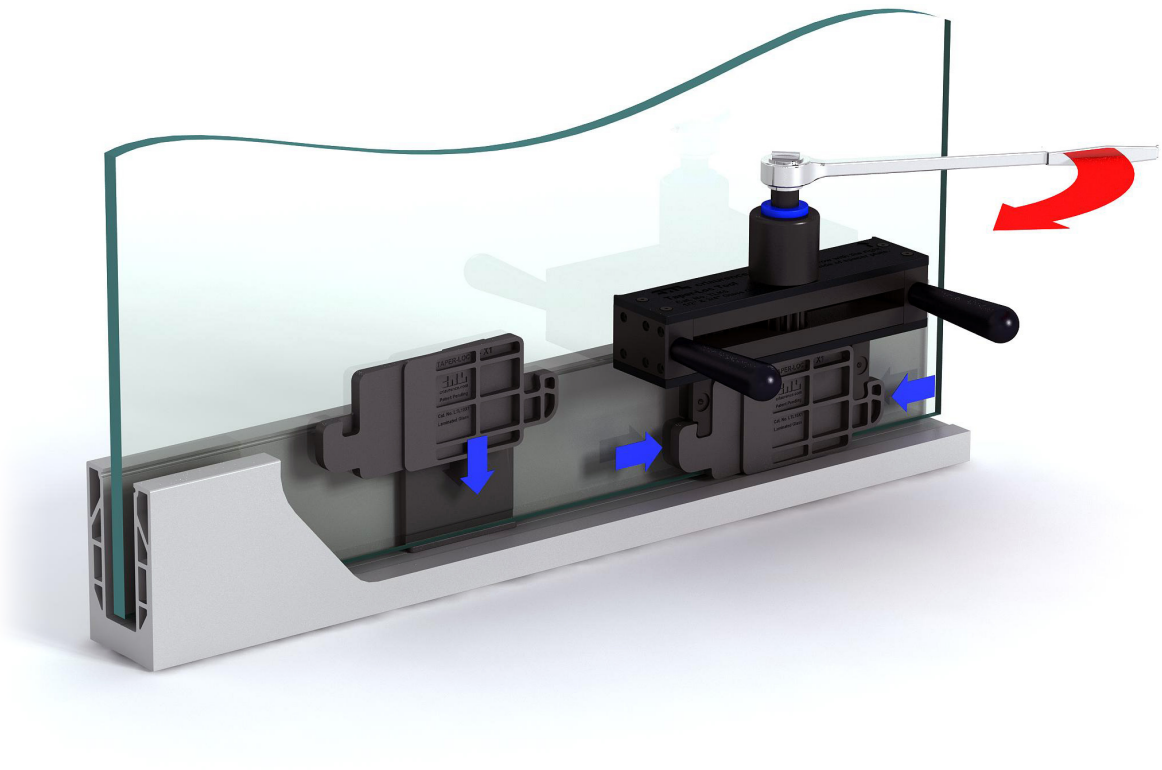
GRS GLASS RAILING DRY GLAZE TAPER-LOC® SYSTEM



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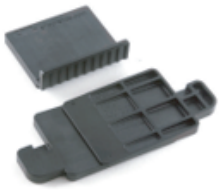
GRS GLASS RAILING DRY GLAZE TAPER-LOC® SYSTEM

The CRL GRS™ Glass Railing System with Taper-Loc® Technology is a dry-glaze railing solution designed to provide fast, accurate, and reliable glass installation for both commercial and residential applications. The Taper-Loc® system allows installers to precisely align, plumb, and secure glass panels without the need for wet glazing methods, significantly reducing installation time while maintaining engineered performance and code compliance. These instructions provide step-by-step guidance for the proper installation of GRS Taper-Loc® base shoe systems, including glass selection, component identification, installation procedures, and final system verification. Following these instructions will help ensure a safe, efficient, and compliant installation.

- **For 1/2" (12 mm), 5/8" (15 mm), and 3/4" (19 mm) Monolithic Glass, and 9/16" (13.52 mm), 11/16" (17.52 mm), and 13/16" (21.52 mm) Laminated Glass**
- **ICC-ES Evaluated and Code Compliant Under ESR-3269 and ESR-3842**
- **Supports Surface Mount, Embed Mount, and Fascia Mounting Methods**
- **Designed for Typical Concrete, Steel, and Wood Mounting Substrates**
- **Tested and Engineered to Meet or Exceed Code Standards**
- **Designed for Residential and Commercial Applications**
- **For Interior and Exterior Railing Applications**

