

## Tools and Items Needed

- Drill/power screwdriver
- Miter or circular saw with carbide tip blade
- Marked speed square
- Carpenter's level
- Carpenter's pencil
- Adjustable wrench or socket wrench for bolts, etc.
- Safety glasses/goggles
- Rubber mallet
- Tape measure
- Lag screws
- 3/16" allen wrench

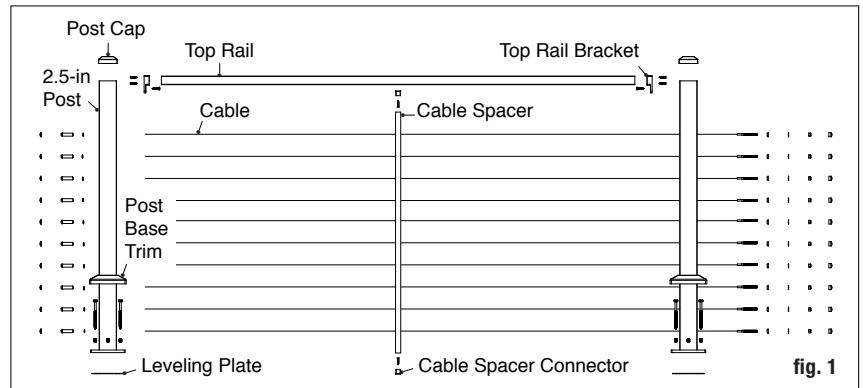
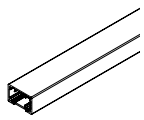
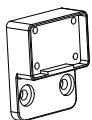


fig. 1



(1) Top rail



(2) Top Rail Brackets



(8) Metal Screws



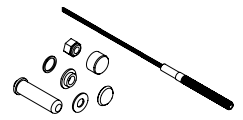
(4) Large Screws



(1) or (2) Cable Spacers



(2) or (4) Cable Spacer Connectors



(1) Cable Kit with Hardware

## For 6' On-Center or 8' On-Center Line Railing:

- **1 Cable rail kit for each 6' on-center or 8' on-center section, which contains:**
  - 1 - Top rail
  - 2 - Top rail brackets
  - 8 - Metal screws
  - 4 - Large screws
  - 1 - Cable spacer for 6' on-center sections — 2 for 8'
  - 2 - Cable spacer connectors for each cable spacer
- **Cable posts, as needed per the deck layout**  
Available in End, Line, Corner, Mid-stair and Bottom Stair
- **10 Cable kits for each 36" height run or 12 for each 42" height run, which contains:**
  - 1 - Cable with pre-attached threaded stud on one end, plastic spacer, SS washer, brass locknut and cap
  - 1 - Pull-lock fitting with Delrin washer and cap

Available in lengths of 5', 10', 15', 20', 25', 30', 40' or 50'

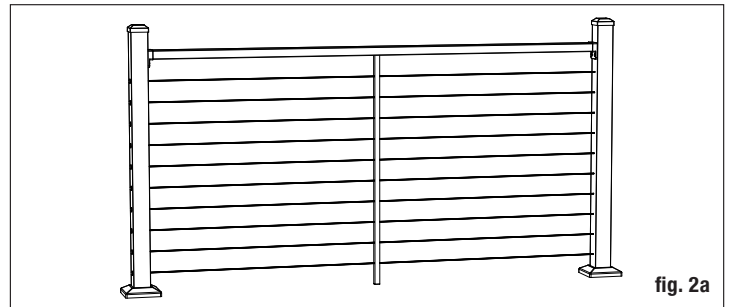


fig. 2a

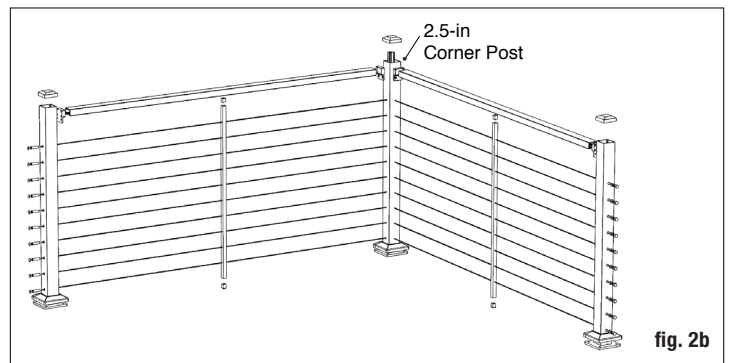


fig. 2b

## 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". Pre-drill all screw holes for best results. Read In-Line Railing instructions completely to get an understanding of how the product goes together and how each piece affects the other. *Note: Use clean tools in order to reduce contamination on stainless steel surfaces. We recommend using new chrome-plated tools to protect the fittings from raw steel. Avoid installing with rusty tools, as they leave rust deposits on the surface of the fittings. After installation, we recommend cleaning the stainless steel parts completely with a stainless cleaner and a soft clean rag in order to clear carbon deposits from the surface.*

