



# Outdoor Living

## CONNECTION

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CANYON STAIR RAILING | ASSEMBLY INSTRUCTIONS



**WATCH OUR  
DETAILED HOW-  
TO INSTRUCTION  
VIDEOS**

# CANYON STAIR RAILING INSTALLATION GUIDE

## **Assemble in a Weekend - Admire For a Lifetime.**

At Outdoor Living Connection, our aluminum railing systems are engineered for strength, durability, and long-lasting performance. Our precision manufacturing process delivers structural integrity you can count on—without the hassle of ongoing maintenance.

This installation guide is designed to make your setup simple and straightforward. If you have any questions along the way, our customer support team is here to help.

Give us a call at 224-238-2400 or email us at [help@outdoorlivingconnection.com](mailto:help@outdoorlivingconnection.com).

Thank you for choosing Outdoor Living Connection—where simple meets sleek.



Stair railing installation can be challenging—even for seasoned professionals. This is a two-person job and may require prior experience with similar installations. If you're unsure about any step, we strongly recommend consulting a licensed professional. Proper installation is essential to ensure the safety, longevity, and enjoyment of your railing for years to come.

# CANYON STAIR RAILING TIPS

- 1. Check Local Building Codes First** - Before starting, verify all local building code requirements for stair railing height, baluster spacing (typically less than 4"), and post anchoring. Compliance up front helps avoid costly rework and ensures safety.
- 2. Mark and Dry Fit Before Drilling** - Use a level and measuring tape to mark post locations. Dry-fit all components before drilling to ensure proper alignment, symmetrical spacing, and accurate stair angle placement.
- 3. Account for Stair Tread Overhang When Measuring** - Stair nosing (overhang) can misalign your post placement if not properly considered. Always measure from the riser, not the edge of the tread. For stair applications, you will need our 45" and/or 50" posts.
- 4. Required Driver Bit** - The screws provided require a #2 square drive bit (not included). Ensure you have this bit on hand before beginning installation. A right-angle drill attachment is also recommended for tight stair spaces.
- 5. Railing Lengths and Cutting** - All stair railing kits come in standard lengths (48.5", 70.787", and 94.803"), but must be custom cut to fit your specific stair layout. Use a chop saw with a fine tooth carbide tipped blade for smooth, accurate cuts. Always wear appropriate safety gear, including safety glasses, gloves, and ear protection.
- 6. Order of Installation** - Before installing the stair rails, you will first need to assemble your level railing and related posts.

## ⚠ Important Installer Responsibilities – Outdoor Living Connection

It is the sole responsibility of the installer to ensure that all railing installations comply with local building codes, regulations, and safety standards. The installer is also responsible for securing any required building permits prior to installation.

Outdoor Living Connection's Canyon Collection - All-Aluminum Level Baluster Railing Sections –8 feet and under— along with our standard residential posts - 39 inches - are designed to meet the International Residential Code (IRC). However, the installer and/or purchaser should consult with a licensed professional engineer to confirm that the selected railing system is suitable and compliant for the specific project and application.

Outdoor Living Connection is not liable for improper or unsafe installations resulting from failure to follow code requirements or site-specific needs.

**Warranty coverage** is contingent upon proper installation. Failure to install this product in accordance with Outdoor Living Connection's installation guidelines and applicable building codes will result in the voiding of all warranty protections.

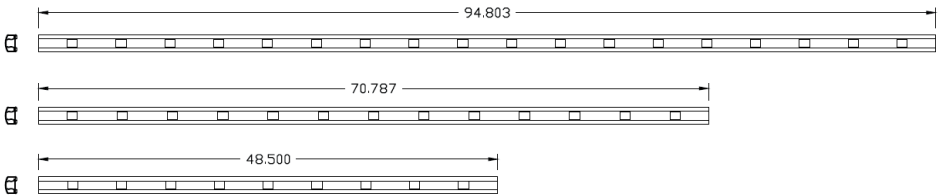
These installation guidelines provide a general framework and may not account for all job site conditions. We strongly recommend reviewing the full set of instructions before beginning installation. Depending on the layout and environment, the installer may need to make appropriate adjustments to ensure safety and compliance.

Outdoor Living Connection Canyon Collection railings have been tested by Intertek, Inc. and are verified to meet the 2016 IRC Construction Code Standards.

