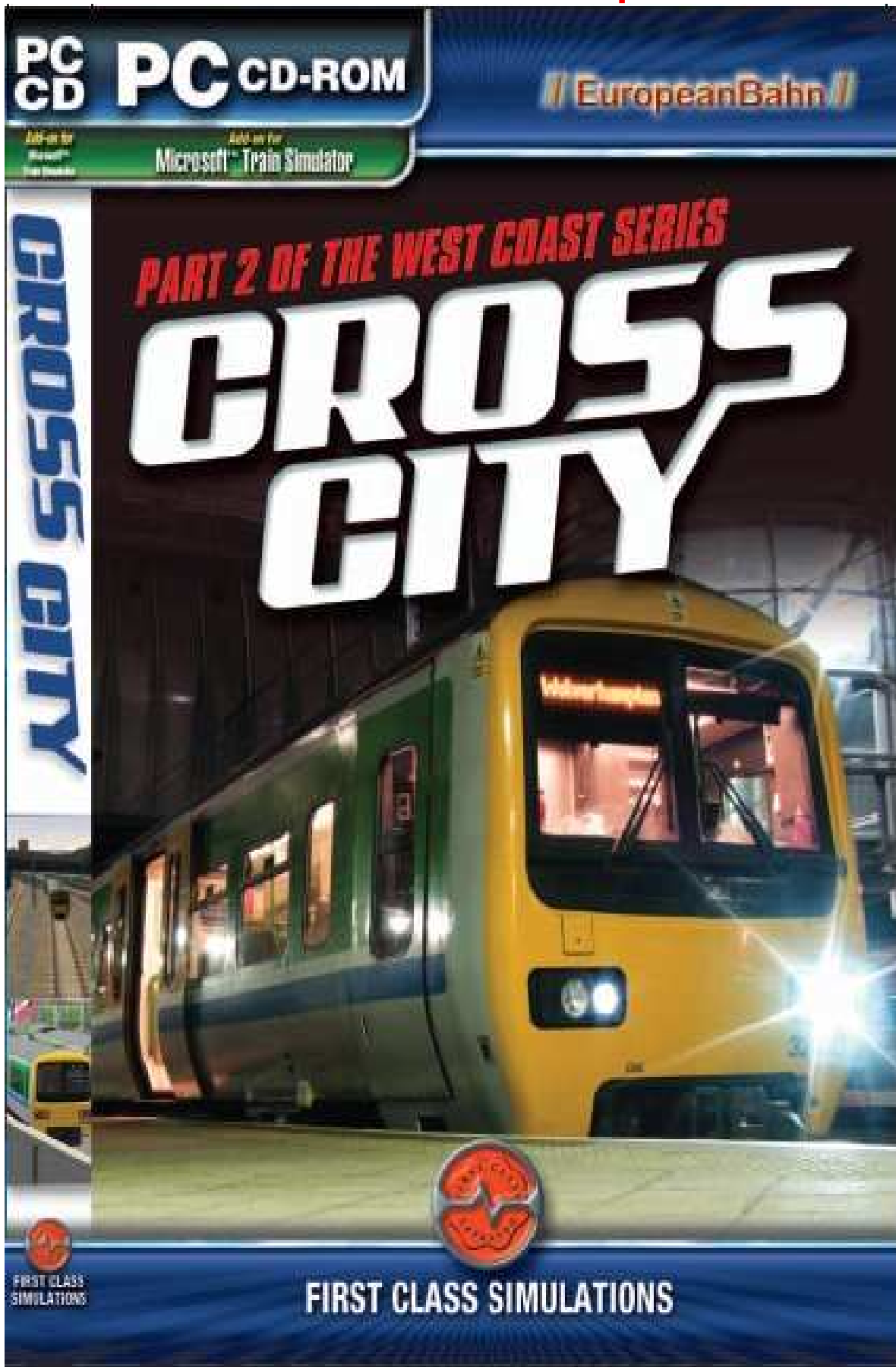






Cross City
Part Two of the West Coast Express series



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Part Two of the West Coast Express series

Cross City is an enhancement route for Train Simulator and is produced by  **EuropeanBahn**  it forms part 2 of the West Coast Express series and runs from Lichfield in Staffordshire to Redditch in Worcestershire.

