

Impression Rail™ Express



Aluminum Railing Installation Guide

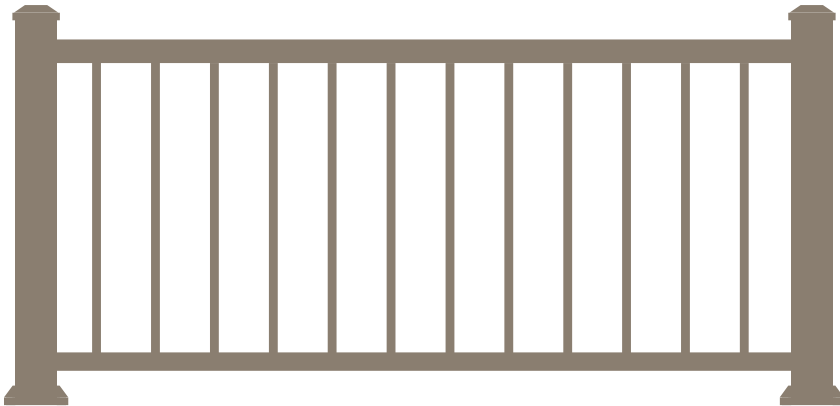


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Important Information

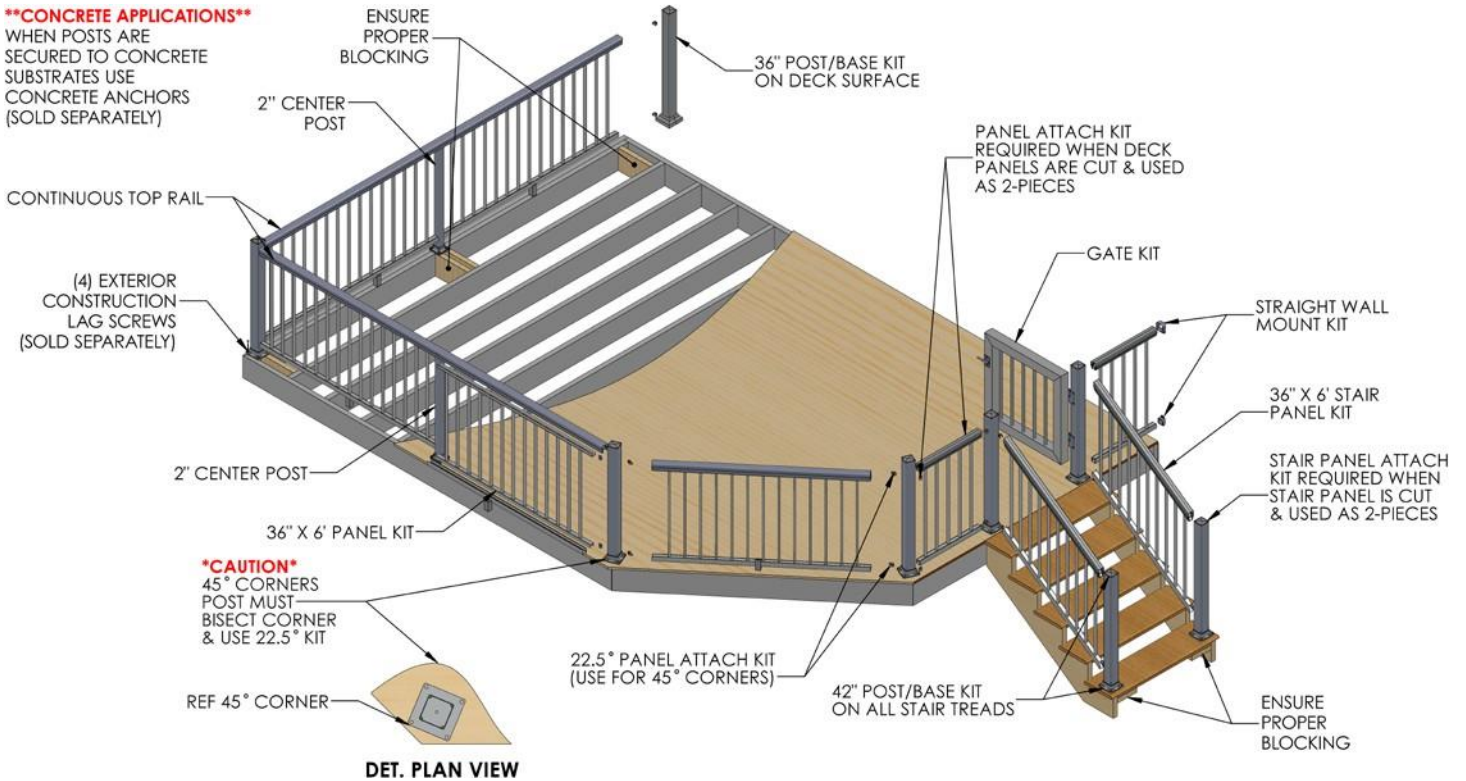
- Please read all instructions completely before starting any part of the installation. Always make sure to visit www.azek.com to ensure you are viewing the most current installation instructions, care and cleaning, technical information and more.
- Impression Rail should be installed using the same good building principles used to install wood, composite, or metal railing and in accordance with the local building codes and the installation guidelines included below.
- CPG Building Products LLC accepts no liability or responsibility for the improper installation of this product.
- Impression Rail may not be suitable for every application and it is the sole responsibility of the installer to be sure that Impression Rail is fit for the intended use. Since all installations are unique, it is also the installer's responsibility to determine specific requirements in regards to each rail application.
- CPG Building Products LLC recommends that all applications be reviewed by a licensed architect, engineer or local building official before installation. If you have any questions or need further assistance, please call AZEK Customer Service at 877-ASK-AZEK (877-275-2935) or TimberTech Customer Service at 800-307-7780, or visit our website at www.azek.com or www.timbertech.com.
- Impression Rail is tested as a whole system and should be used that way. It is not intended to be used in conjunction with other railing systems or fasteners.
- The following Installation Guidelines are applicable for installation of Impression Rail only.
- **IMPORTANT:** Make sure the DRIVE TOOL/DRILL is configured or set to use the SCREW setting when driving and/or tightening all FASTENERS.
- **SAFETY:** Always wear goggles when handling, cutting, drilling and fastening materials.
- Failure to install this product in accordance with applicable building codes and Impression Rail's written Rail Install Guide may lead to personal injury, affect rail system performance and void the product warranty.
- The buildup or generation of static electricity is a naturally occurring phenomenon in many plastic based products such as carpeting, upholstery, and clothing, and can occur on alternative decking under certain environmental conditions. This static electricity can discharge once contact is made with hardware, railing, or other conductors of electricity.



