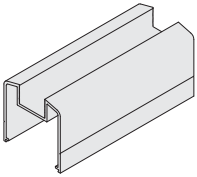
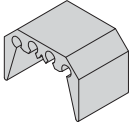

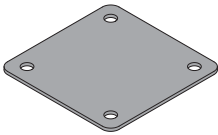
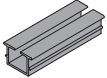
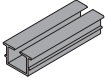
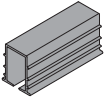
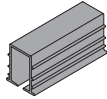
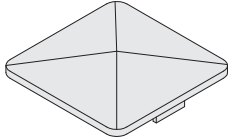
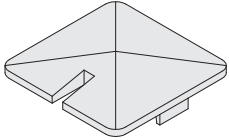
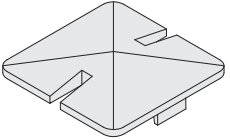
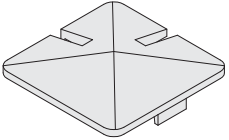


# CRL / HANSEN 1100 SERIES ALUMINUM RAILING SYSTEM

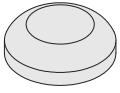
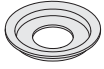
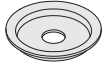
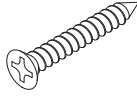


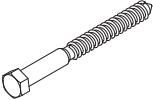

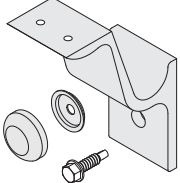
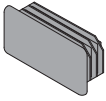
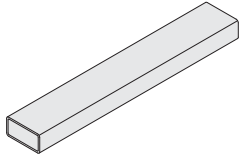
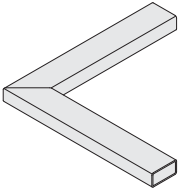
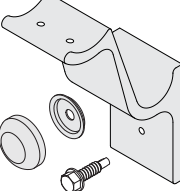

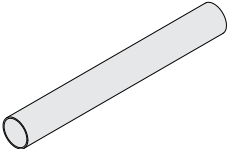
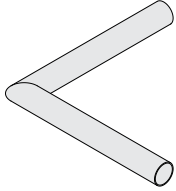
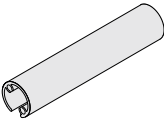
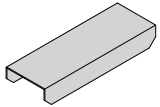
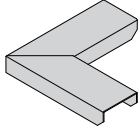


# PARTS LIST

<p>P1H9241_</p>  <p>1100 Series 90 Degree Post 241" (6121 mm)</p>	<p>P1H241_</p>  <p>1100 Series Post 241" (6121 mm)</p>	<p>* D70_</p>  <p>1100 Series End Post Filler 241" (6121 mm)</p>	<p>BP5_</p>  <p>Square Base Plate</p>
<p>FB1_</p>  <p>180 Degree Fascia Mount Bracket</p>	<p>FB2_</p>  <p>Outside 90 Degree Fascia Mount Corner Bracket</p>	<p>FB9_</p>  <p>Inside 90 Degree Fascia Mount Corner Bracket</p>	<p>BP05_</p>  <p>Offset Base Plate</p>
<p>BRGLS_</p>  <p>Glass Bottom Rail 241" (6121 mm)</p>	<p>RCB2</p>  <p>1" Rail Connecting Block</p>	<p>RCBS</p>  <p>#10 x 2" SS TEK Screws for Connecting Blocks</p>	<p>BPG1BL</p>  <p>Moisture Barrier Gasket for Base Plates</p>
<p>14BV</p>  <p>Bottom Rail and Corner Post Gasket for 1/4" (6 mm) Glass</p>	<p>38BV</p>  <p>Bottom Rail and Corner Post Gasket for 3/8" (10 mm) Glass</p>	<p>14TVH</p>  <p>Post Gasket for 1/4" (6 mm) Glass</p>	<p>38TVH</p>  <p>Post Gasket for 3/8" (10 mm) Glass</p>
<p>PC1H_</p>  <p>Standard Post Cap</p>	<p>PC1HE_</p>  <p>End Post Cap</p>	<p>PC1HC_</p>  <p>Center Post Cap</p>	<p>PC1H9_</p>  <p>Corner Post Cap</p>

\* Special order only. Available through Technical Sales at (800) 421-6144.

## PARTS LIST (CONTINUED)

<p><b>BTN1_</b></p>  <p>Standard Bolt Button Covers</p>	<p><b>WSHR1</b></p>  <p>Base Plate Button Washer for Lag Bolts</p>	<p><b>WSHR2</b></p>  <p>Handrail Button Washer for Brackets</p>	<p><b>BPS112</b></p>  <p>#14 x 1-1/2" SS PFHS for Bottom Fascia Plate</p>
<p><b>TEK1</b></p>  <p>#8 x 3/4" PH TEK Screw Rail to Connectors</p>	<p><b>TEK2</b></p>  <p>#14 x 1" HH TEK Screw Mount Brackets, Post to Fascia</p>	<p><b>LB350</b></p>  <p>3/8" x 3-1/2" Lag Bolt for Wooden Substrate</p>	<p><b>LB600</b></p>  <p>3/8" x 6" Lag Bolt for Wooden Substrate</p>
<p><b>ARHBH_</b></p>  <p>Grab Rail Bracket</p>	<p><b>ARHEC_</b></p>  <p>Grab Rail End Cap</p>	<p><b>ARHRH_</b></p>  <p>1" (25 mm) x 2" (51 mm) Grab Rail 241" (6121 mm)</p>	<p><b>ARH90_</b></p>  <p>12" (305 mm) x 12" (305 mm) Welded Grab Rail Corner</p>
<p><b>ARHB1_</b></p>  <p>Bracket for 1-1/2" (38 mm) Tubular Grab Rail</p>	<p><b>AR1EC_</b></p>  <p>End Cap for 1-1/2" (38 mm) Tubular Grab Rail</p>	<p><b>ARHR15_</b></p>  <p>1-1/2" (38 mm) Tubular Grab Rail 241" (6121 mm)</p>	<p><b>AR90_</b></p>  <p>12" (305 mm) x 12" (305 mm) Welded Corner 1-1/2" (38 mm) Tubular Grab Rail</p>
<p><b>RCB36</b></p>  <p>Splice for 1-1/2" Tubular Grab Rail</p>	<p><b>TCPH</b></p>  <p>Splice Sleeve for 1" Grab Rail</p>	<p><b>*</b></p>  <p>Corner Splice Sleeve for 1" Grab Rail</p>	

\* Special order only. Available through Technical Sales at (800) 421-6144.

