



Baluster Guard Rail Kit

Installation Guide

**Need help? Text us the
picture of your problem**

v032024



You made the right choice of railing!



Cost-Effective



Safe & Durable



Quick to Install



**Easily Extendable
(Modular)**



Time Required

Ground attachment:

wood - **20+ minutes**

concrete - **60+ minutes**



Tools Required

An electric drill/hammer

An impact drill is preferred (although not required) for installing the concrete bolts for **concrete steps**, lag screws for **wooden steps**, or other ground attachments.

Means and Methods Disclaimer

In no event shall CR Handrail 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 Handrail'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 Handrail'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 Handrail'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.



Please make sure the hardware and tools we provided will be right for your install (READ 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.



**We've made it easy for you
to install your post!**



**Scan this QR code
for a detailed video
explanation of how
to install your new
handrail correctly.**

Masonry Tools & Hardware Explained

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***

Note: Expect the wedge anchor to fit tightly since the specification requires the anchor and drill bit to be the same size. To insert it more easily, you may try these options:

1. Use a slightly bigger drill bit, like a 3/8" one, to make the hole a little more extensive.
2. Gently wiggle the drill bit while in use to enlarge the top portion of the hole subtly.

However, do not enlarge the entire hole, which may compromise the anchor's grip.

WARNING

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.

What's in your Kit?

Baluster Guard Rail Kit

MAIN PARTS



9/17 Square Tube Baluster



1 Bottom Rail



1 Top Rail with 18/34 Square Hole Protectors



1 Middle Post

Additional Posts
sold separately:



Corner Post



End Post

ANCHOR KIT



4 Wedge Anchors



6 Flat Washers



4 Lag Screws



1 Post Cover

ITEM SPECIFIC ACCESSORIES



2 Self-Drilling Screws



8 Flat-End Screws



2 Flat Bottom Rail Brackets

Non-Universal Parts



1 Wood Pilot Hole Drill Bit



1 Masonry Drill Bit



The full kit is a continuous or daisy-chain connection.

The design can be extended indefinitely until a turn (using a corner post) and termination (end post or to wall).

Basic Setup

Pair the middle post and baluster kit with an end post and use corner posts for turns.



Extend the Railing

Add another middle post and baluster kit to create a longer guard rail.

Wall Connection

Possible to terminate the connection to a wall for a clean finish.



Plastic Anchor and Self Tapping Screws for concrete wall connection is not included. Option to purchase from us or buy locally.

1.1

Post Distance and Markings For Middle Post to End Post Installation

Place the end post where your guard rail will end or next to a wall, and mark the spot for the post and holes, adding a quarter-inch wiggle room on both ends.



Post Distance and Markings

For Middle Post to Corner Post Installation

1.2

Place the corner post at the corner of the area you're enclosing and mark the post placement and holes.



1.3

Post Distance and Markings

For Middle Post to Wall Installation

Use the top rail to measure how far the middle post should be from the wall.



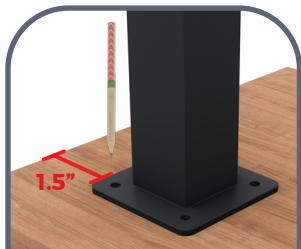
Pre-Drill the Holes

02

**Using an electric drill,
drill pilot holes following
the marked points.**

FOR WOOD

Use the Wood Pilot Hole Bit (smaller bit).



FOR CONCRETE

Use the Masonry Drill Bit (larger bit).



03

Depth Check For Concrete Anchor

Check hole depth with the pencil's flat end—this quick check helps ensure holes are deep enough to prevent problems.



Hole NOT deep enough
Keep drilling deeper



PERFECT DEPTH



Hole TOO DEEP!
Careful NOT to insert
Anchor too deep

Secure Post to Ground

04

Use the nut socket & bit extension

FOR WOOD



LAG SCREW

FOR CONCRETE



WEDGE ANCHORS



NUT SOCKET



BIT EXTENSION

04

Secure Post to Ground

FOR CONCRETE



Once the holes are made and depth verified, hammer the anchors into the holes.



Tip: To avoid pushing the anchor too deep, stack two washers and two nuts at the end of each anchor before hammering.

Periodically Double Check!

Place the post on the anchor and ensure the nut has enough thread for secure tightening.



FOR WOOD



1. Align the posts above the pre-drilled holes.

2. Secure each post by installing a washer and lag screw, one at a time.

3. Once all posts are installed, double-check each to confirm they are firmly tightened.

Tip: Turn on your drill's hammer or impact feature for better performance if it has one.

