



CR | FENCE
& RAIL
SAFETY, MADE EASY.™

Ornamental Fence Kit Installation Guide

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

v032224



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: The wedge anchor will be a tight fit. This is to be expected as 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.

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?

Ornamental Fence Kit (Top Mount)

MAIN PARTS



15 Circular Tube Baluster



2 Top/Bottom Rail
with Circular Tube Seal



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



4 Self-Drilling Screws



8 Flat-End Screws



4 Flat Rail
Brackets



1 Post Cap

Non-Universal Parts



1 Wood Pilot Hole Drill Bit



1 Masonry Drill Bit

What's in your Kit?

Ornamental Fence Kit (In-ground)

MAIN PARTS



15 Circular Tube Baluster



2 Top/Bottom Rail
with Circular Tube Seal



1 Middle Post

Additional Posts
sold separately:



Corner Post



End Post

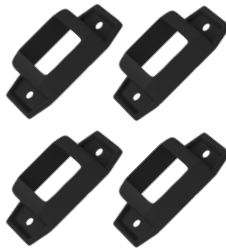
ITEM SPECIFIC ACCESSORIES



4 Self-Drilling Screws



8 Flat-End Screws



4 Flat Rail Brackets



1 Post Cap

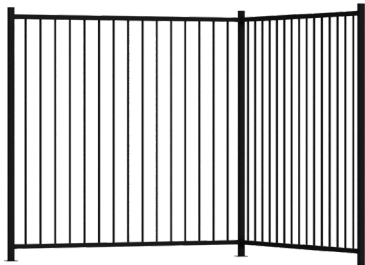
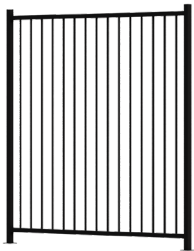


The full kit is a continuous or daisy-chain connection.

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

Basic Setup

Pair your Ornamental Fence Kit with an end post and use corner posts for turns.

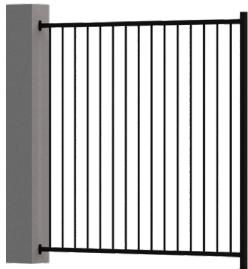


Extend the Railing

Add another middle post or a corner post to create a longer guard rail.

Wall Connection

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

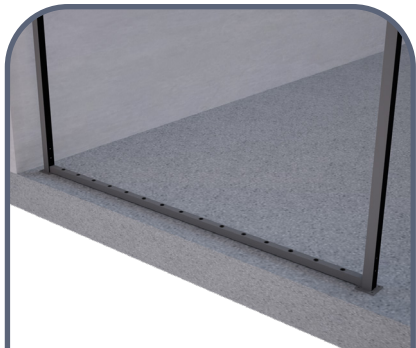


Plastic Anchor and Self Tapping Screws for concrete wall connection is not included. Option to purchase from us or buy locally.

1.1

Post Distance and Markings For Middle Post to End Post Installation

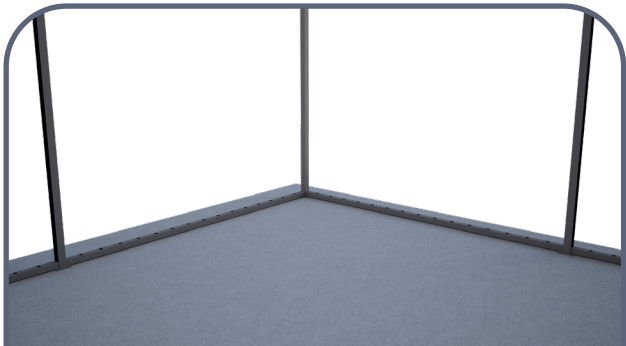
Place the end post where your guard rail will end or next to a wall, and mark the spot for the post and holes, adding a quarter-inch wiggle room on both ends.



Post Distance and Markings **For Middle Post to Corner Post Installation**

1.2

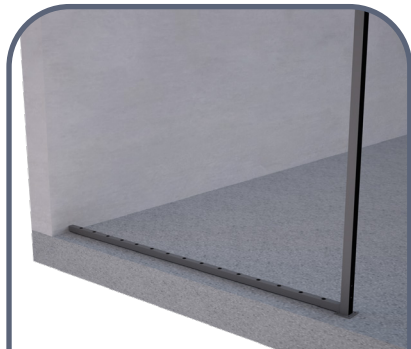
Place the corner post at the corner of the area you're enclosing and mark the post placement and holes.



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.