## ORDER OF ASSEMBLY AND INSTALLATION

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**IMPORTANT: READ THIS MANUAL THOROUGHLY BEFORE BEGINNING INSTALLATION.**

### SYSTEM LIMITATIONS

Maximum Spacing Between Posts for Typical Installation:

Surface Mount: 48" (1219 mm) between Posts.

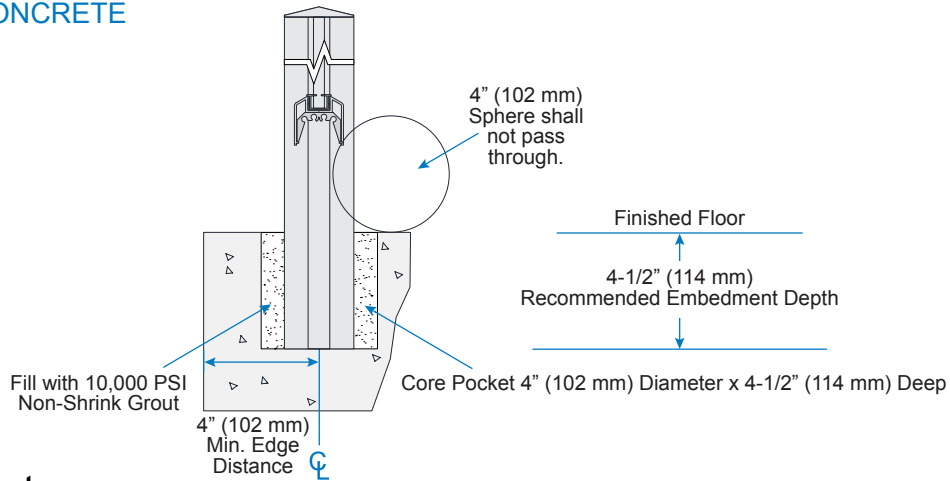
Fascia Mount: 48" (1219 mm) between Posts.

Core or Stanchion Mount: 48" (1219 mm) between Posts.

