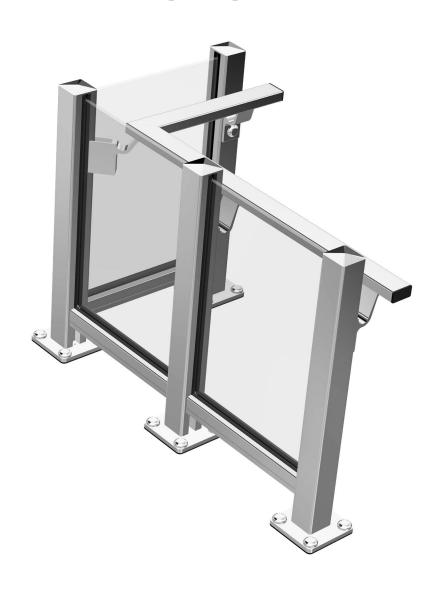
INSTALLATION INSTRUCTIONS

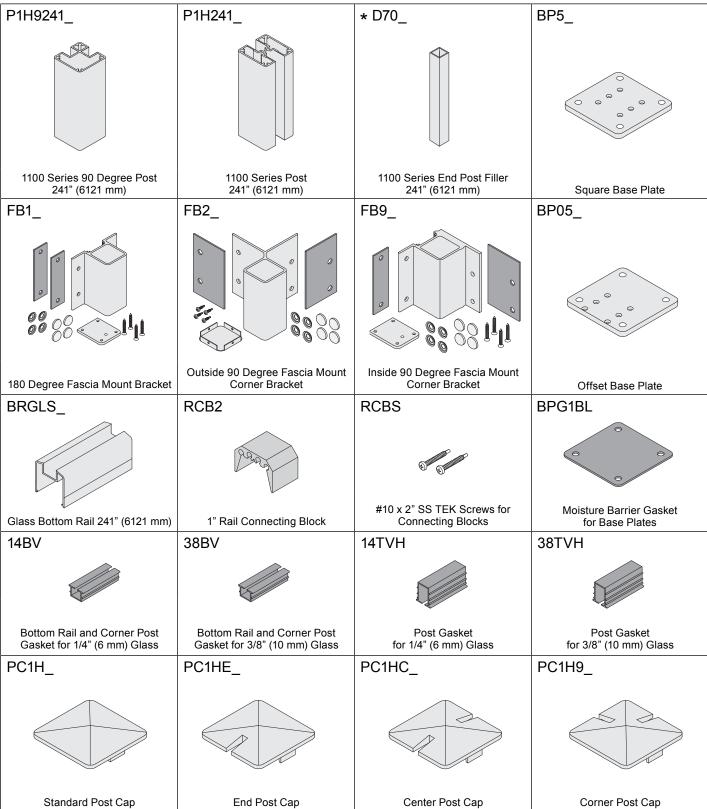
CRL / HANSEN 1100 SERIES ALUMINUM RAILING SYSTEM





2503 E. Vernon Avenue, Los Angeles, CA 90058-1826 (800) 421-6144 Fax (800) 262-3299 crlaurence.com

PARTS LIST



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

PARTS LIST (CONTINUED)

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

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



ORDER OF ASSEMBLY AND INSTALLATION

PARTS LIST	- 3
SYSTEM LIMITATIONS	4
POST MOUNTING OPTIONS	5
Core Mount	5
Surface Mount	5
Fascia Mount	5
POST INSTALLATION 6	- 8
Surface Mount	6
Core Mount	7
Fascia Mount	8
WINDSCREEN INSTALLATION	9
Install Posts	9
Install Bottom Rail	9
Install Glass Panels	9
GRAB RAIL INSTALLATION	10
Install Grab Rail Bracket	10
Cut and Install Grab Rail	10
FINISHING TOUCHES	11
Install End Caps for Grab Rails	11
Install Button Covers	11
Install Post Caps	11
Secure Posts to Fascia Mounts	11
OPTIONAL TUBULAR GRAB RAIL INSTALLATION	12

IMPORTANT: READ THIS MANUAL THOROUGHLY BEFORE BEGINNING INSTALLATION.

SYSTEM LIMITATIONS

Maximum Spacing Between Posts for Typical Installation:

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

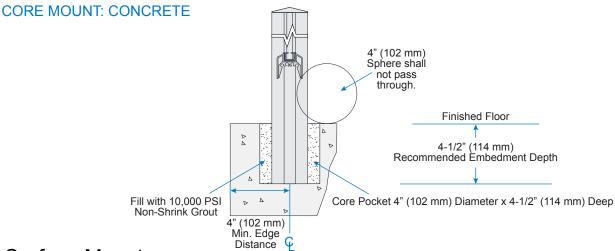
Fascia Mount: 48" (1219 mm) between Posts.