NOTE: IF INSTALLING POST LIGHTING, WIRING MUST BE INSTALLED PRIOR TO SECURING POSTS TO DECK/STAIR SURFACE AND INSTALLING TOP RAIL SNAPS.

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. AZEK® Building Products or its reseller shall not be held responsible for improper or unsafe installations.

Installing Impression Rail™ Express Aluminum Railing System



Important Note:

Prior to construction, check with your local regulatory agency for special code requirements in your area.

Common railing height is 36" or 42". Post spans will vary depending on job site conditions. Never span more than 6' on-center between railing posts. Spans longer than 12' in length will require reduced post spans. Refer to the system evaluation at the end of these instructions. For all other applications, consult a design professional or an AZEK railing representative for more information. Read instructions completely to get an understanding of how the product goes together and how each piece affects the other.

Suggested Tools:

- Appropriate fasteners for mounting posts to deck
- Miter saw with carbide-tipped non-ferrous blade
- Cordless drill
- Tape measure
- Level
- Power cords, drop sheets and safety glasses
- 3/16" Drill bit
- #2 Square *Extension* drive bit
- Bottom receiver jig (optional)



Important Note:

Actual Level Panel Lengths Are As Follows:

- 6' Panels = 69.43"
- 8' Panels = 91.31"
- 3" posts are required to reach 6' & 8' lengths

1 Determine All Posts Needed and Prepare (end, center or corner)



⚠ Important Note:

3" posts are required to reach 6' and 8' lengths. 2" posts must be set in-line to panel. Do not install vinyl post base covers until railing assembly is completed.

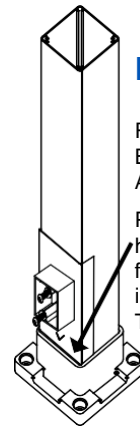
Install Lower Deck Rail Clips – Two Options:

Option A - When No Lower Rail Clip Jig Is Available

- Measure 2 7/8" from top of casting shoulder and place a pencil mark for location of the top edge of the rail clip. (Dia. #1)
- Center clip on post and secure with (2) - #8x3/4" TEK screws. Clips are included in the Panel Kits.

Option B - Using Lower Rail Clip Jig

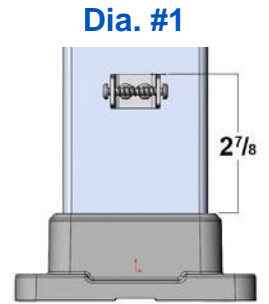
- Place lower rail clip jig (w/arrow facing base plate) on top of base plate upper edge. (Dia. #2)
- Place clip in hole and fasten with (2) - #8x3/4" TEK screws. Clips are included in the Panel Kits.



Dia. #2

Rest jig on Base Plate – Arrow Down

Place Clip in hole, hold clip firmly while installing (2) TEK Screws.

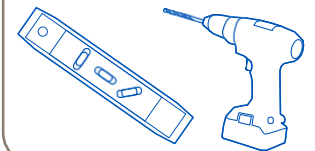


Dia. #1

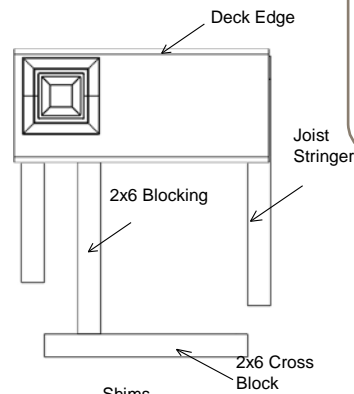
2 7/8"

2 How to Secure 3" Posts to Deck

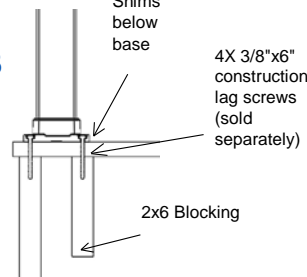
- Install proper post blocking (Dia. #3A & 3B). Use proper attachment screws or anchors shown in diagram. (Deck screws at each post location, are not provided with kits).
- With 3/16" drill bit, pre-drill through deck boards and into blocking. (Dia. #3C)
- Drill a 5/8" hole in center of four deck screw holes for lighting wires (optional).
- Level and plumb post using shims.
- Secure posts to deck with suggested screws. (Dia. #3B)
- Install post caps. (Dia. #4)



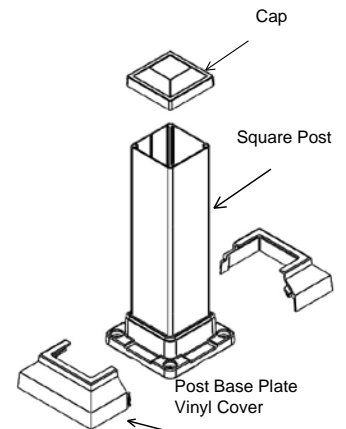
Dia. #3A
(TOP VIEW)



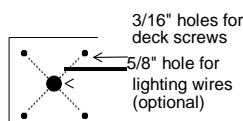
Dia. #3B
(SIDE VIEW)



Dia. #4

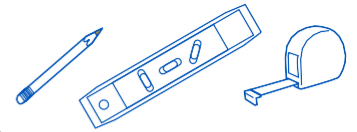
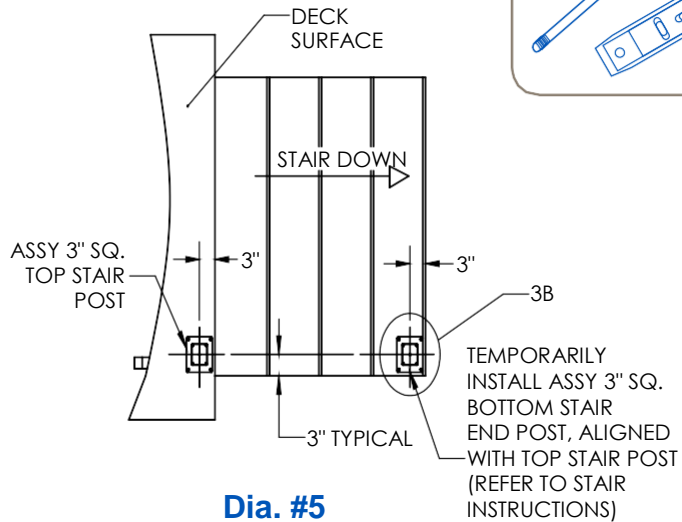


