



# Installation & Maintenance



# Deck Boards & Components

	CTN QTY	DESCRIPTION	USE	CALCULATION	NOTES	ORDER QTY
<b>DECKING</b>				LF=linear feet		
		DECK BOARD-5/4" LFT	Deck and Fascia	(Sq Ft of deck and stairs x 2.2) plus (of fascia x 2)		
	Bag 4/Skid 48	12' DECK BOARD-5/4"	Deck and Fascia			
	Bag 4/Skid 48	16' DECK BOARD-5/4"	Deck and Fascia			
	Bag 4/Skid 48	20' DECK BOARD-5/4"	Deck and Fascia			
	Bag 4/Skid 48	24' DECK BOARD-5/4"	Deck and Fascia			
<b>TRIMS</b>						
	15	STAIR PLUG KIT-5/4"	Surface Fastening	1 kit per 12 LF of stairs, fascia, and last board on deck		
	12	12' DECK C-CHANNEL-5/4"	Perimeter Trim	LF of perimeter and stair edges / 12		
	12	12' TRIM STRIP-5/4"	Radius Trim	LF of radius / 12		
	10	12' DECK STARTER-5/4"	Starter	LF of starter (including stairs) / 12		
	35	6' STEP TRIM-5/4"	Front edge of stair	LF of steps / 6		
	35	8' STEP TRIM-5/4"	Front edge of stair	LF of steps / 8		
	5	12' TRIM BOARD-7 1/4" 12' TRIM BOARD-12"	Riser and Stringer Cover	LF if riser and stringer / 12		
<b>ACCESSORIES</b>						
	10	#8X3/4 S.S.SCREW-BOX OF 50	Screws for trim pieces	1 box for every 6 pieces of trim		
	10	#8X1 1/4 S.S.SCREW-BOX OF 250	Screws for decking and starter	1 box for every 125 sq ft of decking		
	20	#10X1 1/4 Colored S.S.SCREW BAG 25	Screws for trim boards	1 bag for every trim board		
	6	GENOVATIONS DECK JOINT ADHESIVE	Adhesive for butt joints only	1 can for every 12 butt joints		
	18	GENOVA VINYL SEALANT-4.5 OZ	Adhesive for step trim/railing parts	25 LF of bead per tube		
<b>RAILING</b>				*Lengths measured center of post to center of post		
	1	6' Deck Rail*	Deck railing	as needed		
	1	8' Deck Rail*	Deck railing	as needed		
	1	10' Deck Rail*	Deck railing	as needed		
	1	6' Stair Rail*	Stair Railing	as needed		
	1	8' Stair Rail*	Stair Railing	as needed		
<b>POST COVERS</b>						
	6	4X38 RAILING POST COVER	Deck rail post cover	1 for each deck rail plus 1		
	6	4X50 STAIR RAIL POST COVER	Stair rail post cover	1 for each stair rail		
	6	4X96 RAILING POST COVER	8" post cover	as needed		
	30	4 POST TRIM BASE	trim ring for post cover base	1 for each post cover		
<b>POST CAPS</b>				1 for each post cover		
	30	4 BEVEL POST TOP	Post Cap			
	6	4 NEW ENGLAND CAP-CLASSIC	Post Cap			
<b>POST WRAPS</b>						
	5	10' 6 X 6 OR 4 X 4 POST WRAP	Wrap for 6x6 posts or 4x4 posts	1 for each 10' of post needed to be wrapped		
	5	POST WRAP BASE	Trim ring for post wrap	As needed		
	5	POST WRAP TOP	Cap for post wrap	As needed		
<b>POST BRACKETS</b>						
	5	COLONIAL RAIL BRACKET KIT	Bracket kit used when cutting a deck rail section in two	1 kit for each railing section SIDE (2 needed for each railing)		
	4	COLONIAL STAIR RAIL BRACKET KIT	Bracket kit used when cutting a deck rail section in two	1 kit for each railing section		
	6	22-1/2° COLONIAL ANGLE RAIL ADAPTER KIT	Adapter for 22-1/2 degree rail	1 set for every railing section angled		
	6	45° COLONIAL ANGLE RAIL ADAPTER KIT	Adapter for 45° degree rail	1 set for every railing section angled		
	15	COLONIAL RAIL ADAPTER FOR ROUND COLUMN	Adapter to connect to round column	1 set for every SIDE of a railing section mounted to a round column		
	15	POST MOUNTING PLATE(STEEL)	Plate for mounting to concrete	1 for each post as needed		



## Genovations Care and Maintenance:

Because Genovations Deck Flooring® is an entirely PVC product containing no wood or organic fibers, it will resist most stains and provide a virtually maintenance free surface. Normal airborne pollutants and dirt from every day foot traffic can be easily washed away with a garden hose and spray nozzle. For tougher stains due to spills of food and beverage products, the following additional steps may be necessary:

1. Use a non-abrasive soap and water applied with a soft bristle brush. Work the brush in the direction of the deck board grain. Rinse thoroughly.
2. A power washer may be used to clean decking at a maximum of 1,500 PSI with a fan tip nozzle 12 inches above the deck surface. Spray in the direction of the deck board grain. Use caution not to damage the surface and always take the proper safety precautions when operating a power washer.

## Additional Considerations:

### Mold & Mildew

Mold and mildew will only appear on the surface of Genovations PVC Deck Flooring from the decomposition of dead organic material in contact with the surface. It can be easily washed away with a garden hose and nozzle or power washer as described above.

