Impression Rail™ Express

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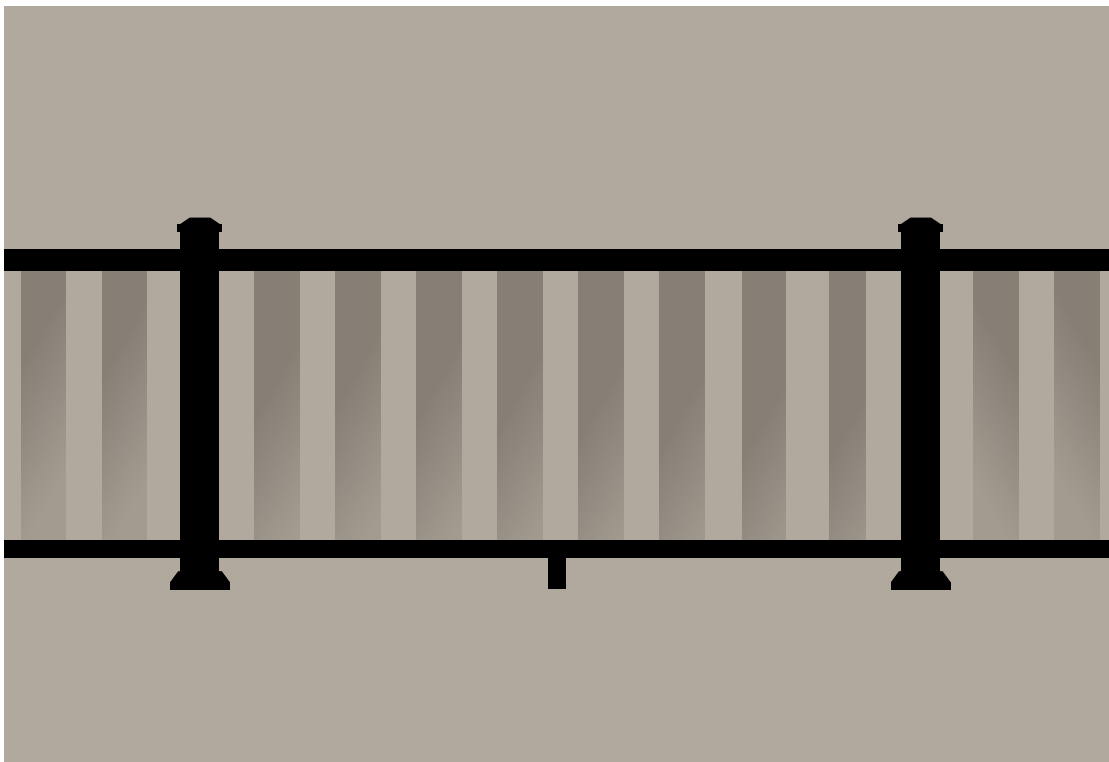
See Railing Panel Installation Guide
for Stair Panels and Gate Kits.

