

# Vinyl Railing

By Genova

## 6' Deluxe Square Stair Railing Section - 36" (DWS110) Installation Instructions

**WARNING**

- To avoid serious eye and hand injuries or blindness, always wear safety glasses and gloves.

### Kit Contains:

- 2 2" x 4" Rails
- 2 Aluminum P-Channel Rail Inserts
- 12 Square Balusters
- 1 Colonial Rail Cover
- 4 Mounting Brackets
- 2 Mounting Bracket Covers
- 2 Colonial Mounting Bracket Covers
- 2 Stair Rail Adapters
- 1 Colonial Upper Stair Rail Adapter (A)
- 1 Colonial Lower Stair Rail Adapter (B)
- 4 1/4" x 3" Corrosion Resistant Lag Screws  
(used for attaching Stair Rail Adapters)
- 4 1/4" x 4" Corrosion Resistant Lag Screws  
(used for attaching Stair Rail Adapters)
- 8 #10 x 3/4" Corrosion Resistant Pan Head Sheet Metal Screws  
(used to attach P-Channels to Brackets)

### Parts Needed To Assemble Rail Section:

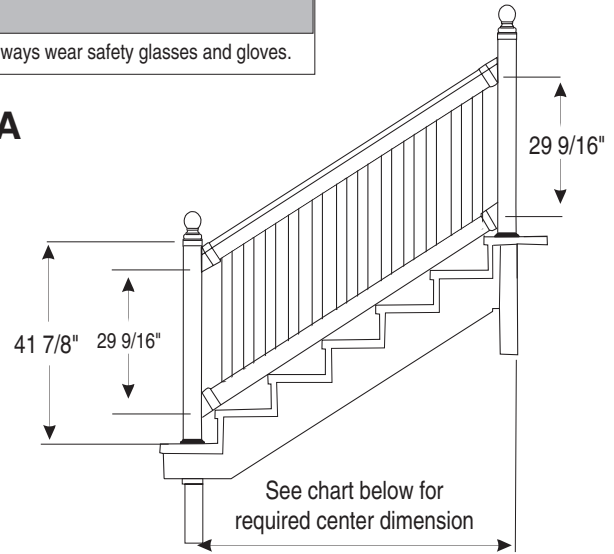
- 4" x 38" Post Cover (Part# DW038)
- 4" x 50" Stair Rail Post Cover (Part# DW050)
- 4" x 4" x 36" Treated Wood Post
- 4" x 4" x 50" Treated Wood Post
- 4" Post Trim Base (Part# DW012)
- Genova Vinyl Adhesive (Part# AW945)
- Post Tops - Gothic (Part# FW001), Ball (Part# FW002), Bevel (Part# FW003), New England (Part# FW004) or Solar Light (Part# FW006)

### Optional Parts Available:

- Bracket Kits to make two shorter Stair Sections from one Stair Section (DWS250)
- Round Handrail Cover (DW983)
- Handrail Bracket Kit (DW921)
- Universal Colonial Rail Adapter Kit (DW290)



**Figure A**



### Tools Required:

Measuring Tape, Pencil or Marker, Handsaw, Hacksaw, Drill with 1/8" and 5/32" drill bits, Screwdriver, Level, Adjustable Wrench, 7/16" Socket, Rope and clamps.

### GENERAL INFORMATION

Before starting this project, be sure to consult your local building department for codes and regulations for guardrail installations. Your new railings have been evaluated and quality tested to ensure that they comply with the International Residential Code (IRC) requirements and AC-174 entitled, "Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems" (Guards and Handrails). This product is not to be used for commercial installations. This product is not to be used in access ramps for the disabled. This product is not to be used in marine fueling stations. This product is to be used only in exterior applications for residential construction.

### INSTALLATION INSTRUCTIONS:

#### 1. Posts

- A. Install wood posts on centers ( $\pm 1/4"$ ) in accordance with building code requirements. Use chart to the right for correct dimension.
- B. Cut top wood posts to 36" above the deck surface.
- C. Slide the Genova 4" x 38" Post Cover over the top treated wood posts on the top of deck or porch surface and a Genova 4" x 50" Post Cover over the bottom treated wood posts. The 4" x 50" post may need to be trimmed depending on the height of the bottom stair tread.
- D. Install shims between the wood posts and the Post Cover, on all four sides. Strips of plywood or a solid/rigid weather resistant material is recommended as shim stock.
- E. Slide the 4" Post Trim Base over the Post Cover and push it down so it is flush with the deck.

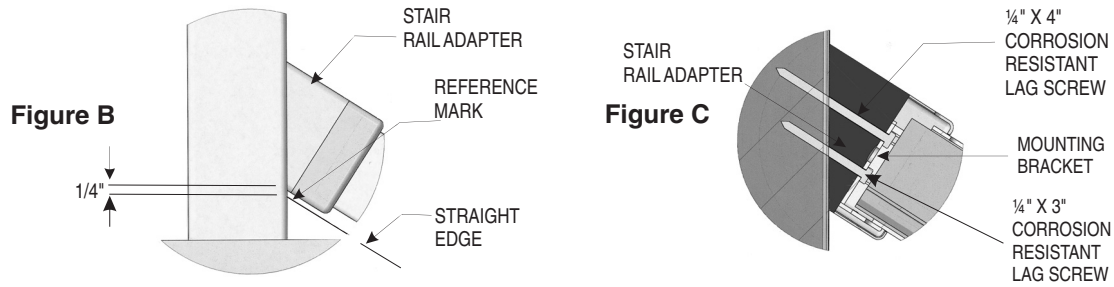
#### 2. Mounting Brackets

- A. To determine the location of the Brackets first lay a straight edge across the nose of the stair treads and against the side of the Post Covers and mark with a pencil. Then transfer the pencil marks to the bottom of the post side facing down the stairs of the upper Stair Rail Post and to the upstairs side of the lower Stair Rail Post. These pencil marks will now be referred to as "reference marks".