### Snow & Ice Removal

Use calcium chloride for ice removal. Remove snow with broom or plastic shovel. Do not chop ice and snow off of your deck with sharp edge tools or shovels.

### Stubborn Stains

The following products have been found to be effective in the removal of a variety of non-food substances that may appear on your deck. These products should be used with caution as a slight discoloration or loss of finish on the deck board may occur. Test in an inconspicuous area before using:

- Vinyl siding cleaner (Krud Kutter) (removes stubborn stains not removed with soap and water)
- Lift Off Tape Remover (removes adhesive residue, gum, and crayon)
- Lift Off Spray Paint & Graffiti Remover (removes paint and permanent marker)
- Eco Lab "Clean Strike" heavy duty degreaser
- CLR calcium/lime/rust remover

For the best results and to prevent damage to the board please consider the following:

- It is best to complete cleaning during the early morning or evening hours when the deck surface is cool to prevent cleaners from drying and/or evaporating on the deck surface.
- When applying cleaners, spray the deck boards with a power washer or garden hose to pre-wet the deck surface.
- Follow the manufacturer's dilution and application instructions.
- It is important to thoroughly remove all cleaner from the deck surface. It is recommended to use a power washer according to the instructions above.

## Avoid the Following:

### Rubber or Vinyl Products

Avoid using rubber or vinyl welcome mats, planters, tarps, pool toys or any other similar item on the surface of Genovations Deck Flooring® for any extended period of time.



Additives in these items have a tendency to migrate to the surface of Genovations boards and may discolor them. This is a common occurrence with all decking products with a PVC surface. Welcome mats, grill mats or other similar products can be used provided they have a fiber backing.

### **Sun Screens & Bug Sprays**

Sun screens and bug sprays contain active ingredients that will react negatively with the surface of any PVC based decking product. If these types of products come in contact with the surface of your Genovations Deck Flooring, clean it off immediately. Check product labels and consult with the manufacturer as to the product compatibility with plastic materials prior to use on or near your deck.

### **Patio Furniture & Heavy Objects**

Use caution when moving metal chairs, patio furniture, heavy wood and/or iron planters, etc. as items like these may scratch the surface of your deck.

### **Citrus Based Cleaners**

Acid contained in citrus based cleaners may have a negative reaction to the surface of Genovations PVC Deck Flooring® and are not recommended for use.

## **Before You Begin:**

Genovations PVC Deck Flooring® is unlike any other alternative decking product on the market today. Spending a few minutes now to fully understand the installation process as well as the performance advantages of Genovations® will enhance your installation experience and provide you with a completed project that will last a lifetime. Please visit [www.genovationsdeck.com](http://www.genovationsdeck.com) to view the most recent installation instructions and videos.

These installation methods are required by Genova Products however they may not cover every installation scenario. Improper installation may void your warranty so it is extremely important that you contact us with any questions you may have regarding your situation. Please feel free to call us at

800-521-7488 with any questions you may have.

It is recommended that all designs be reviewed by a licensed architect, engineer, or local building official before installation. Make sure your project meets local building codes before you begin. Call your local service provider to locate all utilities before starting your deck installation. Genovations PVC Deck Flooring is ICC approved for residential applications. The complete ICC-ES report is available for download at:

[http://www.icc-es.org/Reports/pdf\\_files/ESR-1904.pdf](http://www.icc-es.org/Reports/pdf_files/ESR-1904.pdf)

## **Prepare for Success:**

Genovations can be easily installed using a minimal number of tools. The list of tools and supplies you will need are as follows:

- Measuring Tape
- Table Saw
- Safety Glasses
- Cordless Screwdriver
- Carpenter Square
- Jig Saw
- Skill Saw
- 5/8" Forstner Drill Bit

Properly choosing the saw blade you will be using for your project is critical to the look and performance of your deck. For smooth and accurate deck board cuts, select a 12" thin kerf carbide blade with a minimum of 80 teeth. 96 tooth blades are also an excellent choice for larger deck projects that may require multiple trim piece cuts (Starter Strip and C-Channel).

Proper fastener choice is also a critical factor in the installation of your deck flooring. For optimal performance and ease of installation, Genovations brand #8 stainless steel truss head screws (1¼" for deck boards and Starter Strip; ¾" for C-Channel) are required. When installing your deck flooring, be sure to remember this simple rule: "Straight and tight is right!"

## **Additional Considerations**

### **Static Electricity**

Static build-up is a naturally occurring phenomenon that can happen with many plastic products. Rinsing the deck off with water from a garden hose typically resolves this issue.



## **Thermal Expansion & Contraction**

Extremely warm or cold outdoor temperatures play a significant role in the installation and performance of all PVC based decking products. Genovations® is no exception. PVC products will exhibit linear thermal expansion and contraction with changes in temperature. Linear movement may be noticed in butt joints when this occurs. Fastening Genovations according to the installation instructions will help manage and reduce the effects of thermal expansion and contraction. Genovations provides installation advantages over other PVC products in that there is no manual end-to-end or side-to-side board gapping required. Deck designs that minimize butt joints and are installed during normal or cooler seasonal temperatures will provide the best results. Allow Genovations to acclimate to the exterior temperature before cutting and installing.

## **Extreme Heat Warning**

Genovations® PVC Deck Flooring is typically cooler than other decking products; however the darker the color the warmer the surface temperature will be. Footwear may be required in extreme heat situations. Allow for adequate air flow around gas and charcoal grills. Avoid splattering cooking grease.

