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Installation Instructions For eGlass® Picket™

Assembly & Installation Steps:

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Deck Mount

Fascia Mount

Fascia Mount w/o Brackets

eGlass® Picket™ Top Rail Options





800 Series (Element) Top Rail

810/820 Series (Solid) Top Rail

Purchaser has the full responsibility to comply with local, national, and international building codes. Purchaser shall comply in all respects with all applicable legal requirements governing the duties, obligations, and business practices of their localities and shall obtain any permits or licenses necessary for their operations. In no event shall eGlass LLC be liable for any direct, indirect, punitive, incidental, special, or consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of our products. Purchaser shall not take any action in violation of any applicable legal requirement that could result in liability being imposed on eGlass LLC. Any liability imposed by eGlass LLC shall be limited to the amount of insurance carried by eGlass LLC that may be applicable to such claims as may arise.

eGlass railing system components meet all building guidelines for structural strength and usability and can easily be assembled onsite. The railing system components are made of aluminum, providing a long-term low maintenance system.

It is the responsibility of the installer to meet and/or exceed all code and safety requirements and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation.

Refer to <u>www.eglassrailing.com</u> to ensure that you are viewing the most recent installation instructions.

Step 1: Installation Preparation

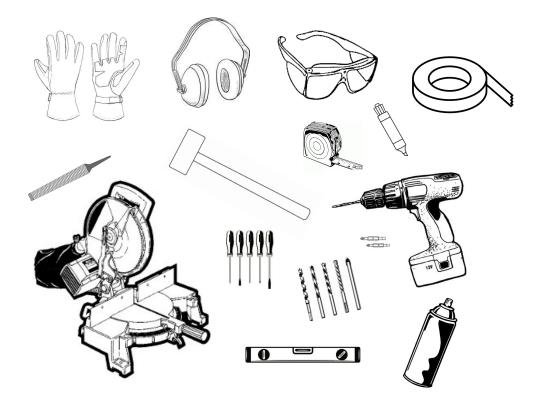
- Match all components to the packing slip and inspect to ensure none are missing or damaged.
- · Gather recommended tools and supplies.
- · Measure twice before cutting any component.

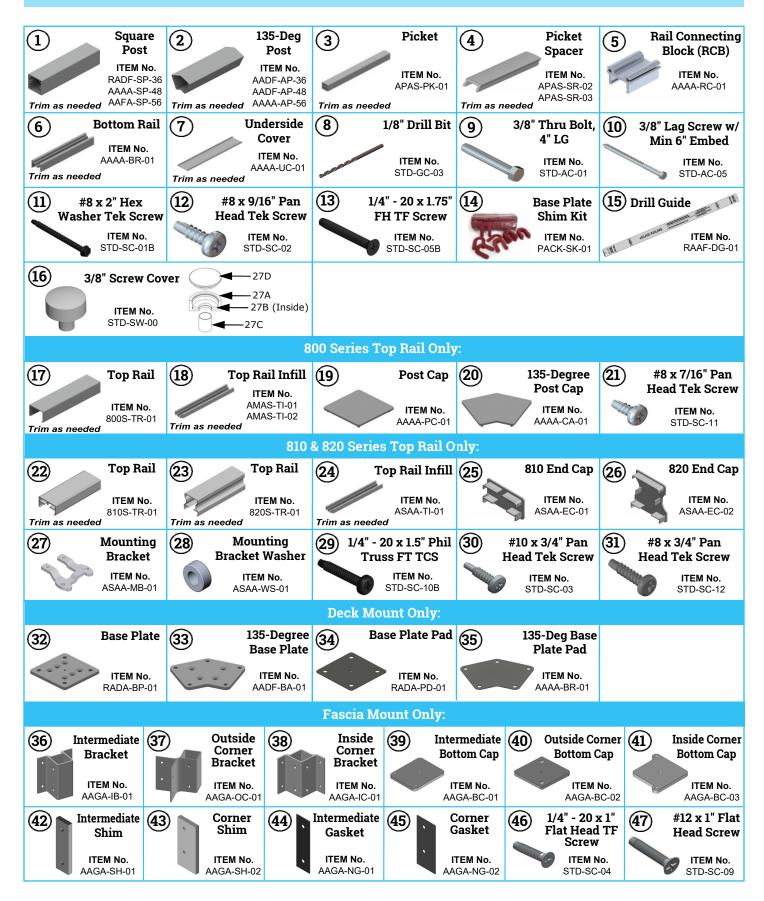
STOP

Please read instructions fully before starting any installation.

