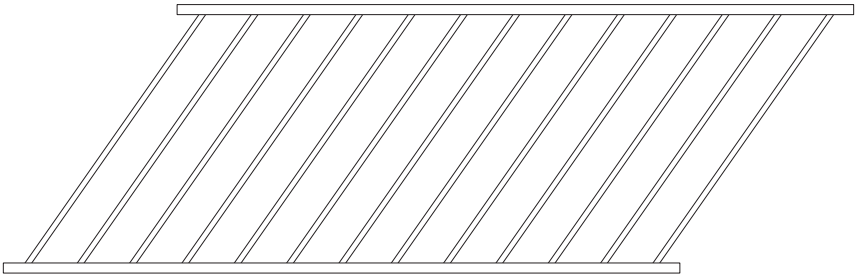
NUVO IRON

INSTALLATION INSTRUCTIONS

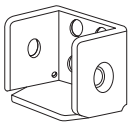
Ready Rail Steel Stair & Angled Railing

PARTS:

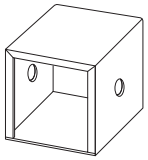
A RAILING PANEL (1)



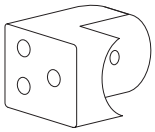
B BRACKETS (4)



C BRACKET COVERS (4)



D MOUNTING BRACKETS (8)



E1 FLAT HEAD BOLTS & NUTS (8)

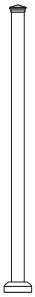
E2 PAN HEAD BOLTS & NUTS (4)

E3 LONG SELF-TAPPING SCREWS (8)

E4 MEDIUM SELF-TAPPING SCREWS (4)

E5 SHORT SELF-TAPPING SCREWS (8)

*POSTS SOLD SEPARATELY:



2" x 2" x 44"
STEEL RAILING STAIR POST
(DSRP2244-B)

INSTALLING AN ANGLED SECTION WITH A LEVEL PANEL?

THE ANGLED BRACKET KIT (DSRSB-B, sold separately) uses the same brackets as the stair system, with a small configuration adjustment.

- Each kit includes (2) two brackets and hardware, enough for one side of an angled section.
- The Railing Panel (A) is not included.
- If both sides of the section need to be angled, two kits are required.

See page 7 for angled installation instructions.

TOOLS REQUIRED:

- Drill
- #2 Phillips drill bit
- Socket
- Measuring tape
- Clamps
- Level
- Square
- Metal saw
- Rubber mallet

NOTES:

- Post packaged separately.
- Shims may be required to properly level or plumb post for proper installation.

FOR A SUCCESSFUL INSTALLATION:

- Read the instructions completely before beginning the installation.
- Plan your railing project.
- Check local building codes to ensure compliance.
- Check carton(s) to determine part count is complete.
- Installation is best accomplished with two people.
- Wear personal protection equipment; safety glasses, etc.
- Use care not to over-torque the screws.
- After installation, remove all metal shavings and thoroughly clean surrounding areas. This step is essential to protect surfaces such as concrete and deck boards from premature deterioration or rust staining.

NUVO IRON

INSTALLATION INSTRUCTIONS

Ready Rail Steel Stair & Angled Railing

INSTALLATION INSTRUCTIONS:

Planning Your Project

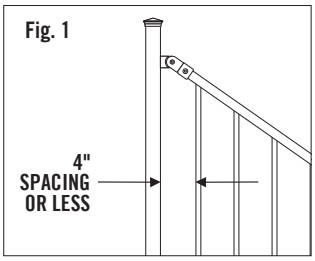
- *Begin by mapping out your chosen area for installation.*
- *44" posts are required for stair railing installations.*
- *Measure the distance between the desired post locations to determine the appropriate railing section length.*

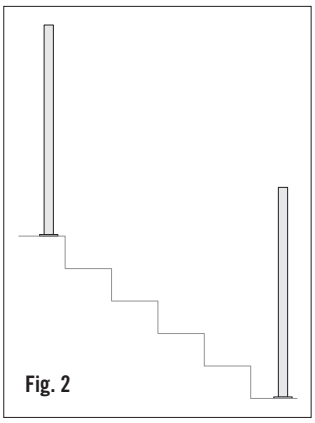
Important: *When planning stair sections, test fit your railing before installing posts, as spacing may vary depending on your stair run.*

