

T-Top Rail Installation

LEVEL RAIL INSTALLATION INSTRUCTIONS
Patent US 7, 731, 160, B2



Read all instructions prior to installing product.

LEVEL RAIL

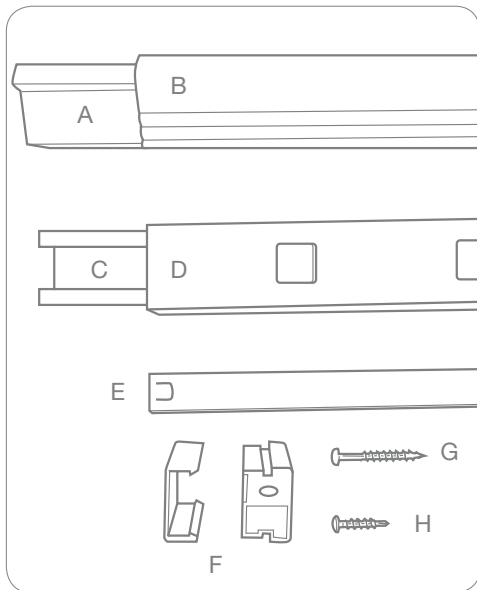
Warning: Always wear safety goggles.

T-Top Rail exceeds International Building Code and International Residential Code requirements to be used as a guard. For technical details, please contact our customer service department at (877) 420-7245.

NOTE: Check with your local building code office for design load requirements for guard rails and bottom space requirements. All supporting structures should be built in accordance with applicable building codes.

COMPONENT LIST:

Check the kit to ensure all components are included.



- A) Aluminum Top Rail Stiffener – 1
- B) Vinyl Top Rail – 1
- C) Aluminum Bottom Rail Stiffener – 1
- D) Vinyl Bottom Rail – 1
- E) Balusters – (see chart below)
- F) 2-Piece Support Foot – 1
- G) Rail Support Screw – 1
- H) Set Screw – 1

TOOLS NEEDED:

- Safety goggles
- Tape measure
- Pencil
- Level
- Power screwdriver/drill
- Power saw
- Chisel or utility knife
- Hammer
- Straight edge/ruler/triangle
- Vinyl adhesive
- ³/₈" diameter fasteners
- Socket wrench

RAIL LENGTH	1" SQUARE BALUSTERS PER KIT	1 1/4" SQUARE BALUSTERS PER KIT
6' Kit	15	14
8' Kit	20	19
10' Kit	25	24

LEVEL RAIL

1.

Determine desired rail placement and snap a line to ensure all posts are aligned properly (Fig. 1). Make sure sufficient mounting structure exists in areas to receive posts.

On wood framed installations, install blocking where necessary. Secure all posts in place and check for plumb (Figs. 2, 3, 4, 5).