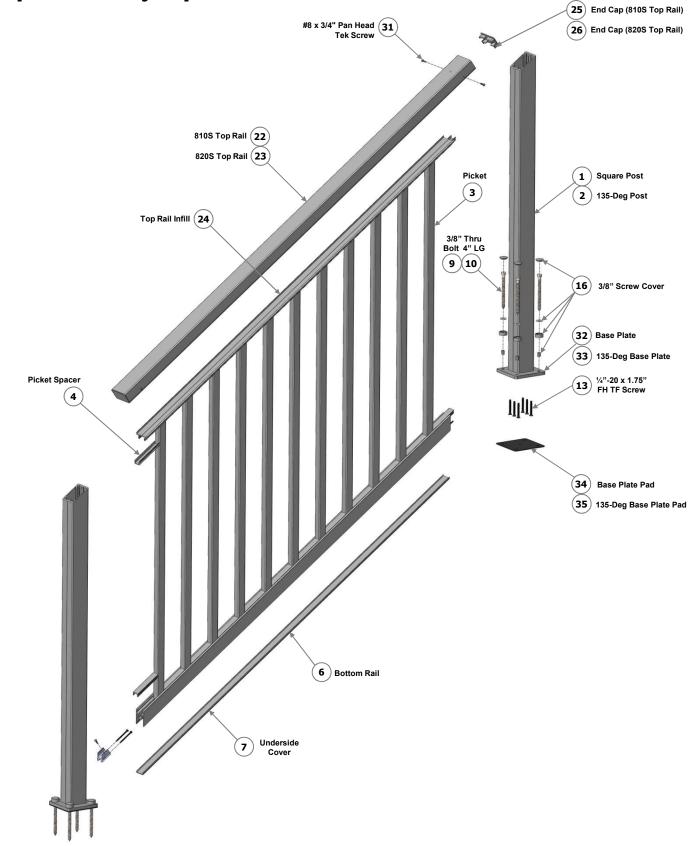
Tools Needed

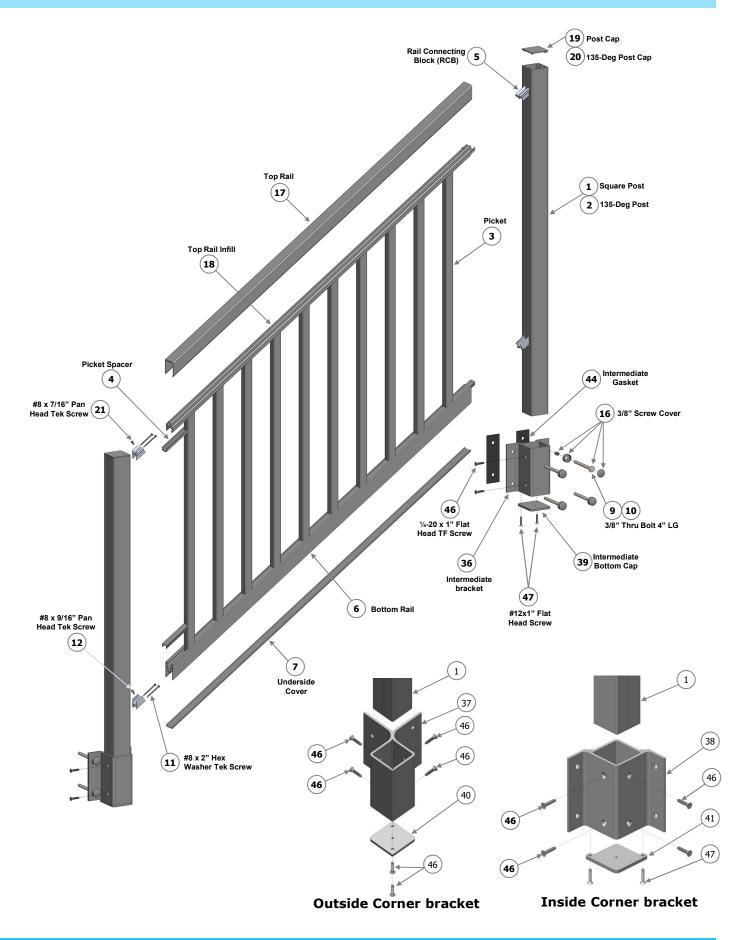
- Safety glasses
- Ear protection
- Gloves
- Measuring tape
- Felt tip marker
- Chop saw
- Level
- Small file
- Electric drill
- Drive bits
- Drill bits
- Dead blow hammer
- Painter's tape
- Screw driver kit
- Touch up paint





Step 2: Review Railing Components





Step 3: Review the Drill Guide

Drill Guides (15) are meant to be used with all inline eGlass Railing[™] Systems, therefore it is very important to pay attention to the notations on the drill guide to ensure you are cutting and drilling correctly.

NOTE: Deck Mount cutting notations are in Blue. Fascia Mount cutting notations are in Red.

The notched numbers on one end of the Drill Guide are color-coded depending on railing system and mounting style.

NOTE: The numbers are NOT in numerical Order.

NOTE: Do NOT use drill guides on stairs. Instead refer to your Customer Detail Form.

Step 4: Install Deck Mount Posts(SKIP IF SYSTEM IS FASCIA ONLY)

4A. Review Layout & Mark Deck

- Review your eGlass Installation Layout Detail to verify exact post placement for your project.
- Note the locations of deck ends and corners, as well as any other critical locations. Begin with the furthest corner from the house.
- Some shimming, additional framing, or blocking may be necessary to securely attach base plates or fascia brackets.
- Make sure to maintain a gap of not more than 4" anywhere in the railing.

4B. Measure & Cut Deck Mount Posts

- Select a post blank (1) and identify the post type. If the post is for an inline run, select the appropriate Drill Guide (15) and follow the steps below. If the post is for a stair run, reference your Customer Detail Form instead to determine final cut height, then follow the steps below regarding post cutting and touch-up advice.
- Place the Drill Guide (15) on the post, as shown in Figure 2. Tape the Drill Guide to the post using painter's tape.

