Impression Rail™ Express

Full Glass Railing
Installation Guide

See Railing Panel Installation Guide
for Stair Panels and Gate Kits.

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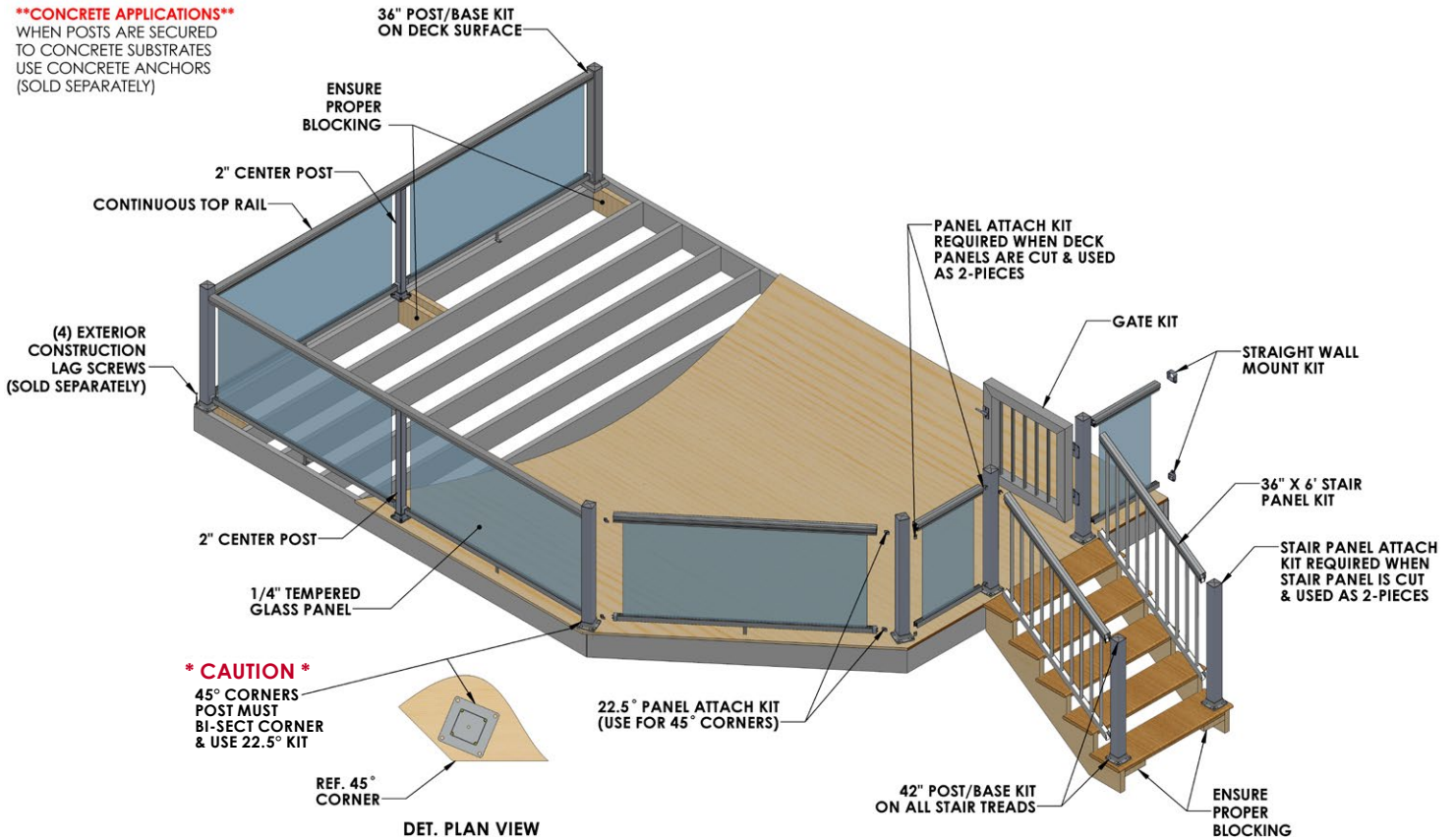by AZEK Building Products