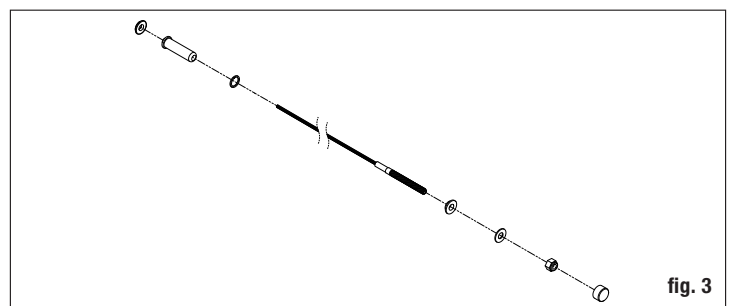


fig. 3

**Step 1** Determine the layout and number of railing posts needed for your deck. Post spacing is 6' or 8' on-center. Cable posts are available pre-drilled for end, line and corner posts. Cable is available in lengths of 5', 10', 15', 20', 25', 30', 40' and 50'. Many layout options are possible. One tip is to start with the most visible run. It's the one on which you want the least interference with the view, so you can start from there and build around it. Corner applications: When taking cable through a corner, do not bend the cable past 45° at any time. When turning 90°, use a corner post (fig. 2b) or make a 2-step turn using a double corner post configuration (fig. 4), or stop the cable run and start a new run. Example: A 12' x 16' deck attached to a building with a 4' access opening on one side will require a total of nine posts (eight if using corner post).

Once the layout is determined, all posts, rails and spacers are installed prior to the cable.

**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 (fig. 5).

**Step 3** Ensure the end, line and corner posts are used in the correct location and oriented the proper way. The larger diameter hole on the end posts should face away from the cable run. 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 with the leveling plate inserted between the deck and the post base, and aligned with the predrilled holes. Insert the post fasteners (**NOT INCLUDED**), and partially tighten. Using a level, adjust the leveling set screws with a 3/16" allen wrench until the post is plumb. Fully tighten the post fasteners to secure the base to the deck structure. *Note: Recommended 5/16" x 4" or longer lag screws* (fig. 6).

**Step 5** Finish by sliding a post base trim (optional) over each post for a finished look.

**Step 6** Measure the distance between installed posts to determine the length of the top rail. The rails are sized for 6' and 8' on-center posts, when using 2.5" posts, and include space for the brackets. Position rail adjacent to installed posts. The distance between the post and the spacer should be equal on both ends. Use one spacer for 6' rails and two for 8'. Never span more than 36" without a spacer to maintain proper cable spacing. As needed, trim the top rail to length for runs that are less than 6' or 8' on-center. Mark the length on top rail, and remove an additional 1/2" from both ends (1" overall) for the bracket to fit between the rail and post (fig. 8).

**Step 7** Place the brackets on ends of the rail. Attach the brackets to the rail with a screw attached through back of bracket into each internal screw boss (fig. 9).

**Step 8** The finished rail height is typically a minimum of 36" or 42". Using the cable spacer, prop rail in place and level. 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 (fig. 10).

**STOP – Make sure post base trim is installed before continuing.**

**Step 9** A cable spacer is needed at least every 3 feet (1 is included in the 6ft kit, 2 in the 8ft kit). Attach spacer connectors to the bottom of the top rail. Predrill using a 1/8" drill bit. Attach the spacers to the spacer connectors. Mark the location of the spacer on the deck surface and attach the other spacer 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. Install all rails prior to installing cable* (fig. 10).

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

Install cable according to the cable instructions.