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Introduction

The Cross-City line is a suburban railway line predominantly in the West Midlands region of England. It runs from Redditch in Worcestershire, its southern terminus, to Lichfield, Staffordshire, and its northern terminus via Birmingham New Street.

For many years, passenger services on the line were worked by elderly Class 108, 115, 116, 117, 118 and 121 diesel multiple units. However, by the early 1990s these trains were becoming increasingly unreliable, so new trains were built to coincide with the electrification of the route in 1993. By 1995 the last of the old trains had been withdrawn, having been replaced by the current Class 323 electrical multiple units.

There are long-standing proposals for improvements to the line. Extra stations have been proposed for Mere Green (between Four Oaks and Butler's Lane), Raddlebarn Road (between Bournville and Selly Oak, to serve Selly Oak Hospital), and Wychall (between Northfield and King's Norton). More ambitious plans include the re-opening of a short spur south of Longbridge to Rubery and Frankley and the re-introduction of local trains on the Camp Hill Line (effectively a loop between Birmingham New Street and King's Norton). Nevertheless, the line's main problem is capacity on its central section. The long-term aspiration is for dedicated tunnels running through central Birmingham. This would either take the form of new bored tunnels (favoured by the SRA) or a re-opening of Birmingham Curzon Street Station to allow two of the existing four tunnels to be used for local trains only (formerly favoured by Central Trains). With the current funding problems on Britain's railways, it is unlikely that the Cross-City Line will see any improvement.

Current daytime service levels are:

- between Redditch and Longbridge: 2 trains per hour
- between Longbridge and Four Oaks: 6 trains per hour
- between Four Oaks and Lichfield City: 5 trains per hour
- between Lichfield City and Lichfield Trent Valley: 3 trains per hour
- Lichfield Trent Valley and Birmingham New Street: 3 trains per hour
- Redditch and Birmingham New Street: 2 trains per hour

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The cities, towns and villages served by the line are listed below.

- Lichfield Trent Valley - on the outskirts of Lichfield, with connections to Virgin Trains services along the Trent Valley line between London Euston and the North West
- Lichfield City - in central Lichfield
- Shenstone
- Blake Street
- Butlers Lane
- Four Oaks
- Sutton Coldfield
- Wylde Green
- Chester Road
- Erdington
- Gravelly Hill
- Aston - the Walsall Line diverges here
- Duddeston
- Birmingham New Street
- Five Ways
- University of Birmingham
- Selly Oak
- Bournville
- Kings Norton
- Northfield
- Longbridge
- Barnt Green - branches off the main line to Cheltenham here.
- Alvechurch
- Redditch

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System Requirements

We suggest that your PC should have the following:

- Minimum 1.5ghz Processor
- 256mb Ram (512mb for Windows XP) or better.
- Minimum 550 MB free disk space
- A good quality video card with 64mb (128mb preferred) of Video Ram or better.
- A CD or DVD ROM Drive
- Windows Operating System
- Microsoft™ Train Simulator
- A good quality sound card (a dedicated sound card, not on-board is highly recommended)

Installation

When using Windows XP or Windows 2000 as your operating system you must be logged in as the Administrator user to begin installation.

Insert the CD into your CD or DVD drive; the installation program will start automatically. If it does not start automatically (you or one of your installed tools may have disabled the auto-start facility of your computer) you should click Start followed by Run and then type "D:\Setup" where D: is the letter of your CD or DVD drive.

The install window will appear and you should follow the prompts to complete the installation. When asked to enter a serial key you will find this on the front cover of the printed manual. The install path of your Microsoft Train Simulator will be checked – however if you are running multiple copies of Train Simulator you may need to manually configure it. The files for this add-on will then be copied to your hard drive.

After a successful installation you will find the new route, activities and stock at your disposal within Microsoft Train Simulator.

Uninstallation

If you would like to uninstall this add-on from your system simply select "West Coast Express" in the add/remove programs menu, which can be found in your Control Panel. Click "delete" and the add-on will be uninstalled.

Note: if you have used Cross City rolling stock in activities for other add-ons on your system, uninstalling this add-on and its rolling stock could cause MSTTS to show errors indicating this missing stock. Either replace the stock or remove the activities that use it to resolve these errors.