---

1. **Install the Posts:**

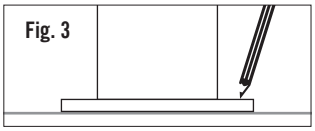
- Ensure the spacing between the last picket and the post allows enough room for the bracket installation while maintaining code-compliant spacing requirements. In most areas, openings should not exceed 4 inches (Fig. 1). Confirming correct post placement before installation will save significant time and effort during the planning process.
- You will need minimum 1 1/4" of railing past the picket on each side for bracket installation.
- Identify and mark the desired locations for the upper and lower posts based on your project layout (Fig. 2 & 3).
- The post base has four 3/8" diameter mounting holes. Once the final position is determined, mark these hole locations and remove the post. Drill through the marked locations and into the structural blocking below.
- Position the post over the pre-drilled holes. Insert the appropriate fasteners (not included) and secure the post base to the structure (Fig. 4). Make sure the posts are level. If adjustments are needed, use shims under the base plate.
- Slide the included post base cover over each post (Fig. 5).

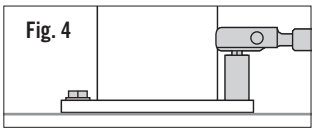


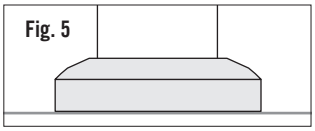


Note for mounting hardware:

- *The installer must acquire the appropriate mounting fasteners for the surface material on which the rail post is being mounted. Fasteners should not exceed 5/16" in diameter. If necessary, use wood blocking between the floor joists as reinforcement underneath the decking where the posts are located.*
- *Always check with your local building department for the preferred fastening/ blocking method. Engineered drawings for post fastening/blocking are also available at* ***https://nuvoiron.com/product-category/fence-deck-accessories/ready-rail/****. Post mounting fasteners should be able to secure into joists or blocking, not just the decking itself.*
- *When installing rail post(s) on top of decking, screws must be lagged into wood blocking.*







Ready Rail Steel Stair & Angled Railing

2. **Assemble the Brackets:**

Note: *This bracket assembly is temporary and used only to determine railing placement and cutting measurements.*

- Before installation, temporarily assemble each bracket to establish the correct stair angle and railing measurements.
- Take (1) one (B) bracket and attach it to (1) one (D) bracket using (2) two (E1) flat head bolts and nuts (Fig. 6). Ensure your bracket is straight and aligned.
- Attach the second (D) bracket using (1) one (E2) pan head bolt and nut (Fig. 7).
- Tighten the hardware enough to hold the bracket assembly together while still allowing movement for adjustment.

Fig. 6

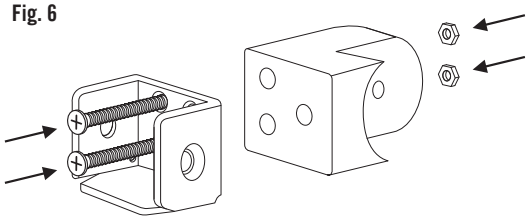
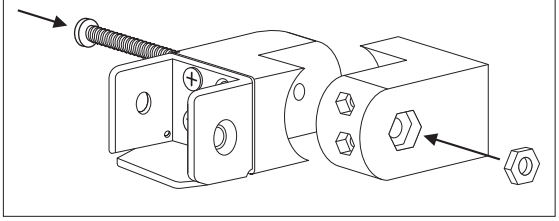
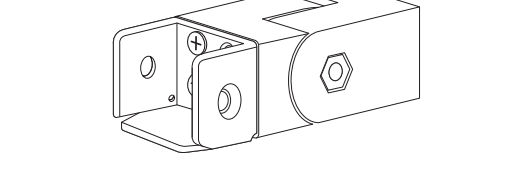
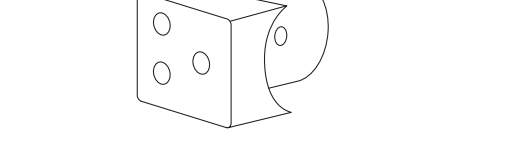


