



INSTALLATION INSTRUCTIONS

BALUSTER RAILING SYSTEM

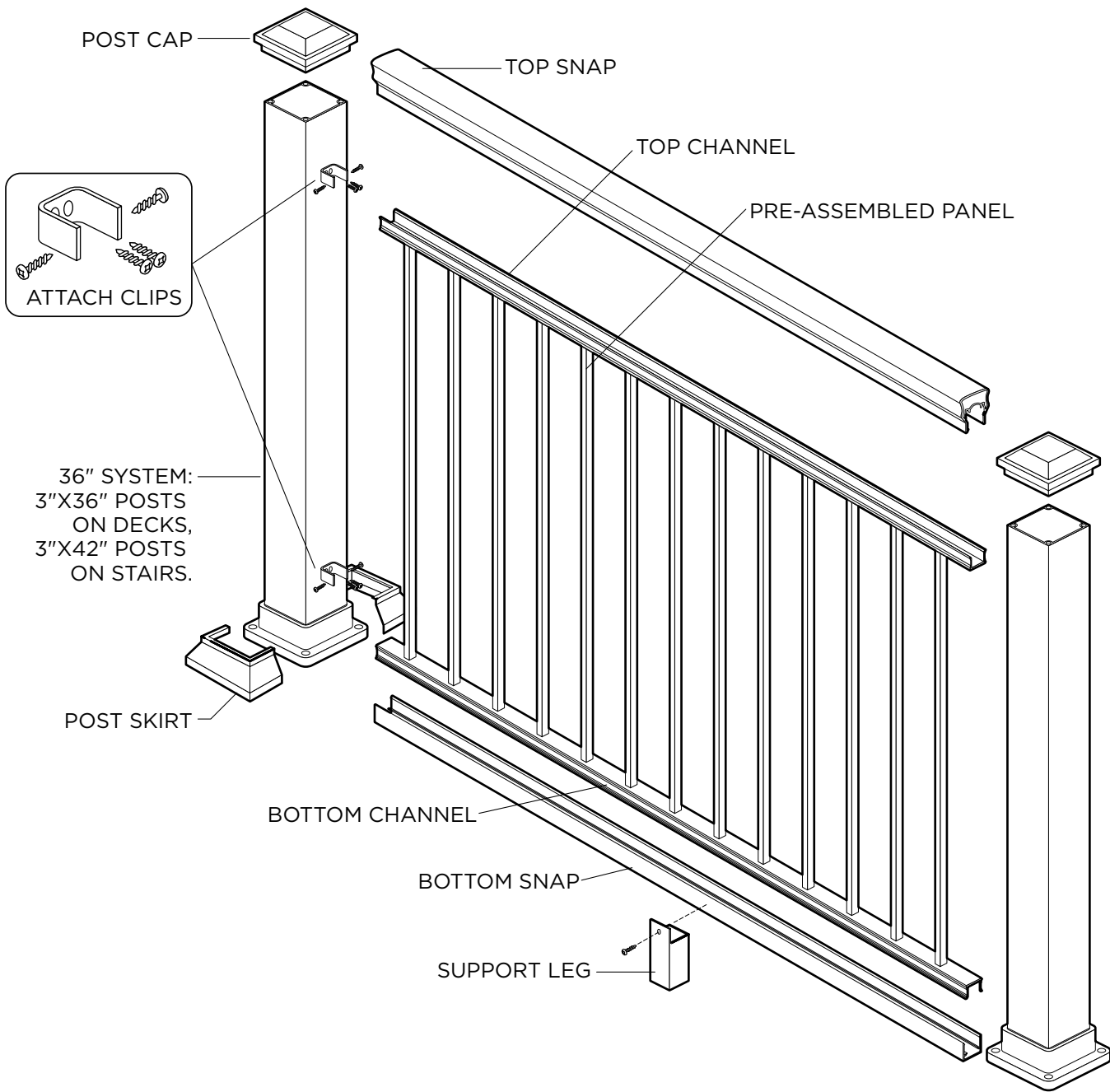
36in and 42in Heights with 3in Posts

(36IN HIGH SYSTEM SHOWN)

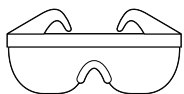


IMPORTANT NOTES:

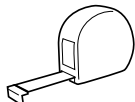
- It is the responsibility of the installer to meet all local code requirements and obtain all required building permits. The installer should determine and implement appropriate installation techniques for each installation situation. The manufacturer or its reseller shall not be held responsible for improper or unsafe installation.
- Prior to construction, check with your local regulatory agency for special code requirements in your area.
- Common railing heights are 36" or 42". Post spans will vary depending on job site conditions. When you cut a kit to create two panels, for instance, cutting 8' to two 4', you will need an additional hardware kit. Read instructions completely to get an understanding of how the product goes together and how each piece affects the other.
- Install post caps and base plate covers after railing assembly is completed.
- If installing lighting, wiring must be installed prior to securing posts to deck surface and installing top rail snaps.
- Actual picket panel lengths: 6' Panels = 69.43"; 8' Panels = 91.31".
- 3" posts are required to reach 6' & 8' lengths.
- Maximum post span on stair railing applications is 70" on center.
- Stair railing panels are shipped at a 37° angle. Panels are adjustable and will accommodate 30-40° stair angles. CAUTION: Over adjusting stair panels will cause loose and rattling pickets.
- 42" post kits are required for middle and bottom stair posts with the 36" railing system.
- 48" post kits are required for middle and bottom stair posts with the 42" railing system.
- 45° deck angles require 22.5° clips applied to each side of the post. The 22.5° clip kit is sold separately.
- Two 3" posts are recommended on top of deck surface if stair riser is not at a 90° angle from deck frame.
- These Instructions cover installation of Baluster Railing System. Please visit WilliamsRailing.com for other railing systems.