⚠ Important Information

- Please read all instructions completely before starting any part of the installation. Always make sure to visit www.TimberTech.com to ensure you are viewing the most current installation instructions, care and cleaning, technical information and more.
- Impression Rail Express 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.
- The AZEK Co. LLC accepts no liability or responsibility for the improper installation of this product.
- Impression Rail Express 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.
- The AZEK Co. 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 visit our website at www.TimberTech.com.
- Impression Rail Express 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 Express 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 Express'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.
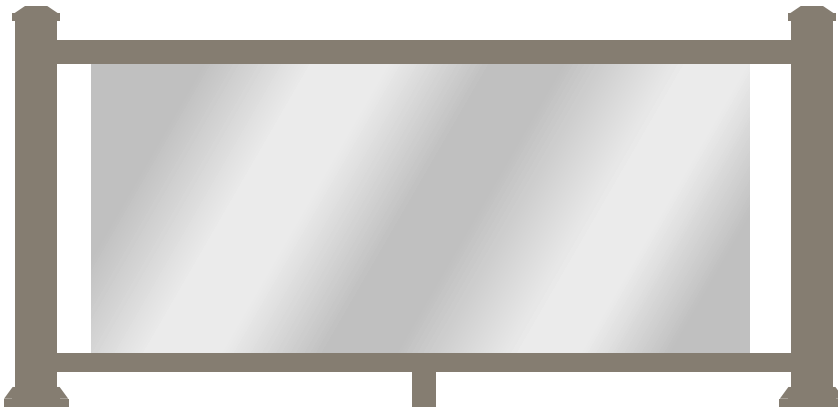
NOTE: IF INSTALLING POST LIGHTING, WIRING MUST BE INSTALLED PRIOR TO SECURING POSTS TO DECK/STAIR SURFACE AND INSTALLING TOP RAIL SNAPS.

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 Co. LLC or its reseller shall not be held responsible for improper or unsafe installations.

CONCRETE APPLICATIONS
WHEN POSTS ARE SECURED TO CONCRETE SUBSTRATES USE CONCRETE ANCHORS (SOLD SEPARATELY)

36" POST/BASE KIT ON DECK SURFACE

ENSURE PROPER BLOCKING

2" CENTER POST

CONTINUOUS TOP RAIL

(4) EXTERIOR CONSTRUCTION LAG SCREWS (SOLD SEPARATELY)

PANEL ATTACH KIT REQUIRED WHEN DECK PANELS ARE CUT & USED AS 2-PIECES

GATE KIT

STRAIGHT WALL MOUNT KIT

36" X 6' STAIR PANEL KIT

2" CENTER POST

1/4" TEMPERED GLASS PANEL

STAIR PANEL ATTACH KIT REQUIRED WHEN STAIR PANEL IS CUT & USED AS 2-PIECES

* CAUTION *
45° CORNERS POST MUST BI-SECT CORNER & USE 22.5° KIT

REF. 45° CORNER

22.5° PANEL ATTACH KIT (USE FOR 45° CORNERS)

42" POST/BASE KIT ON ALL STAIR TREADS

ENSURE PROPER BLOCKING

DET. PLAN VIEW

⚠ 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.
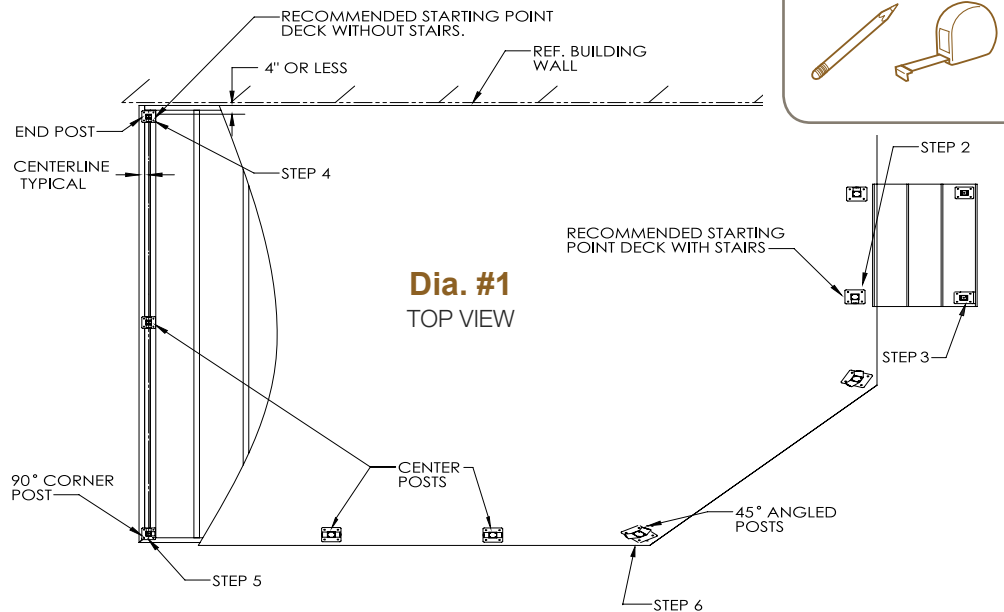
Suggested Tools:

