

### 1/4" GLASS RAILING DECK APPLICATION

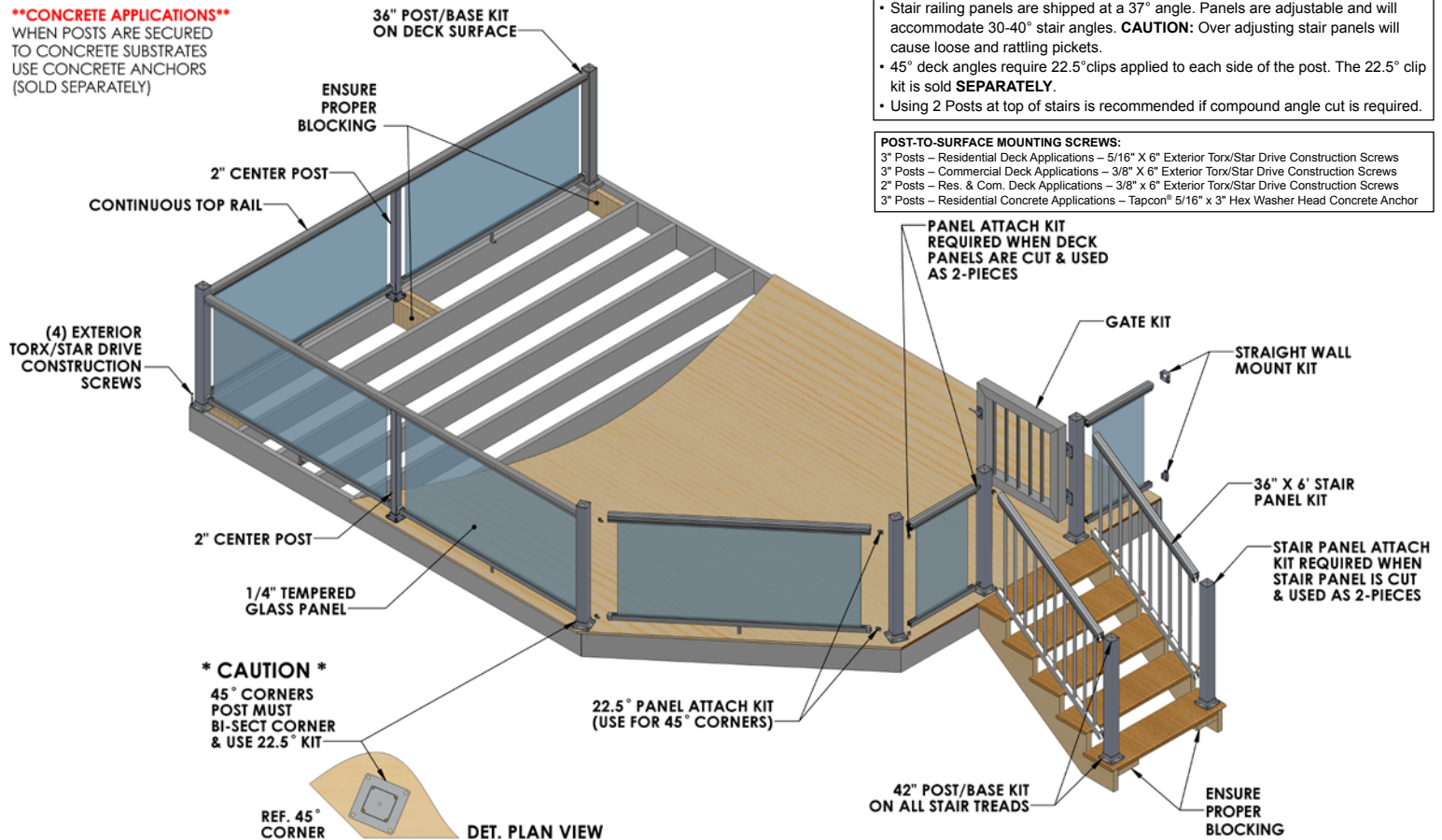
#### Items Required for Installation

- 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 drive bit
- Bottom receiver jig - optional

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 a Harmony 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.

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



#### IMPORTANT NOTES:

- Actual picket panel size: 6' Panels = 69.43".
- 3" posts are required to reach 6' lengths.
- MAXIMUM POST SPANS 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.
- 45° deck angles require 22.5° clips applied to each side of the post. The 22.5° clip kit is sold **SEPARATELY**.
- Using 2 Posts at top of stairs is recommended if compound angle cut is required.

