

# INSTALLATION INSTRUCTIONS

## PANELGRIP®

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### 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.

### 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 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.
  - 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.

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Fig. i

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. ii

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.



Fig. iii



Fig. iv

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.



Fig. v

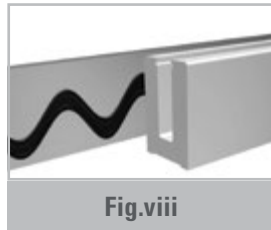
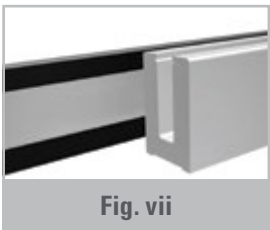
9. For gasket installation without decorative cladding, take the GR9355 gasket and cut it to the desired length. Spray face of glass with glass cleaner or suitable non-permanent lubricant. Locate gasket as shown (See Fig. v).

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



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



12. Install end caps.
- 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.
  - Without cladding – (See part matrix)



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.

## 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<br>GR2460HCB-10                   | GR2457HCB<br>GR2475HCB-10                            |
| <b>ISOLATORS</b>         | 1/2" MONOLITHIC               | .469"                       | .531"             | N/A   | PG2472<br>BLACK ISOLATOR<br>BLACK .160 PAD           |
|                          | 9/16" LAMINATE                | .496"                       | .550"             | PG2460<br>BROWN ISOLATOR<br>WHITE .090" PAD | PG2472<br>BLACK ISOLATOR<br>BLACK .160 PAD           |
|                          | 15mm LAMINATE                 | .569"                       | .638"             | N/A   | PG2415<br>DK. GREY ISOLATOR<br>WHITE .090"/.125" PAD |
|                          | 17mm LAMINATE                 | .642"                       | .726"             | N/A   | PG2417<br>LT. GREY ISOLATOR<br>WHITE .090"/.125" PAD |
|                          | 3/4" MONOLITHIC               | .719"                       | .781"             | N/A   | PG2475<br>WHITE ISOLATOR<br>WHITE .090"/.125" PAD    |
|                          | 21mm LAMINATE                 | .768"                       | .874"             | N/A   | PG2421<br>CREAM ISOLATOR<br>RED .035" PAD            |
| <b>MOUNTING HARDWARE</b> | CONCRETE                      | SELF-TAPPING                |                   | WB7216<br>3/8" X 4"                         | KHEZ500-0450<br>1/2" X 4 1/2"                        |
|                          |                               | EXPANSION ANCHOR            |                   | 3/8" X 4"                                   | HSL3M1040<br>1/2" X 5 1/8"                           |
|                          | STEEL<br>(1/2" MIN)           | ZINC PLATED STEEL CAP SCREW |                   | 3/8-16 X 3/4"                               | SHC1Z1213-0750<br>1/2-13 X 3/4"                      |
|                          |                               | STAINLESS STEEL CAP SCREW   |                   | 3/8-16 X 3/4"                               | SHC3N1213-0750<br>1/2-13 X 3/4"                      |
| <b>END CAPS</b>          | <b>WITH CLADDING</b>          | 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   |
|                          | <b>WITHOUT CLADDING</b>       | 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  |
| <b>CLADDING</b>          | 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             |   |  |
| <b>CLADDING GASKET</b>   | <b>LENGTH</b>                 |                             | <b>W/CLADDING</b> | <b>W/O CLADDING</b>                         |  |
|                          | 20'                           |                             | GR9302-20         | GR9355-20                                   |  |
|                          | 40'                           |                             | GR9302-40         | GR9355-40                                   |  |
|                          | 100'                          |                             | GR9302-100        | GR9355-100                                  |  |
|                          | 250'                          |                             | N/A               | GR9355                                      |  |
| 500'                     |                               | GR9302                      | N/A               |   |  |