- 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
- 6" #2 Square drive bit
- Installation jig (optional)

⚠ Important Note:

- **6' Panel Actual Length is 69.43"**
- **3" posts are required to reach 6' length**
- **Only 3" posts can be used for glass infill**

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1 Determine Post Configurations and Locations (end, center, corner, etc.) (Dia. #1)

RECOMMENDED STARTING POINT DECK WITHOUT STAIRS.

REF. BUILDING WALL

4" OR LESS

END POST

CENTERLINE TYPICAL

STEP 4

STEP 2

RECOMMENDED STARTING POINT DECK WITH STAIRS

STEP 3

Dia. #1
TOP VIEW

90° CORNER POST

CENTER POSTS

45° ANGLED POSTS

STEP 5

STEP 6

2 Prepare Posts

Post preparation (Option 1 - No Install Jig)

- Measure 2-3/8" from end of post extrusion and place a pencil mark for location of bottom edge of glass receiver.

- Position bottom edge of glass receiver on pencil mark at 2 3/8", center receiver on post and secure with 2-#10 x 1-1/2" self-drilling screws. (Dia. #2)

- Once bottom receiver is secure, measure 29 3/4" for 36" rail height or 35 3/4" for 42" rail height from top edge of bottom glass receiver, mark a line for placement of top clip.

- Place rail clip bottom edge on pencil mark and center clip on post, secure with base attachment screws.
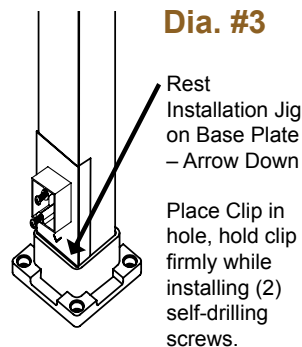
Post preparation (Option 2 - With Install Jig)

- Install lower receiver to appropriate post face using Jig. (Dia. #3)

- Measure 29 3/4" for 36" rail height or 35 3/4" for 42" rail height from the top edge of the lower receiver (Dia. #2) and place a pencil mark for placement of bottom edge of upper clip.

- Place rail clip bottom edge on pencil mark and center clip on post, secure with 2-#8x3/4" self-drilling screws. (Dia. #2)

Dia. #3

Rest Installation Jig on Base Plate – Arrow Down

Place Clip in hole, hold clip firmly while installing (2) self-drilling screws.

Dia. #2

3" SQ. POST

LINE MARK

TOP RAIL CLIP

TAPE MEASURE

29 1/2"

29 3/4" for 36" Height. Finished Glass Size: 30 1/2"

35 3/4" for 42" Height. Finished Glass Size: 36 1/2"
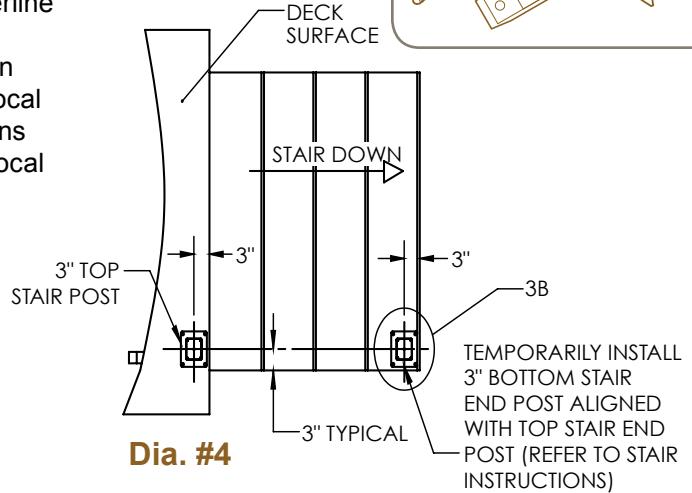
2-3/8"