# POST MOUNTING OPTIONS

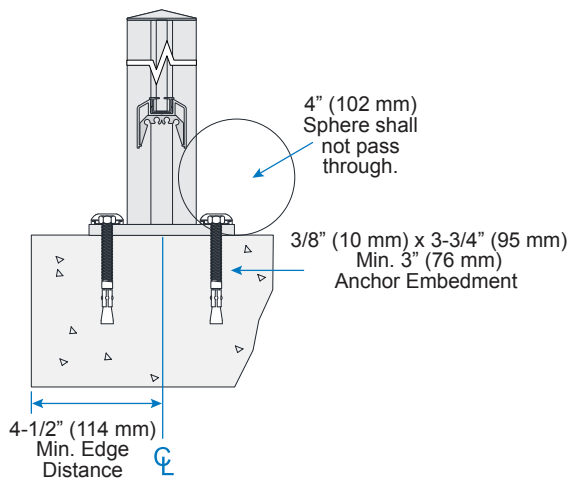
## Core Mount

### CORE MOUNT: CONCRETE

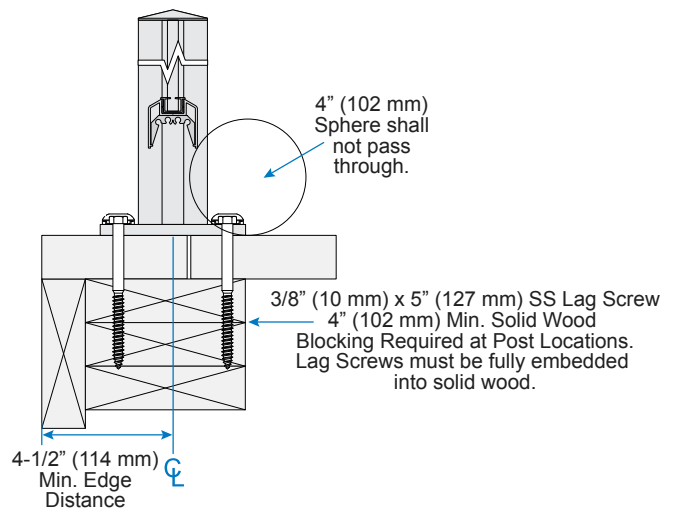


## Surface Mount

### SURFACE MOUNT: CONCRETE

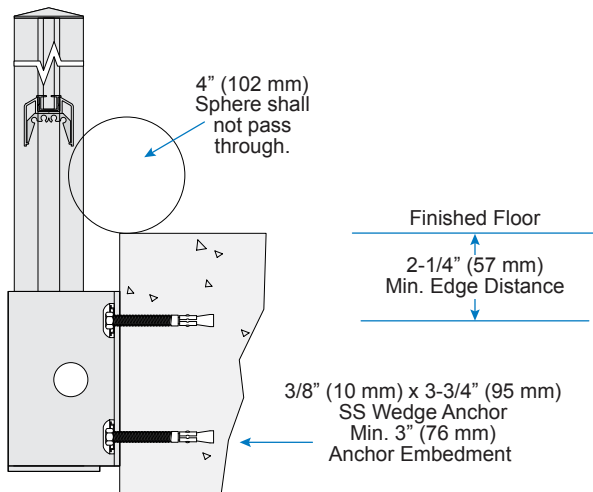


### SURFACE MOUNT: WOOD

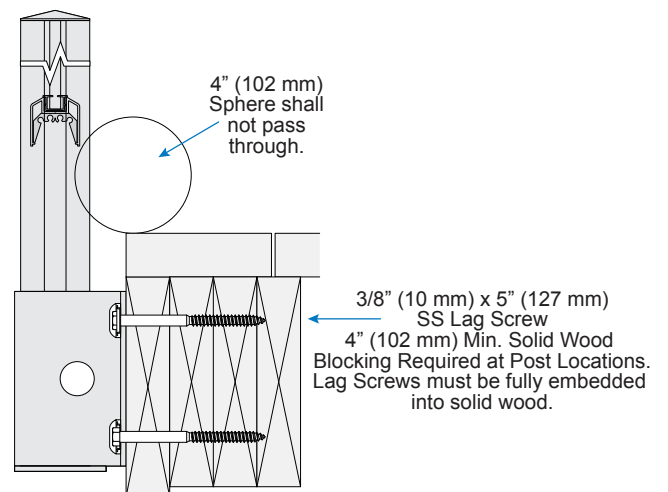


## Fascia Mount

### FASCIA MOUNT: CONCRETE

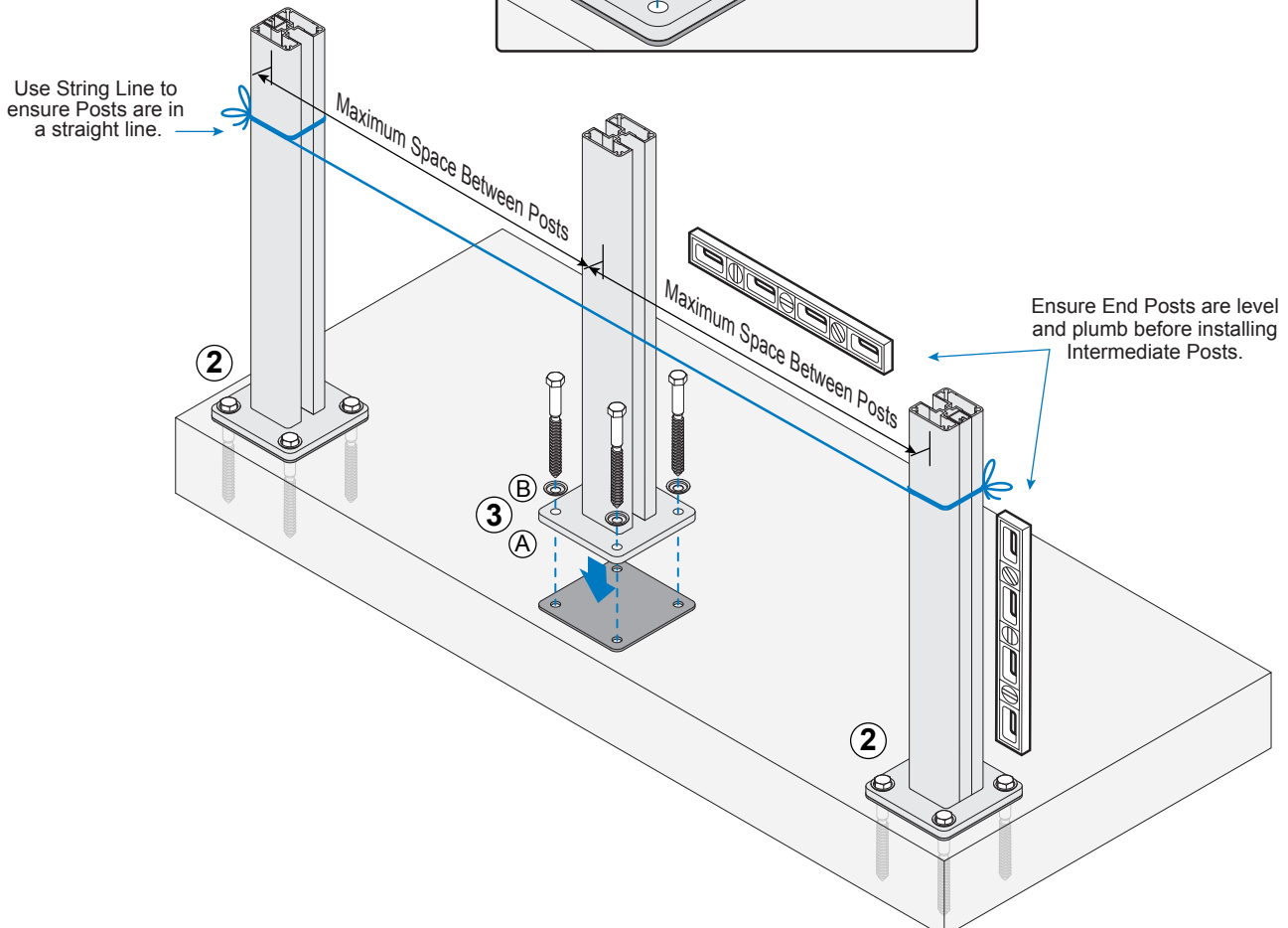
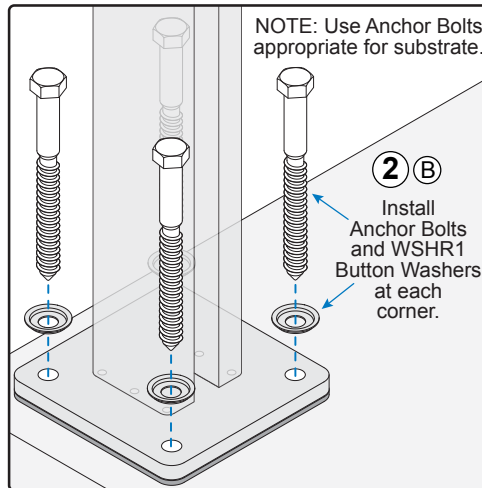
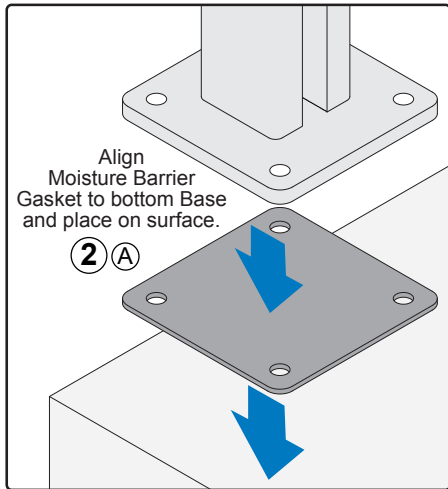
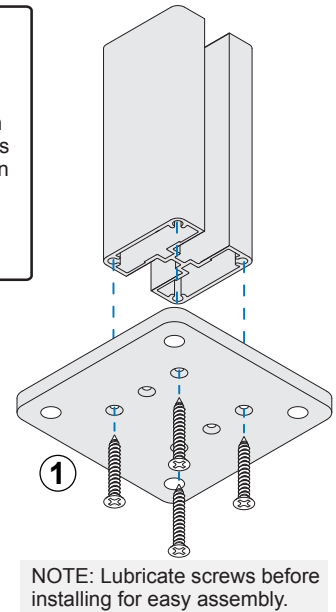
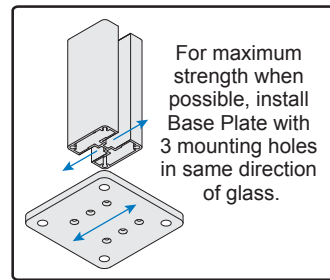


### FASCIA MOUNT: WOOD



# POST INSTALLATION Surface Mount

- ① Attach Base Plate to Post with included screws.
- ② Install End or Corner Posts.
- ③ Install Center Posts.