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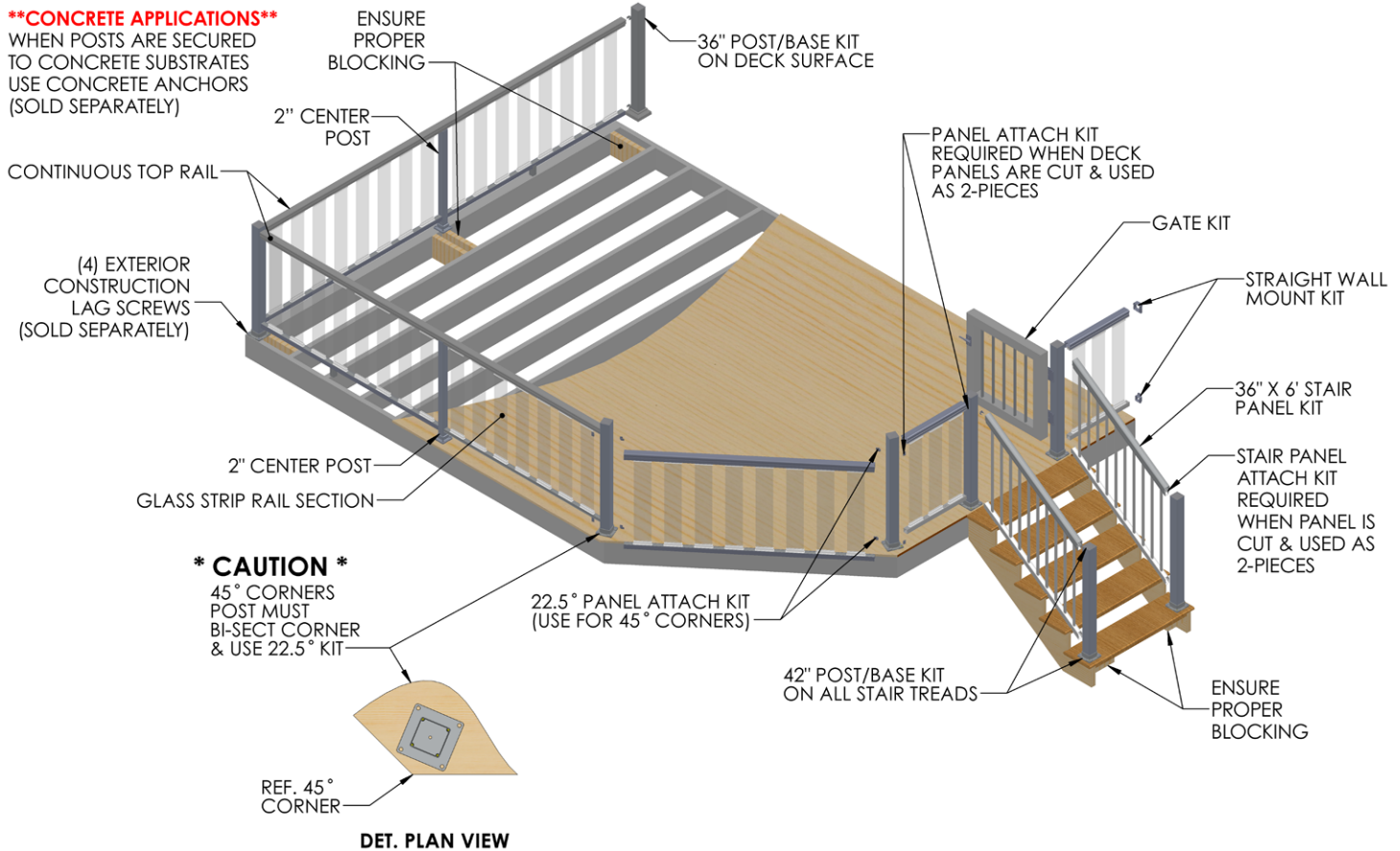
⚠ Important Information

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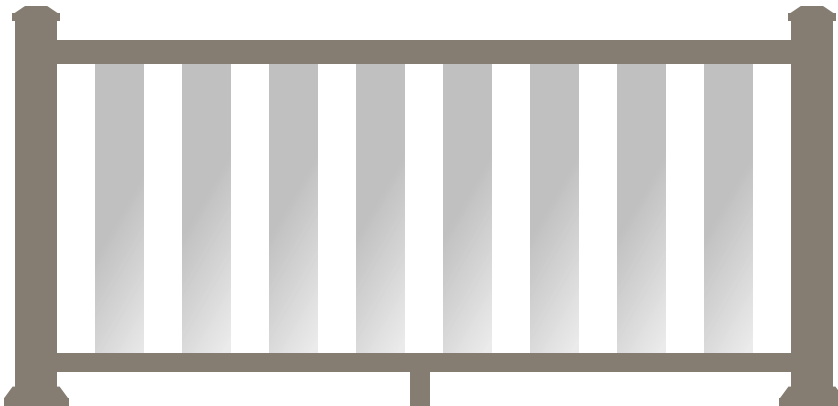
NOTE: IF INSTALLING POST LIGHTING, WIRING MUST BE INSTALLED PRIOR TO SECURING POSTS TO DECK/STAIR SURFACE AND INSTALLING TOP RAIL SNAPS.

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.