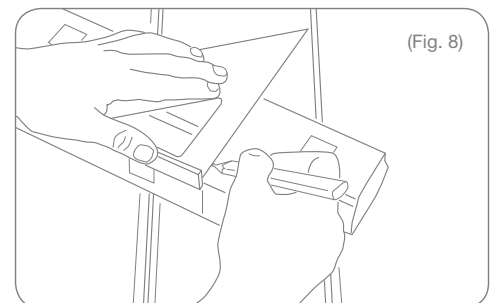
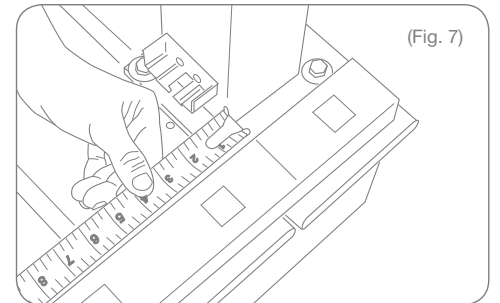
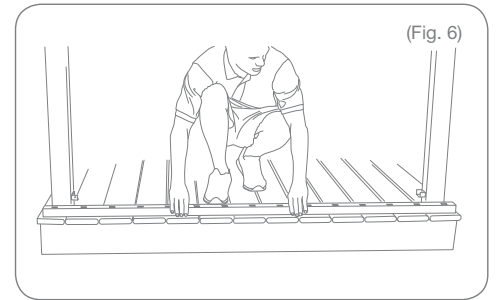
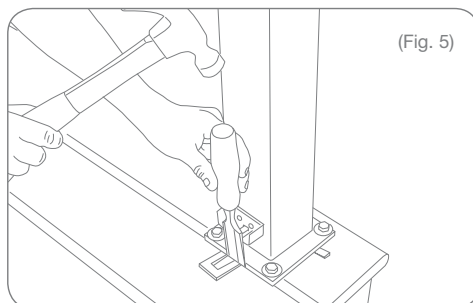
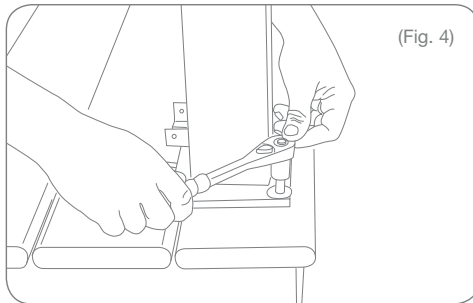
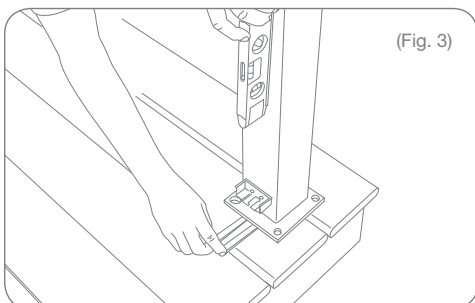
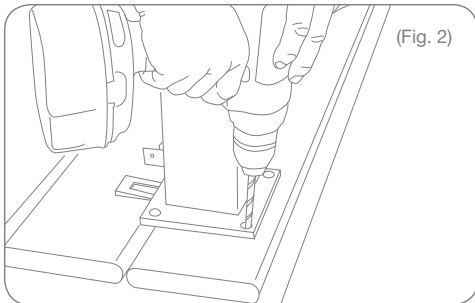
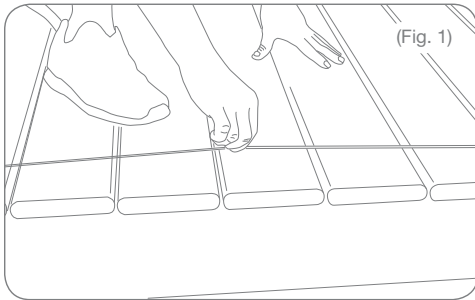
NOTE: All post kits, except blank posts, include pre-attached level brackets, mounting hardware, and shims. Mounting hardware also sold separately.

Tip: Post flanges are drilled to accept four $\frac{3}{8}$ " diameter fasteners. Use the appropriate type of fastener for your installation to insure post attachment meets the required loads. Check local building codes for load requirements.

2.

Place bottom rail across the opening ensuring equal baluster spacing on each end (Fig. 6).

Mark each end $\frac{1}{4}$ " from post face to allow for bracket thickness and expansion (Figs. 7, 8).

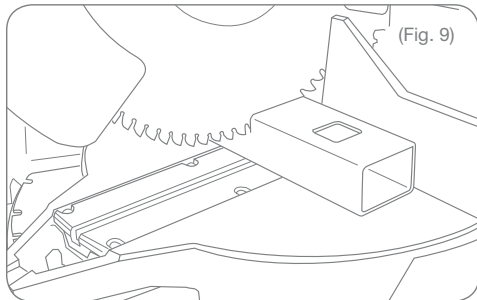


LEVEL RAIL CONTINUED

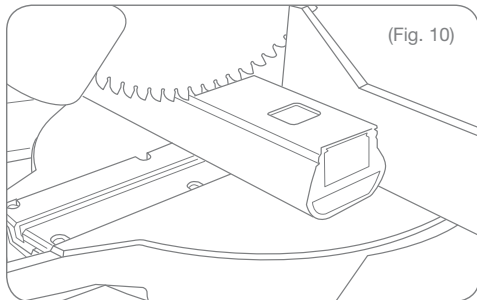
3.

Transfer these marks to the top rail and cut (Figs. 9, 10).

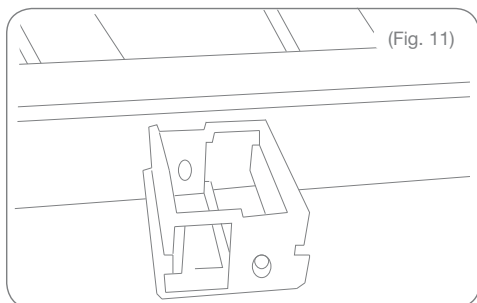
Locate and mark the center point on the underside (unrouted side) of the bottom rail. Attach the rail support to the bottom rail as shown below (Fig. 11) using the supplied set screw (H).