FOR CONCRETE



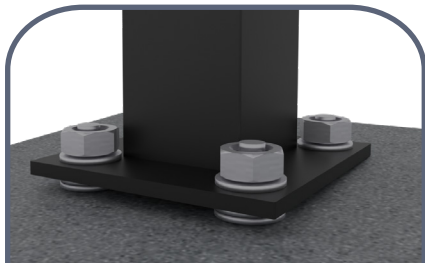
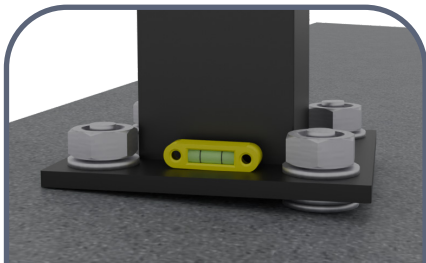
1. Remove all nuts and washers, then place the posts on the anchor bolts. Attach a washer and nut to each post, one after the other.

2. Tighten a washer and nut by hand on each anchor bolt for a secure connection.

3. Use an electric drill to firmly tighten the nuts. Make sure the drill's hammer or impact setting is off to prevent damage.

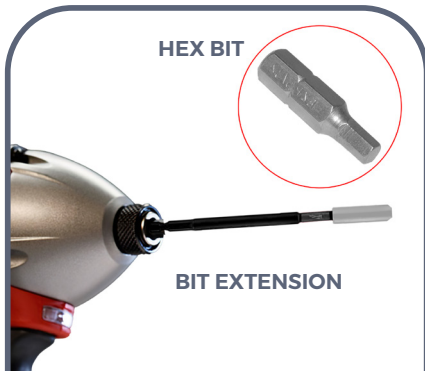
What if Post Not Level?

If ground is not level, use included extra washers to shim the baseplate.



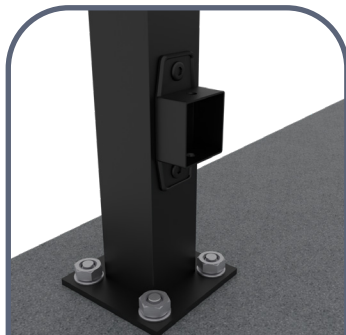
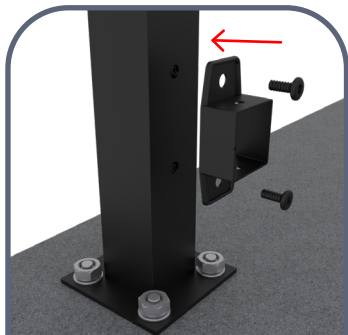
Attaching Bottom Brackets For Post to Post Attachment

5.1



**Use the hex bit
& bit extension**

Attach the first bottom bracket to the bottom of one post. Use the hex bit and holder for screwing in flat-end screws.



Make sure the extra hole for the self-drilling screw is upward.

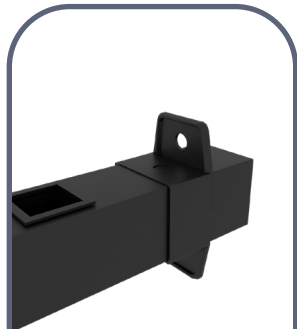
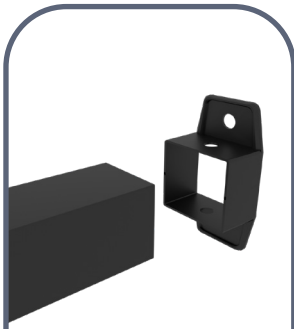
Attaching Bottom Brackets

For Post to Post Attachment

5.2

Slide the second bracket onto the opposite end of the bottom rail, with the flat side towards the post.

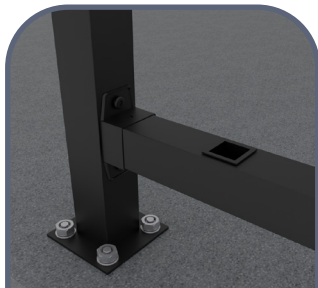
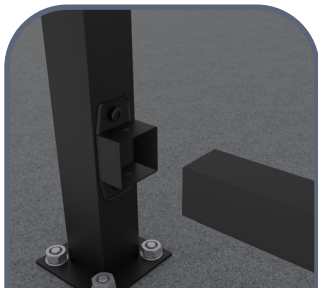
For Post to Wall attachment, skip to step 5.6



5.3

Attaching Bottom Brackets For Post to Post Attachment

**Insert the
bottom rail into
the first bracket,
with the holes
for the balusters
facing up.**



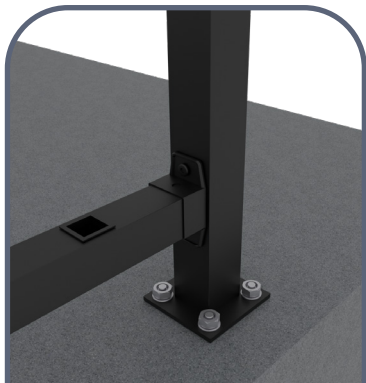
Attaching Bottom Brackets

For Post to Post Attachment

5.4

Position the second bracket against the bottom of the opposite post. Fasten it with flat-end screws using the hex bit and holder.