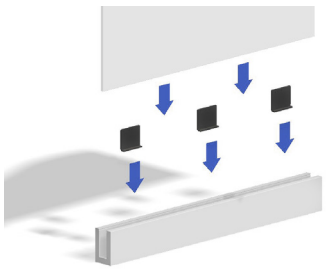




CRL Taper-Loc Sets for Monolithic and Laminated Glass

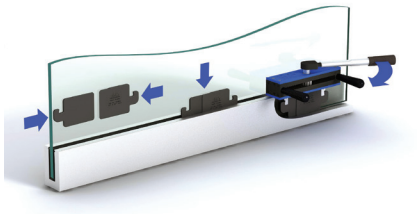
CAT.NO.	DESCRIPTION
TL5X10	TAPER-LOC® Set for 1/2", 5/8", and 3/4" (13, 15, and 19 mm) Monolithic Tempered Glass
TL5	TAPER-LOC® Set for 9/16" (13.52 mm) Laminated Tempered Glass **(For Use in 8B10 Base Shoe)**
LTL96X1	TAPER-LOC® Set for 9/16" (13.52 mm) and 11/16" (17.52 mm) Laminated Tempered Glass
TL6	TAPER-LOC® Set for 11/16" (17.52 mm) Laminated Tempered Glass **(For Use in 8B58 Base Shoe)**
LTL1OX1	TAPER-LOC® Set for 13/16" (21.52 mm) Laminated Tempered Glass
LTL1OX	TAPER-LOC® Set for 1-1/16" (25.52 mm) Laminated Tempered Glass

INSTALL L-SETTING BLOCK & EXTERIOR GASKET & SET GLASS INTO BASE SHOE



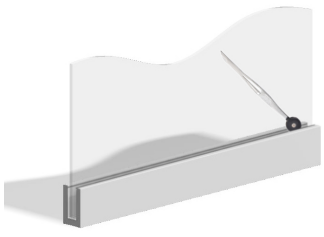
INSTALL TAPER-LOC® L-PRESSURE BLOCK TO THE BOTTOM EDGE OF SHOE & LOWER GLASS INTO POSITION

INSERT TAPERS & LOCK USING TLK12 TOOL



INSTALL TAPER-LOC® TAPERS WITH OUR TLK12 INSTALLATION / REMOVAL TOOL TO LOCK THE GLASS SECURELY IN PLACE

ROLL IN THE INTERIOR SAFETY SEAL & YOU'RE DONE



THE TAPER-LOC® SYSTEM MAKES IT QUICK, CLEAN & SIMPLE

Tools Required for Installation

Table 2.1

Masonry Drill Bit			
Catalog No.	**Description**	**Anchor**	**Anchor Catalog No.**
SDSW38	CRL 3/8" Heavy-Duty Masonry Drill Bit - 12" Long	3/8" KWIK HUS-EZ, SS, CRC	WBA38X4, WBA38X4SS
EBAD38	Hilti TE-C3X Masorny Drill Bit -3/8" X 6-3/4" Long	3/8" KWIK HUS-EZ, SS, CRC	CA38X334, CA38X334SS
EBAD2	Hiliti 12 X 270 mm Long TE-CX Masonry Drill Bit	M8 HSL3, M8 HSL4	EBA334, EBA335
SDSW12	1/2" Heavy Duty Masonry Drill - 12" Long	1/2" KWIK HUS-EZ, SS, CRC	WBA12X4
EBAD3	Hilti 18 X 470 mm Long TE-CX Masonry Drill Bit	M12 HSL3, M12 HSL4	EBA334, EBA335



CAT. NO.
(See Table 2.1)

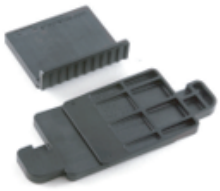


CAT. NO. TLK12
Installation / Removal
Taper-Loc Tool Kit



CAT. NO. VR04
Vinyl Roller Tool

1. Review Components for Installation



TAPER-LOC® Components

High-strength reinforced nylon TAPER-LOC® Tapers mechanically secure the glass panel within the Base Shoe when compressed using the TLK12 Installation/Removal Tool, while the TAPER-LOC® L-Setting Block is installed on the outside (non-occupied side) of the balcony to center the glass in the pocket, maintain proper spacing from the Base Shoe, and help protect glass edges during installation.



Aluminum Base Shoes

CRL's high-strength extruded aluminum Base Shoes are available in both hollow wall and solid wall profiles, with surface mount and fascia mount configurations to accommodate a variety of project requirements and installation conditions. TAPER-LOC® Tapers can be used with CRL Base Shoes designed for both monolithic and laminated tempered glass, helping to simplify glass alignment and installation. Refer to Table 3.1 for compatible Base Shoe part numbers, glass types, and glass thickness ranges. Standard lengths are available in 120" (3.05 m) and 118-1/8" (3.00 m), with custom lengths available upon request.



Base Shoe Cladding and End Caps

CRL offers a comprehensive selection of accessories to complete your railing installation, including Base Shoe Cladding, End Caps, Fasteners, Shims, Vinyl, Hand Rail Tubing, Brackets, and Joiners, available in a variety of architectural finishes to complement your project design. Base Shoe Cladding is available for both surface-mounted and fascia-mounted applications and is offered in 120" (3.05 m) stock lengths.



Base Shoe Anchor Bolts

CRL's high-strength extruded aluminum Base Shoes are available in both hollow wall and solid wall profiles, with surface mount and fascia mount configurations to accommodate a variety of project requirements and installation conditions. TAPER-LOC® Tapers can be used with CRL Base Shoes designed for both monolithic and laminated tempered glass, helping to simplify glass alignment and installation. Refer to the table below for compatible Base Shoe part numbers, glass types, and glass thickness ranges. Standard lengths are available in 120" (3.05 m) and 118-1/8" (3.00 m), with custom lengths available upon request.