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The Route

Rolling Stock

Class 323 - Electric Multiple Unit
[Class 170 Turbostar - Diesel Multiple Unit](#)
[Class 47 Diesel - Railfreight Distribution](#)
[Class 220 Voyager – Diesel Electric](#)
[Class 43 \(HST\) Network Measurement Train](#)
[Class 390 Electric Multiple Unit](#)
[WIA Car Freight Wagons](#)

The Activities

01 Redditch – Birmingham New Street			
Time 0927	Summer	0.40 mins	Class 323

Drive the 0927 commuter service from Redditch to Birmingham New Street. You need to keep to time as much as possible and there is plenty of traffic about today. Any delays on your part will be passed on to the entire network. There is a shipment of new MG cars today and the Mayor of Birmingham is attending, they can't be late because of any commuter delays. Keep to all speed limits – no pressure!

02 Longbridge to Lichfield Trent Valley			
Time 0943	Autumn Rain	1hr 10 mins	Class 170

You're in charge of the 0943 service from Longbridge to Lichfield. Drive according speed limits, ensure that you are not the cause of any delays. It's a filthy day so you will need your wits about you.

03 New Street to Lichfield Trent Valley			
Time 0650	Clear Autumn day	0.45 mins	Class 170

You take over the train at Birmingham New Street. As can be expected it's busy at New Street for this time of the morning, so you need to be prompt when departing. You will climb out of New Street and then take the branch line towards Aston before heading off through the valleys to Lichfield.

04 Cross Country Diversion			
Time 1545	Rainy Winter day	0.40 mins	Class Voyager

You have just been advised that your train is to be diverted en route to Derby. Your next stop is Birmingham New Street and then it's a clear run all the way to Lichfield Trent Valley where you will need to stop for an adhoc request to rescue

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passengers from an earlier failure. However don't hang about too much, the weather is far from good and these passengers are already 30 minutes late!

05 New Street to Redditch			
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Time 1514	Clear Spring day	0.30 mins	Class 323
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This is a semi-fast service to Redditch. Whatever happens you're going to be late, there is a turbo star service from Lichfield that has priority over you and there is a late in-bound service from Redditch. Your task today is to minimise the delay at Redditch by driving at the maximum permissible line speed and see how close to the schedule you can keep.

Remember – speeding will trigger the automatic penalty brake application!

06 Longbridge Works			
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Time 1200	Clear Summer day	0.50 mins	Class 47
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You're en route to Rover car plant at Longbridge where you have to collect 18 loaded car wagons that require transportation North. You need to undertake all of this in the midst of a normal day's commuter traffic. Ensure that you obey all speed limits and signals and work efficiently so that passenger services are not delayed. Remember of course that passenger services take priority over freight.

07 Measurement Train			
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Time 1545	Rainy Winter afternoon	0.45 mins	Class 43 HST
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Drive the Cross [City route](#) from Lichfield to Redditch, and measure the track for profiles, measurement and gauge using the [Class 43 HST Network Rail New Measurement Train](#). [This train is designed to measure all of the gauges and profiles of the track across the whole network, so its not often that its seen on the cross city route. You have no passengers to worry about, however](#) there is a passenger service in front of you so watch the signals. Travel at maximum permissible line speed.

08 Freight Rescue			
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Time 1845	Clear Summer evening	1hr	Class 47
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It's been an easy day up until now! A Class 47 with car freight bound for Longbridge has broken down and managed to limp into Blake Street station. You task is to rescue it and bring it into Birmingham New Street, this is where your shift ends and another driver will take over.

The passengers on subsequent trains are far from happy, and wherever possible, diversions are taking place. However there are inevitable delays. You are likely to get caught in the midst of the evening rush hour commuter services and you will need to dodge the traffic as best you can to avoid lengthy delays.

09 Barnt Green to New Street			
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Time 1006	Clear Spring day	0.30 mins	Class 170
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You are in charge of a Class 170 Turbo Star on a semi-fast service to Birmingham New Street. You need to be quick in order to get in front of the slow stopping service to avoid delays into Birmingham New Street.

