

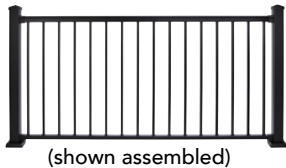
Aluminum Picket Installation Instructions

RailFX Oasis™ Picket Level Rail

KNOCK-DOWN (KD) PICKET PANEL PARTS:

A KD Picket Panel Parts

- Top Rail • Bottom Rail • Balusters



B Saddle Bracket (2)



C Bracket Cover (2)



D Bottom Bracket (2)



E 10" Support Block (1)



F 3-1/2" Driver Bit (1)



G Support Block Connector (2)



H 10x1" Self Drilling Screw (12)



I Level Hinge Bracket Set (1) *Optional**



NOTES:

- Posts and picket panels packaged separately.
- An optional RailFX-Tool is available to simplify locating, pre-drilling and installation of brackets.

MATERIALS REQUIRED:

- 3/8" x 5.5" Lag Bolt with 5" min thread (customer supplied)

TOOLS REQUIRED:

- Drill bit 5/32" (.156")
- Drill (with adjustable clutch, recommended)
- Miter Saw (with carbide, 80-tooth or more blade)
- Level
- Rubber mallet
- Tape measure
- Touch-up paint (optional)

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 package(s) to determine part count is complete.
- After cutting rails or posts, paint exposed metal for maximum protection against the elements.
- Installation is best completed with two people.
- Wear safety glasses while installing.
- Use care not to over-torque the screws. Pre-drilling is recommended.
- Saddle bracket and bottom bracket are intended for RailFX® posts. If installing to other post types, the necessary fasteners will need to be purchased.

**See supplemental installation instructions included with horizontal pivot.*

Note: For ease of positioning brackets, drill guide (PFXPDT) is available.

Level Rail Installation Instructions

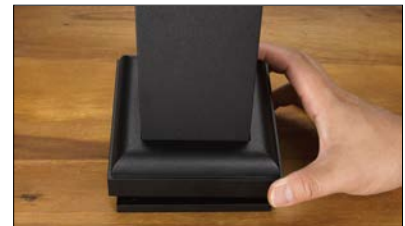
POSTS INSTALLATION:

1. Measure and locate the position of the post(s) based on the project layout.
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 RailFX Oasis™ posts, 5" of threading must be fully embedded into blocking. Deck boards sized 5/4" or 1½" do not provide sufficient material for a safe installation.

Alternative Structural Screw Options:

- a. It is structurally acceptable to use 5/16" 304/316 SS screws only for max. 38" tall posts with max. 48" post spacing, for all IRC compliant residential and commercial installations.
- b. It is structurally acceptable to use 5/16" hardened 410 SS screws for max. 54" tall posts with max. 54" post spacing, for all IRC compliant residential and commercial installations.
- c. It is structurally acceptable to use 5/16" hardened 410 SS screws for max. 54" tall posts with max. 96" post spacing, only for installations at IRC compliant one or two family dwellings.

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. Remount the post. Insert the appropriate fasteners to secure the mounting flange to the deck structure.



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

4. To install the post cap, set post cap in place on top of the post and tap lightly 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.

LEVEL 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, 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 and cut. For clearance purposes the top rail is precut ¾" shorter than the bottom rail.

2. To assemble rail, begin with Top Rail and insert balusters into each baluster hole. Use a rubber mallet to tap the balusters into place until fully seated into the Top Rail.



Level Rail Installation Instructions (continued)

3. Insert balusters in the Bottom Rail the same as in Step 1, 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.



4. Install Support Block Connectors (G) using #10x1" Self Drilling Screw (H) to the underside of Bottom Rail. The Support Block will be installed in Step 9.

NOTE: One Support Block, cut from Support Block Material (E), 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. If two Support Blocks are required, install Support Block Connectors (G) equal distance from each end of the Bottom Rail.



5. Slide Bottom Brackets (D) with screw holes down and counter bore holes facing toward the balusters, over each end of the Bottom Rail.



6. Slide Bracket Covers (C) at least 3-4 inches inward over each end of the Top Rail. A small piece of tape may be needed to hold the bracket covers in place.



