

END OF AN ERA

A-Box: the last full-time staffed signal box in New Zealand

What is A-Box?

Signalling is how trains move safely between and along tracks. Since **25 November 1935**, the signals at Wellington Station have been controlled from a signal box in the station approaches known as A-Box. Perched next to the track around 400m away from the station building, it's the last full-time staffed signal box in the country and a special piece of our history.

In A-Box, seven dedicated staff work in shifts around the clock, guiding 2,250 trains in and out of Wellington Station every week



A-Box exterior, 2023

Why is it time for A-Box to close?

The tracks in Wellington Station's yard area cover a total distance of 2.3km and feature a **complex track layout**.

This area channels the Kapiti Line, Wairarapa/Hutt Valley Line and Johnsonville Line into the nine platforms. It also includes connections to freight yards, sidings, depots and the Interislander ferry terminal.

By modern standards, the track and signalling configuration around Wellington Station is constrained. Updating the track layout and signalling system will allow us to **run more trains** in and out of the station.

This signalling upgrade is a major step towards modernising Wellington's rail network. The work we're doing will improve safety in what is New Zealand's most complex railway junction. It is also a critical step in fulfilling Greater Wellington Regional Council's plans to **grow the region's passenger rail capacity**, allowing the future expansion of infrastructure to support more local and regional train services.



Arrival of A-Box

The story of A-Box begins in the 1930s, when Wellington Railway Station was built on **land reclaimed from Wellington harbour** around 60 years earlier. It replaced the two previous Wellington termini, Lambton and Thorndon, and was conveniently located near the new rail yards, the wharf and the city.

Designed to reflect the importance of the railways in the nation's progress and development, Wellington Station was constructed over a four-year period, and when it was officially opened in 1937 it was **the largest building in New Zealand**.

Along with the new station building came a 3km station yard, controlled by the main signal cabin – A-Box – working together with B-Box and the junction signal boxes. Westinghouse manufactured the **127-lever, power operated interlocking frame** – a complicated electrical system that ensured trains would pass safely through their respective routes.



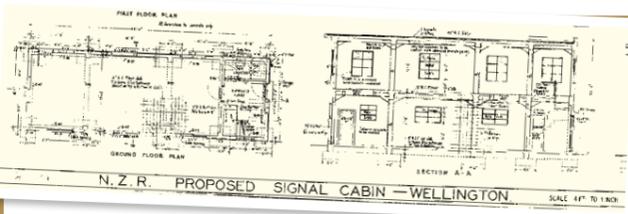
Westinghouse Brake & Signal Company Ltd was founded in 1881 by American engineer George Westinghouse

People of A-Box

A-Box is an enduring legacy from earlier times, proudly operated by a dedicated team who have spent a significant part of their careers manually guiding an ever-increasing number and complex array of train movements. Some of the A-Box staff have been in their roles for decades, forming a **tight-knit team**. Their job is physically and mentally demanding, requiring them to think on their feet as they expertly direct trains through a mind bending number of possible routes.



November 2024 marks the **89th and final birthday** of A-Box – a bittersweet milestone. In January 2025, the work of the A-Box team will end, and the new computer-based system will be operated from the Wellington Rail Operations Centre in Wallaceville.



A-Box in recent years

Between 2008 and 2012, Wellington's rail network got a major upgrade to make way for the new Matangi trains and improved service. This had a big impact on the A-Box area.

The new **Matangi trains** used advanced technology that needed to interface with the old track systems, so 46 track circuits around A-Box and 36 at Distant Junction were upgraded to keep things running smoothly.

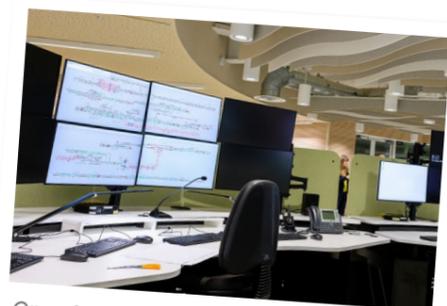
To ease congestion, a **third track** was added, letting trains move in both directions and reducing delays. The project was completed in stages, with **new digital screens** replacing the old 'mimic' diagrams (light-up line diagrams of the track layout), making it easier for the signallers to manage everything.

Overall, these upgrades made the rail network more reliable and ready for more trains, marking the biggest changes to A-Box in decades.

The future of train control

The Wellington Station Re-signalling Project is modernising the infrastructure around the main station, enhancing safety and allowing for an increased frequency of rail service, especially during peak periods. This comprehensive update includes the installation of new signals, point machines, train detection equipment and cabling, as well as the new computer-based "interlocking" (the brain controlling the system).

From January 2025, with the new system in place, control of the Wellington Station area shifts from A-Box to the **Wellington Rail Operations Centre**, where KiwiRail's 100-strong team manage train movements across the entire country (excluding Auckland, which is managed from the Auckland Rail Operations Centre).



One of the train control interfaces inside the Wellington Rail Operations Centre