Watch the top rail connector video

5-year warranty

Register your product within 30 days to activate the warranty.

To view our full warranty policy, visit www.fencerail.com/warranty.

Need help?

We are here to help you get it right. Text us a photo of the problem — it is the fastest way for us to see what you are looking at.

> **Call or text with photos:** (800) 420-0432
>
> **WhatsApp:** (775) 324-8877
>
> **Missing parts?** We will replace them free — www.fencerail.com/parts

We can help with

- Connecting multiple railings
- Technical drawings
- Complicated installations
- Installation error
- Missing parts

Source of this guide: Transposed from the shipped Guardrail Installation Guide (2 pages) and the CR post-kit guides. NOTE: the shipped 2-page guide carries its step content as ARTWORK — its text layer holds only the step numbers and durations — so the step text below is written from the post-kit guides that cover the same hardware, and is marked as such rather than presented as a transcript.

BIOSHIELDUV®

CR Guardrail Installation Guide

MODELS COVERED **v1GR36-4** **v1GR42-6** **v3GR36-4** **v3GR42-6** **v4GR36-4** **v4GR42-6** **CRPHOR40** **CRPHOR60**

⚠ **Read every instruction and every safety message in this guide before you install or service this product.** Keep this guide with the equipment.

> Lisez toutes les instructions et tous les messages de sécurité avant d'installer ou d'entretenir ce produit. Conservez ce guide avec l'appareil.

⚠ WARNING

A guardrail is a fall-protection element. Improper installation can lead to failure of the rail system, which can cause serious injury or death. Adhere to your local and statewide building code for guard height and loading, and hire a licensed and bonded contractor if you are unsure.

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Safety precautions

Read every message in this section before you touch any component. They apply to every model this guide covers and to every installation surface.

WARNINGThe hardware we ship may not be the hardware your site needs — Please make sure the hardware and tools we provided will be right for your install (read the means & methods disclaimer). IT IS POSSIBLE YOU NEED DIFFERENT HARDWARE & METHODS.

Please take your time to do your installation. If you are unsure or uncomfortable with the installation, we highly recommend hiring a licensed and bonded contractor.

WARNINGAnchor strength depends on the hole and the concrete — The strength of the anchor is dependent on the hole size & concrete integrity. A hole that's too big, or concrete that's not up to standard grade, can make the anchor wiggle or possibly come out. This is what can cause a rail to fail & fall over.

CAUTIONEdge distance and building code — Please adhere to local & statewide building code. The recommended distance from the edge is based on standard-grade concrete (2500 psi). If your concrete is 'high-strength' concrete, the edge distance can be reduced. See ICC Chapter 19, Table 1908.2.

WARNINGPost spacing decides whether the guard passes — Keep the recommended distance between posts — 3 to 4 feet, with 4 feet as the maximum. Exceeding it changes the load each post carries and can put the assembly outside the code your inspector measures against.

Means and methods disclaimer

In no event shall CR Fence & Rail Inc have any responsibility, control over, charge of, responsibility, or liability for the means, methods, techniques, sequences, or procedures, or for safety precautions in connection with the installation of the railing, since these are solely CM/GC's, Subcontractor's, and Owner's responsibilities.

Each installation site differs widely ranging from the construction & condition of attachment points, local building & safety code, local construction code, and local means & methods.

CR Fence & Rail Inc's installation guide (whether it be in text, illustration, video or in support discussion) constitute for ideal installation condition. There is no ideal installation in real life. There is no substitution for consulting a local licensed contractor, architect, engineer, nor code inspector.

CR Fence & Rail Inc's installation hardware and tools are provided as building material and does NOT constitute as the specific nor final installation hardware. Once again, you and

your installer must make the final on-site determination to the specific means and methods of installation appropriate for your installation.

Following CR Fence & Rail Inc's instruction does NOT constitute as proper installation as you and your installer must make the final means & method determination. Improper installation can lead to failure of rail system which can cause serious injury or death.

If your printed booklet names a different company in this clause, this page is the current one: CR Fence & Rail Inc is the registered entity. Earlier printings carry an out-of-date name.

Time and tools required

Time required

- 60 minutes for a typical section
- Attaching brackets to a non-metal post — 5 to 20 minutes

Tools required

- Drill gun
- Leveler
- Abrasive saw (if the rail needs cutting)

Masonry tools and hardware (for concrete)

5/16" (8mm) Anchor Bolt

5/16" (8mm) Masonry Drill Bit — *SDS+ available upon request

Diamond Core Drill Bit — for hard stone, *available upon request

This will be a tight fit. In fact, the specification calls for the drill bit and anchors to be the same size. Some installers use a 3/8" drill bit to make the installation easier, and other installers wiggle the drill bit to bore the top of the hole slightly bigger. We are aware of the tight fit and we only recommend using our masonry drill bit without wiggling.

