

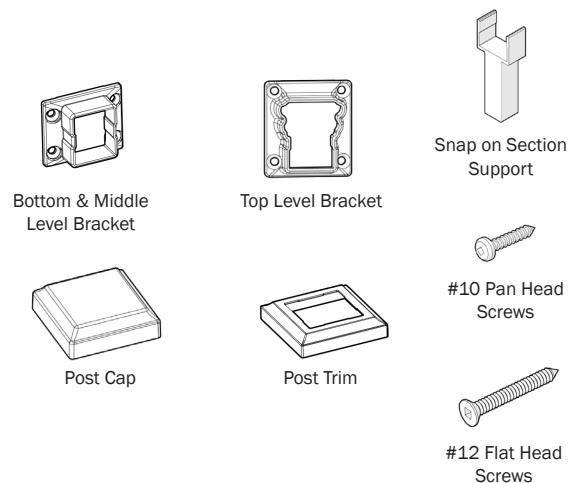
## Recommended Tools

- Safety Glasses
- Tape Measure & Pencil
- Saw w/ fine-tooth blade
- Rubber Mallet
- Level
- Power Drill w/ square bit driver
- Hammer Drill (if concrete install)
- *These directions are only a guide and may not address every situation.*
- *Always wear proper safety equipment while assembling and installing.*
- *The installer should obtain all required building permits and follow all installation procedures in accordance with applicable building code requirements.*
- *Cardinal Building Products shall not be held liable for improper or unsafe installations.*
- *Applying paint, other than Cardinal's touch up paint, will void your warranty.*
- *To ensure proper coverage by our warranty please visit our website and complete the warranty form and mail to: Cardinal Building Products, 33 Hess Road, Leola, PA 17540*

## What's Included

- Top and Bottom Rails
- Balusters
- Mounting Brackets
- Snap on Support (for 8' sections)
- (17) #12 Flat Head Screws
- (9) #10 Pan Head Screws

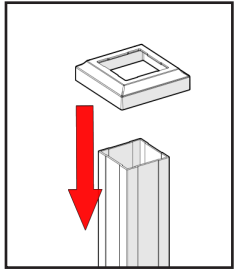
*Posts, caps, and trim sold separately*



WARNING: This product can expose you to chemicals including Quartz (crystalline silica), which is known to the State of California to cause cancer, and Hexavalent Chromium, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**1**

## Install Railing Post & Post Trim

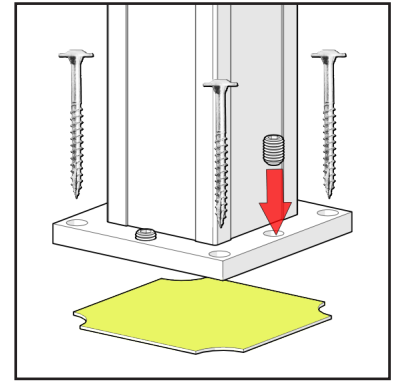


Placing trim

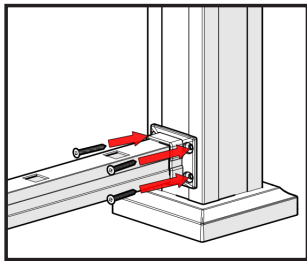
Space Posts according to \*application and Top Rail length. Place leveling plate (*highlighted*) between Post and mounting surface.

Attach to structural surface using bolts or lags (*not included*). Partially Tighten prior to levelling. Using 3/16" Allen wrench, turn set screws to level Post. Then fully tighten structural screws.

*\*Check your local building codes to determine structural mounting requirements for Post.*

**2**

## Attach Bottom Rail

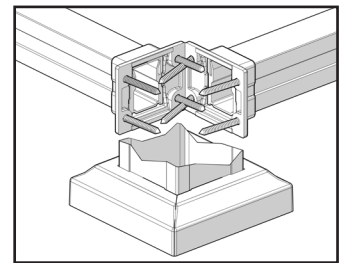
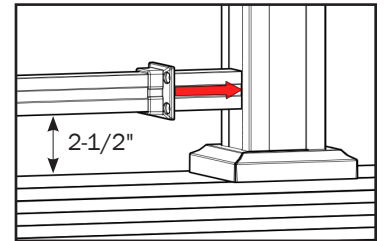


Measure between posts subtracting 1/4" from total length, and if necessary cut Rail to proper length by cutting an equal amount from each end. Do not cut through Baluster holes

Slide the bracket over the rail, then put the rail in place (2½" above deck surface) and slide the self-centering bracket against the post. Fasten bracket to post using #12 screws, and secure bracket to railing using #10 pan-head screws.