Number of Stairs	Center Dimension
Two Steps	22" $\pm 1/4"$
Three Steps	31 3/8" $\pm 1/4"$
Four Steps	45 3/8" $\pm 1/4"$
Five Steps	54 3/4" $\pm 1/4"$
Six Steps	64 1/8" $\pm 1/4"$

**\*Based upon a 7/11 Step System**

- B. Make a mark on the upper and lower Stair Rail Post  $\frac{1}{4}$ " above the "reference mark" and make another mark on the upper and lower Stair Rail Post  $29 \frac{9}{16}$ " above the "reference mark." The bottom edge of the Stair Rail Adapters should be centered on a vertical post centerline and aligned with the horizontal pencil lines when attached. (See Figure B) Pre-drill  $\frac{1}{8}$ " holes to simplify the next steps.



- C. Mounting Brackets fit flush against flat side of Stair Rail Adapters as they are attached to the Post. The flat side of the Adapter is positioned against the Post. (See Figure C) The two square adapters go on the bottom of the posts, the "A" Colonial Adapter attaches to the top of the upper post, and the "B" Colonial Adapter attaches to the top of the lower post.
- D. Attach each Mounting Bracket with one  $\frac{1}{4}$ " x 3" and one  $\frac{1}{4}$ " x 4" Corrosion Resistant Lag Screw, in conjunction with the Stair Rail Adapter. (See Figure C)

### 3. Rails

- A. Measure the distance between each two opposing Mounting Bracket "INSERT TO HERE" windows (hook the measuring tape onto one window and measure the distance to the other window).
- B. Cut the Aluminum P-Channel Rail Inserts to this length.
- C. Subtract  $1 \frac{3}{8}$ " from the (cut) Aluminum P-Channel Rail Insert length and cut the corresponding 2" x 4" Rails and Colonial Rail Cover to that length. When cutting Stair Rails, observe the "Top Rail-Cut this end only" sticker and the "Bottom Rail Cut this end only" sticker. These stickers must both be oriented toward the "upstairs" end of the stairs.
- D. Lay the Colonial Rail Cover, "U" shape up, on a flat clean surface. Apply a generous bead of Genova Vinyl Adhesive down the center and on the sides of the trough portion of the Colonial Rail Cover. Insert the 2" x 4" Rail in the trough so the routed Baluster holes are visible (opposite and away from the Colonial Rail Cover.) Square up the ends and clamp both pieces together in the center, and on each end. Wipe off any excess adhesive. Allow the adhesive to cure approximately 15 minutes before continuing.

### 4. Section Assembly

- A. Lay rails on a clean flat surface, with the routed holes facing each other. Install the Aluminum P-Channel Rail Inserts into the upper and lower Rails. The long leg of the top Aluminum P-Channel Rail Insert must point down or toward the routed holes; the long leg of the bottom Aluminum P-Channel Rail Insert must point up and toward the routed holes. The long legs of the Aluminum P-Channel Rail Inserts must be on the same side and on the inside facing the stairs.
- B. While the Bottom Rail is lying on its side, insert the Square Balusters into the routed holes.
- C. While still lying on its side, place the upper Rail over the top of the Balusters, working from one end to the other. Cinch the rail assembly together using a piece of rope. This will hold the entire assembly together while moving it into place.
- D. Slide the Mounting Bracket Covers and the Colonial Mounting Bracket Covers over the ends of the Rails with the notched ends on the bottom and facing inward toward the Balusters. (In order to accommodate a close Baluster, rotate the Bottom Bracket Cover, so the "notched" side faces up. If necessary, split the cover and glue together after installation.)
- E. Lift the entire rail assembly into place between the posts, by setting the Rails with their Aluminum P-Channel Rail inserts, into the Mounting Brackets with the long legs of the Aluminum P-Channel Rail Inserts facing the inside of the stairs. Ensure the Rails and Aluminum P-Channel Rail Inserts are centered from side to side (aligned with the outside edge of both "INSERT TO HERE" windows.)
- F. On both ends of the Aluminum P-Channel Rail Inserts pre-drill two  $\frac{5}{32}$ " diameter holes through the long legs of both Aluminum P-Channel Rail Inserts, through the slot in the Mounting Brackets, using the scribe lines as guides to center the holes.
- G. Secure the Aluminum P-Channel Rail Inserts to the Mounting Brackets, using #10 x  $\frac{3}{4}$ " Corrosion Resistant Pan Head Sheet Metal Screws in each of the pre-drilled holes.  
**CAUTION: Do not over tighten the screws.**
- H. Slide the Mounting Bracket Covers toward the posts, over the Mounting Brackets, until they snap into place. Remove the rope.
- I. Attach the Post Tops to the vinyl Post Covers. Apply Genova Vinyl Adhesive to the inside flat surfaces of the Post Top. Avoid putting any adhesive in the corners.

	<h2 style="margin: 0;">WARNING</h2>
<ul style="list-style-type: none"> <li>• Stairways without railings offer no protection from falling.</li> <li>• Falling from a stairway could result in serious injury.</li> <li>• Stair rails and a handrail are required on stairs with a total rise exceeding thirty inches (30').</li> </ul>	

Also Available:

Vinyl **Decking**  
Choice  
**Lattice**

**Genova**  
PRODUCTS

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