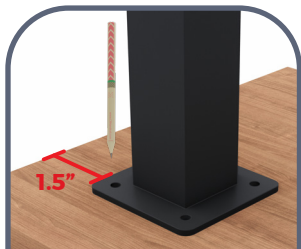
Pre-Drill the Holes

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 Top Mount Post

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



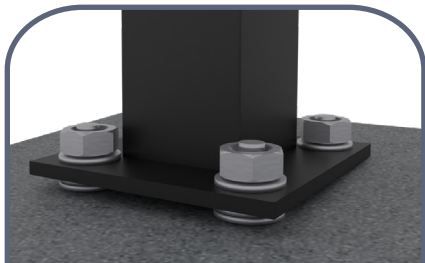
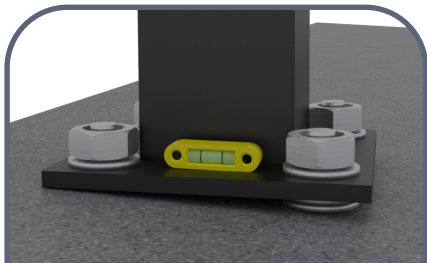
1. Remove all nuts and washers, then place the posts on the anchor bolts. Attach a washer and nut to each post, one after the other.

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?

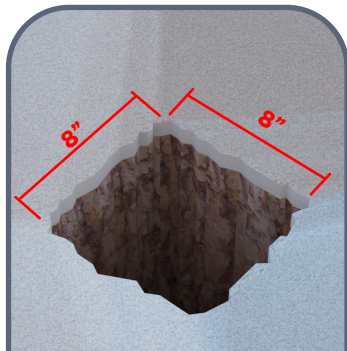
If ground is not level, use included extra washers to shim the baseplate.



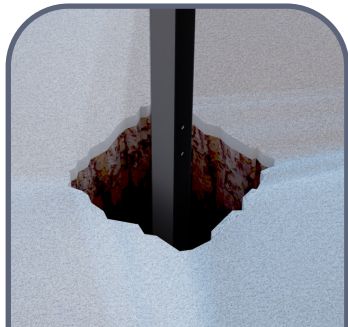
In-ground Post Installation

5.1

Dig holes 8 inches wide and 1.65 feet deep. Add a few inches of gravel at the bottom for drainage.



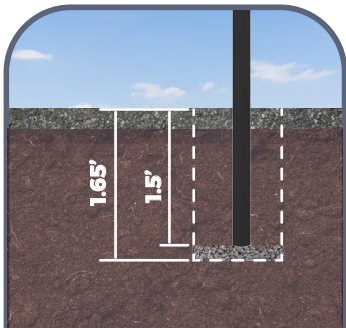
5.2 In-ground Post Installation



**Mark the post 1.5 feet from the bottom.
Place the post in the hole, making sure
the marked part is buried.**

In-ground Post Installation

5.3



This will achieve the 2' clearance from the ground to the bottom rail.

5.4 In-ground Post Installation



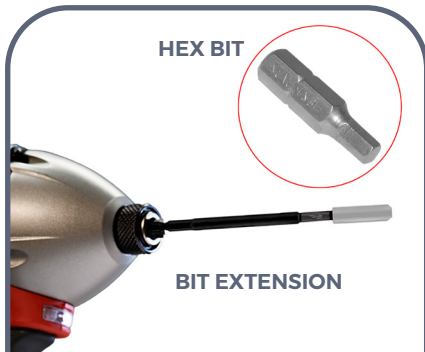
Use a level to make sure the post is straight while the concrete is still wet, and adjust if necessary.

Allow the concrete to cure completely before adding any weight to the post.

Attaching Bottom Brackets

For Post to Post Attachment

06

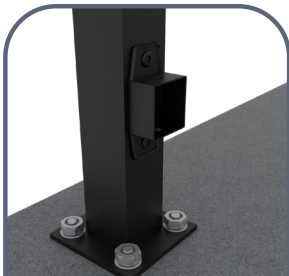
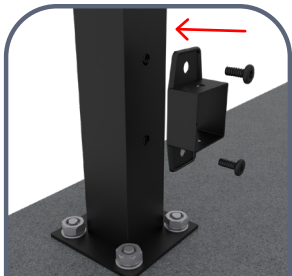


**Use the hex bit
& bit extension**

6.1

In-ground Post Installation

Attach the first bottom rail bracket to pre-drilled holes of the 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.