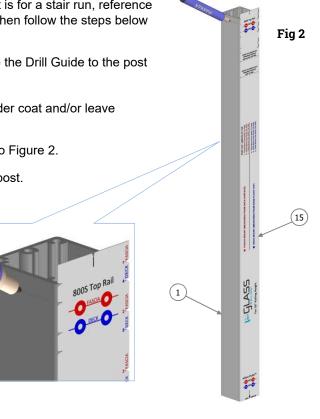
NOTE: Always use painter's tape. Other tapes may damage powder coat and/or leave sticky residue.

- Only use the Drill Guide on the scribe side of the post according to Figure 2.
- Use the drill guide instructions to mark the required height of the post. Example: Drill Guide 4 represents post height for 800 Series Top Rail (Deck Mount).
- Cut the post according to the marking using a miter saw.

NOTE: We recommend a carbide-tipped blade with 60 teeth or more.

- Make sure your saw is set properly to ensure your cut is square.
- File cut end. Then use touch-up paint to protect the cut end from corrosion.





4C. Attach Base Plate to Post

- Turn the post (1) upside down on a hard surface and attach the base plate (32) to the post using six 1/4"-20 x 1.75" Flat Head TF Screws (13).
- Tighten the base plate firmly onto the post.

NOTE: An impact driver is recommended for this step.

4D. Attach Post Assembly to Deck

- Scribe line of post should always face inside.
- Make sure the six screw chase slots on each post are lined up parallel to the deck
- Square up the post with the deck surface and mark all four base plate holes with a marker.

NOTE: The outside mounting screws for the post base plates must be able to screw into the perimeter deck joist. Position post base plates far enough from the edge of the deck to enable this. Failure to screw into the deck joist will weaken the installation.

- Using the marks as a guide, pre-drill four holes for the anchor hardware (Refer to Fig 5 to ensure correct drill is used).
- Remove the backing from the base plate pad (34) and attach the pad to the base plate.

NOTE: Use painter's tape around the base of the post to protect it while using the drill.

• Place washer (16B) into screwbase (16A)

NOTE: Ensure that screw base slot faces outward so that caps can be removed.

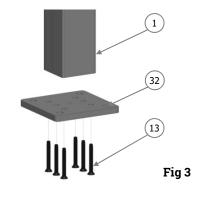
- Place sleeve (16C) onto anchor hardware (9 or 10).
- Fasten the base plate to the deck using chosen hardware (9 or 10).
- Shim your post using base plate shim kit (14) as needed to ensure the post is plumb.

NOTE: Bolt torque can be varied in order to plumb post.

• Continue tightening the anchor bolt until the bead is firmly seated against the post base plate. Do not overtighten.

NOTE: Do not install screw cap covers (16D) until the rest of the railing install has been completed.

Hardware Size	Post Hole Size	Pilot Hole (Wood)
3/8" Bolt	13/32"	13/32"
3/8" Lag	13/32"	1/4"
1/2" Bolt	17/32"	17/32"
1/2" Lag	17/32"	11/32"



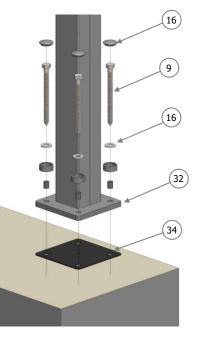


Fig 4

Repeat Step 4 for the entire deck.

Fig 5

Step 5: Install Fascia Mount Posts (SKIP IF SYSTEM IS DECK MOUNT ONLY)

5A. Review Layout & Mark Deck

Review the project layout drawings and note the locations of deck ends and corners as well as any other critical locations.

- Locate and mark center of an end post or corner post to start the railing installation.
- Make sure to maintain the gap not more than 4" between the post and wall.

5B. Mount Fascia Brackets

- If you are not using fascia bracket shim stacks (42, 43), attach the rubber pads (44, 45) to your fascia brackets (36, 37, 38) prior to installation. If shim stacks are being used, attach the rubber pads to the shim stacks and place between the bracket and fascia board with the rubber pad facing the board.
- Prepare corner brackets (37, 38, 40, 41, 43, 45; if included). Place the bracket(s) at desired height (centered as typical) on fascia board and mark drill locations.
- Prepare inline brackets (36, 39, 42, 44):
 - Pre-mount post inside inline bracket using FH TF screws (46)
 - Place bracket at desired height (centered is typical) at the correct distance for correct post spacing. Mark one hole location, remove bracket, then drill hole.
 - See Fig 5 (previous page) for correct drill sizes.
 - Use mounting hardware to temporarily attach fascia bracket to deck through this hole. Using a level, rotate the bracket until the post is plumb. Mark drill locations for the other three holes.
 - o Remove the bracket and drill pilot holes.
- Starting from corner or end of railing, mount fascia brackets according to the supplied customer installations layout.
 - Place the Shim Stacks (if used; 42, 43) and Neoprene Gaskets (44, 45) between the Fascia Brackets (36, 37, 38) and deck. Make sure you are using the right gaskets and shims for each fascia bracket type. Reference Fig 7 for assistance.
 - For inline brackets, place screw base (16A), washer (16B), sleeve (16C) before installing the mounting hardware (9 or 10).
 - Continue tightening the anchor bolts until the heads are firmly seated against the bracket surface. Do not over tighten.

NOTE: Do not install bolt cover caps (16D) until the end of install. Bolt torque will be varied in a later step to further plumb posts.