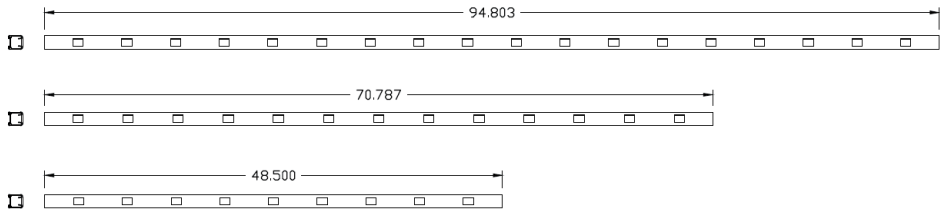
# CANYON STAIR RAILING MEASUREMENTS

RAILING LENGTH	TOP AND BOTTOM RAILING LENGTHS
8 FEET	94.803"
6 FEET	70.787"
4 FEET	48.500"

## TOP RAIL

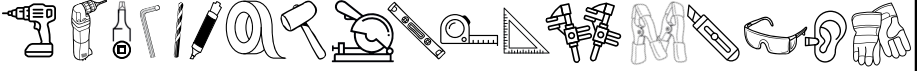


## BOTTOM RAIL



# RECOMMENDED TOOLS

## TOOLS AND HARDWARE **NOT** INCLUDED IN KIT

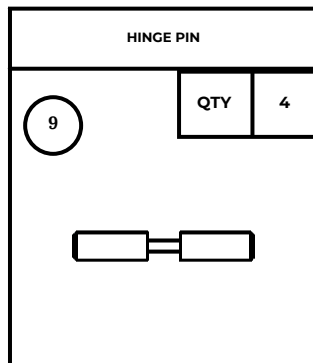
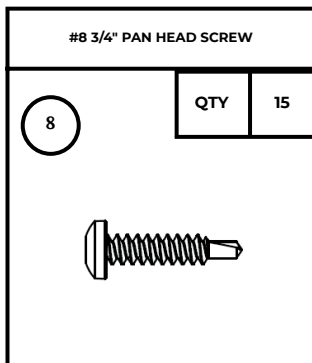
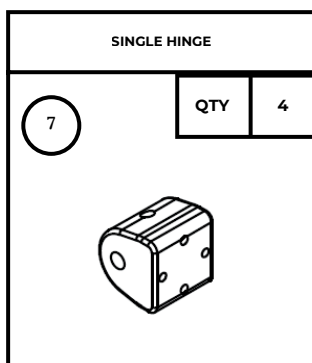
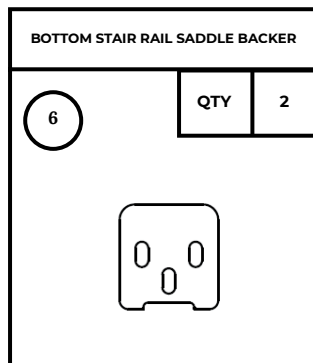
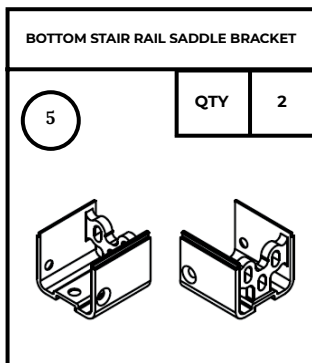
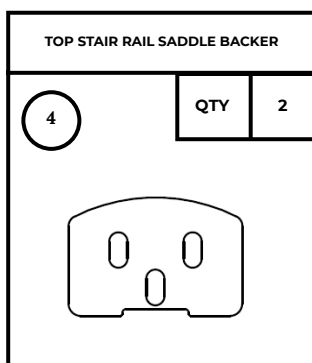
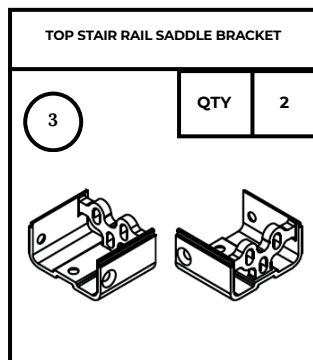
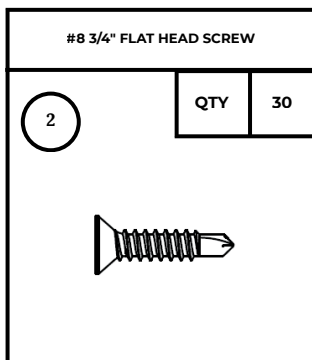
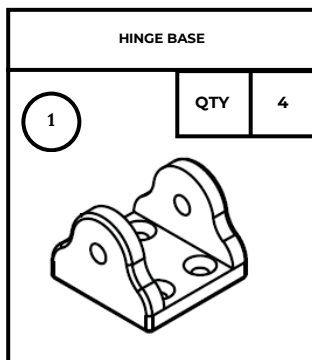


