



MoistureShield™

ALUMINUM LEVEL RAIL INSTALLATION INSTRUCTIONS

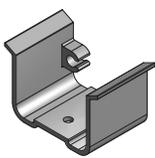
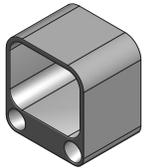
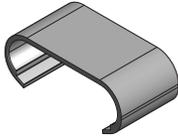
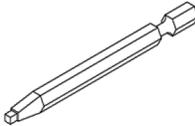
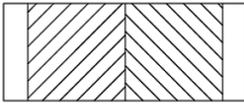
TOOLS REQUIRED:

- Drill bit 5/32" (.156")
- Drill (with adjustable clutch, recommended)
- Miter Saw (with metal cutting blade)
- Level
- Rubber mallet
- Tape measure
- Touch-up paint

FOR A SUCCESSFUL INSTALLATION:

- Read the instructions completely before beginning the installation.
- Plan your railing project. Sketch your project with the actual measurements of your deck or balcony complete with post locations.
- Check local building codes to ensure compliance.
- Check carton(s) to determine part count is complete.
- After cutting rails, balusters, or posts, paint exposed metal for maximum protection against the elements.
- Installation is best accomplished with two people.
- Wear personal protection equipment; safety glasses, etc.
- Use care not to over-torque the screws. Pre-drilling is recommended.
- **Provided hardware to install MoistureShield® Pro Aluminum Rail is for use with MoistureShield® Pro Aluminum Posts. If installing to other surfaces the installer must acquire the appropriate hardware as needed for proper installation.**

PARTS INCLUDED:

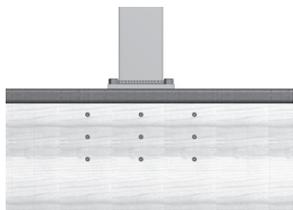
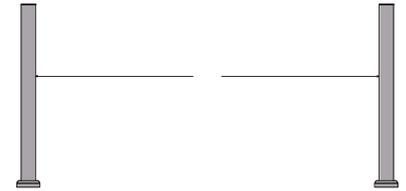
 <p>A TOP RAIL WITH CONNECTORS (1)</p>	 <p>B BOTTOM RAIL WITH CONNECTORS (1)</p>	 <p>C SADDLE BRACKET (2)</p>	 <p>D BOTTOM BRACKET (2)</p>	 <p>E TOP RAIL CAP (2)</p>
 <p>F 10" SUPPORT BLOCK (1)</p>	 <p>G SUPPORT BLOCK CONNECTOR (2)</p>	 <p>H #10X1" SELF DRILLING SCREW (12)</p>	 <p>I 3 1/2" SQUARE DRIVER BIT (1)</p>	 <p>J ADHESIVE TAB (1)</p>

NOTE: Post and balusters packaged separately.

LEVEL RAIL POSTS INSTALLATION:

1. Measure and locate the position of the post(s) based on the project layout.

Note: If an over-the-post installation is desired, the post will need to be cut from the standard length to accomplish this. To determine this height, place the post in the desired locations to be installed, and mark for the bracket location as instructed in step 7. Then, mark a line 3/4" above the bracket location marks. This will be the location to cut the post and permit the top rail to be installed flush with the top of the post and allow a deck board to be installed over the top of the post



2. Install the post by attaching the aluminum mounting flange to the surface of the deck or balcony. 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 post. If necessary, use wood blocking as reinforcement underneath the decking where the posts are located. Post mounting fasteners should be able to secure into the joist or reinforcement braces, not just the decking itself. When installing MoistureShield Pro Rail Post on top of a wood surface, screws must be lagged into at least 3" of solid wood. Deck boards sized 5/4" or 1 1/2" do not provide sufficient material for a safe installation.

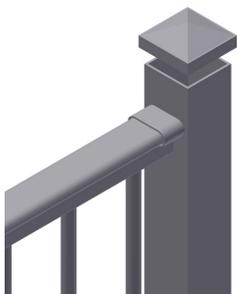
Note: When installing MoistureShield® Pro Rail Post onto treated wood surface, install the provided ACQ pad (included in the post kit) between the post base and the treated surface.

3. Position the post to the deck surface. Four 3/8" diameter mounting holes are provided on the mounting flange. Mark the mounting flange hole locations and remove the post. Drill the marked locations into the decking and reinforcement using the proper size drill required for the fasteners being used. Remount the post. Insert the appropriate fasteners to secure the mounting flange to the deck structure.



