

# sentrel

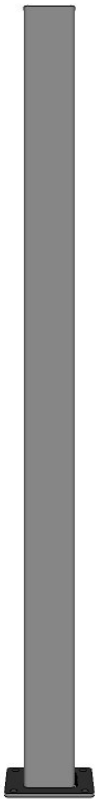
## INSTALLATION INSTRUCTIONS

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# iRail

DIY Balustrade and Pool Fences

# Sentrel iRail Components



Post with Baseplate



Tubes



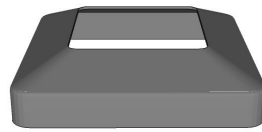
Bracket mounting jig



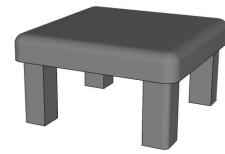
Bottom rail



Top rail



Post dressing plate

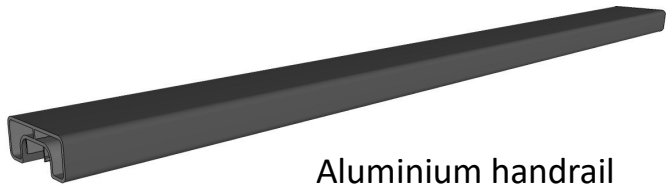
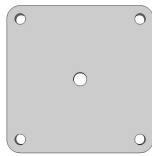


Post cap



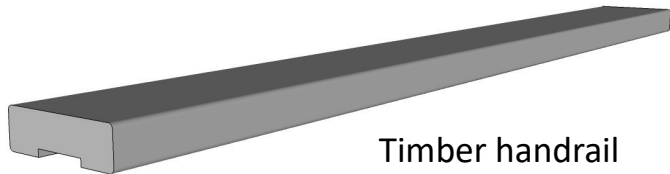
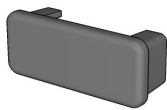
Insert strip

Post mounting template



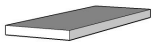
Aluminium handrail

Aluminium handrail endcap



Timber handrail

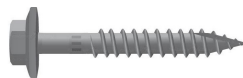
Infill pieces for timber handrail



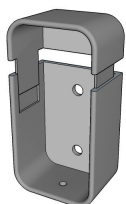
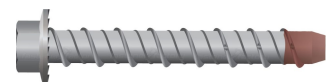
Plastic cap



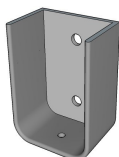
Timber handrail screws



Post screws for concrete



2-part bracket



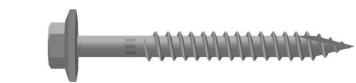
Truncated bracket



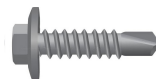
Type 1 sleeve



Type 2 sleeve



Post screws for timber



Bracket screws for metal



Bracket screws for timber

These instructions will guide you through the process for assembling and installing Sentrel iRail Balustrade and Pool Fence panels.

Essentially, the method for installing the iRail system incorporates fixing posts (if required), fixing brackets in place, then assembling the panel between the posts from the components supplied.

We advise that you familiarise yourself with the components supplied in accordance with the diagrams opposite, and read through the instructions completely to ensure that you understand the process. **NOTE:** Please take care handling the powder coat finish.

Sentrel will take no responsibility for problems arising from installations that are not in accordance with these instructions.

