

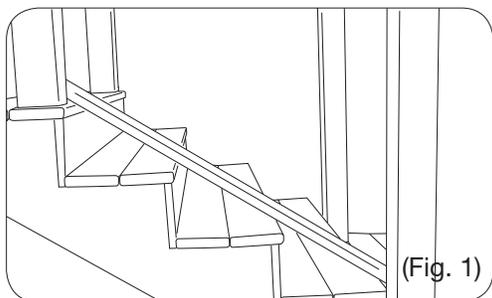
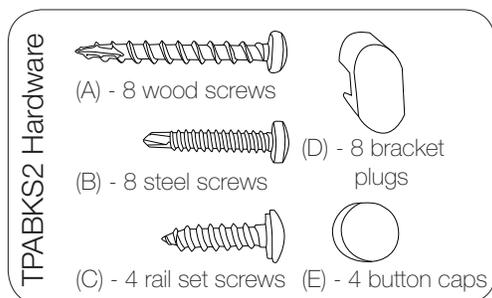
TPABKS2 BRACKET - STAIR RAIL INSTALLATION INSTRUCTIONS

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. Always use proper safety precautions and wear safety goggles.

1.

Prepare all posts and mounting surfaces before installation.

Rest a plank on the noses of the stairs between the mounting surface to which you are installing the stair rail (Fig. 1). The thickness of the plank will determine the space between the stairs and bottom rail.

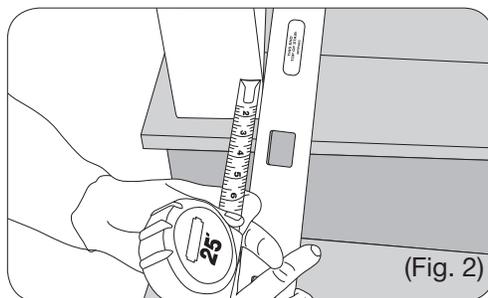


2.

Place the bottom rail, baluster holes facing up, on the plank with the label reading, "This end top of stair." at the top stair post. Slide the rail up or down until the baluster hole spacing is even at each end (Fig. 2). A minimum of 2 5/8" from each post or mounting surface to the first baluster hole is required.

Trace the post onto each rail and mark 1/8" short to allow for expansion. The rail can now be cut at these marks.

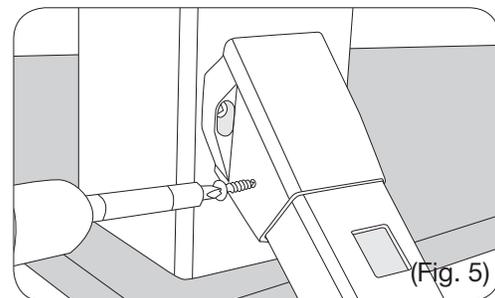
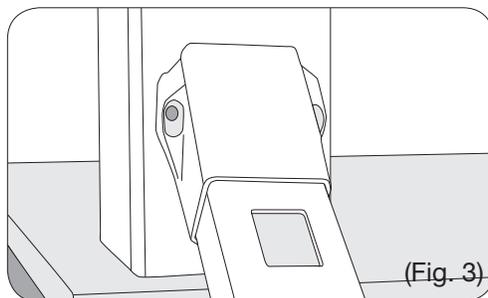
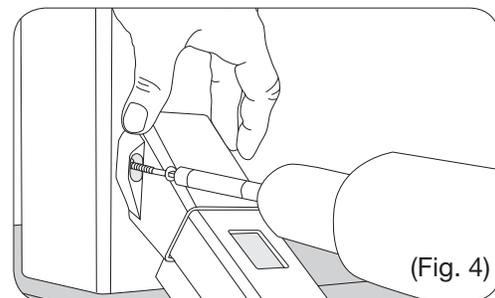
Tip: If using a power saw, a carbide tipped blade of at least 60 teeth is recommended.



3.

Slide a bracket onto each end of the bottom rail as shown in Figure 3. Position the rail in place and slide the brackets against the mounting surface. Check for proper fit and attach to the post or mounting surface using the appropriate mounting hardware for your application (Fig. 4). For wood surfaces, use wood screws (A) and for steel posts or steel mounting surfaces, use self-drilling metal screws (B).

Pre-drill using a 1/8" drill bit and install a supplied rail set screw through the side of each bracket to secure the rail in place (Fig. 5).



4.

Insert a baluster without a tab (Figure 9 shows notched baluster with tab) into the first and last baluster holes of the installed bottom rail (Fig. 6). Set the top rail in place by inserting these balusters into the corresponding holes in the top rail. For ease of measurement, place the top rail to the side of the post or mounting surface as in Figure 6.

Adjust for plumb (Fig. 7) ensuring sufficient clearance (minimum of $2 \frac{5}{8}$ " measured horizontally) between the first baluster hole and the post or mounting surface at each end.

Trace the post or mounting surface onto each rail end and mark $\frac{1}{8}$ " short to allow for expansion (Fig. 8). The rail can now be cut at these marks.

5.

Insert a baluster into each baluster hole of the bottom rail. Each kit contains 4 to 6 notched balusters (Fig. 9); space them evenly throughout each section.