Intermediate bracket

46

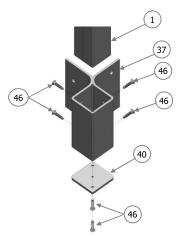
Fig 6

1

36

39

47



Outside Corner bracket

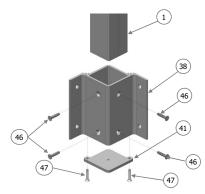
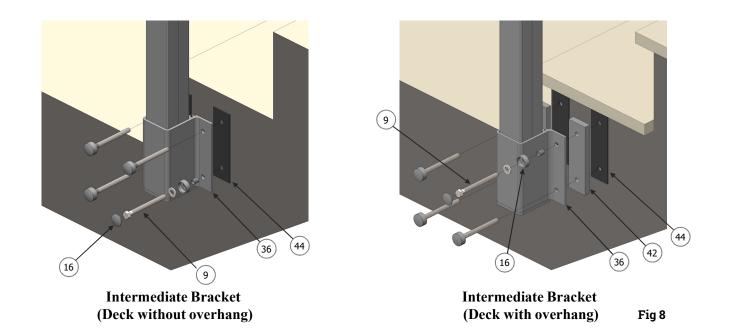
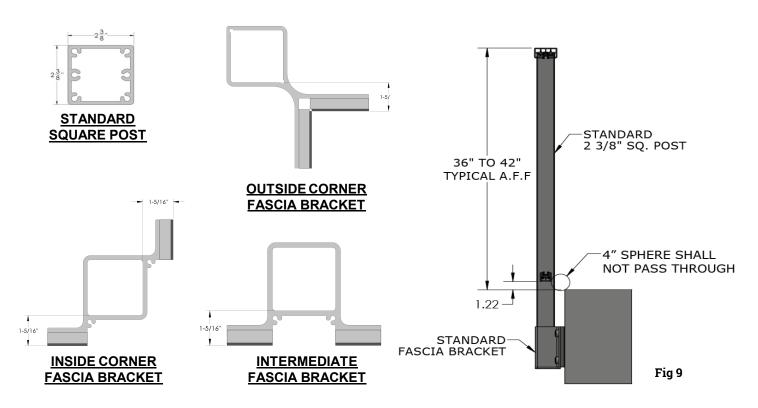


Fig 7 Inside Corner bracket



TYPICAL RAILING SECTIONS



5C. Measure & Cut Posts

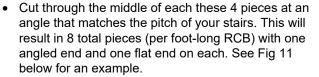
- Select a post blank (1) and insert into fascia bracket (Fig 7)
- Line up the bottom of the post with the bottom of the bracket.
- Secure flat head TF screws (46) through fascia bracket holes into post (Fig 7). Hold post plumb while screwing into place.
- Vary fascia bracket bolt torque to further plumb post.
- Use the fascia mount drill card (for inline posts) or reference your Customer Detail Form (for stair posts) to measure and mark a cut line towards the top of the post. (Fig 10)
- · Remove post from bracket and cut according to marking
- After cutting, measure the length of your post and cut all other posts to the same length
- Use touch-up paint to coat exposed aluminum

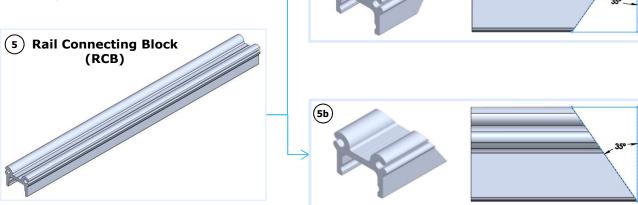
5D. Install Posts

- Install all posts into their brackets and secure them using the provided screws (46)
- Screw bottom plates (39, 40, 41) into post or fascia bracket (Fig 7) using #12 x 1" Flat Head Screws (47).
- Plumb posts as needed by varying fascia bracket bolt torque. Make sure posts and brackets are fully plumb to ensure proper top rail installation.

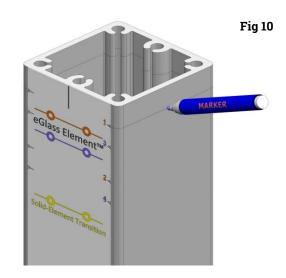
Step 6: Cut RCBs for Stairs

• For stair RCBs, cut your foot-long RCB (5) into 4 equal pieces.





(5a)

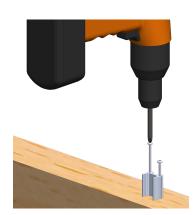


Step 7: Mark Rail Connecting Block (RCB) Locations

- Place the drill guide (15) on the post. Place the end that says "DECK SURFACE" as shown in Figure 12. Tape the Drill Guide to the post using painter's tape.
- Use the Drill Guide to ensure the RCB locations are lined up correctly. For angled runs, reference Step 6.
- Use the center punch to mark the RCB holes. Be sure to make a large mark to ensure the drill remains centered.

NOTE: Deck mount RCB drill hole locations are noted in **Blue**. Fascia Mount noted in **Red**.

- Pre-install RCB screws in RCB as per Figure 13 (1/8" past flush to avoid RCB spin during install).
- Install to posts using a non-impact driver.



<image>

Fig 13

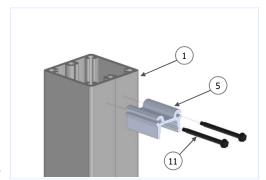
NOTE: Do not install top RCBs if this is for an 810 or 820 rail.