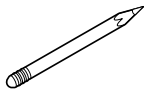
ITEMS REQUIRED FOR INSTALLATION



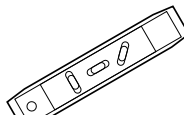
SAFETY GLASSES



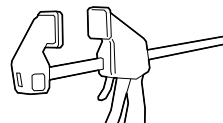
TAPE MEASURE



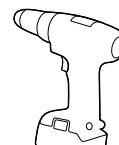
PENCIL



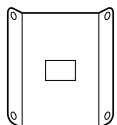
LEVEL



4 CLAMPS



CORDLESS
DRILL



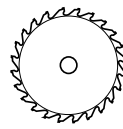
LOWER RAIL
CLIP JIG



6" #2 SQUARE
DRIVE BIT



3/16"
DRILL BIT



MITER SAW WITH
NON-FERROUS BLADE

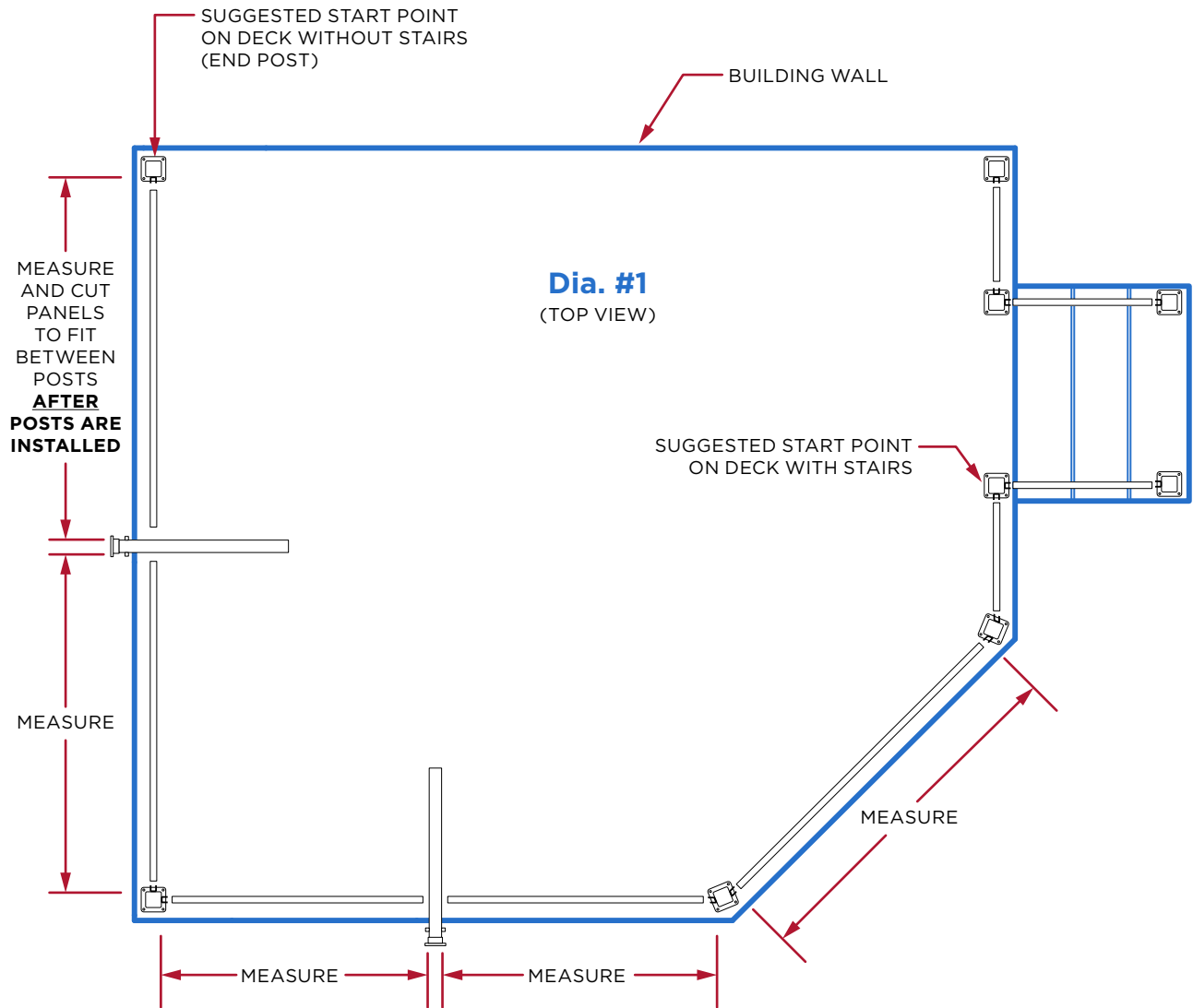


APPROPRIATE FASTENERS
FOR MOUNTING POSTS TO
DECK SURFACE

1

Determine Post Configurations and Locations (end, center and corner)

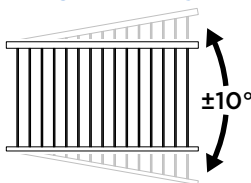
Loosely lay posts over deck edge and adjust as required to determine post mounting locations. (Dia. #1). Note the recommended 3" on-center setback from deck edges as shown in Dia. #3. NOTE: Front edge of all stair post base plates should be equal distance from the nose of stair treads, however no further than 1-1/2" set back (Dia. #3c).



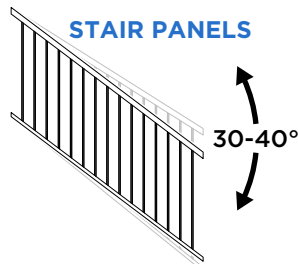
CAUTION: Over adjusting panels will cause loose and rattling pickets.

Deck (level) panels may be adjusted up to 10°; stair panels are shipped at a 37° angle and will accommodate 30-40° stair angles.

DECK PANELS



STAIR PANELS



2

Prepare Posts (end, center and corner)

Install Lower Deck Rail Clips - Two Options:

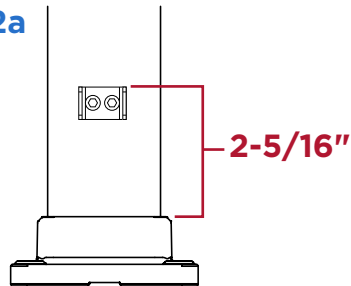
Option A - When No Lower Rail Clip Jig Is Available

Measure 2 5/16" from top of casting shoulder and place a pencil mark for location of the top edge of the rail clip. (Dia. #2a) Center clip on post and secure with (2) - #8x3/4" Self-tapping screws.