- POWER DRILL
- RIGHT ANGLE ADAPTER FOR POWER DRILL
- #2 SQUARE DRIVER FOR FASTENERS INCLUDED IN KIT
- 1/8" ALLEN WRENCH FOR SET SCREW
- 9/64" DRILL BIT NEEDED TO PRE-DRILL HOLES TO SECURE POST SKIRT
- CHALK MARKER OR PENCIL
- PAINTER'S TAPE
- RUBBER MALLET
- CHOP SAW WITH FINE TOOTH CARBIDE TIPPED BLADE
- LEVEL
- TAPE MEASURE
- SPEED SQUARE
- RATCHETING CLAMPS
- SPRING CLAMPS
- UTILITY KNIFE
- PROPER EYE, HEARING, AND HAND PROTECTION

## INCLUDED COMPONENTS IN YOUR KIT | CANYON STAIR RAIL


ITEM #	DESCRIPTION	4FT QTY	6FT QTY	8FT QTY
1	HINGE BASE	4	4	4
2	#8 3/4" FLAT HEAD SCREW	30	30	30
3	TOP STAIR RAIL SADDLE BRACKET	2	2	2
4	TOP STAIR RAIL SADDLE BACKER	2	2	2
5	BOTTOM STAIR RAIL SADDLE BRACKET	2	2	2
6	BOTTOM STAIR RAIL SADDLE BACKER	2	2	2
7	SINGLE HINGE	4	4	4
8	#8 3/4" PAN HEAD SCREW	15	15	15
9	HINGE PIN	4	4	4
10	1/4-20 SET SCREW	4	4	4
11	TOP RAIL	1	1	1
12	BOTTOM STAIR RAIL	1	1	1
13	BALUSTERS	9	13	18
14	BALUSTER RAIL INSERT - BLANK	1	1	1
15	BALUSTER RAIL INSERT - SLOTS	1	1	1
16	TOP STAIR RAIL SADDLE CAP	2	2	2
17	BOTTOM STAIR RAIL SADDLE CAP	2	2	2

# VISUAL PARTS LIST

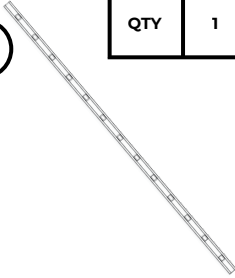


# VISUAL PARTS LIST

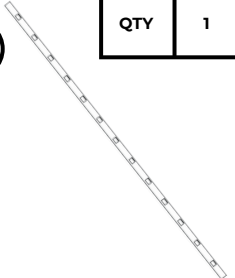
**1/4-20 SET SCREW**

10	QTY	1
		


**TOP RAIL**

11	QTY	1
		

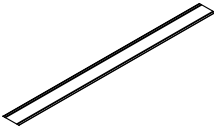
**BOTTOM STAIR RAIL**

12	QTY	1
		

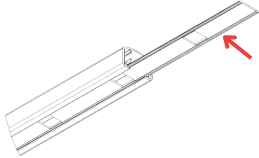
**BALUSTERS**

13	QTY	4FT-9
		6FT-13
		


**BALUSTER RAIL INSERT-BLANK**

14	QTY	1
		

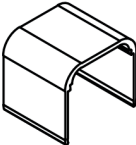
**BALUSTER RAIL INSERT - SLOTS**

15	QTY	1
		


**TOP STAIR RAIL SADDLE CAP**

16	QTY	2
		

**BOTTOM STAIR RAIL SADDLE CAP**

17	QTY	2
		

**BEFORE YOU BEGIN**



Make sure you have proper safety equipment, your instructions, and have checked all applicable building codes and permit requirements prior to starting your build.

NEED HELP? | JUST CALL A



Our **Designated Assembly Directors**, or as we like to call them, **D.A.D.s**, are here to help with your Outdoor Living Connection Project!

Give our **D.A.D. Helpline** a call and finish your project the right way the first time (as our D.A.D.s always say).



