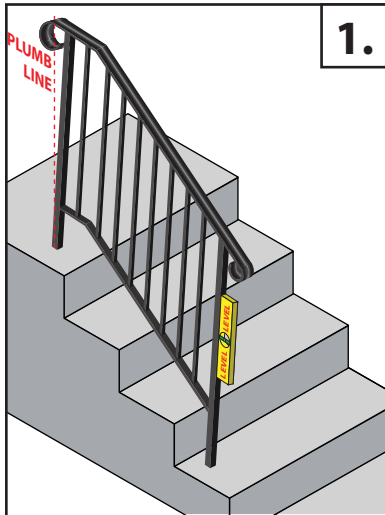


IRON HANDRAILS INSTALLATION INSTRUCTIONS

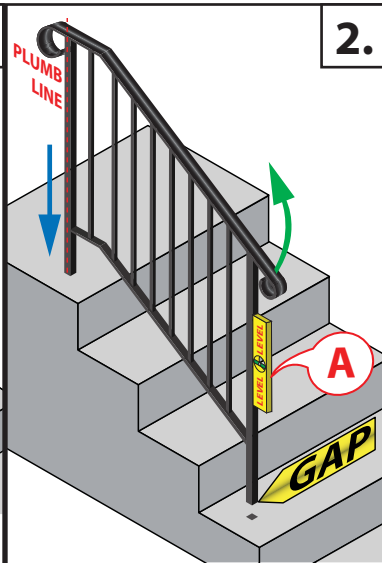


1.

Always plumb, cut and fit your rail to the steps before inserting post mount brackets into the posts.

Set the rail without the post mounts on the steps in the location where you plan on mounting it.

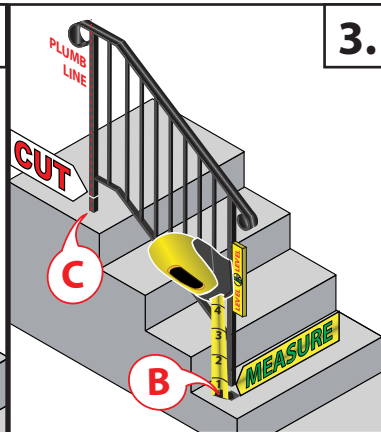
The rail will most likely set out of plumb and one post will need trimmed to custom fit to your steps.



2.

Place a level on the front surface of the post (A). It is not necessary to plumb the post side to side yet.

While keeping one rail post on the step (↓), raise the other rail post off the mounting surface (↑) until the level reads plumb.

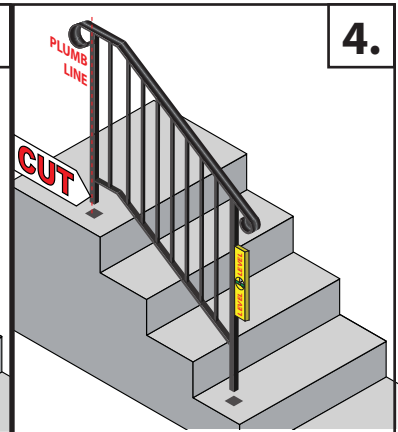


3.

Measure from the bottom of the post to the mounting surface (B).

This distance (B) is the amount that you will need to CUT off the other post (C).

Mark the gap distance (B) measurement on the opposing post. This is your cut line.



4.

Make a straight CUT with a hack saw or other metal saw.

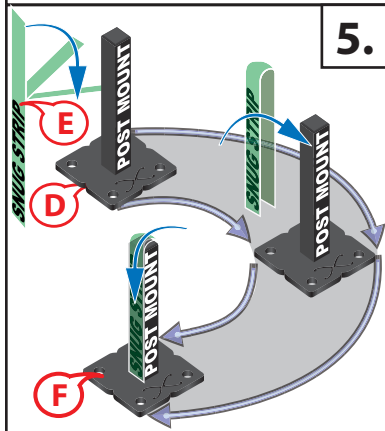
Set the rail back onto the steps and check that the rail post are sitting plumb.

Always plumb, cut and fit your rail to the steps before inserting post mount brackets.

While holding the posts plumb, note which post is off the step...

Scenario 1: If the front post is off the step your cut will be made on the back post. (Scenario 1 is used in this instruction sheet)

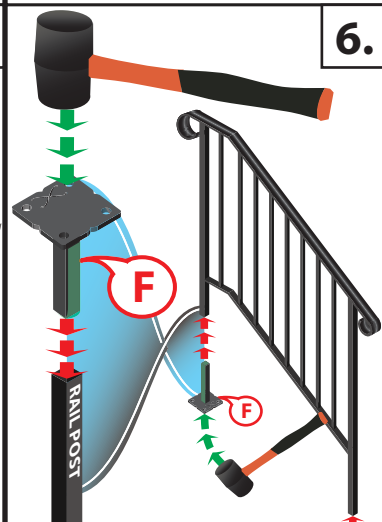
Scenario 2: If the back post is off the step your cut will be made on the front post.



5.

Once the rail is sitting plumb, remove it from the steps.