BOTTOM GLASS RECEIVER

LINE MARK
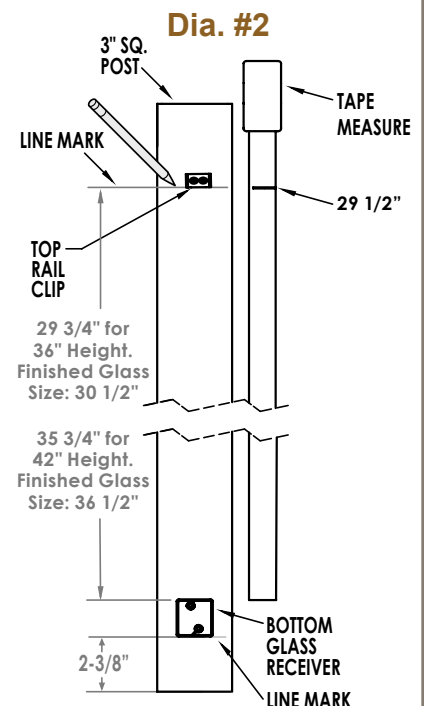
3 Install Stair End Posts (if applicable)

- Temporarily install end stair post so rail centerline aligns with top stair posts installed in Step 1 (if applicable). Recommended post installation locations are shown. (Dia. #4) Confirm with local code officials before installing stair rail sections or stair rail posts to ensure compliance with local code requirements.

⚠️ **Important Note:**

**See Aluminum Railing Guide online for complete stair railing installation instructions.**

DECK SURFACE

STAIR DOWN

3" TOP STAIR POST

3"

3"

3B

3" TYPICAL

TEMPORARILY INSTALL 3" BOTTOM STAIR END POST ALIGNED WITH TOP STAIR END POST (REFER TO STAIR INSTRUCTIONS)

Dia. #4

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. #5)

BUILDING WALL

DECK EDGE

LESS THAN 4" OPENING

3" CENTERLINE TYPICAL

LOCATE END POST

Dia. #5
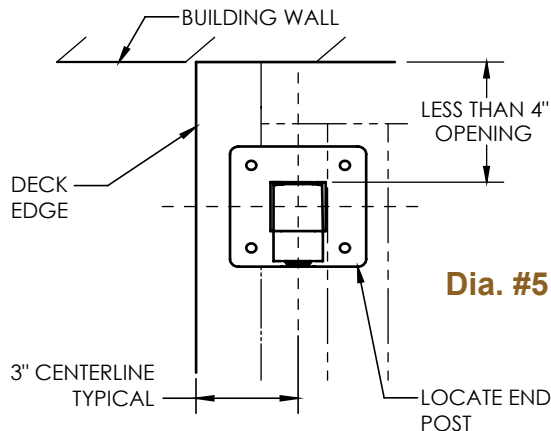
5 Install 90-degree Corner Posts

Position post on same 3" centerline (typical) and temporarily fasten using a single fastener through base plate mounting hole. (Dia. #6)
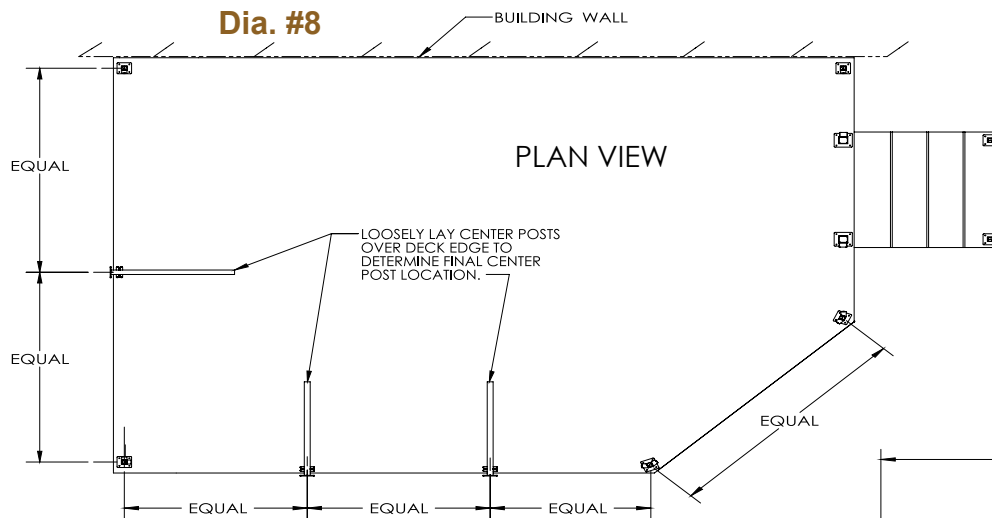
TOP VIEW