4. Finish by sliding the base trim to the bottom of the post to cover the mounting flange.

5. To install the post cap, set it in place on top of the post and strike with a rubber mallet to drive the post cap onto the post. Silicone or water based caulking may be used to secure the post cap and base trim.



RAIL INSTALLATION:

1. Carefully measure the opening between posts or walls and calculate the length of rail that needs to be cut. Divide the trim length amount in half, and starting with the bottom rail (B), transfer and mark the measurement to each end of the rail. For the sake of baluster spacing or personal preference, all of the trim length could be cut from one end of both rails. Make this determination before cutting the rails.

Always refer to local building code requirements to determine the baluster spacing requirements in your area (4" maximum is typical). Carefully cut the rail. Mark top rail (A) and cut. For clearance purposes the top rail is precut 3/4" shorter than the bottom rail.=

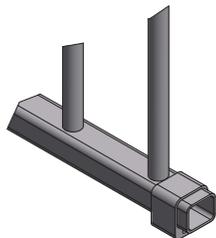
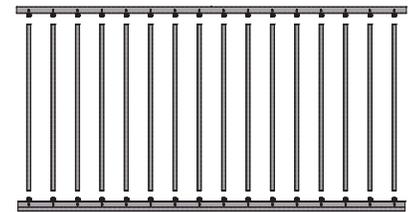
2. Install support block connectors (G) using self-drilling screws (H) to the underside of bottom rail (B). The support block will be installed in step 10.



Note: One support block, cut from support block material (F), is recommended for rails measuring 72" in length or less; two support blocks for longer lengths. If one support block is required, install the support block connector (G) at center point of bottom rail (B). If two support blocks are required, install support block connectors (G) equal distance from each end of the bottom rail (B).

3. To assemble rail, begin with top rail (A) and insert balusters over pre-installed connectors. Firmly tap each baluster with a rubber mallet to ensure the baluster is fully seated against the top rail.

Note: It is recommended to use the box as a pad to prevent scuffing of the painted finish. If installing square balusters, make sure they are properly seated in the slot on the underside of the top rail to prevent twisting.



4. Attach balusters to bottom rail (B) beginning at one end and working to opposite end. Stand the assembly upside down on the surface of the box and firmly tap the bottom rail with a rubber mallet to secure the balusters in place. Stand assembly upright.

5. Slide bottom brackets (D) with screw holes down and counter bore holes facing toward the balusters, over each end of the bottom rail (B).

6. The MoistureShield® Pro Rail can be installed with or without a deck board on top of the top rail (A). If installing without a deck board on the top rail, measure up 35 1/4" (36" rail height) or 41 1/4" (42" rail height) from the floor and mark a level, horizontal line on the post or wall.

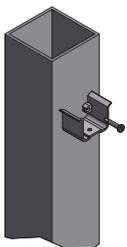
Note: If installing with a deck board on the top rail (A) reduce the above dimensions by the thickness of the deck board being used. Overall rail height may vary by local code or personal preference.



7. Align screw holes in saddle bracket (C) on the horizontal line marked in step 6 making certain the saddle bracket (C) is centered on the post. Mark screw locations. Repeat process at opposite end.

8. Attach both saddle brackets (C) with self-drilling screws (H) at the marked screw locations completed in Step 7. Pre-drilling is recommended.

Note: If installing a deck board on the top rail (A), omit Step 9 and do not install the rail caps.

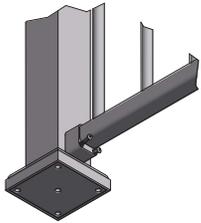
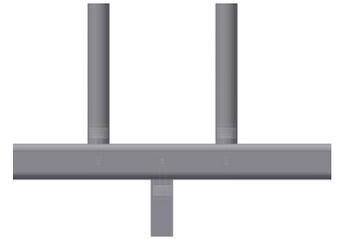




9. Slide the top rail cap (E) on both ends of the top rail (A) and set the rail assembly into the saddle brackets (C) letting the bottom rail hang freely between the posts. Check for level.

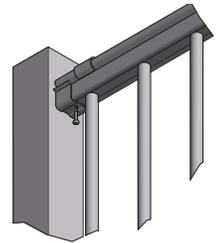
Note: It is recommended to use the box as a pad to prevent scuffing of the painted finish. If installing square balusters, make sure they are properly seated in the slot on the underside of the top rail to prevent twisting.

10. At the point(s) where you installed support block connectors (step 2), carefully measure the distance from the underside of the bottom rail (B) to the floor. Cut support block material (F) to fit. Remove rail assembly from the saddle brackets (C). Slip support blocks over support block connectors (G). Slide the rail back into place and make certain the rail is plumb.