7. Place a piece of masking tape on posts measure from the top of the post down 3" and mark a level horizontal line. If using the post drilling / rail installation tool, hold rail installation tool flush with top of post and using the holes on the template labeled "level" mark post. This will give you a 36-1/4" or 42-1/4" net rail height.

8. Align screw holes in Saddle Bracket (B) on the horizontal line making certain the Saddle Bracket (B) is centered on the post. Mark screw locations. Repeat process at opposite end.



9. Attach both Saddle brackets (B) with #10x1" Self Drilling Screws (H) at the marked screw locations completed in Step 8. Pre-drilling is recommended.



10. Set the rail assembly into the Saddle Brackets (B) letting the Bottom Rail hang freely between the posts.
NOTE: Check for level.



Level Rail Installation Instructions (continued)

- 11.** At the point(s) where you installed Support Block Connector(s) (step 4), carefully measure the distance from the underside of the Bottom Rail to the floor. Cut Support Block Material (E) to fit. Remove rail assembly from the Saddle Brackets (B). Slip Support Block(s) over Support Block Connectors (G). Slide the rail back into place and make certain the rail is level.



- 12.** Slide Bracket Covers (C) to interlock with the flange on the Saddle Brackets (B). If needed, tap the edge of the cover into position using a wood stick or non-marring tool and a mallet.

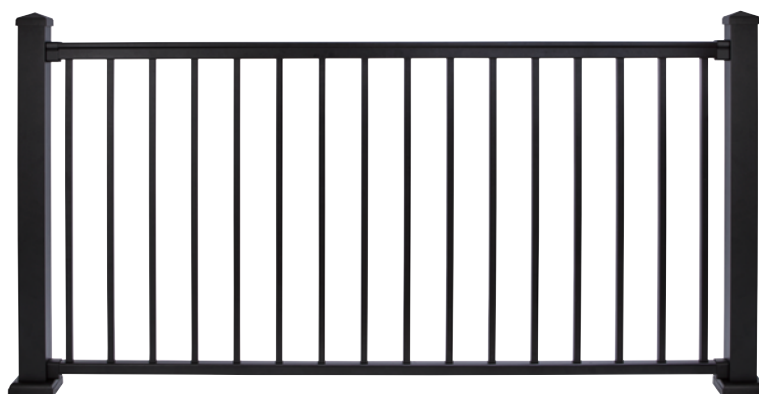


- 13.** Screw #10x1" Self Drilling Screws (H) into the Top Rail from the underside of each Saddle Bracket (B) through the provided locating hole to securely fasten the rail.



- 14.** Slide and hold the Bottom Bracket (D) firmly against the post or wall. Secure the bracket with #10x1" Self Drilling Screws (H). Repeat the process at the other side.

NOTE: Screw holes in Bottom Bracket (D) are angled to make mounting the brackets easier.



INSTALLED VIEW

Horizontal Hinge Bracket Installation Recommendations

RailFX Oasis™ Picket Level Rail

- Read the installation instructions included with the picket panel kit thoroughly before starting the installation.
- For your safety, RailFX® recommends wearing personal protection equipment before, and during the installation process.
- The hardware included in the picket panel kit is intended to use with the RailFX® posts. If installing to another surface, you must acquire the appropriate hardware needed for a proper installation.



1. Install posts per the instructions provided with the Level Rail Kit.
2. Place a piece of masking tape on posts and measure from the top of the post down 2-5/8" and mark a level horizontal line. If using the post drilling / rail installation tool, hold rail installation tool flush with top of post and using the holes on the template labeled "Horizontal pivot" mark post. This will give you a 36-1/4" or 42-1/4" net rail height. For the bottom hinge centerline, measure 35-3/8" from the top of the post for 36" systems or 41-3/8" for 42".
3. At each of the marks in Step 2, from the centerline of the post measure both left and right of the centerline 1". Place a mark on the horizontal line at both locations.

NOTE: The RailFX® Tool is available to aid and guide the placement of the hole location for the top bracket assembly only.