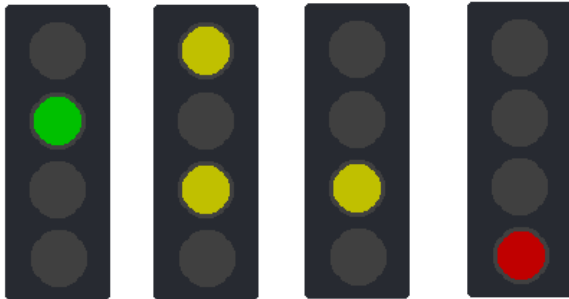
10 Fast service to Redditch			
Time 0600	Clear Spring morning	0.30 mins	Class 323

A straightforward fast trip to Redditch, stopping only at Kings Norton, Longbridge, Alvechurch and Redditch.

Signalling

Cross City uses a modern UK 2, 3 and 4 aspect colour light signal system with modern UK standard speed limit signs. Tony Formoso and  **EuropeanBahn**  have put together the most accurate possible signalling system and speed limit sign layout.

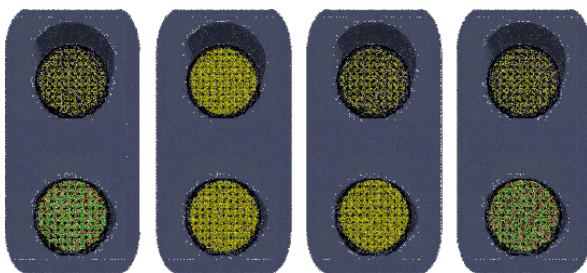
Basic Signals



The basics are pretty straight forward – a green signal means the line ahead is clear for maximum line speed running. Red means that you must stop before the signal – if you attempt to pass the activity will end with a SPAD (**S**ignal **P**assed **A**t **D**anger) failure.

Three aspect signals have a single amber light, this indicates that the *next* signal is currently red so you should slow to a stop.

Four aspect signals have *two* amber lights. If you can see two amber lights, the next signal is single amber. If you can see single amber then the next one after that will be a red. This allows you more notice to begin you braking on high speed lines and is particularly useful in allowing you to follow behind a service running in front of you. If you think you're stuck behind a service, you should aim to keep it at double ambers – if you see a green then speed up and try to catch up to the service in front until you get double ambers again, if you see a single amber (or worse, a red) then slow down. This technique enables you to run a tight service right behind one in front and is crucial if you are to make time on difficult busy schedules!



LED Signals

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LED signals operate on the same principal as basic signals, although there are only 2 light clusters for each signal, as shown to the left.

Route Indicators

There are also signals known as route indicators; this shows you that points have been set to follow a particular route. Route Indicators could be 'feathers' shown by a series of white lights, or theatre boxes indicating a direction or platform that you are cleared on to.

Repeaters



In cases of low visibility there are Repeater signals that show you what the following signal is showing. These are usually placed where the terrain, buildings and other obstructions mean that you could not actually see a signal in time to obey it.

In 'Banner OFF' state, the following signal is showing either Clear or Caution states. If the signal is 'Banner ON' then it is showing a Red state and you should be ready to stop.

Approach Control

Due to limitations within the simulator the implementation of Approach control it's not strictly accurate but it does serve the purpose. We set the signal to a special aspect showing a Red indicator but it will display "Restricting (150)" rather than Stop in the Track Monitor so you can proceed through it safely. Signals leading up to it will show a standard double-amber / amber approach to slow you down.

Shunting Signals

These allow a train to be signaled to move forwards a short distance as long as the track is not obstructed. A shunting signal is shown as three smaller lights in a triangle and is either found attached to a normal signal or on its own. When it's attached to another signal it will only be illuminated when a shunting movement is required, otherwise, it will show two red or yellow lights. Two white lights are used to indicate that you are clear to proceed with caution at a speed where you can stop quickly for any obstruction. This will show up in the Track Monitor as "Restricting" and you can proceed through it.

Troubleshooting

Whilst we have tried to make this add-on function on all PCs, on lower spec machines you may find areas of low frame rates (screen judders). Whilst the

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ideal solution is to buy an updated PC we can offer the following alternative solutions to try first in the Train Simulator Options menu.

General – We do not recommend “simple controls” – people have had problems with this in the past, the locos in this add-on are pretty simple to drive anyway.