Top Cap Rails

CRL offers a complete selection of Premium Cap Rails, Roll-Formed Cap Rails, and Extruded Cap Rails in a variety of profiles, diameters, and finishes to complement virtually any glass railing design. U-Channel Cap Rails are also available. Precision manufacturing and finishing techniques ensure exceptional quality and appearance. Accessories include Splice Sleeves, Prefabricated Corners, End Caps, Installation Vinyl, and Metal Contact Cement to help create clean, professional looking joints. Visit CRL's website and search "Cap Rails" to view the complete selection.



Hand Rail Tubing and Brackets

CRL offers both round and square Hand Rail Tubing to complement glass railing applications. Round Hand Rail Tubing is available in diameters ranging from 1-1/2" (38.1 mm) to 2" (50.8 mm), while Square Hand Rail Tubing is available in a 1-1/2" (38.1 mm) profile. A complete selection of Hand Rail Brackets, End Caps, Splice Sleeves, and related accessories is available in a variety of architectural finishes. Hand Rail Tubing is supplied in 20' (6.10 m) stock lengths.

Table 3.1

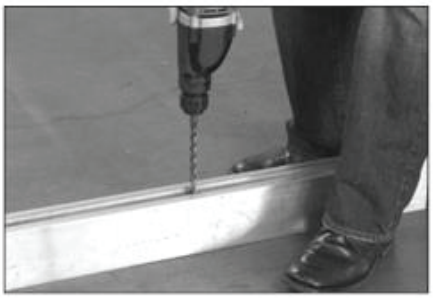
	Compatible Taper-Loc Glass Range Thicknesses									
	Nominal Glass Thickness		Glass Thickness Range				Interlayer		Base Shoe Dimensions	
Base Shoes	in.	mm	in.		mm		in.	mm	W	H
8B10, B5S, B5T	1/2" Monolithic	12	0.469	0.531	11.9	13.5	n/a	n/a	2.50"	4.125"
8B10, B5S, B5T	9/16" Laminated	13.52	0.495	0.595	12.62	13.94	0.06	1.50	2.50"	4.125"
9BL56 & L56S	9/16" Laminated	13.52	0.495	0.595	12.62	13.94	0.06	1.50	2.875"	4.75"
8B58 & B6N	5/8" Monolithic	15	0.594	0.656	15.1	16.7	n/a	n/a	2.625"	4.125"
8B58 & B6N	11/16" Laminated	17.52	0.654	0.706	16.62	17.94	0.06	1.50	2.625"	4.125"
9BL68 & L68S	11/16" Laminated	17.52	0.654	0.706	16.62	17.94	0.06	1.50	2.875"	4.75"
8B34 & B7S	3/4" Monolithic	19	0.719	0.781	18.3	19.8	n/a	n/a	2.75"	4.125"
9BL21 & L21S	13/16" Laminated	21.52	0.803	0.903	20.4	22.94	0.06	1.50	3.188"	4.75"
L25S	1-1/16" Laminated	25.52	0.96	1.06	24.4	26.92	0.06	1.05	3.375"	4.75"

2. Base Shoe Attachment to Concrete

Use the pre-drilled holes in the Base Shoe as a template to locate the anchor hole positions. Drill the holes using a rotary hammer and the recommended masonry drill bit listed on Table 2.1 above. If reinforcing steel (rebar) is encountered, additional drilling or modification of the Base Shoe hole pattern may be required.

After drilling, thoroughly clean all dust and debris from the holes using an appropriate hole-cleaning method. Install the specified CRL anchor system in accordance with the applicable ICC-ES ESR-3269 or ICC-ES ESR-3842 evaluation report. Refer to Table 2.1 for approved anchor types, drill bit sizes, embedment depths, spacing requirements, and installation criteria for the specific Base Shoe and mounting condition.

Step 1
Align the Base Shoe and drill the anchor holes



Step 2
Clean dust and debris from the anchor holes



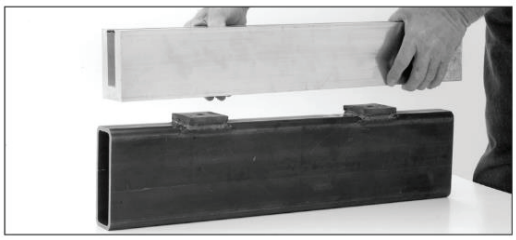
Step 3
Install the specified CRL concrete anchors



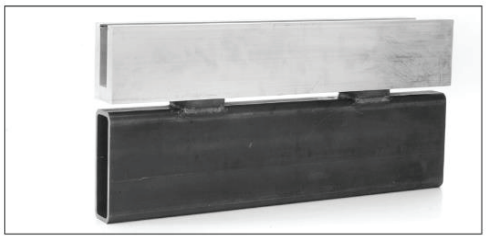
Base Shoe Attachment to Steel Angles, Channels, and Weld Blocks
Use the pre-drilled holes in the Base Shoe as a template to locate the hole positions. Drill and tap the steel to accept a 1/2"-13 or M14 Socket Head Cap Screws (Cat. No. **SHCS12X34** & **SHCSM14X34**). After drilling and tapping, remove all chips, dust, and debris from the holes before installing the Socket Head Cap Screws.