Dia. #3C
(TOP VIEW)



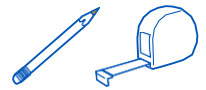
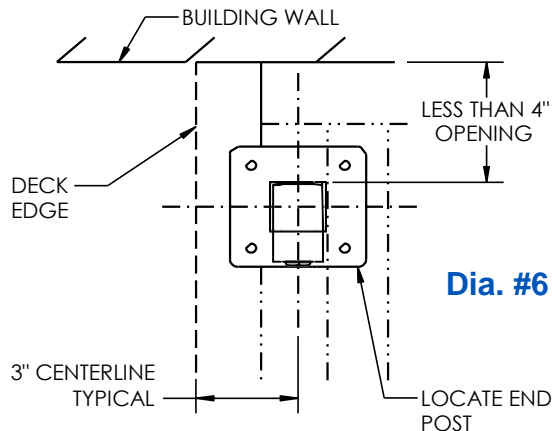
3 Install Stair End Posts (if applicable)

- Temporarily install end stair post so rail centerline aligns with top stair posts installed in Step 1 (if applicable). Recommended post installation locations are as shown. (Dia. #5)



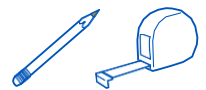
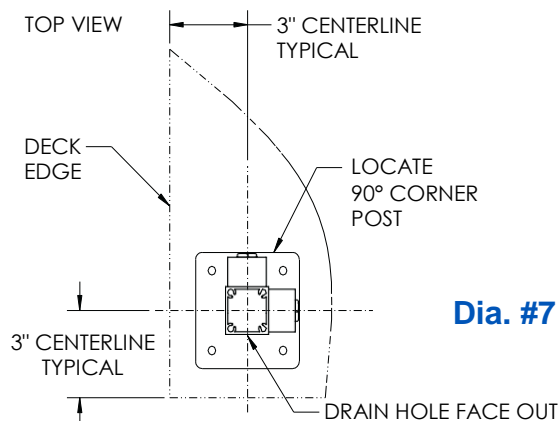
4 Install End Posts (if applicable)

Install posts at all end locations with maximum gap between post and wall to be less than a 4" opening. (Dia. #6)



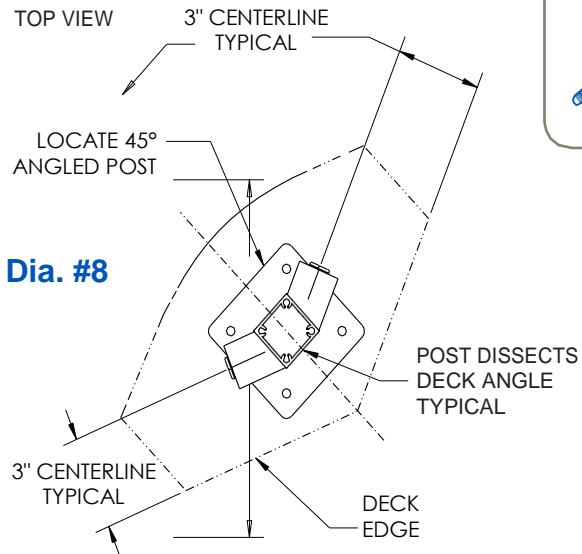
5 Install 90-degree Corner Posts

Position post on same 3" centerline (typical) and temporarily fasten using a single fastener through base plate mounting hole. (Dia. #7)



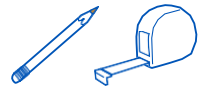
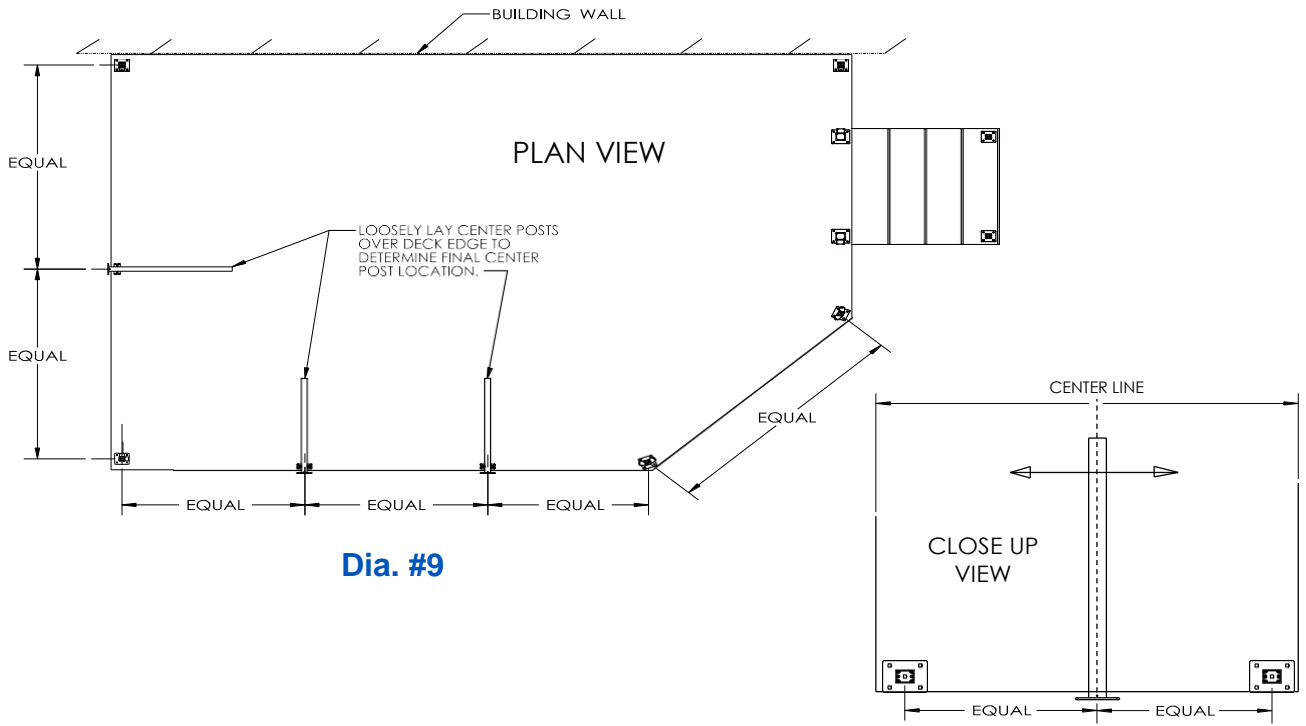
6 Install 45-degree Corner Posts

