

INSTALLATION INSTRUCTIONS

PANELGRIP®

RECOMMENDED TOOLS:

- PG2 Allen Socket
- Torque Wrench
- Shims
- Rubber Mallet

IMPORTANT SAFETY INSTRUCTIONS:

GLASS SAFETY:

- Read the installation instructions in their entirety before installing. It is important to save these instructions.
- All components must be installed in accordance with IBC 2015 or per local codes as specified by the "authority having jurisdiction".
- All glass must be tempered monolithic or tempered laminated safety glass.
- Glass selection should be in accordance with:
 - ASTM C1036-16 (Standard Specification for Flat Glass – Table 4 - Dimensional Tolerances for Rectangular Shapes of Type 1 – Transparent Flat Glass)
 - ASTM C1172 -14 (Standard Specification for Laminated Architectural Flat Glass)
 - ASTM C1048 (Specification for Heat Strengthened and Fully Tempered Flat Glass)

- For PanelGrip® accessories and or replacement parts contact:

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RAIL SAFETY:

- Check and confirm all local railing code requirements.
- A structural analysis may be required per local codes. Structural analysis is the customers' responsibility.
- This product must be installed in a manner consistent with its intended use.

ICC COMPLIANCE:

- Refer to ICC-ES report ESR-3950 for install specifications to ICC compliant.

INSTALLATION:

1. Mount PanelGrip® aluminum extrusion to the intended substrate. Anchor hardware should be located max 12" on center and 6" max from the end of the extrusion.
 - a. For mounting to concrete: concrete compressive strength must be greater than or equal to 4,000 psi. For mounting concrete anchors, see part matrix
 - b. For mounting to steel – thickness of support plate must be ½" thick or greater.
 - c. For glass panels wider than 48" or mounting PanelGrip® into wood and other substrates, it is recommended to consult with a structural engineer to ensure proper anchoring and a safe installation.
 - d. If drainage is required beneath the base shoe use drain block, see part matrix.
 - e. If mounting base shoe to a steel supporting plate use weld block, see part matrix.
2. Use non-compressive shims to ensure the shoe is level and plumb. The glass will only be as plumb as the shoe.
 - a. Clearance between mounting substrate and aluminum shoe should be no greater than 0.25".
3. Clean debris from the PanelGrip® channel.
4. Position the isolators within the PanelGrip® shoe (see Fig. i) every 12" on center starting 6" in from datum end. Max glass lite 48" wide. For applications longer than 48", or mounting PanelGrip® into wood and other substrates, it is recommended to consult with a structural engineer to ensure proper anchoring and a safe installation.
 - a. Minimum of two isolators per lite of glass is required. Ensure all isolators are placed on the same side of the extrusion. Do not alternate.



Fig. i

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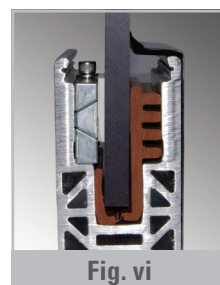
5. Carefully place a lite of glass on the isolators. Sliding the glass at an angle may make installation easier. Glass should be captured by the isolator and should not rest on the bottom (see Fig. ii).
6. Install the glass with a minimum horizontal joint gap between the individual lites of 1/2" (verify and confirm with project specification). In the case of long runs, consideration should be given to spanning any joints with a glass panel to assist with alignment. Slight variation in glass thickness can result in similar variation in the height of the seated glass, but can easily be accommodated for with light rocking of the taller panel or gentle tapping with a rubber mallet. The glass should never require any aggressing pounding.
7. Once the glass is correctly located, place a PanelGrip® mechanism opposite the thick side of the isolators. It should seat against the flat section of the extrusion. Ensure the plastic mechanism pad is facing the glass (See Fig. iii & iv).
8. Pre-tighten the PanelGrip® mechanisms to 10 ft.-lbs. Gently rock the glass forward and backwards to settle the glass and then re-tighten again not exceeding a maximum 14 ft.-lbs. torque.



9. For gasket installation without decorative cladding, take the GR9355 gasket and cut it to the desired length. Spray face of glass with glass cleaner or suitable non-permanent lubricant. Locate gasket as shown (See Fig. v).



10. For gasket installation with decorative cladding:
 - a. Select cladding material (See part matrix)
 - b. Select GR9302 cladding gasket, remove protective tape and apply gasket to underside of cladding as show (See Fig. vi).



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11. Install cladding.

- a. Using GR975 cladding tape. Apply two rows along the full length of cladding (See Fig. vii).
- b. Or apply silicone adhesive using a wave format pattern (See Fig. viii).