For applications utilizing pre-drilled and tapped Weld Blocks (Cat. No. BSWB12 or LSWB21), CRL recommends installation by qualified welders. Weld Blocks must be attached to an adequately designed steel structure using a continuous 3/16" fillet weld on two opposite sides of the Weld Block, at a minimum, to achieve the required design loads. The images below illustrate a typical Weld Block installation.

Step 1
Align the Base Shoe in the desired location and mark the attachment hole locations. Field weld the CRL pre-drilled and tapped Weld Blocks to the steel stringer.



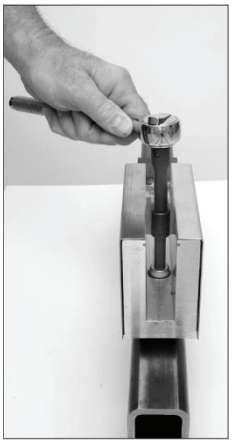
Step 2
Set the Base Shoe in place and align the Base Shoe holes with the Weld Block holes.



Step 3
Attach the Base Shoe to the Weld Blocks using CRL 1/2"-13 Socket Head Cap or M14x20mm Hex Head Screws



Step 4
Torque fasteners per the applicable fastener specification. Required torque depends on fastener size, grade, and installation condition.



IMPORTANT: On all installations, the mounted Base Shoe must be adjusted as required to ensure it is plumb within ±1/8" (3 mm) over a height of 42" (1067 mm). Take the time necessary to align the Base Shoe within this tolerance, as the glass panel alignment will follow the alignment of the Base Shoe. If the Base Shoe is not properly plumbed, the glass panels will not be plumb.

3. Layout and Leveling the Base Shoe

When leveling the Base Shoe to a concrete, steel, or wood substrate, ensure the Base Shoe is within 0.4 degrees of plumb. As the anchor bolts are tightened at the standard or recommended spacing, use a digital level to verify the Base Shoe remains within the allowable tolerance. If adjustments are required, loosen the anchor bolts and install CRL Aluminum Horseshoe Shims or CRL Aluminum Shim Strips as needed. Proper Base Shoe alignment is critical to ensuring the glass railing system is installed plumb and level.

Install shims wherever gaps exist between the Base Shoe and the mounting surface. CRL Aluminum Horseshoe Shims are available in thicknesses up to 1/4" (6.3 mm), while CRL Aluminum Shim Strips are available in thicknesses ranging from 1/64" to 1/16" (0.4 mm to 1.6 mm) for fine vertical adjustment, see Table 7.1. After leveling both ends of a Base Shoe section, place shims at all anchor bolt locations where gaps are present. Both sides of the Base Shoe must be fully supported by the mounting surface or shims before the anchor bolts are tightened to prevent the Base Shoe from twisting out of alignment.

Shim Strips should be installed parallel to the length of the Base Shoe and positioned near the outer edge. The bottom surface of the CRL Base Shoe is slightly concave to help prevent high-centering during installation.

Additional Layout and Leveling Tips

Layout the Guardrail or Windscreen perimeter on the mounting surface with a chalk line. Position the first section of Base Shoe, starting at the beginning of a run or at a corner, and align with the chalk line mark. If the installation requires that the Base Shoe be level (as opposed to following the slope of the surface) the first section to be installed should be located at the highest elevation. Start by installing all mounting fasteners hand tight, and then loosen the fasteners for insertion of leveling shims.

Level Base Shoe Installations

When the Base Shoe is to be level, as opposed to following the slope of the surface, it is easier to level the shoe along its length before correcting the vertical plumb orientation.

IMPORTANT: On all installations, the mounted Base Shoe must be adjusted as required to ensure it is plumb within ±1/8" (3 mm) over a height of 42" (1067 mm). Take the time necessary to align the Base Shoe within this tolerance, as the glass panel alignment will follow the alignment of the Base Shoe. If the Base Shoe is not properly plumbed, the glass panels will not be plumb. Shoe is slightly concave to help prevent high-centering during installation.

CRL Shims for leveling Base Shoes:

Table 7.1

CRL Aluminum Horseshoe Shims			
Catalog No.	**Thickness**	**Width**	**Length**
AHS66	1/16" (1.6mm)	2" (51mm)	3" (76mm)
AHS68	1/8" (3..2mm)	2" (51mm)	3" (76mm)
AHS64	1/4" (6.3mm)	2" (51mm)	3" (76mm)
CRL Aluminum Shim Strips			
BSS164	1/64" (.4mm)	3/4" (19mm)	24" (610mm)
BSS132	1/32" (.8mm)	3/4" (19mm)	24" (610mm)
BSS116	1/16" (1.6mm)	3/4" (19mm)	24" (610mm)



Horseshoe Shims



Shim Strips





Slide Shim Strips Under Base Shoe to Fill Gaps.