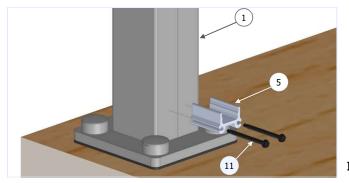
Step 8: Attach RCBs to Posts

- Using a 1/8" drill bit (8), pre-drilled pilot holes in the post (1) for the top (800 Series only) and bottom RCBs (5) as indicated by the drill guide marking. Use touch-up paint to coat exposed aluminum inside the drilled holes and protect from corrosion.
- Mount the bottom rail RCB (5) to the post as shown in Fig 14B and fasten using #8 x 2" Hex Washer Tek Screw (11). Do not overtighten.
- If installing an 800 Series top rail, mount the top rail RCB (5) to the post as shown in Fig 14A and fasten using #8 x 2" Hex Washer Tek Screw (11). Do not overtighten.

Note: Maintain a gap of not more than 4" between the deck and bottom rail.

Top Rail RCB (800 Series Only)





Bottom Rail RCB

Fig 14A

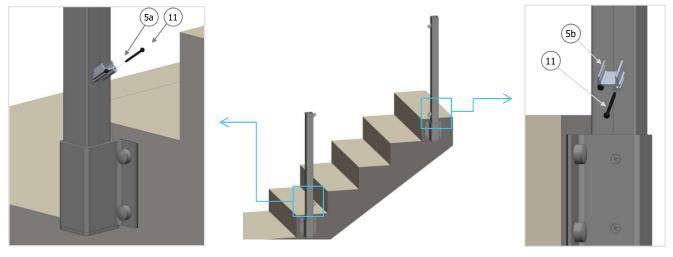


Fig 15

Repeat Steps 7-8 for all posts

Step 9: Measure & Cut Rails

• With posts bolted and perfectly plumb, measure between consecutive posts to determine cut lengths.

NOTE: All bottom rails and 800 Series top rails that are being used on stairs must be cut at an angle to match the pitch of the stairs.

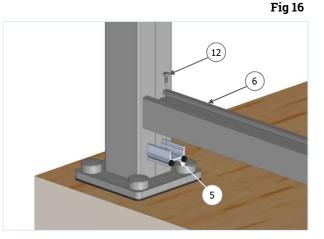
- Cut the bottom rail (6) 1/16" shorter than the post spacing.
- If installing an 800 Series top rail, cut the rail (17) and infill (18) according to your measurements as well. Infill should be cut 1/16" shorter than final measurement. Skip this step for 810/820 Series top rails (they will be cut later).
- File cut ends. Then use touch-up paint to protect the cut ends from corrosion.

Step 10: Install Bottom Rail

• Drill 2 clearance holes in the bottom rail (6), 1.25" from both ends with a 5/32" drill bit.

NOTE: Clearance holes always go into rails, pilot holes always goes into RCBs.

- Identify the two posts you plan to put the bottom rail between. Loosen the bolts or lags (9 or 10) which secure them to the deck enough that you can slightly pull the posts away from each other. This will allow you to lower the bottom rail between the posts and onto the RCBs without scratching the posts.
- Press the bottom rail (6) onto the lower RCBs (5).
- Re-tighten all bolts or lags (9 or 10) that were loosened earlier in this step.
- Using the bottom rail clearance holes as a guide, drill 1/8" pilot hole in RCB, below the bottom rail.
- Screw bottom rail to lower RCB (5) with #8 x 9/16" Pan Head Tek Screw (12).
- Use the level gauge to ensure the bottom rail is level.
- Make sure the bottom rail is supported firmly by both RCBs. Do not overtighten.

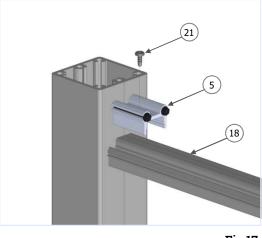


Step 11: Install 800 Series Top Rail (SKIP IF SYSTEM IS 810/820 SERIES ONLY)

• Drill 2 clearance holes in the upper infill (18) 1.25" from both ends with a 5/32" drill bit.

NOTE: Clearance holes always go into rails, pilot holes always goes into RCBs.

- Pull adjacent post away to prevent scratching (as done in the previous step) and insert the upper infill into the pre-installed RCBs.
- Using Upper Infill clearance holes as a guide, drill 1/8" pilot hole in RCB, above the upper infill.
- Install #8 x 7/16" Pan Head Tek Screw (21) from upper infill to RCB (Fig 15).
- Hand press the top rail (17) onto the top rail infill (18) until it snaps, with the etched mark on the lower right side shown in Figure 17.



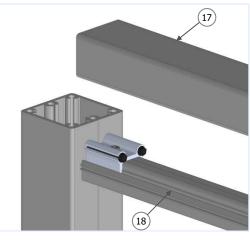


Fig 17

Fig 18

Step 12: Install 810/820 Series Top Rail (SKIP IF SYSTEM IS 800 SERIES ONLY)

For Inline Rails:

• Install mounting brackets and washers. The washers are placed under the elevated side of the mounting bracket to fill the space between the screw chase of the post and the mounting bracket. Reference Fig 19-20 for proper orientation.

NOTE: If you are installing mounting brackets to a corner post, place the higher hole of one bracket over the lower hole of the other. You will only be using one washer for two mounting brackets in this instance.