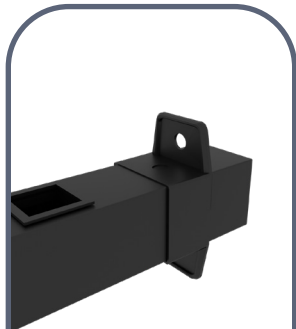
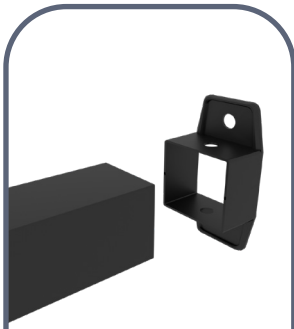
Attaching Bottom Brackets

For Post to Post Attachment

6.2

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

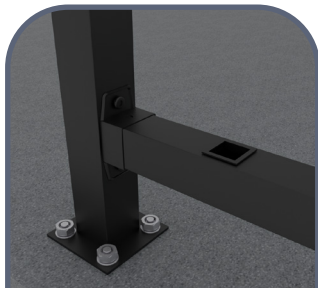
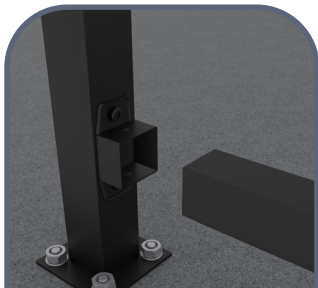
For Post to Wall attachment, skip to step 5.6



6.3

Attaching Bottom Brackets For Post to Post Attachment

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



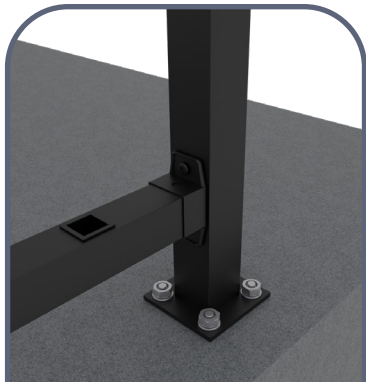
Attaching Bottom Brackets

For Post to Post Attachment

6.4

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

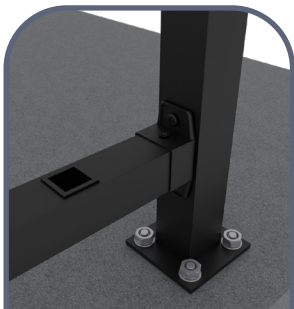
Make sure the extra hole for the self-drilling screw is upward.



6.5

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

07

Connect the bottom rail by doing steps 6.1, 6.2, and 6.3, and then pushing the second bracket into the wall.

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



7.1

Attaching Bottom Brackets For Post to Wall Attachment

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



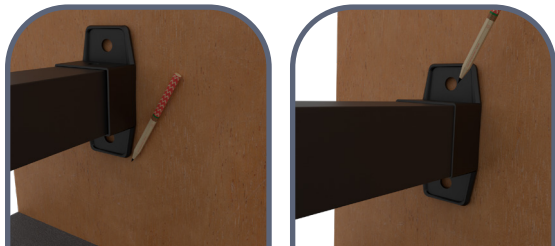
Attaching Bottom Brackets

For Post to Wall Attachment

7.2

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.

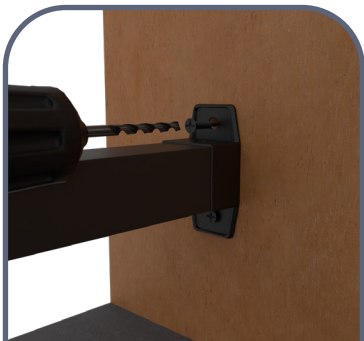


7.3

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

7.4

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



08

Install Balusters

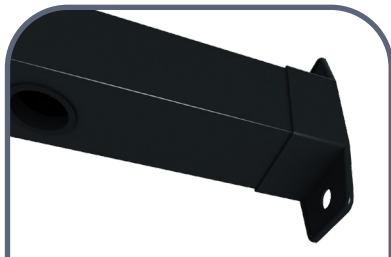
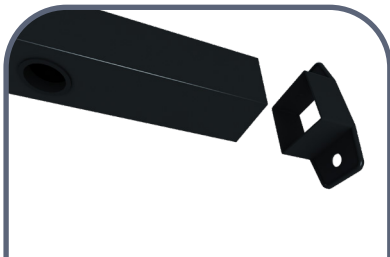
Slide the balusters one-by-one into the upward-facing holes of the bottom rail.