Check Leveling of entire Base shoe Section

4. Preparing for Glass Installation

Before installing the glass panels, install the TAPER-LOC® L-Setting Blocks in the Base Shoe and space them in accordance with the charts below. Exact spacing is not critical. Prior to installing the glass, insert Cat. No. SMBSG, SLBSG, or SG6X Series Safety Seal ("Drop-Side") Glazing Vinyl into the Base Shoe. The Safety Seal system is designed to provide a safer and more efficient glazing method for balcony edge applications by eliminating the need to roll glazing vinyl into place after the glass has been installed. Refer to the Safety Seal section of these instructions for additional installation information.

Table 8.1

Nominal TAPER-LOC® Spacing Requirements (12" / 305 mm Center-to-Center Spacing)	
Monolithic Glass: 1/2", 5/8", 3/4" (12 mm, 15 mm, 19 mm) Laminated Glass: 11/16", 13/16", 1-1/16" (17.52 mm, 21.52 mm, 25.52 mm)	
Panel Width	**Required Quantity**
6" to 14" (152 to 356 mm)	1 TAPER-LOC® Set
14" to 28" (356 to 711 mm)	2 TAPER-LOC® Sets
28" to 42" (711 to 1067 mm)	3 TAPER-LOC® Sets
42" to 56" (1067 to 1422 mm)	4 TAPER-LOC® Sets
56" to 70" (1422 to 1778 mm)	5 TAPER-LOC® Sets
70" to 84" (1778 to 2134 mm)	6 TAPER-LOC® Sets
84" to 98" (2134 to 2489 mm)	7 TAPER-LOC® Sets
98" to 112" (2489 to 2845 mm)	8 TAPER-LOC® Sets
112" to 126" (2845 to 3200 mm)	9 TAPER-LOC® Sets
126" to 140" (3200 to 3556 mm)	10 TAPER-LOC® Sets

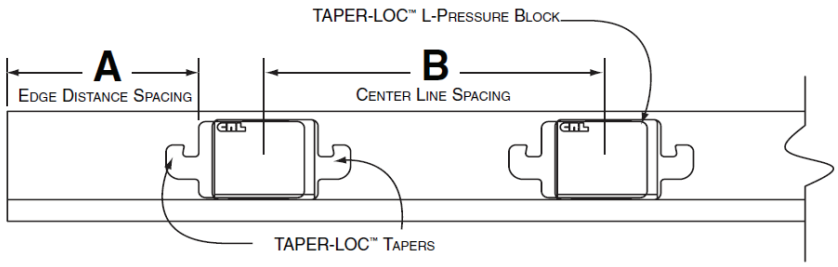
Table 8.2

Nominal TAPER-LOC® Spacing Requirements (12" / 305 mm Center-to-Center Spacing)	
Laminated Glass: 9/16" (13.52 mm) Thick	
Panel Width	**Required Quantity**
6" to 10" (152 to 254 mm)	1 TAPER-LOC® Set
10" to 16" (254 to 406 mm)	2 TAPER-LOC® Sets
16" to 24" (406 to 610 mm)	3 TAPER-LOC® Sets
24" to 32" (610 to 813 mm)	4 TAPER-LOC® Sets
32" to 40" (813 to 1,016 mm)	5 TAPER-LOC® Sets
40" to 48" (1,016 to 1,219 mm)	6 TAPER-LOC® Sets
48" to 56" (1,219 to 1,422 mm)	7 TAPER-LOC® Sets
56" to 64" (1,422 to 1,626 mm)	8 TAPER-LOC® Sets
64" to 72" (1,626 to 1,829 mm)	9 TAPER-LOC® Sets
72" to 80" (1,829 to 2,032 mm)	10 TAPER-LOC® Sets

Make sure the TAPER-LOC® spacing does not exceed the recommended spacing listed on the chart above

1" to 4" (25.4 mm to 101.6 mm) edge distance is recommended for most standard applications

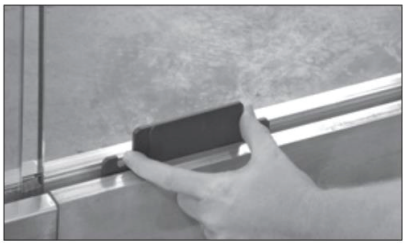
SYSTEM FOR 200 LB. (90 KG) POINT LOAD WITH 4X SAFETY FACTOR



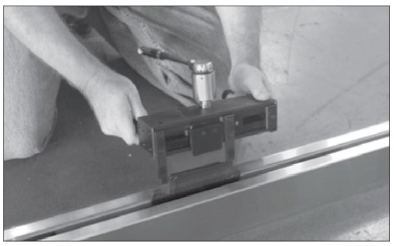
5. Installing Glass Panels

To begin the installation of the glass panels, ensure the Base Shoe is clean and free of debris. Position the glass panel in the Base Shoe with the bottom edge resting on the L-Setting Blocks. Verify the glass is properly seated and make any adjustments as required. Additional blocking may be used if one corner of the glass panel requires elevation for alignment. The glass panel can be temporarily held in a near vertical position by installing one TAPER-LOC® Taper Set at each end of the panel.