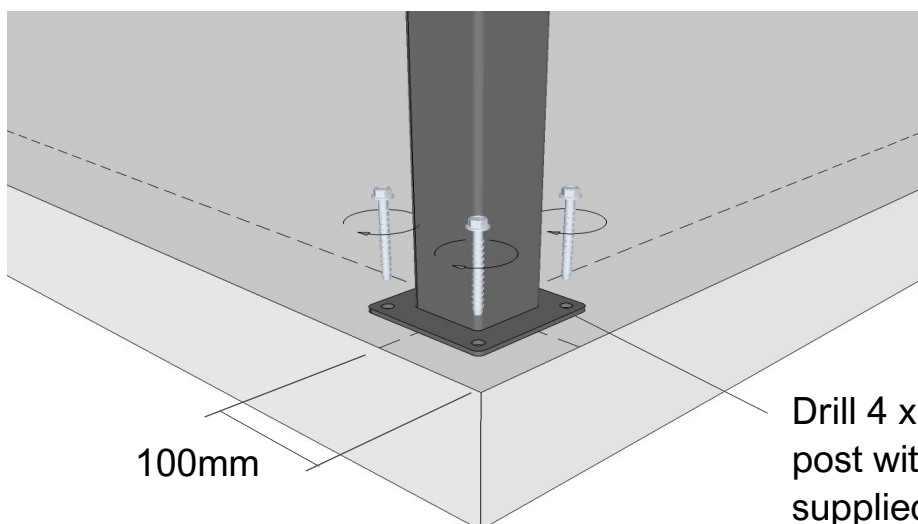
## INSTALLING SENTREL POSTS

Sentrel posts are fixed with 4 screws (post screws) — one in each corner of the post baseplate. A dressing plate is supplied to cover the baseplate and screws. This section shows you how to fix posts to concrete slabs and timber decks. For other situations (e.g. fixing through to steel beams) it is the client's responsibility to provide the correct fasteners to achieve a compliant installation.

### Fixing posts to a concrete slab

- Mark the centres where posts are to be installed, 100mm in from the slab edge.
- Using the post mounting template provided, mark the position for screws in all four corners of post base.
- Drill 6mm holes a minimum of 100mm deep from finished surface.
- Clean all dust and debris from holes.
- Secure post in place with concrete screws supplied. Tighten to a maximum of 15Nm.

**NOTE:** If the surface is not level, it may be necessary to shim under the corners of the post base to bring the post to plumb.



Drill 4 x 6mm holes and secure post with concrete screws supplied to 15Nm max.

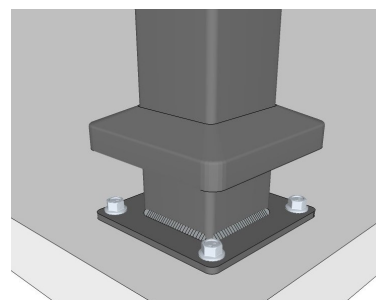
## Fixing posts to a timber deck

- Place the posts in position.
- Mark and drill 4.5mm pilot holes in each corner.
- Use screws supplied to fix each post .  
(14 Gauge x 65mm Type 17).

NOTE: Decking boards must be made structurally suitable for mounting the posts. It will be necessary to reinforce the boards by fixing a minimum of 35mm hardwood blocks across several decking boards directly beneath the post. Failure to do so will result in non-compliant post strength.

## Fitting the dressing plate

- When all posts have been installed and are plumb and secure, carefully slide the dressing plate over the post to cover the baseplate and screws.



## FITTING SENTREL BRACKETS

- 2-part brackets are supplied for ease of fitting the rails.
- Use the jig provided for quick and accurate placement of brackets.
- Place the solid bottom of the jig hard down on top of the post baseplate or use the post template as a spacer to lift bracket jig to correct height.
- Screw the lower half of the bracket to the post with the screws supplied. The top half of the bracket is positioned after installing panels.
- Installations with handrail have truncated brackets supplied that must be fixed at the top of the posts with the open face upwards.

