



CR Handrail

Outdoor Handrail Kit

Installation Guide

Need Help? Call or Text
Mon-Fri 9am-6pm



You made the right choice of handrail!



Cost-Effective



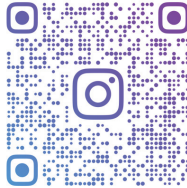
Safe & Durable



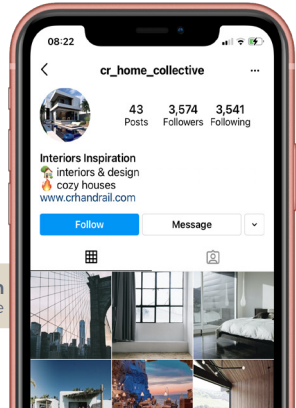
Quick to Install



Easily Extendable
(Modular)



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Installation Overview



Warning

Improper installation can lead to failure of rail system and/or injury. While the railing kit is designed for Do-It-Yourself (DIY), if in doubt, please consult with a licensed contractor for the proper installation of both the railing and most importantly ground attachment method.



Time Required

Rail Assembly - **30 minutes**

Ground Attachment - **60 minutes**

Ground attachment installation time varies due to drill type and surface-prep required.



Tools Required

An electric drill/hammer (for anchors).

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.



Need Tools? Need Parts? Need an Installer?

We are here to help you if you need. You can rent tools (like a quality rotary hammer drill with the exact drill bit) directly from us. Depending on your city, we might be able to help you find, vet, communicate with the installer so you don't have to. **Text or call us at (800) 420-0432.**

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



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

Installing Your Handrail in 1-2-3 Parts



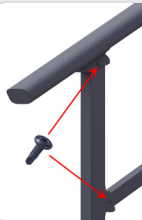
Part 1

Assemble Your
Handrail



Part 2

Post to Ground
Attachment



Part 3

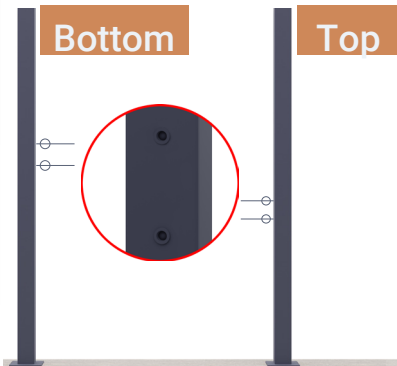
Secure Your
Handrail



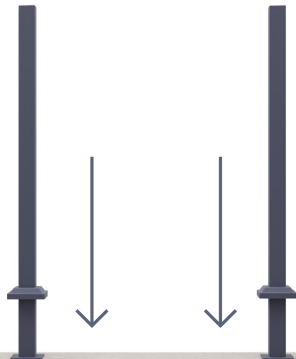
Part 1

Assemble Your
Handrail

1. Determine Top v/s
Bottom Post



2. Put Post Cap On

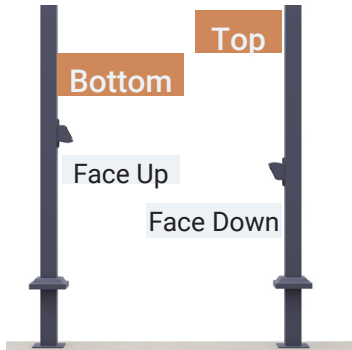




Part 1

Assemble Your
Handrail

3. Attach the two Post
(Smaller) Brackets



Note the direction of brackets

3.(a) Use the hex bid &
bid holder

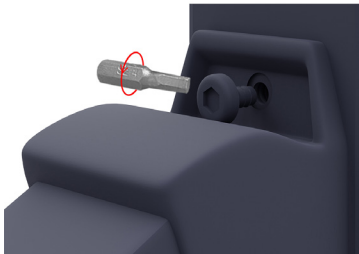




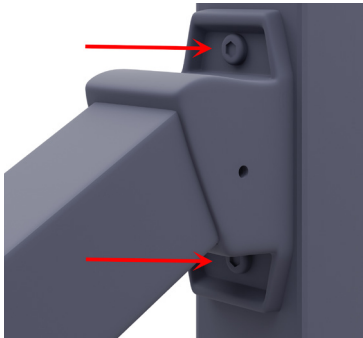
Part 1

Assemble Your
Handrail

3.(b) Screw on 4x
flat-end screws



Note: 2 screws per bracket





Part 1

Assemble Your
Handrail

4. Attach Top Rail
(Larger) Brackets



5. Insert End Caps



Note: Both top rail brackets face same direction



Part 1

Assemble Your
Handrail

6. Loosely Assemble Handrail Flat on Ground

The handrail will be unsecured until the end. We will loosely assemble the handrail first to mark holes for post-installation.