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

4 CRL

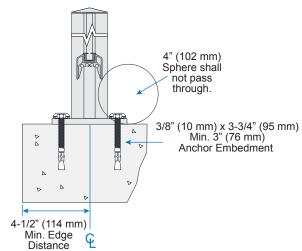
POST MOUNTING OPTIONS

Core Mount



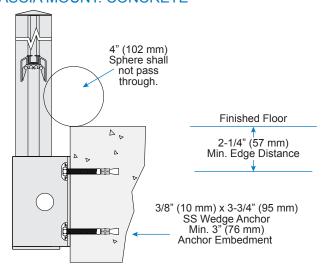
Surface Mount

SURFACE MOUNT: CONCRETE

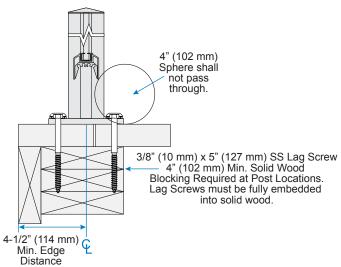


Fascia Mount

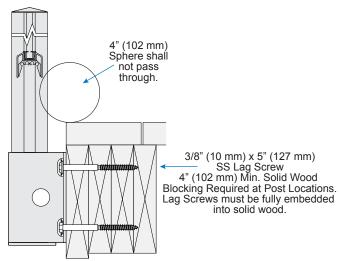
FASCIA MOUNT: CONCRETE



SURFACE MOUNT: WOOD



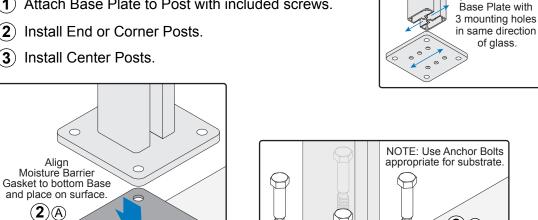
FASCIA MOUNT: WOOD

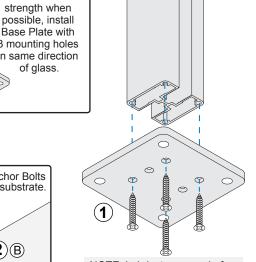


POST INSTALLATION

Surface Mount

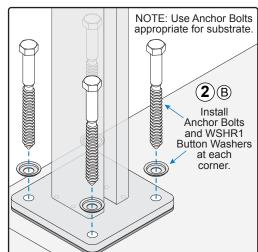
- 1 Attach Base Plate to Post with included screws.
- (2) Install End or Corner Posts.
- (3) Install Center Posts.

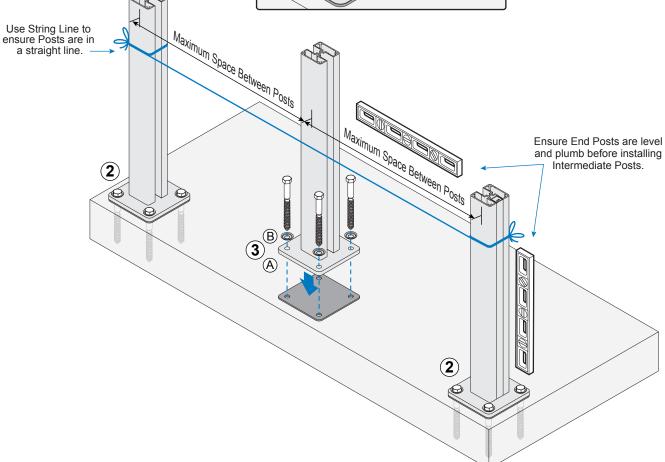




For maximum

NOTE: Lubricate screws before installing for easy assembly.



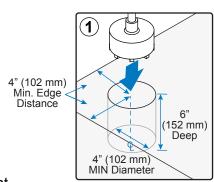


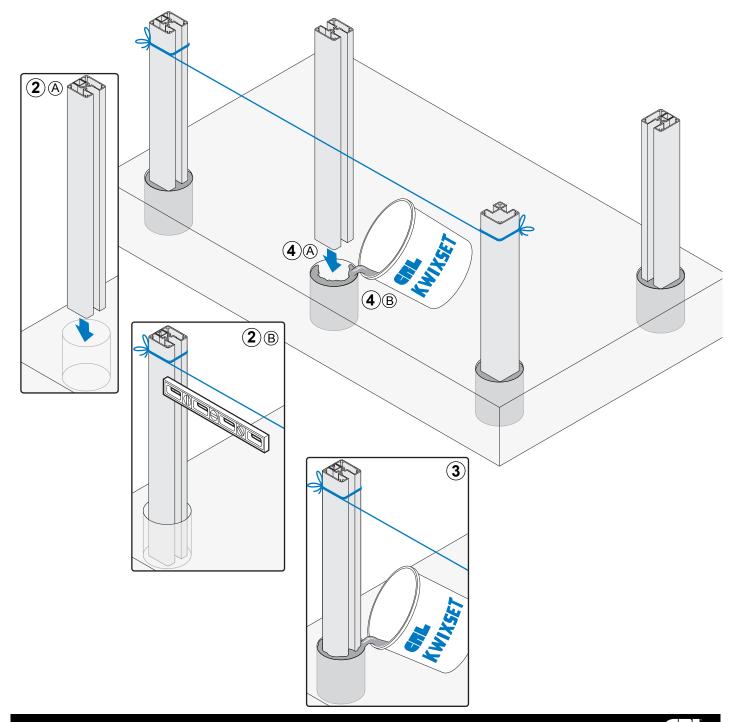
POST INSTALLATION (CONTINUED) Core Mount