Sound – Turn the “quantity of sounds” down a notch or two if you are having problems with the game crashing when there is a lot happening, if you have sounds playing over and over without stopping. Also see the note below about the DirectX Diagnostic Utility.

Display – Our cabs are designed to run at a screen resolution of 1024x768, so I would suggest using this mode if your monitor/graphics card supports it. You can adjust the “overall display quality” here, to the left is better frame rates but less detail, plus you can also fine tune settings on the next page along.

Advanced Display

Visibility – Turn this down to give a general boost in frame rates, MSTTS won't draw objects so far in front of you, meaning there is less on the screen to worry about. Of course, this means that distant buildings suddenly spring up in front of you, everything here is a trade-off between speed and quality.

Terrain Error Threshold – If you are seeing land over the track then this setting is too low. However, the lower the setting the less MSTTS has to worry about landscape and the better the framerate will be.

World Objects Density – Reducing this makes whole groups of objects disappear so if you are really stuck, try turning this down. This may cause whole spots of country side to disappear however if turned down too low.

It is also worth experimenting with the bottom four sliders, moving them to the left removes / reduces details but increases frame rate.

The Checkboxes on the right – We recommend turning off overhead wires, high detail shadows, specular lighting and dynamic shadows in that order. This will improve the speed; every little helps when it comes to frame rates so don't be afraid to turn something else off, you can always switch it back on later.

DirectX Diagnostic Utility

Sometimes you can get improvements in the sound system or less crashing in the game by altering the “hardware acceleration” setting in the DirectX configuration.

To do this, press the start button and choose “run”, type “dxdiag.exe” and press OK to run the tool.



It may be worth running the tests but normally they all pass anyway unless you have other problems with your system outside the scope of this manual.

On the sound page is a slider – hardware sound acceleration level. This is normally fully right but sliding this to the left can sometimes solve problems. There is no OK or Save button, just changing this and exiting automatically saves it. If this has no effect, you should set it back – the further to the right the more it will rely on sound hardware, the more to the left it will use your main CPU power for sounds, which could impact frame rates.



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Further Support

For support queries relating to this or any other  **EuropeanBahn**  product you may wish to contact us via the “Help Desk” on <http://www.trainstrains.co.uk/helpdesk/> detailing your problem, your PC specifications, other add-ons you have installed and so forth. The more information you provide the quicker we’ll be able to help you out!

Visit our Web Site

You can visit us online at <http://www.europeanbahn.co.uk> and find the following:
News and Future Projects – Find out what the  **EuropeanBahn**  team is working on next!

Online Store – Obtain all the  **EuropeanBahn**  products from our online store, as well as other MSTS related items!

We look forward to seeing you there!

Credits

The  **EuropeanBahn**  team are...

Ken Austin	Development Controller	Track Layout, DEM Structuring, Scenery Placement & Portfolio management.
Alan Salmon	Technical Manager	Scenery Placement, Signalling, Beta Testing & Mastering.
Gary Coupe	Artwork & Sound	Cover Photography, Loading & Map Graphics, Rolling Stock Sounds, Physics & Textures, Activity Design, Track Textures & Manual.
Steve Hornsey	Route / 3D Designer	Track Layout, Stations, Scenery & Cabs.
Pete Harvey	3D Designer	Rolling Stock Design.

We are also grateful for the contributions made by: Tony Formoso (signalling), Carl Westwood (beta testing, sound recordings and Class 323 textures), Mike Simpson (author of *RouteRiter*, used extensively in producing this product) Tim Booth (author of *DynaTrax*), and Edward Grabowski (installation program).

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We recommend that you register your software with us. If you do so we can keep a record of your registration key in case you should lose it and you may benefit from upgrades should they become available in the future. You can register your software easily on-line:

http://www.contact-simulations.com/acatalog/ONLINE_REGISTRATION.html

Alternatively, you can use the registration card in this manual and return it to us by post.

We do not disclose your details to any third party whatsoever. However we would like to keep you updated on new products from ourselves. Postal mailings are made 3 times per year and regular e-mails. Please inform us if you do not wish to receive such information by checking the appropriate boxes and if in the future you change your mind please inform us by e-mail or in writing.

/// EuropeanBahn ///

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