As is the case with all materials, external sources of heat will cause Genovations® to increase in surface temperature. These heat sources include but are not limited to the following:

- Reflected sunlight by low emissivity (Low-E) or insulated glass in windows and door walls. Elevated surface temperatures caused by Low-E glass may result in warping, sagging and/or increased thermal expansion and contraction of Genovations PVC Deck Flooring.

- Fire from exterior fireplaces, fire pits, etc. could potentially lead to heat build-up and cause damage to deck flooring.

If you have questions regarding these potential risks please contact the manufacturer of these products prior to installation for recommendations on how to reduce or eliminate the temperature accumulation.

## **Cantilevering**

Genovations PVC Deck Flooring can be cantilevered to a maximum of 2½” beyond the square edge of the outer most framing support (joist or fascia.)

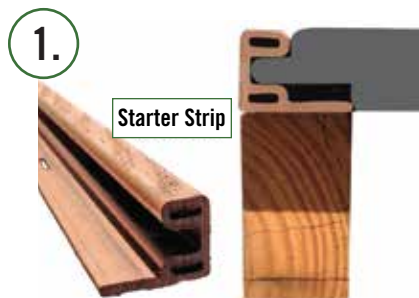
## **Deck Surface Appearance**

Genovations® PVC Deck Flooring is designed to replicate the appearance of real wood. As a result, there will be a degree of color and grain variation from board to board. To achieve the surface look that is most aesthetically pleasing it is recommended that you lay out your boards prior to installation. Be sure to pull boards from different 4 pack bags to achieve the look you want. The color variation will in no way affect the performance of the deck boards.

# Installation Steps: Decking

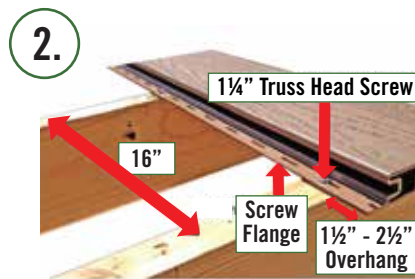
## Please Note:

The deck frame should be constructed of pressure treated lumber with each joist 16" apart on center. Consult your building code to determine joist sizes, spans, load ratings, and other construction criteria. The frame must be true and square as Genovations® PVC Deck Flooring will follow the shape of the frame below it. Screw the frame together or use approved joist hangers to prevent squeaking.



Place the Starter Strip flush and square with the edge of the rim joist next to the house and make sure the starter strip extends beyond the ends of the framing in order to account for the eventual installation of the trim and fascia.\*

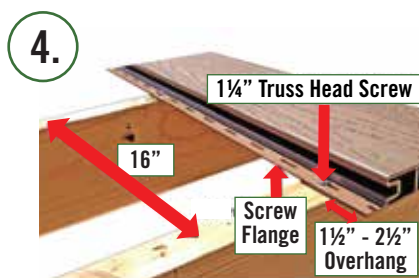
*\*If you're using Genovations® trim board, the Starter Strip will need to extend over the edge by 1½"; if you're using one of our deck boards as fascia, you'll need a 2½" overhang.*



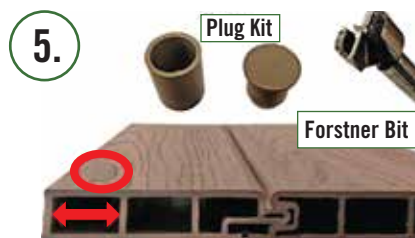
Once the overhang is set, screw a 1¼" stainless steel truss head screw into each support along the length of the starter strip. Fasten tightly. If the holes line up over the joists, fasten one of the truss head screws through the hole; if they do not line up, screw directly through the screw flange to avoid screws going in at an angle.



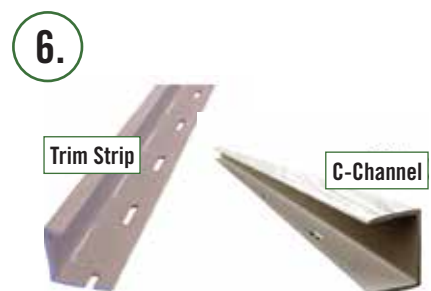
Account for the proper overhang for finishing trim pieces and rim joist coverings. Place the tongue of the first deck board into the groove of the first starter strip. Tightly fasten the deck board into the framing in the same way that you fastened the starter strip: one truss head screw placed vertically through the screw flange at every joist location, 16" apart.



Repeat the previous step for each consecutive deck board until you reach the last board. Cut the last deck board to width by ripping down on a table saw, making sure to account for the proper overhang.

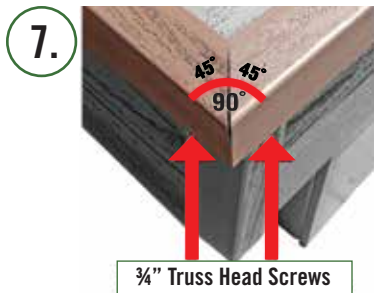


To fasten the last deck board, drill a 5/8" hole through the surface of the board using a Forstner bit, directly over the outer rim joist. Using a Genovations® stair plug kit, drop the cylinder into the hole with the screw hole facing down. Put a truss head screw into the bottom of the cylinder to tightly fasten the deck board to the outer rim joist, followed by the pressure-fitting cap. Repeat the process every 16" along the outer rim joist.