Installing Impression Rail™ Express
Glass Baluster System

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

ENSURE PROPER BLOCKING

36" POST/BASE KIT ON DECK SURFACE

2" CENTER POST

CONTINUOUS TOP RAIL

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

GATE KIT

(4) EXTERIOR CONSTRUCTION LAG SCREWS (SOLD SEPARATELY)

STRAIGHT WALL MOUNT KIT

36" X 6' STAIR PANEL KIT

2" CENTER POST

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

GLASS STRIP RAIL SECTION

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

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

42" POST/BASE KIT ON ALL STAIR TREADS

ENSURE PROPER BLOCKING

REF. 45° CORNER

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:**

Glass Balustrade Panels are 69.43" long. 3" posts are required to reach 6' length.

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1 Determine All Posts Needed and Prepare
(end, center or corner)
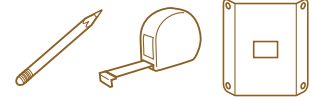
⚠️ **Important Note:**

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 Installation 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" self-drilling screws. Clips are included in the Panel Kits.
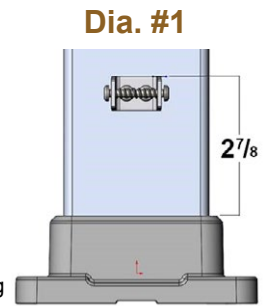
Option B - Using Installation Jig
- Place Installation Jig (w/arrow facing base plate) on top of base plate upper edge. *(Dia. #2)*
- Place clip in hole and fasten with (2) - #8x3/4" self-drilling screws. Clips are included in the Panel Kits.
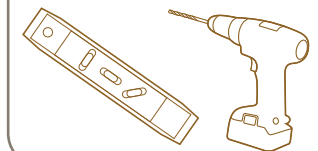
Dia. #1

$2^7/_8$
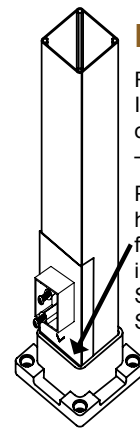
Dia. #2

Rest Installation Jig on Base Plate – Arrow Down

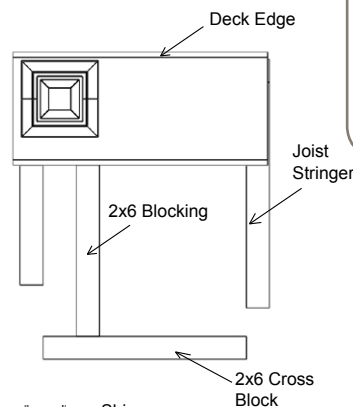Place Clip in hole, hold clip firmly while installing (2) Self-Drilling Screws.
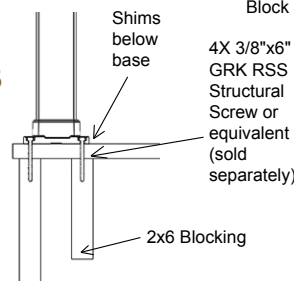
2 How to Secure 3" Posts to Deck

- 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)*
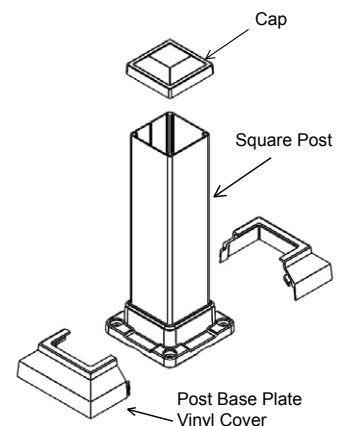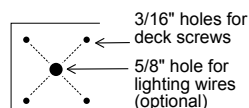- Install post caps. *(Dia. #4)*

Deck Edge

Dia. #3A
(TOP VIEW)

Joist Stringer

2x6 Blocking

2x6 Cross Block

Dia. #3B
(SIDE VIEW)

Shims below base

4X 3/8"x6" GRK RSS Structural Screw or equivalent (sold separately)

2x6 Blocking

Dia. #4

Cap

Square Post

Post Base Plate Vinyl Cover

Dia. #3C
(TOP VIEW)