4. At the locations marked in Step 3, on both sides of the centerline, pre-drill the two holes at both locations for both the top and bottom brackets. If using the RailFX® Tool position the tool so the holes marked "HORZ PIVOT" are centered on the horizontal reference marks in Step 1. Use the tool as a guide to mark or to pre-drill the holes.
5. Using the painted head screws provided, install both the top and bottom bracket assemblies to the post.
NOTE: Ensure that the holes on the bottom hinge bracket are facing up. Once the brackets are installed refer to the Level Rail Installation to complete the installation of the rail kit.
6. Level rail hardware that is included with the level KD rail kit attaches directly to the horizontal hinge bracket.



Aluminum Picket Installation Instructions

RailFX Oasis™ Stair Rail

KNOCK-DOWN (KD) PICKET PANEL PARTS:

A KD Picket Panel Parts

• Top Rail • Bottom Rail • Balusters



(shown assembled)

B Top Rail Hinge Assembly (2)



C Bottom Rail Hinge Assembly (2)



D Saddle Bracket (2)



E Saddle Bracket Cover (2)



F Bottom Bracket (2)



G 10" Support Block (1)



H Support Block Connector



I 10 x 1" Black Self Drilling Screw (8)



J 10-24 x 7/16" Machine Screws (8)



K 3-1/2" Driver Bit (1)



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 package(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.
- Saddle bracket and bottom bracket are intended for RailFX® posts. If installing to other post types, the necessary hardware will need to be purchased.

NOTES:

- Posts and balusters packaged separately.
- Images shown are in white finish for clarity. RailFX® only offers textured black finish.

MATERIALS REQUIRED:

- Post installation attachment hardware

TOOLS REQUIRED:

- Drill bit 5/32" (.156")
- Drill (with adjustable clutch, recommended)
- Miter Saw (with carbide, 80-tooth or more blade)
- Level
- Phillips Screw Driver
- Rubber mallet
- Tape measure
- Touch-up paint (optional)

Stair Rail Installation Instructions

POSTS INSTALLATION:

1. Determine the location and position of the upper and lower post based on the project layout. Mark the desired location of the posts. 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 nose of the stairs from top to bottom adjacent to both posts (see photo). On the rail side of the post, measure up from the top of the rail and ensure there is a minimum of 35-½" for the 36" rail height and a minimum of 41-½" 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.

All post mounting hardware must be embedded into stair stringers or solid wood blocking.

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 shims or stainless steel washers under the base plate. Do not re-install the base post trim until step 2 of the rail installation.



STAIR RAIL INSTALLATION:

1. Lay the Bottom Rail on the stair from top to bottom and adjacent to the posts previously installed. Make a level reference mark with a pencil on the bracket side of both the upper and lower posts at the point where the top of the rail meets the post.



2. Install the base post trim on both the upper and lower posts.



3. Locate the Bottom Rail Hinge Assembly (C) first by measuring up from the reference marks placed on the posts in Step 1 based on the chart below and place mark at those locations on the bracket side of the post from the Bottom Hinge Assembly only. This will be the centerline mounting point for the bottom hinge assemblies. **NOTE: Centerline mark must be a minimum of 2-5/8" from the deck surface to allow for the base trim to be installed.** From the centerline marks of the Bottom Rail Hinge Assemblies, measure up the distance indicated on the chart to locate the centerline of the Top Rail Hinge Assemblies.



	UPPER POST		LOWER POST	
	Bottom Rail Hinge	Top Rail Hinge	Bottom Rail Hinge	Top Rail Hinge
36" Rail	Up ½"	33"	Up 1 ½"	33"
42" Rail	Up ½"	39"	Up 1 ½"	39"

Stair Rail Installation Instructions (continued)

4. To locate the mounting hole locations of Top Rail Hinge Assembly (B) and the Bottom Rail Hinge Assembly (C), place a mark 1" above and below each of the level line marks centered on the posts from Step 3 (see photo) This will be the location of the fasteners to attach the Hinge Assemblies to the post.

NOTE: Pre-drilling is recommended at these locations for the fasteners.



5. Use the #10-1" Self Drilling Screws (I) secure the Top Rail Hinge Assembly (B) and the Bottom Rail Hinge Assembly (C) to the upper and lower posts through the marked and/or pre-drilled hole locations. (Mounting holes are elongated to allow a small amount of adjustment if necessary to properly align the hinge assemble with the rail.)

NOTE: Two screws are required to mount each bracket to properly secure in place.