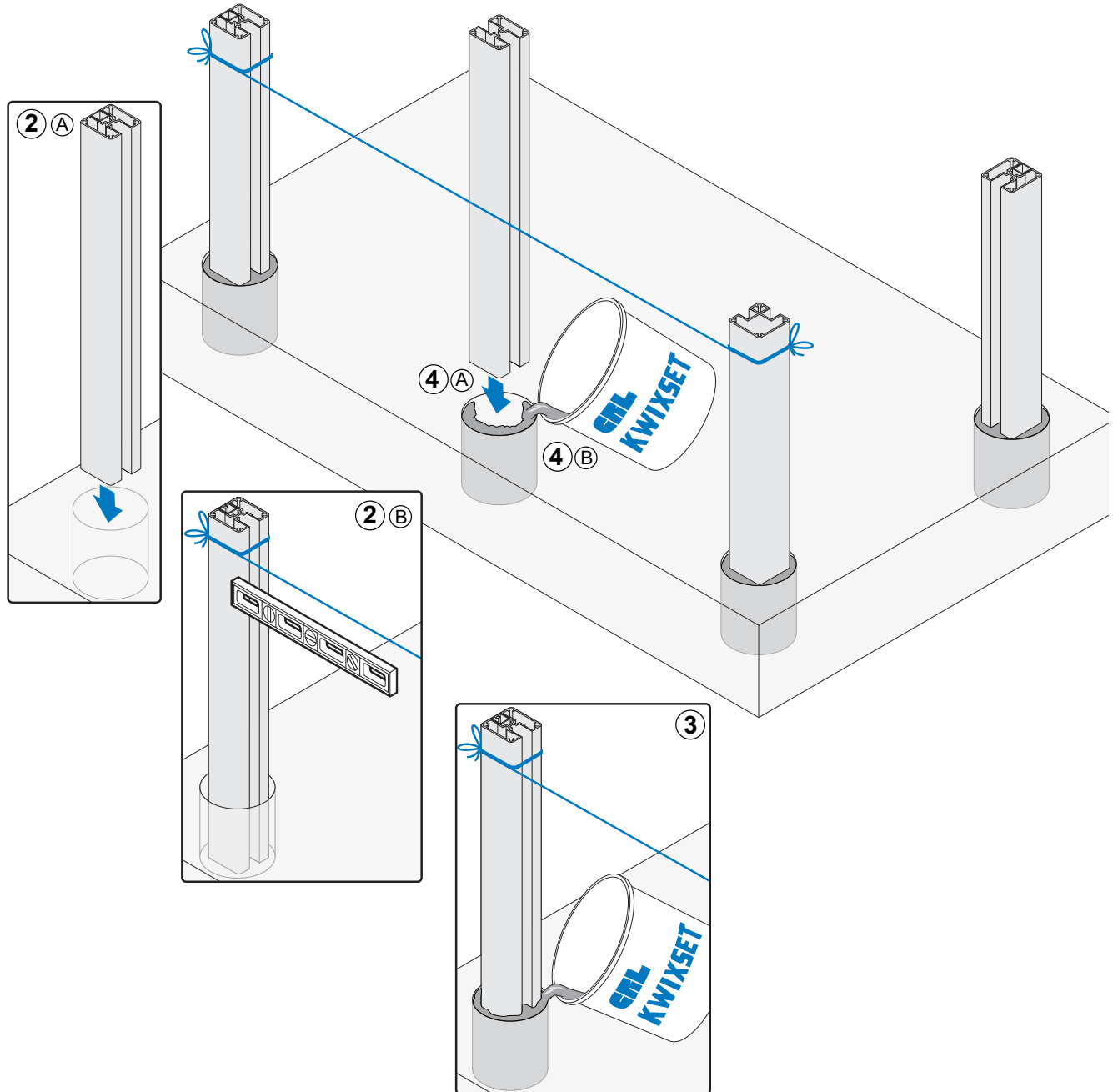
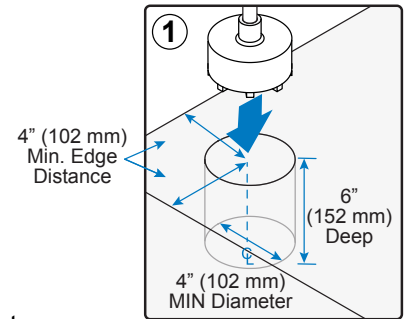
## POST INSTALLATION (CONTINUED)

### Core Mount

- ① Core holes for each post.
- ② Place End and Corner Posts. Level and plumb.

NOTE: Use String Line to ensure Posts are plumb.

- ③ Fill cavity with Cat. No. KWX50 Kwixset Cement.
- ④ Install Center Posts and fill cavity with Cat. No. KWX50 Kwixset Cement.



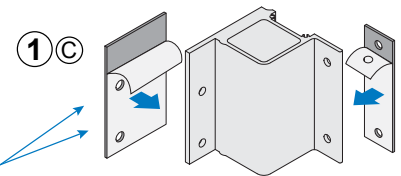
# POST INSTALLATION (CONTINUED)

## Fascia Mount

- 1 Attach Moisture Barrier Gaskets to Fascia Brackets.
- 2 Mount Brackets with Button Washers and Anchor Bolts.

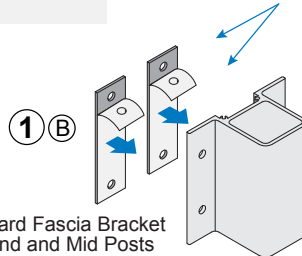
NOTE: Install End and Corner Brackets and then install Intermediate Brackets. Use Anchor Bolts appropriate for substrate.

- 3 Slide Post into Bracket.
- 4 Attach Base Plate to Bracket and Post with included screws.