3/16" holes for deck screws

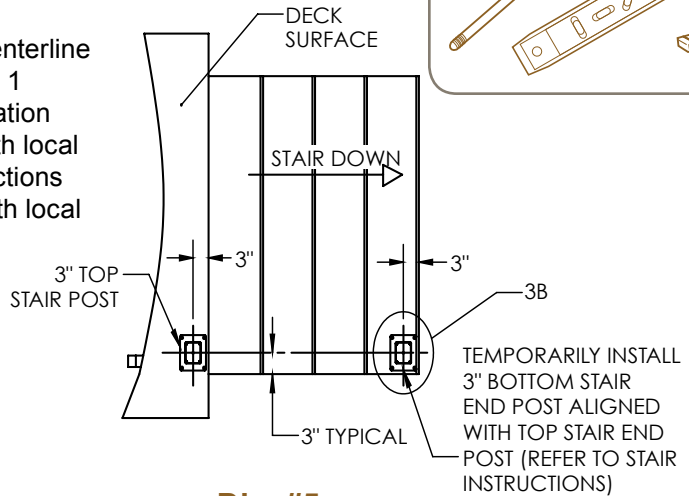5/8" hole for lighting wires (optional)

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. #5) 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"

3"

3" TOP STAIR POST

3B

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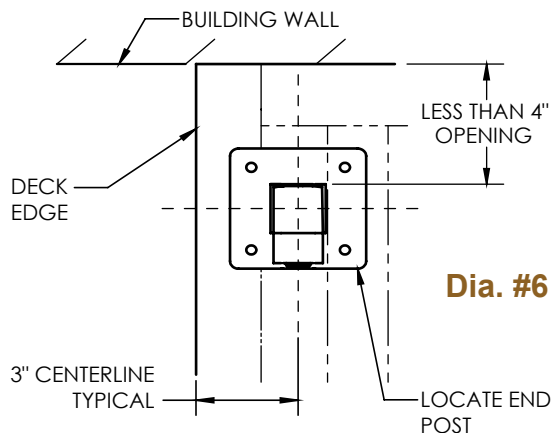
3" TYPICAL

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)

**NOTE: See Aluminum Railing Guide for complete post installation instructions.**

BUILDING WALL

LESS THAN 4" OPENING

DECK EDGE

Dia. #6

3" CENTERLINE TYPICAL

LOCATE END POST

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)

NOTE: See Aluminum Railing Guide for complete post installation instructions.

TOP VIEW

3" CENTERLINE TYPICAL

DECK EDGE

LOCATE 90° CORNER POST
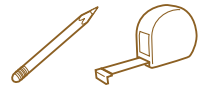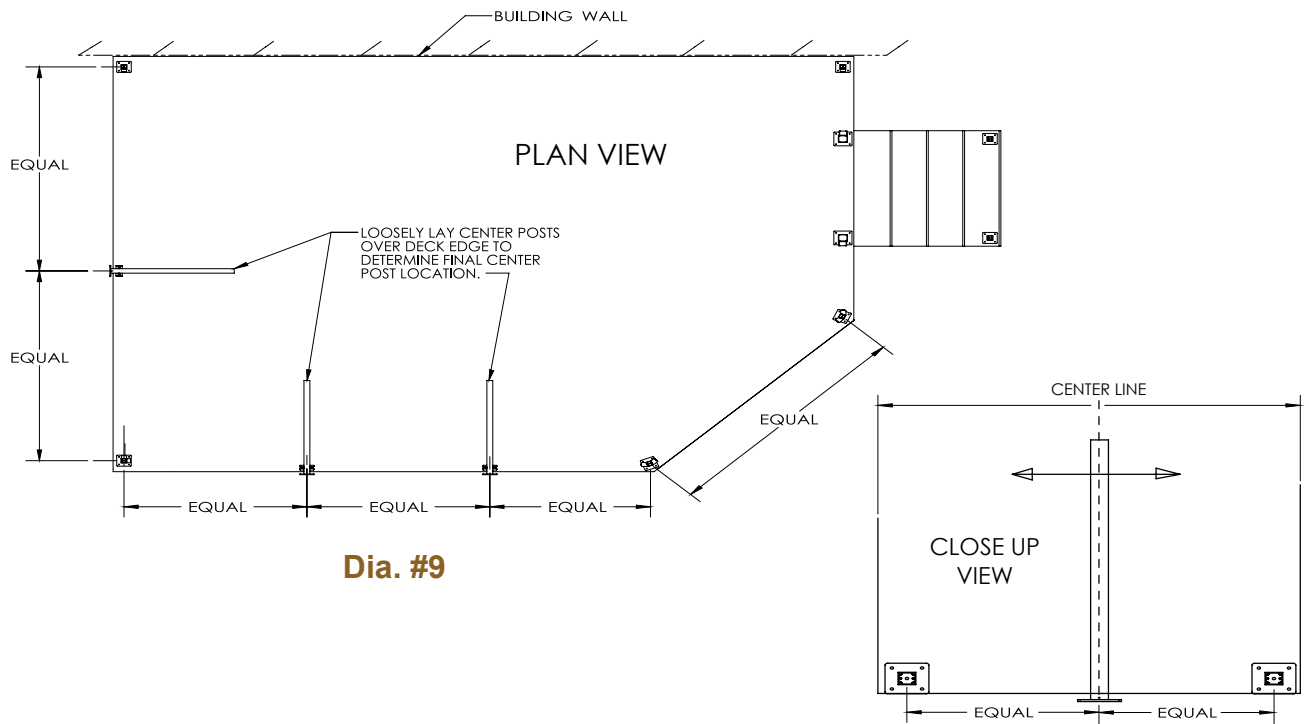
Dia. #7
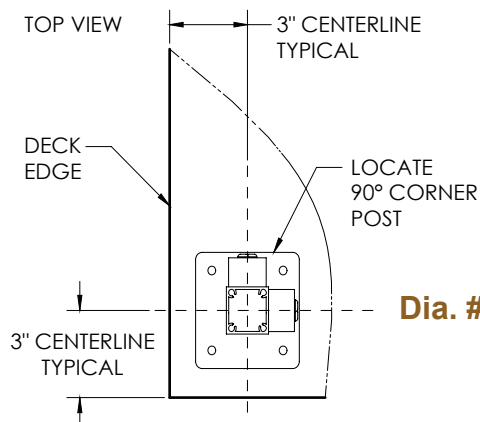
3" CENTERLINE TYPICAL