*Tips for cable corner post. The cable corner post comes with an insert to feed the cable around the corner without binding and plastic threading needles. Ensure the insert is in the correct corner. Place the threading needle on the cable and push it onto the end to lock in place. Thread the needle through the corner. Make sure to push and pull the cable at the same*

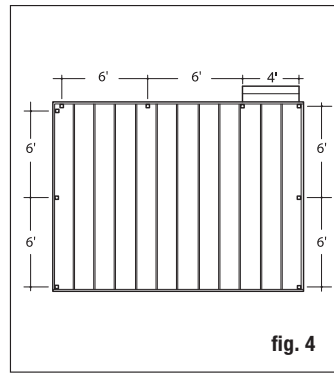


fig. 4

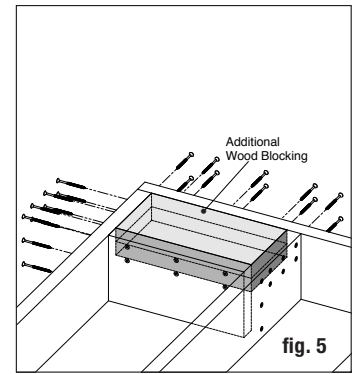


fig. 5

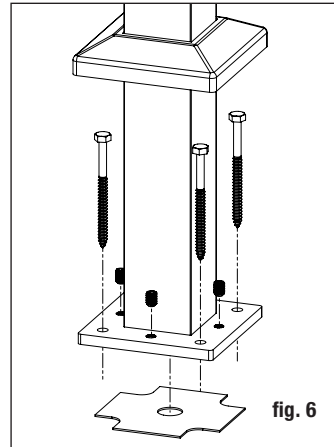


fig. 6

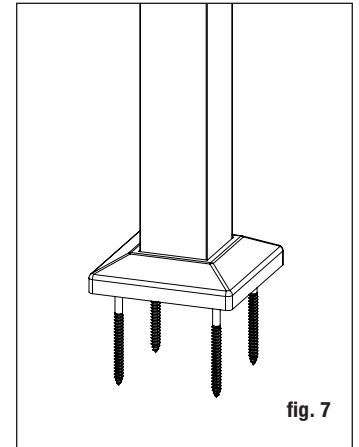


fig. 7

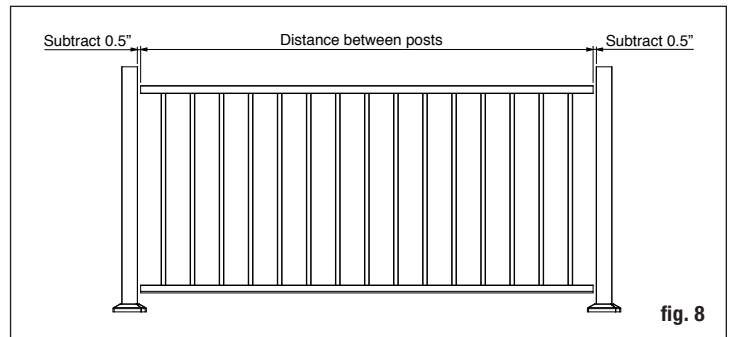


fig. 8

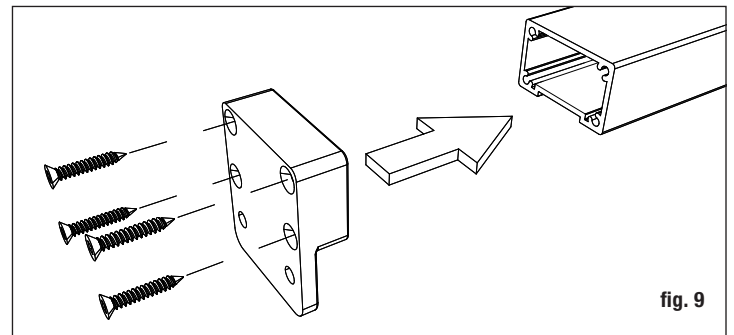


fig. 9

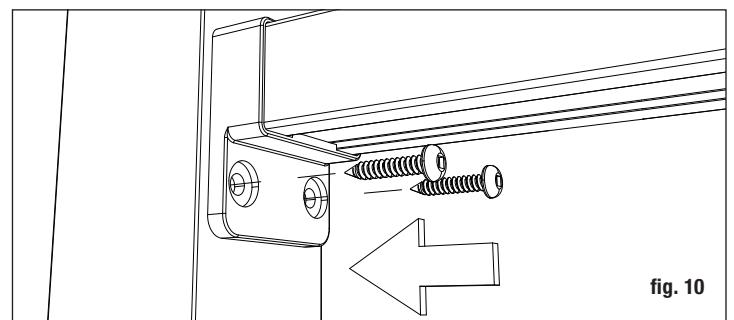


fig. 10

time. Once the threading needle is through the post, it can be removed. Continue the push/pull motion to feed the rest of the cable through.