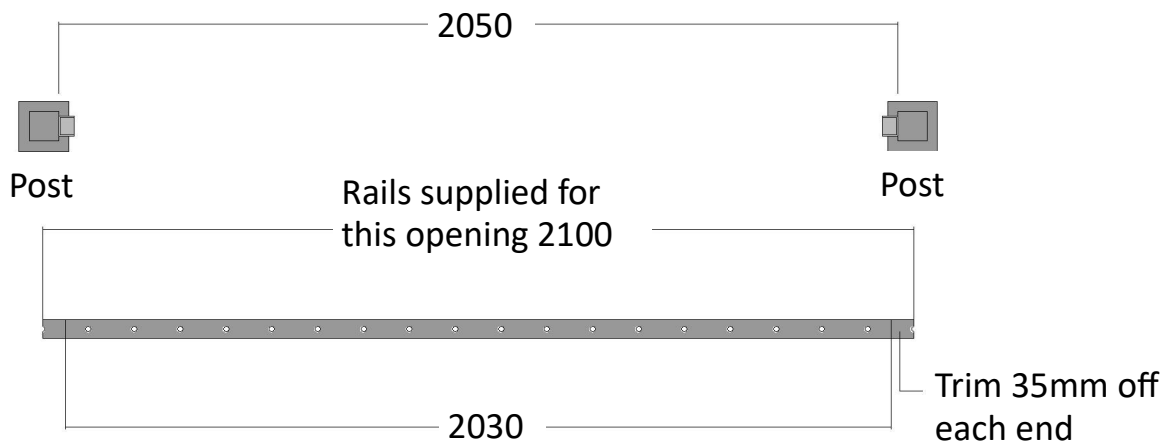
## ASSEMBLING PANELS

iRail panels are ready to assemble once the posts and brackets have been installed. The top rail has an open top and the bottom rail has an insert already in place.

- Trim the rails to fit between the brackets.
- Measure the opening size between the posts for each panel, then subtract 20mm.
- Subtract the length of the rails supplied for that opening, and divide the answer by two. This will give you the amount to trim off each end of the rails.
- Cut with a drop saw, hacksaw, or angle grinder with suitable cut-off disc

### Example:

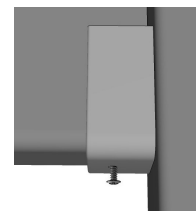
- Opening between the posts is 2050mm.
- Rails supplied for size opening will be 2100mm.
- Subtract 20 from 2050 = 2030mm.
- Subtract 2030 from 2100 = 70mm.
- Divide by two to give the amount of trim each end = 35mm.



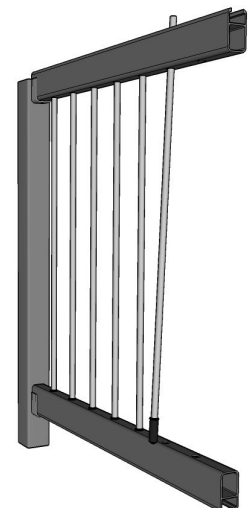
When fitted, there will be about a 7mm gap between end of rails and inside of brackets



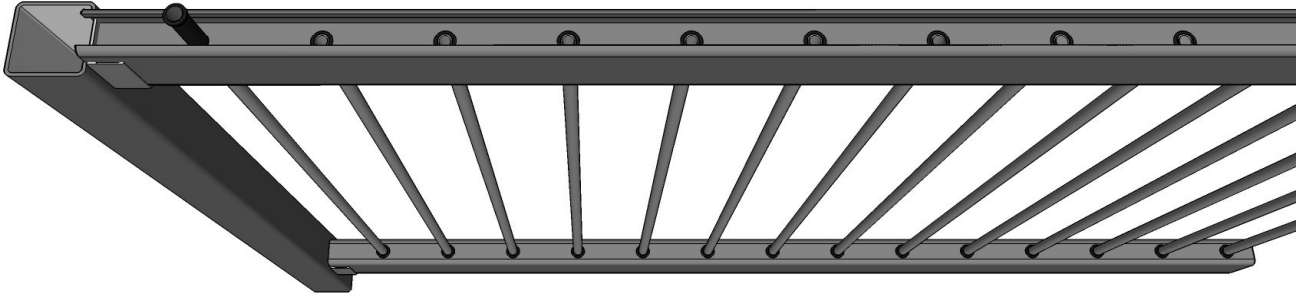
- Place cut rails into the brackets and fix the top rail with screws supplied.
- Fit the Type 1 sleeves supplied onto the bottom of the poles.



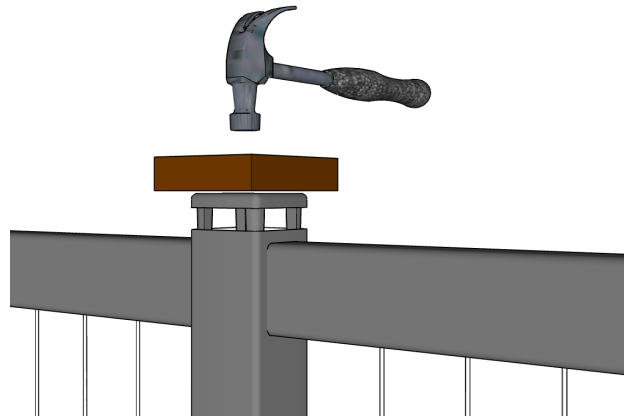
- One by one, push the top of the pole (the end without the sleeve) up into the top rail, then down into the bottom rail. It is not necessary to push the pole down hard at this point.