Important: One TAPER-LOC® Taper in each set is engraved with "Glass Side." This surface must face and contact the glass panel. The mating Taper contains alignment rails designed to keep both Tapers properly positioned during installation. Align the two Tapers and spread them apart until the assembly is thin enough to fit into the space between the glass and the Base Shoe. Partially insert the Taper Set into the slot, apply light finger pressure to hold the Tapers together, and push them downward into the Base Shoe. This will provide temporary clamping force and assist with glass alignment. Once the installer is satisfied with the panel spacing, alignment, and final elevation of the glass panels, the TAPER-LOC® securing procedure may begin.



Step 1
Squeeze the tapers together by hand and insert them halfway into the base shoe



Step 2
Position the TLK12 Installation/Removal Tool over the tapers and press them fully into the base shoe, ensuring the tapers remain aligned and locked together



Step 3
Tighten the torque wrench until it clicks, indicating the required torque has been reached. Repeat for each taper set

Watch Video

6. Securing Glass in the Base Shoe with Taper-Locs

TAPER-LOC® Systems are self-centering and self-plumbing. Because the glass follows the alignment of the Base Shoe, ensure the Base Shoe is installed plumb within ±1/8" (3.2 mm) over a 42" (1067 mm) height before securing the glass. If the Base Shoe is properly aligned, additional wood wedges are not required. Install the remaining TAPER-LOC® Taper Sets into the gap between the glass and the Base Shoe by lightly squeezing the Tapers together and pushing them into position. It is not necessary to fully seat the Tapers at this stage, as the Installation/Removal Tool will drive them into their final position. Important: The Taper marked "Glass Side" must face and contact the glass panel. The right side of the right-hand Taper must be aligned with the right-hand vertical edge of the L-Setting Block.

It is recommended to secure both ends of each glass panel and verify alignment before locking the remaining Taper Sets in place. Insert the blades of the TAPER-LOC® Installation/Removal Tool into the gap between the glass and the Base Shoe. Using the Torque Wrench, adjust the tool blades until they align with the slots in the Tapers, allowing the tool to drop into position and seat against the Base Shoe. This action will fully insert the Tapers into the Base Shoe. The blue top surface of the tool includes a black alignment mark on the right side that must align with the right-hand vertical edge of the L-Setting Block, visible through the glass. Moving the tool left or right will reposition the Tapers as needed to achieve proper alignment.

6. Securing Glass in the Base Shoe with Taper-Locs, Cont.

Once aligned, engage the ratchet and tighten the Taper Set using the Torque Wrench while maintaining alignment with the L-Setting Block. Continue tightening until the specified lock-up force is reached. At the proper torque setting, the wrench will emit a single click and release slightly, indicating that the TAPER-LOC® Set has been fully secured.

Important: If you are uncertain whether the Torque Wrench has reached the preset torque and produced the audible click, do not apply additional force beyond the factory setting. Instead, release the TAPER-LOC® Set and repeat the locking procedure. Repeat this process for all remaining TAPER-LOC® Sets. Over-torquing can prevent the Tapers from being released using the Installation/Removal Tool, making future glass panel adjustment or removal difficult.

Tool Maintenance Notice:
Ensure the blade movement mechanism of the TLK12 Installation/Removal Tool operates freely and is kept clean and free of dust, dirt, and debris. A poorly maintained blade mechanism may bind during the TAPER-LOC® compression process, preventing proper Taper engagement and resulting in insufficient clamping force. Regular inspection and cleaning of the tool are recommended to help ensure consistent installation performance and proper system lock-up.

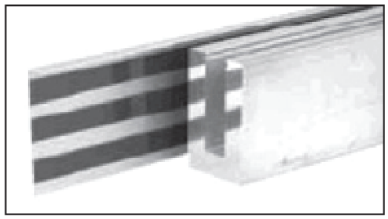
7. Apply Cladding to Base Shoe

There are several acceptable methods for attaching Cladding to the Base Shoe. While all three methods shown below are suitable, a combination of Cladding Tape and Neutral-Cure Silicone (Type C) is recommended. This method combines the immediate holding strength of the tape with the fast application, flexibility, and long-term durability provided by the silicone adhesive.

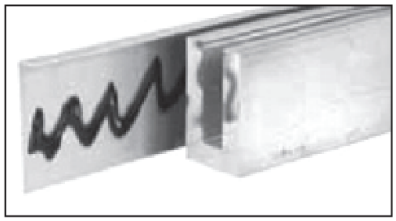
Type A: Apply three rows of Cladding Tape to the vertical surface of the Cladding. Carefully align the Cladding with the Base Shoe and press it firmly into place.

Type B: Apply Neutral-Cure Silicone to the vertical surface of the Cladding. Carefully align the Cladding with the Base Shoe and press it into place. Use clamps as required to hold the Cladding in position until the silicone has fully cured.

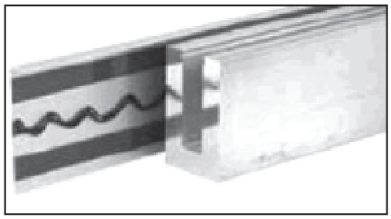
Type C: (Recommended) Apply two rows of Cladding Tape to the vertical surface of the Cladding, one near the top and one near the bottom. Apply Neutral-Cure Silicone between the rows of tape. Carefully align the Cladding with the Base Shoe and press it firmly into place.