Position post on same 3" centerline (typical) and temporarily fasten to deck surface. Use one 22.5° Panel Attach Kit (purchased separately) to install 45 degree corner posts. (Dia. #8)



7 Determine Center Post Locations

Loosely lay center post over deck edge and adjust as required to determine final center post mounting locations. (Dia. #9 & #10)

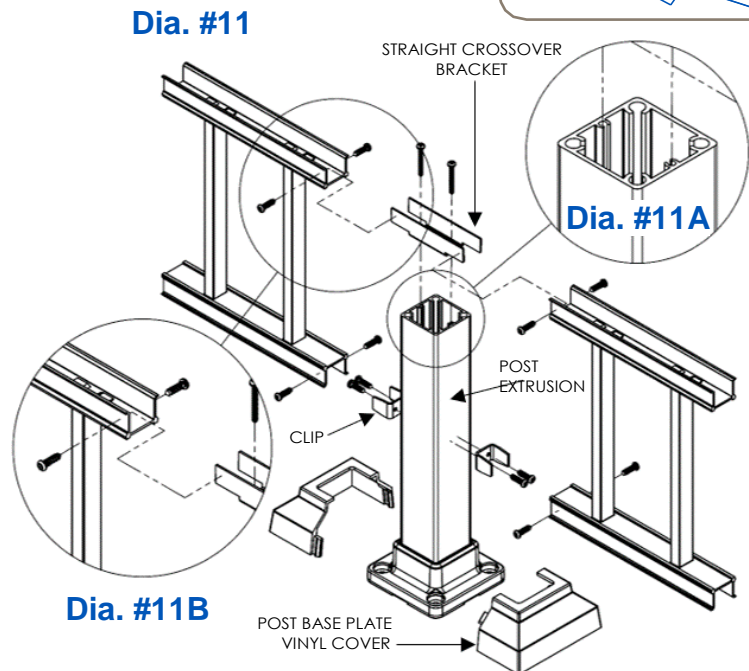


8 Secure 2" Posts to Deck (center only)

- For continuous top rail systems, install 2" posts centered between 3" end and corner posts.

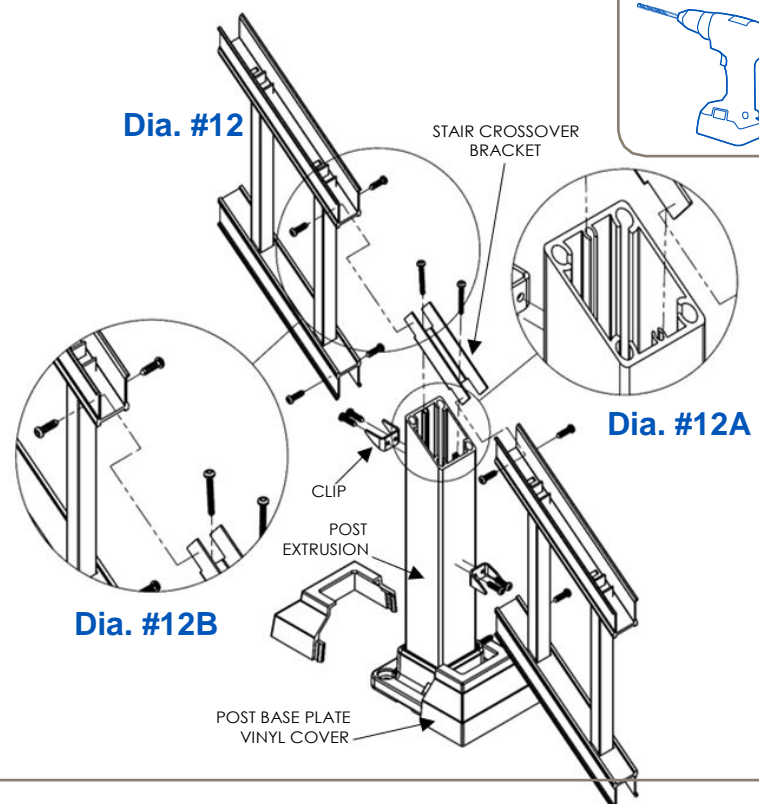
NOTE: 2" Posts must be installed with center screw chases in-line with panel (Dia. #11A & #12A).

- Follow instructions in step 2 (Dia. #3A to Dia. #4).



9 Install Crossover Brackets on 2" Posts

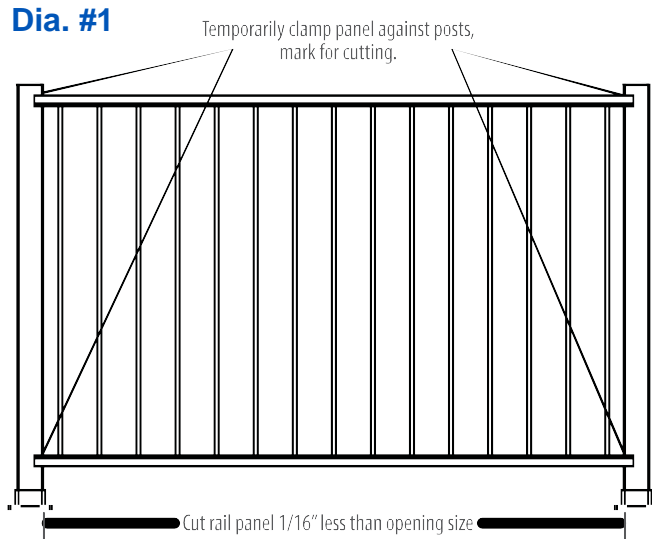
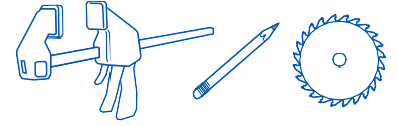
- With #2 Sq. driver bit, fasten straight crossover bracket (included) into post with (2) - #8x1.5" TEK Screws. (Dia. #11A & #12A)
NOTE: TEK Screws must be installed in screw chases in-line with panels.
- With #2 Sq. driver bit, fasten H-channel to straight and stair crossover brackets with (4) - #8x3/4" TEK Screws. (Dia. #11B & #12B) Repeat for lower clips.
- Install base plate vinyl cover only after railing assembly is completed. (Dia. #4)