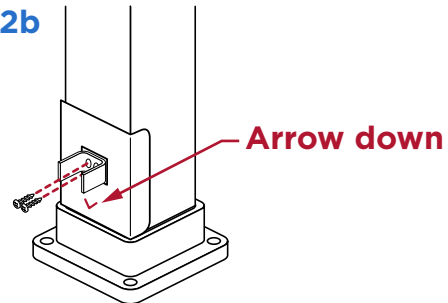
Option B - Using Lower Rail Clip Jig

Place lower rail clip jig (w/arrow facing down) on top of base plate upper edge. (Dia. #2b) Place clip in hole, hold clip firmly and fasten with (2) - #8x3/4" Self-tapping screws.

Dia. #2a



Dia. #2b



3

Secure Posts to Deck

Install proper post blocking as per (Dia. #3a, #3b). Use proper attach screws or anchors as directed below. (Post-to-surface screws are not provided with kits).

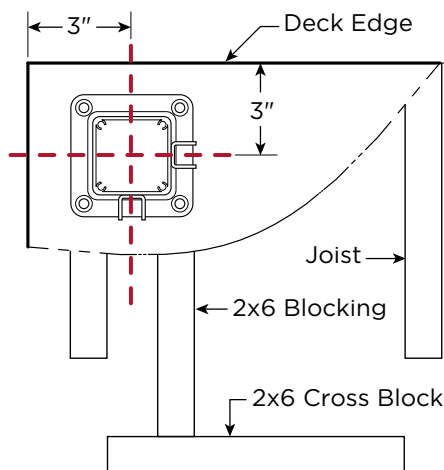
- With 3/16" drill bit, pre-drill through deck boards and into blocking.
- Level and plumb post using shims.
- Secure posts to deck with suggested screws.
- NOTE: Front edge of all stair post base plates should be equal distance from the nose of stair treads, however no further than 1-1/2" set back (Dia. #3c).

Post-to-Surface Mounting Screws (not included):

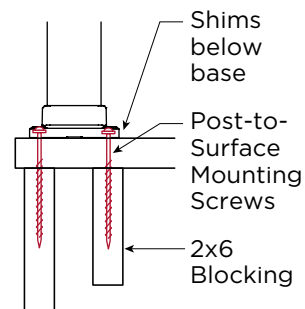
Residential Decks:
GRK® RSS™ 5/16" x 6" Grade C Yellow Zinc Washer Head Structural Screw

Residential Concrete: Tapcon® 5/16" x 3" Hex Washer Head Concrete Anchor

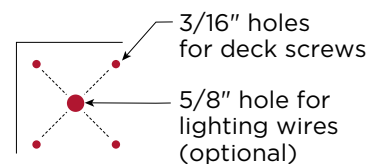
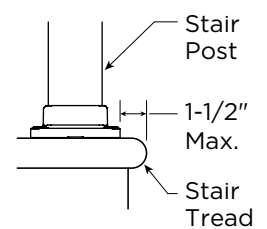
Dia. #3a