Type “A”



Type “B”



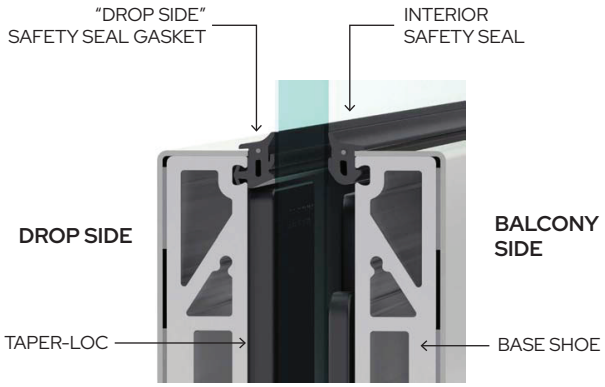
Type “C”

8. Roll in "Inside" Safety-Seal Gasket

Once the Cladding has been installed, the final step is to install the appropriate inside Safety Seal at the top of the Base Shoe pocket. Select the correct Safety Seal based on the glass thickness, Base Shoe, and TAPER-LOC® configuration being used. Refer to the table below for the required Inside Gasket and Outside (Drop-Side) Gasket part numbers associated with each system configuration. Ensure the Safety Seals are fully seated along the length of the Base Shoe to provide a clean, finished appearance and proper fit. For questions regarding your specific application, contact CRL Railing Sales Solutions at railings.archmetals@crlaurence.com.

Table 11.1

Compatible Base Shoe, Glass Thickness, TAPER-LOC® & Gasket					
Nominal Glass Thickness	Base Shoe	Base Shoe Height	Taper-Loc	Inside Gasket	Outside (Drop-Side) Gasket
1/2" Monolithic Glass	8B10 (Hollow)	4-1/8" (105mm)	TL5X10	MBSG1, MBSG5	SMBSG1, SMBSG5
1/2" Monolithic Glass	B5S, B5T	4-1/8" (105mm)	TL5X10	MBSG1, MBSG5	SMBSG1, SMBSG5
9/16" Laminated Glass	8B10 (Hollow)	4-1/8" (105mm)	TL5	MBSG1, MBSG5	SG6X
9/16" Laminated Glass	B5S, B5T	4-1/8" (105mm)	TL5	MBSG1, MBSG5	SG6X
9/16" Laminated Glass	9BL56 (Hollow)	4-3/4" (121mm)	LTL96X1	LBSG100, LBSG200	SLBSG1, SLBSG2
9/16" Laminated Glass	L56S	4-3/4" (121mm)	LTL96X1	LBSG100, LBSG200	SLBSG1, SLBSG2
5/8" Monolithic Glass	8B58 (Hollow)	4-1/8" (105mm)	TL5X10	MBSG1, MBSG5	SMBSG1, SMBSG5
5/8" Monolithic Glass	B6N	4-1/8" (105mm)	TL5X10	MBSG1, MBSG5	SMBSG1, SMBSG5
11/16" Laminated Glass	8B58 (Hollow)	4-1/8" (105mm)	TL6	MBSG1, MBSG5	SG6X
11/16" Laminated Glass	B6N	4-1/8" (105mm)	TL6	MBSG1, MBSG5	SG6X
11/16" Laminated Glass	9BL68 (Hollow)	4-3/4" (121mm)	LTL96X1	LBSG100, LBSG200	SLBSG1, SLBSG2
11/16" Laminated Glass	L68S	4-3/4" (121mm)	LTL96X1	LBSG100, LBSG200	SLBSG1, SLBSG2
3/4" Monolithic Glass	8B34 (Hollow)	4-1/8" (105mm)	TL5X10	MBSG1, MBSG5	SMBSG1, SMBSG5
3/4" Monolithic Glass	B7S	4-1/8" (105mm)	TL5X10	MBSG1, MBSG5	SMBSG1, SMBSG5
13/16" Laminated Glass	9BL21 (Hollow)	4-3/4" (121mm)	LTL10X1	LBSG100, LBSG200	SLBSG1, SLBSG2
13/16" Laminated Glass	L21S	4-3/4" (121mm)	LTL10X1	LBSG100, LBSG200	SLBSG1, SLBSG2
1-1/16" Laminated Glass	L25D	4-3/4" (121mm)	LTL10X	LBSG100, LBSG200	SLBSG1, SLBSG2



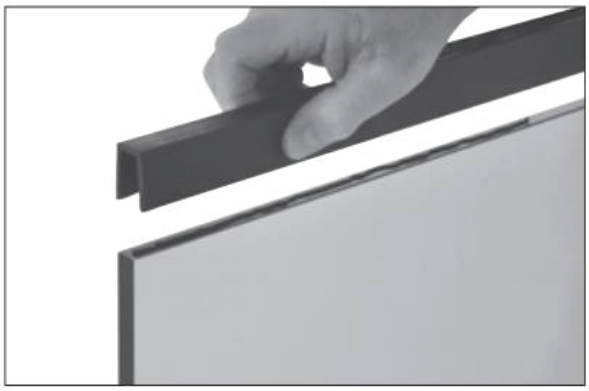


9. Attach Top Rail to the Glass

Apply a continuous bead of CRL 995BL Structural Silicone to the top edge of the glass.



