



 Boundaryline

Install Guide

SENTRYPANELTM

A step-by-step guide to installing your new fence

Version 1.0

Introduction

Thank you for choosing Boundaryline SentryPanel fencing. This product will provide you with many years of trouble free protection if installed in accordance with the directions outlined in this document.

The recommendations detailed in this guide are formulated along the lines of good building practice. They are not intended to be an exhaustive statement of all the relevant data.

If you have any questions, please contact our Technical Team on 0800 003 006. We are always happy to help in any way we can.

Before you start, read this

This guide does not apply to any fences over 1.8m in height. If your fence is greater than 1.8m, please seek further advice from Boundaryline.

- Describe your site details when ordering materials.
- Identify your soil type/ground conditions. Refer to the table in Step 2. This will determine the concrete and footing details required

- Make sure you are aware of underground services before you start digging! These could be gas, electricity, or water mains. Call your local council for more information.
- Check your local council regulations on boundary fencing.
- Check the delivered material for the correct number of components and general condition before beginning your installation.

Tools

- | | |
|------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> Tape measure | <input type="checkbox"/> Hacksaw or powered metal cutting saw |
| <input type="checkbox"/> Square | <input type="checkbox"/> Circular saw |
| <input type="checkbox"/> Shovel | <input type="checkbox"/> Angle grinder |
| <input type="checkbox"/> Line marking paint | <input type="checkbox"/> Drill/driver |
| <input type="checkbox"/> String line | <input type="checkbox"/> Post hole digger/Auger 300mm |
| <input type="checkbox"/> Spirit or laser-level | <input type="checkbox"/> Safety boots |
| <input type="checkbox"/> Hex drive bit | |

Safety Gear minimum required

- ☐ Gloves
- ☐ Helmet
- ☐ Eye protection
- ☐ Hearing protection
- ☐ Sun protection

Make sure you choose the right tools before you start your fence

It is recommended that the reader pays particular attention to those items identified as IMPORTANT in this manual to ensure satisfactory long-term performance.

Installation Guide

Step 1 | Lay out your fence line

- Accurately determine & mark any legal boundaries and/or underground services (a surveyor may be required)
- Measure out each fence line & mark the post positions
Determine post centres as follows

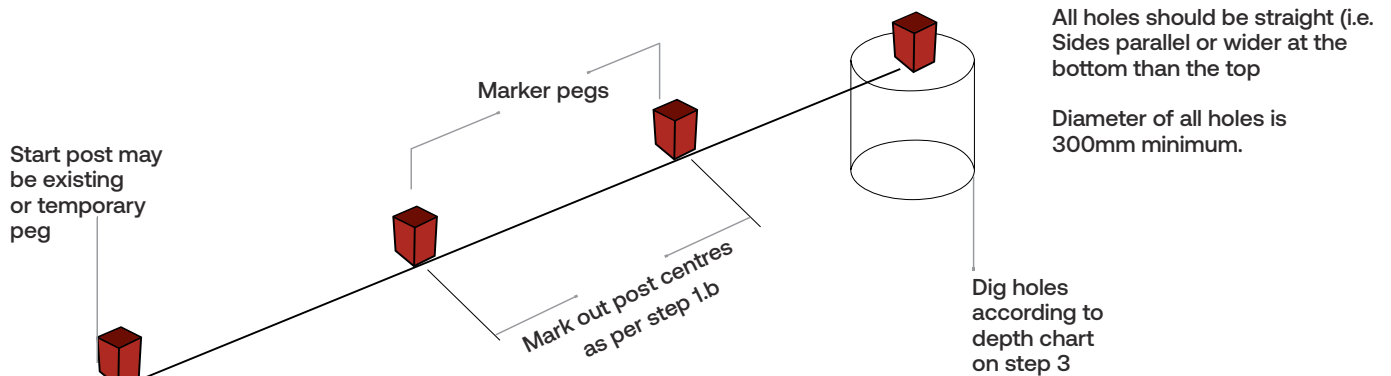
Panel Length	+	Clearance	+	Post Size	=	POST CENTRE
e.g. 2250mm	+	5mm	+	65mm	=	2320mm