Dia. #3b



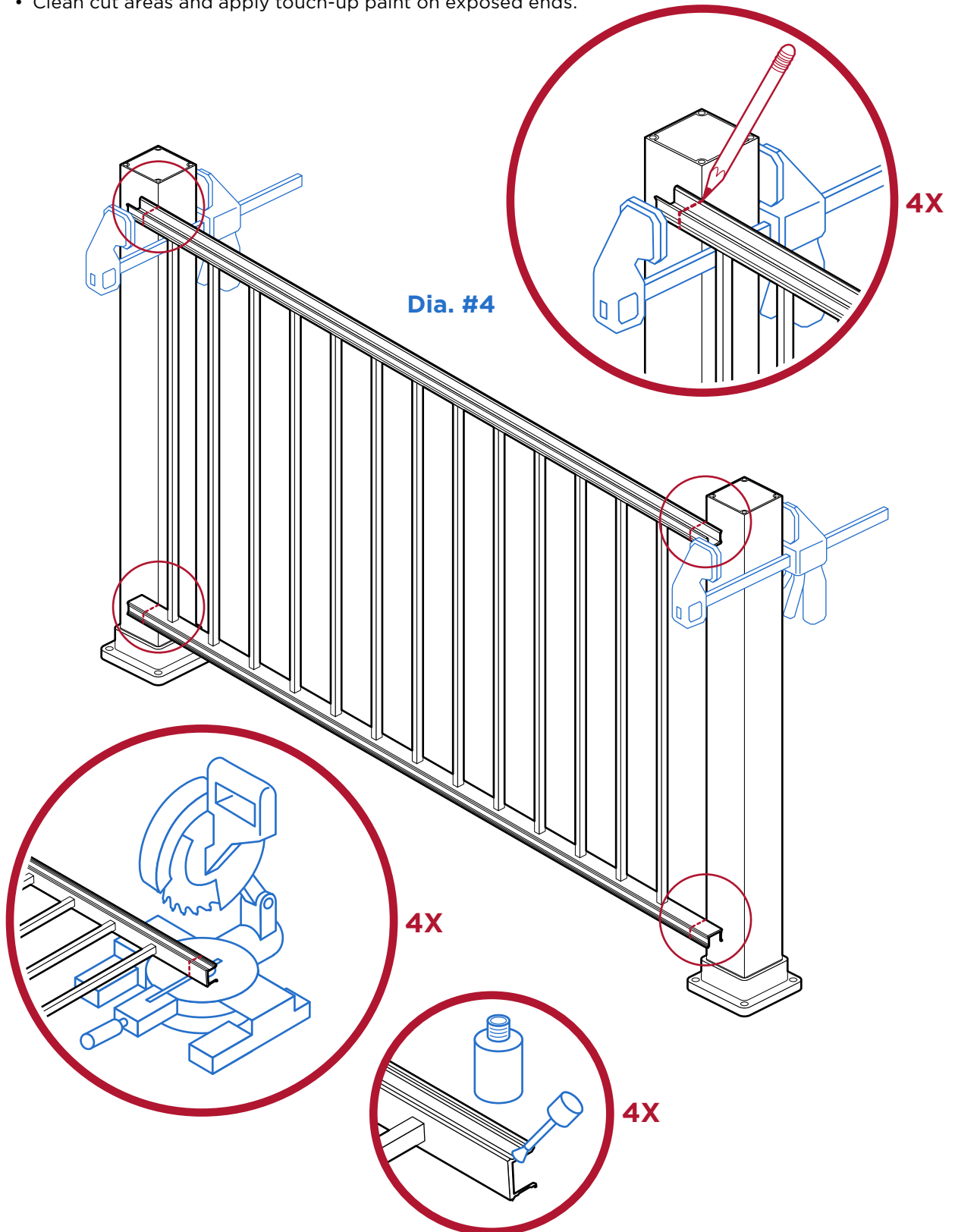
Dia. #3c



4

Cut Deck Panels

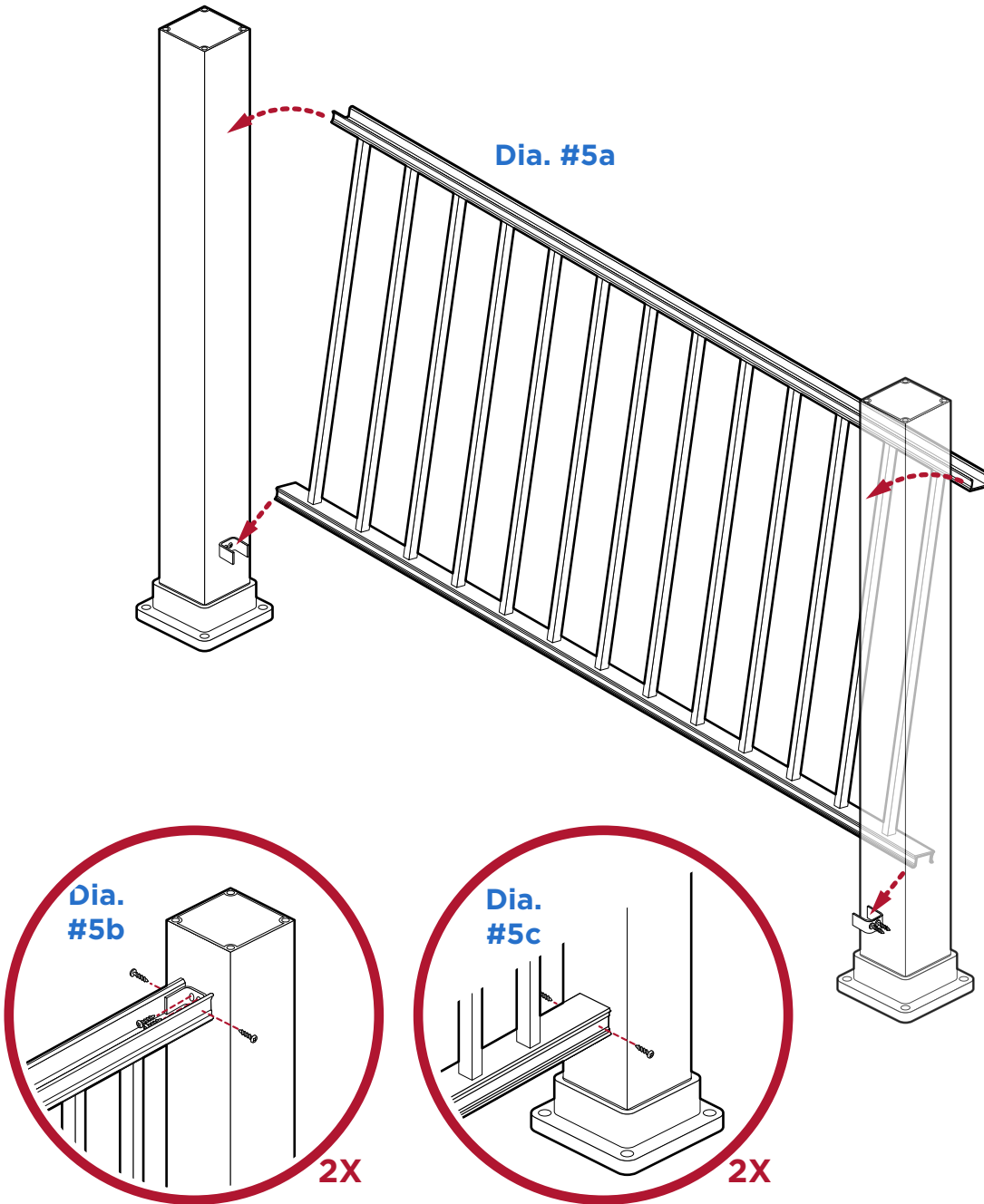
- Clamp or hold panel against post, adjust for equal end spacing. (Dia. #4)
- Mark the top and bottom rails.
- Cut panel 1/16" less than opening size.
- Clean cut areas and apply touch-up paint on exposed ends.