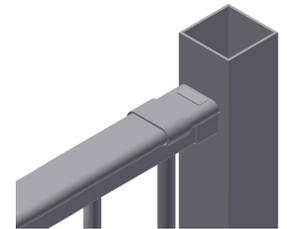
11. Slide and hold the bottom bracket (D) firmly against the post or wall. Secure the bracket with self-drilling screws (H). Repeat the process on the other side. Note: Screw holes in the bottom brackets (D) are angled to make mounting the brackets easier.

12. Screw self-drilling screws (H) into the top rail (A) from the underside of each saddle bracket (C) through the provided locating hole to securely fasten the rail.

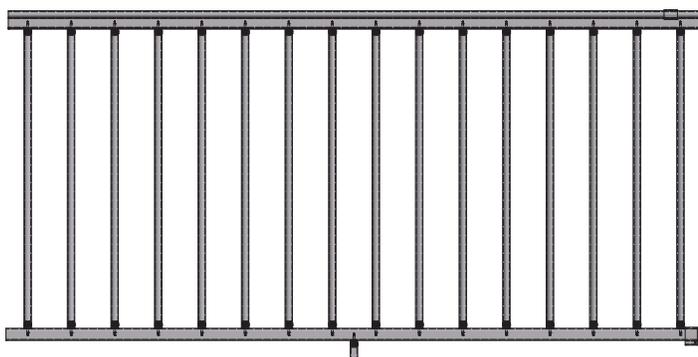


13. If a deck board is to be installed on top of the rail, carefully measure and cut the material to the length required. Place the deck board on top of the rail and secure from the underside of the rail as shown, with the appropriate fasteners under the flange of both sides of the rail.

14. If the deck board will not be installed, place the adhesive tab (J) to the top surface of the top rail (A) near the post. Slide the top rail cap (E) towards the post and press down to secure it with the adhesive tab (J).



FULLY ASSEMBLED RAIL SECTION





ALUMINUM FIXED STAIR RAIL INSTALLATION INSTRUCTIONS

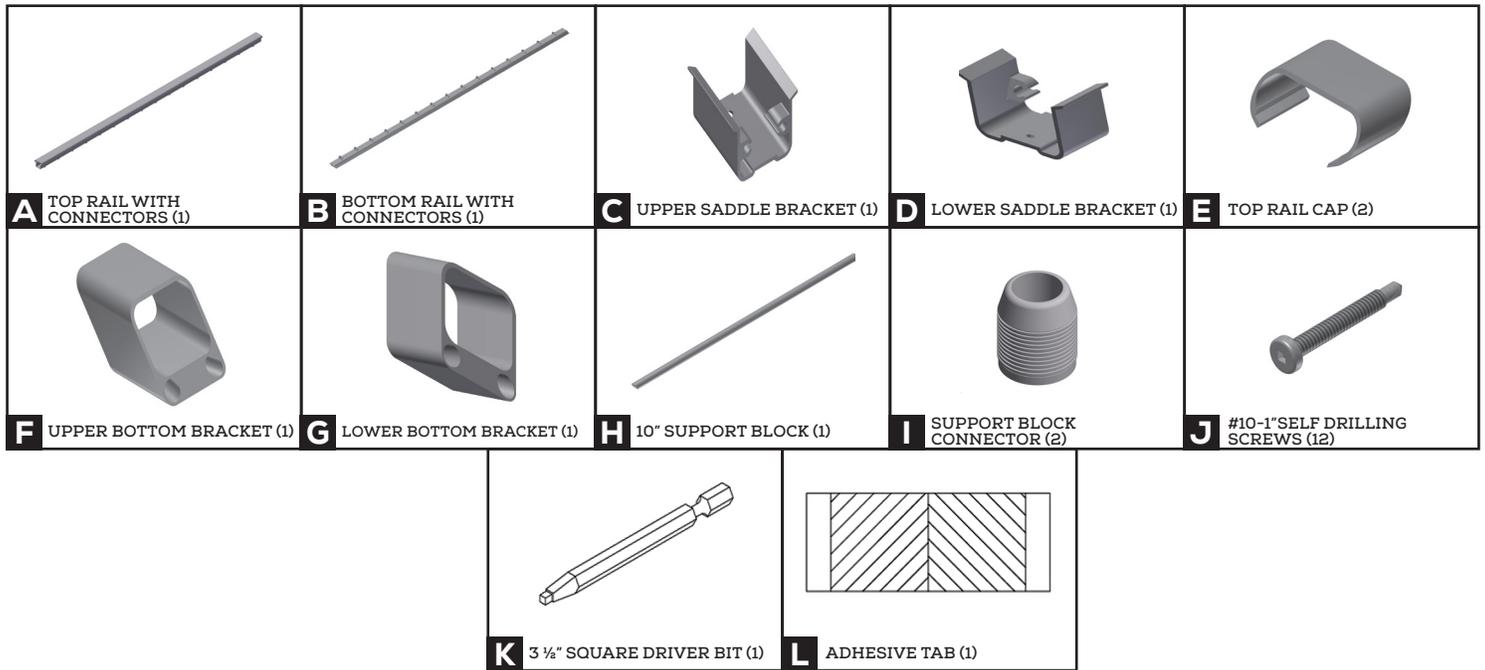
TOOLS REQUIRED:

- Drill bit 5/32" (.156")
- Drill (with adjustable clutch, recommended)
- Miter Saw (with metal cutting blade)
- Level
- Rubber mallet
- Tape measure
- Touch-up paint

FOR A SUCCESSFUL INSTALLATION:

- Read the instructions completely before beginning the installation.
- Plan your railing project. Sketch your project with the actual measurements of your deck or balcony complete with post locations.
- Check local building codes to ensure compliance.
- Check carton(s) to determine part count is complete.
- After cutting rails, balusters, or posts, paint exposed metal for maximum protection against the elements.
- Installation is best accomplished with two people.
- Wear personal protection equipment; safety glasses, etc.
- Use care not to over-torque the screws. Pre-drilling is recommended.
- **Provided hardware to install MoistureShield® Pro Aluminum Rail is for use with MoistureShield® Pro Aluminum Posts. If installing to other surfaces the installer must acquire the appropriate hardware as needed for proper installation.**

PARTS INCLUDED:



NOTE: Post and balusters packaged separately.

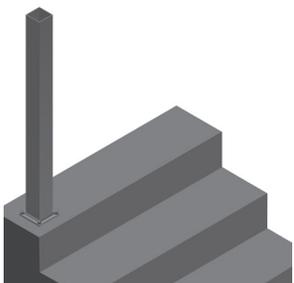
POSTS INSTALLATION:

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 surface, place both posts in position, and lay the bottom rail along the stair-nosing from top to bottom adjacent to both post. On the rail side of the post, measure up from the top of the rail and ensure there is a minimum of 34" for the 36" rail height and a minimum of 40" for the 42" rail height to the top of the post. Post location may have to be adjusted to ensure minimum is obtained. Repeat this step for the bottom post.

- For railing mounted 36" high use a 44" post at the bottom of the stairs.
- For railing mounted 42" high use a 54" post at the bottom of the stairs.

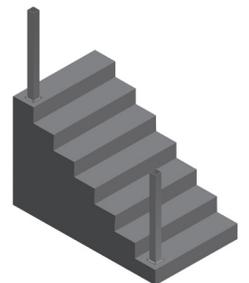
For a wooden deck position the post so the fasteners will go into the floor joists, and make sure the decking is firmly attached to the joists at the location of the posts. If necessary, use wood blocking as reinforcement underneath the decking where the posts are located. Fasteners which hold the brackets to the surface should be able to secure to joist or reinforcement braces, into at least 3" of solid wood.



2. When the final position is determined for the post, mark the hole locations of the four 3/8" diameter mounting holes provided on the base and remove the post assembly. Drill the marked locations into the decking and reinforcement using the proper size drill required for the fasteners being used.

3. Remount the post assembly. Insert the appropriate fasteners 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. Do not install the base post trim and post capitals until step 4 of the rail installation.

Note: When installing MoistureShield® Rail Post onto treated wood surface, install the provided ACQ pad that is included in the post kit between the post base and the treated surface.

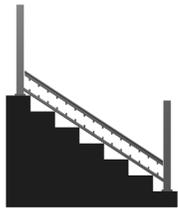
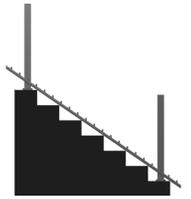


FIXED RAIL INSTALLATION:

1. Lay the bottom rail (B), with baluster connectors facing up and centered between the posts, on the stair nosing from top to bottom, adjacent to the posts and mark a line on the rail from the inside of each post (1). Also, make a reference mark on the bracket side of both posts at the point where the top of the rail meets the post (2).

Note: This reference mark will be used to locate saddle brackets in step 5.