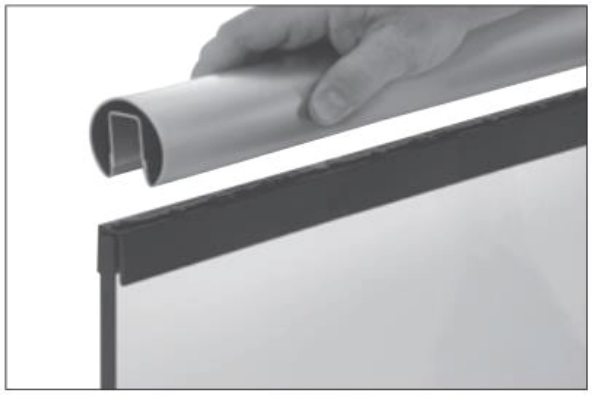
Step 1
Apply a continuous bead of CRL 995BL Structural Silicone to the top edge of the glass



Step 2
Install the protective Vinyl Insert onto the glass edge



Step 3
Apply a second continuous bead of Structural Silicone to the top of the Vinyl Insert



Step 4
Position the Cap Rail over the glass and Vinyl Insert, and press it into place until it is fully seated

Shim as required to achieve proper alignment, then apply sealant along both sides of the underside of the Cap Rail glass pocket to provide a clean, finished appearance.

10. Adjustment and Removal of Glass Panels

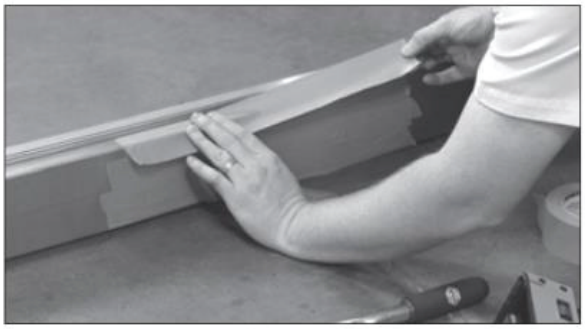
The CRL TAPER-LOC® System requires only the TLK12 Installation/Removal Tool for the installation, adjustment, and removal of TAPER-LOC® Tapers. To adjust or remove an installed glass panel, use the TLK12 Installation/Removal Tool Kit and follow the steps below. Before removing any TAPERLOC ® Tapers, protect the Cladding with Cat. No. BL992 2" Blue Masking Tape to help prevent surface damage.

The TLK12 Tool utilizes color-coded blade sets for specific Base Shoe and glass configurations:

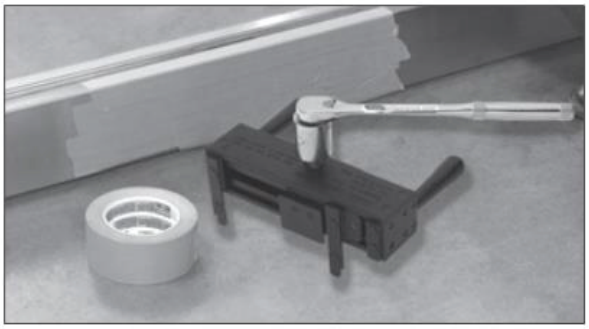
- Yellow Blades: Monolithic glass installed in Windscreen Base Shoes
- Blue Blades: Monolithic glass installed in surface-mounted Base Shoes
- Red Blades: Monolithic glass installed in recessed (embed-mounted) Base Shoes
- Black Blades: Laminated glass installed in surface-mounted Base Shoes



For glass railing applications, position the TLK12 Installation/Removal Tool over the TAPER-LOC® Tapers that require adjustment or removal. Once the tool is properly seated, reverse the torque direction and apply force to separate the Tapers, allowing the glass panel to be adjusted or removed as needed. Repeat this procedure for each TAPER-LOC® Set requiring adjustment or removal.



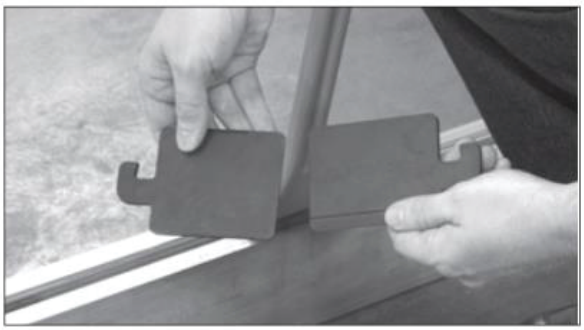
Step 1
Apply 2" BL992 Blue Masking Tape to protect Cladding



Step 2
Position the TLK12 Tool over the TAPER-LOC® Set



Step 3
Reverse the torque direction and open the Tapers



Step 4
Remove the Tapers and adjust or replace the glass panel