3" CENTERLINE TYPICAL

DECK EDGE

LOCATE 90° CORNER POST

3" CENTERLINE TYPICAL

Dia. #6
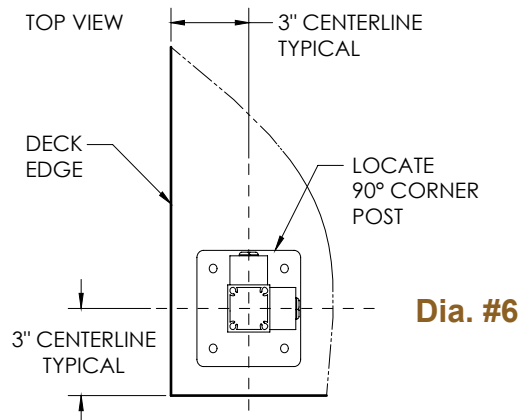
6 **Install 45-degree Corner Posts**

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. #7)
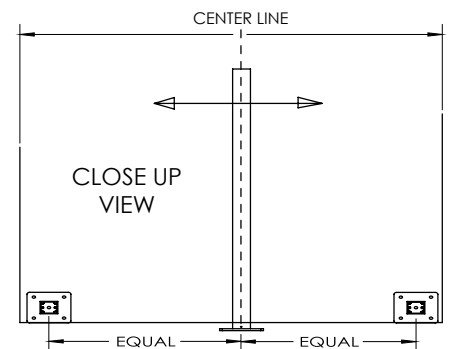
TOP VIEW

3" CENTERLINE TYPICAL

LOCATE 45° ANGLED POST

Dia. #7

POST DISSECTS DECK ANGLE TYPICAL

3" CENTERLINE TYPICAL
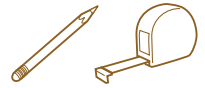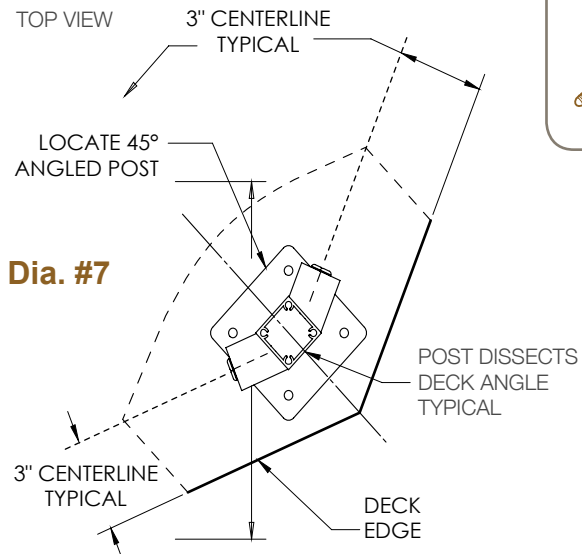
DECK EDGE

7 **Determine Center Post Locations**

Loosely lay center post over deck edge and adjust as required to determine final center post mounting locations. (Dia. 8 & 9)

Dia. #8

BUILDING WALL

PLAN VIEW

EQUAL

LOOSELY LAY CENTER POSTS OVER DECK EDGE TO DETERMINE FINAL CENTER POST LOCATION.

EQUAL

EQUAL

EQUAL   EQUAL   EQUAL

Dia. #9

CENTER LINE

CLOSE UP VIEW

EQUAL   EQUAL

⚠️ **Important Note:**

- **6' Panel Actual Length is 69.43"**
- **3" posts are required to reach 6' length**
- **Only 3" posts can be used for glass infill**

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8 Secure 3" Center Posts to Deck

- Install 3" posts centered between 3" end and corner posts.

 **NOTE: 3" center posts must be installed with center screw chases in-line with panel.**
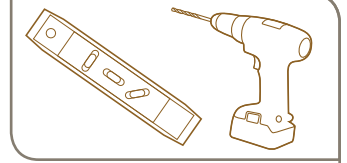
1 Prepare Glass Channels

- Measure and cut top and bottom rail extrusions to fit between posts (1/16" less than opening size). (Dia. #1)

   Note: Bottom vinyl rail channel should be cut with bottom rail extrusion, top vinyl rail channel should be removed before cutting. (Dia. #2)

- Snap bottom foot block into bottom rail assembly so mounting hole faces inward to deck surface. (Dia. #2)
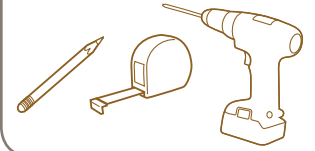
MEASURE AND CUT BOTTOM RAIL ASSEMBLY TO FIT BETWEEN POSTS.