(Fig. 9)



(Fig. 10)

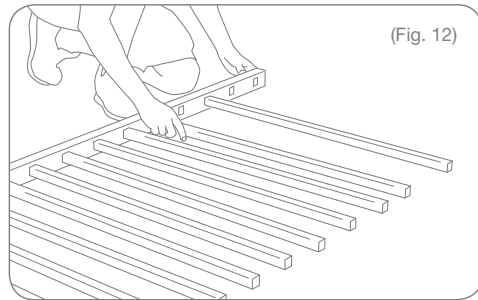


(Fig. 11)

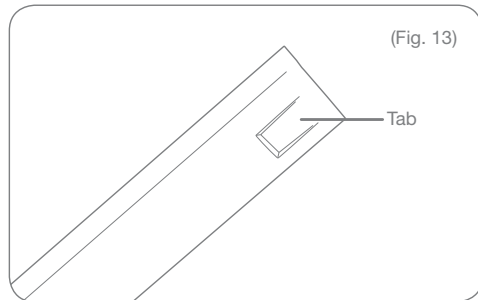
4.

Lay the bottom lineal on a clean, non-abrasive surface (Fig. 12). Orienting the tabs (Fig. 13) to engage the aluminum stiffeners, insert a tabbed baluster into the second routed hole from each end.

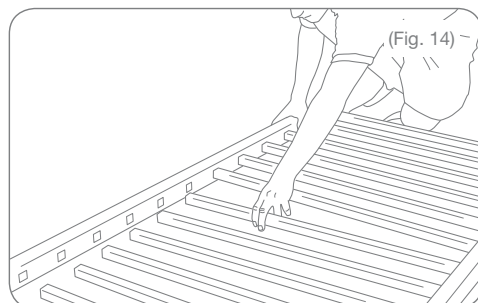
Distribute the remaining tabbed balusters evenly throughout the section. Then connect the top lineal (Fig. 14).



(Fig. 12)



(Fig. 13)



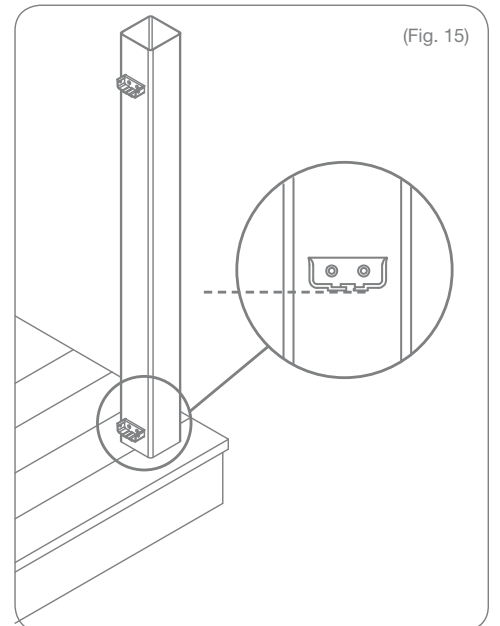
(Fig. 14)

5.

NOTE: Mounting brackets are supplied pre-mounted to all posts for level railing installations. Stair mounting brackets are sold separately. Check post box contents for details.

If using T-Top posts with pre-mounted brackets, skip to Step 6. If installing Titan brackets, attach brackets as shown in Figure 15. To achieve a 2" bottom space from mounting surface to the bottom of the rail, center and align bottom bracket 1 13/16" from mounting surface. For a 36" finished top rail height, center and align top bracket 33 13/16" from mounting surface. For a 42" finished top rail height, center and align top bracket 39 13/16" from mounting surface.

The bracket attachment screws provided with the bracket kits are meant to be used in conjunction with T-Top blank posts and when installing vinyl sleeves over 4" x 4" wood posts. For T-Top blank posts, use the 1" long size 10 Phillips metal screws provided. For wood posts, use the 2" long size 8 square drive wood screws provided.



(Fig. 15)

LEVEL RAIL CONTINUED

6.

Hang assembled section between posts on installed brackets (Fig. 16) and secure top and bottom lineals using 2 set screws supplied with your T-Top post or T-Top bracket kit in each bracket (Figs. 17, 18).

7.

Install the bracket covers as shown in Figures 19 and 20. Install the 2 piece trim ring shown in Figure 21. Then glue post cap in place (Fig. 22).

8.

Attach the rail support to the deck surface using support foot screw (G) and snap the cover in place (Fig. 23).