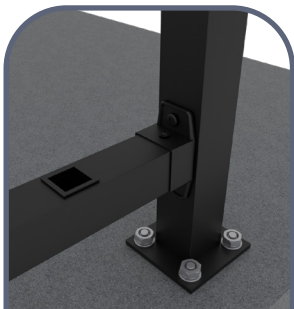
Make sure the extra hole for the self-drilling screw is upward.



5.5

Attaching Bottom Brackets For Post to Post Attachment

Finally, secure the bottom rail by fastening it to each of the brackets using the provided self-drilling screws.



*For Post to Post
Attachment,
continue to step 6.*

Attaching Bottom Brackets

For Post to Wall Attachment

5.6

Connect the bottom rail by doing steps 5.1, 5.2, and 5.3, and then pushing the second bracket into the wall.

Make sure the extra hole for the self-drilling screw is upward.



5.7

Attaching Bottom Brackets For Post to Wall Attachment

Use the bubble leveller to check if the bottom rail is horizontal.



Attaching Bottom Brackets For Post to Wall Attachment

5.8

Using a pencil, mark a horizontal line on the wall at the bottom edge of the bottom rail bracket to guide the bracket's placement.

Position the bottom rail bracket on the marked line and mark the 2 holes on the bracket with a pencil.

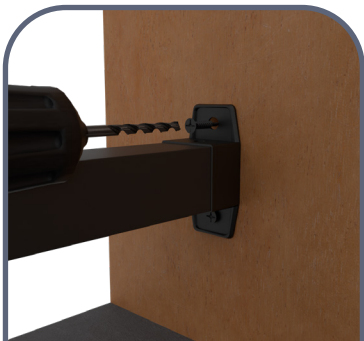


5.9

Attaching Bottom Brackets For Post to Wall Attachment

Use an Electric Drill to create the two holes on the bracket and secure it with self-tapping screws.

*For concrete and masonry walls, use
Masonry Wall Anchor.*



Attaching Bottom Brackets

For Post to Wall Attachment

5.10

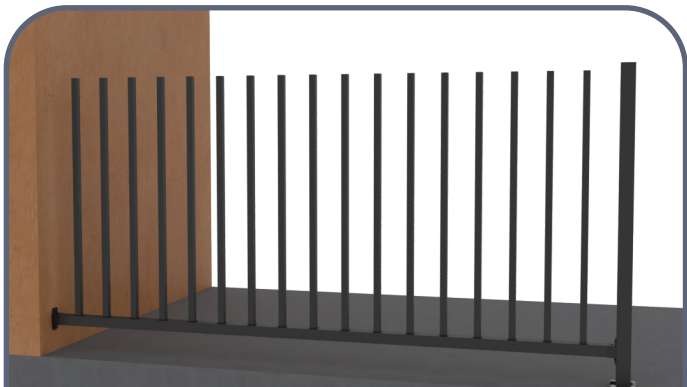
Finally, secure the bottom rail by fastening it to the brackets using the provided self-drilling screws.



06

Install Balusters

Slide the balusters one-by-one into the upward-facing holes of the bottom rail.



Attaching Top Rail to Balusters

07

Carefully place the top rail onto the balusters, making sure its holes face downwards.

You may use a rubber mallet to ensure the balusters are inserted completely



8.1

Attaching Top Rail For Post to Post Attachment

The top rail comes with welded plates on both ends. Align these plates on pre-drilled holes on both posts.



Attaching Top Rail

For Post to Post Attachment

8.2

Use the hex bit and bit holder to fasten the welded plates to the post with flat-end screws.



9.1

Attaching Top Rail For Post to Wall Attachment

Follow Steps 8.1 to 8.2 for Top Rail to Post attachment then align the other end of the Top Rail to the Wall. Use the bubble leveller to check if the top rail is horizontal on the wall end



Attaching Top Rail

For Post to Wall Attachment

9.2

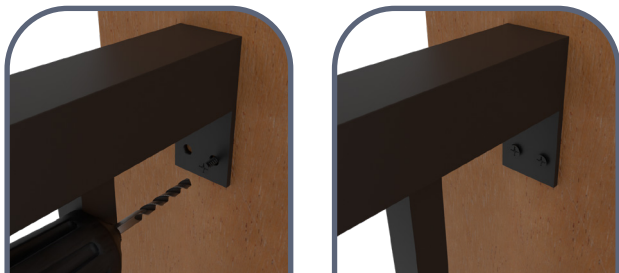
Using a pencil, mark a horizontal line on the wall at the bottom edge of the welded plate and holes.