## Stair Railing Installation Instructions

### Prior to construction:

**Step 1** Begin by determining where the top and bottom post will be located. Mark the desired location of the post. *Note: For stair rails that are in-line with the deck rail, a line post can be used at the top stair location. For stair rails that are perpendicular to the deck rail, a corner post can be used at the top stair location, or terminate the cable run and start a new run for the stairs, using a double post configuration.* 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 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 with the leveling plate inserted between the deck and the post base, and aligned with the predrilled holes. Insert the post fasteners (**NOT INCLUDED**), and partially tighten. Using a level, adjust the leveling set screws with a 3/16" allen wrench until the post is plumb. Fully tighten the post fasteners to secure the base to the deck structure. *Note: Recommended 5/16" x 4" or longer lag screws.*

**Step 4** Finish by sliding a post base trim (optional) over each post sleeve for a finished look.

**Step 5** Measure the distance between installed posts to determine the length of the top rail. Position the railing on the stairs on top of a spacer block along the stair nosings. The distance between the post and the cable spacer should be 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. 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 cable spacer is needed at least every 3 feet (1 is included in the 6ft rail kit, 2 in the 8ft kit). Trim the cable spacer as needed. Attach cable spacer connectors to the bottom of the rail using included screws. Predrill using a 1/8" drill bit. Mark the location of the cable spacer on the step tread and attach the other cable spacer connector to the step tread.

**Step 9** Install the 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.

Install cable according to the cable instructions.

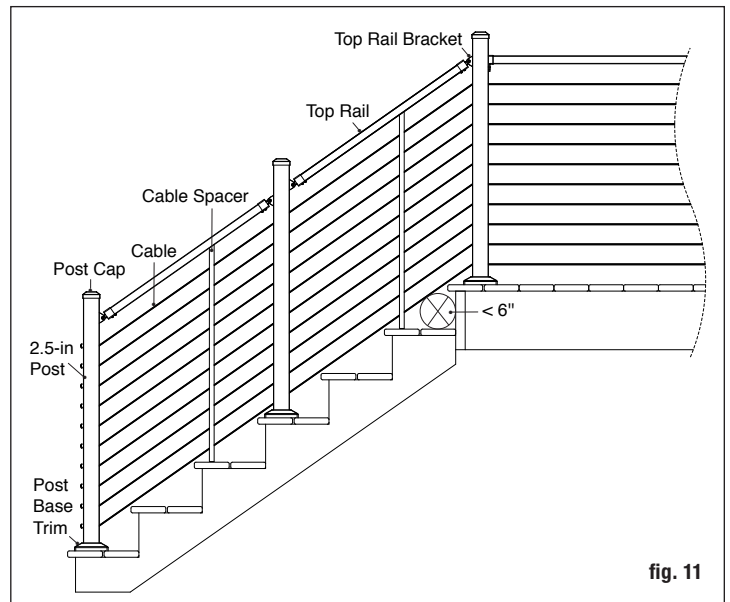


fig. 11

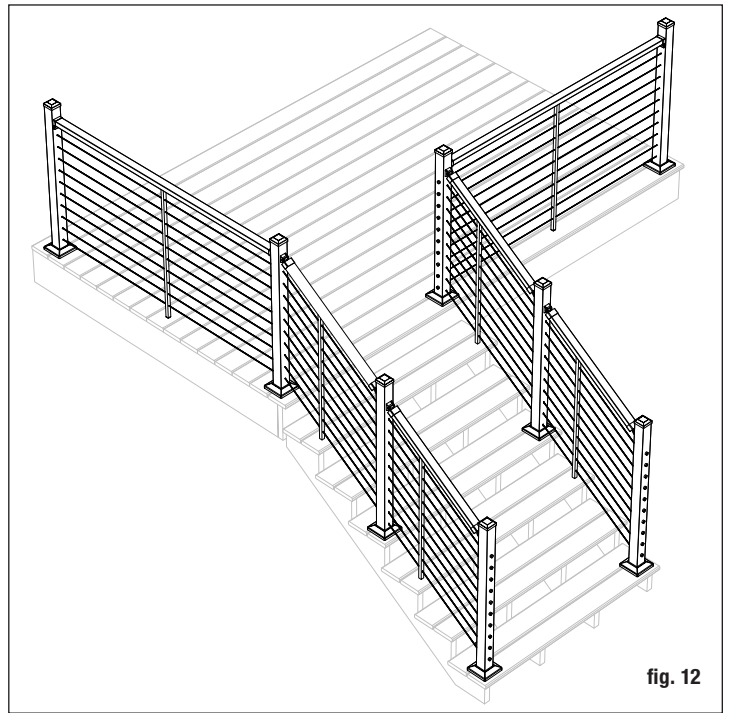


fig. 12

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