#### POST-TO-SURFACE MOUNTING SCREWS:

- 3" Posts – Residential Deck Applications – 5/16" X 6" Exterior Torx/Star Drive Construction Screws
- 3" Posts – Commercial Deck Applications – 3/8" X 6" Exterior Torx/Star Drive Construction Screws
- 2" Posts – Res. & Com. Deck Applications – 3/8" X 6" Exterior Torx/Star Drive Construction Screws
- 3" Posts – Residential Concrete Applications – Tapcon® 5/16" X 3" Hex Washer Head Concrete Anchor

#### Notes:

- Review materials and Harmony Railing installation instructions to ensure all necessary materials are present prior to beginning installation.
- On wood structures, review outer deck framing and determine post placement. Solid, structural blocking is required at all post locations. Typical rail centerline is 3" from deck edge; however, rail centerline can be adjusted to suit the application.
- Review and confirm a solid, structural mounting surface is present at building/column locations where railing ends connect to the structure.
- Refer to [www.harmonyrailing.com](http://www.harmonyrailing.com) for stair installation instructions.
- Posts may require shimming to ensure all posts are plumb and level.
- For installations into wood framing, drill pilot holes through deck boards to prevent splitting.
- When installing posts, ensure proper blocking is installed under post attachment locations. Use proper attachment screws or anchors as directed in these instructions. Deck attachment screws are not provided with railing kits.
- Consult your Harmony Railing representative for installation methods not covered in this instruction guide.