1 (815) 384-4DAD



**LINK TO TOOLS YOU MAY NEED:**

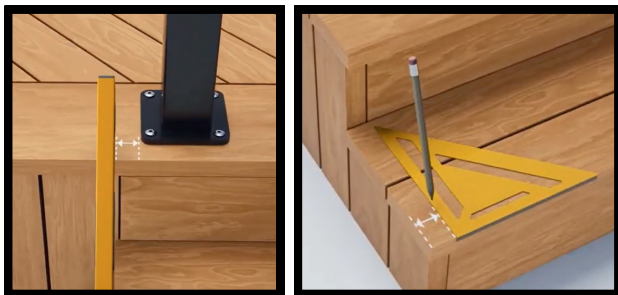
*Outdoor Living Connection, LLC. is not affiliated with Home Depot and does not endorse or solely recommend any of their products for monetary compensation. This is only meant to be helpful in the event that an installer does not have the tools required to install their project.*



# STAIR RAIL INSTALLATION

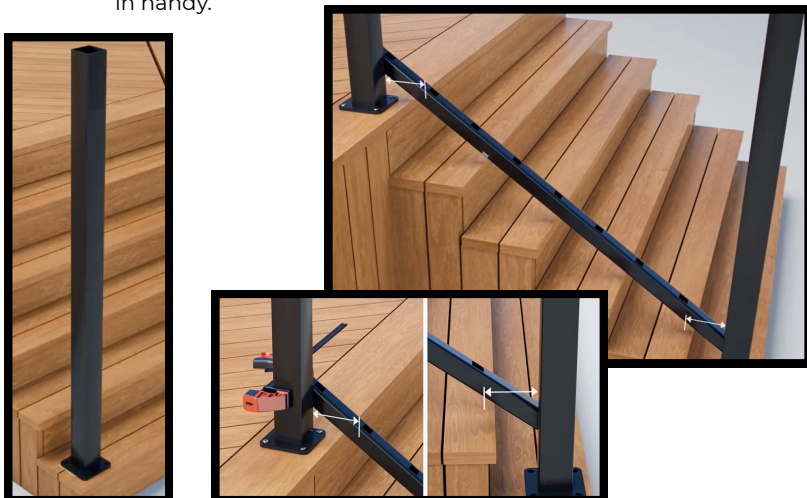
## STEP 1

Determine the location of the post by placing a level on the side of the stairs and measuring over to the base of the post. Use this measurement to mark a line on the bottom step. This ensures that the posts are lined up along the stairs.



## STEP 2



Place the post on the line, but do not install the post yet. Sometimes a small adjustment of where the bottom post is will make the installation much easier. Lay the bottom stair rail on the steps up against the side of the posts. Set it so that the distance to the first opening from the post at the top and bottom are the same. This distance needs to be between 2 ½ inches and 4 inches. Clamp it to the top post to hold it in place. Double check that your distances are the same at the top and bottom. This is where being able to move your post can come in handy.



# STAIR RAIL INSTALLATION

## STEP 3

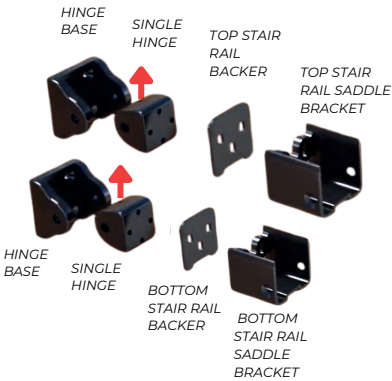
Assemble the brackets included in your kit for the top and bottom rail (**DO NOT TIGHTEN SET SCREWS YET**):

**IMPORTANT-** When you assemble your brackets, make sure the single hinges on the **top side** of your railing have the set screw holes facing up  and that the set screw holes on the single hinges on the **bottom side** of your stair rail are facing down. 

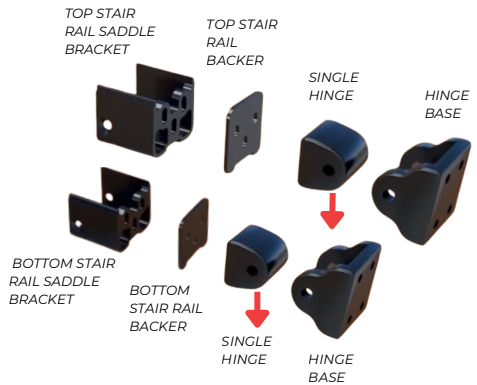
**A**

Position the backer plate between the bracket and the single hinge, then secure them together using three #8 3/4" Pan Head Screws. Ensure that the bracket is aligned and square before tightening the screws all the way.

### UPPER POST BRACKET ORIENTATION



### LOWER POST BRACKET ORIENTATION



WATCH OUR STAIR RAIL INSTRUCTIONS FOR DETAILED VISUALS.



# STAIR RAIL INSTALLATION

- B** Attach the assembled bracket to the hinge base by inserting the hinge pin—press firmly to ensure the pin is fully seated. **DO NOT TIGHTEN THE SET SCREW YET AS THAT WILL BE DONE LATER.**



**NOTE** - Due to the durable paint finish used for our products, additional pressure may be required when inserting the hinge pins through the holes or backer plates into the saddle brackets.