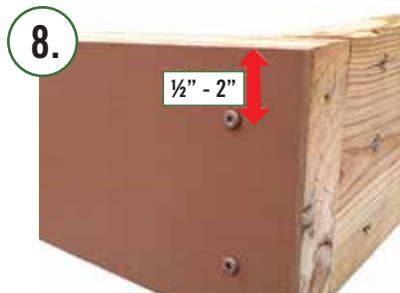


You'll now need to install the deck board trimming. There are two options available for this: The Trim Strip and the C-Channel. Installation for either piece is identical. The pieces will snap into place over the ends of the exposed deck boards, and the edge of the last deckboard installed.\*

*\*Reversing the action on your saw blade will provide a cleaner cut on all trim pieces.*



Tightly fasten the Trim Strip or C-Channel to the deck boards from underneath using  $\frac{3}{4}$ " stainless steel truss head screws; one screw in each screw hole. Where the trim pieces meet, add additional screws from underneath the deck board, locating a screw  $\frac{1}{2}$ " from the corner on both sides of the joint to help manage the expansion and contraction of the material.



To cover the fascia, on small decks under 12 ft in length, you can use Genovations® Trim Board. Using color matched  $\frac{1}{4}$ " truss head screws, fasten this piece to the rim joist for a finished appearance. To allow for expansion and contraction, drill two  $\frac{1}{4}$ " oversized holes, one above the other, not closer than 1" to the edge of the Trim Board, and not farther than 2". Drill these holes every 16" along the length of the Trim Board. Finally, screw the Trim Board to the joist, being careful not to over-torque the screw. For aesthetic and performance purposes, we recommend that deck boards be used to trim rim joists on decks with dimensions greater than 12 ft in length.



Using #8  $1\frac{1}{4}$ " truss head screws every 16", secure the Starter Strip along the bottom edge of the front rim joist, allowing for a 1" extension beyond the corners of the framing. Drop the first board into the Starter Strip and secure through the fastening flange. Rip a second board to the proper width and slide it into place. Securely fasten the second board every 16" using the method described on Page 5, Illustration #5. Cover the outside corners with C-Channel cut to length. Secure with #8  $\frac{3}{4}$ " truss head trim screws at the top and bottom of both sides of the corner.



Deck boards can also be installed as fascia in a vertical position. Cut a Starter Strip to  $1\frac{1}{4}$ " longer than width of rim joist. Beginning on either side of the deck, attach the Starter Strip to rim joist in the corner where it meets the attached structure using Genovations #8  $1\frac{1}{4}$ " truss head screws. Tightly fasten boards to rim joist by screwing through the flange 1" from the top and from the bottom of the joist. Continue this process along the side of the deck. Cut the last board to proper width, ending flush with the corner framing and tightly secure with 2 Genovations Stair Plugs and #8  $1\frac{1}{4}$ " truss head screws. Repeat this process on opposite side of deck. Install remaining boards by working across the front of the deck from left to right. Attach a piece of C-Channel to the end of the first board using Genovations #8  $\frac{3}{4}$ " truss head screws prior to securing the board to the framing using Stair Plugs and #8  $1\frac{1}{4}$ " truss head screws. Install boards as previously directed.

Attach a piece of C-Channel to the end of the last board installed prior to securing it to the framing. Open ends of left and right side of deck fascia will butt into the side of the corner C-Channel. Complete installation by attaching C-Channel to bottom of deck fascia using Genovations #8  $\frac{3}{4}$ " truss head screws every 16".



# Alternative Installation Patterns

On decks exceeding 24' in length, consider a perpendicular or diagonal deck board installation. This is the preferred method to control expansion and contraction at butt joints. Support joists must run parallel to the house in these installations. For perpendicular installations:

1.

Create a "Starter Board" by ripping a deck board back to the outside wall of the interior "I-Beam" closest to the tongue edge of the board.

2.

Allowing for a minimum 1¼" overhang beyond your deck frame (up to 2 ½" if you are using deck boards as fascia), tightly secure your Starter Board to the rim joist beginning on the left or right side of the deck framing. Screw through the flange every 16" using a Genovations® #8 1 ¼" stainless steel truss head screw. Secure an additional screw directly through the deck board as shown on Page 5 Illustration #5, every 16".

3.

Continue to install boards as directed on Page 5.

**\*Your support joists must run parallel to the house or adjacent structure for a perpendicular deck board installation.**

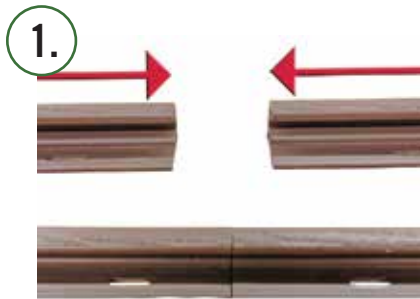


# Butt Joints

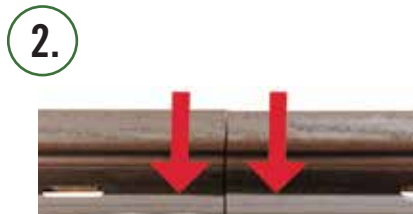
(For Board Runs Under 45')