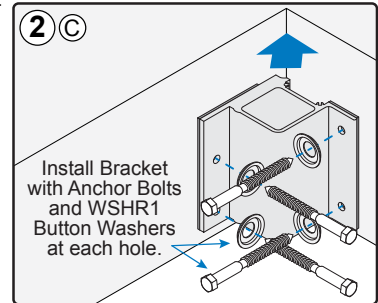


Inside Corner Fascia Bracket

Remove Backing from Moisture Barrier Gasket and attach to Bracket.

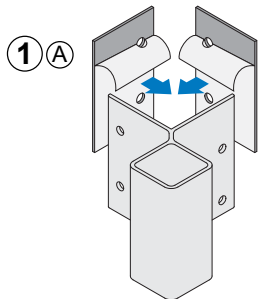


Standard Fascia Bracket for End and Mid Posts

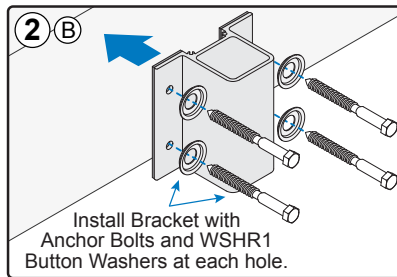


2 C

Install Bracket with Anchor Bolts and WSHR1 Button Washers at each hole.

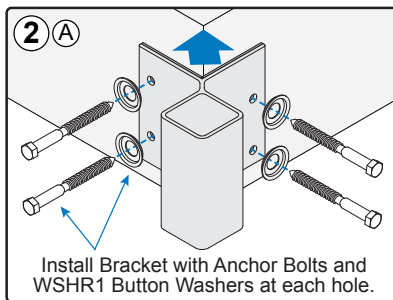


Outside Corner Fascia Bracket



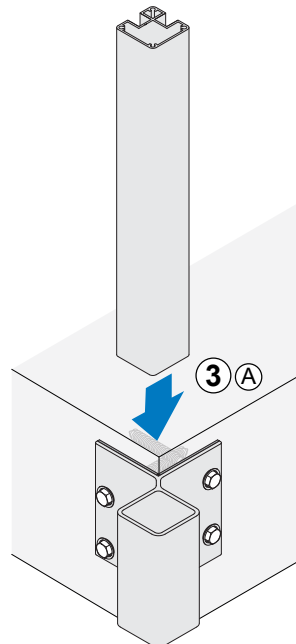
2 B

Install Bracket with Anchor Bolts and WSHR1 Button Washers at each hole.

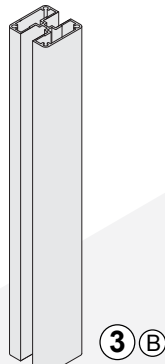


2 A

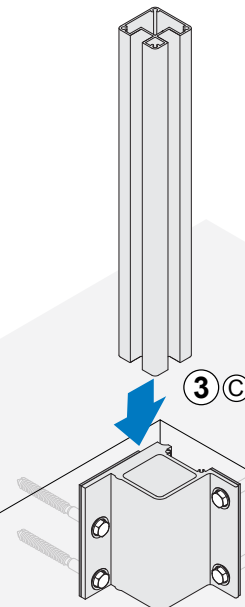
Install Bracket with Anchor Bolts and WSHR1 Button Washers at each hole.



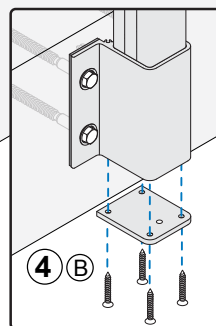
3 A



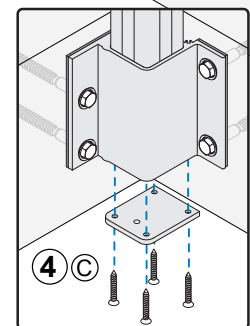
3 B



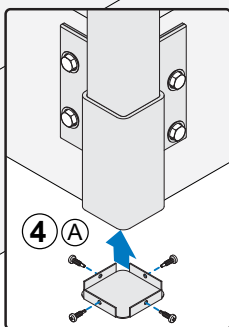
3 C



4 B



4 C



4 A

NOTE: Lubricate screws before installing for easy assembly.

NOTE: After Rails are installed and aligned secure Posts to Fascia Mounts with TEK2 Screws and WSH1 Button Washer as shown on Page 12.



# WINDSCREEN INSTALLATION

## Install Posts

- 1 Install Posts as shown on Pages 6 - 8. Surface Mount shown.

## Install Bottom Rail

- 2 Mount Rail Connecting Blocks to Posts.
- 3 Install Bottom Rail with Bottom Vinyl and secure.

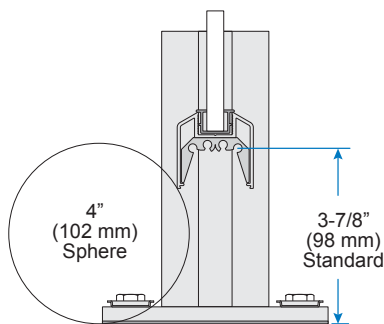
NOTE: Use Bottom Vinyl with Corner Posts and Post Vinyl with End or Center Posts. Select vinyl for 1/4" (6 mm) or 3/8" (10 mm) glass.

- 4 Snap Vinyl into Post glass pockets.

## Install Glass Panels

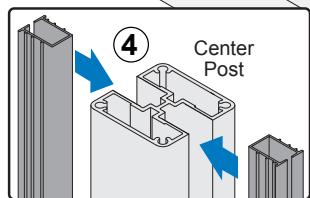
- 5 Install Glass Panels.

NOTE: Spray glass edges with Glass Cleaner to ease installation.

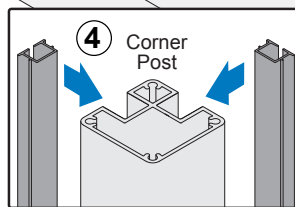


NOTE: Standard position for Bottom Rail prevents a 4" (102 mm) sphere from passing through opening.