**WATCH OUR STAIR RAIL INSTRUCTIONS FOR DETAILED VISUALS.**



## STEP 4

Once all four brackets are assembled, place the bottom bracket onto the post and beside the rail. Mark a line on the rail where the bracket ends and another line 1 inch back from the end of the bracket. Mark the rail so you know this is the top. Repeat the process at the bottom using the bottom bracket assembly.



# STAIR RAIL INSTALLATION

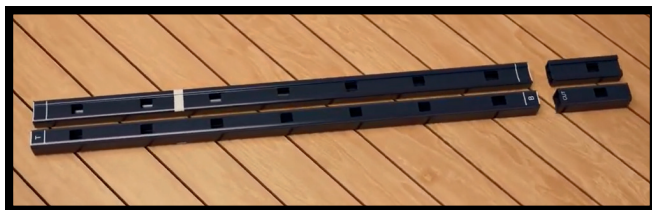
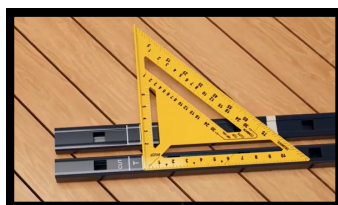
## STEP 5

Knowing that the spacing will work for the bottom post, mark the edges of the post location. After your final post location is marked, measure 38 inches up from the bottom of the bottom rail and mark a line—this will determine the proper post height. Cut the post at the marked line using a chop saw with a fine tooth carbide tipped blade. Always use appropriate hand, ear, and eye protection when cutting.



## STEP 6

Take the bottom rail you marked and set it beside the top rail. Line up the top and bottom rails and transfer the bracket and cut marks at both ends. Cut the rails on the cut marks using a chop saw with a fine tooth carbide tipped blade.



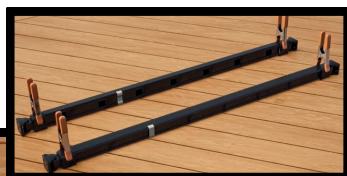
### HELPFUL TIP

All our stair rails are made of two parts. The underside piece is movable, so make sure the ends are flush and use some painter's tape to hold it in place during installation.

# STAIR RAIL INSTALLATION

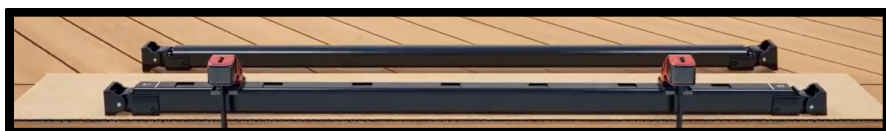
## STEP 7

Install the brackets at each end, lining them up with the brackets marks we made earlier. Secure all brackets with just one screw of the #8 3/4" Flat Head Screws on the side. All the provided screws are self-tapping, but can be pre-drilled with a 9/64 inch drill bit if you prefer. Alternatively, instead of the single screw, you can hold the brackets to the rails with spring clamps. This can hold all the brackets to the rails until the screws are installed later.



## STEP 8

To install the balusters, set the bottom rail down on your surface with the holes facing up. It is recommended to clamp the rail down to the surface to hold it in place. If you are clamping to a finished deck, use some cardboard or a blanket to prevent any scratching or damage. Install the balusters by pressing them into the holes. Push them all the way to the bottom of the rail. Add the top rail, making sure the top and bottom match the same side.

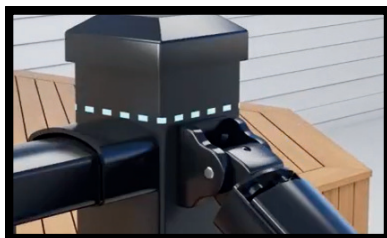
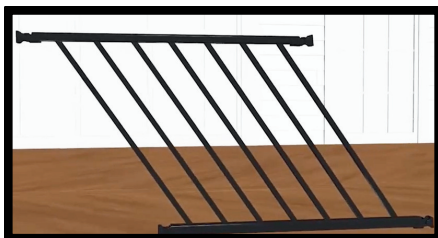


\*Make sure the balusters are fully pressed into the rails. You may need to use a rubber mallet to secure the balusters in place.

# STAIR RAIL INSTALLATION

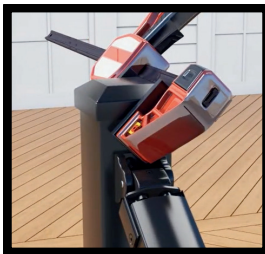
## STEP 9

Apply some pressure to the railing to rack it toward the top side. Take the rail and place it between the posts and line up the top bracket with the railing bracket beside it.