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)

TOP VIEW

3" CENTERLINE TYPICAL

LOCATE 45° ANGLED POST

Dia. #8

POST DISSECTS DECK ANGLE TYPICAL

3" CENTERLINE TYPICAL
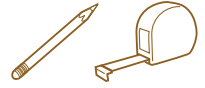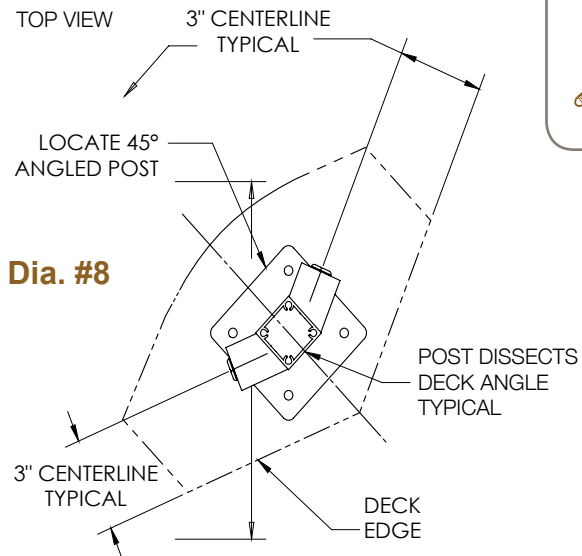
DECK EDGE

7 Determine Center Post Locations

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

BUILDING WALL

EQUAL

EQUAL

PLAN VIEW

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

EQUAL

EQUAL EQUAL EQUAL

Dia. #9

CENTER LINE

CLOSE UP VIEW

EQUAL EQUAL

Dia. #10

8 Secure 2" Posts to Deck (center only)

- For continuous top rail systems, install 2" posts centered between 3" end and corner posts.
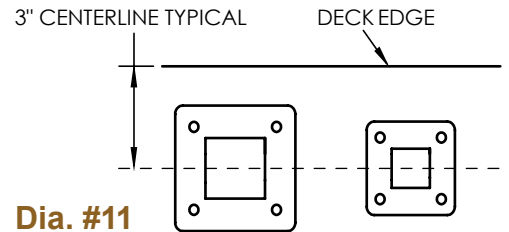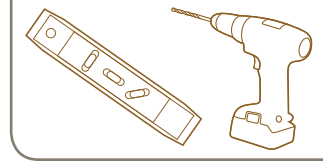
  NOTE: 2" Posts must be installed with center screw chases in-line with panel (Dia. #11).