Fig. 7

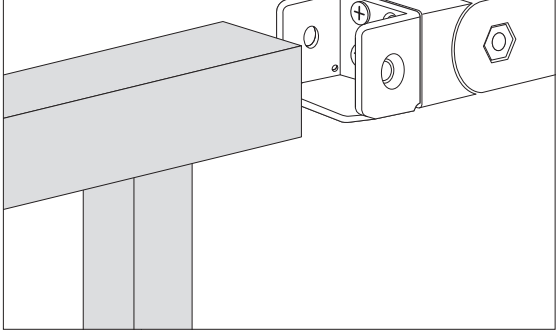




Tip:
You may find it easier to insert or remove the nuts for (E1) from the (D) bracket by using the bolt as a tool itself. Thread it partially to insert or remove the nuts from the other side. Hold the nut in place with your finger while attaching the (E1) bolt.



Important: Ensure the bracket assembly is oriented correctly so the railing load bears onto the bracket properly. The side of the bracket with no edge must face upward toward the rail.



3. **Position the Railing Section:**

- Position the railing panel (A) on the stairs. You can use scrap wood as a block to help you when aligning the section.
- Ensure your section is level and properly aligned with the stair angle.
- The gap (Fig. 8) between the post and the first baluster should be equal on both sides of the railing.
- Once properly aligned, clamp the railing section securely to the posts. Use cardboard or a protective material beneath the clamps to protect the post finish from scratching.

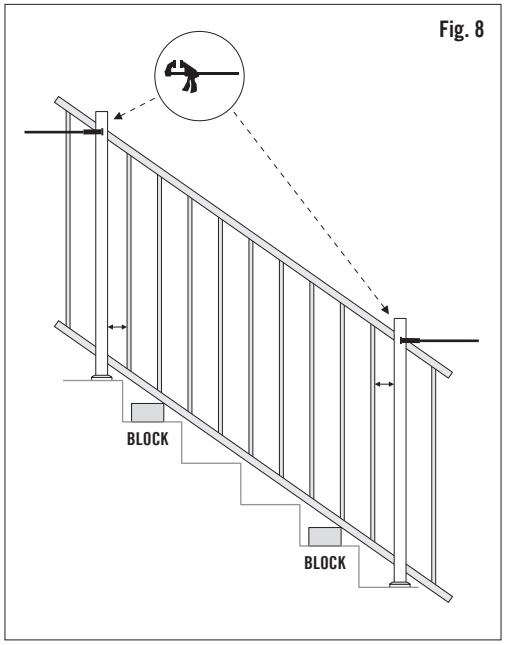
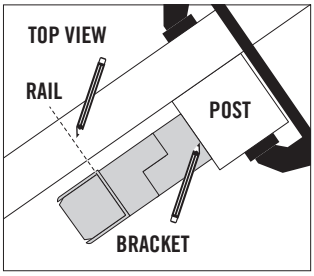


Fig. 8

4. **Measure and Mark the Railing Section:**

- Position the assembled bracket against the post beside the clamped rail section.
- Angle the bracket so that it runs parallel to the top rail. Mark the railing where the back of the bracket (B) meets the rail (Fig. 9). This will be your cut mark for the railing section. You will need minimum 1 1/4" of railing past the picket on your railing for your bracket to sit properly.
- Keeping the bracket in place, mark the post above and below the back side of the bracket location (Fig. 10). This is for bracket placement in Step 5.
- *Repeat these steps for all four bracket locations.*