1 Cut Deck Panels

Clamp or hold panel against post, adjust for equal end spacing. (*Dia. #1*)

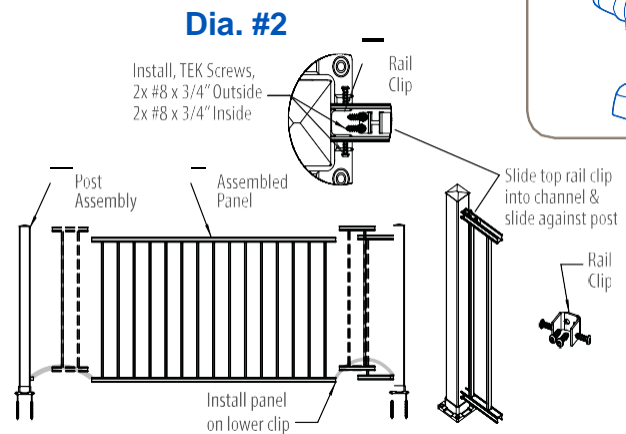
- Mark the top and bottom rails.
- Cut panel 1/16" less than opening size.
- Clean cut areas and apply touch-up paint on exposed ends.



2 Secure Deck Panels to Posts

Slide bottom channel of pre-cut panel on to lower clip. (*Dia. #2*)

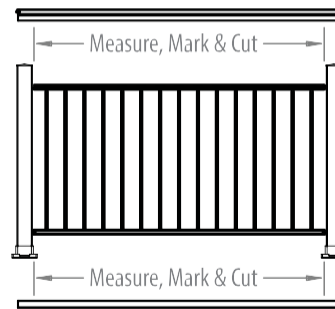
- Insert clips into top channel of panel on each end.
- Using (4) - #8x3/4" TEK screws, attach the upper 2-clips to the post.
- Using (8) - #8x3/4" TEK screws, secure the upper and lower clips to the panel.



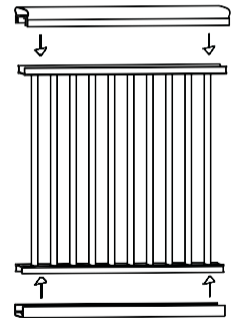
3 Cut and Install Top and Bottom Rail Snaps

- Measure between posts at the top and bottom. (Dia. #3)
- For Continuous Top Rail, measure opening from 3" post to 3" post.
- Cut top & bottom snap covers 1/16" less than opening.
- Clean cut areas and apply touch-up paint on all exposed metal.
- Snap each rail snap over the corresponding rail channel until properly seated. (Dia. #4)

NOTE: Do not install top snaps yet if lighting wires will be run through top rails.



Dia. #3

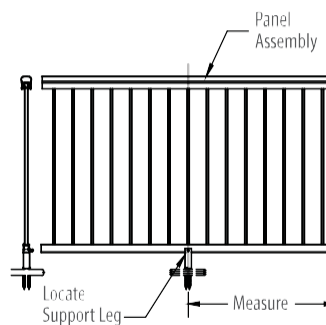
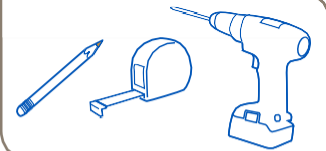


Dia. #4

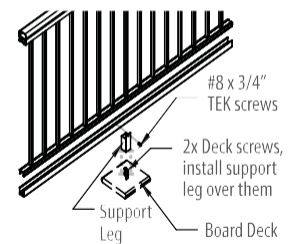
4 Install Support Legs

For openings greater than 4', install support legs under center of bottom rail (Dia. #5)

- Slide support leg under bottom rail and mark.
- Install two deck screws at location of support leg, install support leg over screws.
- Using (1) - #8x3/4" TEK screws, secure the support leg to bottom rail. (Dia. #6)



Dia. #5

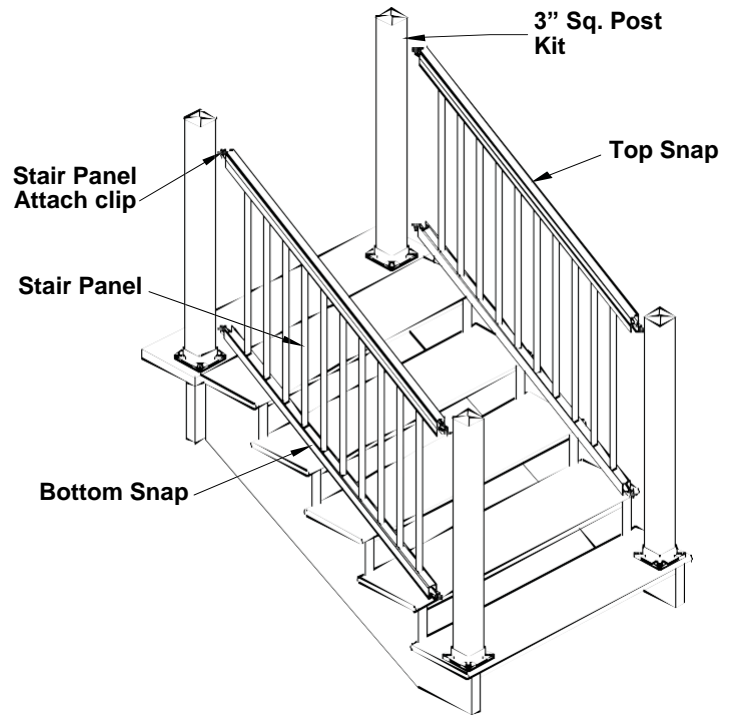


Dia. #6



Important Notes:

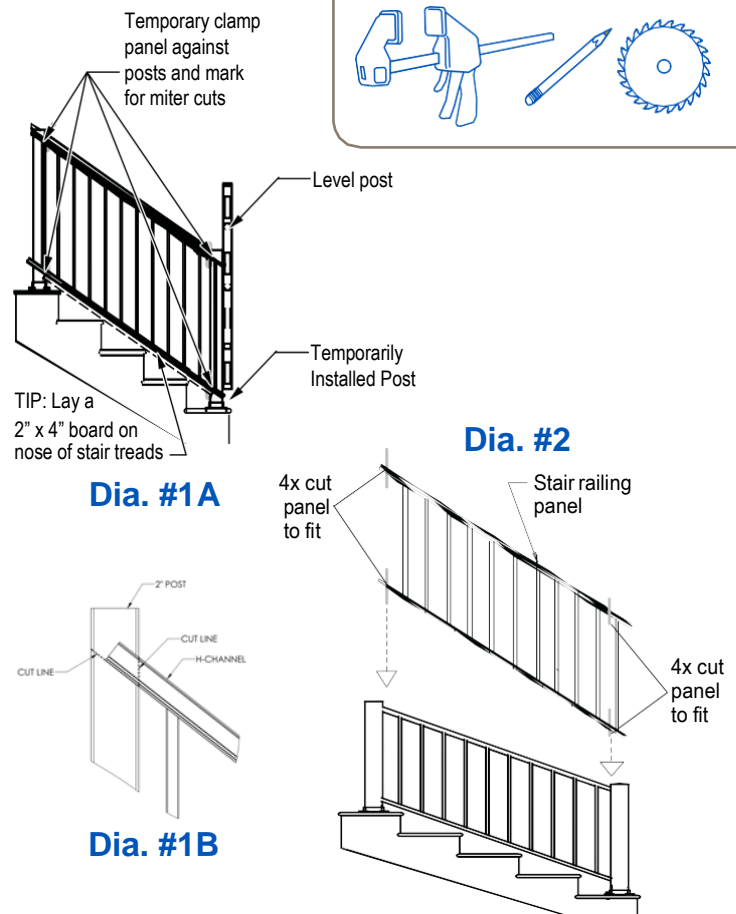
- Actual Stair Panel Lengths: 6' Panels = 69.43" and 8' Panels = 91.31". 3" posts are required to reach 6' and 8' lengths
- Stair railing panels are shipped at a 37 degree angle. Panels are adjustable.
- Maximum post spans on stair railing application is 94" on center. Additional posts are required on any stair application more than 8 feet in length.
- For all other applications, consult a design professional or an Impression Rail® Express representative for more information.



1

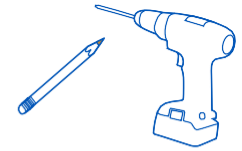
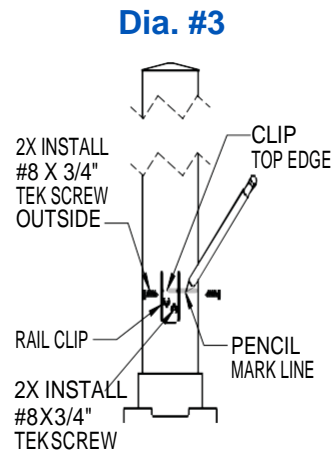
Fit Stair Railing Panels

- Position stair railing panel alongside 3" top stair post and temporarily installed 3" bottom post. (Dia. 1A)
- Position stair panel approximately 1 1/2" above stair nosing. **Tip: lay a 2x4" board flat on nose of stair treads. This will allow enough room for installation of bottom snap.** Clamp stair panel against top and bottom 3" posts. Using a sharp #2 pencil, mark the stair channels at four (4) locations.
- If using a continuous top rail, after panel has been clamped to post, mark cut lines on the H-channel and the 2" post using the bottom of the H-channel to find your angle for post cut. (Dia. 1B)
- Remove clamps and cut stair panel at all four (4) locations. (Dia. 2) Take care to cut stair channels at appropriate stair angle. Use of Miter saw with a sharp non-ferrous blade is recommended.
- Clean cut areas and apply touch-up paint on all exposed ends.

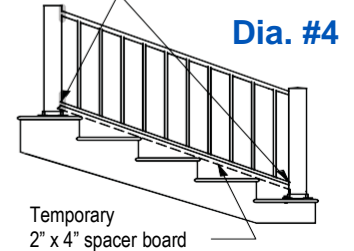


2 Install Stair Clips On Posts

- After stair panel has been cut to proper size and angle, place the panel on the 2x4" (or hold 1 1/2" above stair nosing) board, between the 3" posts. Use a #2 sharp pencil to draw a line across the top of the lower baluster channel in two places (Dia. 3).
- Remove panel and bottom post. Attach stair panel attach clips at marked location as per (Dia. 4) and fasten with #8x3/4" Tek Screws.

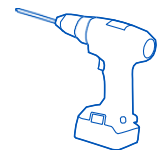
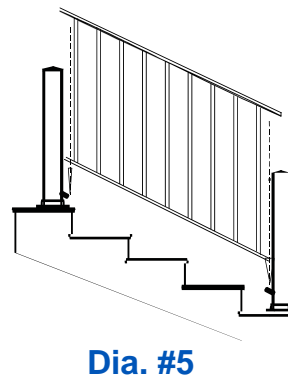


With #2 pencil place mark on post at top of lower stair extrusion

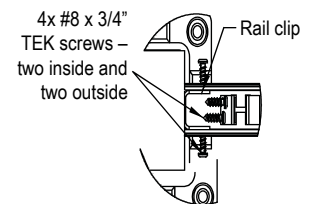


3 Secure Stair Panel To 3" Posts

- Once the stair panel attach clips have been installed, re-attach the lower 3" post to the bottom step or landing. Place the stair panel onto the lower stair panel attach clips (Dia. 5).
- When lower extrusion is fully seated on lower clips, insert stair panel attach clips into upper extrusion. Secure attach clips to post with 2-#8x3/4" Tek screws, then secure upper extrusion to stair panel attach clip with 2-#8x3/4" Tek screws. Repeat this same procedure for bottom post, upper extrusion (Dia. 6).
- When upper extrusion is secured to attach clips, return to lower extrusion and secure lower extrusion to lower stair clips with 2-#8x3/4" Tek Screws at upper post and 2-#8x3/4" Tek Screws at lower post.