Part 2

Post to Ground Attachment

1. Position Onto Location



2. Mark the Holes

Post should be at least 1.5" (3.8cm) away from edges. Ensure the post baseplate is parallel with edges.



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



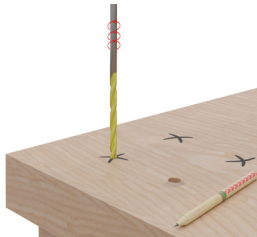
Part 2

Post to Ground Attachment

3. Drill Holes Straight Down

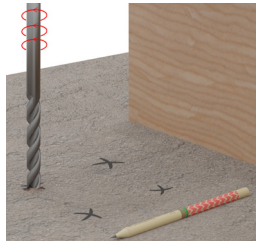
Wood

Use the **smaller** drill bit to drill a hole in the center of the marked hole. (Skip to Step 5)



Concrete

Use the **larger** masonry drill bit to drill a hole in the center of the marked hole. (Continue Step 3)





Part 2

Post to Ground Attachment

3. Drill Holes Straight Down

For Concrete

Note: 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 must only recommend using our masonry drillbit without wiggling).



5/16
(8mm)
Anchor
Bolt



5/16
(8mm)
Masonry
Drill Bit

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.



Part 2

Post to Ground
Attachment

3. Drill Holes Straight Down (Continued)

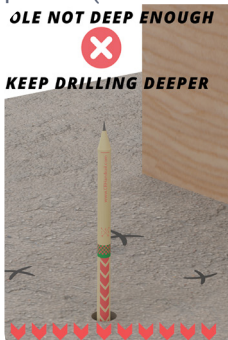
For Concrete

Ensure you have the correct depth. Use the CR Handrail pencil to Part 2 measure the depth of the hole with the flat end of the pencil. (Please double check depth! See next step.)

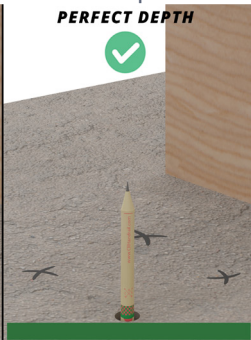
NOT DEEP ENOUGH



KEEP DRILLING DEEPER



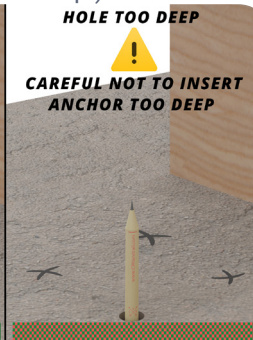
PERFECT DEPTH



HOLE TOO DEEP



**CAREFUL NOT TO INSERT
ANCHOR TOO DEEP**

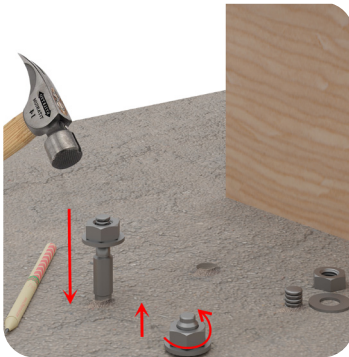




Part 2

Post to Ground Attachment

4. Install Anchors



For Concrete

Once the holes are made, hammer the anchors into the holes.

Note: There is no way to remove the anchor once hammered in. It's better to have a hole too deep rather than too shallow.

Double check! When the anchor is just before the appropriate depth, put the post onto the anchor and physically verify the washer and nut has only enough thread to for the full height of the nut to screw on. (You should see a little nib that is above the nut when tightened.)



Part 2

Post to Ground Attachment

5. Prepare Tools to Secure Post to Ground



Use the nut socket & bit extension





Part 2

Post to Ground Attachment

6. Install Lag Screws

For Wood

Follow These steps

1. Position the posts (along with the complete railing) over pre-drill holes.
2. Install a washer & lag screw, one-by-one
3. When all are installed, double-check each of them again, to ensure all are tightened.