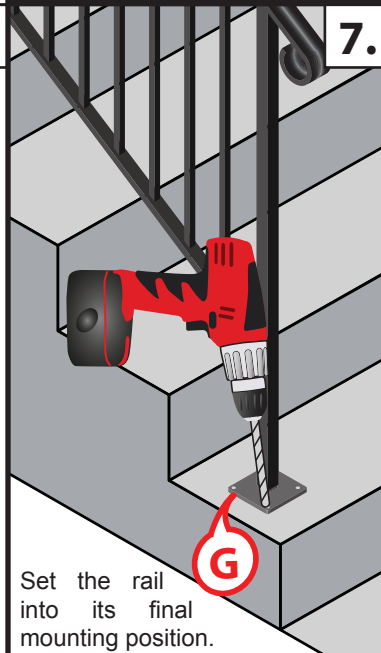
Locate the 2 post mount brackets (D) and the green snug strips (E). Fold the green snug strip over the top of the post mounts. The snug strips should be oriented to touch the left and right side of each post, as opposed to the front and back.



6.

Slide the post mount and snug strip assembly (F) into the bottoms (→ →) of the rail posts.

NOTE: It will be necessary to tap (→ →) the bottom of the post mount assemblies into the bottom of the posts. Do not scratch or hammer the handrail cap.

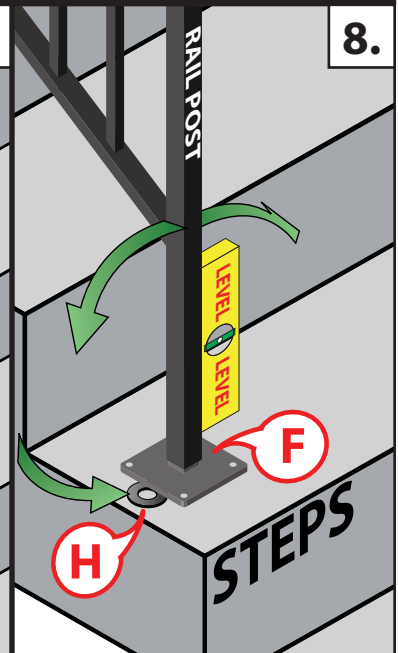


7.

Set the rail into its final mounting position.

Drill a hole (G) through the post mount into your steps and use an anchor suitable for your step materials to fasten the rail to the steps.

Drill one hole and install one anchor at a time.



8.

To help plumb the rail posts side to side (↔), use the stainless steel washers (H) provided to shim underneath the mounting plates (F) before tightening the anchors to your steps.



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Keys to Installation Success

The success of your Iron X Handrail installation is dependant on the quality of your stair material as well as the type and quality of fastener you use. Not only does Fortin Ironworks manufacture Iron X Handrails but we also install them. Below is a list of tips and quality fasteners we use everyday when we install handrails.

Please ensure that your stairs are suitable to fasten handrails to them. Visually inspect your steps for cracks or splits. If you are unsure please contact a reputable contractor.



Suitable Steps



NON-Suitable Steps - Holes, Cracks, Broken Tiles, Missing Bricks, Severly Slanted

What anchors do you suggest when installing Iron X Handrails?

CONCRETE: Simpson Strong Tie Titen HD Mini Concrete Screw Anchors (Zinc) 1/4" x 2-1/4".

VENEERED SCENARIOS (BLOCK, BRICK, PAVERS, ETC): It is advisable in most situations other than concrete to use epoxy anchoring adhesive. Due to varying factors in brick construction, i.e. different sand mixes, different internal structure (3-hole, 5-hole, grout-filled, hollow), when drilled through to anchor, a blowout is often experienced on the backside of the brick or the drilled holes are inconsistent due to uniform brick or stone structure. We suggest Red Head® Redi-Drive adhesive A7 and a suitable length all-thread x 5/16" diameter to penetrate through the veneer into the substrate below. Please follow manufactures instructions on all fasteners for best results.

CONCRETE BLOCK: UltraCon Concrete Screws® 5/16" Diameter x 6" model #ELG516. It is advisable to buy an anchor long enough to get through the block into the substrate below. The baseplate anchor holes may need reamed to fit these anchors

PAVER BRICKS: UltraCon Concrete Screws® 5/16" Diameter x 6" model #ELG516. It is advisable to buy an anchor long enough to get through the block into the substrate below. The baseplate anchor holes may need reamed to fit these anchors

LIMESTONE: It is not advisable to drill any holes into limestone as it is very soft and susceptible to cracking. If you must install into limestone we suggest UltraCon Concrete Screws® 5/16" Diameter x 6" model #ELG516. It is advisable to buy an anchor long enough to get through the block into the substrate below. The baseplate anchor holes may need reamed to fit these anchors

WOOD: 5/16" diameter stainless steel bolts completely through the steps with a washer and nut on the other side. Buy your anchors suitable length to go completely through the step.

ALTERNATE WOOD: 5/16" diameter stainless steel lag bolts. It is advisable to buy anchors long enough to get through the step and into the underlying wood structure.

COMPOSITE DECKING: 5/16" diameter stainless steel bolts completely through the steps with a washer and nut on the other side. Buy your anchors suitable length to go completely through the step.

ALTERNATE COMPOSITE DECKING: 5/16" diameter stainless steel bolts completely through the steps with a washer and nut on the other side. Buy your anchors suitable length to go completely through the step.



Simpson Strong Tie



Red Head A7 Adhesive



Stainless Steel Hardware

Visit www.fortinironworks.com for the most up to date information