## Step 1

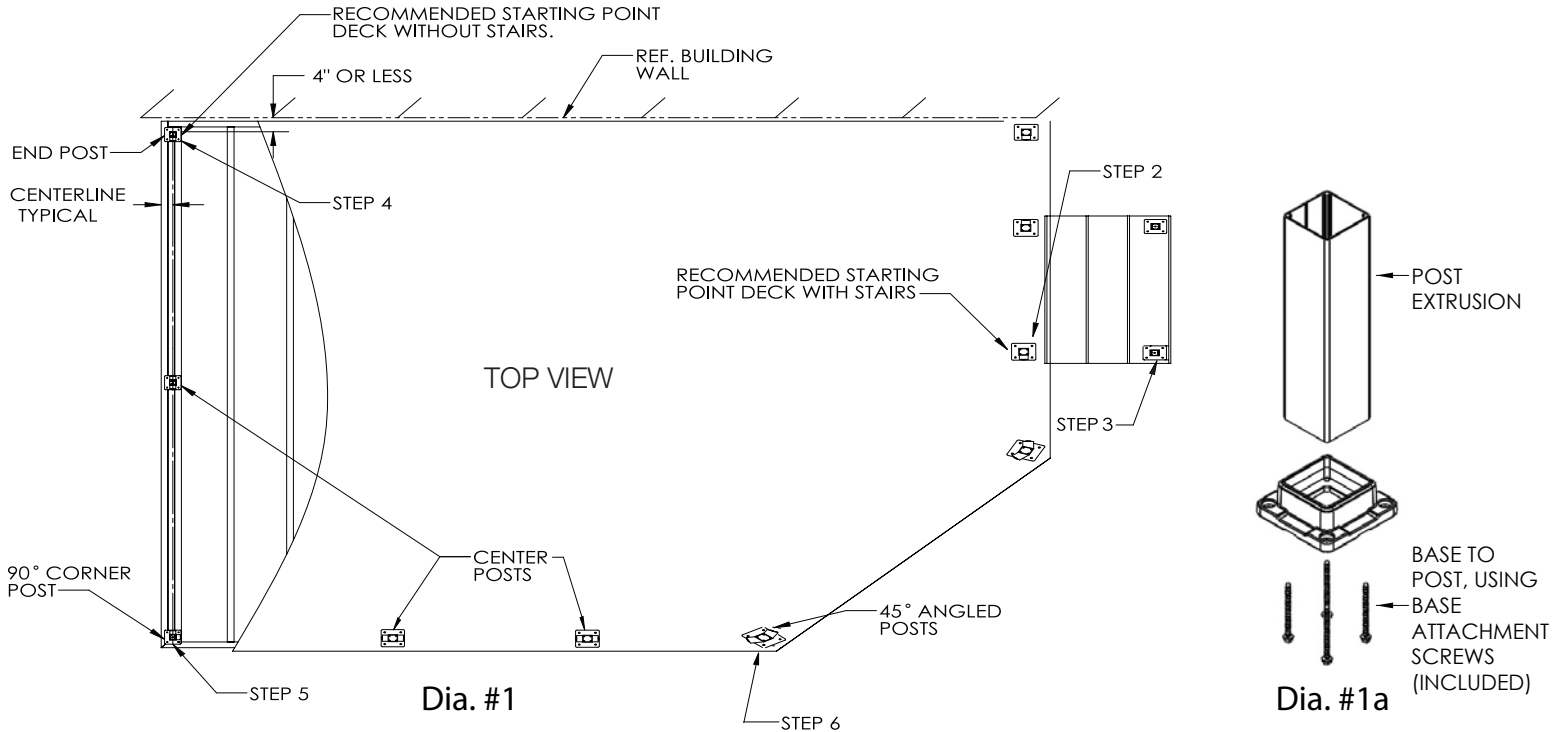
## Full Glass Panel View

### Determine post configurations and locations

(i.e. end, center, corner, etc.) Dia. #1.

### Assemble Post

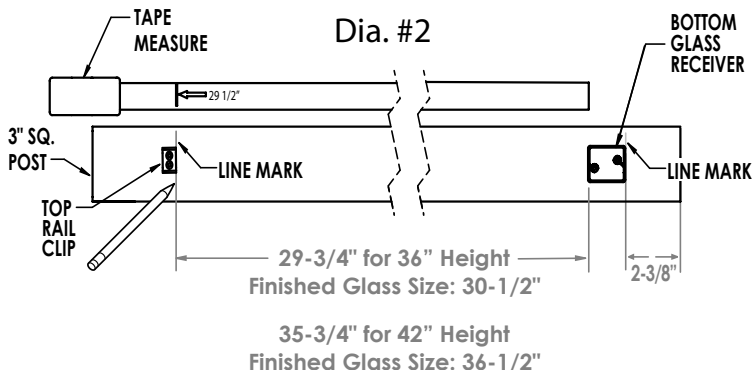
If base plate is not pre-attached, secure to post extrusion using base attachment screws included in kit (Dia. #1a).



## Step 2

### Post preparation (Option 1 - No Jig)

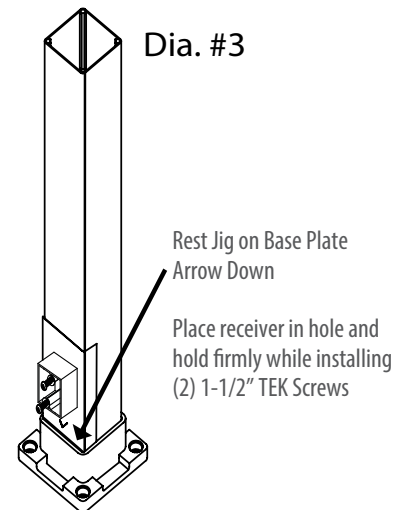
- Measure 2-3/8" from end of post extrusion and place a pencil mark for location of bottom edge of glass receiver.
- Position bottom edge of glass receiver on pencil mark at 2 3/8", center receiver on post and secure with 2-#10 x 1-1/2" TEK screws.
- Once bottom receiver is secure, measure 29 3/4" or 35 3/4" 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.



## Step 2a

### Post preparation (Option 2 - W/Jig)

- Install lower receiver to appropriate post face using Jig (Dia. #3)
- Measure 29 3/4" or 35 3/4" 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" TEK Screws.