- If the fence line length does not work out as multiples of the standard panel length, adjust the length of the last section, or the last few sections, to suit & cut panels to fit
- Use a string line or laser level to make sure any straight lines are aligned

Step 2 | Marking out and digging post holes

Determine your post hole centres using the table below as a guide and mark out your post hole positions on the ground with line marking paint

Post centres will be subject to measurements on 1.b. Eg, 1.8m rail will have approx 1.9m post centre.



For in-ground posts

Step 3a | Installing the posts - In-ground

- Place the post into the hole and set the height carefully using a tape measure or, preferably, a laser level
Caution: Ensure you allow enough height on the post to allow for panel height + ground clearance (suggest 50-100mm) + additional 25mm for bracket & cap clearance
- Fill the hole with concrete around the post, taking care to keep the post in the correct position
- Check with a spirit level regularly to ensure the post is plumb
- Ensure the post remains square to the fence line & does not turn as you lace concrete around it
- Repeat steps a to d for all posts
- Set the spacing of the posts at the length of the panel, plus approximately 5mm clearance (as per step one)
Tip: cut a spacer stick out of timber at the correct length between posts. The panel brackets are 30mm deep - so this allows for some adjustment if required, except where a PS1 is required

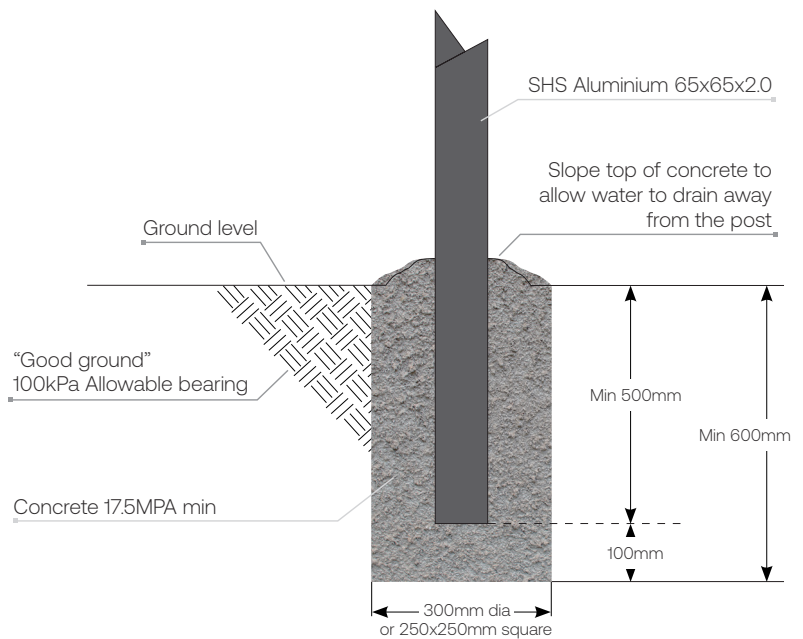
In-ground post

SentryPanel 65x65

Post sizes are dependent on the application & design requirements

Posts to be installed in 'good ground' as defined by NZS3604

- For standard 65x65mm (and smaller) aluminium posts, a fairly dry concrete mix can be used which will hold the post in place without any bracing while the concrete dries. However, the site must be revisited before the concrete sets firm to recheck post alignment if required
- Any heavier posts, i.e., gate posts, should be concreted in place and braced until the concrete is dry
- If the fence line follows any contours in the land or the fence line is curved, regularly check the height of the posts as you work down the line to ensure a good visual line along the top of the fence



For bolt down posts

Step 3b | Installing the posts - Bolt down

- Ensure the surface you are bolting the post to is firm, level & clean
- Fix the posts in place with four fixings of the correct type for the situation