BOTTOM VINYL GLASS CHANNEL

INSERT GLASS FOOT BLOCK INTO BOTTOM RAIL ASSEMBLY SO MOUNTING HOLE FACES INWARD TO DECK SURFACE.

Dia. #2

CUT TOP AND BOTTOM RAIL EXTRUSIONS 1/16" LESS THAN OPENING SIZE
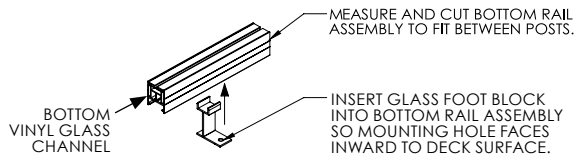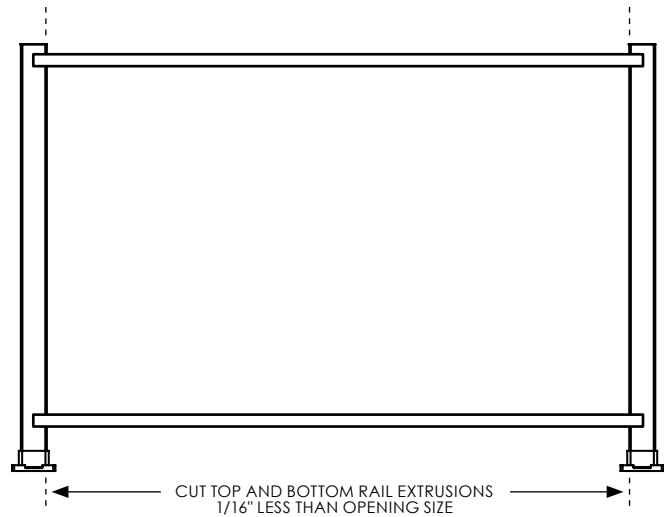
Dia. #1

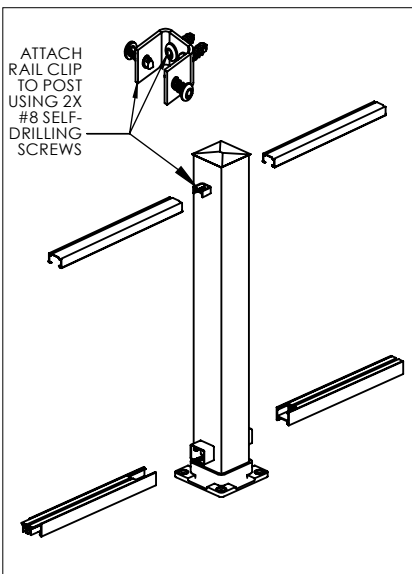## 2 Install Top and Bottom Glass Extrusions

- Starting at end post or top stair post (Dia. #3A), install the bottom rail extrusion, with vinyl insert, into the bottom receiver of the first two posts. Next, slide the top rail glass extrusion, without the vinyl installed, onto the upper rail attachment clips.

- Secure the posts to deck surface, then secure top rail glass extrusion to top railing attachment clip (Dia. #3B & #3C). Continue working from one post to the next. Install next piece of bottom rail, then secure the top rail extrusion to the rail clips until all rail sections are fastened to posts and posts are secured to deck surface.
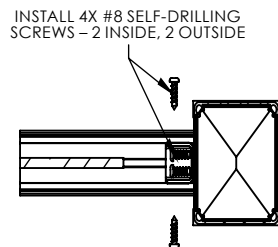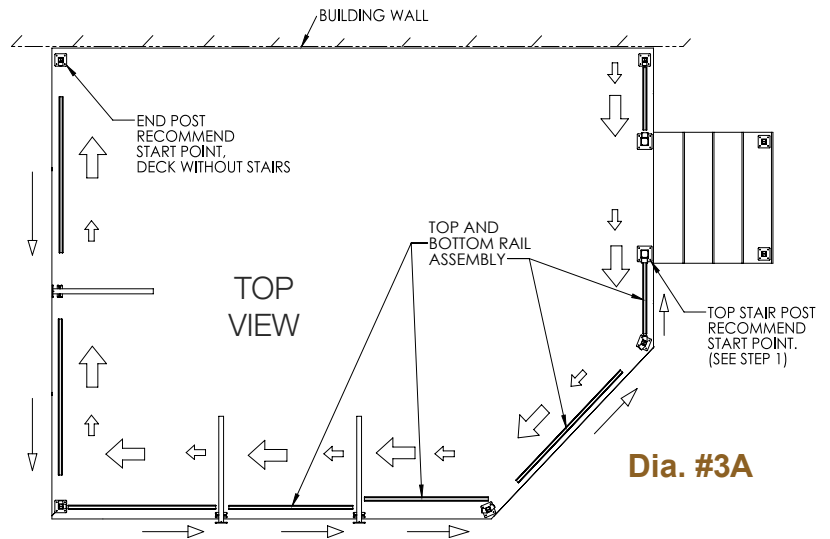
   NOTE: See Aluminum Railing Guide online for complete post installation instructions.