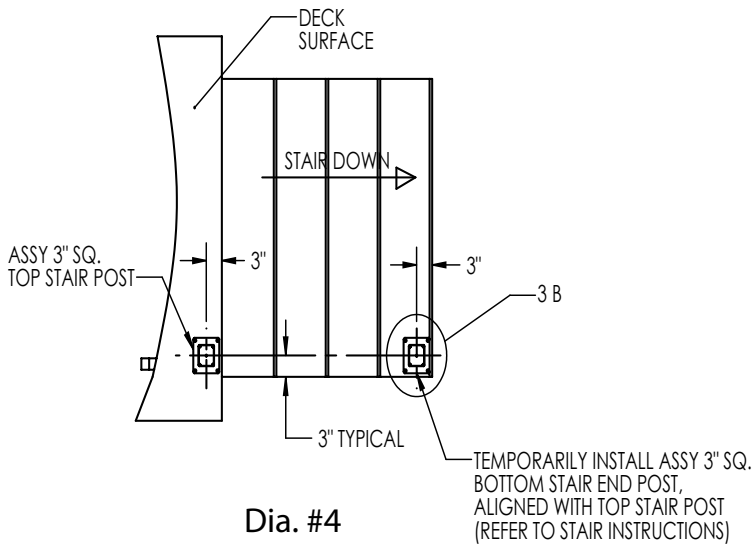


## Step 3

### Installation of 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.

Return to completing deck railing installation; upon completion of deck railing, refer to Harmony Railing stair railing installation instructions, online at [www.harmonyrailing.com](http://www.harmonyrailing.com)