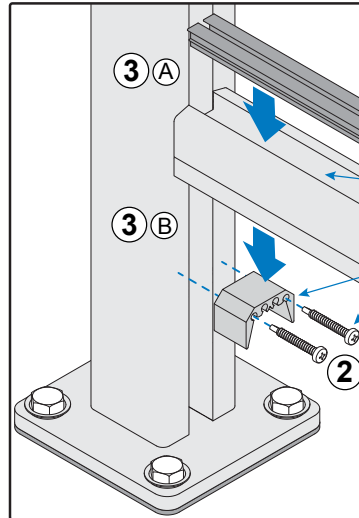
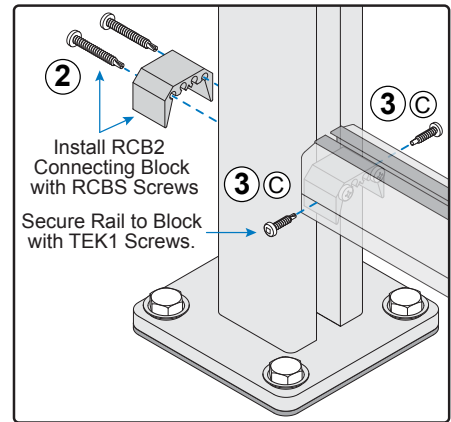
3-7/8" (98 mm) Maximum



NOTE: Use 14TVH Post Vinyl for 1/4" (6 mm) glass or 38TVH Post Vinyl for 3/8" (10 mm) glass with End or Mid Posts.



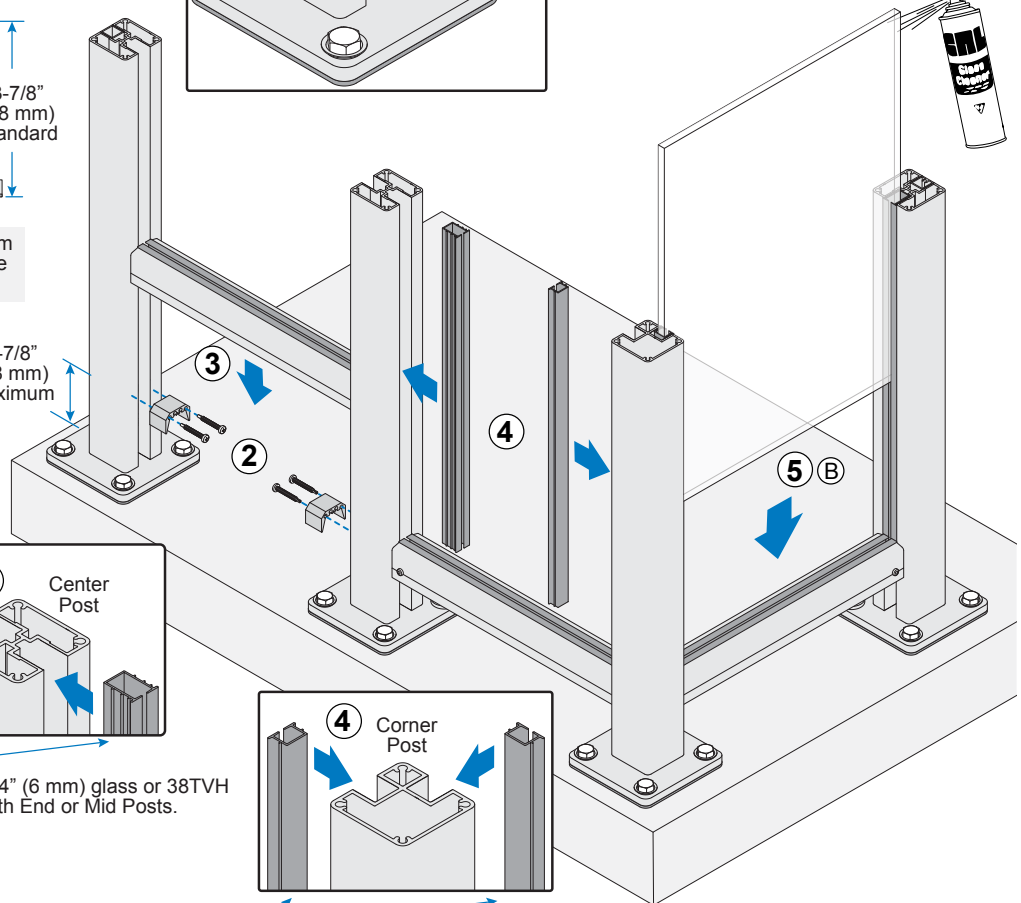
NOTE: Use 14BV Bottom Vinyl for 1/4" (6 mm) glass or 38BV Bottom Vinyl for 3/8" (10 mm) glass with Corner Posts.



Fit 14BV Bottom Vinyl for 1/4" (6 mm) glass or 38BV Bottom Vinyl for 3/8" (10 mm) glass into Bottom Rail.

Install RCB2 Connecting Block with RCBS Screws

5 A Lubricate glass edges with 1973 Glass Cleaner.

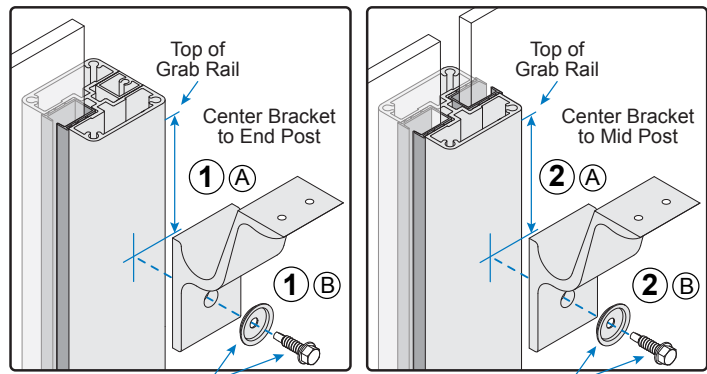
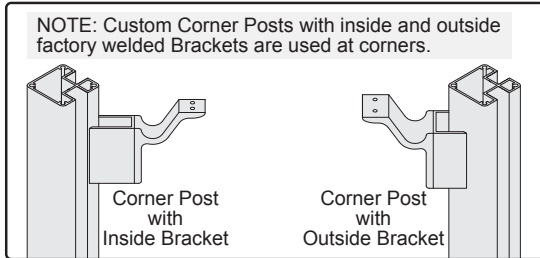


# GRAB RAIL INSTALLATION

## Install Grab Rail Bracket

NOTE: See Pages 6 - 9 to install Posts and Glass Panels.