Set the top rail in place by inserting the first baluster (at the upper post) into the corresponding baluster hole of the top rail, and work toward the bottom (Fig. 10).

6.

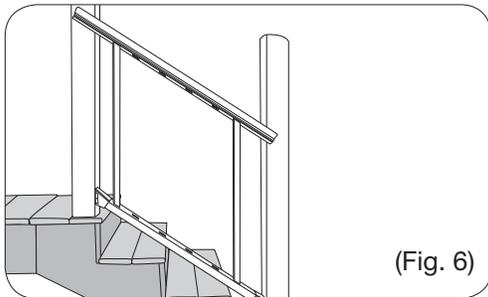
Slide a bracket onto each end of the top rail as shown pointing toward the rail ends (Fig. 11).

Check for proper fit and attach to the mounting surface using the appropriate mounting hardware (see step 3) for your application (Fig. 12).

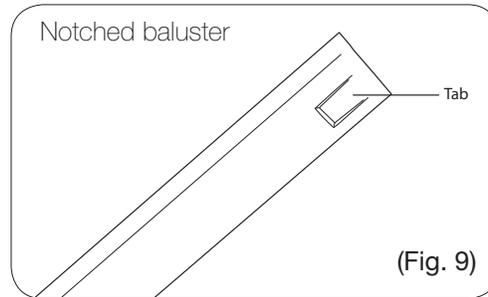
Pre-drill using a $\frac{1}{8}$ " drill bit and install a supplied rail set screw through the side of each bracket to secure the rail in place (Fig. 13).

7.

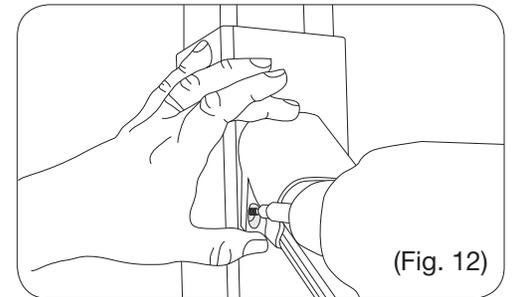
Insert button caps (E) over set screws (C) and snap the bracket plugs (D) in place. (Fig. 14). If using a Titan steel post, snap trim rings around bottom flange of support post. Attach post cap, sold separately, using vinyl adhesive.



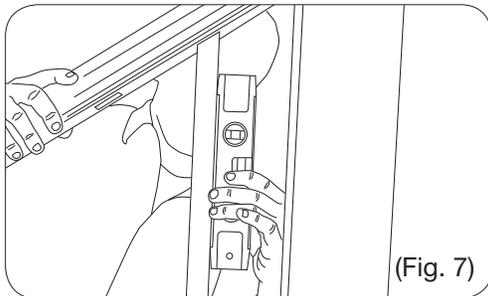
(Fig. 6)



(Fig. 9)



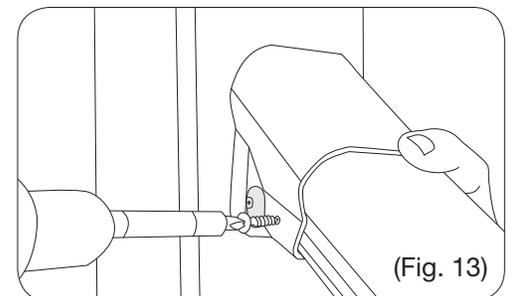
(Fig. 12)



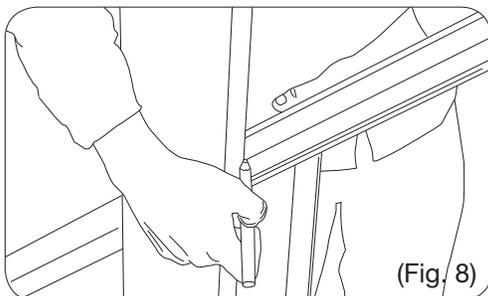
(Fig. 7)



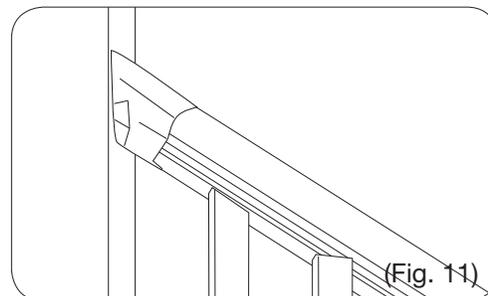
(Fig. 10)



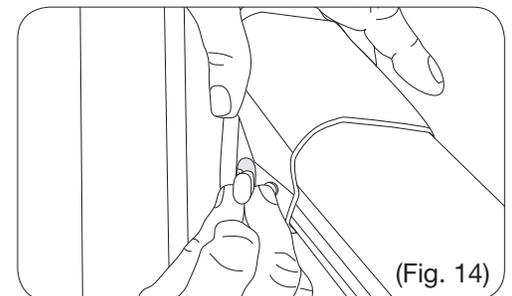
(Fig. 13)



(Fig. 8)



(Fig. 11)



(Fig. 14)