## HELPFUL TIP

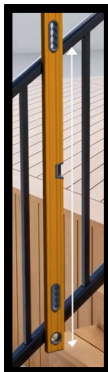
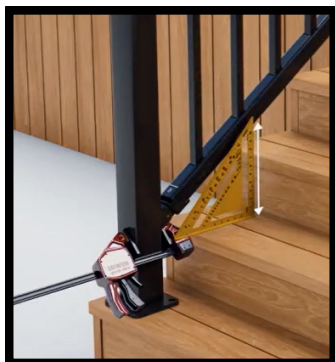
Once you determine your height, you can make a spacer using cardboard or wood and use it to set the rail on. This ensures the height between the railing and bottom step is even on both ends.



Centering the railing on the posts, clamp the brackets to the posts using ratcheting clamps, leaving one screw hole exposed. Clamp all four brackets.

## STEP 10

Ensure the railing is at the proper angle by measuring from the ends of the step in two places. One near the top and one near the bottom. These measurements should be the same. Measure up from the front of the tread to the top of the railing. Make sure this meets the building code in your area. This is often around 36 inches but ensure you check local building code. Before securing the brackets, make sure they are centered on the post.



# STAIR RAIL INSTALLATION

## STEP 11

Secure the brackets by installing the supplied #8 3/4" Pan Head Screws in the available hole. Remove the clamp and install the second screw. You can use a right angle adapter for hard-to-reach places. If you can't reach all the holes for the screws right now, that is to be expected. We will get to how to access those additional screw holes on the mounting bracket in our next steps. Do this for all four brackets.



## STEP 12

Now, secure the bottom post. You will need to secure the post with 4 lag bolts (not included in your kit) and each bolt must be secured into a solid structure. Depending on the structure, different fasteners are recommended. See our website for more details. Check that the post is standing straight by using a level on two sides of the post.

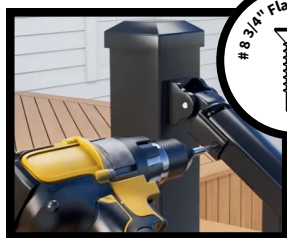
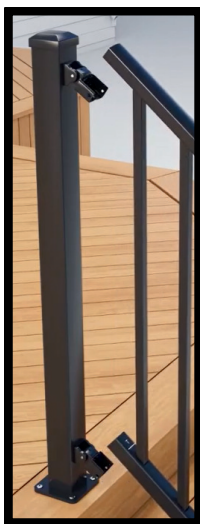
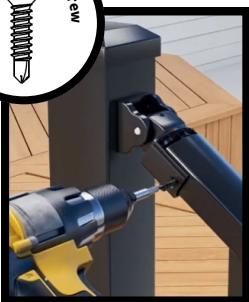


\*If you need to straighten your post, loosen the bolts and use the shims supplied in your post kit to make any necessary adjustments.

# STAIR RAIL INSTALLATION

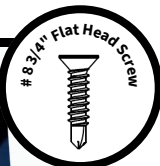
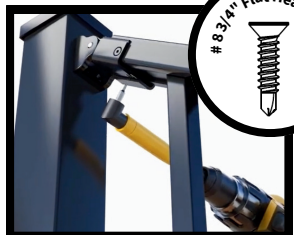
## STEP 13

Now that your railing spacing and post placement are correct, you must finish securing your brackets. Starting at the top of your stairs, unscrew the one #8 3/4" Flat Head Screw from the side on the top and bottom rail. You can now move the rail to access the final screw holes on the bracket. Install the provided #8 3/4" Pan Head Screws into the last two open holes on the bracket and then do the same on the bottom bracket. Reinstall the #8 3/4" Flat Head Screw on the side of the railing. Repeat on the bottom end to secure all the final screws in the brackets.



## STEP 14

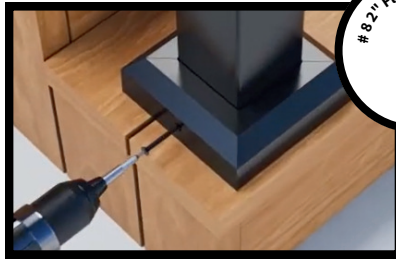
Before installing the screw underneath, measure the distance from the post to the first baluster at the top and bottom. You can make small adjustments by moving the baluster at the top. When ready, install the supplied #8 3/4" Flat Head Screw underneath and install the remaining screws on the sides. Repeat this process for all 4 brackets.