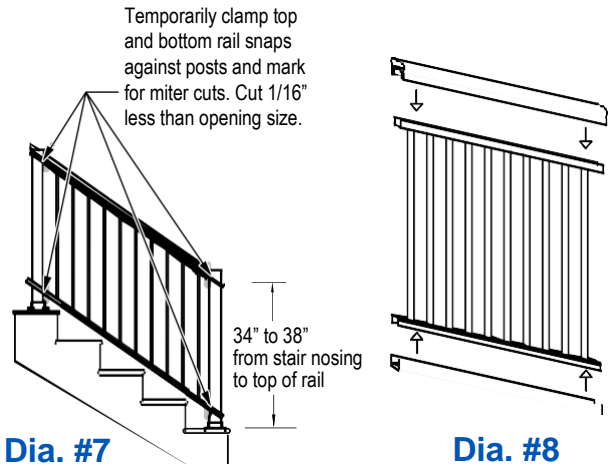
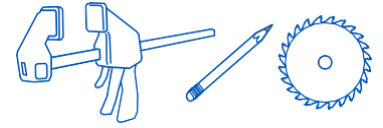


Dia. #6



4 Install Top And Bottom Snap Covers

- Following the same angle as the secured stair panel, clamp or hold top/bottom rail snaps against 3" posts (Dia. 7). Using a sharp #2 pencil, mark the top/bottom rail snaps at all four (4) locations.
- Remove clamps and cut top/bottom rail snaps at all four (4) locations. Take care to cut snaps at appropriate stair angle. Use of Miter saw with a sharp non-ferrous blade is recommended. Cut 1/16" less than opening size.
- Clean cut areas and apply touch-up paint on exposed ends.
- Snap each rail snap over the corresponding rail channel until properly seated (Dia. 8).

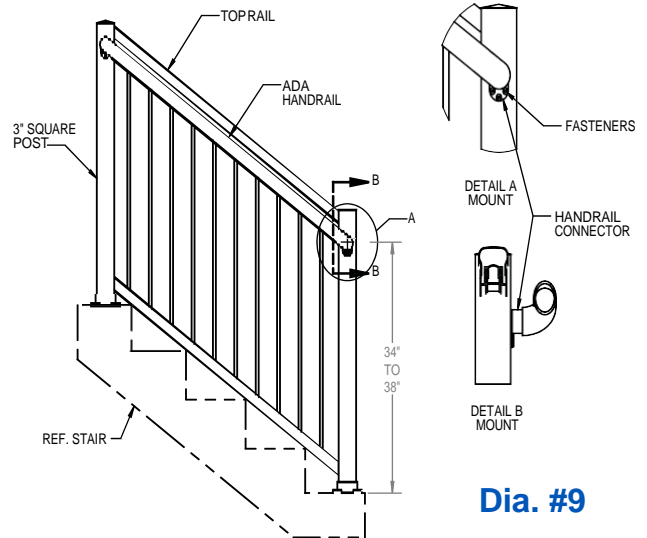


Dia. #7

Dia. #8

5 Install ADA Compliant Handrail

ADA handrail may be required (Dia. 9) for residential deck installations (check with local building code official). Maximum recommended span between posts is 6' on center. See separate ADA Handrail Installation Instructions for configurations.



Dia. #9

Suggested Tools:

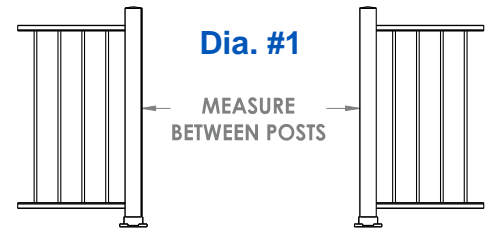
- Cordless Drill
- Pencil
- Tape Measure
- Safety Glasses
- #2 Sq. Drive Bit
- 1/8" Drill Bit
- Miter Saw w/ Non-Ferrous Blade

1 Remove all Items From Package

Gate Kit Includes:

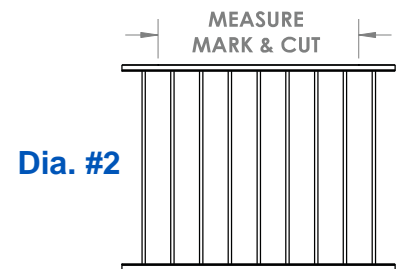
- One (1) - Picket Panel
- Two (2) - Snap Covers
- Two (2) - Gate End Posts w/ Welded Rods
- Sixteen (16) - 3/4" Self Tapping TEK Screws
- Two (2) - Self-Closing Hinges
- One (1) - Locking Latch Kit w/ Key
- Four (4) - Gate Support Brackets
- Sixteen (16) - Color Matched TEK Screws
- Measure opening between posts. (*Dia. #1*)

2 Measure Opening Between Posts (Dia. #1)

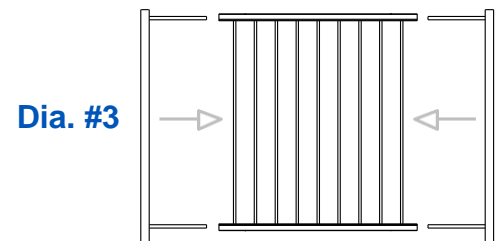


3 Measure, Mark and Cut Picket Gate Panel (without Gate End Posts)

Measurement must be exactly 4.5" less than gate opening. Deduct 4.5" from opening measurement and cut both panel ends, leaving equal picket spacing. (*Dia. #2*)



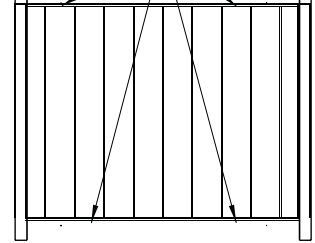
4 Insert Gate End Posts Into Panel Upper and Lower Horizontal Channels. (Dia. #3)