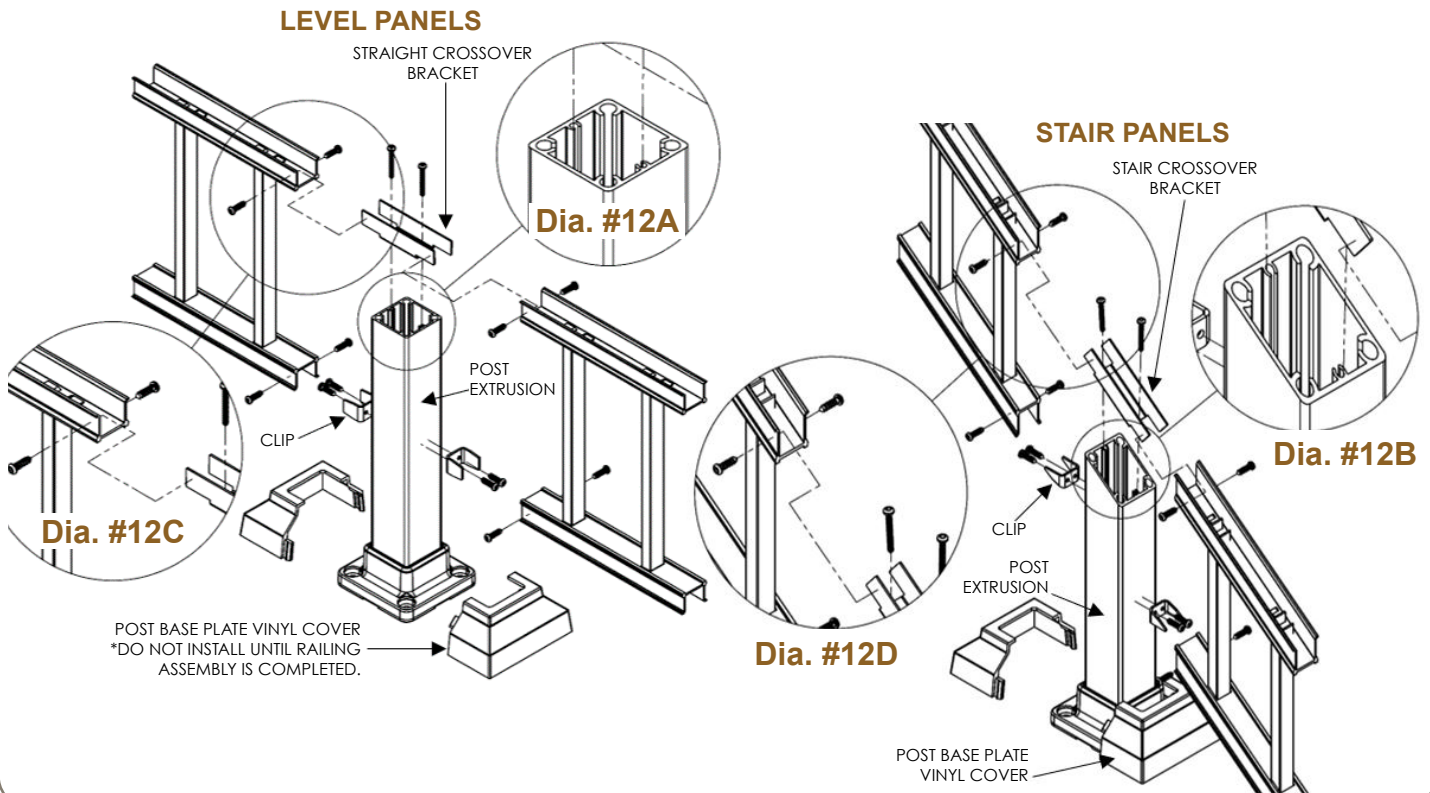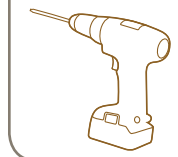- Follow instructions in step 2 (Dia. #3A to Dia. #4).

⚠ **Important Note:**

3" posts are required at all transitions. 2" posts may not be used to start/end a run or to form a corner.