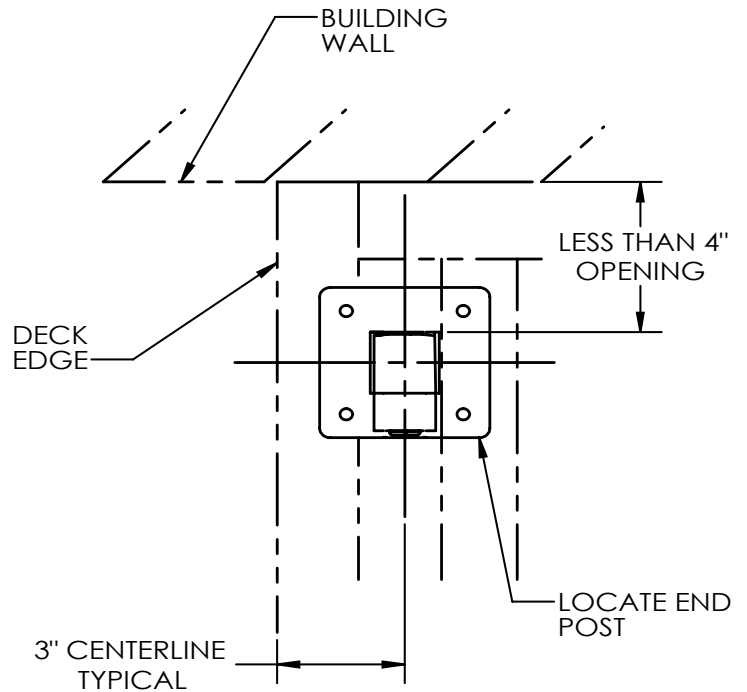


Dia. #4

## Step 4

### Installation of end posts

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

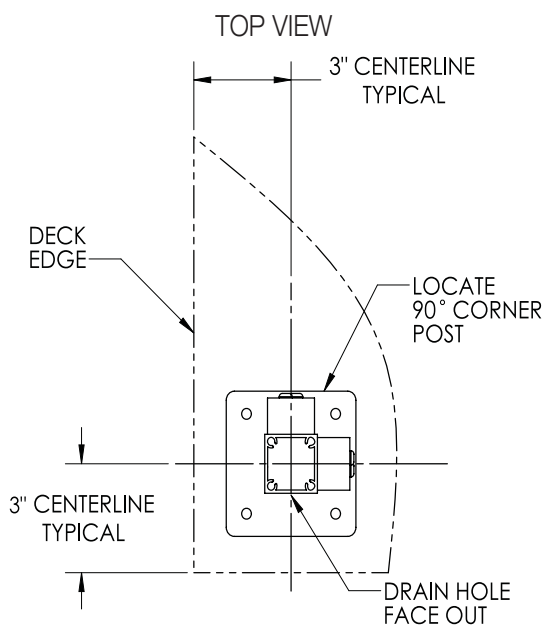


Dia. #5

## Step 5

### Installation of 90-degree corner posts

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

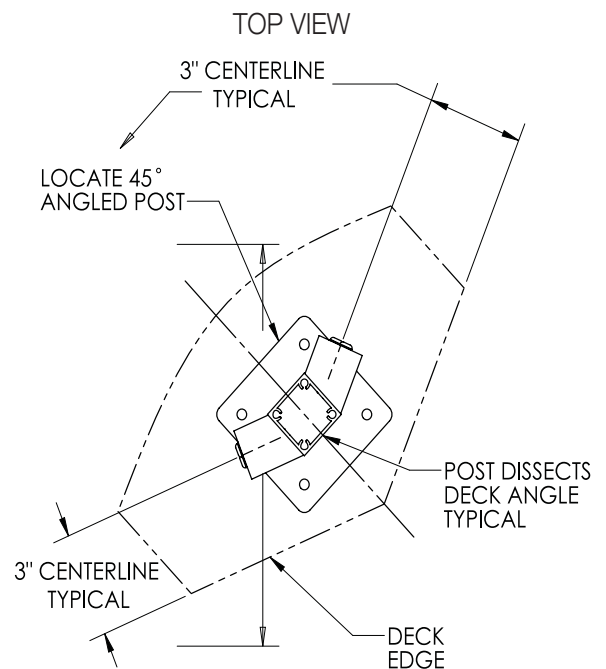


Dia. #6

## Step 6

### Installation of 45-degree corner posts

Position post on same 3" centerline (typical) and temporarily fasten to deck surface. Use one 22.5° Panel Attach Kit (P/N HC03422 – purchased separately) to install 45 degree corner posts.

