

**Tools and Items Needed**

- Drill/power screwdriver
- Carpenter's level
- Safety glasses/goggles
- Miter or circular saw with carbide tip blade
- Carpenter's pencil
- Rubber mallet
- Marked speed square
- Adjustable wrench or socket wrench for bolts, etc.
- Tape measure
- Lag screws

**Pre-drill all screw holes for best results.**

**In-Line Railing Installation Instructions**

**Prior to construction, check with your local regulatory agency for special code requirements in your area.** Common railing height is 36" or 42". Read instructions completely to get an understanding of how the product goes together and how each piece affects the other.

**Step 1** Determine the number of railing posts needed for your deck. Post spacing is 6' or 8' on-center. Example: A 12' x 16' deck attached to a building with a 4' access opening on one side will require a total of eight posts.

**Step 2 Installing posts:** Install posts by attaching the aluminum base to the surface of the deck. Position the post so the fastener will go into the floor joist, and make sure the decking is firmly attached to the joist at the location of the posts. Proper structural blocking/framing under the decking material is required when attaching the post to a wood frame deck because decking alone is not approved as structural framing.

**Step 3** Position the post assembly onto the location where it will attach to the deck. Four 3/8" diameter mounting holes are provided on the base. When the final position is determined, mark the base hole locations. Remove the post assembly and drill 15/64" holes in the marked locations through the decking and into structural blocking.

**Step 4** Reposition the post assembly over the predrilled holes and insert the fasteners (not included). *Note: Recommend 5/16" x 4" or longer lag screws.* Secure the base to the deck structure. Make certain the posts are plumb. If the post requires adjustment, add stainless steel washers under the base plate.

**Step 5** Finish by sliding a post base trim (optional) over each post for a finished look. *Note: Installing the post base trim prior to installing the bottom rail is recommended. However, the two-piece design does allow the installer to add the post base trim after the rail has been installed.*

**Step 6** Measure the distance between installed posts to determine the length of the top and bottom rails (fig.1). Position rail adjacent to installed posts. The distance between the post and the first baluster should be less than 4" and equal on both ends. Mark the length on top and bottom rails. Remove an additional 1/2" on both ends (1" overall) for the bracket to fit between the rail and post. Trim the top and bottom rails to length.

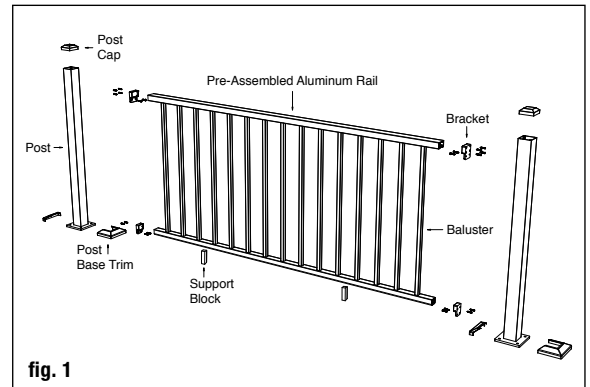
**Step 7** Place the brackets on ends of the rails. Attach the brackets to the rails with a screw attached through back of bracket into each internal screw boss.

**Step 8** Check building code requirements for maximum spacing between deck surface and bottom of rail (sweep). Spacing of 3" is recommended for 36" or 42" finished rail height. Prop rail in place and mark the bracket holes on both posts. Remove rail. Predrill screw locations through the posts, using a 3/16" drill bit at top bracket locations and 9/64" drill bit at lower bracket locations.

**Step 9** A support block is needed every 2 feet (2 are included in the 6ft kit, 3 in the 8ft kit). Attach support block connectors to the bottom of the lower rail at 2 foot intervals. Predrill using a 1/8" drill bit. Attach the support blocks to the support block connectors. Mark the location of the support block on the deck surface and attach the other support block connector to the deck using the included screw.

**Step 10** Position the rail between the posts. Check for level end-to-end and vertically. Attach brackets to the post at one end. Repeat for the other end. *Tip: Use a driver extension bit to avoid marring the rail with the drill chuck.*

**Step 11** Set post caps on each post. Gently tap with rubber mallet to secure.



## Stair Railing Installation Instructions

**Step 1** Begin by determining where the top and bottom post will be located. Mark the desired location of the post. *Note: To ensure post location is compatible with railing, prior to securing to the deck, place both posts in position, and lay the bottom rail along the stair nosing from top to bottom adjacent to both posts. On the rail side of the post, measure up from the top of the rail and ensure there is a minimum of 34" to the top of the post. Post location may need to be adjusted to ensure minimum is obtained. Repeat this step for the bottom post.* For a wood deck, position the post so the fasteners will go into the joists, and make sure the decking is firmly attached to the joists at the location of the posts. Proper structural blocking/framing under the decking material is required when attaching the post to a wood frame deck because decking alone is not approved as structural framing.