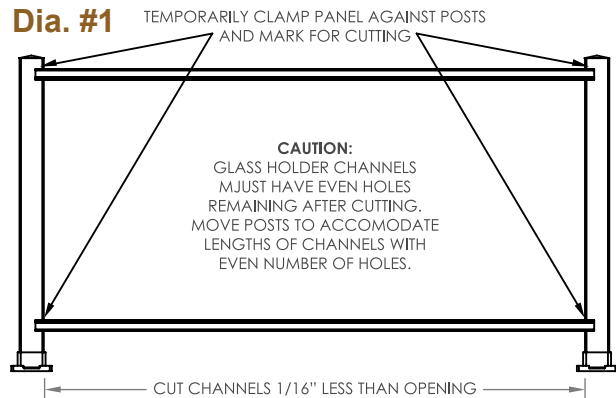3" CENTERLINE TYPICAL   DECK EDGE

Dia. #11

9 Install Crossover Brackets on 2" Posts

- With 6" #2 square drive bit, fasten straight crossover bracket (included) into post with (2) - #8x1.5" Self-Drilling Screws. (Dia. #12A & #12B)
  NOTE: Self-Drilling Screws must be installed in screw chases in-line with panels.

- With 6" #2 square drive bit, fasten H-channel to straight and stair crossover brackets with (4) - #8x3/4" Self-Drilling Screws. (Dia. #12C & #12D) Repeat for lower clips.

- Install base plate vinyl cover only after railing assembly is completed. (Dia. #4)

LEVEL PANELS

STRAIGHT CROSSOVER BRACKET

Dia. #12A

POST EXTRUSION

CLIP

Dia. #12C

POST BASE PLATE VINYL COVER
*DO NOT INSTALL UNTIL RAILING ASSEMBLY IS COMPLETED.

STAIR PANELS

STAIR CROSSOVER BRACKET

Dia. #12B

CLIP

POST EXTRUSION

Dia. #12D

POST BASE PLATE VINYL COVER

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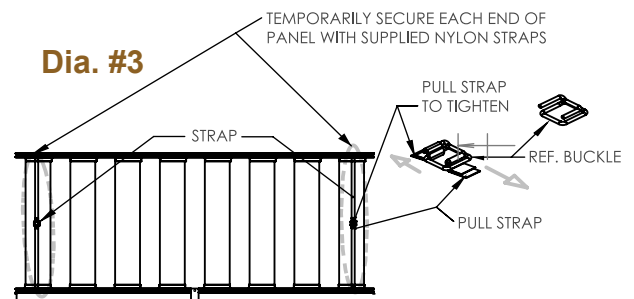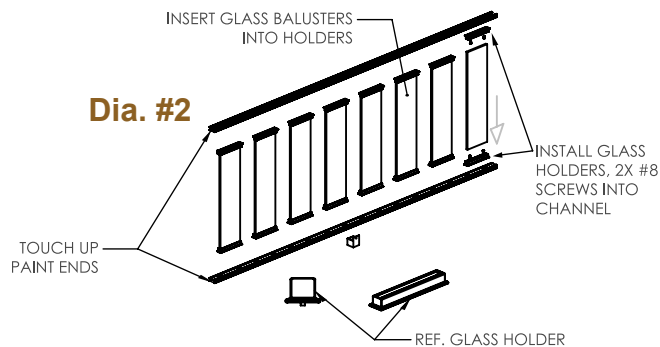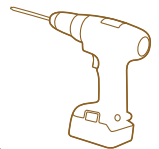by AZEK Building Products

1 Cut Glass Holder Channels

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

Dia. #1

TEMPORARILY CLAMP PANEL AGAINST POSTS AND MARK FOR CUTTING

CAUTION:
GLASS HOLDER CHANNELS
MJUST HAVE EVEN HOLES
REMAINING AFTER CUTTING.
MOVE POSTS TO ACCOMODATE
LENGTHS OF CHANNELS WITH
EVEN NUMBER OF HOLES.