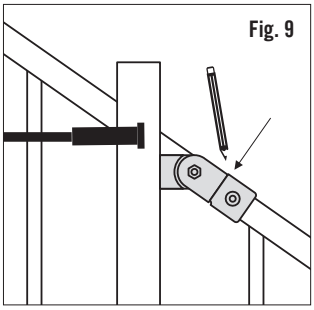


Fig. 9

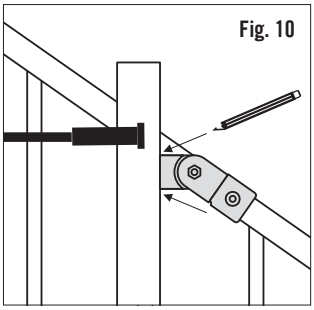
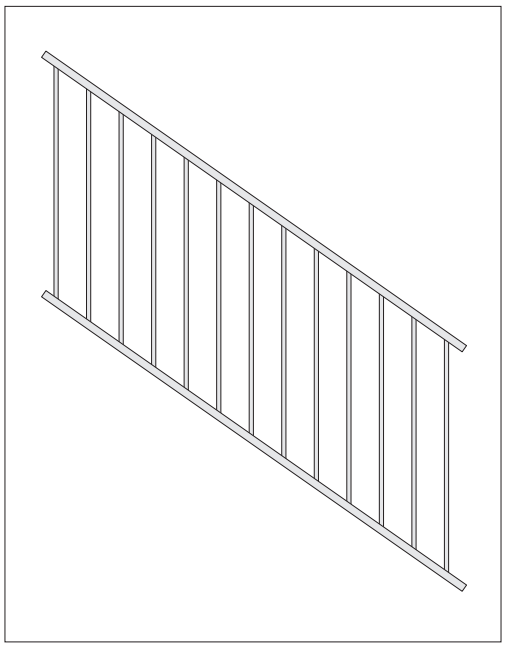


Fig. 10

5. **Cut the Railing and Prepare Cut Ends:**



- Remove the railing and remark your railing section with a square.
- Cut the railing section to the required length using a metal saw.

FOR CUT SECTIONS:

If a cut panel is used, make sure to do the following:

- 1) Sand down all cut ends.
- 2) Clear all metal shavings from the rail, posts, brackets, and surrounding area.
- 3) Apply outdoor rust-proof paint to all exposed cut edges. Use exterior enamel with rust-inhibiting properties. Place cardboard or a protective sheet behind to prevent overspray.
- 4) Allow time for the paint to dry before installation.

6. **Disassemble Bracket and Install onto Posts:**

Important: *Note the orientation of each bracket assembly before disassembly.*

- Remove the (E2) pan head bolt and separate the bracket components assembled in Step 2.

To attach the bracket to the post:

- Position the bracket base onto the post using the marks created in Step 4.
- Ensure the bracket is centered on the post and aligned correctly.
- Mark the screw hole for (E4) on the post, as seen in (Fig. 11).
- Pre-drill the marked location with a 7/64" bit or slightly smaller than the supplied screws.
- Secure each bracket using (1) one (E4) medium self-tapping screw and (2) two (E3) long self-tapping screws (Fig. 12).
- Re-attach the second bracket (B) component using the (E2) pan head bolt and nut, but do not over-tighten. The bracket should still pivot slightly to allow final railing adjustments during installation (Fig. 13).
- Repeat this process for all four bracket locations.

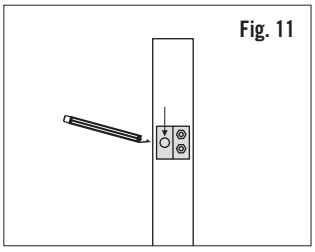


Fig. 11

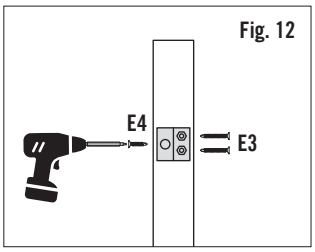


Fig. 12

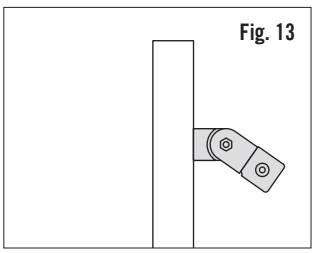


Fig. 13

7. **Attach the Railing Panel:**

- If space allows, you can install your (C) bracket covers now, or for tighter sections, you can install them after the section is fully installed in Step 8.
- Attach your railing section in place, seating it on all four brackets (Fig. 14).
- Once your railing section is in place, you can tighten all (4) four (E2) nuts and bolts (Fig. 15).