Depending on the post location, it may be necessary to temporarily remove the post or disassemble the hinge for adequate access to install the fasteners.



6. Attach the Saddle Brackets (D) to the Top Rail Hinge Assembly (B) using the #10-24 x 7/16" Machine Screws (J).

NOTE: Two screws are required to mount each bracket to properly secure in place.



7. On a flat surface (use the box as a pad to protect painted surfaces), align the holes of both the Picket Panel (A). Place a mark at the determined midpoint of the Bottom Rail (A) (Either baluster on center, or the space between the baluster centered as shown) Transfer that mark to the Top Rail (A).

NOTE: There must be at least 2" between the cut ends and the center of the first baluster holes for proper clearance of the mounting brackets.



Disassembly not required

8. From the centerlines marked on both the Top Rail and Bottom Rail in Step 7, place a mark 1/2" to the left of the centerline on the Top Rail (A) and 3/8" to the right of the centerline on the Bottom Rail (A). These marked locations will become the new centerline mark of both rails to determine cutting locations.

NOTE: When viewed as the photo shown, the right side of both the Top Rail and Bottom Rail will be installed to the lower side of the stair.

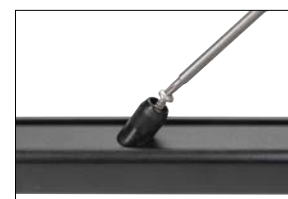


Shown without baluster for illustrative purposes

9. To determine rail length measure the distance between the parallel faces of the Bottom Rail hinge assembly brackets installed in step 5. From the new determined centerlines of Picket Panel (A) completed in Steps 7 & 8, measure half the distance of the determined bottom rail length and place a mark both right and left of the centerlines. This will be the cut marks for the Bottom Rail (A) only. Shorten the Top Rail (A) by an additional 3/8" from each mark previously placed at the ends of the rail to accommodate bracket clearance. This will be the cut marks for the Top Rail (A).



10. Install Support Block Connectors (H) using Mill Finish #10-1" Self Drilling Screw (I) to the underside of Picket Panel (A). **NOTE:** One Support Block, cut from Support Block material (G), is recommended for rails measuring 72" in length or less; use two Support Blocks for longer lengths. If one Support Block is required, install Support Block Connector (H) at center point of Picket Panel (A). If two Support Blocks are required, install Support Block Connector (H) equal distance from each end of the Picket Panel (A).



Stair Rail Installation Instructions (continued)

- 11.** To assemble rail, begin with Top Rail (A) and insert balusters into each baluster hole. Use a rubber mallet to tap the balusters into place until fully seated into the Top Rail. **NOTE: It is recommended to use the box as a pad to prevent scuffing of the painted finish.**



- 12.** Insert balusters in the Bottom Rail (A) the same as in Step 1, 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 (A) 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.**



- 13.** Slide Saddle Bracket Covers (E) over each end of the Top Rail at least 3-4" inward over each end of the rail. Covers will be secured in final position later. **NOTE: A small piece of tape may be required to hold the bracket covers in place.**



- 14.** Slide Bottom Brackets (F) with the counter bore holes facing down and toward the balusters, over each end of the Bottom Rail. A small piece of tape may be required to hold lower bottom brackets in place. Next, set the rail assembly into the Saddle Brackets (D) previously installed (Step 6) letting the Bottom Rail hang freely between the posts.



- 15.** At the point(s) where you installed Support Block Connector(s) (step 11), carefully measure the distance from the underside of the bottom rail to the floor or step. Cut support block material (G) to fit. Slip the Support Block(s) over Support Block Connector(s) (H). Slide the rail back into place and make certain the rail is plumb.



- 16.** Slide and hold the Bottom Brackets (F) against the Bottom Rail Hinge Assembly (C) attached to the upper and lower post and secure with the #10-24 x 7/16" Phillips Screws (J). **NOTE: Two screws are required to mount each bracket to properly secure in place.**



- 17.** Slide bracket covers (E) to interlock with the flange on the saddle brackets (D). If needed, tap the edge of the cover into position using a wood stick or non-marring tool and a mallet.



- 18.** Screw Mill Finish #10-1" Self Drilling Screws (I) into the Top Rail from the underside of Saddle Brackets (D) through the provided locating hole to securely fasten the rail in place.