## Please Note:

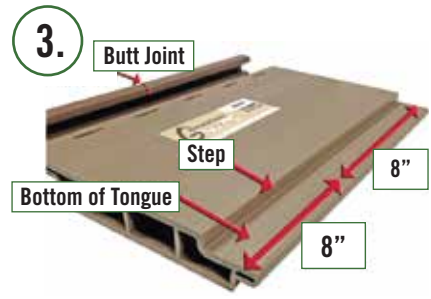
All materials expand and contract with temperature fluctuation. When placing the starter strip along the rim joists of the house/framing, some of the starter strips may need to be butted end to end. At the point where the two strips meet, you'll want to add Genovations® Deck Joint Adhesive in order to help manage the expansion and contraction of the pieces. Only use Genovations® Deck Joint Adhesive (part# DW745). Boards must be clean and dry. Operating temperature 40F - 110F. Stagger joints throughout the deck. Avoid getting adhesive on any exposed surface on deck boards and trim pieces. Do not apply the adhesive to the ends of the deck boards, or starter strips. For the best results, the described process for butt joint installation must be limited to a maximum of one joint per board run on a maximum run of 45', with joints staggered at a minimum of 32".



1. Begin by taking the starter strips (already adjusted to ambient temperature) and butt them tightly together, flush to the joist.



2. Screw tightly, close to both sides of the joint. Directly through the screw flange.



3. Now take the first board to be installed and flip it over in close proximity to the starter strip joint. Be sure that the board to be bonded is clean and dry. Liberally apply Genovations® Adhesive to the bottom of the tongue and on the step, 8" in both directions from the point on the board where it will make contact with the joint of the starter strip, for a total of 16".



4. Flip the board back and snap it into location. Tightly screw a 1 1/4" stainless steel truss head screw through the screw flange at each joint.



5. Where deck boards butt together, ensure you have a double joist or scabbed-on piece for adequate surface to secure the boards. Be sure the boards are cut square so that when you put the two boards together, you get a tight, clean fit. Flip each board over so that the top of the board faces down. The joint must be off set from any adjacent butt joints by at least 32".



6. Use the dauber to apply a generous amount of adhesive to the bottom of the tongue and the step of the board, 8" back from the end. Be careful not to apply any of the adhesive to the nose of the tongue, as you don't want the adhesive squeezing up through the top side of the boards once in place.\*\*

\*\*Try judging the distance when applying the adhesive by eyeing it half the distance between the joists.

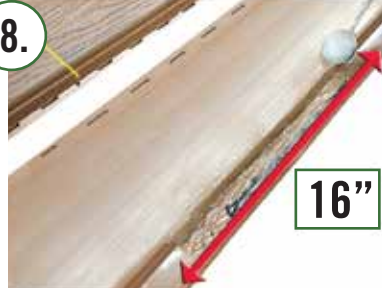


7.



Flip the board, snap it into place, and then screw it down. Repeat the process for the second board. Be sure to place a screw close to the joint, one on each side. Tightly fasten directly through the flange, not through the holes provided at the joint location.

8.



For the next board to be installed on the deck, you'll again be applying adhesive to the bottom of the tongue and to the step, 8" either side of the joint formed by the previous two boards, for a total of 16".

9.



After applying the adhesive, flip this board, snap it into place, and tightly secure it to the framing with the truss head screws. A completed butt joint has adhesive applied 16" on two sides.





# Transition Boards

(For Miter Joints or Board Runs Over 45')

## Please Note:

The hollow core design of Genovations PVC Deck Flooring offers a unique ability to hide the effects of thermal expansion and contraction along the seams of boards that are meeting at a 45° angle or that are meeting end-to-end on board runs longer than 45'. To create the "transition" board that will mask this effect, follow these steps:

1.



Proper framing is essential to a successful transition board installation. A minimum combination of one 2x6 and one additional 2x4 material must be used to provide the required framing surface needed to secure the transition board and the adjacent deck boards. Add blocking between your framing members every 16" for additional support.

2.



Install deck boards as shown on Page 5. Leave a 3 3/4" gap between the ends of the boards that fall over the transition board framing. Secure deck boards to framing by screwing through the slot in the board flange. Install a second screw directly through the flange (no need to pre-drill) directly behind or in front of previously installed screw as framing allows. All screws must be straight and tight. Install vinyl shim (.120") over transition board as pictured.

3.



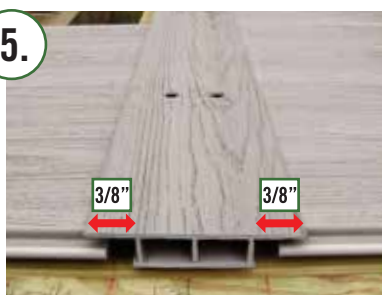
Begin creating your transition board by cutting off the tongue and the screw flange from a deck board. Cut the underside of the board back to the walls of the outside "I-Beams", taking care to preserve the full 5 1/2" of deck board surface"

4.



Using a 5/8" Forstner drill bit, drill holes every 16" through the surface of the transition board centered between the left and center "I-Beam" and again centered between the center and right "I-Beam".

5.



Center the transition board over framing. Using a Genovations® Stair Plug Kit, drop a cylinder into the hole with the small screw hole facing down. Place a Genovations® #8 1 1/4" truss head screw into the bottom of the cylinder and tightly fasten through the bottom of the transition board and into the supporting framing. Fill the hole with plastic cap included in the kit.

6.