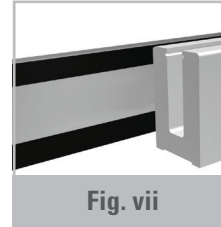


Fig. vii

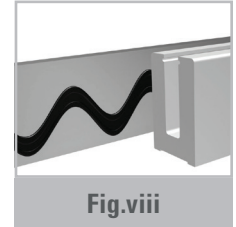


Fig. viii

12. Install end caps.

- a. Apply silicone adhesive (Fig. viii) to the end cap on the base shoe facing side. Place end cap against base shoe and retain until silicone adhesive has cured.
- b. Without cladding – (See part matrix)



Fig. viii

13. Install decorative cap rail. After peeling off the protective backing from one side only of the cap rail gasket (Fig. x), place the gasket across the top of the glass. Remove the remaining protective tape on the top side of the gasket (Fig. xi) and slide the cap rail over the gasket and onto the glass (See Fig. xii). If necessary, a rubber mallet can be used to ensure the cap rail is completely seated.



Fig. x



Fig. xi



Fig. xii

Fig. xi does not work with 1/2" monolithic or 9/16" Laminated. Use GR9390-5 or GR9391-5

PART MATRIX

WELD BLOCK		DRAIN BLOCKS		NON-COMPRESSIBLE SHIMS	
GR175WB-10	2.5" X 2.75" X .5" STEEL	GR225DB-10	2.5" X 2.75" X .25" ALUMINUM	GRGL16	1/16" PLASTIC
				GR2HS06	1/16" ALUMINUM
				GR2HS12	1/8" ALUMINUM
				GR2HS25	1/4" ALUMINUM

	GLASS SIZE	MIN	MAX	ALUMINUM EXTRUDED SHOE	
				GR2460HCB GR2460HCB-10	GR2457HCB GR2475HCB-10
ISOLATORS	1/2" MONOLITHIC	.469"	.531"	N/A	PG2472 BLACK ISOLATOR BLACK .160 PAD
	9/16" LAMINATE	.496"	.550"	PG2460 BROWN ISOLATOR WHITE .090" PAD	PG2472 BLACK ISOLATOR BLACK .160 PAD
	15mm LAMINATE	.569"	.638"	N/A	PG2415 DK. GREY ISOLATOR WHITE .090"/.125" PAD
	17mm LAMINATE	.642"	.726"	N/A	PG2417 LT. GREY ISOLATOR WHITE .090"/.125" PAD
	3/4" MONOLITHIC	.719"	.781"	N/A	PG2475 WHITE ISOLATOR WHITE .090"/.125" PAD
	21mm LAMINATE	.768"	.874"	N/A	PG2421 CREAM ISOLATOR RED .035" PAD
MOUNTING HARDWARE	CONCRETE	SELF-TAPPING		WB7216 3/8" X 4"	KHEZ500-0450 1/2" X 4 1/2"
		EXPANSION ANCHOR		3/8" X 4"	HSL3M1040 1/2" X 5 1/8"
	STEEL (1/2" MIN)	ZINC PLATED STEEL CAP SCREW		3/8-16 X 3/4"	SHC1Z1213-0750 1/2-13 X 3/4"
		STAINLESS STEEL CAP SCREW		3/8-16 X 3/4"	SHC3N1213-0750 1/2-13 X 3/4"
END CAPS	WITH CLADDING	CLEAR SATIN ALUMINUM		GR2876E.4	GR2876EC.4
		CLEAR SATIN ANODIZED AL		GR2876E.4AN	GR2876EC.4AN
		SATIN STAINLESS 304		GR3876E.4	GR3876EC.4
		POLISHED STAINLESS 304		GR3876E.7	GR3876EC.7
	WITHOUT CLADDING	CLEAR SATIN ALUMINUM		GR2852E.4	GR2876E.4
		CLEAR SATIN ANOZIED AL		GR2852E.4AN	GR2876E.4AN
		SATIN STAINLESS 304		GR3852E.4	GR3876E.4
		POLISHED STAINLESS 304		GR3852E.7	GR3876E.7
CLADDING	CLEAR SATIN ANODIZED ALUMINUM			GR2802.4AN	
	SATIN STAINLESS STEEL 304			GR3802.4	
	POLISHED STAINLESS STEEL 304			GR3802.7	
	POLISHED BRASS			GR4802.7	
	TAPE, 108 FT			GR975	
CLADDING GASKET	LENGTH			W/CLADDING	W/O CLADDING
	20'			GR9302-20	GR9355-20
	40'			GR9302-40	GR9355-40
	100'			GR9302-100	GR9355-100
	250'			N/A	GR9355
	500'			GR9302	N/A