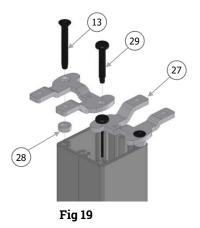
• Place the top rail over the mounting brackets. Check that the top rail is level and posts are fully plumb. Use Shim Kit (14) as needed to plumb posts. Remove any burrs from screws to improve fitment. Once top rail is properly settled, determine and mark the final cut length. Cut accordingly. Coat the cut end(s) with touch-up paint.

NOTE: Make sure to have the top rail ends extend slightly (1/8" to 1/4") over the last posts for end cap installation.

FOR CORNERS: After installing your posts, measure the exact angle of your corner to make sure you miter the correct angle (it likely won't be a perfect 90 degrees). File the cut edges.

• Place cut top rail over the mounting brackets and settle into place. Start with the corners and work you way from there. Use a dead blow hammer on any mitered corners to make sure the cut edges touch properly and aren't exposed. Mask corners with tape and apply caulk mixed with touch-up paint where the rails meet to seal the pieces together.

- Hold posts plumb and top rail level while you pre-drill holes through the mounting brackets into the top rail using a 5/32" Drill Bit. Drill the #10 x 3/4" Pan Head Tek Screws (30) into these holes using an impact driver to securely attach the brackets to the top rail.
- Once top rail is installed, measure between the posts to determine top rail infill length. Infill should be cut 1/16" shorter than final measurement. Cut infill accordingly.
- Pop the infill into the underside of top rail. If the infill doesn't fully pop in, use a rubber-coated C-Clamp to ease it in safely.



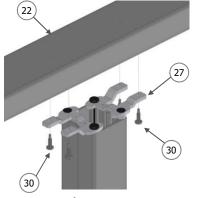
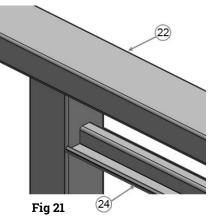
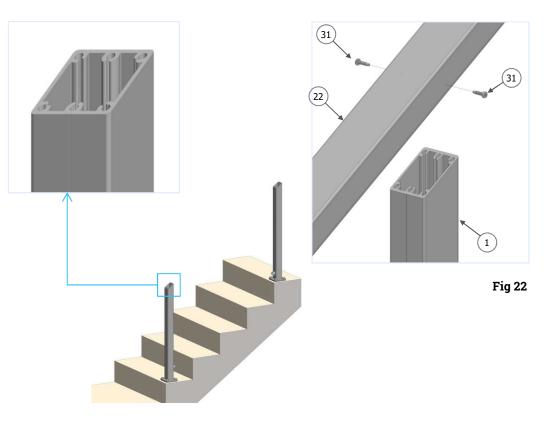


Fig 20



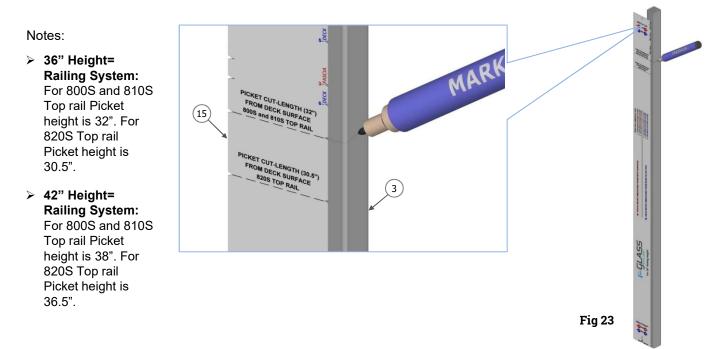
For Stair Rails:

- Cut the tops of your posts at angles to match the pitch of your stair case.
- Place the 810 or 820 Series top rail (22 or 23) over the mitered posts.
- Secure in place by screwing #8 x 3/4" Pan Head Tek Screws (31) through the side of the top rail into the post. Do this on both sides of each post. (Fig 22)
- Once the top rail has been secured, pop the top rail infill (24) into the bottom of the rail.

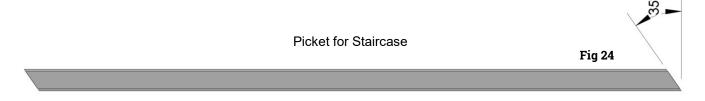


Step 13: Prep Pickets & Spacers

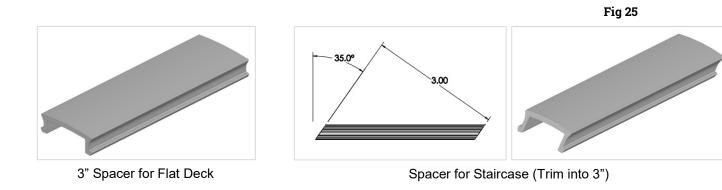
• Measure the space between your top rail infill and bottom rail channel, then cut the pickets accordingly. Finished pickets should fit snuggly into the channels without scratching the infill.



Remember to cut pickets for stair sections at angles to match the pitch of the stairs. Custom cut spacers at angles to
match stair pitch as well, using the 1ft long spacer pieces (4).



- For flat deck: Select 3inch Spacer (4).
- For staircase: Select 1ft Spacer (4) and trim angularly as per staircase angle with 3inch width as shown in Fig 25.