- (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.



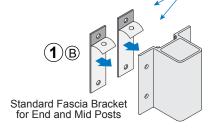


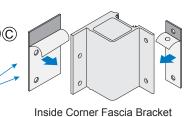
POST INSTALLATION (CONTINUED) Fascia Mount 1 Attach Moisture Barrier Gaskets to Fascia Brackets.

Mount Brackets with Button Washers and Anchor Bolts.

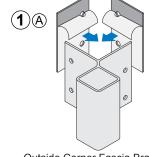
NOTE: Install End and Corner Brackets and then install Intermediate Brackets. Use Anchor Bolts appropriate for substrate.

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

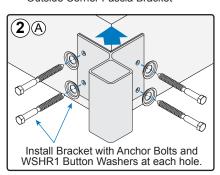


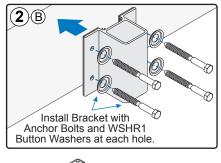


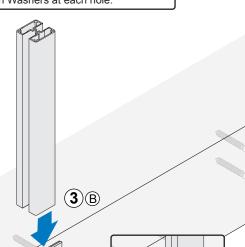
Moisture Barrier Gasket and attach to Bracket. (2)© Install Bracket with Anchor Bolts and WSHR1 Button Washers at each hole.

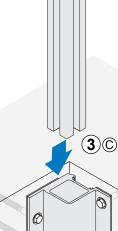


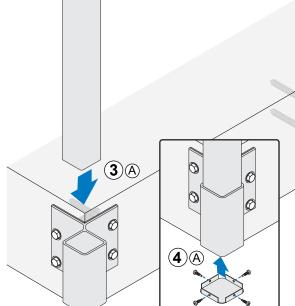
Outside Corner Fascia Bracket

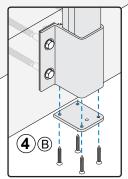




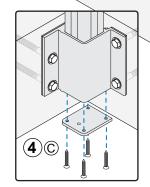








Remove Backing from



Ø

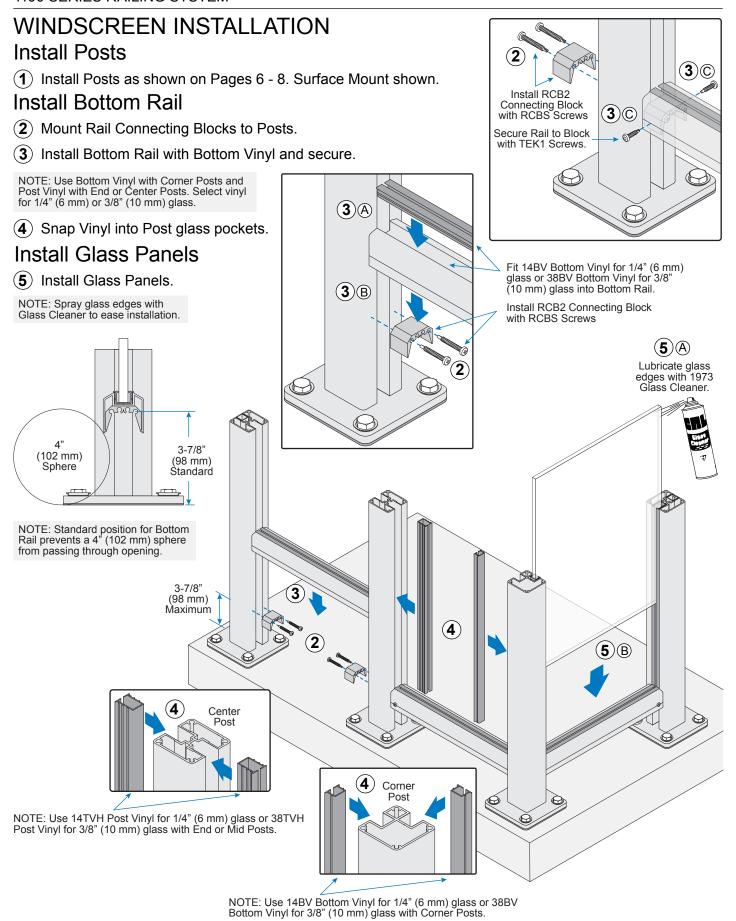
NOTE: Lubricate screws before installing for easy assembly.