9.3

Attaching Top Rail For Post to Wall Attachment

**Move the top rail slightly to expose the markings on the wall.
Use an Electric Drill to create the two holes on the bracket and
secure it with the self-tapping screws.**



*For concrete and
masonry walls, use
Masonry Wall Anchor.*

Attaching Top Rail

Daisy-Chained or Extended Installation

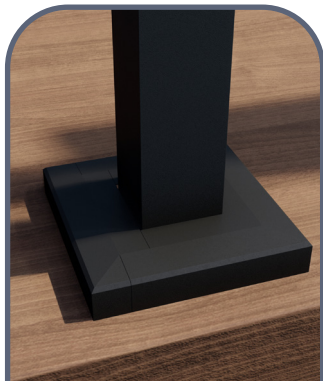
10

Use the other side of the middle post with the pre-drilled holes to connect another set.



11

Attaching Post Cover




For a seamless look, simply attach the included Post Covers to hide the base plate and hardware.



**Great
JOB!**

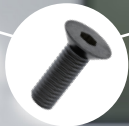


Congratulations on
successfully completing
the installation of the your
Baluster Guard Rail Kit!

A family of four is enjoying a modern outdoor deck. In the background, a man and a young girl sit on a grey wicker sofa. In the foreground, a woman and a young boy are walking down a set of wooden stairs. The deck features a dark metal railing with a light-colored wooden handrail. The scene is set against a backdrop of lush green trees and a clear sky, with sunlight filtering through the foliage.

**Rail kits for your
home's every need!**

For **BGR4R** and
BGR6R Guardrails



Ensure the top and bottom
rail has just the right spacing
between posts

CR Fence & Rail's
Specialty Post



Included



NOT included

TRConCA



TRConSA



TRConSF



TRConCF-Slm



SCAN ME

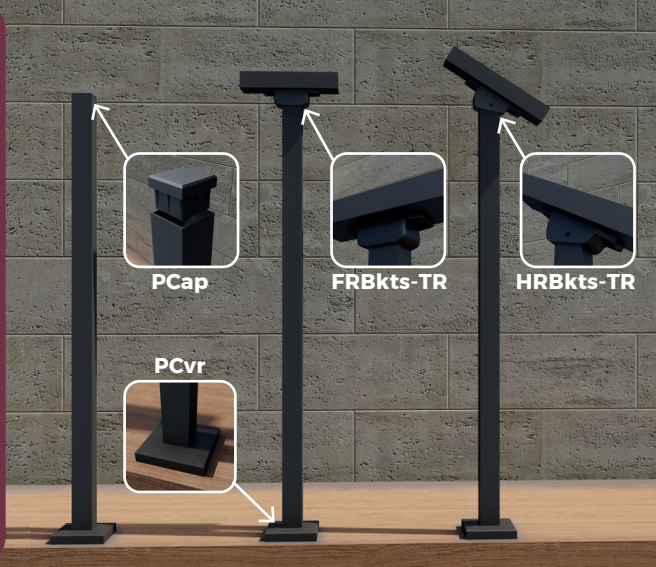


Connect your CR Fence & Rail
Kits using our wide variety of
Top Rail Connectors

Explore CR Fence & Rail's
Brackets and Covers



SCAN ME



10 Years' Free Warranty

We've doubled our support from 5 years to 10, showing our commitment to you and the trust we have in our railings for outdoor steps.

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






*Real Customer Photo

Need help?

- Connect Multiple Railings
- Technical Drawings
- Complicated Installations
- Installation Error
- Missing Parts

Text with Photos
(800) 420-0432





Chi & Richard with family at San Diego Safari Park

A heartfelt message from the owners of CR Handrail

Chi is an architect and Richard is in real estate construction. With the combined knowledge and expertise, Chi & Richard believe they can provide the best commercial grade railing product that can be installed by anyone. They want to take the time to say thank you. If you got the time, Chi, Richard & the CRH team love to see a photo or video of your installation!

- Chi & Richard from CR Handrail

**Your picture and
video post helps those
who are worried about
the installation.**



Susanna P.

★★★★★ I was worried

Reviewed in Canada on October 12, 2022

Size: 4 Steps | **Verified Purchase**

I was a little worried that the handrail would be difficult to install. It comes with everything you could possibly need to install the railing. Hats off to the people who put the kit together.

2 people found this useful



**SAFETY
FOR ALL!**



**Help Us Make
a Difference.**

**How can we
make it easier
for you?**



Missing Parts?
www.crhandrail.com/parts

Support



Text with Photos
(800) 420-0432



WhatsApp
(775) 324-8877