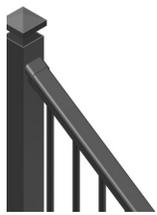
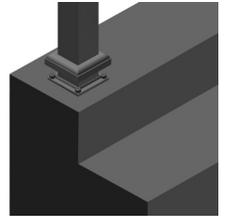
2. Place the top rail (A) next to the bottom rail (B), align the baluster connectors and duplicate the marks from the bottom rail cut line onto the top rail. Now mark the top rail 5/8" shorter on each end; this is the cut line for top rail. Only the top rail is cut 5/8" shorter on each end.



3. Cut the rails along the marked lines.

4. Install the base post trim on the upper and lower posts.

5. To install the post cap, set it in place on top of the post and strike with a rubber mallet to drive the post cap onto the post. Silicone or water based caulking may be used to secure the post cap and base trim.



6. The MoistureShield® Pro Rail can be installed with or without a deck board installed on the top rail (A). If installing without a deck board on the top rail (A), on both the upper and lower post, measure and mark a level line up from the reference marks previously completed in fixed rail instructions step 1(31" for a 36" rail height or 37" for a 42" rail height).

If installing with a deck board on the top rail (A) reduce the above dimensions by the thickness of the deck board being used. These measurements may vary by local code or personal preference.

7. Align screw holes in the upper and lower saddle brackets (C&D) on the marked lines. Make sure the brackets are centered on the posts. Mark the screw hole locations with a pencil.

8. Attach saddle brackets (C&D) with 1" self-drilling screws (J) at the marked screw locations in step 6. Pre-drilling is recommended.

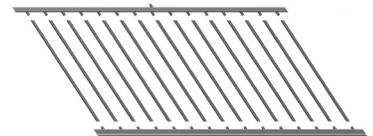
9. Install support block connectors (I) using 1" self-drilling screw (J) to the underside of bottom rail (B). The support block (H) will be installed in step 13.



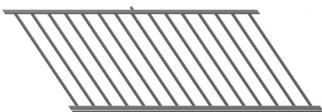
Note: One support block, cut from support block material (H), is recommended for rails measuring 72" in length or less; two support blocks for longer lengths. If one support block is required, install support block connector (I) at center point of bottom rail (B). If two support blocks are required, install support block connectors (I) equal distance from each end of the bottom rail (B).

10. To assemble rail, begin with top rail (A) and insert balusters over pre-installed connectors. Use a rubber mallet to tap the balusters into place.

Note: It is recommended to use the box as a pad to prevent scuffing of the painted finish. If installing square balusters, make sure they are properly seated in the slot on the underside of the top rail to prevent twisting.



11. Attach balusters to bottom rail (B) beginning at one end and working to the opposite end. Stand the assembly upside down on the surface of the box and tap the bottom rail with a rubber mallet to secure the balusters in place. Stand assembly upright.



Note: Notches are provided on the front of the box to help align balusters and aid in the assembly of the rail in this step.

Note: If installing a deck board on the top rail (A), omit this step and do not install the rail cap.

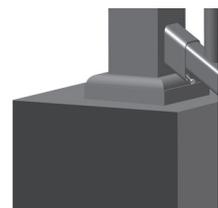
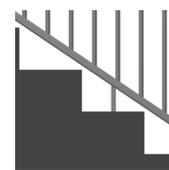
12. Slide the top rail caps (E) over each end of the top rail (A) so the angle of the rail cap matches the angle of the top rail. A small piece of tape may be used to hold the top rail caps (E) in place.



13. Slide bottom brackets (F&G) with the counter bore holes facing down and toward the balusters, over each end of the bottom rail (B). A small piece of tape may be required to hold lower bottom brackets in place. Next, set the rail assembly into the saddle brackets (C&D) letting the bottom rail hang freely between the posts.



14. At the point(s) where you installed support block connectors (step 8), carefully measure the distance from the underside of the bottom rail (B) to the floor. Cut support block material (H) to fit. Slip support blocks over support block connectors (I). Slide the rail back into place and make certain the rail is plumb.

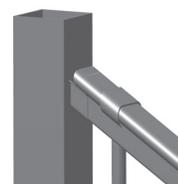


15. Slide and hold the upper bottom bracket (F) firmly against the top post. Secure the bracket with 1" self-drilling screws (J). Repeat the process securing lower bottom bracket (G) to the bottom post using 1" self-drilling screws (J).



Note: Screw holes in brackets (F&G) are angled to make mounting the brackets easier.

16. Apply adhesive tab (L) to flat, top surface of top rail (A), near the post. Slide top rail cap (E) towards the post and press down to secure it with the adhesive tab (L) and press down to secure with the adhesive tab.



17. Screw 1" self-drilling screws (J) into the top rail (A) from the underside of saddle brackets (C&D) through the provided locating hole.

FULLY ASSEMBLED STAIR RAIL SECTION