# STAIR RAIL INSTALLATION

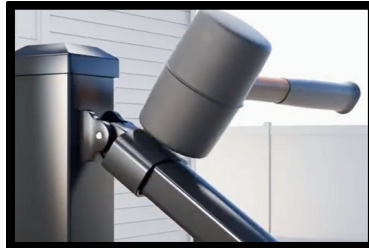
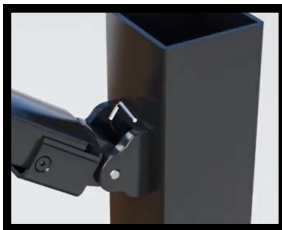
## STEP 15

Install the two-piece base skirt by sliding the halves together and then securing with the #8 2" Flat Head Screws supplied in the Post Kit.



## STEP 16

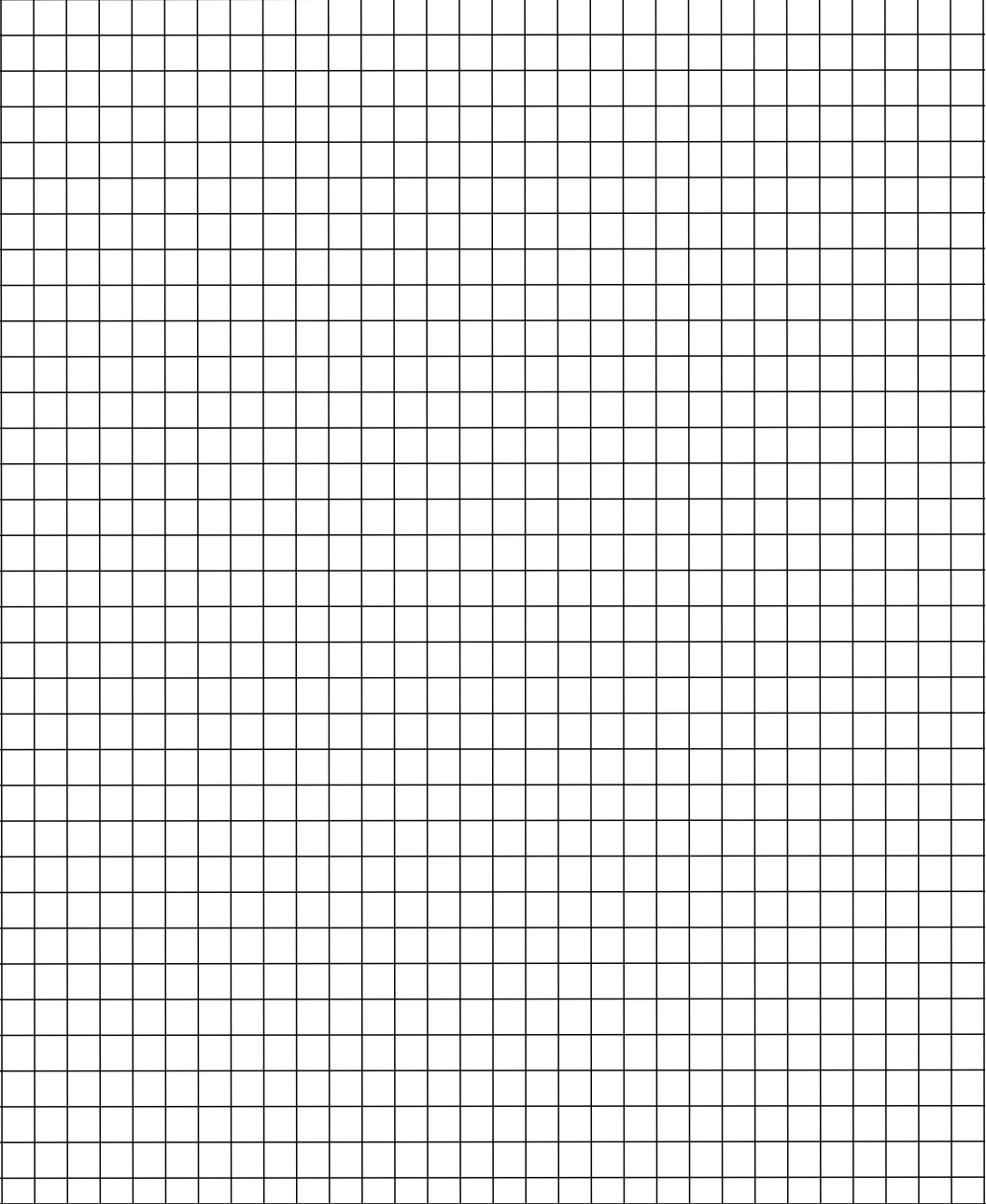
In each bracket, there is a pre-installed set screw. Tighten the set screw on each bracket to hold the pins in place. The set screws are tightened using a 3 Allen Key or H3 bit (not included in your kit). After tightening the set screws, snap on the bracket covers and use a rubber mallet if needed to secure in place.