5

Secure Deck Panels to Posts

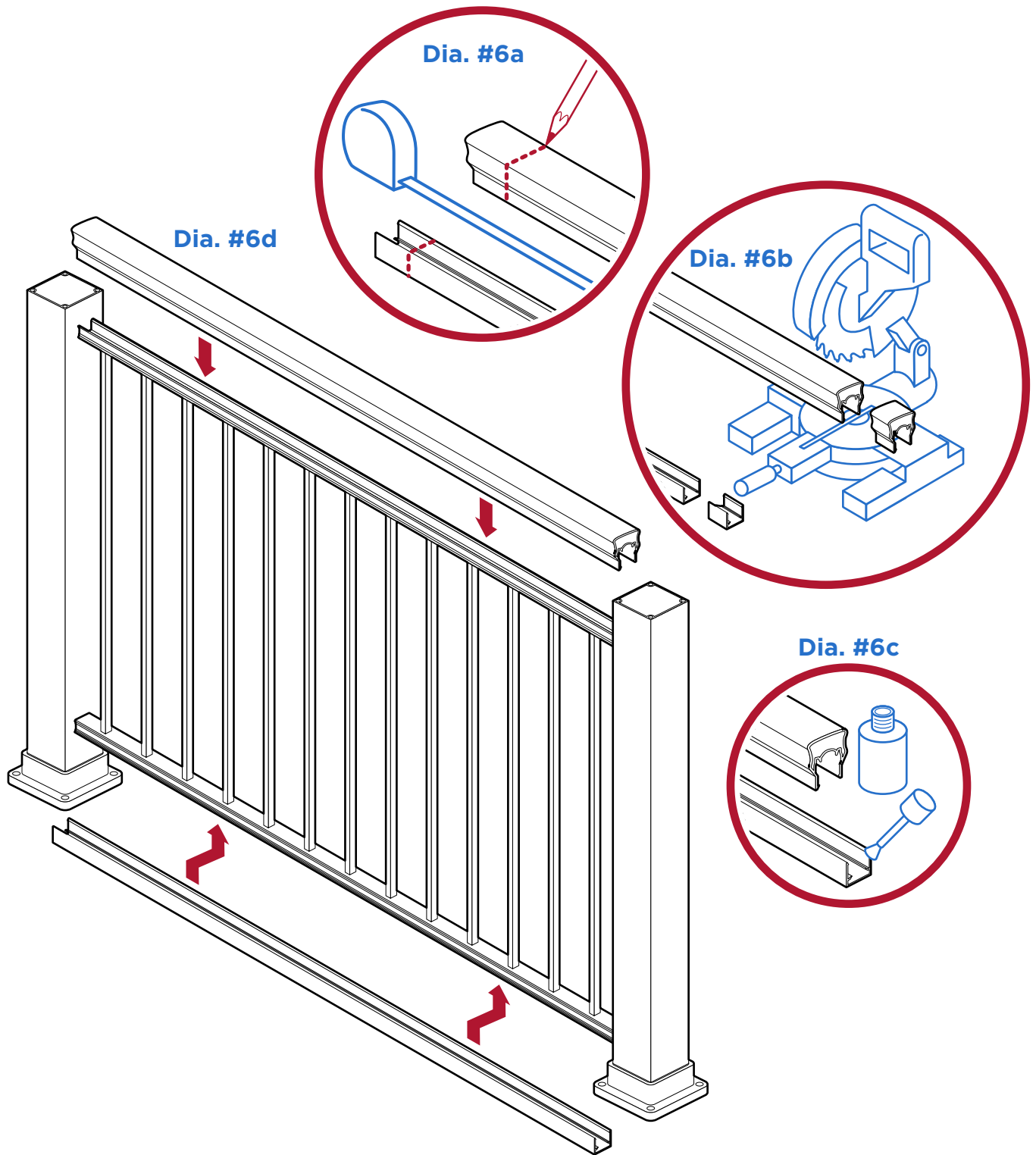
- Slide bottom channel of pre-cut panel on to lower clips. (Dia. #5a)
- Insert clips into top channel of panel on each end.
- Using (4) - #8x3/4" Self-tapping screws, attach the upper two clips to the post. (Dia. #5b)
- Using (8) - #8x3/4" Self-tapping screws, secure the upper and lower clips to the panel. (Dia. #5b, #5c)



6

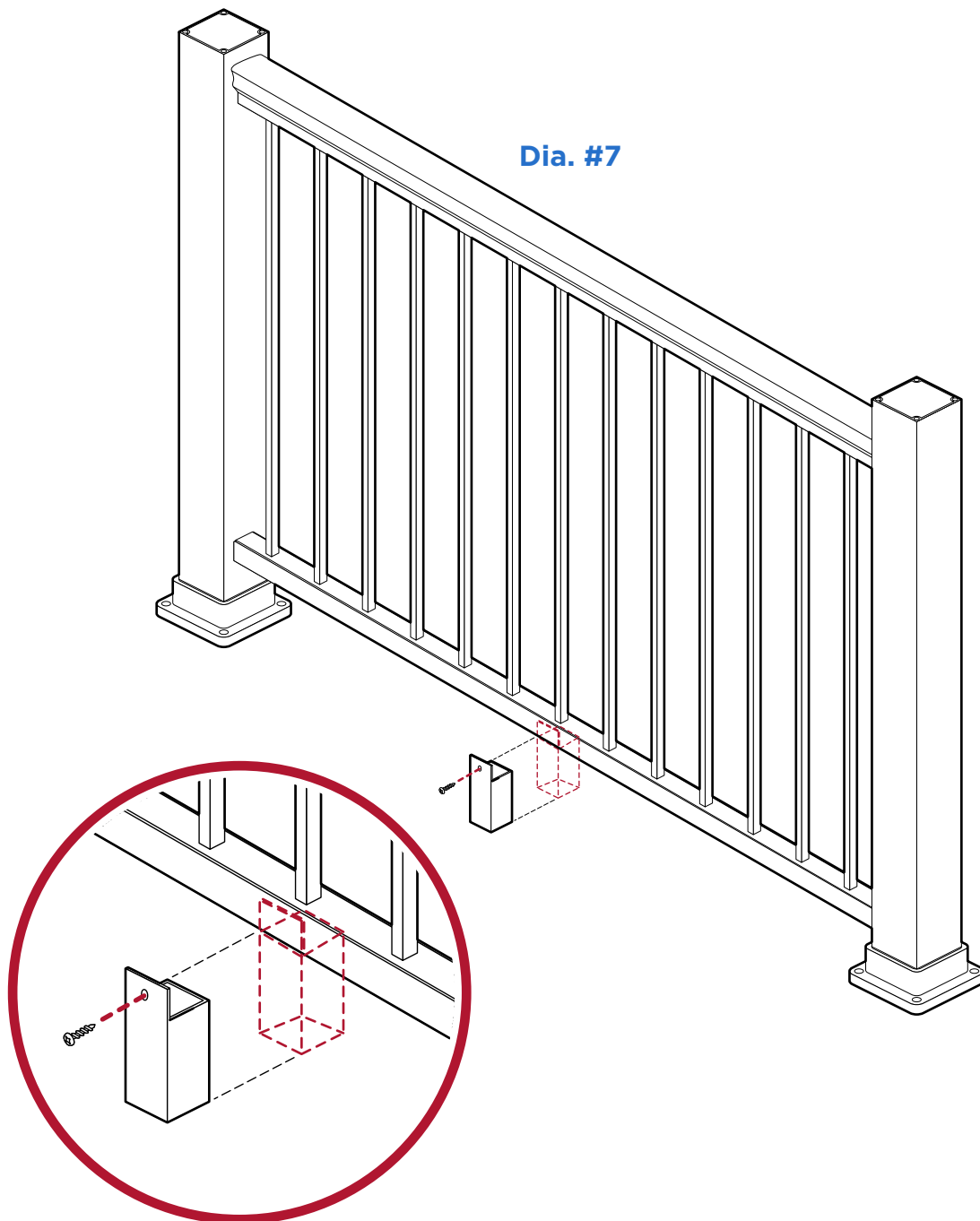
Cut and Install Top and Bottom Rail Snaps