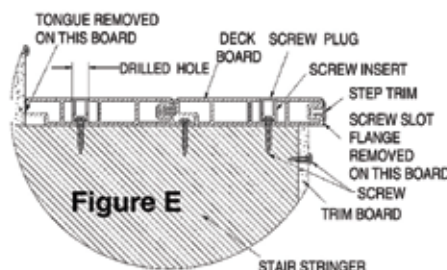


Plugs can be eliminated if there is access to the underside of the deck. Secure the transition board by driving a pair of 2" deck screws every 16" through the framing and into the bottom of the deck board.

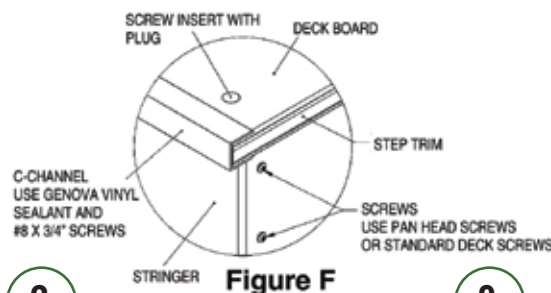
# Stair Tread



**Figure D**



**Figure E**



**Figure F**



1.

Stair steps must be supported with step stringers on maximum 16" centers (Figure D). Each step requires 2 deck boards, 1 Trim Board, and 1 Step Trim. Cut stringers with a maximum rise of 7" and a run of 10 1/4" to provide stair treads with a 3/4" nosing. Add filler boards (if necessary) to adjust the deck board to overhang 3/4".

2.

Cut the Trim Board length flush with the outside edge of the stringers. Attach Trim Boards using two 1 1/4" color matched screws on every stringer. Install screws not less than 1/2" and no more than 2" from the edge of the Trim Board and not less than 1" and no more than 2" from the bottom of the Trim Board to allow for the height of the deck board.

3.

Position the deck board to center the screw slots over the stair stringers. Cut the deck board length to provide a 1 1/4" overhang on each side of the end stringers.

4.

Cut the tongue off the first deck board and place the cut edge against the Trim Board (Figure E). Insert screws in the screw slots at each stringer and tighten securely. Cut the screw flange off the second deck board then cut to length. Insert tongue of the second deck board into the groove of the first deck board.

5.

Drill holes through the top surface of each deck board using a 5/8" Forstner bit. Center the holes between the deck board ribs and over each stringer (Figure E).

6.

Insert the cylinder from a Stair Plug Kit (small hole down) into each drilled hole. Insert a Genovations #8 x 1 1/4" truss head screw into the cylinder and secure tightly through the bottom of the deck board. Insert plugs into cylinders and secure with Genova Vinyl Sealant. Ensure that they are flush with the deck surface. Cut Step Trim to length and secure it into groove of the second deck board using Genova Vinyl Sealant (Figure E).

# Railing

## Please Note:

Be sure to check with your local building department to ensure that you are constructing your railing according to local building codes:

6' section: Maximum of 71 $\frac{3}{4}$ " on center  
 8' section: Maximum of 95 $\frac{3}{4}$ " on center  
 10' section: Maximum of 119 $\frac{3}{4}$ " on center



When mounting your post, be sure to secure it to the framing and not the deck surface. Cut the decking around the post leaving 3/8" relief to allow for expansion and contraction, and cut the wood posts to 36" above the deck board surface (when installing 36" high railing).



Add the trim ring to the bottom of the 38" PVC post cover, and slide it over the 4" X 4" wood post. If the post cover is loose, you may need to install shims between the wood post and the post cover in order to prevent the cover from buckling in during installation of the brackets.



Find the center line of the post and mark it to aid in the placement of the brackets. The bottom of the bottom bracket is 1 3/4" up from the decking surface. The bottom of the upper bracket is 32 3/8" from the decking surface. Mark the bolt holes in the bracket, along the center line of the post. Pre-drill holes using 1/8" drill bit, then secure the brackets in place with the lag bolts provided.



For shorter sections than provided, cut the upper and lower rails to length. To find the length of the aluminum step channel, place the tape measure inside the bottom post bracket where it says, "Insert to here" and measure to the same location on the bottom bracket of the opposite post. Repeat this step for the top post brackets to find the length of the aluminum P-Channel.



Cut the 2 X 4 vinyl rails 1 3/8" shorter than the aluminum channels (equal amounts from each end.) Do not cut through a routed hole. If necessary, cut more from one end and less from the other to maintain overall length.



Slide the P-Channel into the top rail with the long side of the channel pointing towards the routed holes. Slide the Step Channel into the bottom rail, with the long side of the channel pointing towards the routed holes. Slide the bracket covers over the ends of the rails with the larger opening facing out. Place the bottom rail into the bottom post brackets.





Place the balusters into the routed holes in the bottom rail, with notches facing the ends of the rail. Push the balusters in until they snap into place. Rest the top rail into the top post brackets with the routed holes facing down. While holding the top rail, push the balusters up into the routed holes.



Both top and bottom rails should be resting on the bottom of the metal post brackets. Check to make sure the balusters are plum, then fasten the rails into the brackets using the self-tapping screws provided; two in each bracket. Make sure not to over-tighten.



To finish the assembly, slide bracket covers until they snap up against the posts.