Installing a guardrail section

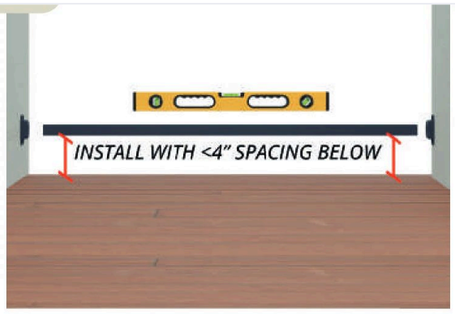
Install the posts first — see the post kit guides — then hang the section between them.

1 Set out the run and the post positions

Mark the location for the first post, then measure a maximum of 4 feet to the second post, continuing for additional posts. Ensure the markings are from the CENTRE of one post to the CENTRE of the next.

2 Install the posts

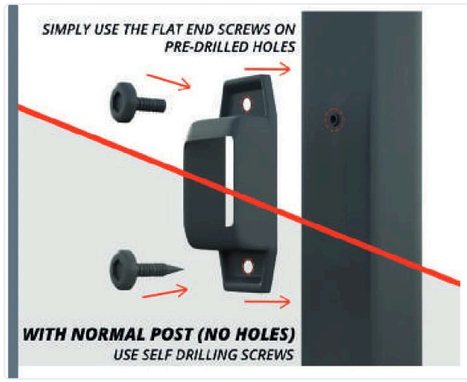
Follow the post kit guide that matches your mount: the top mount post kit for a post that stands on the surface, the side mount post kit for a post that bolts to the side of the flooring.



3 Attach the brackets to the post

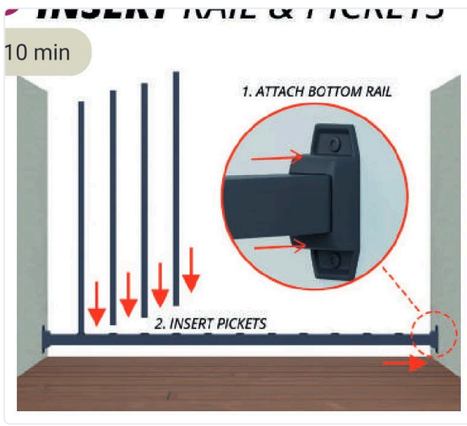
On a CR metal post, secure each bracket with the self-drilling screws provided.

On a NON-METAL post — masonry or wood — use the appropriate anchor for the material: masonry anchors and screws into concrete or block, wood screws into timber. This is the step the shipped guide calls out separately because it is the one that varies by site.



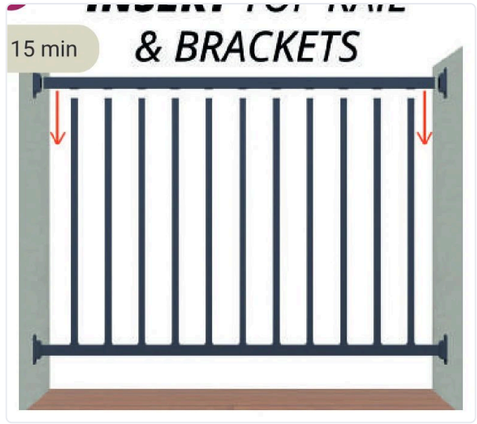
4 Fit the top rail

Install the top rail bracket onto the post with the top of the bracket flush with the top of the post, and make sure the hole faces inwards, towards the next post. Secure the bracket to the post using one self-drilling screw per bracket.



5 Hang the guardrail section

Seat the section between the posts and secure it through the brackets with the self-drilling screws provided.



6 Cap and cover

Plug the holes with the provided hole covers — they snap in place and need no adhesive — and attach the post cap to seal the top of the post.

Connecting rails: top rail connectors

Top rail connectors join one CR rail kit to the next, turn a corner, or close a run against a wall. They are fittings used inside the installation above, not a separate job.

- **TRC-SFm / TRC-CFm** — straight fixed metal connector, for an in-line join.
- **TRC-SAp** — straight adjustable connector, where the two rails are not quite in line.
- **TRC-CAp / TRC-BAp** — corner and 180° adjustable connectors.
- **TRC-Wallv1** — L bracket, for terminating a rail into a wall.
- **TRC-EndM** — metal top rail end cap, to close an open rail end.

Fit the connector before you secure the joint: seat both rails fully into the connector, then drive the self-drilling screws through the pre-made holes. Use 2 screws on each end of a top rail connector, on the bottom side.