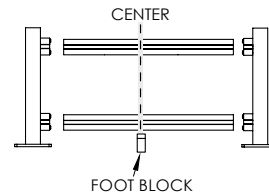- Center foot blocks between posts and fasten to deck. (Dia. #13D)

   Note: Foot Blocks are required for all spans of 4' or greater.

BUILDING WALL

END POST RECOMMEND START POINT, DECK WITHOUT STAIRS

TOP AND BOTTOM RAIL ASSEMBLY

TOP VIEW

TOP STAIR POST RECOMMEND START POINT. (SEE STEP 1)

Dia. #3A

ATTACH RAIL CLIP TO POST USING 2X #8 SELF-DRILLING SCREWS

Dia. #3B

INSTALL 4X #8 SELF-DRILLING SCREWS – 2 INSIDE, 2 OUTSIDE

Dia. #3C

CENTER

FOOT BLOCK

Dia. #3D

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⚠️ **Important Note:**

The top snap covers should snap firmly onto the aluminum railing channels. **Do not use a hammer.** The top rails will snap by applying pressure from one end to the other. If you're having issues snapping on the covers, check the clips to ensure that they are bottomed out into the aluminum railing channels. **Foot Blocks must be installed BEFORE installing Top Rail Snaps.**

3 Install Top Rail Snap

Measure between each secured post and cut top rail snap 1/16" less than opening size (Dia. #4). Clean cut areas and apply touch-up paint on all exposed metal. Snap each top rail snap over the corresponding glass rail extrusion until properly seated.

NOTE: Do not install top snaps yet if lighting wires will be run through top rails.
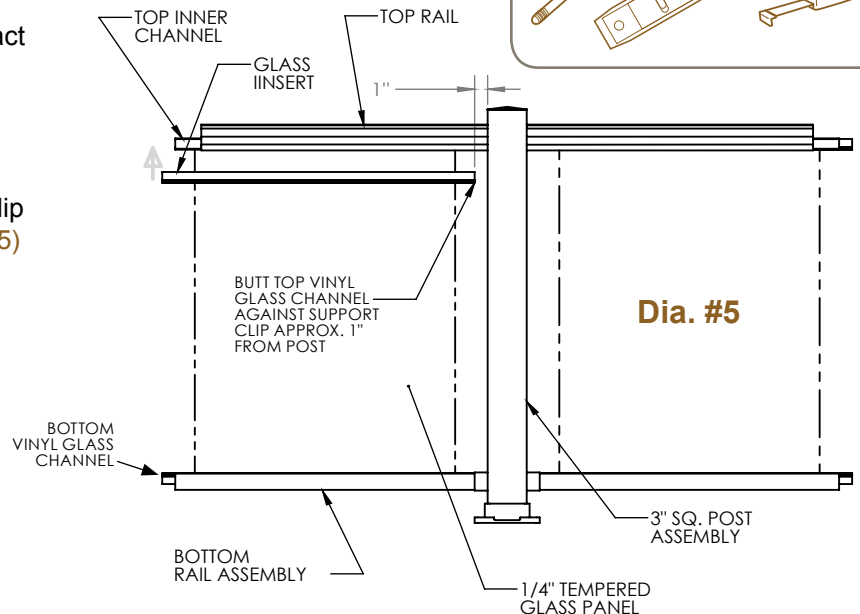
TIP: Roll the Top Rail Snap in place to avoid scratching the posts and put weight down to get to the "second" snap.