- Measure between posts at the top and bottom and mark top and bottom snap covers. (Dia. #6a)
- Cut top & bottom snap covers 1/16" less than opening. (Dia. #6b)
- Clean cut areas and apply touch-up paint on all exposed metal. (Dia. #6c)
- Snap each rail snap over the corresponding rail channel until properly seated. (Dia. #6d) **TIP:** If top snap will not seat, try installing support leg. Then apply pressure to snap starting from one end.



7 Install Support Legs

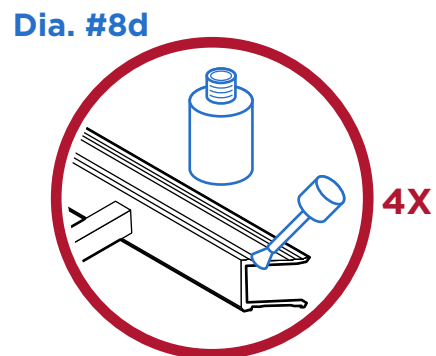
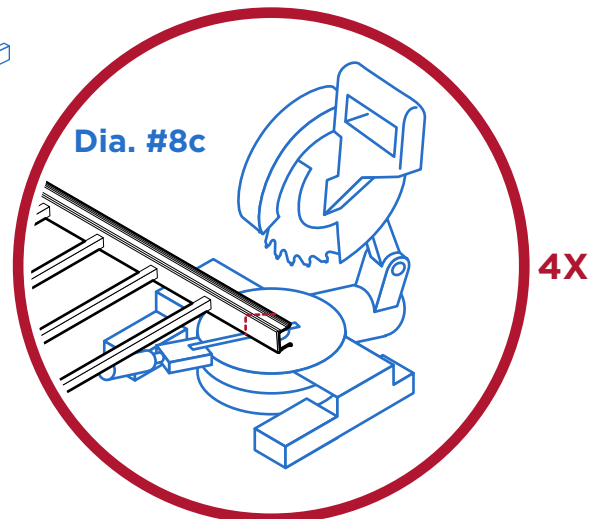
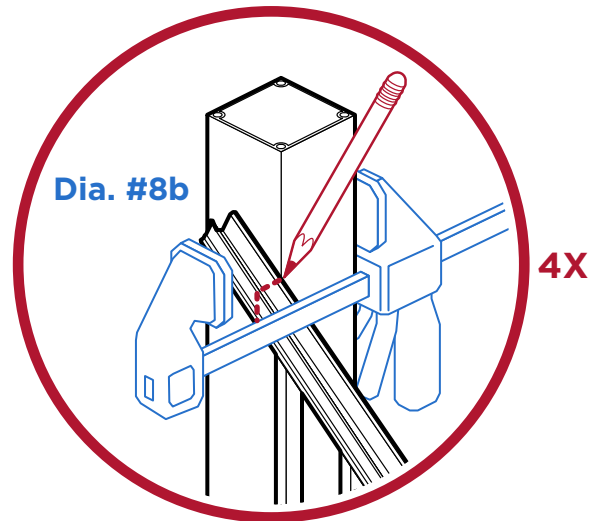
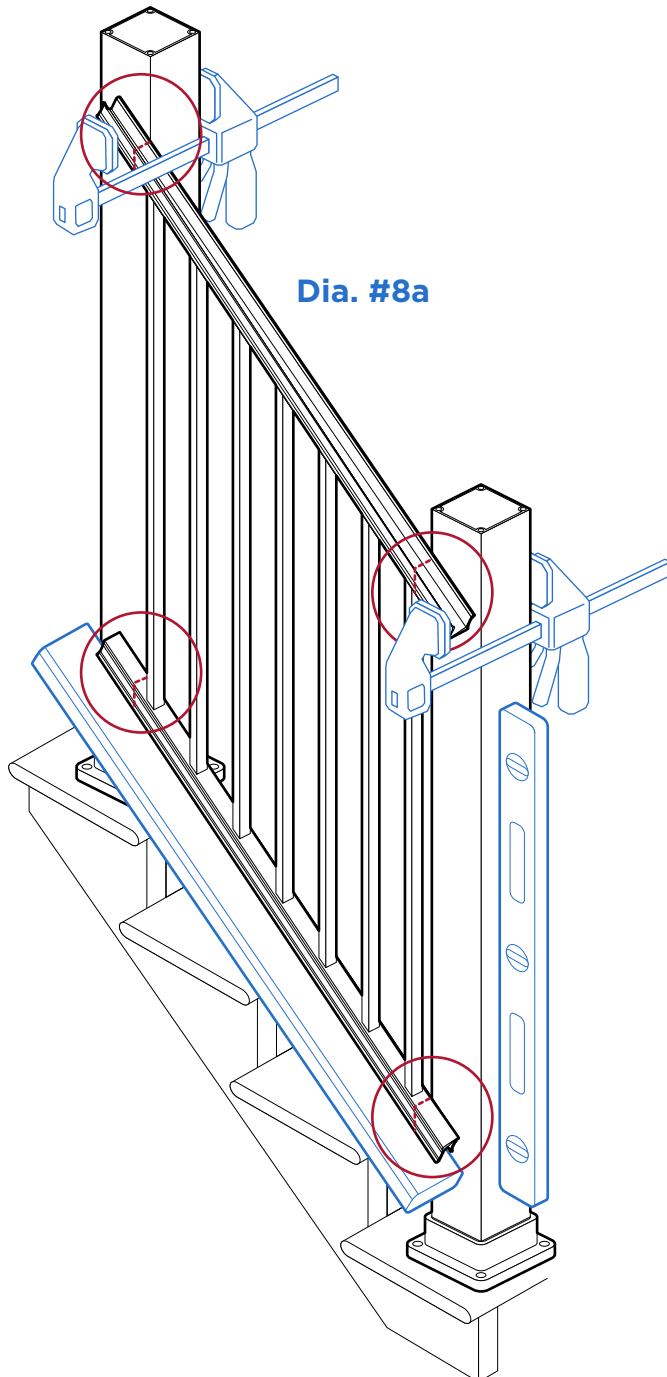
- For openings greater than 4', a support leg is required.
- Measure and mark the center under bottom rail.
- Slide support leg centered under bottom rail.
- Using (1) - #8x3/4" color-matched screw, secure the support leg to the bottom rail. (Dia. #7)