# Genovations® Stair Railing Installation Instructions- 36" Square, Deluxe Square, & Colonial



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

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

C O M P O N E N T S					 <b>WARNING</b>
	6 ft. Square	8 ft. Square	6 ft. Deluxe Square or Colonial	8 ft. Deluxe Square or Colonial	<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>
	2	2	2	2	2" x 4" Vinyl Rails
	-	-	1	1	Colonial Rail Cover
	1	1	1	1	Aluminum P-Channel (Top Rail Insert)
	1	1	1	1	Aluminum Step-Channel (Bottom Rail Insert)
	12	16	12	16	Balusters
	4	4	4	4	Mounting Brackets
	4	4	4	4	Mounting Bracket Covers
	4	4	4	4	Stair Rail Adapters
	4	4	4	4	¼" x 3" Lag Screws (attach Adapters to Posts)
	4	4	4	4	¼" x 4" Lag Screws (attach Adapters to Posts)
	8	8	8	8	#10 x ¾" Pan Head Sheet Metal Screws (attach Aluminum Inserts to Brackets)

### Parts Needed To Assemble Rail Section:

4"x4"x38" Post Cover

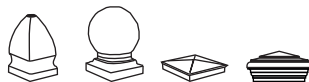
## 4"x4"x50" Stair Rail Post Cover

## 4" x 4" Treated Wood Post

## 4" Post Trim Base

## Genova Vinyl Sealant

## Post Tops - Gothic, Ball, Bevel, or New England



### Optional Parts Available:

### Bracket Kits to make two shorter sections from one section

## Round Handrail Cover

## Handrail Bracket Kit

## Universal Rail Adapter Kit

## GENERAL INFORMATION

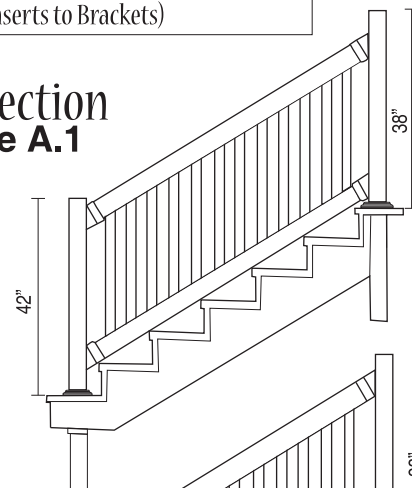
Before starting this project, be sure to consult your local building department for codes and regulations for guardrail installations. Your new railings have been evaluated and quality tested to ensure that they comply with the International Residential Code (IRC) requirements and AC-174 entitled, "Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems" (Guards and Handrails), and have been assigned ICC Evaluation Service Report # ESR-1904. 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:

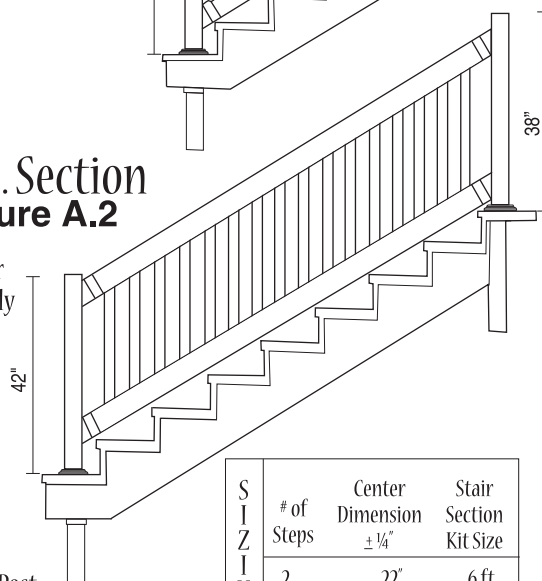
## 1. Posts

- A. Install treated wood posts in accordance with building code requirements. See Sizing Chart for Post locations.
- B. Cut upper wood posts to 36" above the deck surface. Cut the lower wood posts to 41" above the stair tread.
- C. Slide the Genova 4" x 38" Post Cover over the upper posts and a Genova 4" x 50" Post Cover over the lower posts. Cut the 4" x 50" Post Cover to 42" if it sits on the stair tread.
- D. Install shims between the wood post and the Post Cover on all four sides. Strips of plywood or a solid weather resistant material is recommended as shim stock.

6 ft. Section  
**Figure A.1**



8 ft. Section  
**Figure A.2**



S I Z I N G  C H A R T	# of Steps	Center Dimension $\pm \frac{1}{4}"$	Stair Section Kit Size
	2	22"	6 ft.
	3	31-3/8"	6 ft.
	4	45-3/8"	6 ft.
	5	54-3/4"	6 ft.
	6	64-1/8"	6 ft.
	7	79-1/8"	8 ft.
	8	83-7/8"	8 ft.
	Based upon a 7"x11" step system		

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

- To determine the location of the Brackets lay a straight edge across the nose of the stairs and against the side of the Post Covers and mark with a pencil. (Figure B.1) Transfer the pencil marks to the side of the top post facing down the stairs and to the side of the bottom post facing up the stairs.
- Mark the upper and lower Stair Rail Posts at  $\frac{1}{4}$ " and at 29-9/16" above this mark (Figure B.2). These marks locate the bottom edge of the Stair Rail Adapters. Center the Stair Rail Adapters with the webbed side against the post and pre-drill  $\frac{1}{8}$ " holes for the mounting screws. **Deluxe Square and Colonial Sections Only**- The 2 square adapters go on the bottom of the Post. 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.
- Mate the Mounting Brackets to the Stair Rail Adapters using the 2 locating pins on the flat side of the Adapters. Attach the Mounting Bracket and Stair Rail Adapter at the appropriate post locations with one 3" and one 4" Lag Screw (Figure C).