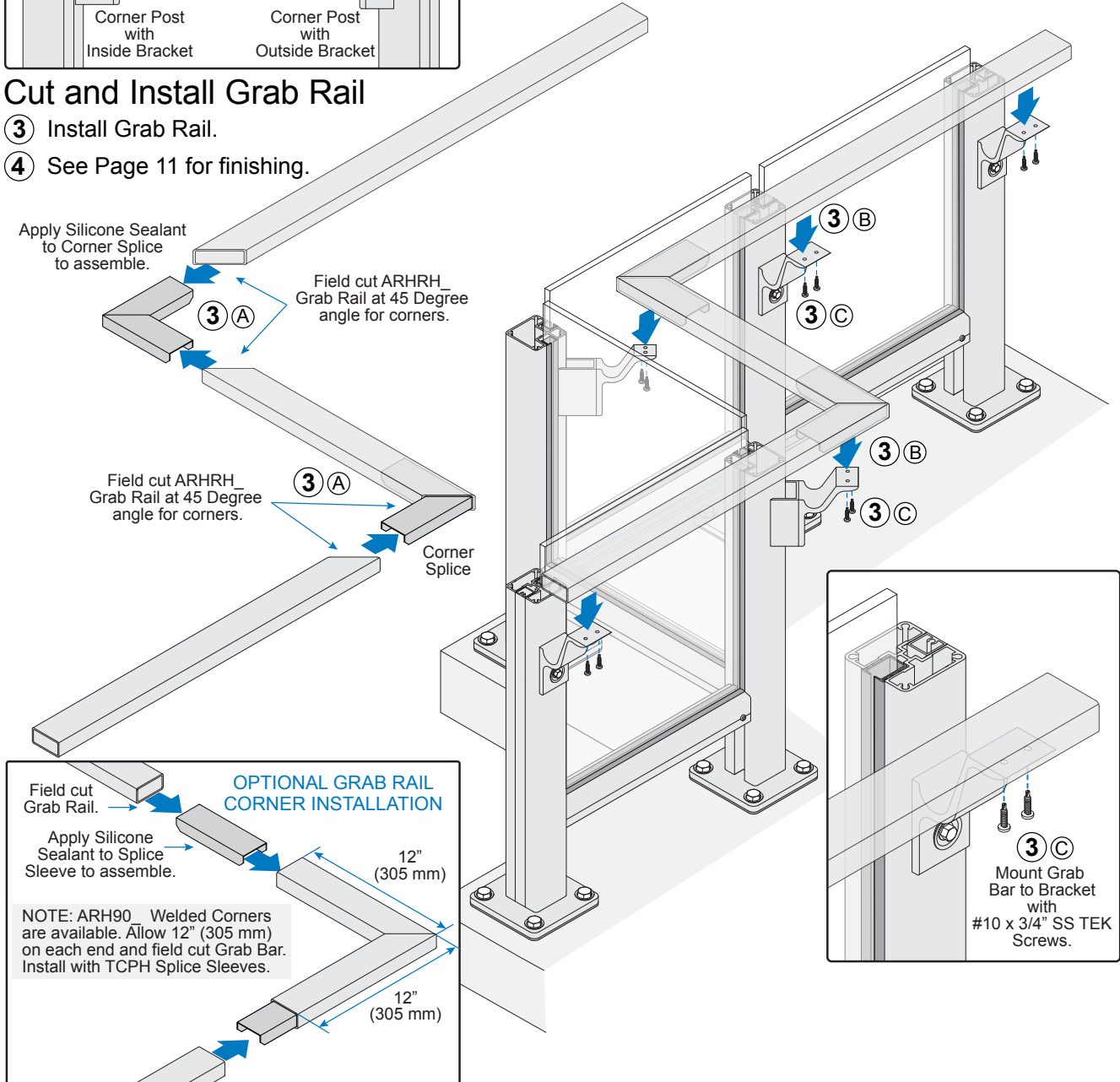
- 1 Mount Grab Rail Brackets to End Posts.
- 2 Mount Grab Rail Brackets to Center Posts.



Mount ARHBH\_ Bracket with included WSHR2 Button Washer and Screw.

## Cut and Install Grab Rail

- 3 Install Grab Rail.
- 4 See Page 11 for finishing.



## FINISHING TOUCHES

### Install End Caps for Grab Rails

- 1 Slide End Cap into Grab Bar.

NOTE: Apply Silicone to End Cap before sliding into Grab Bar.

### Install Button Covers

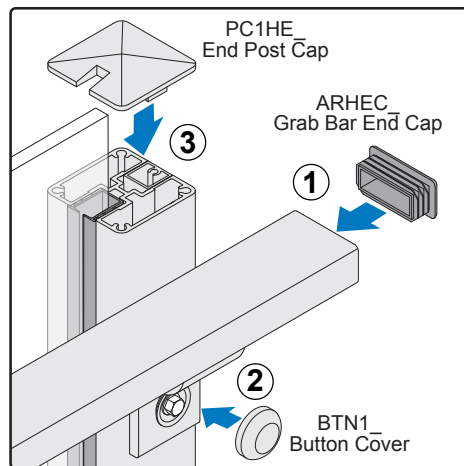
- 2 Snap Button Cover onto Button Washer.

NOTE: BTN1\_ Button Covers fit both WSHR1 and WSHR2 Button Washers.

### Install Post Caps

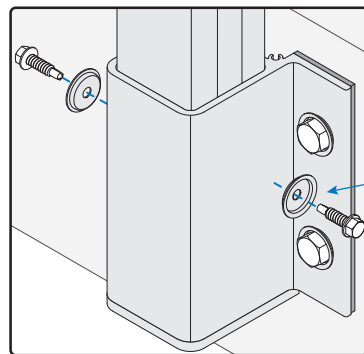
- 3 Install Post Caps.

NOTE: Custom Post Caps are available notched for glass at End, Center and Corner Posts. Snap Cap into top of Post.



### Secure Posts to Fascia Mounts

- 4 Secure Posts to Fascia Mounts.