Step 14: Install Pickets & Spacers

- Select one section of railing (between two consecutive posts). Apply wet silicon to bottom rail and top rail infill ٠ channels.
- Measure between posts to determine the exact center. Reference this location while installing pickets and spacers.
 - o If this section has an even number of pickets, install a spacer (4) in the bottom and top rail infill in the exact center of the section.
 - o If this section has an odd number of pickets, install a picket (3) where the exact center of the section is. Make sure the screw slot inside the picket is parallel to the scribe lines on the bottom and top rail infill for proper orientation. Insert the picket diagonally, then straighten into place. Install 3in spacers (4) around the picket into the bottom and top rail infill. Make sure the spacers are tight against the center picket to hold it in place.

Note: The bottom rail spacers can be popped in easily and slide afterwards, but the top rail spacers require a cloth-covered mallet to pop into place and cannot be moved once installed. Keep this in mind while installing.

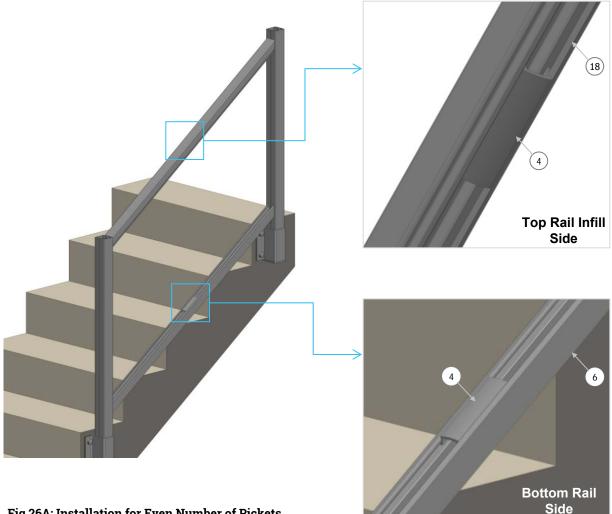
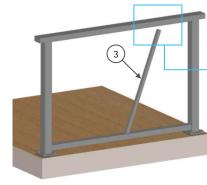


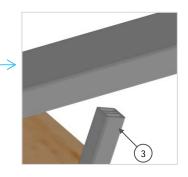
Fig 26A: Installation for Even Number of Pickets

Fig 26B: Installation for Odd Number of Pickets

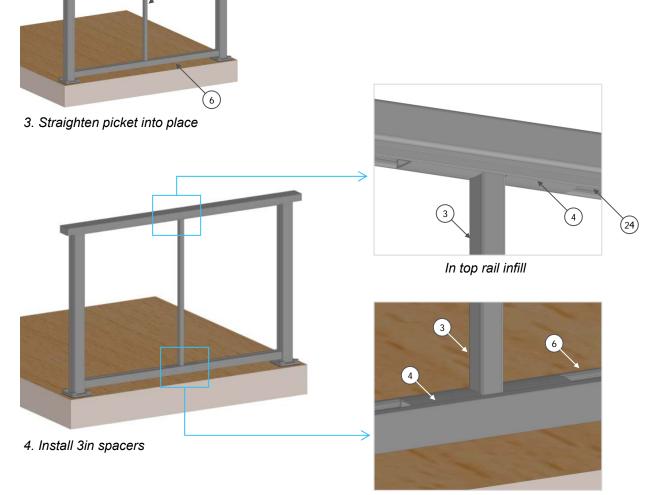


1. Insert the picket diagonally on the bottom rail and top rail infill

3



2. Make sure the screw slot inside the picket is parallel to the scribe lines on the bottom rail and top rail infill



In bottom rail

- Install the remaining pickets, half on either side of the center. Make sure the screw slots inside the pickets are parallel to the scribe lines on the bottom and top rail infill for proper orientation. Insert each picket diagonally, then straighten into place.
- If on a flat run, install 3in spacers between each pair of consecutive pickets. If this is on an angled run, custom cut the 3in pieces at angles from the 1ft spacer pieces (4). Start in the center and work your way out to the posts. Make sure there are no gaps between the pickets and spacers.

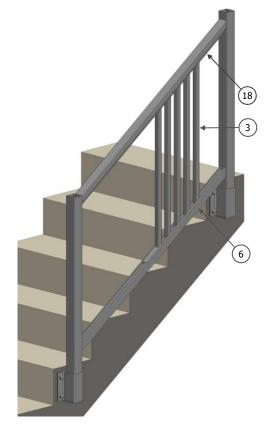
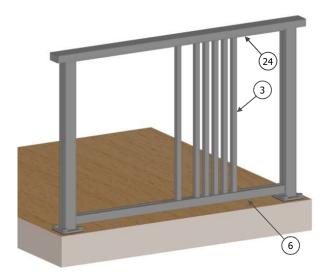