Figure B.1

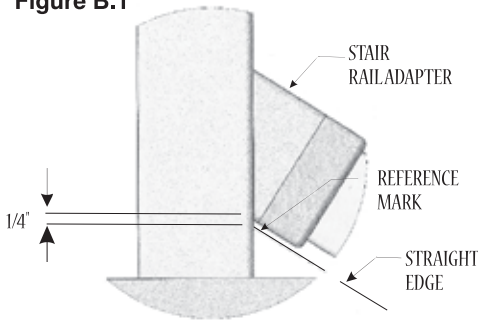


Figure B.2

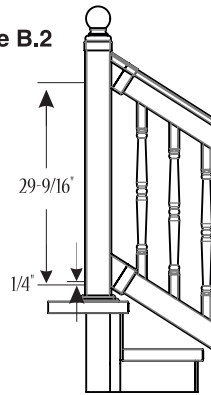
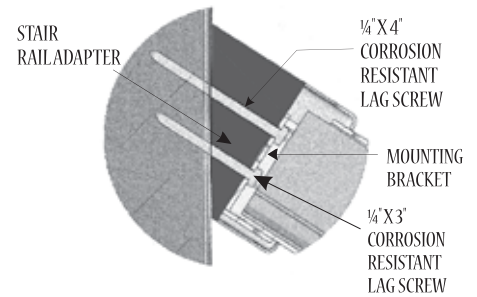


Figure C



## 3. Rails

- Measure the distance between the "INSERT TO HERE" windows in the top Mounting Brackets (hook the measuring tape onto one window and measure the distance to the opposing window). Cut, if necessary, the Aluminum P-Channel Rail Inserts to this length.
- Measure the distance between the "INSERT TO HERE" window in the bottom Mounting Brackets. Cut (if necessary) the Aluminum Step-Channel Insert to this length.
- Subtract 1-3/8" from the (cut) Aluminum Rail Insert lengths, and cut the corresponding 2" x 4" Vinyl Rails to that length. When cutting the 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 top of the stairs.
- Deluxe Square and Colonial Sections Only**- Cut the Colonial Rail Cover to the same length as the top Vinyl Rail. Apply a generous bead of Genova Vinyl Sealant down the center and on the sides of the trough portion of the Colonial Rail Cover. Insert the 2" x 4" Vinyl Rail in the trough so the Baluster holes are visible (opposite and away from the Colonial Rail Cover.) Square up the ends and clamp the pieces together. Wipe off any excess Sealant. Allow the Sealant to set approximately 30 minutes before continuing.

## 4. Section Assembly

- Lay Vinyl Rails on a clean flat surface, with the Baluster holes facing each other. Insert the Aluminum P-Channel Rail Insert into the top Vinyl Rail. The long leg of the Aluminum P-Channel Rail Insert must point down and toward the holes. (Figure D).
- Insert the remaining Aluminum Step-Channel into the bottom Vinyl Rail. The long leg of the Aluminum Step-Channel must point up and toward the holes. The long leg of both Aluminum Rail Inserts must be on the same side of the holes.
- With the bottom Rail lying on its side, insert the Balusters into the routed holes.
- While still lying on its side, insert the Balusters into the Top Rail, 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.
- Slide the Mounting Bracket Covers over the ends of the Vinyl Rails with the notched ends on the bottom and facing toward the Balusters. (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.)
- Slide the assembled rail section into the Mounting Brackets with the long legs of the Aluminum Rail Inserts facing the stairs. Center the assembly by aligning the Aluminum Rail Inserts with the "INSERT TO HERE" windows in the Brackets. The Aluminum Rail Inserts should extend 11/16" beyond the Vinyl Rail at each end.
- Locate the Scribe Lines in the center of the elongated holes on the Mounting Brackets. Drill 5/32" diameter holes through the long legs of both Aluminum Rail Inserts at these locations (two per bracket). (Figure E)
- Secure the Aluminum Rail Inserts to the Mounting Brackets, using #10 x 3/4" Pan Head Sheet Metal Screws in each of the holes. **CAUTION: Do not over tighten the screws.**
- Slide the Mounting Bracket Covers over the Mounting Brackets until they snap into place. Remove the rope.
- Apply Genova Vinyl Sealant to the inside flat surfaces of the Post Tops and attach them to the Post Covers.

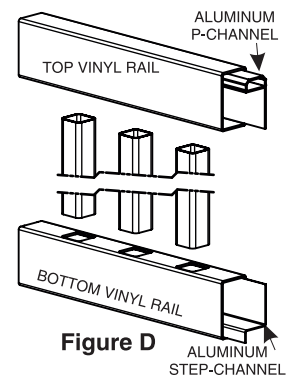


Figure D

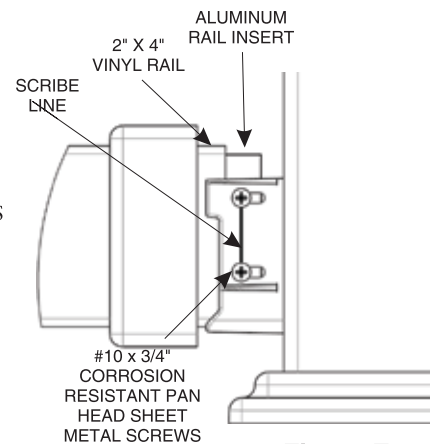


Figure E



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