Attaching Top Rail

09

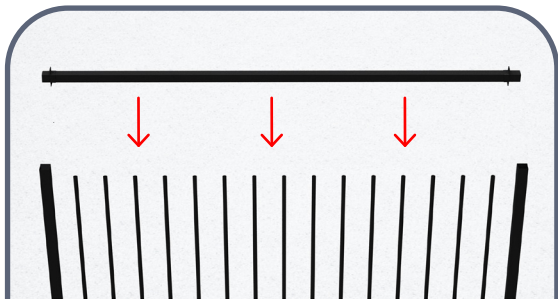
Slide the top rail bracket onto the both ends of the top rail, with the flat side towards the post.



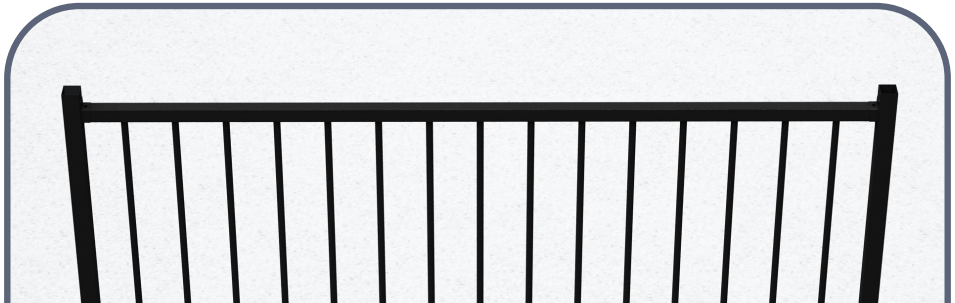
10

Attaching Top Rail

**Insert the top rail
into the balusters.**



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



11

Secure Top Rail Brackets For Post Attachment

**Use flat-end
screw for
bracket to post
attachment**



Secure Top Rail Brackets For Wall Attachment

12

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.*

13

Secure Top Rail and Brackets

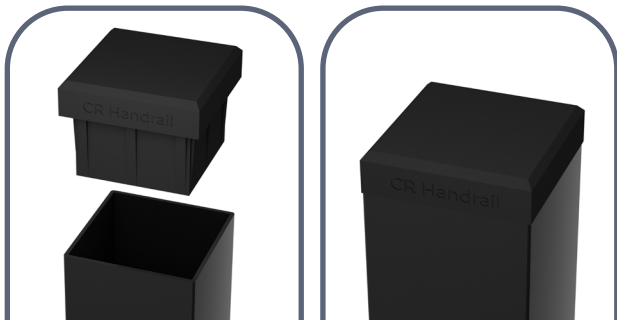
**Use self-drilling
screw to secure
brackets to top rail.**



Attach Post Caps

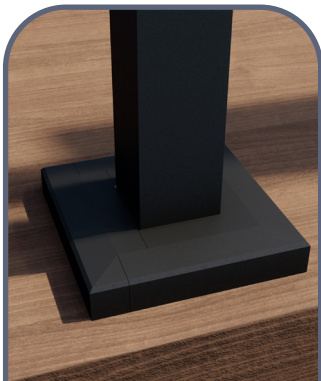
14

**Insert Post Caps
to cover Top of Post**



15

Attach Post Cover




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



**Great
JOB!**

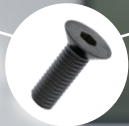


Congratulations on
successfully completing
the installation of the your
Ornamental Fence Kit!

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 is surrounded by a black 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

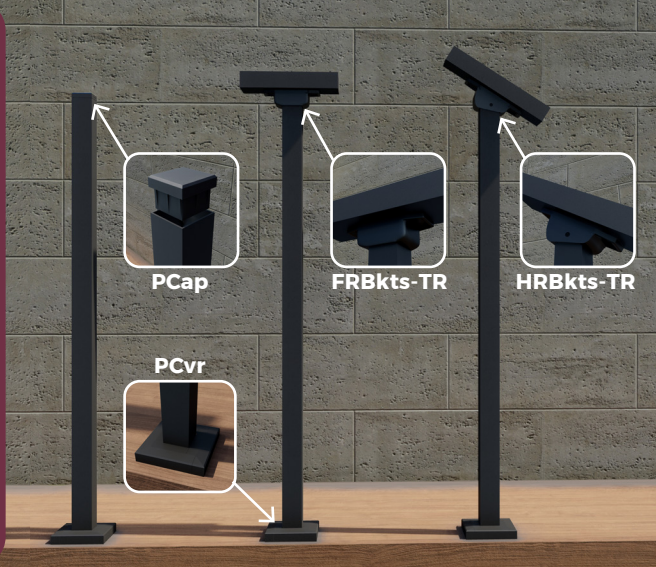


Connect your CR Fence & Rail
Kits using our wide variety of
Top Rail Connectors

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