

First GTR Class 387 sent for fitting of onboard signalling

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The first of [Govia Thameslink Railway](#) (GTR)'s Class 387/1 Great Northern trains has been sent to be upgraded to European Train Control System (ETCS) in-cab signalling, as part of the [East Coast Digital Programme](#).

Designed to reduce delays and enable a more reliable service for passengers, the government-funded programme will see traditional signals removed from the tracks on the Northern City Line to London Moorgate and the East Coast Mainline from London to Stoke Tunnels, south of Grantham.

The traditional signals will be replaced with state-of-the-art digital signalling technology, helping improve reliability, and delivering a better performing rail service for customers using this busy route.

GTR's ERTMS fleet project manager Aaron Meakin said: "This is a watershed moment for us on the digital programme team. We've worked long and hard to get us to a place where we're ready for this retrofit which will make these trains some of the most advanced in the UK for ETCS."



First-in-class 387 leaves for ETCS fitment. Pictured from left: Govia Thameslink Railway ERTMS fleet project manager Aaron Meakin, Alstom lead project manager Ian Coleman and Porterbrook fleet engineer Mick Ridgeway

The train will be retrofitted to include the latest iteration of ETCS in the UK (BL3 R2, also referred to as version 3.6.0) and ECDP v1.1 specification and will lay the foundations for the 'Electrostar' fleet of trains should ETCS be expanded across other routes in the UK.

The first train having the work done was hauled by GBRf from GTR's Hornsey Depot in north London to Workshop Depot today (24 October), where Alstom will install the Atlas 3 ETCS system. This incorporates:

- A new digital driver's dashboard
- A new AWS/TPWS system
- Doppler radar and ETCS antennae beneath the soleplate
- A European Vital Computer – the main computer – fitted at the body end of the first carriage
- Software for a new train control monitoring system
- Onboard ETCS software – in line with the latest revision of the ETCS standards

The train will have static testing at Litchurch Lane manufacturing site in Derby prior to dynamic testing at speeds of up to 110mph, on Network Rail's RIDC Melton test track.

All changes must be independently approved because this counts as a major modification to a rail vehicle.

The 'first-in-class' unit is set to return in July 2023, after which GTR will fit the remaining 28 387/1 units at its in-house depot in Hornsey, north London.

Aaron Weeks, project director for **Alstom** said: "This important milestone marks a key moment for the project and is a testament to the hard work of the Alstom team and the collaboration with our partners at GTR, **Porterbrook** and **Network Rail**. At Alstom we are proud to be at the forefront of the digitisation of the UK rail network and look forward to continued support of the ECDP in the coming years through the supply of our Atlas ETCS Onboard signalling product."

In-cab signalling provided by ETCS Level 2 operation supplies continual speed information and movement authority to the driver via a computer screen in the driver's cab, rather than relying on fixed lineside signals.

Ed Akers, principal programme sponsor, East Coast Digital Programme, said: "This latest retrofit is another example of the industry partnership enabling progress towards a digitally signalled railway that works better for passengers and users. Over the next two years a range of vehicles across passenger, freight, heritage and maintenance sectors will be retrofitted and tested as we prepare to deliver GB rail's first transition of an intercity mainline to ETCS operations."

Ben Ackroyd, chief operating officer at Porterbrook, which owns GTR's Class 387 fleet said: "Porterbrook has been playing a key role in first-in-class ETCS projects to support Network Rail and the rail industry in the rollout of the Digital Railway.

"There has been excellent teamworking and collaboration across the industry to deliver this critical project, and it's great to now see the first of our Class 387 GTR trains on its way to be upgraded with the new technology, and fully tested. This will ensure they can continue to operate on the East Coast once conventional signals are removed."

Image credit: Govia Thameslink Railway