5 Drill 16 - 1/8" Holes (Dia. #4) and Install 3/4" TEK Screws to Secure Gate Ends to Panel

2 HOLES PER RAIL
PER POST PER SIDE (16)

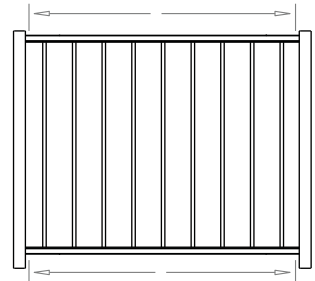
Dia. #4



6 Measure Between Gate End Posts

Measure between Gate End Posts, deduct 1/16", and cut top & bottom snap covers. Once cut, position snap covers over top & bottom horizontal channels and press in place. (Dia. #5)

Dia. #5



7 Install Support Bracket

To install Support Bracket, first attach Support Bracket to Post using 2x #8 x 3/4" TEK screws as shown, then press Support Bracket against Horizontal Rail, drill 2x 1/8" pilot holes and secure using remaining 2x #8 x 3/4" TEK screws. Repeat for remaining brackets. (Dia. #6)

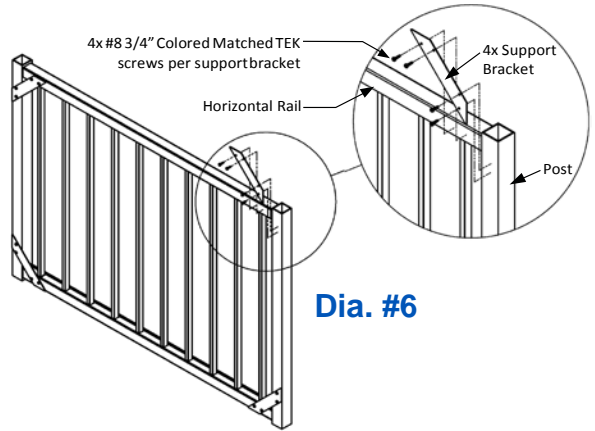
4x #8 3/4" Colored Matched TEK screws per support bracket

Horizontal Rail

4x Support Bracket

Post

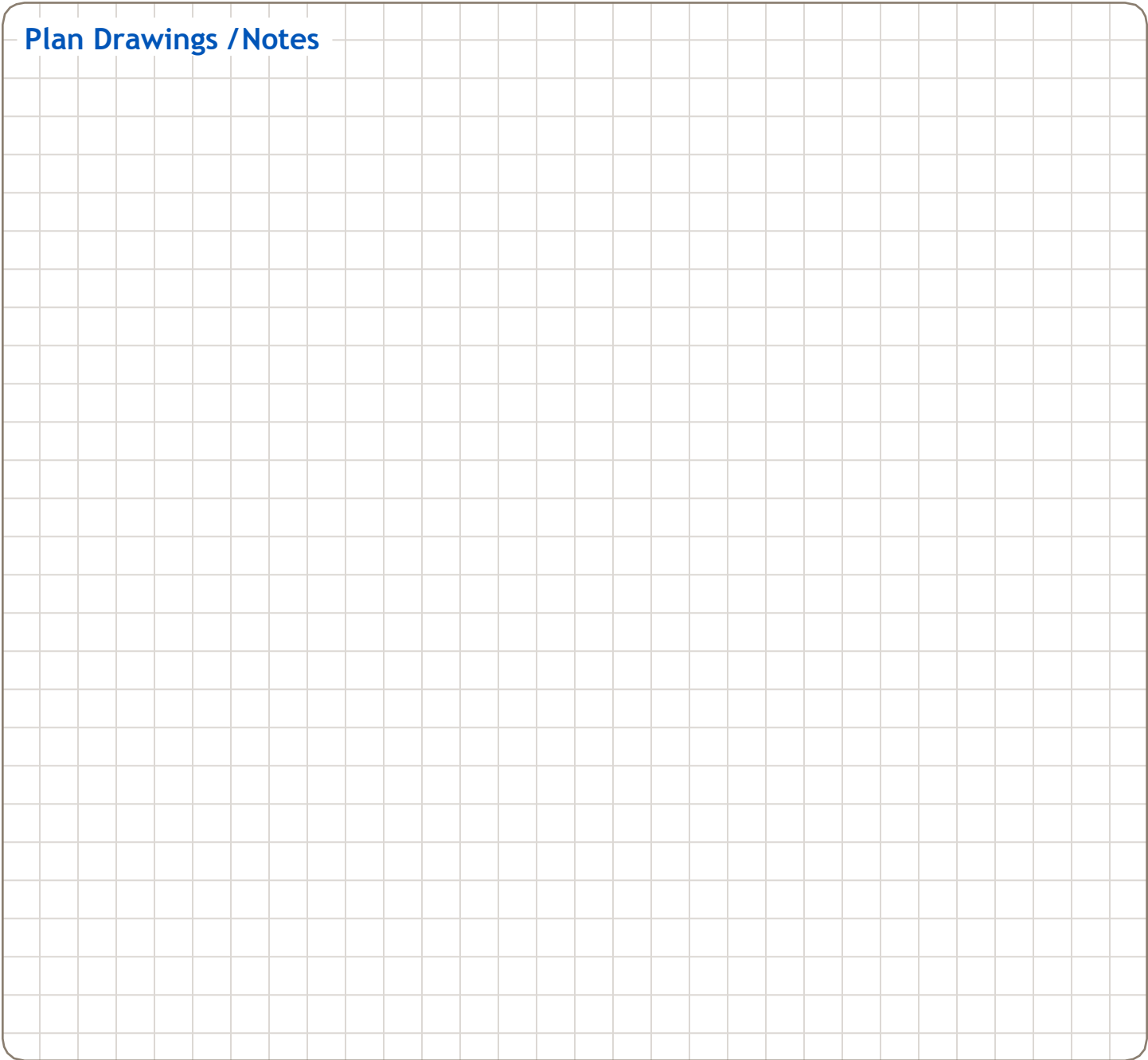
Dia. #6



8 Install Gate Hinges Per Instructions Provided In Hinge Package

9 Install Gate Latch As Per Instructions Provided In Latch Package.

Plan Drawings / Notes



Important Note:

The diagrams and instructions in this brochure are for illustration purposes only and are not meant to replace a licensed professional. Any construction or use of the product must be in accordance with all local zoning and/or building codes. The consumer assumes all risks and liability associated with the construction or use of this product. The consumer or contractor should take all necessary steps to ensure the safety of everyone involved in the project, including, but not limited to, wearing the appropriate safety equipment. Except as contained in the written limited warranty, AZEK does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.

AZEK

 **TimberTech**

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