MEASURE, MARK & CUT

TOUCH UP PAINT ON CUT ENDS

Dia. #4
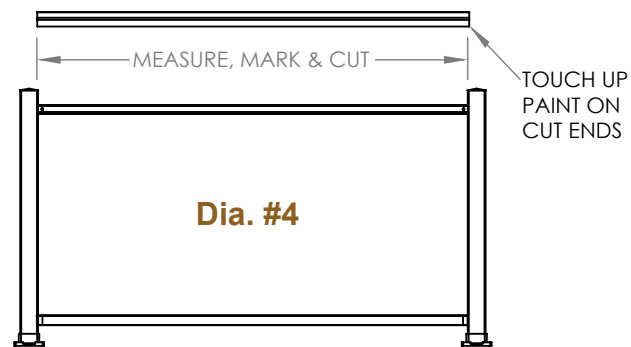
AFTER CUTTING TOP RAIL SNAP AND PAINTING, PUSH SNAP DOWN BY HAND UNTIL PROPERLY SEATED.
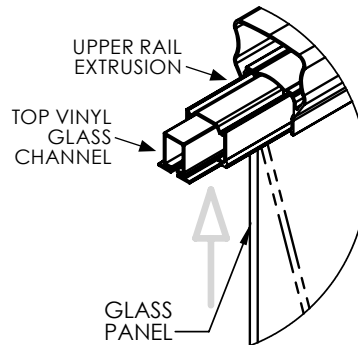**DO NOT USE A HAMMER!**

4 Install Top Glass Inserts

• Measure between posts and subtract 2" from overall measurement. Cut top vinyl glass channel to provide clearance at post clip locations.

• Insert glass channel into top rail extrusion, butted against support clip approximately 1" from post. (Dia. #5)

TOP INNER CHANNEL

TOP RAIL

GLASS IINSERT

1"

BUTT TOP VINYL GLASS CHANNEL AGAINST SUPPORT CLIP APPROX. 1" FROM POST

Dia. #5

BOTTOM VINYL GLASS CHANNEL

3" SQ. POST ASSEMBLY

BOTTOM RAIL ASSEMBLY

1/4" TEMPERED GLASS PANEL

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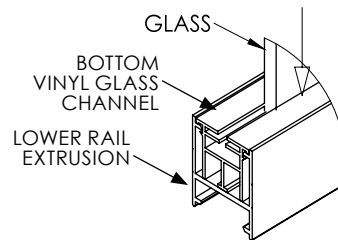by AZEK Building Products

5 Install Glass Panels

Position glass so gap between panel edge and post is equal on both ends. Glass gap at ends is typically 3" but can vary depending on application. Maximum gap must be less than 4". Insert glass panels upward into glass insert (Dia. #6A) and swing panel over opening in bottom rail glass insert. Pull panel downward until panel is resting firmly inside of bottom glass insert (Dia. #6B). Continue until all glass panels are installed.
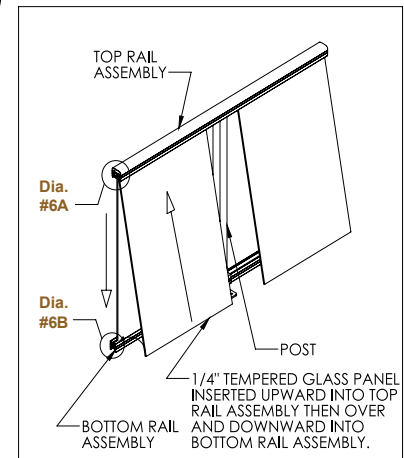
TIP: Window cleaner may help ease glass panel into top and bottom rail assemblies.

UPPER RAIL EXTRUSION

TOP VINYL GLASS CHANNEL

GLASS PANEL

Dia. #6A

GLASS

BOTTOM VINYL GLASS CHANNEL

LOWER RAIL EXTRUSION

Dia. #6B

TOP RAIL ASSEMBLY

Dia. #6A

Dia. #6B

POST

1/4" TEMPERED GLASS PANEL INSERTED UPWARD INTO TOP RAIL ASSEMBLY THEN OVER AND DOWNWARD INTO BOTTOM RAIL ASSEMBLY.
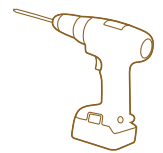
BOTTOM RAIL ASSEMBLY

6 Final Inspection

When railing is completely installed, complete one final check to ensure all fasteners are properly secured.

⚠ 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.

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