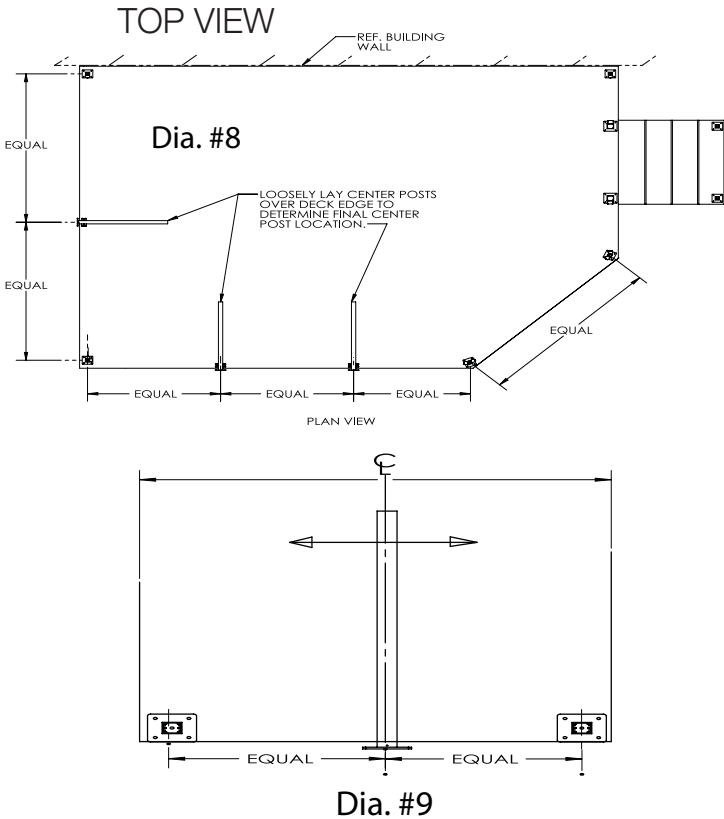


Dia. #7

## Step 7

### Determining center post locations

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



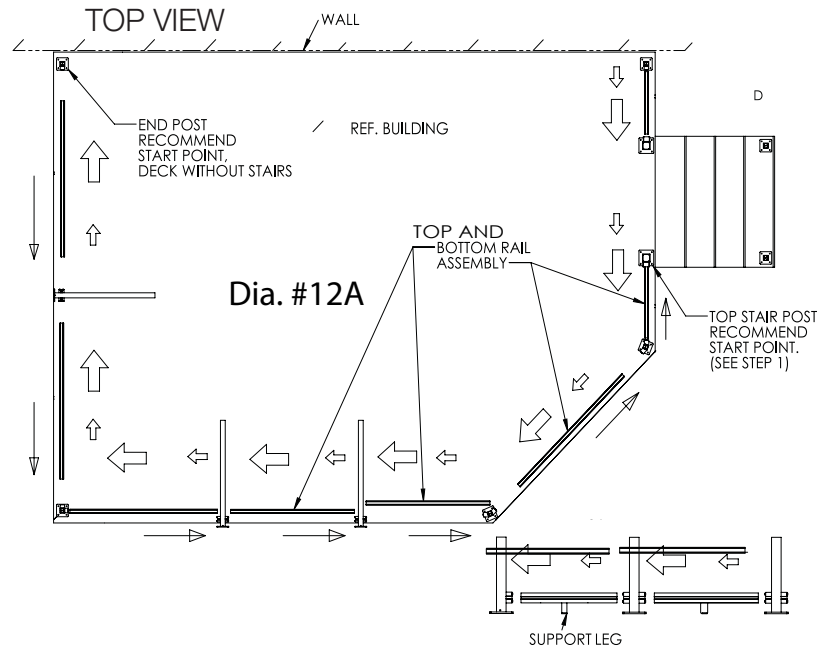
## Step 9

### Installation of top and bottom glass extrusions

Starting at end post or top stair post (Dia. #12A) install the bottom rail extrusion, with vinyl insert, into the bottom receiver of the first 2 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. #12B&C). 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.

Center bottom support legs between posts and fasten to deck.

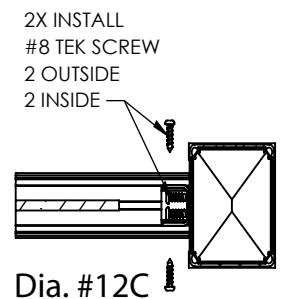
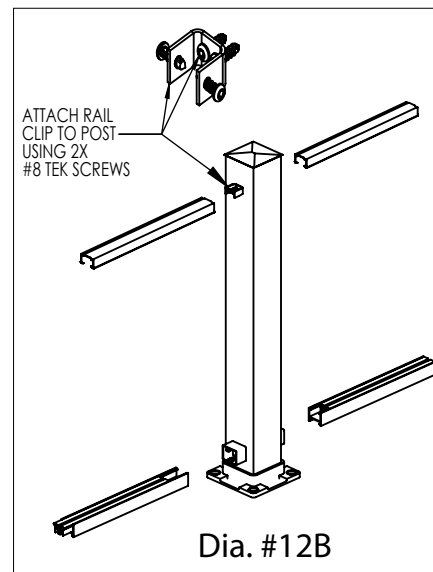
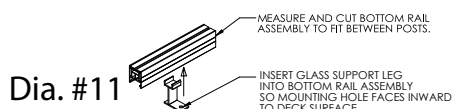
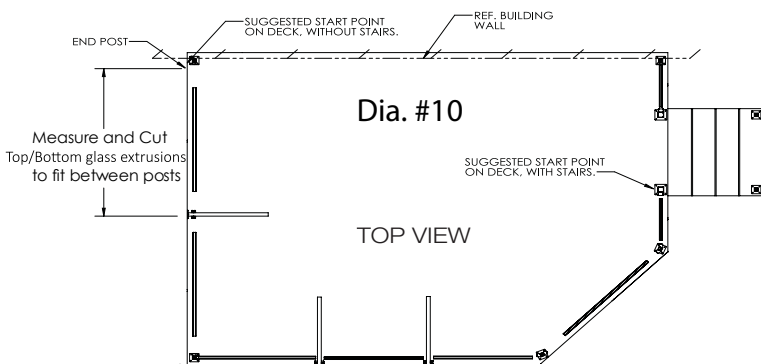


## Step 8

### Cut top and bottom rail glass extrusions

Measure and cut top and bottom rail extrusions to fit between posts. Note: Bottom vinyl should be cut with bottom rail extrusions, top rail vinyl should be removed before cutting. (See Dia. #10).

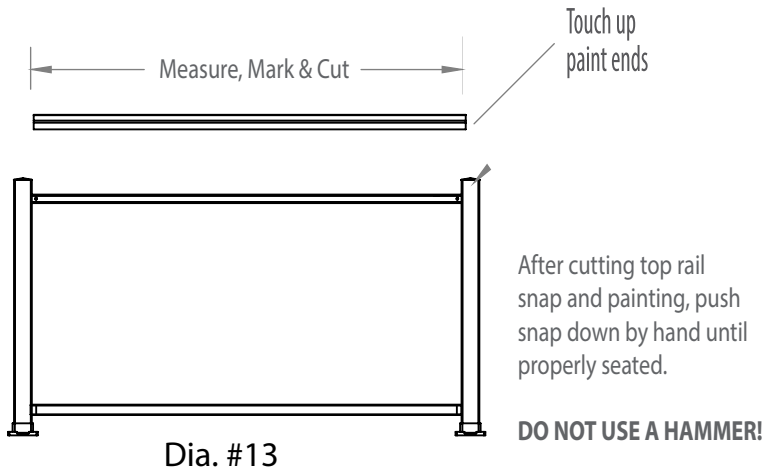
Snap bottom support leg into bottom rail assembly so mounting hole faces inward to deck surface. (See Dia. #11).