- Push all the Type 2 sleeves over the top of the poles and down roughly into place.

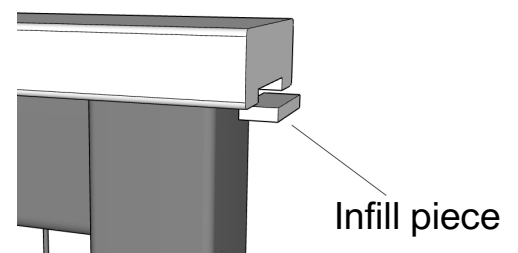


- With a small wooden block and hammer, drive all the poles down firmly into place.
- If your installation has no handrail, snap in the insert strip supplied into the top rail.
- Finish off by placing the top of the 2-part brackets into place. Use a little silicon if desired to hold in place.
- Fit post caps by positioning, then knocking down firmly with a soft block and hammer.



## FITTING TIMBER HANDRAIL

- Using the handrail lengths supplied, cut and fit them to the top rail of the balustrade.
- Fix handrail in place with hex head screws (supplied - 14 Gauge x 50mm Type 17) through the pre-drilled holes in the underside of the top rail. **NOTE:** To avoid splitting, it is imperative to drill a pilot hole and screw the batten screws in gently.
- Handrail joins can be joined with dowel, biscuits and/or adhesive if desired. These items are not supplied.
- Glue infill pieces (supplied) to fill in handrail channel where required.
- Fit plastic caps supplied to cover screw holes on underside of top rail.

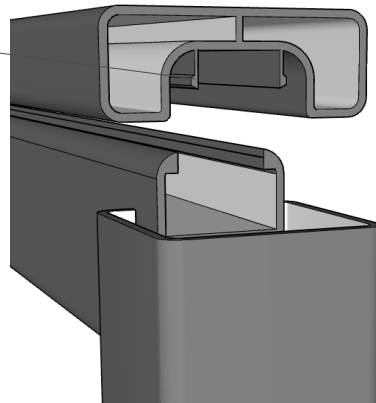


## FITTING ALUMINIUM HANDRAIL

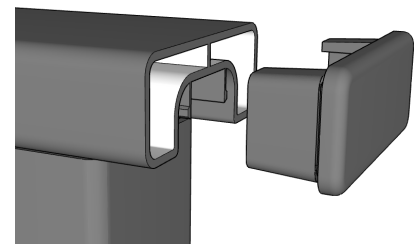
Sentrel aluminium handrail simply clips to the top rail of the panels. Lengths can be cut with a quality tungsten carbide blade on a drop saw. Care must be taken with all cuts as there is no provision for filling joints. Accuracy is paramount for a neat installation.

- Cut and fit mitre joins first.
- Knock in place with hammer and wooden block, taking care not to damage the powder coat finish.

Handrail clips onto  
top rail of panel



- Cut and fit the remaining lengths.
- On short runs, it may be necessary to apply a small amount of silicon on the underside of the handrail before assembly to help prevent it moving.
- Fit handrail end-caps if required — simply knock in with timber block and hammer.



## FINISHING UP

- Clean stainless steel poles with a suitable cleaner – white spirit is ideal.
- If you have installed a gate with hinges supplied by us, please note that these hinges are ADJUSTABLE. Set to the lowest setting possible, so that the gate closes positively but without slamming.
- The installation is now complete.

## CERTIFICATION

Sentrel balustrades are engineer-certified and are suitable for the following occupancy types listed in table 3.3 of AS/NZS 1170.1: A, B, E, C, C1/C2, C3, D, F/G. They are suitable for use at heights over 4 metres. Sentrel pool fences have been engineer-certified in accordance with AS1926 Set-2012 and NATA's accreditation requirements.

Certification reports can be found on the Resources page at [www.sentrel.com.au](http://www.sentrel.com.au).