8

Mark and Cut Stair Panels

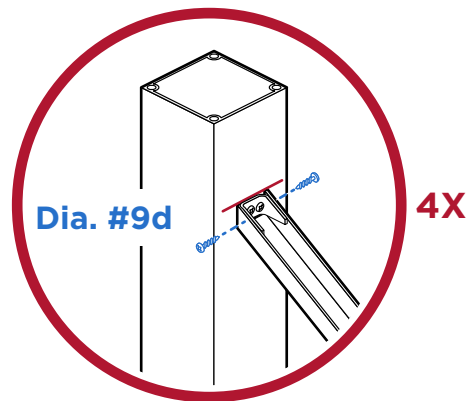
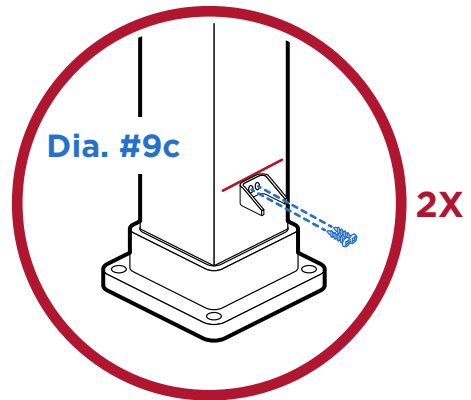
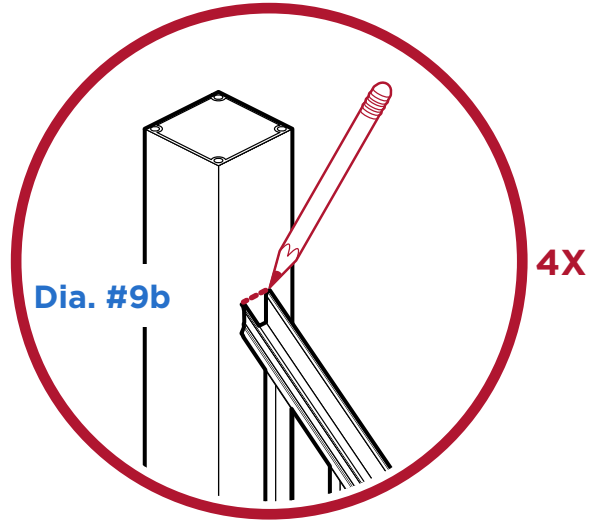
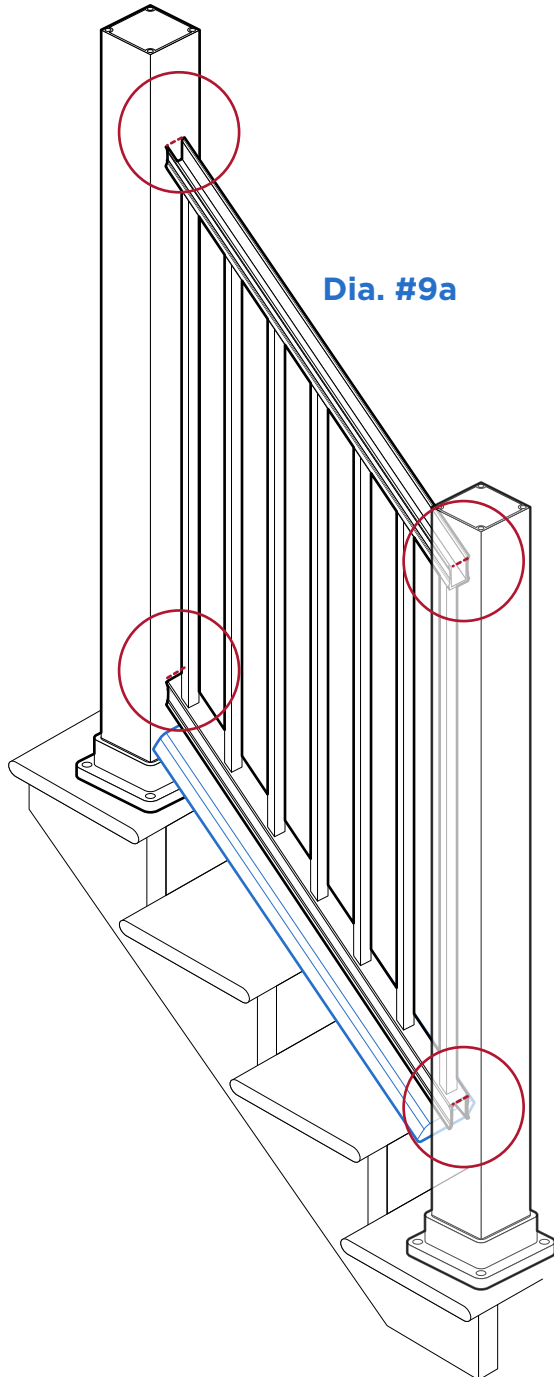
- Hold or temporarily clamp stair panel against posts and adjust for equal end spacing (Dia. #8a, 8b). **Tip:** use a 2x4 board to hold panel 1.5" above stair treads. Mark the panel at four locations of post connections.
- Cut panel 1/16" less than opening, matching stair angle. (Dia. #8c)
- Clean cut areas & apply touch-up paint on exposed metal. (Dia. #8d)