Bolt down post

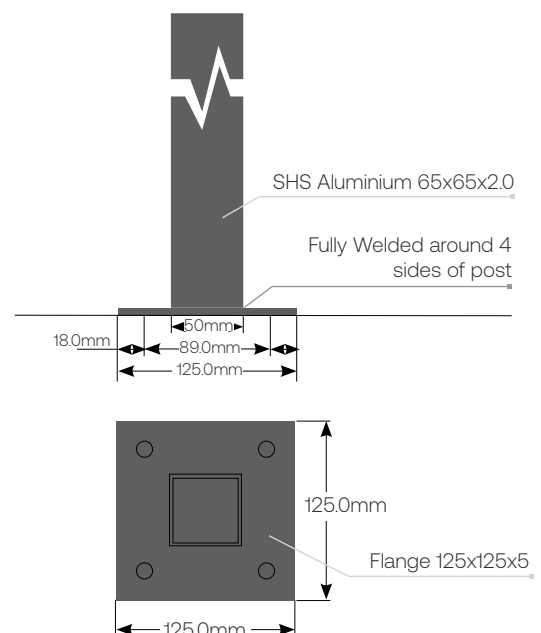
SentryPanel 65x65

Post sizes & fixings are dependent on the application & design requirements

Fixings - indicative

In concrete: 4x M12 HILTI HST stud anchors or similar with minimum 70mm embedment

In timber: 4x 12mm coachscrews with minimum 120mm embedment



Panel Installation

Step 4 | Fitting the panels

- a.** For straight and level fencelines, all the posts can be installed and carefully lined up, and then the panels can be installed once the concrete has set. This is the quickest and easiest method.
- b.** For undulating or curved fencelines – panels may need to be installed along with each post and braced until the concrete has set.
- c.** The panels are held in place with the SentryPanel brackets:
 1. Slide a bracket onto each rail.
 2. Ensure the tab of the bracket is positioned under the top rail.(can be either way up on the bottom rail)
 3. Fit the panel in place and check for level
 4. Screw the brackets into the posts with the tek-screws supplied.

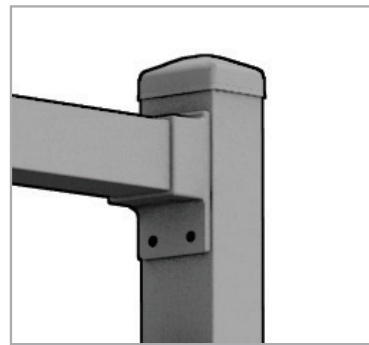
Note:

- When cutting panels or posts to length, use a hacksaw, or a power saw with a sharp diamond-tip blade (or tungsten-tip on aluminium). Do not use a grinder or abrasive cut-off wheel as this will burn the powder-coated finish. Do not leave swarf on the fence as it can rust.
- Be careful not to allow the chuck of battery drill to rub on the bracket, this can damage the powder-coated finish.- Take care when handling all components to avoid damage to the powder-coated finish.

Important: When cutting steel posts or panels to length, the cut ends must be painted with zinc-rich paint to prevent corrosion.

Panel to Post

Fixing with SentryPanel external bracket SAB4040



Step 5 | Hanging the gates

- a.** Gate hinges and latches vary depending on the gate size and/or security requirements. Refer to the instructions with the gate/hinges for the correct clearances.
- b.** Ensure the gate-posts are set in the correct position allowing clearance for the hinges and latches and clearance between double gates.

Post lengths required will increase accordingly to cater for these ground conditions.

Soil Type	Minimum Hole Depth	Approximate Concrete Required
Rock	300mm	1 bag per hole (20Kg bag)
Clay/Firm Earth	600mm	2 bag per hole (20Kg bags)
Sand/Loose Fill	900mm	3 bag per hole (20Kg bags)