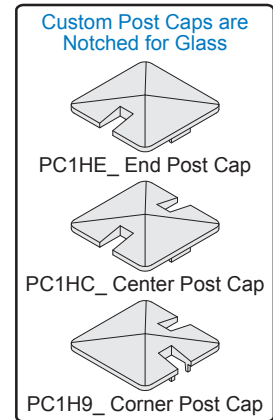
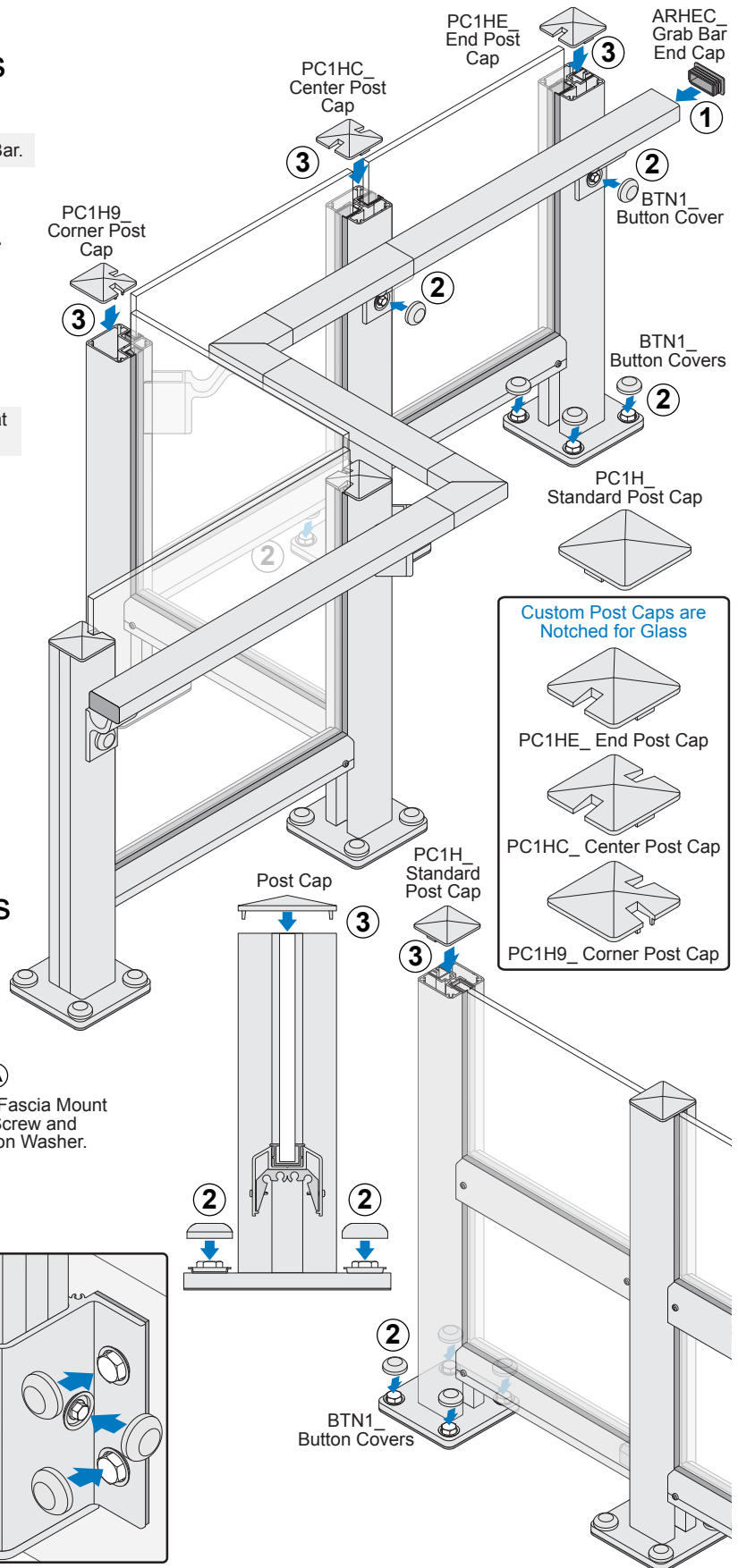
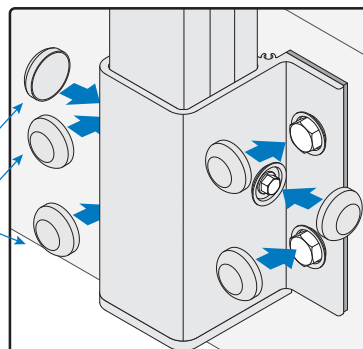


4 A

Secure Post to Fascia Mount with TEK2 Screw and WSH1 Button Washer.

4 B

Snap BTN1\_ Button Cover onto WSHR1 Button Washer.  
Snap BTN1\_ Button Cover onto WSHR2 Button Washers.



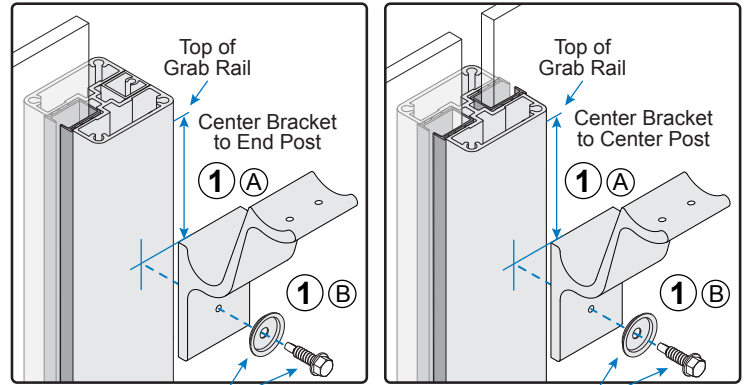
# OPTIONAL TUBULAR GRAB RAIL INSTALLATION

NOTE: Follow instructions for Grab Rail Installation on Page 10. Use ARHB1\_ Tubular Grab Rail Bracket instead of ARHBH\_ Grab Rail Bracket and ARHR15\_ Tubular Grab Rail instead of ARHRH\_ Grab Rail. AR90\_ Welded Corners are available and installed with RCB36 Splice.

- 1 Mount Tubular Grab Rail Brackets to End and Center Posts.
- 2 Cut and assemble Tubular Grab Rail.
- 3 Mount Grab Rail to Brackets.
- 4 Install Tubular Grab Bar End Caps.

NOTE: Apply Silicone to AR1EC\_ End Cap before sliding into end of ARHR15\_ Tubular Grab Bar.

- 5 Install Button Covers on Button Washers.
- 6 Install Post Caps.



Mount ARHB1\_ Bracket with included WSHR2 Button Washer and Screw.

