



INSTALLATION INSTRUCTIONS

PANELGRIP®

RECOMMENDED TOOLS:

- Allen Socket (3/16" Hex Head)
- Torque Wrench
- Shims
- Rubber Mallet

IMPORTANT SAFETY INSTRUCTIONS:

GLASS SAFETY:

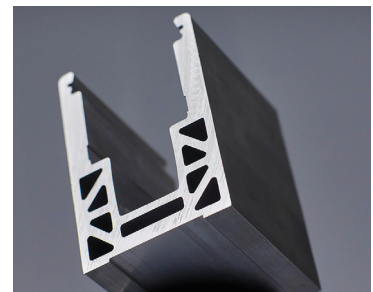
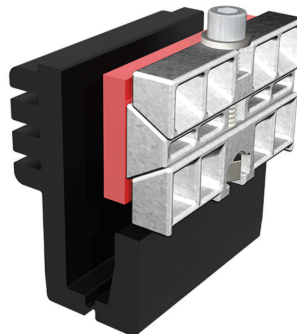
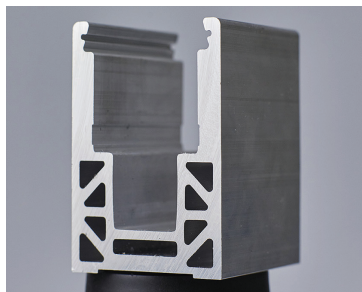
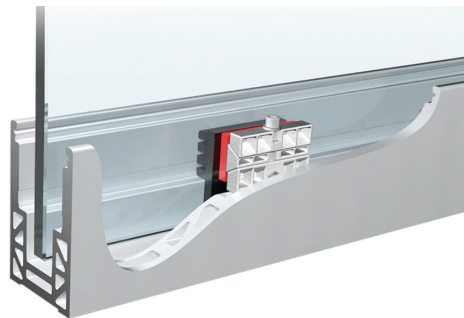
- Read the installation instructions in their entirety before installing. It is important to save these instructions.
- All components must be installed in accordance with IBC 2015 or per local codes as specified by the "authority having jurisdiction".
- All glass must be tempered monolithic or tempered 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)

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:

- If ICC compliance is required for the guardrail system, refer to installation specifications given in ICC-ES report ESR-3950.





INSTALLATION

The following information will help you streamline set-up and 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.

1. For mounting to concrete: Concrete compressive strength must be greater than or equal to 4,000 psi. For mounting concrete anchors, see part matrix
2. For mounting to steel: Thickness of support plate must be ½" thick or greater. Asphaltic coating should be used to protect the base shoe from the steel mounting surface. Coat any surface of the base shoe that is to come in contact with steel to prevent corrosion.
3. 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.
4. If drainage is required beneath the base shoe use drain block, see part matrix.
5. If mounting base shoe to a steel supporting plate use weld block, see part matrix. See Step 1.2 regarding asphaltic coating.

2

Use non-compressive shims to ensure the shoe is level and plumb. The glass will only be as plumb as the shoe.

1. 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.

1. 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.

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 ½" (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 aggressive pounding.



Fig. i



Fig. ii

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).

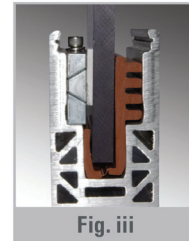


Fig. iii



Fig. 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 V50-0009BKA 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).



Fig. v

10

For gasket installation with decorative cladding:

1. Select cladding material (See part matrix).
2. Select V50-0005BKA cladding gasket, remove protective tape and apply gasket to underside of cladding as show (See Fig. vi).

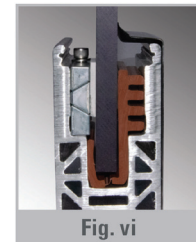


Fig. vi

11

Install cladding.

1. Using V50-0012 cladding tape. Apply two rows along the full length of cladding (See Fig. vii).
2. Or apply TowerTech Clear Sealant G42-5950CLR using a wave format pattern (See Fig. viii).

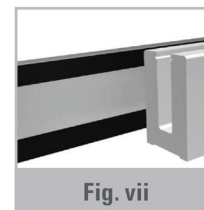


Fig. vii

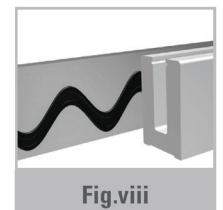


Fig.viii

12

Install end caps.

1. Apply TowerTech Clear Sealant G42-5950CLR (Fig. viiii) to the end cap on the base shoe facing side. Place end cap against base shoe and retain until Sealant has cured.
2. Without cladding – (See part matrix)



Fig. viiii

13

Install decorative cap rail. (See Fig. xii).



Fig. xii



PART MATRIX

WELD BLOCK				DRAIN BLOCKS			
S42-0023-10		2.5" X 2.75" X .5" STEEL		A42-0023-10		2.5" X 2.75" X .25" ALUMINUM	
ISOLATORS	GLASS SIZE		MIN	MAX	ALUMINUM EXTRUDED SHOE		
					A42-0072 NARROW		A42-00073
	1/2" MONOLITHIC		.469"	.531"	A42-0027-1L BROWN ISOLATOR WHITE .090" PAD + A42-0027-S SHIM		A42-0028-1B BLACK ISOLATOR BLACK PAD
	9/16" LAMINATE		.496"	.550"	A42-0027-1L BROWN ISOLATOR WHITE .090" PAD		A42-0028-1B BLACK ISOLATOR BLACK PAD
	5/8" LAMINATE		.569"	.638"	N/A		A42-0028-1DG GREY ISOLATOR WHITE .090"/.125" PAD
	11/16" LAMINATE		.642"	.726"	N/A		A42-0028-1LG GREY ISOLATOR WHITE .090"/.125" PAD
	3/4" MONOLITHIC		.719"	.781"	N/A		A42-0028-1W WHITE ISOLATOR WHITE .090"/.125" PAD
13/16" LAMINATE		.768"	.874"	N/A		A42-0028-1R CREAM ISOLATOR RED .035" PAD	
MOUNTING HARDWARE		CONCRETE	SELF-TAPPING		F92-0075WB 3/8" X 4"		F92-0073CA 1/2" X 4 1/2"
			EXPANSION ANCHOR		3/8" X 4"		1/2" X 5 1/8"
		STEEL (1/2" MIN)		ZINC PLATED STEEL CAP SCREW		3/8-16 X 3/4"	
END CAPS	WITH CLADDING	MILL FINISH AL		A17-0072AEY			A17-0073AEY
		OIL RUBBED BRONZE AL		A17-0072BZD			A17-0073BZD
		CLEAR SATIN ANODIZED AL		A17-0072VEL			A17-0073VEL
		#4 BRUSHED STAINLESS 304		S17-0072VEL			S17-0073VEL
		POLISHED STAINLESS 304		S17-0072POL			S17-0073POL
CLADDING	MILL FINISH AL			A16-0073AEY10			
	OIL RUBBED BRONZE AL			A16-0073BZD10			
	CLEAR SATIN ANODIZED ALUMINUM			A16-0073VEL10			
	#4 BRUSHED STAINLESS STEEL 304			S16-0073VEL10			
	POLISHED STAINLESS STEEL 304			S16-0073POL10			
	TAPE, 108 FT			V50-0012			
CLADDING GASKET	LENGTH	SOLD BY THE FOOT	WITH CLADDING		V50-005BKA		
			WITHOUT CLADDING		V50-009BKA		

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