**Tip:** Cut a block to 2½" and set Bottom Rail on it for support during installation.

**\*Recommended:** (If using 2-1/2" corner Posts) offset inside edge screws with alternating angles to help avoid Mounting Bracket screw interference.

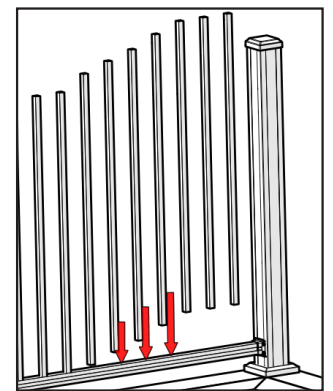


\*2-1/2" Post: Screw offset shown

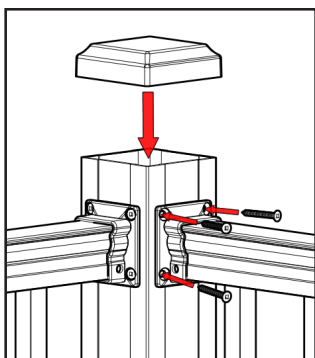
**3**

## Install Balusters

Insert balusters into the holes in the bottom rail. Push firmly to set.

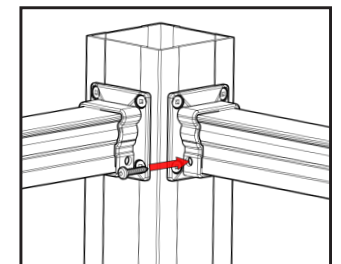
**4**

## Attach Top Rail & Middle Rail (if applicable)



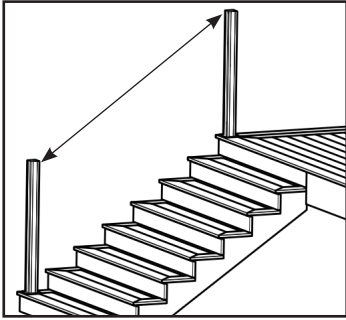
Place Top Rail 36" or 42" from the deck surface to the top face of the Rail, and onto balusters. Fasten to post using self-centering brackets and #12 screws. Secure bracket to railing using #10 pan-head screws. Repeat for Middle Rail.

Place cap on post and use rubber mallet to set in place.



# 5

## Stair Rail Installation

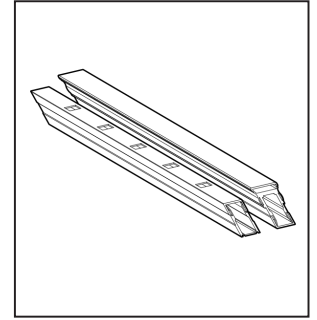


Measure from inside edge between posts subtracting 1/4" from total length, and if necessary cut Rail to proper length by cutting an equal amount from each end. Do not cut through Baluster holes

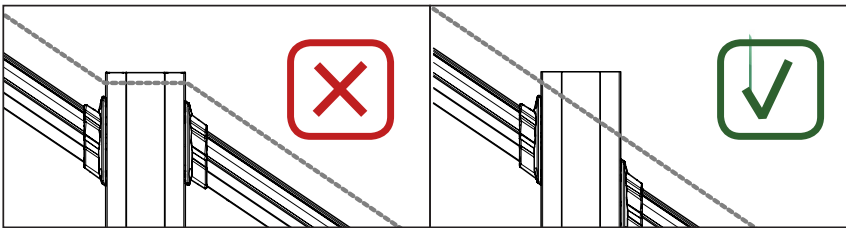
To ensure rails align properly. Cut Upper and Lower ends of Top and Bottom Rails at opposite angles.

(Standard stair angle is 34°)

Repeat steps 2 through 4 to Install Rails, Mounts, and balusters

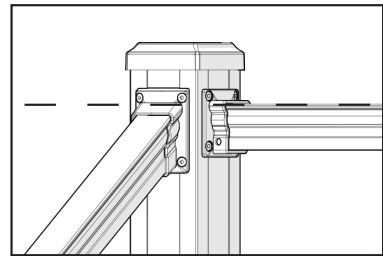


**When installing stair sections, mount them as shown below:**



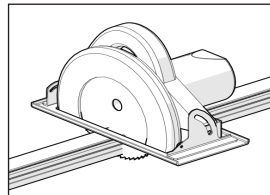
**Rail Height**

Ensure that the stairs' Top Rail doesn't exceed the level height of the opposite Rail.



**Cutting Tip**

Be sure to use a **fine-tooth blade approved for cutting aluminum** and rest rails on a piece of **non-abrasive material** to protect from scratches.



**NOTE:** Always check local building codes to ensure compliance as there are mandates regarding the size opening beneath the bottom rail.



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