Note: If your drill has a hammer (or impact) function, enable it.

Tip: If your drill can't drive the lag screw down fully, use a wrench to manually tighten it all the way.





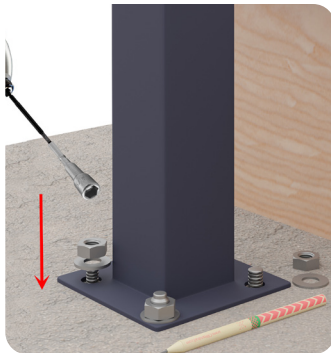
Part 2

Post to Ground Attachment

6. Install Nuts on Anchors

For Concrete

Follow These steps



1. With all the nuts & washers removed, put the posts onto the anchor bolts (along with the rest of the rail). Install a washer & lag screw, one-by-one
2. Hand-tighten a washer and nut over each anchor bolt.
3. Use the electric drill to tighten the nut (turn off hammer or impact driver function).



Part 3

Secure Your
Handrail

Secure All Joints

Using the included self-drilling screws, with some force applied (careful for your fingers as you hold the screws in place), drill the screws through the pre-made holes on the brackets into the metal railing. This will lock the metal in place.



Hex
Bit



Bit
Extension





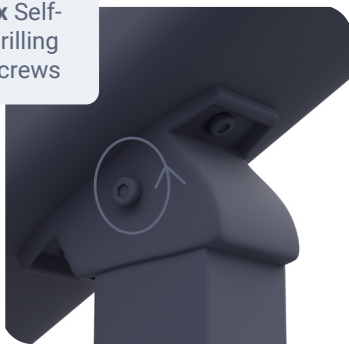
Part 3

Secure Your
Handrail

Tip: Pre-drilling hole is NOT necessary. The self-drilling screw will make a hole when force is applied. If you must, use a small drill bit to make a pilot hole.



8x Self-
Drilling
Screws



Your Modular Handrail is Extendable

Do you now have a gap from the stairs to the side of the house?

CR Handrail can be extended easily.

We will even cut it to the right size so all you have to do is attach both ends of the railing.



Rail kits for your home's every need!

Safety doesn't end with the staircase. Explore our range of rail kits!

Complementary **Cut to Size**
www.crhandrail.com/extension





5 Years' Free Warranty

- 1) Scan the barcode within 30 days.
- 2) Register your product.

Or, register your product at
www.crhandrail.com/5yearwarranty

DISCLAIMER

No representation or warranty is given that your particular application of these products complies with relevant building codes or that the fasteners provided or used are appropriate for your application. Consult with professionals and local building officials before beginning work: (i) to ensure compliance with relevant building codes for your application and for your proposed use of fasteners; (ii) to ensure the integrity of the structural components in connection with which these products are to be used; (iii) to identify appropriate safety gear that is to be used during installation; (iv) to ensure that the work area is free from utilities, services and hazards; and (v) to clarify any instructions or warnings that may not be clear. Work in a safe manner wearing protective gear such as gloves, eyewear, headwear, footwear and clothing. When using tools comply with operation manuals and instructions. Installation materials may have sharp edges and could fragment or splinter during or as a result of handling or cutting. Do not use these products in connection with any substance that is or may be harmful or corrosive to the products. Inspect and maintain these products and the structural components that they are used in connection with on a regular basis, using professionals when appropriate.

No member of CR Handrail of Companies (as defined at www.CRHandrail.com) shall be liable for any loss or damage resulting from the improper installation or use of this product. In the unlikely event that any member of CR Handrail of Companies becomes liable for any loss or damage, the aggregate liability shall be limited to the retail purchase price of the product.

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We love to see your handrails!



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

Chi & Richard with family at San Diego Safari Park



How can we make it easier for you?

Parts

- Free SDS+ Drill Bit
- Free Shorter Lag Screws
(Not To Building Code)
- Free Longer Middle Rail
(If precut middle rail is too short)
- Free Missing Parts
- Specific Parts Request

www.crhandrail.com/parts

Issues

- Fixing A Mistake
- Rail Too Short? Too Long?
(Length Replacement)
- Helping Installer Install
- Finding an Installer
- Custom Cut to Size Project

Text or Call Us
(800) 420-0432