Fig 27B: Installation for Odd Number of Pickets



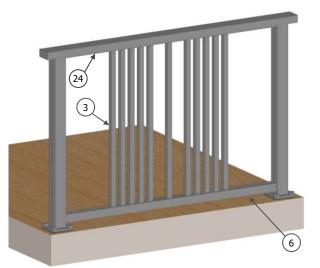


Fig 27A: Installation for Even Number of Pickets

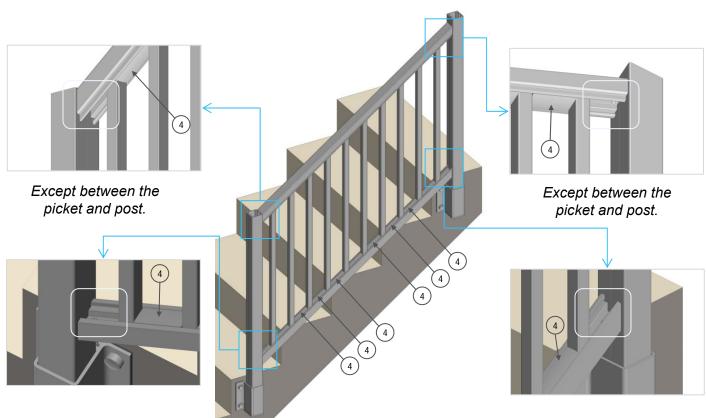
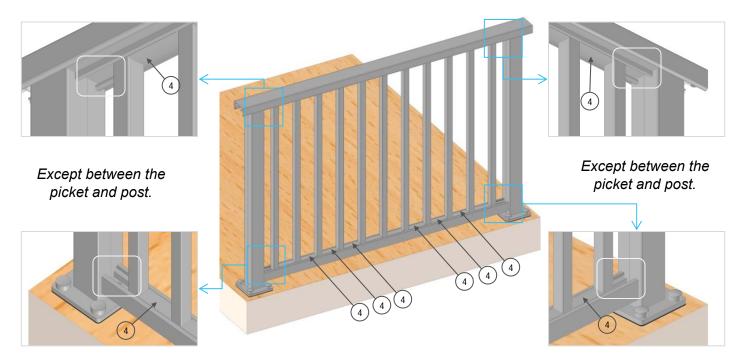


Fig 28A: Installation for Even Number of Pickets

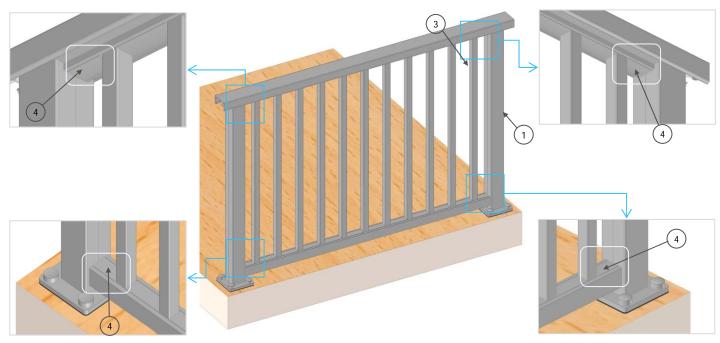
Fig 28B: Installation for Odd Number of Pickets



• Measure the distance between the last picket and post on either side of the section. Cut custom-sized spacers using 1ft spacer pieces (4) to fill these open channels.

Fig 29A: Installation for Even Number of Pickets

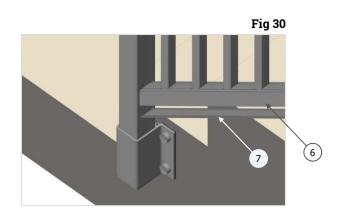
Fig 29B: Installation for Odd Number of Pickets



Step 15: Install Underside Cover

- Measure between consecutive posts and trim underside cover (7) to the required length. If the run is angled, make sure these cuts match the angle of the stairs/ramp/etc.
- Use touch-up paint to paint the cut end to protect from corrosion.
- Press the underside cover (7) onto the underside of the bottom rail (6) until it snaps into place.

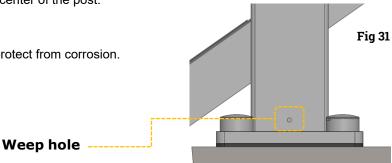
Repeat Steps 9-13 for all posts



Step 16: Drill Weep Holes For Deck Mount Posts (SKIP IF SYSTEM IS FASCIA ONLY)

- Make a mark for the weep hole at the deck side center of the post.
- Drill weep hole.
- Use touch-up paint to paint the weep hole to protect from corrosion.

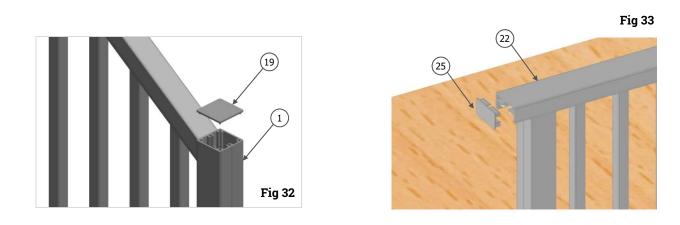
Repeat Step 14 for all posts



Step 17: Install Caps

- If installing an 800 Series top rail, line up a post cap (19) on each post (1) and press the cap into the post.
- If installing an 810/820 Series top rail, line up an end cap (25/26) with an exposed rail end and press into the top rail.
- If cap does not fully seat, place a clean cloth over the cap and tap into place with a dead blow hammer.
- Snap on bolt caps (16D)

Repeat Step 17 for all posts



Step 18: Care & Maintenance

- Gently wash as needed with a clean, micro fiber (lint free) cloth and a mild detergent (like dish soap) followed by a clear water rinse.
- Avoid contact with nail polish remover, paint or lacquer thinner, motor oils, transmission and brake fluids or other solvent-based cleaning fluids. If any of these products contacts the powder coated surface, immediately wipe the area with a soft, clean cloth, and wash as described above.