**Step 2** Four 3/8" diameter mounting holes are provided on the base. When final position is determined, mark hole locations and remove the post assembly. Drill the marked locations through decking and into structural blocking.

**Step 3** Reposition the post assembly over predrilled holes. Insert fasteners (not provided), then secure the base to the deck structure. Make certain the posts are plumb. If the post requires adjustment, add stainless steel washers under the base plate.

**Step 4** Finish by sliding a post base trim (optional) over each post sleeve for a finished look. *Note: Installing the post base trim prior to installing the railing is recommended. However, the two-piece design does allow the installer to add the post base trim after the rail has been installed.*

**Step 5** Measure the distance between installed posts to determine the length of the top and bottom rails. Position the railing on the stairs on top of a spacer block along the stair nosings. Ensure the balusters are plumb. The distance between the post and the first baluster should be less than 4" and equal on both ends. Once the railing is in position, clamp the railing to the posts. Temporarily assemble the swivel brackets. Position the swivel bracket in location and mark the rail and post. Repeat for other end of railing. *Note: The distance from the end of the top rail to the first stair baluster will be 1-1/16" longer than the bottom rail to ensure the balusters are plumb. Add 3/4" to the marked location on the railing and cut to length.*

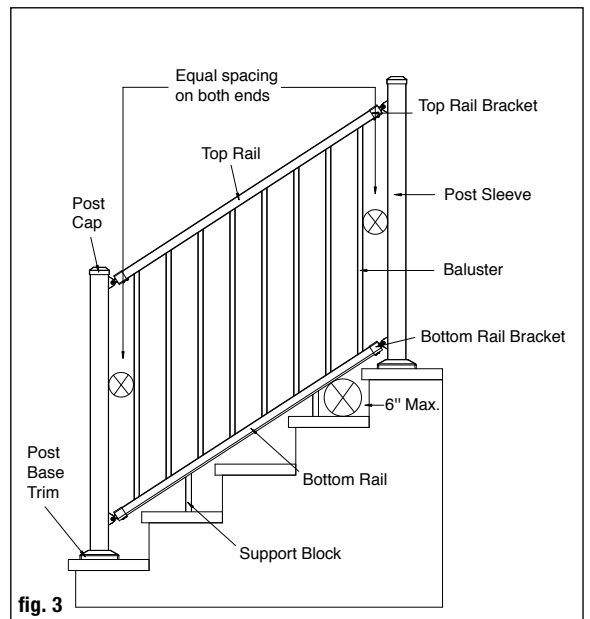
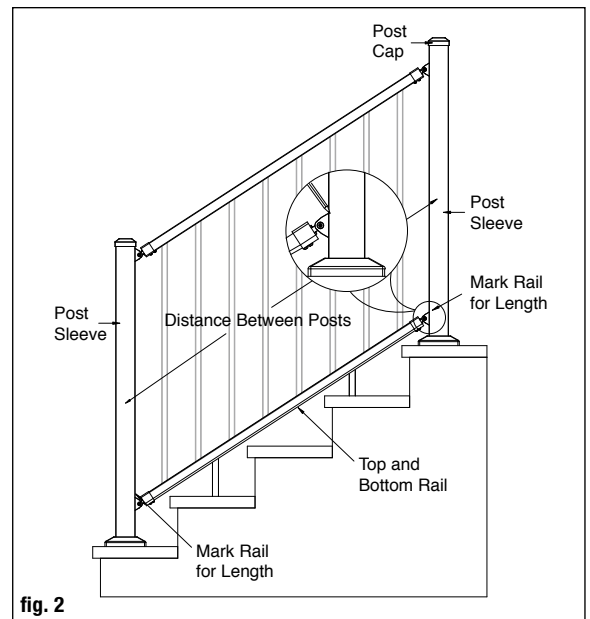
**Step 6** Mark locations of the bracket screw holes on the rails. Remove brackets. Predrill through the rail only, using a 9/64" drill bit. Attach the front end of bracket to rails.

**Step 7** Mark location of the bracket base screw holes on the post. Include the bracket side cover when determining the center location. Predrill through the post, using a 9/64" drill bit. Position the base of each bracket with the bracket cover side facing the stairs, and attach to the post with two screws.

**Step 8** A support block is needed every 2 feet (2 are included in the 6ft rail kit, 3 in the 8ft kit). Attach support block connectors to the bottom of the lower rail at 2 foot intervals using included screws. Predrill using a 1/8" drill bit. Mark the location of the support block on the step tread and attach the other support block connectors to the step tread.

**Step 9** Install the bottom railing between the posts by sliding the brackets together. Attach the side of the bracket with the barrel bolt to secure in place.

**Step 10** Set post caps on each post. Gently tap with rubber mallet to secure.



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