NOTE: After Rails are installed and aligned secure Posts to Fascia Mounts with TEK2 Screws and WHSH1 Button Washer as shown on Page 12.

crlaurence.com | usalum.com

0

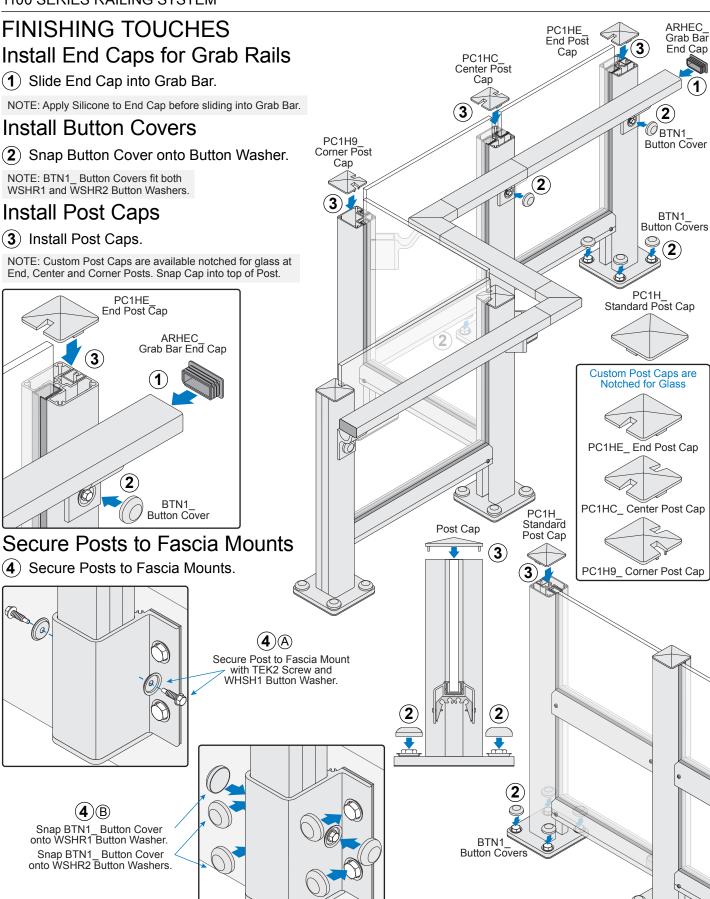




GRAB RAIL INSTALLATION Top of Top of Install Grab Rail Bracket Grab Rail Grab Rail NOTE: See Pages 6 - 9 to install Posts and Glass Panels. Center Bracket Center Bracket to End Post to Mid Post (1) Mount Grab Rail Brackets to End Posts. $(\mathbf{2})$ (A) **1**)(A) (2) Mount Grab Rail Brackets to Center Posts. NOTE: Custom Corner Posts with inside and outside factory welded Brackets are used at corners. **(1**)B **(2**)B Mount ARHBH_ Bracket with included WSHR2 Button Washer and Screw. Corner Post Corner Post with with Outside Bracket Inside Bracket Cut and Install Grab Rail (3) Install Grab Rail. See Page 11 for finishing. (3)B Apply Silicone Sealant to Corner Splice to assemble. Field cut ARHRH Grab Rail at 45 Degree **3**(A) angle for corners. (**3**)(B) Field cut ARHRH (**3**)(A) Grab Rail at 45 Degree (3)© angle for corners. Corner Splice **OPTIONAL GRAB RAIL** Field cut **CORNER INSTALLATION** Grab Rail. Apply Silicone Sealant to Splice (**3**)© Sleeve to assemble. Mount Grab (305 mm) 0 Bar to Bracket with NOTE: ARH90_ Welded Corners #10 x 3/4" SS TEK are available. Allow 12" (305 mm) Screws on each end and field cut Grab Bar. Install with TCPH Splice Sleeves.

crlaurence.com | usalum.com

(305 mm)



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.
- 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.



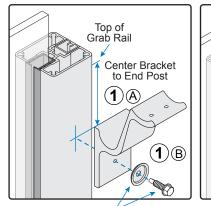
 $(\mathbf{2})$ (A)

AR90_ Tubular Grab Bar

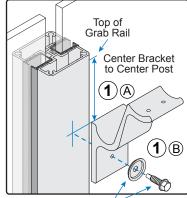
12" (305 mm) x 12" (305 mm)

Welded Corner.





Field cut ARHR15_ Tubular Grab Rail.



Mount ARHB1_ Bracket with included WSHR2 Button Washer and Screw.