## STEP 17

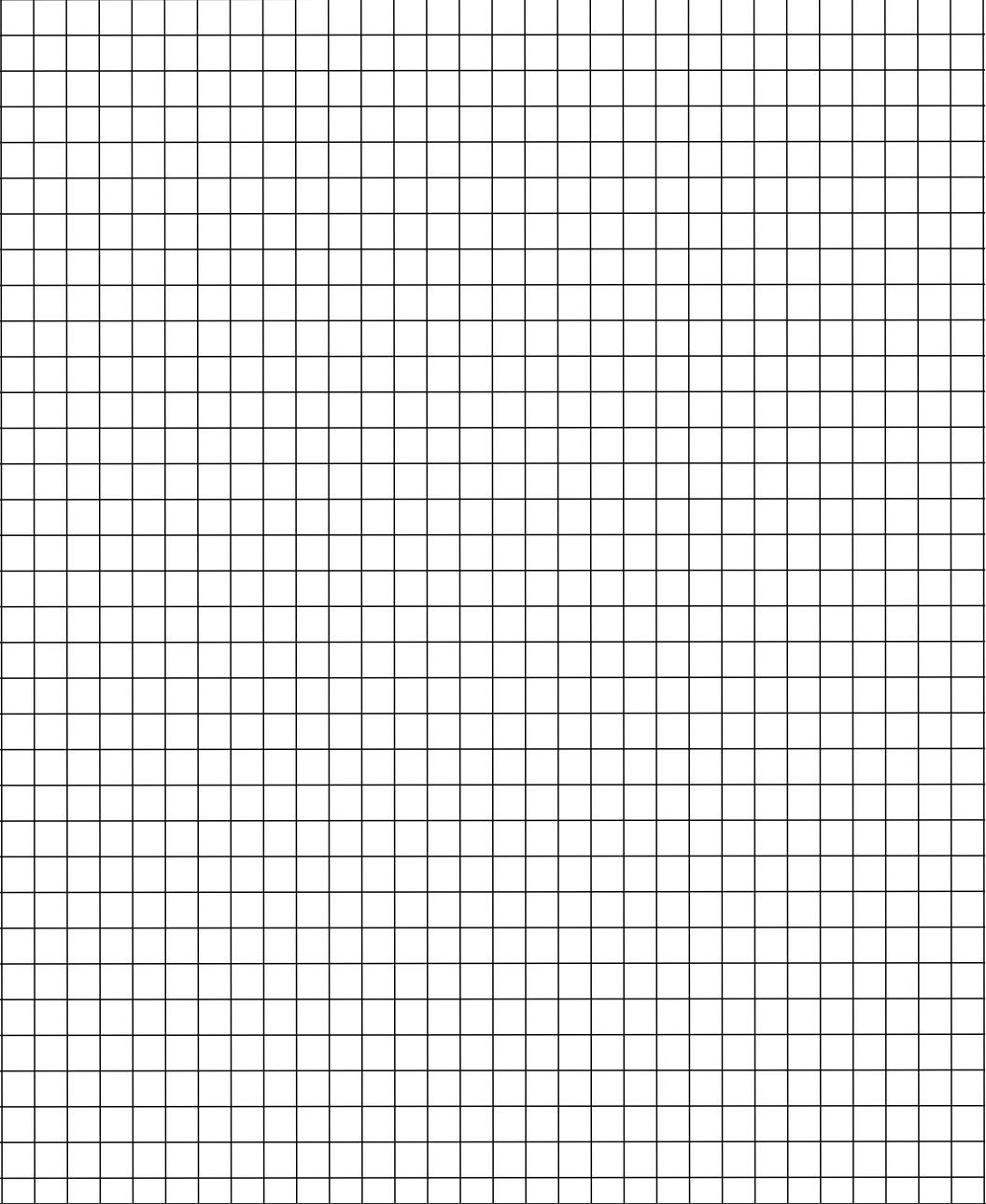
Finish your railing assembly by securing the post caps onto the posts using a rubber mallet.





## **YOUR BACKYARD BLUEPRINT**





## **YOUR BACKYARD BLUEPRINT**





**Outdoor Living**  
C O N N E C T I O N



Proudly Made in the USA