CUT CHANNELS 1/16" LESS THAN OPENING
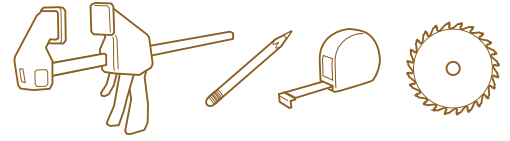
2 Insert Glass Strip Holders Into Channel (Dia. #2)

- Secure glass holders with 2X #8x1" Self-Drilling Screws.
- Insert Glass Balusters into holders.
- Secure glass panel with supplied straps. (Dia. #3)

INSERT GLASS BALUSTERS INTO HOLDERS

Dia. #2

INSTALL GLASS HOLDERS, 2X #8 SCREWS INTO CHANNEL

TOUCH UP PAINT ENDS

REF. GLASS HOLDER

Dia. #3

TEMPORARILY SECURE EACH END OF PANEL WITH SUPPLIED NYLON STRAPS

PULL STRAP TO TIGHTEN

STRAP
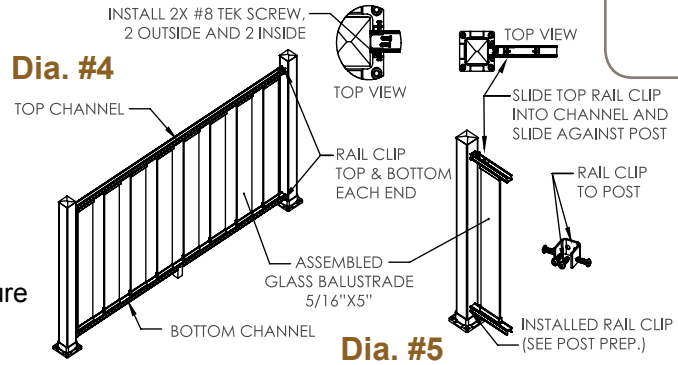
REF. BUCKLE

PULL STRAP

⚠ 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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3 Secure Glass Panels to Posts

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

Dia. #4

INSTALL 2X #8 TEK SCREW, 2 OUTSIDE AND 2 INSIDE

TOP VIEW

TOP VIEW

TOP CHANNEL

SLIDE TOP RAIL CLIP INTO CHANNEL AND SLIDE AGAINST POST

RAIL CLIP TOP & BOTTOM EACH END

RAIL CLIP TO POST

ASSEMBLED GLASS BALUSTRADE 5/16"X5"

INSTALLED RAIL CLIP (SEE POST PREP.)

BOTTOM CHANNEL

Dia. #5

4 Install Foot Blocks (Dia. #6)

- Measure to find the center of the bottom rail for location of foot block.
- Slide foot block under bottom rail and mark location on deck surface.
- Install two deck screws at location of foot block and place foot block over screws.
- Using (1) #8x3/4" Self-Drilling Screw, secure the foot block to the bottom rail.

Dia. #6

CENTER FOOT BLOCK   MEASURE
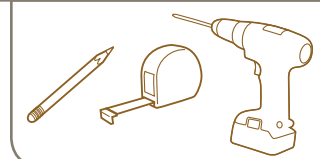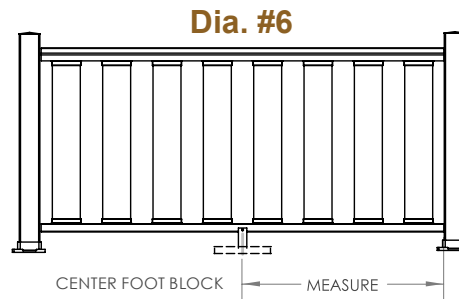
⚠ Important Note:

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.**

5 Cut and Install Top and Bottom Rail Snaps (Dia. #7)

- Measure between posts at the top and bottom.
- Cut snaps 1/16" less than opening size.
- Clean cut areas and apply touch up paint on all exposed metal.
- Press each rail snap over the corresponding rail until properly seated. **Do not use a hammer. TIP:** Roll the Top Rail Snap in place to avoid scratching the posts and put weight down to get to the "second" snap.

Dia. #7

2X MEASURE, MARK AND CUT

TOUCH UP PAINT ENDS

AFTER CUTTING SNAPS AND PAINTING, PUSH TOP AND BOTTOM COVER RAILS DOWN AND UP ONTO PANEL UNTIL SNAP IS SEATED.

2X MEASURE, MARK AND CUT

MARK AND CUT TOP AND BOTTOM SNAPS, INSIDE TO INSIDE POSTS, MINUS 1/16" CLEARANCE.

DO NOT USE A HAMMER.

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