## Step 10

### Installation of top rail snap

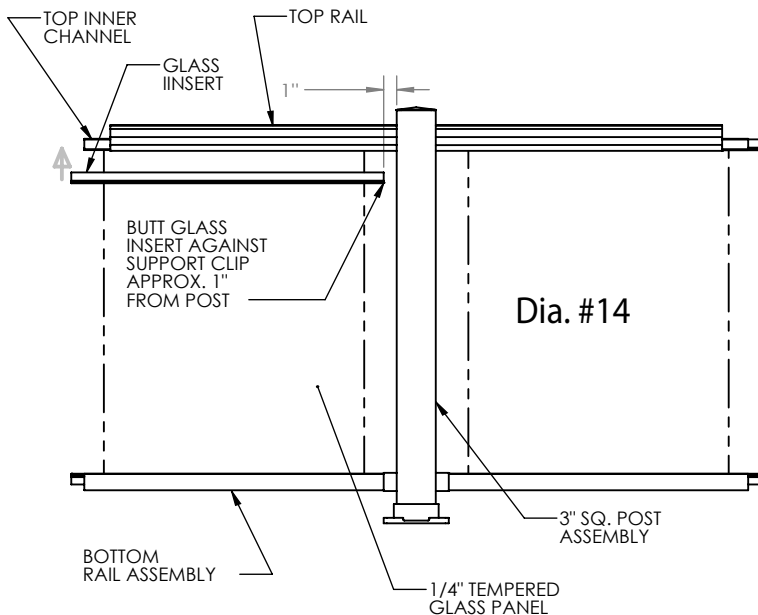
Measure between each secured post and cut top rail snap 1/16" less than opening size (Dia. 13). Clean cut areas and apply touch-up paint on all exposed metal. Snap each top rail snap over the corresponding glass rail extrusion until properly seated.



## Step 11

### Installation of top glass inserts

Measure between posts and subtract 2" from overall measurement. Cut top glass insert to provide clearance at post clip locations and insert vinyl into top rail extrusion (Dia. #14).

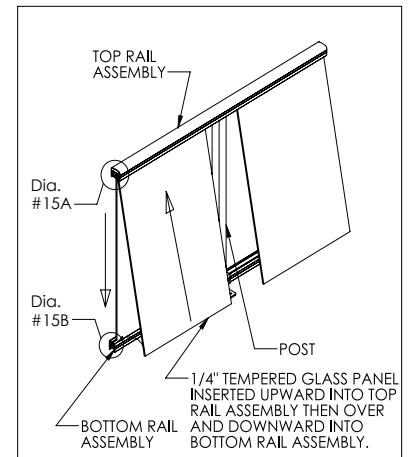
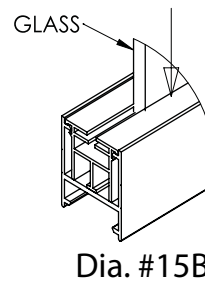
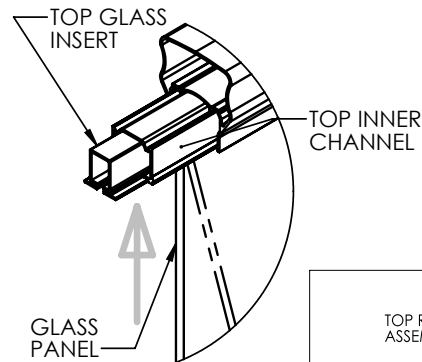


## Step 12

### Installation of 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. #15A) and swing panel over opening in bottom rail glass insert. Pull panel downward until panel is resting firmly inside of bottom glass insert (Dia. 15B). Continue until all glass panels are installed.

**TIP:** Window cleaner may ease glass installation into top and bottom rail assemblies.



## Step 13

### Final Inspection

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

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