9

Install Stair Panels

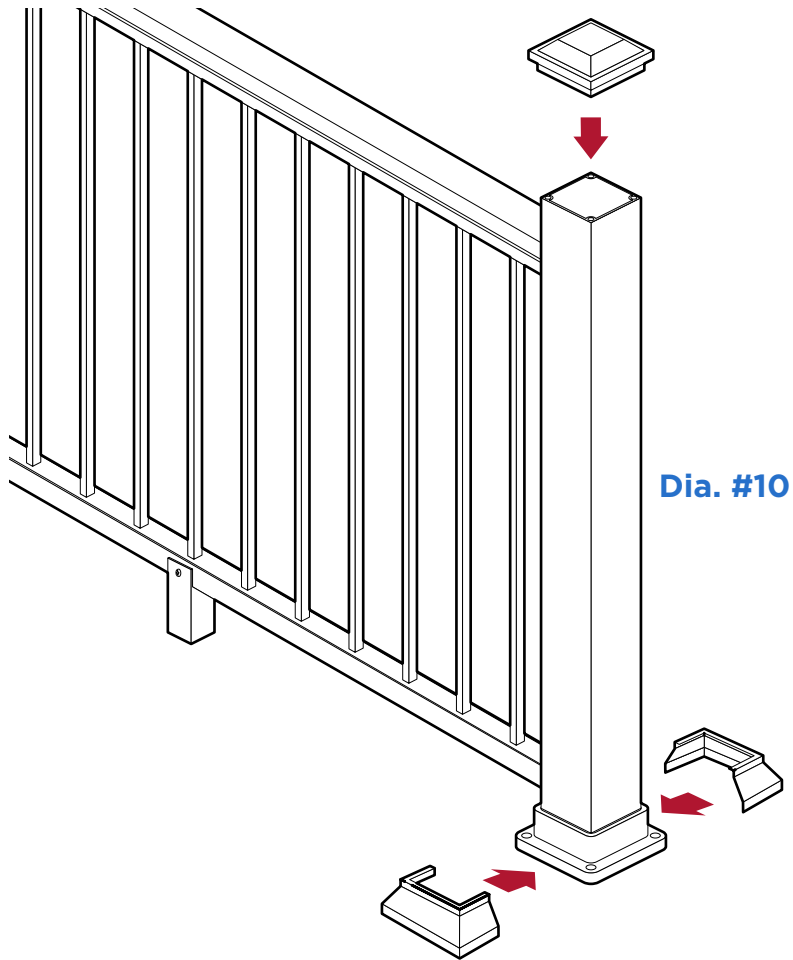
- Place panel back on a 2x4 board and mark posts for location of bottom rail clips. (Dia. #9a, 9b)
- Remove panel and install lower clips centered on posts. (Dia. #9c)
- Place cut panel between posts, push rail onto bottom clips, place clips into upper channel, attach clips to post and secure panel to all clips. (Dia. #9d)
- Miter cut and install top and bottom rail snaps as per Step 6, matching stair angle.
- See separate Stair Panel Instructions for more details.



10

Install Post Caps and Post Base Vinyl Covers.

Install post cap and post base vinyl plate cover. (Dia. #10)



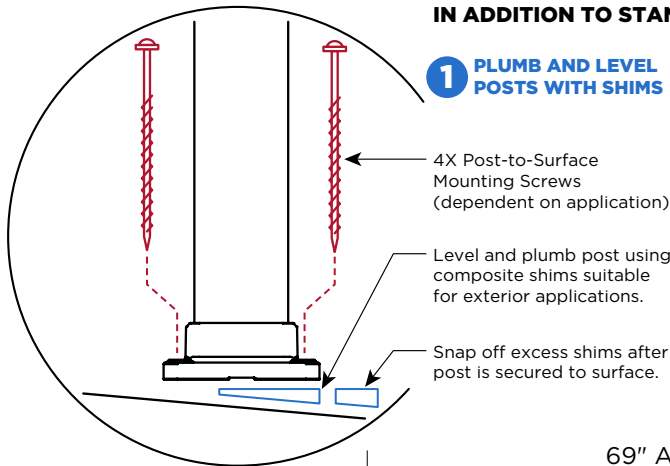
For other instructions
and videos, visit
WilliamsRailing.com

ALUMINUM BALUSTER RAILING ON ADA RAMPS

IMPORTANT NOTES:

- These instructions are a supplement and are by no means all-inclusive. They are intended to accompany the primary railing installation instructions.
- **Products:** These instructions apply to only to aluminum baluster, horizontal cable and vertical cable railing systems. **Use the deck (level) panels, NOT the stair panels.** Railing systems are available in 36in and 42in heights. See separate instructions for installation of other systems.
- The Americans with Disabilities Act requires ramps to be installed in certain locations. The maximum slope of ramps in new construction is 1:12, which equates to a 4.76° angle.
- Aluminum baluster, horizontal cable and vertical cable railing deck (level) panels may be racked up to 10° to accommodate ADA ramps.
- Railing panel widths: 6ft panels = 69.43in, 8ft panels = 91.31in. 3in posts are required to reach 6ft and 8ft lengths. Racking panels to accommodate sloped ADA ramps will reduce the distance allowed between posts.
- **CAUTION:** Over-adjusting panels will compromise their strength, void their warranty, and cause loose and rattling pickets.
- **Note:** ADA handrails may be required in addition to your standard railings. Consult your local code requirements for details.
- It is the responsibility of the installer to meet all local code requirements and obtain all required building permits. The installer should determine and implement appropriate installation techniques for each installation situation. The manufacturer or its reseller shall not be held responsible for improper or unsafe installation.
- Please read and understand all instructions prior to starting installation.
- For more information about ADA compliance, please visit ada.gov.

IN ADDITION TO STANDARD LEVEL RAILING INSTRUCTIONS, FOLLOW THESE STEPS.

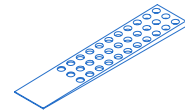


1 PLUMB AND LEVEL POSTS WITH SHIMS

2 MARK AND CUT PANELS TO PROPER ANGLE

Hold or temporarily clamp panels, channels and snaps against posts and mark for cutting. Install panel as directed in standard instructions.

Cut all panels and top and bottom channels and snaps 1/16" less than each opening, **matching angle of ramp.** Snap each rail snap over the corresponding rail channel until properly seated.



Recommended product:
Nelson 7-1/2" Composite Shims
Menards' SKU: 4334210