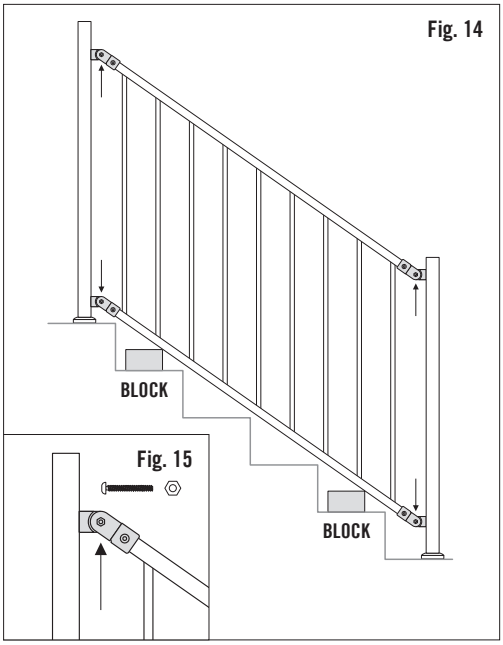


Fig. 14

Fig. 15

8. **Install the Bracket Covers:**

- Each (C) bracket cover has two sides: one with no lip, and one with three lips or edges (Fig. 16).
- Ensure the side with three lips faces the rail, while the side with no lips rests against the post. Ensure the three lips are sitting on each side and top of the rail. There should be no lip on the bottom of the rail. This applies to all (4) four (C) bracket covers.
- Secure each bracket cover using (2) two (E5) short self-tapping screws through the holes in the side of the cover (Fig. 17).

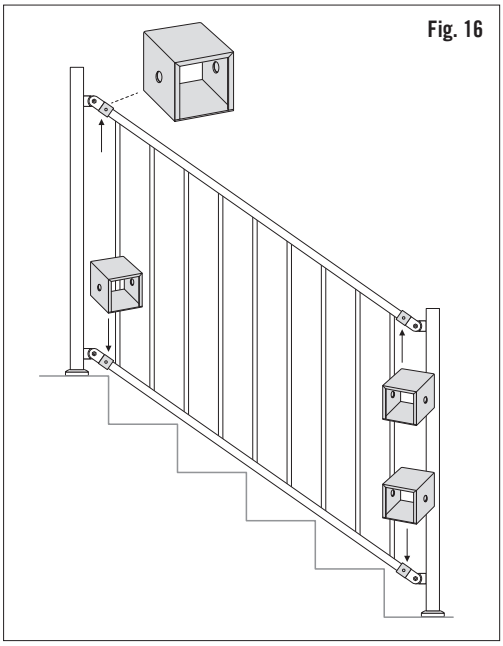


Fig. 16

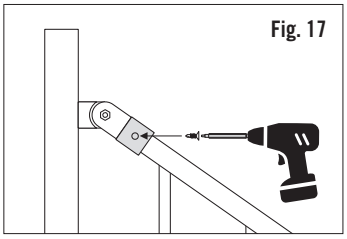
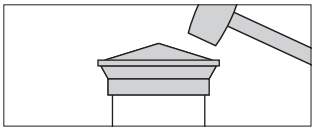


Fig. 17

9. **Install Post Caps:**

- Place the post caps on each post and tap them on with a mallet onto the top of the post.



NUVO IRON

INSTALLATION INSTRUCTIONS

Ready Rail Steel Stair & Angled Railing

SIDE-TO-SIDE SWIVEL BRACKET FOR ANGLED SECTIONS:

Angled Bracket Kit (DSRSB-B) Includes:

- (2) B Brackets
- (2) C Bracket Covers
- (4) D Mounting Brackets
- (4) E1 Flat Head Bolts & Nuts
- (2) E2 Pan Head Bolt & Nut
- (4) E3 Long Self-Tapping Screws
- (2) E4 Medium Self-Tapping Screws
- (4) E5 Short Self-Tapping Screws

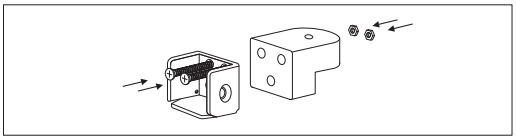
One kit covers one side of an angled section. If both sides need to be angled, two kits are required. Railing Panel (A) and posts sold separately.

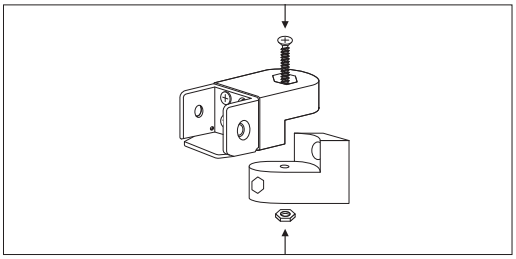
1. **Side-to-Side Swivel Bracket for Angled Sections:**

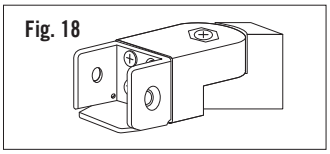
   - For angled railing sections, use the angled bracket kit *(DSRSB-B, sold separately)*. Installation follows the same steps as the Ready Rail Steel Stair Railing instructions, as it utilizes the same bracket for both, with one key difference:

     Orient the (D) mounting bracket so it pivots side-to-side (horizontally) instead of up and down (Fig. 18). This allows the railing to swivel to match your angled run.

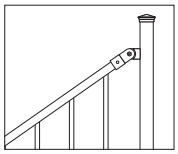
   - Set your posts first using Step 1 of the level rail instructions. For angled sections, your final cuts will be determined as you go. Refer to the Ready Rail Steel Stair Railing instructions for bracket assembly, measuring, cutting, and final installation. The steps below are identical, just with the bracket rotated.







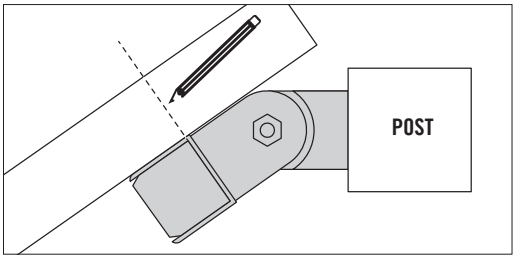
Side-to-Side Assembly



Stair Assembly

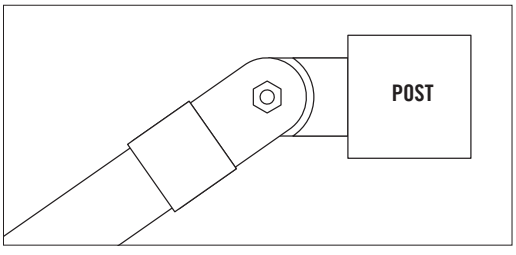
2. **Marking your Railing:**

   - When marking the railing for your cut, position the assembled bracket against the post the same way as the stair instructions, just rotated for side-to-side movement.



3. **Attaching your Railing to the Post:**

   - Attach the bracket to the post and rail following the stair instructions. The bracket should still pivot side-to-side to allow final angle adjustments before tightening.



INSTALLATION INSTRUCTIONS

Ready Rail Steel Stair & Angled Railing

General Safety & Surface Protection:

- *Thorough cleaning and proper surface protection are essential. Leaving even small amounts of shavings can compromise and cause premature deterioration or staining. Always ensure the work area is clear before proceeding to the next step.*
- *Do not cut railing directly on the deck surface (wood, composite, etc.). Always cut on a separate stable, protected work surface away from the finished deck.*
- *Hot shavings can embed into finishes, causing permanent damage or staining.*
- *Any remaining steel particles are susceptible to natural oxidation if left when exposed to the elements and appear as rust spots.*